**EB-2013-0326**

**ONTARIO ENERGY BOARD**

**IN THE MATTER OF** sections 25.20 and 25.21 of the *Electricity Act, 1998*;

**AND IN THE MATTER OF** a Submission by the Ontario Power Authority to the Ontario Energy Board for the review of its proposed expenditure and revenue requirement for the year 2014.

## SUBMISSION FOR REVIEW

1. Pursuant to section 25.22 of the *Electricity Act, 1998* (the "Act"), the Ontario Power Authority ("OPA") has submitted its Business Plan to the Minister of Energy (the "Minister"). In the 2014-2016 Business Plan the OPA set its operating expense budget for 2014 at $60.3 million. The OPA's requested revenue requirement of $60.3 million is based on its operating budget. The 2014-2016 Business Plan for the fiscal year 2014 has been approved by the Minister pursuant to section 25.22 (3) of the Act.

2. The OPA hereby submits to the Ontario Energy Board ("Board") its proposed 2014 expenditure and revenue requirement for review and approval pursuant to subsection 25.21(1) of the Act.

3. The OPA proposes to charge a usage fee of $0.439/MWh, an increase of $0.001 from the 2014 interim approved fee of $0.438/MWh, and a reduction of $0.112/MWh from its 2013 approved usage fee of $0.551/MWh.

4. The OPA proposes to continue to charge registration fees of up to $10,000 per proposal for electricity supply and capacity procurements. The OPA also proposes to continue to charge non-refundable application fees for the Feed-in-Tariff ("FIT") program of $0.50/kW of proposed Contract Capacity, having a minimum of $500 and to a maximum of $5,000.

5. Pursuant to subsection 25.21(2) of the Act, the OPA is seeking the following approvals from the Board:

   - approval of the usage fee and the registration fees described above, or such further or other fees as the Board may deem appropriate;
   - if necessary, interim orders as the Board may deem appropriate;
   - approval of a revenue requirement comprised of the proposed 2014 operating expense budget of $60.3 million;
   - approval of its proposal to refund amounts in the Forecast Variance Deferral Account in excess of a balance of $5.0 million;
   - approval of the establishment of the 2014 Forecast Variance Deferral Account ("FVDA"), of the 2014 Government Procurement Costs Deferral Account ("GPCDA"), and of the 2014 Registration Fees Deferral Account ("RFDA"), and approval or continuation of such further or other deferral accounts as the Board may deem appropriate; and
   - all necessary orders and directions, pursuant to the *Ontario Energy Board Act, 1998* and the Board's Rules of Practice and Procedure, as may be necessary in relation to this submission, and execution of the approvals requested in the Business Plan.

6. The OPA proposes the following title for this proceeding: Ontario Power Authority Fiscal 2014 Expenditure and Revenue Requirement Submission for Review ("2014 Revenue Requirement Submission" or "Submission").

7. The OPA proposes that the Board review of the Submission proceed by way of a written hearing.

8. The OPA may amend its pre-filed evidence from time to time, prior to and during the course of the Board proceeding. Furthermore, the OPA may seek to have additional meetings with Board Staff and intervenors in order to identify and address any further issues arising from this submission, with a view to an early settlement and disposition of this proceeding.

9. The OPA requests that a copy of all documents filed with the Board by each party to this proceeding be served on the OPA and the OPA's counsel in this proceeding as follows:

| | | |
|---|---|---|
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DATED at Toronto, Ontario, this 6th of March, 2014.

ONTARIO POWER AUTHORITY

by its counsel in this proceeding
Fred D. Cass

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# 2014 REVENUE REQUIREMENT SUBMISSION OVERVIEW

## 1.0 INTRODUCTION

Pursuant to section 25.21 of the *Electricity Act, 1998* (the "Act"), the Ontario Power Authority ("OPA") has submitted to the Ontario Energy Board ("Board") its proposed 2014 expenditure and revenue requirement for review and approval. In the absence of an approved business plan, the OPA was not able to submit a revenue requirement for the years 2012 and 2013. Therefore, for additional context, the OPA is setting out here an overview of its current operating environment and the evolution of its mandate that has taken place since 2011 (the fiscal year of OPA's last Board-approved budget). A brief overview of the structure of the OPA's 2014 revenue requirement submission is also provided.

## 2.0 CONTEXT FOR 2014 REVENUE REQUIREMENT SUBMISSION

In 2014, the OPA has a planned operating budget of $60.3 million. This is a reduction of nearly 6% compared to the OPA's Board-approved 2011 operating budget. This reduction has been achieved through a combination of administrative and process efficiencies, carried out while the OPA's mandate has expanded and it addresses a growing volume and complexity of work. As well, pursuant to the April 23, 2010 directive, new grants under the Conservation Fund are being recovered through the OPA's program spending rather than through fees.[1]

In 2011, the OPA's focus was on implementing the new Feed-in Tariff ("FIT") and microFIT programs, managing more than 12,000 contracts (representing approximately 21,000 MW of capacity), implementing the new suite of province-wide conservation programs, and carrying out province-wide electricity system planning following the release of the government's 2010 Long-Term Energy Plan. To support the success of these initiatives, the OPA had a Board-approved operating budget of $64.1 million, and a staff of 253 full time equivalents ("FTEs").

[1] Exhibit A-5-1- page 8.

Since 2011, the OPA's mandate has continued to evolve. As evidenced in this submission, despite a decrease in operating budget compared to 2011, in 2014 the OPA will implement a complex and challenging mandate. Since January 2012, the OPA has received 20 directives and letters from the Minister of Energy requiring the OPA to undertake a range of activities. As a group, these directives and letters have added to the OPA's existing scope of work, with the result that the OPA's activities have become more complex and resource-intensive. These impacts are most visible with respect to contract management and stakeholder relations activities. Additionally, recent amendments to the OPA's licence now require the OPA to formally participate in regional planning activities province-wide, and to lead the development of Integrated Regional Resource plans. These licence amendments drive a further increase to the OPA's mandate and accountabilities.

The bulk of the OPA's contract management efforts are directed at managing contracts for electricity supply and conservation. With respect to electricity supply, since 2011 the OPA's contract management duties have grown, with the result that by the end of 2014 the OPA expects to be managing approximately 28,000 contracts representing nearly 27,000 MW of supply (more than two-thirds of the installed capacity in Ontario). This represents a nearly 30 percent increase in the amount of capacity, but a more than 130 percent increase in the number of contracts. In 2014, the OPA will also launch a new process for the competitive procurement of large renewable energy projects.

With respect to conservation, the OPA manages contracts with 76 Local Distribution Companies for the delivery of OPA-Contracted Province-Wide CDM Programs, as well as with provincial service providers for delivery of programs to both distribution- and transmission-connected customers. The OPA will continue to support and promote participation in these programs, and anticipates that in 2014 over 1.3 TWh of electricity savings will be achieved. This will represent nearly double the energy savings achieved per dollar of the division's fees expenses than was achieved in 2011. In addition to this work, the OPA expects that supporting the design and implementation of the next generation of conservation programs will be an important area of focus, as funding for

existing conservation programs for distribution-connected customers expires at the end of 2015.

In 2014, the OPA has planned significant work activities relating to electricity system planning. In addition to ongoing provincial planning and the implementation of projects resulting from the 2013 Long-Term Energy Plan, the OPA will also carry out regional planning activities as directed under its amended licence (EB-2013-0192). In addition, the OPA will work with the Independent Electricity System Operator and government ministries to implement the joint recommendations related to the planning and siting of large electricity infrastructure that were accepted by the government in 2013.

In 2011, the OPA's stakeholder engagement practices generally focused on stakeholders that were highly knowledgeable about electricity industry issues and who participated actively in regulatory and/or other industry initiatives. In the last two years, the OPA's stakeholder base has become much broader and more complex than it was previously. For example, the OPA has widened the list of stakeholders to be engaged, including municipalities, communities, and the general public. The OPA's stakeholder engagement activities have evolved to accommodate this change, both in terms of the number of events and in the type of interaction with stakeholders. Outreach with stakeholders will link closely to many of the activities that the OPA will carry out in 2014, including the large renewable procurement, further development of a new conservation framework, and regional planning. The creation of the OPA's Stakeholder Advisory Committee will support additional cross-cutting discussion with stakeholders on the OPA's activities.

The OPA has also developed and maintained relationships with First Nations and Métis communities across the province. This includes encouraging First Nations and Métis community participation in renewable energy generation, and other energy-related projects. The OPA has continued to strengthen these relationships, increasing its focus on direct interaction with Ontario's First Nations and Métis communities, including many of Ontario's remote communities.

In 2014, the OPA will deliver on this growing mandate while continuing to manage its resources in a prudent manner.

## 3.0 STRUCTURE OF THE OPA'S 2014 REVENUE REQUIREMENT SUBMISSION

The OPA's 2014 submission is set out in four major sections: Exhibits A, B, C and D, which each provide information on a major component of the OPA's submission.

The A exhibits include administrative materials that describe the OPA's submission, as well as information on the OPA, its business plans, and the directives and letters it has received from the Minister of Energy.

In the B exhibits, the OPA describes its divisional goals, the strategic initiatives that will support the achievement of these goals, and the milestones that will demonstrate success. Previous results are also provided in the B exhibits.

The Board's decision in the OPA's 2011 revenue requirement submission (EB-2010-0279) had a number of key findings to which the OPA has responded in its 2014 filing. These findings were as follows:

- The OPA should make appropriate adjustments to its staffing practices, including overall staffing levels in light of the organization's mandate and be prepared to demonstrate this in future revenue requirement filings.
- The OPA should develop a more complete and informative set of performance and efficiency metrics, cost benchmarking and program milestone tools to assist the Board with its determination that the applied-for net revenue requirement is appropriate.
- The OPA should develop the capability of assessing with a reasonable degree of confidence the actual costs associated with individual initiatives.
- The OPA would be well-served by refining its stakeholder consultation processes to increase transparency and inclusiveness at all stages of program design and should provide evidence of how its processes have evolved.

The OPA's responses to these findings are provided in Exhibit C-2-1 OPA Workforce Hiring Practices, Exhibit C-1-1 OPA Efficiency Metrics, Exhibit D-1-2 Financial Reporting

Methodology, and Exhibit C-3-1 Stakeholder Engagement Process respectively. The C exhibits also contain additional evidence in support of these responses.

The OPA's financial information, including information on the calculation of the OPA's expected income and proposed usage fee, requests regarding deferral accounts, and a description of variances are presented in the D exhibits. For the purposes of its 2014 revenue requirement submission, the OPA will compare its 2014 budget to that of its last Board-approved budget, the OPA's 2011 revenue requirement submission. Actual spending from 2013 is also provided for additional context.

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# 2014 REVENUE REQUIREMENT SUBMISSION (EB-2013-0326)
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# 2014-2016 Business Plan

Revised January 2014

ONTARIO POWER AUTHORITY

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## Highlights of the 2014-2016 Business Plan

In the 2014-2016 business plan period, the Ontario Power Authority (OPA) will continue its efforts to ensure the reliability, sustainability and cost-effectiveness of the province's electricity system for the benefit of Ontario's consumers.

The most significant initiatives planned for 2014-2016 are:

- engaging partners and customers across Ontario, increasing the awareness and capability of all electricity users and providing innovative energy solutions to help cost-effectively meet and exceed conservation targets

- working with partners to implement a new, innovative, cost-effective approach to the future of conservation, incorporating feedback from current consultations

- planning to ensure the adequacy and operability of the power system by: continuing to identify priorities through ongoing planning and assessment processes, including an annual update on the status and outlook of electricity demand and supply; providing context for public policy development, stakeholder discussions, procurement programs and regulatory proceedings; playing an active role in developing future regional plans; and providing advice and analysis to government

- fulfilling the government's Long-Term Energy Plan and directives related to Ontario's electricity supply

- strengthening community and public engagement through the establishment of a stakeholder advisory committee, revised program design and enhanced regional planning

- encouraging First Nations and Métis community participation in renewable energy, conservation and transmission initiatives, and advancing plans to offset diesel generation in remote communities by connecting them to the transmission system

- ensuring that we incorporate the principles of sustainability into the work that we do, through the development of a framework that strengthens our commitment to sustainability and includes approaches for enhanced integration and reporting

- managing and settling an increasing volume of contracts – 24,000 megawatts by the end of 2014 or two-thirds of the total electricity system

- under ministry direction, engaging with and considering input provided by stakeholders and Aboriginal communities to develop a competitive process for procurement of large renewable energy projects

- also under ministry direction, working towards supporting the long-term sustainability of the FIT and microFIT programs, non-utility generation and nuclear initiatives

- continuing efforts to further reduce expenses and the cost impact of operations on electricity consumers.

Following are the 2014 budget highlights:

- the planned increase in program-related activities and other initiatives will be managed while also decreasing operating expenses by 5.9 percent or $3.8 million compared to our 2011 revenue requirement submission to the Ontario Energy Board, with a further reduction in future years due to increased efficiencies, such as enhanced automation of the FIT and microFIT program application processes

- the 2014 operating plan incorporates learnings from the 2012 merger process with the Independent Electricity System Operator, for example, reorganization of the marketing function; coordination of activities with our sister agency will continue during the planning period

- total expenses, including the non-recurring items, are 24 percent or $19.4 million below our 2011 revenue requirement submission to the Ontario Energy Board

- significant reduction in our 2014 interim usage fee of 20 percent compared to the prior years' rate of $0.551 will result in a positive impact on the ratepayer; the OPA proposes to rebate to ratepayers $25 million in cumulative surplus

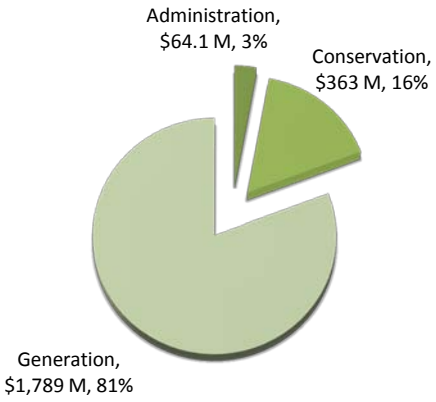
- the 2014 planned program spending of $4.7 billion is more than double the 2011 Ontario Energy Board submission of $2.2 billion, reflecting needed generation resources coming online and significant uptake in conservation program participation

- operating expenses are 1.3 percent of total program spending, a decrease of 1.7 percent from the 2011 Ontario Energy Board submission at 3 percent of program spending

- the OPA remains committed to complying with the government's goal to restrain staffing levels. Given an expanded mandate and increasing volume and complexity of work, the revised 2014 budget remains flat with respect to staffing levels compared to 2011 and 2012.

**Figure 1: OPA's Administration Costs as a Percentage of Total Spending**

**2011 OEB Submission**




**2014 Budget**

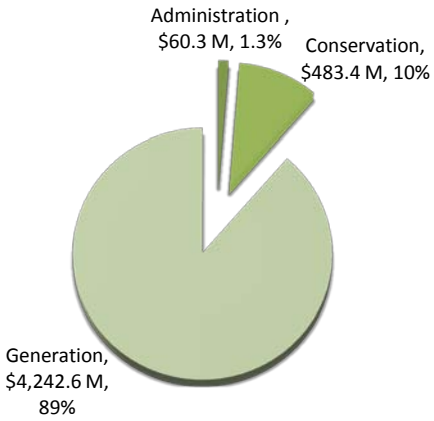



Figure 2 provides a breakdown of 2014 electricity generation charges of $4,242 million. Figure 3 illustrates a breakdown of 2014 conservation charges of $483 million.

**Figure 2: Program Costs – Generation**

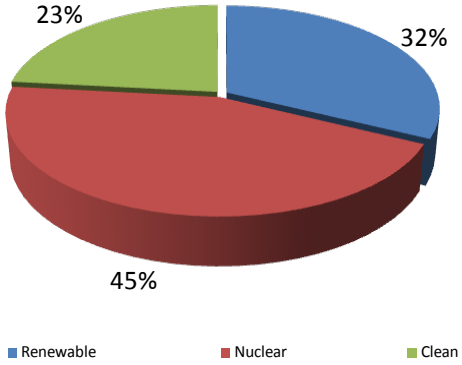
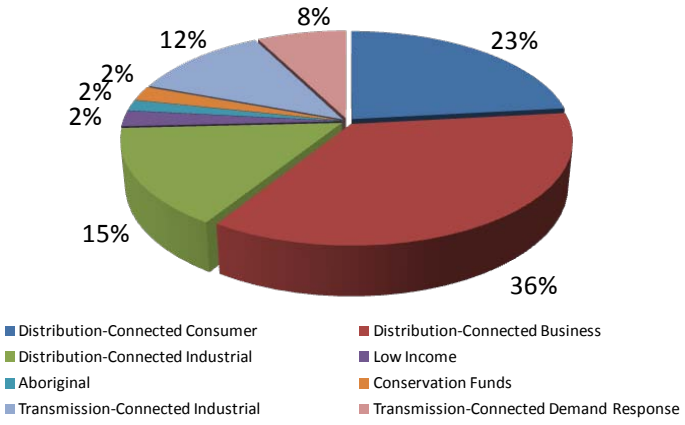



**Figure 3: Program Costs – Conservation**



## Message from the Chief Executive Officer



I am pleased to present the Ontario Power Authority's (OPA) business plan for the 2014 to 2016 period. The OPA's role in Ontario's electricity sector is both vital and unique. Our mandate is to ensure that Ontario residents, businesses, schools and hospitals have the electricity they need – when and where they need it. We are responsible for ensuring that the province's electricity system remains reliable, sustainable and cost-effective.

Over the past few years, we have worked with our industry partners and stakeholders to transform Ontario's electricity system to make it more sustainable – cleaner, greener and smarter. This transformation is largely a result of our conservation, supply procurement and long-term planning initiatives under the direction of the Government of Ontario.

Ontario has set ambitious conservation targets and has implemented comprehensive conservation activities to meet them. These include a mix of incentive programs to help residential, business, institutional, industrial, low-income and Aboriginal customers manage their energy use and build a culture of conservation. To ensure sustainability over the planning period, we are fostering cost-effective innovation through our Conservation Fund, pilot projects, market-transformation activities and the Advisory Committee on Conservation.

When coal-fired generation is eliminated at the end of 2014 – the largest climate-change initiative in North America – we will reduce the electricity sector's carbon footprint by 75 percent from 2005 levels. The OPA is bringing on clean energy resources to replace coal and modernize our generating fleet. By the end of 2013, about 5,500 megawatts of new natural gas and 5,400 megawatts of new renewable energy from solar, wind, hydroelectricity and biogas had been brought online since 2005 through a variety of programs, including our Feed-in Tariff (FIT) and microFIT programs for commercial and residential-scale projects, as well as programs for hydroelectric power and large renewable energy projects. New clean energy resources will continue to come onto the grid in the next few years; by 2018, another 1,200 megawatts of new natural gas and 5,300 megawatts of new renewable energy capacity will be placed in commercial operation.

Through our long-term planning, we continue seeking innovative solutions to meet the changing needs of our province. We are working with the Ministry of Energy to implement the Long-Term Energy Plan released in December 2013. The plan was based on extensive research and stakeholder engagement across the sector. In early August, we completed a report on community energy planning and large energy infrastructure siting in collaboration with the Independent Electricity System Operator, also based on our research and engagement initiatives.

These efforts complement our regional planning work that involves working closely with stakeholders to develop customized solutions for Ontario's diverse regions. Activities are under way in six areas of the province to meet each region's needs and characteristics through an integrated combination of conservation (demand management and energy efficiency), transmission, distribution and generation. Significant initiatives resulting from this collaborative work are now under way – for example, in the regions of Kitchener-Waterloo-Cambridge-

Guelph, Toronto, and Northwest Ontario – north of Dryden and in remote communities. The OPA's role in regional planning was also recently formalized through the Ontario Energy Board's Renewed Regulatory Framework for Electricity initiative.

We've clearly come a long way, but we believe that we can go further. Indeed, we need to go further.

We will continue to consider sustainability through existing planning processes, engagement of local communities, transparency and clear, consistent evaluations and advice. We are also developing a framework that strengthens our commitment to sustainability and contemplates approaches for enhanced integration and reporting. We will continue our focused initiatives to ensure conservation is the first resource considered in planning decisions at the provincial and regional levels, and is treated on a level playing field with other resources.

One important evolution for the OPA has been the change in our stakeholder base. In the early years, we largely worked with established sector stakeholders – government, associations and the private sector – typically knowledgeable and commercially experienced. Today, the OPA deals with a broader, more complex stakeholder base – not just industry experts – including individuals, municipalities and public sector entities for whom some interactions have significant impacts. Procurement processes have transitioned significantly to high-volume participation activities such as the FIT Program. Increasing quantity, complexity and expectations require us to build stakeholder activities and communications for all of our initiatives and programs. Our new Stakeholder Advisory Committee, revised program design and enhanced regional planning initiatives will help us to achieve this.

Based on feedback from our planning and siting engagement process, we will be working with our industry partners to enhance electricity awareness and improve access to information and useable data. This is to address the strong desire of Ontarians (municipalities, First Nations, Métis communities, stakeholders and the general public) to better understand electricity planning and siting so they can become involved early on and effectively participate in decision-making.

We will be managing 28,000 contracts by the end of 2014 – an increase of 610 percent from 2010 and of 131 percent since 2011. This accounts for about 24,000 megawatts of electricity, or two-thirds of Ontario's total electricity system. We have reduced our operating expenses by 5.9 percent from the 2011 budget submitted to the Ontario Energy Board. In spite of the expected increases in the volume and complexity of our workload in all areas of our mandate, we are maintaining staff levels in 2014 consistent with those of 2011 and 2012. We expect to make reductions to staff levels in 2015 and 2016.

Other procurement initiatives, such as our Hydroelectric Contract Initiative, a new unbuilt rooftop solar program, a new hydroelectric standard offer program for municipalities and expansion of existing facilities, and a new program for large renewable energy, are also increasing our need for resources. At the same time, we are taking every opportunity to streamline and achieve efficiencies in our existing programs, and applying the lessons we've learned over the past few years to the new standard offer programs. Our usage fee will be

significantly reduced by 20 percent and we propose to rebate to the ratepayer $25 million in cumulative surplus.

Our multi-faceted efforts are dedicated to making Ontario a world-leading clean energy jurisdiction to support our future economy. Steps taken now and during the planning period will help ensure that our electricity system meets the changing needs of Ontarians and enhances the province's economic prosperity.



Colin Andersen

January 2014

## The Ontario Power Authority

The Ontario Power Authority (OPA) is responsible for ensuring a reliable, cost-effective sustainable supply of electricity for Ontario. Its key areas of focus are coordinating conservation efforts across the province, planning the power system for the long term and ensuring the development of needed generation resources.

The OPA was established by the *Electricity Restructuring Act, 2004* (amending the *Electricity Act, 1998,* and the *Ontario Energy Board Act, 1998).* It is governed by a Board of Directors and reports to the Ontario Legislative Assembly through the Minister of Energy. The OPA is licensed and regulated by the Ontario Energy Board.

### Vision

Leading Ontario in the development of North America's most reliable, cost-effective and sustainable electricity system.

### Mission

Together with our partners, we ensure that electricity needs are met for the benefit of Ontario both now and in the future. We plan and procure electricity supply from diverse resources and facilitate the measures needed to achieve ambitious conservation targets.

## 2014-2016 Goals

The Ontario Power Authority's 2014-2016 business plan is based on five goals:

1. Sustain Ontario's leadership in energy efficiency while promoting a culture of conservation through innovation, cost-effective customer-focused solutions and verified resources.

2. Develop integrated and regional power system plans and communicate with stakeholders.

3. Ensure Ontario ratepayers benefit from environmentally sustainable electricity generation through cost-effective procurement and contracts with effective risk sharing.

4. Develop and maintain organizational capacity and be recognized as a partner in achieving the 2014-2016 goals.

5. Engage with stakeholders, ratepayers, government and business partners to shape and support the activities that help the OPA to fulfill its mandate.

# Goal 1

**Sustain Ontario's leadership in energy efficiency while promoting a culture of conservation through innovation, cost-effective customer-focused solutions and verified resources.**

## CONSERVATION: KEY DIVISIONAL TARGETS

In the business planning period, customers and partners will be further engaged in conservation activities and will understand its value both now and for the future. The Conservation division will:

1. enhance conservation awareness and activities through maintaining effective relationships, reporting of results and monitoring customer feedback on our programs
2. engage with supply chain partners to promote the value of conservation
3. meet and exceed forecasted savings using continuously improved operational tools, programs and systems to ensure cost-effective delivery of conservation regionally and across the province
4. develop and pilot the next generation of conservation programs in collaboration with our conservation partners
5. continue extensive research on conservation in Ontario and other jurisdictions to gain insights for the OPA and its partners.

## STRATEGIC INITIATIVES

To support the divisional targets, the Conservation division is undertaking the following strategic initiatives to help reach its conservation goals and enable stronger relationships with partners and customers:

1. effectively communicate and engage customers and channel partners in the value of conservation
2. achieve meaningful energy results with partners through operational excellence
3. develop and implement a strategy for the future of conservation.

### 1. Effectively communicate and engage customers and channel partners in the value of conservation

Using a customer relationship management strategy, the Conservation division will continue to build effective relationships with its partners and engage in an open dialogue to ensure consistent messaging. It will also provide enhanced tools and support to effectively communicate the value of conservation to customers. The division will increase its efforts with transmission-connected customers and national accounts.

To enhance awareness and understanding of conservation and its benefits, the Conservation division will use various strategies including the **save**ON**energy**$^{OM}$ website and social media. The

Communications division will provide the marketing and promotional expertise for these efforts. The division will also work to improve the customer experience through effective capability-building initiatives, training, and recognition programs for partners and customers.

To increase customer engagement, the division will expand its relationships with channel partners to support the delivery of conservation, and will provide partners with enhanced support and marketing tools. Training initiatives will be provided to the market to build conservation capability today and for the future. The division will monitor and analyze customer feedback and engage with customers directly and through partners to recognize their conservation actions and achievements.

**2. Achieve meaningful energy results with partners through operational excellence**

The Conservation division will use customer, partner and market feedback to improve its operations, and will provide effective tools and platforms to drive further cost-effective participation in conservation.

The performance of all OPA conservation initiatives will be assessed using rigorous evaluation, measurement and verification (EM&V) protocols. Quarterly reporting will be provided to local distribution companies and to a broader group of stakeholders. Progress in meeting Long-Term Energy Plan conservation targets will be published annually.

The Conservation division will streamline contracts with partners and customers. It will provide support to ensure channel partners, delivery agents and customers understand all aspects of programs and related contracts. The division will optimize management of existing and new contracts through tools, including a milestone tracker and corporate settlement system.

The division will continue to research and evolve its demand response initiatives to ensure the cost-effective long-term sustainability of this nimble demand management program. Building on its collaboration with the Independent Electricity System Operator (IESO) to develop a demand response plan that was submitted to the Minister of Energy in April 2013, the division will continue to work closely with the IESO on the delivery of demand response to find efficiencies and collaborate on program evolution.

The OPA and the IESO will also continue working on a project to evolve the Conservation division's current demand response offerings. The goal of this project is to achieve greater value and economic use of demand response through:

- integration of current demand response contracts in the IESO-administered energy market and dispatch process
- expansion of demand response market participation categories
- development of new market mechanisms such as a forward capacity market.

The division will also refine and increase participation in the Industrial Accelerator Program, an important initiative for energy-efficiency improvements in large transmission-connected industrial facilities.

The division will also continue to improve and oversee program management systems for partners, as well as maintain and optimize information and reporting systems to enhance existing province-wide and new locally designed conservation programs. It will continue to manage partner support systems to ensure timely responses to inquiries.

### 3. Develop and implement a strategy for the future of conservation

The Conservation division will build on its knowledge of programs, initiatives, codes and standards, and research into new innovative concepts, to effectively integrate the next level of energy efficiency into homes and businesses across the province.

In the summer of 2013, the government launched a consultation on the Long-Term Energy Plan and another on conservation governance called "Conservation First". The division will actively engage key stakeholders to seek strategic advice on the implementation of next-generation conservation solutions. In 2014, the division will identify pilot opportunities to integrate energy and water solutions, and will continue working with the OPA's Power System Planning division to integrate conservation as a first priority resource into regional and provincial plans. This business plan assumes business as usual for conservation in Ontario. Major changes to the governance structure are not anticipated nor are they reflected in the resource and financial budgets.

Energy benchmarks across various sectors are being developed to better articulate and communicate electricity consumption to customers. They can also be used as a target-setting tool for delivery partners. The conservation impact of time-of-use rates is also being evaluated by the OPA to better understand consumers' behaviour changes to variable electricity rates.

The division will continue to fulfill a critical role in conservation innovation in Ontario through the Conservation Fund that is identifying, promoting and funding strategic pilot programs, initiatives and new technologies. Included in the Conservation Fund is a new stream to pilot local innovation from local distribution companies. Two other initiatives of strategic value are a pay-for-performance conservation model and a social benchmarking pilot. This pilot aims to cost-effectively reduce residential electricity consumption by providing residents with information-based tools that allow the comparison of one home's energy performance to that of another home or group of homes. Results from the social benchmarking pilot will be analyzed and used for recommending next steps on developing such a program across the province.

**By the end of 2014, the OPA will have reached the following milestones:**

- enhanced conservation participation and awareness for partners and customers through effective communication strategies, and celebration and promotion of Ontario's conservation successes

- exceeded energy savings forecasts through local distribution company partners achieving their conservation objectives; retail, aggregator and contractor partners delivering successful conservation initiatives; and increased conservation capability for the future

- ensured that regional and provincial plans incorporate conservation and integrate land use, natural gas, water and other resources

- improved support and increased relationship building with: enhanced tools and information for partners and customers, an optimized platform to manage and track new and existing contracts, nimble and responsive customer service, and effective and transparent conservation reporting.

**By the end of 2016, the OPA will have reached the following milestones:**

- the next generation of conservation programs in place, customers and partners fully engaged in conservation and have current information and enhanced tools to effectively manage their energy use

- partners fully accountable for conservation transactions, while the OPA maintains relationships, evaluates new programs and offers a broad set of information-based tools to its partners

- training and capability-building programs for key channel partners and delivery agents in place for the future

- the OPA is an important conduit for customers requiring energy conservation information, directly and through service providers such as local distribution companies.

# Goal 2

**Develop integrated and regional power system plans and communicate with stakeholders.**

## POWER SYSTEM PLANNING KEY DIVISIONAL TARGETS

The Power System Planning division develops plans for Ontario, an ongoing process that implements government policies, directives and goals; and provides advice on the status and outlook for electricity service. Power System Planning has four key targets:

1. support the implementation of the 2013 Long-Term Energy Plan (2013 LTEP)
2. identify and evaluate conservation, supply and transmission priorities through ongoing analysis, supported by models, data and tools
3. play a key role in regional electricity planning across Ontario
4. provide planning context and advice to support stakeholder requirements, program design and procurements, policy initiatives and regulatory proceedings.

## STRATEGIC INITIATIVES

The initiatives to support the divisional targets are:

1. maintain a current assessment of the status and outlook for electricity service in Ontario
2. participate in regional planning
3. support current procurements and programs
4. provide analysis and advice on policy initiatives and support for regulatory proceedings.

### 1. Maintain a current assessment of the status and outlook for electricity service in Ontario

The 2013 LTEP identifies the requirement for an annual Ontario Energy Report to update the public on changing supply and demand conditions and to outline the progress on implementing the plan. The Power System Planning division will work with the IESO and the Ministry of Energy to produce this report and to communicate the information to stakeholders. In support of the development of this report, the division will undertake three key areas of work:

- demand forecasting and conservation integration
- resource integration
- transmission integration.

The division will maintain an updated demand forecast, analyze electricity use patterns and conservation to update the mid- and long-term forecasts. Demand forecasting sets the context for infrastructure planning. Forecasts are developed at an end-use level and consider changes in technology adoption patterns, fuel choice and customer price elasticity. To integrate conservation, the division develops forecasts of conservation success. This area of work includes

assessing and integrating the impacts of codes and standards, incentive-driven efficiency and rate designs into demand forecasts, and using indications of current conservation performance to inform conservation plans.

The division will develop strategies and advice for emerging supply issues, evaluate system supply requirements, and develop options to address these requirements. These strategies and assessments will be done on a provincial basis in close collaboration with the IESO, and will include evaluations of the operability requirements of the system and assessments of storage opportunities. This involves assessing the adequacy and operability of the supply mix to meet Ontario's generation capacity and energy needs. Supply mix options will be evaluated to ensure they are appropriately considered with respect to their cost, operational and sustainability characteristics.

Changes in the supply mix and reliability standards often require transmission solutions that integrate supply and demand outlooks for Ontario. The division will develop transmission solutions for maintaining system reliability and for supporting the implementation of priority transmission projects as identified in the 2013 LTEP.

### 2. Participate in regional planning

The division will support the implementation of recommendations in the OPA and IESO joint August 2013 report to the Minister of Energy, *Engaging Local Communities in Ontario's Electricity Planning Continuum*.

The expectations around regional planning are expanding rapidly and therefore the work will require priority-setting as to the number of concurrent plans, and their scope and completion dates over the three-year business planning cycle.

Under the Ontario Energy Board's Renewed Regulatory Framework for Electricity, the OPA leads the integrated regional resource planning (IRRP) process that determines the preferred mix of conservation, local generation, transmission and distribution resources for each region. The division will develop processes to support regional demand and conservation forecasting. It will also assess the role that local and distributed generation resources can play in satisfying regional needs while considering the context of broader system needs.

In 2014, planning and implementation work will continue for several plans that are under way, with integrated plans expected to be developed for Central Toronto, Kitchener-Waterloo-Cambridge-Guelph, Brant and North of Dryden. These efforts are expected to focus on the Ontario Energy Board's preliminary list of Group 1 Regions.

### 3. Support current procurements and programs

The Power System Planning division will support the implementation of plans, policies and directives and specific procurement initiatives, such as the Feed-in Tariff Program, large renewable procurement, Hydroelectric Standard Offer Program and Hydroelectric Contract Initiative for renewable energy projects; and combined heat and power (CHP), non-utility

generators (NUGs), Bruce refurbishment, demand response and customer-based generation projects. This analytical support involves evaluations, technical economic assessments and connection screening.

In support of conservation program design, the division will maintain updated estimates of potential and avoided costs, and identify regional and system needs that could be met with incremental demand response and energy efficiency through a conservation framework.

**4. Provide analysis and advice on policy initiatives and support for regulatory proceedings**

As Ontario's conservation delivery framework evolves, Power System Planning will provide the appropriate advice and planning input on implementation, target setting and integration of conservation as a first priority resource. Key initiatives include maintaining avoided costs to form the basis of economic assessments, and developing and maintaining long-term assessments and forecasts.

We will develop and maintain our capability to assess the impacts of electricity sector initiatives and broader plans on sustainability and environmental aspects, customer costs and total capital investments by maintaining technical models, detailed data and specialized analytical tools.

The division will continue to anticipate the planned retirements at the Pickering Nuclear Generating Station and to coordinate the refurbishments at the Bruce and Darlington Nuclear Generating Stations with sector partners.

Power System Planning will participate in regulatory proceedings by providing integrated context and evaluation of alternatives to infrastructure projects being considered. It is anticipated that the division will participate in proceedings in support of OPG's rate application, leave-to-construct approval for the East-West Tie, line to Pickle Lake, and some local distribution company rate applications.

The division will also provide analysis, advice and outlooks on an ongoing basis to the OPA's Board of Directors, provincial government and the OPA's Stakeholder Advisory Committee.

**By the end of 2014, the OPA will have reached the following milestones:**

- implemented the planning aspects of the 2013 LTEP, particularly the annual Ontario Energy Report, assessment of storage opportunities and release of technical data and analysis

- completed four integrated regional resource plans (e.g., Central Toronto, Kitchener-Waterloo-Cambridge-Guelph, Brant, and North of Dryden) and made substantial progress on the Group 1 Regions

- participated in program design (e.g., conservation framework development and target-setting) and provided analytical support for procurements (e.g., the FIT Program, large

renewable procurement, combined heat and power, Bruce refurbishment and non-utility generators)

- participated in regulatory proceedings (e.g., OPG, East-West Tie, line to Pickle Lake, local distribution company rate applications), and provided analysis, advice and outlooks to the OPA's Board of Directors, provincial government and the OPA's Stakeholder Advisory Committee.

**By the end of 2016, the OPA will have reached the following milestones:**

- supported the development of the next LTEP expected at the end of 2016
- responded to emerging priorities and policy initiatives by:
    - evaluating conservation, supply and transmission priorities through ongoing analysis, supported by models, data and tools
    - leading regional planning across Ontario
    - providing planning context and advice.

# Goal 3

**Ensure Ontario ratepayers benefit from environmentally sustainable electricity generation through cost-effective procurement and contracts with effective risk sharing.**

## ELECTRICITY RESOURCES: KEY DIVISIONAL TARGETS

Electricity Resources has two key divisional targets:

1. plan and design procurement processes and enter into contracts for generation resources that meet the requirements identified in the 2013 LTEP, ministerial directives and legislation, and incorporate world-class contracting, contract management and settlement practices that support investment in electricity
2. identify barriers and limitations; develop and/or define methods and solutions to deliver enhanced generation developments through innovations, analysis, assessment and benchmarking, with a view to economic efficiency and environmental sustainability.

## STRATEGIC INITIATIVES

The initiatives planned to achieve these objectives are:

1. procurement of clean energy resources
2. procurement of renewable resources
3. management and settlement of contracts
4. analysis of sector, policy and contractual issues.

### 1. Procurement of clean energy resources

The OPA anticipates procuring resources in accordance with existing and new directives, such as those relating to the Industrial Electricity Incentive, non-utility generators and combined heat and power. Additional clean energy generation may be procured as directed to support system reliability due to the increases in renewable resources. Research into contract structures and procurement processes will continue. We are also preparing for a significant nuclear refurbishment period.

### 2. Procurement of renewable resources

The Electricity Resources division will continue to procure sufficient renewable resources in accordance with the 2011 supply mix directive, 2013 LTEP and subsequent directives from the Ministry of Energy. Specifically, it will continue to: procure resources under the Feed-In Tariff (FIT) and microFIT programs, negotiate with the Korean Consortium for the remaining phase under the Green Energy Investment Agreement, and administer the Hydroelectric Contract Initiative program. In addition to implementing recently launched procurement processes, such as a standard offer program for new hydroelectric resources and bilateral negotiations for the

New Post Creek hydroelectric facility, new procurement processes will be designed and launched in response to existing and new ministerial directives. These include more standard offer programs for hydroelectric resources, new competitive procurement processes for large renewable energy projects, and potential storage opportunities. Throughout these procurement processes, the division will coordinate its activities with other divisions and sector partners to improve the way that large energy projects are planned, sited and built.

The FIT Program application process continues to require an increase in OPA staff touchpoints, including application review, closing tickets, offering FIT contracts and related activities. The increased complexity of the application process and the volume of activities has required increased efforts from staff, as evidenced by 24,000 annual call centre calls and approximately 90,000 tickets being logged since the FIT Program launched in 2009. Interactions also include extensive communications with various local distribution companies, to whom OPA staff provide contract list details, contract expirations and surveys.

### 3. Management and settlement of contracts

The division will continue to negotiate contract amendments, manage and settle an increasing volume of contracts for various forms of clean electricity generation, which could include new and existing nuclear, natural gas, combined heat and power and renewable energy. It will build on its collaborative business relationships with contract counterparties while managing risk exposure to the OPA and ratepayers. The division will continue to post regular updates to the OPA website on the progress of procurement initiatives. Internally, the division will coordinate its contract management activities with other OPA divisions.

We expect to administer approximately 28,000 contracts with a combined total of about 24,000 megawatts by the end of 2014. While the megawatts contracted by the OPA have increased by 15.6 percent since 2011, the number of contracts has increased by 129.1 percent for the same period, resulting in a 41.5 percent increase in the number of contracts/full-time employee within the division (see Operating Metrics, page 35). This high-volume participation, combined with complex program requirements, is a key resource requirement driver for the division.

### 4. Analysis of sector, policy and contractual issues

The Electricity Resources division will continue to monitor and assess sector, market and policy developments in Ontario and other jurisdictions, including the actions of agencies affecting the OPA's operations. It will participate in sector-wide discussions on key issues, ranging from the integration of renewable energy to exploring options for sector evolution. The division will continue to assess pricing and cost trends associated with OPA contracts and procurements, and will monitor and provide solutions for integrating OPA contracts with any IESO market rule changes as required. It will work collaboratively with the Ministry of Energy, other sector agencies and industry participants to further understanding of interrelated issues, such as carbon mitigation strategies, electricity demand levels and the treatment of environmental attributes. The division will continue to manage and review the community, municipal, public sector and Aboriginal support programs for renewable energy.

**By the end of 2014, the OPA will have reached the following milestones:**

- made progress in fulfilling government objectives/directives associated with the 2013 LTEP, including:
    - continued procurement of directed targets for renewable energy from wind, solar, bio-energy and hydroelectric generation
    - launched a competitive procurement process for large-scale renewable generation projects
    - negotiated and executed contracts for clean energy generation, including those with non-utility generators
    - launched new processes for improved siting of large-scale energy projects
- implemented system enhancements to support the ongoing evolution of the FIT and microFIT programs
- attracted a diverse range of FIT and microFIT program participants, including First Nation and Métis communities, municipalities and other public sector entities
- completed determination and implementation of contractual needs, as appropriate with respect to the nuclear fleet
- maintained effective project management of contracts, including no OPA default events, on-time and accurate settlements, and the conclusion of required audits
- concluded contract negotiations and amendments where needed with counterparties to provide ratepayer benefits and system reliability
- changes to the external environment that have a material impact on OPA contracts, such as IESO market rule amendments and greenhouse gas regulations, proactively identified, assessed, and responded to where required
- the Community Energy Partnerships Program, Aboriginal Renewable Energy Fund, Aboriginal Community Energy Plan program, Aboriginal Transmission Fund, as well as similar programs to support municipalities and public sector bodies, operational with funding under each program dispersed to grant recipients and project partners.

**By the end of 2016, the OPA will have reached the following milestones:**

- made further progress in fulfilling the government's procurement objectives as described above
- progressed towards longer-term targets for clean and renewable electricity generation procurements

- managed and settled all electricity generation contractual obligations with no material defaults

- supported communities, Aboriginals, municipalities and public sector entities in enabling them to participate in renewable energy projects

- advised and encouraged the evolution of contract structures, the electricity sector and market.

# Goal 4

**Develop and maintain organizational capacity and be recognized as a partner in achieving the 2014-2016 goals.**

Goal 4 is supported by two divisions of the OPA – Business Strategies and Solutions and the Legal, Aboriginal and Regulatory Affairs group. They perform core business functions, provide decision and solution support, and act as strategic partners with other internal divisions and with the electricity sector.

## BUSINESS STRATEGIES AND SOLUTIONS: KEY DIVISIONAL TARGETS

As the organizational support and enabler group, the Business Strategies and Solutions division has a strong customer-focused orientation. Its primary targets are to:

1. partner across all OPA business units to foster a collaborative organization
2. enable the OPA to attract, develop, engage and retain a high level of talent
3. become a trusted service provider to meet business objectives at the speed of business
4. deliver decision-making support to allow all OPA divisions to achieve their targets.

## STRATEGIC INITIATIVES

The initiatives in the business plan period for each of the groups within the Business Strategies and Solutions division are organized under four areas:

1. support the finance, planning and procurement needs of the organization
2. maintain and enhance technology solutions for the OPA
3. optimize the efficiency and value of the OPA's facilities
4. recruit, retain, engage and develop a high-performing workforce.

### 1. Support the finance, planning and procurement needs of the organization

The Business Strategies and Solutions division will continue to deliver high-quality financial reports, data analysis, business insights and decision support tools to internal and external stakeholders. Rigorous financial and procurement expertise will help internal clients make quality financial decisions and fulfill their procurement needs in a more cost-effective and efficient manner. The division will continue to oversee enterprise risk management processes and manage outsourced internal auditors to limit the OPA's exposure to strategic and operational risks. The division will also implement a comprehensive customer service strategy, including the adoption of enterprise-wide customer relations management and database tools, best-practice standards and procedures, customer experience research and reporting, and in-depth staff training.

### 2. Maintain and enhance technology solutions for the OPA

The OPA's broadening mandate has led to a growing need to collaborate with a wide range of technology users – including internal staff, local distribution companies, conservation program participants, FIT and microFIT program applicants, and various website visitors – to deliver complex technology solutions. The division will achieve its goals by optimizing the use of existing technology and enabling new technologies in an efficient, cost-effective and timely manner. Improved operational processes combined with project management best practices will be the key to achieving reliable and sustainable information technology operations. The OPA will also focus on integrated document management solutions to optimize retention and security practices for an increasing volume of information.

### 3. Optimize the efficiency and value of the OPA's facilities

The division will work to ensure success in meeting the organization's facility needs by achieving efficiency improvements and leading organizational environmental initiatives. These initiatives include minimizing the use of electricity, reducing the amount of natural resources required to sustain our business, and facilitating the diversion of waste to enhance recycling. The division will optimize the use of existing space and develop long-term recommendations and a strategy to meet OPA's facility needs.

### 4. Recruit, retain, engage and develop a high-performing workforce

The OPA places a very high value on attracting, developing, engaging and retaining individuals who have or who are able to develop the skills required to ensure the ongoing success of the organization. The division will continue to support the organization with all talent needs, as well as partner with other public sector agencies to facilitate inter-agency training and secondments.

**By the end of 2014, the OPA will have reached the following milestones:**

- realized ratepayer savings through compliance with all provincial government initiatives
- achieved efficiency improvements by pursuing cost reductions
- successfully responded to the increasing volume and breadth of the organization's activities.
- OPA's culture will be one of high performance, collaboration, learning and innovation.

**By the end of 2016, the OPA will have reached the following milestones:**

- realized ratepayer savings through compliance with all provincial government initiatives
- achieved efficiency improvements by pursuing cost reductions

- successfully responded to the increasing volume and breadth of the organization's activities

- the OPA's culture is one of high performance, collaboration, learning and innovation.

## LEGAL, ABORIGINAL AND REGULATORY AFFAIRS: KEY DIVISIONAL TARGETS

The Legal, Aboriginal and Regulatory Affairs division has three key targets to help the organization meet its strategic objectives:

1. provide high-quality legal services for clients in the OPA, and governance and logistical support for the OPA's Board of Directors
2. provide high-quality regulatory support to clients in the OPA and effectively represent the OPA's views in regulatory proceedings
3. build and maintain strong relationships between the OPA and First Nations and Métis communities to support their participation in the development of the electricity sector.

## STRATEGIC INITIATIVES

The initiatives in the planning period to support the divisional targets are:

1. effectively meet the legal needs of OPA clients
2. lead and coordinate the OPA's participation in regulatory proceedings
3. provide effective support to clients in the OPA with respect to Aboriginal matters, and support the participation of First Nations and Métis communities in OPA planning, conservation, transmission and generation initiatives.

### 1. Effectively meet the legal needs of OPA clients

The Legal, Aboriginal and Regulatory Affairs division will continue to provide high-quality legal support to internal clients for a large number of legal matters, including conservation program development, generation procurement, general OPA procurements, contract development and management, and litigation. It will manage the work associated with responding to requests made under the *Freedom of Information and Protection of Privacy Act*, and provide governance and logistical support for the OPA's Board of Directors.

In 2014, the division will continue to enhance internal legal expertise so that the OPA can handle more legal work internally. It will also continue to offer training for various business units on contracting processes, contract management and records management. It will continue to improve work flows and contracting practices to manage increased internal work volumes, and review and update the OPA's standard-form documentation.

### 2. Lead and coordinate the OPA's participation in regulatory proceedings

The division will continue to provide high-quality regulatory support to internal clients and manage the OPA's applications to the Ontario Energy Board. It will ensure that the OPA's views are effectively represented in regulatory proceedings.

The division will coordinate the preparation of the OPA's annual revenue requirement submission to the Ontario Energy Board and manage the regulatory proceeding as needed. It will also provide regulatory support for applications to the Ontario Energy Board by other entities as needed. These applications may include transmitter, distributor and generator rate cases; leave-to-construct applications; transmitter designations; and conservation proceedings.

The division will lead the OPA's participation in other regulatory processes and consultations as required, including those with respect to Ontario Energy Board policy initiatives.

### 3. Provide effective support to clients in the OPA with respect to Aboriginal matters, and support the participation of First Nations and Métis communities in OPA planning, conservation, transmission and generation initiatives

The OPA will continue to work with Aboriginal communities to implement renewable energy and conservation programs, as well as transmission projects, through relationship building and targeted initiatives. This work requires supporting the participation of First Nations and Métis communities in OPA planning, conservation, transmission, and generation initiatives, as well as providing support to internal clients on Aboriginal matters.

Some of the special programs designed to involve First Nations and Métis communities include:

- provisions in the FIT Program 2.1 that prioritize applications with greater than 50-percent equity participation from Aboriginal participants and give prioritization points to projects with Aboriginal participation or support
- the Aboriginal Renewable Energy Fund, designed to provide funding for Aboriginal communities to support partnerships and develop renewable energy generation facilities
- the Aboriginal Conservation Program, designed to assist Aboriginal communities in implementing energy conservation measures by engaging these communities and providing customized conservation programs to meet their unique local needs.

A key focus of the OPA will be continued outreach and strategic communications to advance the remote community transmission plan. The OPA will also support relevant groups as they begin to obtain the necessary regulatory approvals to implement these staged plans. The OPA will also work with four remote First Nations that are not economic to connect and not part of the transmission connection plan to consider options for onsite generation, such as wind, solar or hydro to offset the diesel generation.

The division will maintain effective channels of communication and relationships with Aboriginal political, economic and technical organizations. It will expand access to its database that tracks the participants, projects and related activities of First Nations and Métis communities

for use by all client groups. It will also develop effective program and contract management tools and establish process and project management mechanisms for outreach and engagement activities. An Aboriginal awareness training program will be offered on an annual basis to support the ongoing needs of OPA staff with respect to awareness of Aboriginal issues.

**By the end of 2014, the OPA will have reached the following milestones:**

- high-quality legal services provided to internal clients
- annual revenue requirement submission approved substantially as filed
- the OPA's views effectively presented in regulatory proceedings
- support provided to First Nations and Métis community participation in energy-related projects
- completed outreach and development of options to support remote First Nation communities that are not economic to connect, and continued to provide support on the remote transmission plan.

**By the end of 2016, the OPA will have reached the following milestones:**

- high-quality legal services provided to internal clients
- value for ratepayers achieved through the OPA's effective participation in regulatory proceedings
- supported the planned regulatory hearings for the remote transmission Leave to Construct (s. 92) at the Ontario Energy Board.

# Goal 5

**Engage with stakeholders, ratepayers, government, and business partners to shape and support the activities that help the OPA to fulfill its mandate.**

## COMMUNICATIONS: KEY DIVISIONAL TARGETS

The Communications division has three key targets:

1. support OPA divisions in delivering strategic initiatives and meeting organizational goals and objectives
2. raise awareness of and seek input from stakeholders and ratepayers to inform OPA decision-making and programs, and encourage participation in conservation initiatives
3. help enhance employee engagement.

## STRATEGIC INITIATIVES

Initiatives for the business plan period to support the divisional targets are as follows:

1. strengthen community and stakeholder relations
2. promote broad-based conservation awareness to help customers manage their electricity use and costs and to help local distribution companies engage their customers in conservation programs
3. leverage technology and social media to reach external and internal audiences more effectively.

### 1. Strengthen community and stakeholder relations

The OPA will continue to implement a more deliberate and strategic approach to enhancing stakeholder relations. A key element will be to maximize the use of the Stakeholder Advisory Committee established by the OPA in 2013 to increase transparency, generate a broader dialogue on the OPA's activities and increase stakeholder input in the OPA's decision-making processes.

Another key element in enhancing stakeholder relations will be ongoing refinement of the new process for regional planning and the siting of large infrastructure. In 2013, the OPA and the IESO developed recommendations for the Minister of Energy on a more integrated regional energy planning process focused on improving how large energy projects, such as natural gas plants, are sited in Ontario. These recommendations will continue to enhance the regional planning work currently under way, concentrating on increased municipal, community and local input into the regional energy planning and siting processes.

Stakeholders will be a part of key OPA activities such as the evolution of the FIT and microFIT programs and conservation initiatives. Stakeholders will continue to have an open dialogue with the OPA's senior management through regular management teleconferences.

Stakeholder communications will be a key priority, with an emphasis on greater transparency, establishing regular communications, maximizing social media and enhancing reporting. These enhancements will be measured through regular surveys of our stakeholders, the results of which will be shared on the OPA's website.

### 2. Promote broad-based conservation awareness

Efforts will be made to further engage the public in conservation measures to help consumers manage their electricity use and costs and promote understanding of the value of electricity. The Communications division will collaborate closely with the Conservation division, local distribution companies and the private sector to achieve corporate marketing objectives and conservation campaign targets.

Marketing and public relations initiatives in support of the **save**ON**energy**[OM] brand will continue throughout the business planning period as part of an ongoing effort to foster a lasting "culture of conservation."

### 3. Leverage social media and technology to reach external and internal audiences more effectively

The Communications division will further refine and enhance the organization's public impact through an increased use of multimedia as well as social media in various vehicles, including the corporate website, and through the continued delivery of strategic external communications. External communications include speeches and presentations, annual reports and the OPA's electronic newsletter to an extensive subscribers list.

Internal communications will be enhanced through the continued evolution of the intranet and other employee communications tools as identified in the 2013 employee communications strategy.

**By the end of 2014, the OPA will have reached the following milestones:**

- enhanced communication with stakeholders
- in conjunction with Power System Planning and Electricity Resources, implemented the accepted recommendations from the joint OPA-IESO report submitted to the Minister of Energy on regional energy planning and siting of large energy infrastructure
- in conjunction with the Conservation division, increased awareness of and expanded participation in **save**ON**energy programs**
- optimized the use of communications technology, social media and other tools to communicate more effectively with external and internal audiences.

**By the end of 2016, the OPA will have reached the following milestones:**

- strengthened stakeholder relations through stakeholder surveys and feedback
- in conjunction with the Conservation division, conducted market research indicating that a culture of conservation is being sustained and increased in Ontario
- leading edge communications tools adopted and used effectively in serving the OPA's internal and external audiences.

## Summary of Business Plan Milestones

This business plan sets out how the Ontario Power Authority will continue its efforts to ensure the reliability, sustainability and cost-effectiveness of the province's electricity system for the benefit of Ontario's consumers during the 2014-2016 business plan period.

### Goal 1

**Sustain Ontario's leadership in energy efficiency while promoting a culture of conservation through innovation, cost-effective customer-focused solutions and verified resources.**

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**By the end of 2014, the OPA will have reached the following milestones:**

- enhanced conservation participation and awareness for partners and customers through effective communication strategies, and celebration and promotion of Ontario's conservation successes
- exceeded energy savings forecasts through local distribution company partners achieving their conservation objectives; retail, aggregator and contractor partners delivering successful conservation initiatives; and increased conservation capability for the future
- ensured that regional and provincial plans incorporate conservation and integrate land use, natural gas, water and other resources
- improved support and increased relationship building with: enhanced tools and information for partners and customers, an optimized platform to manage and track new and existing contracts, nimble and responsive customer service, and effective and transparent conservation reporting.

**By the end of 2016, the OPA will have reached the following milestones:**

- the next generation of conservation programs in place, customers and partners fully engaged in conservation and have current information and enhanced tools to effectively manage their energy use
- partners fully accountable for conservation transactions, while the OPA maintains relationships, evaluates new programs and offers a broad set of information-based tools to its partners
- training and capability-building programs for key channel partners and delivery agents in place for the future
- the OPA is an important conduit for customers requiring energy conservation information, directly and through service providers such as local distribution companies.

## Goal 2

## Develop integrated and regional power system plans and communicate with stakeholders.

### By the end of 2014, the OPA will have reached the following milestones:

- implemented the planning aspects of the 2013 LTEP, particularly the annual Ontario Energy Report, assessment of storage opportunities and release of technical data and analysis
- completed four integrated regional resource plans (e.g., Central Toronto, Kitchener-Waterloo-Cambridge-Guelph, Brant, and North of Dryden) and made substantial progress on the Group 1 Regions
- participated in program design (e.g., conservation framework development and target-setting) and provided analytical support for procurements (e.g., the FIT Program, large renewable procurement, combined heat and power, Bruce refurbishment and non-utility generators)
- participated in regulatory proceedings (e.g., OPG, East-West Tie, line to Pickle Lake, local distribution company rate applications), and provided analysis, advice and outlooks to the OPA's Board of Directors, provincial government and the OPA's Stakeholder Advisory Committee.

### By the end of 2016, the OPA will have reached the following milestones:

- supported the development of the next LTEP expected at the end of 2016
- responded to emerging priorities and policy initiatives by:
    - evaluating conservation, supply and transmission priorities through ongoing analysis, supported by models, data and tools
    - leading regional planning across Ontario
    - providing planning context and advice.

## Goal 3

**Ensure Ontario ratepayers benefit from environmentally sustainable electricity generation through cost-effective procurement and contracts with effective risk sharing.**

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**By the end of 2014, the OPA will have reached the following milestones:**

- made progress in fulfilling government objectives/directives associated with the 2013 LTEP, including:
    - continued procurement of directed targets for renewable energy from wind, solar, bio-energy and hydroelectric generation
    - launched a competitive procurement process for large-scale renewable generation projects
    - negotiated and executed contracts for clean energy generation, including those with non-utility generators
    - launched new processes for improved siting of large-scale energy projects
- implemented system enhancements to support the ongoing evolution of the FIT and microFIT programs
- attracted a diverse range of FIT and microFIT program participants, including First Nation and Métis communities, municipalities and other public sector entities
- completed determination and implementation of contractual needs, as appropriate with respect to the nuclear fleet
- maintained effective project management of contracts, including no OPA default events, on-time and accurate settlements, and the conclusion of required audits
- concluded contract negotiations and amendments where needed with counterparties to provide ratepayer benefits and system reliability
- changes to the external environment that have a material impact on OPA contracts, such as IESO market rule amendments and greenhouse gas regulations, proactively identified, assessed, and responded to where required
- the Community Energy Partnerships Program, Aboriginal Renewable Energy Fund, Aboriginal Community Energy Plan program, Aboriginal Transmission Fund, as well as similar programs to support municipalities and public sector bodies, operational with funding under each program dispersed to grant recipients and project partners.

**By the end of 2016, the OPA will have reached the following milestones:**

- made further progress in fulfilling the government's procurement objectives as described above
- progressed towards longer-term targets for clean and renewable electricity generation procurements
- managed and settled all electricity generation contractual obligations with no material defaults
- supported communities, Aboriginals, municipalities and public sector entities in enabling them to participate in renewable energy projects
- advised and encouraged the evolution of contract structures, the electricity sector and market.

## Goal 4

**Develop and maintain organizational capacity and be recognized as a partner in achieving the 2014-2016 goals.**

**By the end of 2014, the OPA will have reached the following milestones:**

- realized ratepayer savings through compliance with all provincial government initiatives
- achieved efficiency improvements by pursuing cost reductions
- successfully responded to the increasing volume and breadth of the organization's activities.
- OPA's culture will be one of high performance, collaboration, learning and innovation
- high-quality legal services provided to internal clients
- annual revenue requirement submission approved substantially as filed
- the OPA's views effectively presented in regulatory proceedings
- support provided to First Nations and Métis community participation in energy-related projects
- completed outreach and development of options to support remote First Nation communities that are not economic to connect, and continued to provide support on the remote transmission plan.

**By the end of 2016, the OPA will have reached the following milestones:**

- realized ratepayer savings through compliance with all provincial government initiatives
- achieved efficiency improvements by pursuing cost reductions
- successfully responded to the increasing volume and breadth of the organization's activities
- the OPA's culture is one of high performance, collaboration, learning and innovation
- high-quality legal services provided to internal clients
- value for ratepayers achieved through the OPA's effective participation in regulatory proceedings
- supported the planned regulatory hearings for the remote transmission Leave to Construct (s. 92) at the Ontario Energy Board.

## Goal 5

**Engage with stakeholders, ratepayers, government and business partners to shape and support the activities that help the OPA to fulfill its mandate.**

**By the end of 2014, the OPA will have reached the following milestones:**

- enhanced communication with stakeholders
- in conjunction with Power System Planning and Electricity Resources, implemented the accepted recommendations from the joint OPA-IESO report submitted to the Minister of Energy on regional energy planning and siting of large energy infrastructure
- in conjunction with the Conservation division, increased awareness of and expanded participation in **save**ON**energy** programs
- optimized the use of communications technology, social media and other tools to communicate more effectively with external and internal audiences.

**By the end of 2016, the OPA will have reached the following milestones:**

- strengthened stakeholder relations through stakeholder surveys and feedback
- in conjunction with the Conservation division, conducted market research indicating that a culture of conservation is being sustained and increased in Ontario
- leading edge communications tools adopted and used effectively in serving the OPA's internal and external audiences.

## OPA Operating Metrics

In 2011, the Ontario Energy Board directed the OPA to develop a more complete and informative set of performance and efficiency metrics.

Specifically, the Ontario Energy Board provided the following comments to the OPA:

- metrics should measure incremental rather than cumulative results
- metrics should only include relevant full-time equivalents (FTEs) to programs
- metrics should include temporary FTEs.

The OPA retained external consulting assistance in developing efficiency metrics to respond to the Ontario Energy Board's direction. Meetings were held with representatives from the Power System Planning, Conservation, and Electricity Resources divisions to develop greater understanding of activities, success measures and available data. Metrics used by similar organizations were also identified and reviewed with OPA subject-matter experts. As a result, a list of draft metrics was developed. The OPA conducted consultations with intervenors that participated in the regulatory hearing on the OPA's 2011-13 revenue requirement submission. The development of a final set of metrics was put on hold in 2012 as the OPA focused resources on merger and integration activities. The OPA now looks forward to continuing to build on the metrics development work completed to date.

The OPA continues its efforts to reduce the financial impact of its operations on Ontario's ratepayers, while managing an increasingly broad and complex mandate.

| | **2011 OEB Submission** | **2012 Actual** | **2014 Budget** | **% change 2014 vs 2011** |
|---|---|---|---|---|
| OPA operating expenses, % total program spending | 3.0% | 2.0% | 1.3% | |
| OPA operating expenses, $M | $64.1 | $59.3 | $60.3 | -5.9% |
| Total program spending, $M | $2,152 | $2,909 | $4,726 | 120% |
| Number of FTEs | 253 | 261 | 260 | 2.8% |

## CONSERVATION

| | | | | |
|---|---|---|---|---|
| Conservation net annual peak demand reduction (MW, 2005 Base) | 2,390 | 2,291 | 3,654 | 53% |
| per FTE (MW/FTE) | 9 | 9 | 14 | 49% |
| per OPA Budget (MW/$M) | 37 | 39 | 61 | 63% |
| Conservation - net annual energy reduction (GWh) | 2,479 | 5,866 | 9,483 | 283% |
| per FTE (GWh/FTE) | 10 | 22 | 36 | 272% |
| per OPA Budget (GWh/$M) | 39 | 99 | 157 | 307% |

Note: FTE reflects total OPA staff

| | | 2011 Actual | 2012 Actual | 2014 Projection | % Change 2014 vs 2011 Actual |
|---|---|---|---|---|---|
| **GENERATION** | | | | | |
| FIT Program | | | | | |
| FIT (MW) | | 4,620 | 4,545 | 4,965 | 7.5% |
| | *Change* | | (75) | 273 | |
| FIT (# of Contracts) | | 1,968 | 1,730 | 3,567 | 81.3% |
| | *Change* | | (238) | 1,800 | |
| microFIT Program | | | | | |
| microFIT (MW) | | 86 | 130 | 259 | 201.2% |
| | *Change* | | 44 | 49 | |
| microFIT (# of Contracts) | | 9,898 | 14,822 | 23,622 | 138.7% |
| | *Change* | | 4,924 | 5,500 | |
| Total FIT & microFIT (MW) | | 4,706 | 4,675 | 5,224 | 11.0% |
| Total FIT & microFIT (# of Contracts) | | 11,866 | 16,552 | 27,189 | 129.1% |
| All other Generation contracted by the OPA (MW) | | 16,333 | 17,736 | 19,105 | 17.0% |
| All other Generation contracted by the OPA (# of Contracts) | | 233 | 236 | 530 | 127.5% |
| Total Generation Contracted by the OPA (MW) | | 21,039 | 22,411 | 24,329 | 15.6% |
| Total Generation Contracted by the OPA (# of Contracts) | | 12,099 | 16,788 | 27,719 | 129.1% |
| per FTE (Contracts/FTE) | | 48 | 64 | 107 | 122.9% |

Note: FTE reflects total OPA staff

# 2014 Financial Outlook

## Pro Forma Statement of Financial Position

**December 31, 2014, with comparative figures for the 2011 Budget and 2012 Actuals**
**($000's)**

| ASSETS | 2011 Budget | 2012 Actual | 2014 Budget |
|---|---|---|---|
| Current Assets: | | | |
| Cash and cash equivalents | $ 102,153 | $ 315,631 | $ 174,440 |
| Accounts receivable | 263,405 | 546,963 | 289,093 |
| Prepaid expenses | 319 | 564 | 461 |
| | **365,877** | **863,158** | **463,993** |
| Capital assets | 9,895 | 6,628 | 4,051 |
| Other financial assets | 394 | - | - |
| **TOTAL ASSETS** | **$ 376,166** | **$ 869,786** | **$ 468,044** |

| LIABILITIES AND NET ASSETS | | | |
|---|---|---|---|
| Current Liabilities: | | | |
| Accounts payable and accrued liabilities | $ 196,603 | $ 474,839 | $ 318,241 |
| Operating loan | - | 60,000 | - |
| Contract Deposits | 167,016 | 28,996 | 23,145 |
| Other current liabilties | - | 105 | - |
| | **$ 363,619** | **$ 563,940** | **$ 341,385** |
| Deferred rent inducement | 547 | 403 | 182 |
| Other financial liabilities | 12,000 | 289,918 | 116,667 |
| Net Assets | | | |
| Internally restricted for Conservation Funds | 18,092 | 9,939 | 9,630 |
| Investment in capital assets | 9,895 | 6,628 | 5,479 |
| Accumulated Operating Surplus(Deficit) | (27,987) | (1,042) | (5,299) |
| | - | 15,525 | 9,810 |
| **TOTAL LIABILITIES & NET ASSETS** | **$ 376,166** | **$ 869,786** | **$ 468,044** |

**Statement of Operations**
**(in thousands of dollars)**

**For year-ended December 31, 2014, with comparative figures for the 2011 Budget and 2012 Actuals**

| | 2011 Budget | 2012 Actual | 2014 Budget |
|---|---|---|---|
| **Revenue:** | | | |
| Fees | $ 64,239 | $ 76,298 | $ 60,340 |
| Recovery of other financial accounts | 15,622 | - | - |
| Registration fees | 1,400 | (1,456) | - |
| Interest income | 600 | 666 | - |
| Other income | - | 102 | - |
| | **$ 81,861** | **$ 75,610** | **$ 60,340** |
| **Expenses:** | | | |
| Compensation and benefits | $ 30,963 | $ 32,034 | $ 30,967 |
| Professional fees | 16,369 | 10,852 | 16,959 |
| Amortization of other financial accounts | 15,622 | - | - |
| General operating costs | 11,096 | 11,272 | 9,704 |
| Conservation Funds | 3,866 | 728 | 311 |
| Amortization of capital assets | 1,813 | 4,427 | 2,398 |
| | **$ 79,729** | **$ 59,313** | **$ 60,340** |
| Excess of revenue over expenses before interest | $ 2,132 | $ 16,297 | $ - |
| Interest expense | $ - | $ 470 | $ - |
| **Excess of revenue over expenses** | **$ 2,132** | **$ 15,827** | **$ -** |

ONTARIO POWER AUTHORITY

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January 23, 2014

The Honourable Bob Chiarelli
Minister of Energy
900 Bay Street, Hearst Block
4th Floor
Toronto, ON M7A 2E1

Dear Minister: Minister

Thank you for your letter of October 22, 2013 regarding the OPA's 2014-16 business plan. In response to the government's commitment to further expenditure and staffing restraints across its various agencies, the OPA has reviewed its 2014 operating budget, as well as its 2015 and 2016 plans for additional efficiencies and reductions. This revised operating budget demonstrates the OPA's commitment to finding further efficiencies and savings as outlined in your letter.

In the OPA's revised business plan, operating expenses of $60.3 million have been reduced by $2.5 million or 3.9 percent from the October 2013 budget submission. This represents a decline in the operating budget of 5.9 percent from the 2011 budget submitted to the Ontario Energy Board (OEB), and is flat relative to OPA spending for 2012 and 2013.

In December, the OEB approved our proposed 2014 interim revenue requirement usage fee, which is approximately 20 percent lower than our approved interim rate from 2011 to 2013, resulting in annual savings for the average residential rate payer of $1.09. The OPA has received OEB approval of this rate on an interim basis, effective January 1, 2014. The OPA also intends to rebate approximately $25 million of its cumulative surplus to ratepayers.

The reductions have been achieved through a combination of headcount decreases and administrative efficiencies. Reducing headcount while implementing program priorities and meeting adequate service levels within an expanding mandate and increasing volume and complexity is challenging and there may be impacts on our service and delivery levels.

The OPA has been successfully delivering work on 15 government directives issued since November 2012, including four new directives added on December 16, 2013 (i.e., Renewable Energy Program, Hydroelectric Projects and Industrial Electricity Incentive and others related to the Long-Term Energy Plan) – more than any other agency in the province – while also managing its resources in a prudent manner.

Our stakeholder base today is also broader and more complex than in the past, which drives more interactions and touch points with the public and sector participants. In 2014, we expect further increases in the volume and complexity of our workload in all areas of our mandate. This includes increased stakeholder and regional planning activities, implementing the 18 regional planning recommendations accepted by you and the Premier, managing 28,000 contracts that account for two-thirds of Ontario's electricity system, designing a large renewable procurement process, implementing the Long-Term Energy Plan recommendations, and doubling generation and conservation program spending to $4.7 billion in 2014 compared to 2011.

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A key OPA project, to be completed in early 2014, will establish and monitor performance metrics that link to strategic objectives, goals and initiatives; including both outcome-based measures and financial operating metrics to track the OPA's overall long-term success, and milestone-based measures to track and report on the OPA's initiatives and projects.

We have historically managed the requirement for surge capacity for new programs by using temporary staffing resources. Our current resource plan reflects a one-time, mid-2013 conversion of some long-term temporary roles to regular positions to support the long-term sustainability of the FIT and microFIT programs. No further conversions are planned or reflected in the 2014 to 2016 planning period.

In 2014, we will manage an increased volume of activities with an average staffing level of 260. This will be accomplished through greater use of third-party entities to support program delivery, focus on simpler standard offer activities for ease of delivery, reallocation of staff with retraining as required, realizing further administrative efficiencies, a slower pace of program delivery using fewer resources and taking longer to review applications and respond to inquiries.

The OPA remains committed to complying with the government's goal to restrain staffing levels. While we are operating with an expanded mandate and an increased volume and complexity of work, our revised 2014 budget remains flat with respect to staffing levels compared to 2011 and 2012. The OPA is committed to deliver the planned resource changes, working within the context of the recent union certification process that is under way.

We are also committed to reductions in 2015 and 2016 and are exploring options to achieve results with fewer resources, including a focus on policy and analysis with a reduction in retail delivery activities, greater planning integration with the IESO and other sector agencies, migration of the delivery and administration of the labour-intensive microFIT Program to local distribution companies, greater leverage of the IESO settlement system, ongoing efficiencies through further automation and system enhancements, and consideration of a memorandum of understanding with the IESO for further collaboration to ensure the effective and efficient delivery of our respective mandates.

The OPA fully supports the government's cost savings initiatives and is committed to helping Ontario become a world-leading clean energy jurisdiction that will support the economy of tomorrow.

Respectfully submitted,

Colin Andersen
*Chief Executive Officer*

cc:
Serge Imbrogno, Deputy Minister of Energy
Andrew Teliszewsky, Chief of Staff
Michael Reid, ADM, Regulatory Affairs and Strategic Policy, Ministry of Energy
John Whytock, Director of Communications, Ministry of Energy

Ministry of Energy
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Ontario

MC-2014-229

January 29, 2014

Mr. Colin Andersen
Chief Executive Officer
Ontario Power Authority
1600–120 Adelaide Street West
Toronto ON M5H 1T1

Dear Mr. Andersen:

**Re: Revised 2014-2016 OPA Business Plan**

Thank you for submitting, for my approval, the Ontario Power Authority's (OPA) revised 2014-2016 Business Plan, which we received on January 24, 2014. It is my pleasure to inform you that I am satisfied with the overall direction, strategic priorities and the revised budget proposed by the OPA for its 2014-2016 fiscal years.

As requested in my letter of October 22, 2013, I am pleased that the OPA is making efforts to find efficiencies and savings through a $2.5 million reduction in the operating budget and an overall reduction of the OPA's total number of FTEs to 260. It is my expectation that the OPA will continue to deliver a high level of service to its customers while implementing these savings.

In addition, I am encouraged that the OPA intends to rebate approximately $25 million of its cumulative surplus to ratepayers and that a lower interim usage fee in the amount of $0.438/KWh has already been approved by the Ontario Energy Board.

I appreciate that the OPA is working to establish and monitor performance metrics that link to strategic objectives, goals and initiatives as outlined in your letter of January 23, 2014, and I look forward to receiving additional information in early 2014.

I am now able to approve the OPA's 2014-16 Business Plan for the purposes of the *Electricity Act, 1998.*

Sincerely,

Bob Chiarelli
Minister

c: James D. Hinds, Chair, Ontario Power Authority
OPA Board of Directors
Andrew Teliszewsky, Chief of Staff, Ministry of Energy
Serge Imbrogno, Deputy Minister, Ministry of Energy

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2011 **Annual Report**




# Working Together for a Sustainable Future

ONTARIO POWER AUTHORITY

March 31, 2012

The Honourable Chris Bentley
Minister of Energy
900 Bay Street, 4th Floor
Toronto, ON
M7A 2E1

Dear Minister:

I am pleased to submit the Ontario Power Authority's 2011 annual report. The report provides an overview of the OPA's activities and accomplishments during the fiscal year that ended December 31, 2011, and includes the audited financial statements.

Respectfully submitted,

James D. Hinds
Chair







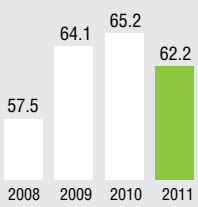

# WORKING TOGETHER

## Conserve. Plan. Transform. Collaborate.

The Ontario Power Authority (OPA) plays a unique role in Ontario's electricity sector – coordinating province-wide conservation efforts, planning the electricity system for the long term and contracting for clean electricity resources. We work closely with our industry partners and a broad range of stakeholders across the province to carry out these activities.

Together, we are transforming Ontario's electricity system – helping to reduce energy use, maintain reliability and establish a clean, modern and cost-effective power grid – for a sustainable future.

**Operating Costs (in millions)**




**Cumulative MW under OPA Management**

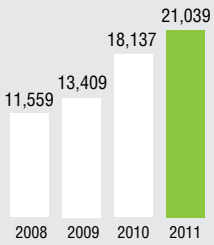



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# MESSAGE

## FROM THE CHAIR AND THE CEO

Working with our industry partners and stakeholders across Ontario's energy sector, the OPA is responsible for ensuring that the province's electricity system remains reliable, sustainable and cost-effective.



Colin Andersen, Chief Executive Officer

James D. Hinds, Chair

In recent years, we've emerged from uncertain times to a point where system reliability has been restored. Electricity demand is expected to remain stable for the next few years, with conservation programs offsetting anticipated increases in demand from population growth and economic recovery.

The success we've experienced is largely due to the OPA's conservation, supply procurement and long-term planning initiatives under the direction of the Ontario government. Now we are able to focus on making our province's electricity system cleaner, smarter and more sustainable.

**By the end of 2013, the OPA will be managing contracts amounting to roughly two-thirds of Ontario's electricity system or 26,500 megawatts (MW). This represents a nearly $51 billion investment, more than 90 percent of which is from the private sector.**

We achieved a number of significant accomplishments in 2011:

- Together with Ontario's local distribution companies, we launched a suite of province-wide conservation and demand management programs to run from 2011 to 2014 and we helped build the capability of delivery agents and customers to participate in conservation programs.
- We engaged in collaborative regional planning with community partners in areas across Ontario.
- We substantially completed an update of the Integrated Power System Plan.
- And we continued to build on the success of the FIT and microFIT renewable energy programs by processing nearly 30,000 applications, awarding contracts and supporting a planned two-year review of the programs.

But more hard work remains to reach our goals. Much depends on how our economy evolves, how quickly consumers fully adopt a "culture of conservation" and our ability to respond to changing circumstances. Substantive initiatives are under way in every part of the electricity sector – that will realize economic benefits and involve increasingly engaged consumers in a smarter, more reliable, cost-effective and sustainable electricity system.

In 2012, we will continue to engage Ontarians collaboratively in conservation through awareness initiatives and innovative solutions. We will deliver conservation programs to meet or exceed conservation targets and we will develop a new and innovative approach to conservation for the next generation of programs post 2014.

Our planning initiatives include a 20-year, comprehensive plan to achieve the goals of the Long-Term Energy Plan, and serve as an underpinning to regional planning and ongoing regulatory proceedings.

One of our most immediate and new challenges will be integrating renewable resources during periods of potential surplus energy. This will require ongoing planning to ensure adequate backup to variable generation, managing surplus, and operating within transmission availability. Ensuring a reliable supply also means that the OPA must have flexible plans to allow for required refurbishment of nuclear plants without disrupting the flow of electricity.

Our second big task in 2012 is implementing the improvements resulting from the two-year FIT Program review. The first program built upon the best principles of feed-in tariff programs around the world. The revamped program will reflect current circumstances as we work to ensure a sustainable program that balances the interests of participants with the needs of ratepayers.

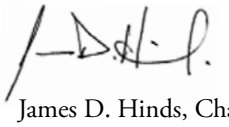
The OPA has made great progress since 2005 in restoring reliability to our electricity system. And we will continue to find new ways to be innovative and efficient in the generation, transmission and use of electricity. Over the longer term, we need to look at integrating distributed generation, particularly into urban development, and to develop holistic approaches to how we align planning for our infrastructure needs for water, land, housing and transportation with electricity planning.

Our sights are set on making the electricity sector cleaner, greener and smarter, on long-term power system planning at the provincial and regional levels, and on tools to encourage efficient consumption, such as conservation, time-of-use rates and smart meters.

In all we do, we are mindful of the government's financial restraint efforts. We will continue efforts to find further ways to reduce expenses and the cost impacts of our operations on all electricity consumers, while managing an increasingly broad and more complex mandate. In 2011, we reduced our total operating costs by four percent from 2010.

**There were 235 regular full-time positions at the OPA in 2011, and the annual operating budget was $62.2 million. This was funded by the ratepayers of Ontario through a fee of $0.551 per megawatt-hour of electricity consumed.**

The OPA's efforts are dedicated overall to making Ontario a world-leading clean energy jurisdiction that supports the economy of tomorrow. The steps we take will ensure our electricity system meets the changing needs of families and businesses while enhancing the province's economic prosperity.



James D. Hinds, Chair



Colin Andersen,
Chief Executive Officer

Our sights are set on making the electricity sector **cleaner, greener** and **smarter,** on long-term power system planning at the provincial and regional levels, and on tools to encourage efficient consumption, such as conservation, time-of-use rates and smart meters.



# CONSERVE

## Creating a culture of conservation

By working with local distribution companies and others in the sector throughout the year, we're helping Ontario stay on track to meet and exceed its peak demand reduction target of 4,550 MW and its energy savings target of 13 terawatt-hours (TWh) by 2015.



**Ontario has some of the most ambitious conservation targets in North America. The long-term target is a 7,100 MW reduction in peak demand and 28 TWh in energy savings by 2030 – the equivalent of removing 2.4 million homes from the grid.**

**The commercial sector is expected to contribute 50 percent to these targets, the residential sector 30 percent and the industrial sector 20 percent.**



### New programs to help everyone conserve

Conservation will always be our first priority because it's less costly than building new generation, it helps consumers manage their electricity costs and it reduces greenhouse gas emissions. We're working to help Ontario achieve ambitious conservation targets, and the province is making good progress. Efforts to date have reduced peak demand by more than 1,700 MW since 2005 – equivalent to removing half a million homes from the electricity grid and saving over $3.8 billion, at a cost of $1.7 billion.

**The OPA manages more than 400 conservation contracts with payments and incentives of up to $500 million per year for 2011-2014 programs, resulting in savings for Ontario's ratepayers of more than $1 billion in avoided costs.**

Together with the local electricity distribution companies, we launched saveONenergy this year, a suite of conservation and demand management programs to help consumers, businesses, and industrial and institutional facilities across the province reduce their energy use and become more energy efficient.

We also worked closely with First Nation and Métis communities to customize our conservation programs for their unique needs. These programs will be launched in early 2012.

And we helped businesses and large industrial customers across the province to conserve energy through our Industrial Accelerator and Demand Response initiatives. Launched in mid 2010, the Industrial Accelerator helps large industrial electricity users to become more energy efficient and reduce their operating costs. The first project to come into service in 2011 – at Xstrata Nickel Sudbury Smelter – is delivering 3,900 megawatt-hours of savings per year and significant savings in annual operating costs.

### Supporting conservation through training, technology, marketing and innovation

We worked hard to build the capability of our delivery agents and customers to participate in conservation programs. We supported local distribution companies and other program delivery partners through new information technology systems and by assisting them with training, marketing and engineering, as well as with program evaluation, measurement and verification.

We continued to build capability in the conservation and energy-efficiency services industry and to support innovation in emerging technologies and conservation programs through our Conservation Fund. At the end of 2011, 55 projects were under active management. And we supported energy-management activities, such as the employment of energy managers and the development of energy management plans, through our distribution and transmission-connected industrial energy-efficiency programs.

We demonstrated marketing, education and conservation awareness leadership through a range of initiatives, including our successful saveONenergy PLEDGE campaign, which saw nearly 110,000 Ontarians take the pledge to conserve energy. Participants were able to donate AIR MILES® reward points earned from taking the pledge to charitable organizations such as World Wildlife Fund-Canada, Kids Help Phone and Special Olympics. And we've built a consumer database of about 118,000 Ontarians who now regularly receive information about conservation from us.

### Building a culture of conservation for the future

We also continued to play a leadership role in promoting conservation through forward-looking activities in the areas of innovation, codes and standards and integrated energy systems. This year, we undertook a number of activities to support the advancement of energy-efficiency codes and standards and other policy.

**We received the Energy Efficiency Program of the Year – Energy Supplier award at the 2011 Platts Global Energy Awards in New York City in November. The judges praised our saveONenergy public education initiative for creating a culture of conservation in Canada's most populous province.**

We worked with local governments and other stakeholders to promote conservation-oriented local policy action and integrated community energy solutions that allow for synergies between local supply and demand for energy services. We worked with municipalities, gas and water utilities on harmonized approaches to conservation to make it easier for consumers to take part in conservation programs.

**From 2006 to 2011:**

More than **336,000** energy-guzzling appliances such as old fridges and freezers have been collected.

Nearly **264,000** Ontarians took the saveONenergy pledge.

More than **190,000** participants enrolled in the **peaksaver®** program to lower demand on the system on hot summer days.

Nearly **170,000** small businesses benefitted from the Direct Install Lighting initiative.






### Conservation Fund supports zone-controlled residential HVAC systems

With support from the OPA Conservation Fund, McMaster University is helping to prove that zone-controlled residential heating, ventilating and air-conditioning (HVAC) systems can save energy and money.

Zone-controlled technology enables the temperature of each area to be controlled by a separate thermostat. Improving the temperature control of unoccupied areas within the home allows residents to conserve energy and reduce energy costs.

The McMaster research team examined the impact of reducing air conditioning loads during high peak times in July and August. Some homes were equipped with the zoned systems, while the others had conventional (non-zoned) heating and cooling systems. **On average, homes with zone-controlled systems experienced peak demand reductions 15 percent greater than homes with non-zoned systems.**

# PLAN

## Planning for a sustainable future

To realize the government's Long-Term Energy Plan goals, we develop energy plans for Ontario.



Photo courtesy of Hydro One.

**Planning is integral to addressing regional electricity issues and to ensuring that all options are considered for maintaining a reliable, cost-effective and sustainable system.**

### Planning for Ontario's Future

Energy planning incorporates government policy and directives, as well as changing sector conditions and input from stakeholders. Updated plans form the basis for advice and discussions on electricity policy development and infrastructure investments, including regulatory proceedings. We also assess and contribute to the evaluation of proposals for new generation, transmission and storage projects.

In 2011, we substantially completed an update of the Integrated Power System Plan. The plan has not yet been filed with the Ontario Energy Board for regulatory review.

### Supporting a wide range of energy sector initiatives

We evaluated system supply options and requirements and transmission priorities as new and updated data became available. These assessments provided sector decision-makers with information regarding the impact of supply options on cost, system reliability, transmission requirements, emissions, siting requirements and other important considerations.

We supported the FIT Program for renewable energy procurement through testing to determine transmission and distribution availability, the economic feasibility of connecting to the grid and operability assessments.

And we worked with Ontario Power Generation, Bruce Power and the Ministry of Energy as part of the Nuclear Refurbishment Coordination Working Group to develop a nuclear refurbishment schedule. This process facilitates plan development and implementation, monitoring and adjustment as needed to reflect changing conditions and provide value to Ontarians.

Other initiatives involved working with the Independent Electricity System Operator to develop tools to help plan and manage the system, both in real-time and in the long term as conditions such as supply resources change, and working with Ontario Power Generation to optimize the future operation of Pickering Nuclear Station. We also provided support to local distribution companies and other sector agencies for their regulatory filings.



### Developing a supply plan for the north

**We are working with First Nation communities, industrial customers, local distribution companies, Hydro One Remote Communities Inc., the Independent Electricity System Operator and transmitters in northwestern Ontario to develop a supply plan for the north-of-Dryden area.**

As well as addressing the future load growth in the north, the plan will include the future connection of 20 remote First Nation communities north of Pickle Lake and Red Lake to Ontario's transmission system to economically displace the use of diesel fuel that is currently used to provide electricity supply to these communities.

In addition to the connection plan for these 20 communities, the OPA will also work with five other remote First Nation communities that are not economic to connect at this time. We will assist them in making plans to economically reduce their diesel consumption, while meeting their demand growth through the effective use of conservation, renewable energy and smart grid technology.

In the assessment of options for connecting remote communities, First Nations shared local knowledge of their community power systems, traditional lands and community interests, and community members helped the OPA to assess the diesel generation systems in their communities.

### Advancing transmission projects to maintain reliability and meet renewable energy targets

The OPA collaborated with industry partners such as the Ontario Energy Board and Hydro One to improve reliability and add more renewable connections to the system in the north, the Greater Toronto Area and the area west of London. We have worked to obtain the most value from the existing transmission system by incorporating about 5,000 MW of renewable generation into the system without the need for major incremental transmission investment.

### Developing solutions for regions of Ontario facing supply constraints

We led and facilitated meetings with stakeholders and performed studies to develop solutions in the areas in Ontario identified as having potential supply constraints. We collaborated with local distribution companies, transmitters and the Independent Electricity System Operator to develop regional plans to ensure adequate and reliable electricity supply over the near, medium and long term. This process was ongoing in 2011 for Central-Downtown Toronto, the Kitchener-Waterloo-Cambridge-Guelph area, Windsor-Essex, Ottawa, and York Region.

Substantive initiatives are under way in every part of the electricity sector – ambitious **conservation** targets, cleaner **generation** efforts, significant **transmission** investment and long-term **planning**.

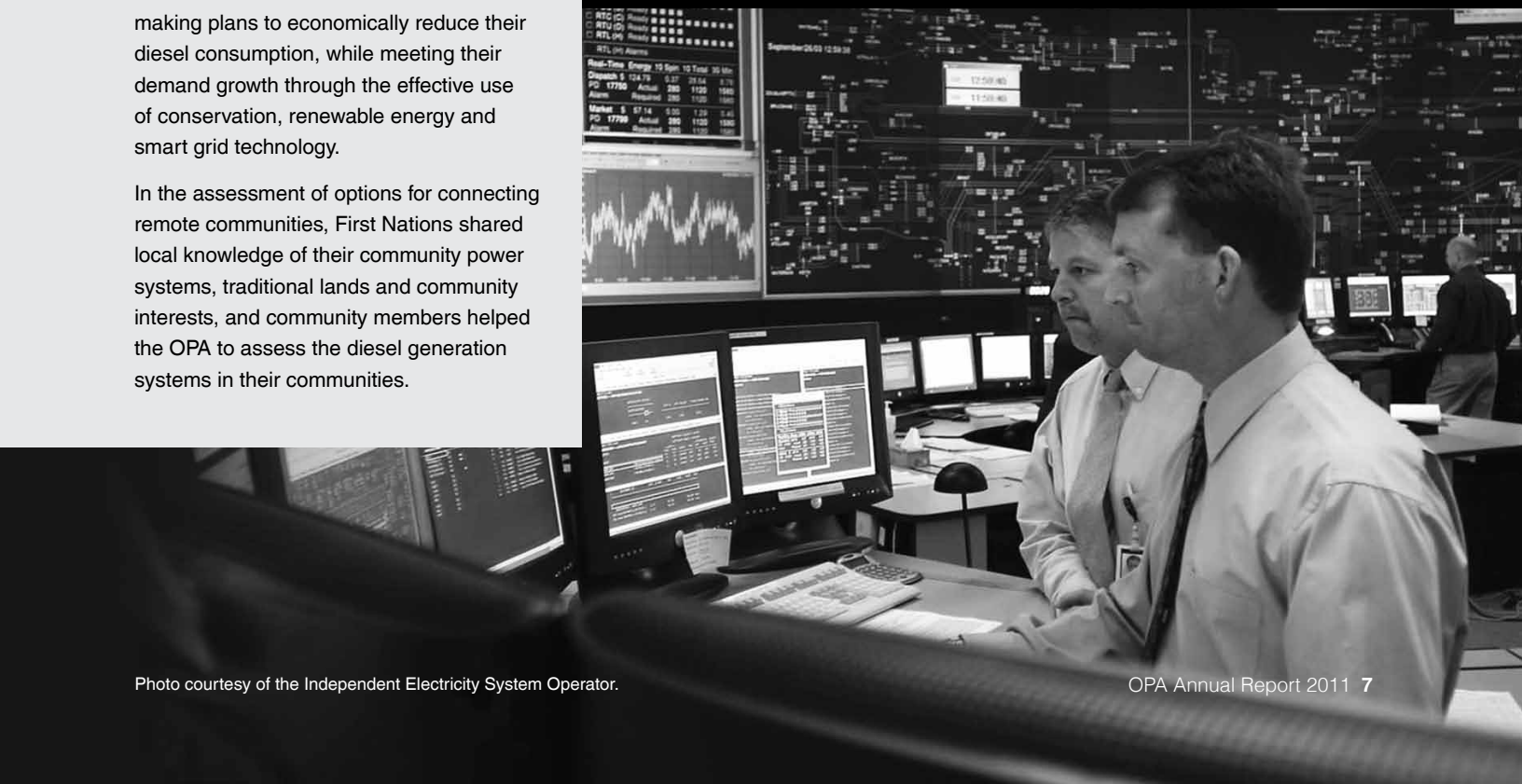


Photo courtesy of the Independent Electricity System Operator.

# TRANSFORM

## Transforming to a cleaner, more reliable system

Our portfolio of electricity contracts represents more than $35 billion of new investment in Ontario's electricity sector since 2005.

### Managing supply contracts representing billions of dollars of investment

By the end of the year, we were managing more than 21,000 MW of electricity supply, including over 10,300 MW of renewable energy and almost 7,700 MW of clean energy. This represents almost two-thirds of Ontario's electricity system.

**Table 1a: Electricity supply capacity under contract from 2005 to December 2011**

| Capacity in service (MW)* | Capacity under construction (MW) | Capacity in planning and permitting (MW) | Total capacity under contract (MW) |
|---|---|---|---|
| 12,886 | 2,786 | 5,367 | 21,039 |

*MW = megawatts

**Table 1b: Electricity supply contracts, capacity and status details**

| Technology or contract type | Number of contracts | Total capacity under contract (MW) | Total capacity in service (MW) |
|---|---|---|---|
| Renewable - hydroelectric | 116 | 2,349 .1 | 1,688.1 |
| Renewable - wind, solar, bioenergy | 11,960 | 8,030.4 | 2,437.1 |
| Natural gas: simple/combined cycle | 13 | 7,239.3 | 6,846.3 |
| Natural gas: combined heat and power | 9 | 419.9 | 414.0 |
| Nuclear | 1 | 3,000.0 | 1,500 |
| **Total** | **12,099** | **21,039** | **12,886** |

*MW = megawatts

### Managing and settling contracts

In 2011, we managed an increasing number of contracts resulting from our electricity supply procurements, including financial settlement of these contracts on time and accurately. We accomplished this through enhanced and standardized contract management processes.

**As of December 31, 2011, the OPA managed nearly 2,000 FIT contracts representing about 4,620 MW, close to 9,900 microFIT contracts representing nearly 86 MW and over 230 other non-FIT-related contracts of about 16,333 MW.**

In October 2010, the government announced that work would not be proceeding with the planned gas-fired generation facility in Oakville. We continue to negotiate the close-out of this contract with the contract counterparty. In the fall of 2011, the government committed to the relocation of the gas-fired generation facility under construction in southern Mississauga. Work at the Mississauga site has stopped and we are actively evaluating alternative sites for this facility.

### Procuring renewable and clean energy supply for the province

We continued to procure electricity supply from renewable and clean resources in response to directives received from the Minister of Energy. Our procurement activity included a mix of standard offer contracting, requests for competitive proposals, and bilateral negotiations.

Both the FIT and microFIT programs continued to experience tremendous uptake. Under the FIT Program, about 2,000 MW of mid- and large-scale projects were announced in 2011. This represents enough electricity each year to power more than 1.1 million homes. And more than 7,400 microFIT projects (of 10 kW or less), mostly for rooftop solar photovoltaic projects, were connected or ready to connect to the grid.

**Table 2:**
**2011 Activity in FIT and microFIT programs**

| FIT | | microFIT | |
|---|---|---|---|
| **Applications** | **MW** | **Applications** | **MW** |
| 6,051 | 4,921.8 | 23,522 | 219.2 |
| **Contracts** | **MW** | **Contracts** | **MW** |
| 767 | 2,066.8 | 7,447 | 66.8 |

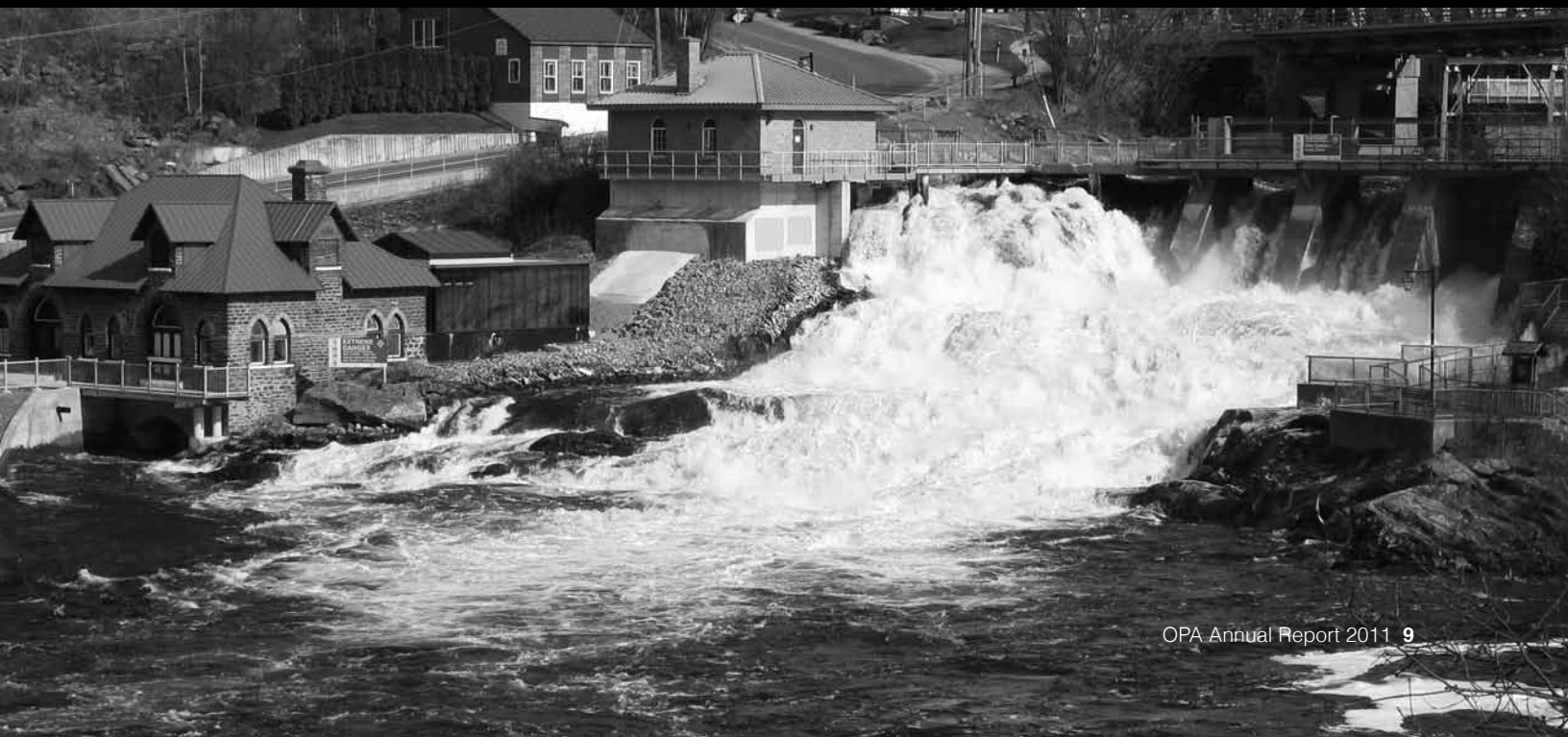


### Green energy helps communities across Ontario

The new Town of Ajax Operations Centre will serve as the base for many essential town services, including snow clearing, parks maintenance, facilities and fleet maintenance. Officially opened in December 2011, the LEED-certified building has improved energy efficiency, water conservation and other environmentally friendly features. The nearly 500 solar panels have a total capacity of 100 kW, which will generate enough electricity to power about 10 homes per year. In addition to the traditional roof-mounted panels, an important architectural feature of the centre is a sail made up of solar panels in front of the building.

Fort Frances High School in the Rainy River District of northwestern Ontario installed a system consisting of more than 500 rooftop solar panels that has a total capacity of 100 kW. The system will serve as a valuable teaching tool and help drive the future of the community's environmental well-being by reducing carbon dioxide emissions by 118 metric tons annually.

We continued to enter into new contracts with existing hydroelectric facilities under the Hydroelectric Contract Initiative. Since November 2009, **over 1,000 MW** of capacity at **66 facilities** have been contracted. In 2011, we contracted for an additional **20 MW**.



# TRANSFORM

We worked with the Ministry of Energy to conduct consultations and a review of the FIT and microFIT programs. The review builds on the success of the program to ensure its sustainability with new rules and prices to be announced in 2012 that will balance the interests of ratepayers with the need to continue to invest in Ontario's clean energy economy.

In 2011, the OPA began to negotiate a series of power purchase agreements with the Korean Consortium for the development of 2,500 MW of wind and solar projects in Ontario. Contracts were executed for approximately 870 MW of wind power and 200 MW of solar power. The projects are expected to come into commercial operation in phases between 2014 and 2016.

We designed and implemented procurements for other clean energy projects such as natural-gas fired generation, including combined-cycle, simple-cycle and combined heat and power (CHP). And we procured electricity supply from other sources, such as energy recovery projects, energy-from-waste projects, and converted coal-fired facilities (to natural gas and biomass).

As well, the OPA began negotiations with six non-hydroelectric non-utility generators (NUGs) in 2011. This involved developing a principles paper, performing stakeholder engagement, and building models to determine the value of the NUGs to the province's electricity system. There are 31 of these facilities in Ontario, generating approximately 1,400 MW of electricity from natural gas, biomass and energy from waste facilities, and contracts for 600 MW are expected to expire before 2015.

We continued to negotiate with Ontario Power Generation for a number of resources that contribute to the reliability, adequacy and operability of Ontario's electricity system, including in specific regions, such as northwestern Ontario. And we continued to negotiate with Ontario Power Generation to ensure value for ratepayers regarding the Lennox Generating Station.

### Helping communities across Ontario develop renewable energy projects

We worked to enhance the operation and management of funding programs for renewable energy projects, including the Aboriginal Energy Partnerships Program and the Community Energy Partnerships Program.

**Aboriginal Energy Partnerships Program (since April 2010)**

| Grants | Funding |
|---|---|
| 51 | $5.5 million |

**Community Energy Partnerships Program (since May 2010)**

| Grants | Funding |
|---|---|
| 179 | $8.1 million |

In November 2010, we were directed to allocate up to $500,000 per year of the Community Energy Partnerships Program budget to education outreach programs. Following a call for funding in 2011, $483,004 was awarded to six applicants representing 14 partner organizations.



**The OPA's Community Energy Partnerships Program helps Boys and Girls Club of London**

The Boys and Girls Club of London, a family community centre that runs educational, recreational and social programming for over 15,000 members, received financial support from the OPA's Community Energy Partnerships Program.

The club has now installed over 500 rooftop solar panels, representing 120 kW of electricity supply. The project will generate reliable revenue while producing clean energy year-round. It will also demonstrate leadership and provide educational opportunities to the 8,000 children who visit the club each year.

# COLLABORATE

## Working together for a sustainable future

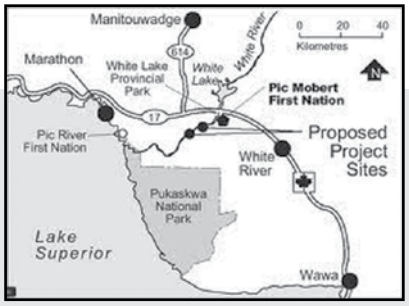
Throughout 2011, we engaged with stakeholders, Aboriginal communities, ratepayers, government and business partners to shape and support the activities that help us to fulfill our mandate.

### Supporting Aboriginal participation in Ontario's electricity system

We continued to support the participation of Aboriginal communities in renewable energy and conservation programs in 2011 through relationship building, and targeted initiatives, such as the Aboriginal Energy Partnerships Program, which provides funding directly to First Nations and Métis communities for renewable energy projects and community energy plans. We also consulted with more than 90 First Nations and Métis communities across the province on the development of the province's second integrated power system plan through regional and community meetings.

We substantially completed a report to be shared with the Aboriginal communities that participated in the consultation process and are working with the Ministry of Energy to finalize the report.

We also conducted analysis and worked to develop a business case with the Northwest Ontario First Nation Transmission Planning Committee to determine the feasibility of connecting the remote communities north of Pickle Lake and Red Lake in northwestern Ontario to the provincial electricity grid. The committee includes members representing the remote communities. This work identified 20 remote First Nation communities as economically feasible to connect and we are now working with the committee to develop connection options.




### Gitchi Project in Northern Ontario

Pic Mobert First Nation is developing the Gitchi Hydroelectric Project along the White River in Northern Ontario. Gitchi Animki means "Big Thunder" and consists of two facilities: Gitchi Animki Bezhig (Big Thunder One) which is 8.9 MW in size and Gitchi Animki Niizh (Big Thunder Two) which is 10 MW. The community has been awarded $500,000 for each project under the OPA's Aboriginal Renewable Energy Fund. In addition to generating clean, renewable energy, the Gitchi Animki Bezhig site will replace an existing Ministry of Natural Resources' regulating dam that manages lake levels on White Lake, which is home to the Pic Mobert First Nation, White Lake Provincial Park and many cottages.

Each facility has a separate power purchase contract through the OPA's FIT Program. These 40-year contracts will be a revenue source for Pic Mobert First Nation, once the projects are constructed and connected to the grid.

**"Our progress and ultimate success in developing this project has and will bring new hope and optimism to our People", says Chief Johanna Desmoulin. "We couldn't have made it this far without the vision and support of numerous successive Chiefs and Councils and funding support from Ontario and Canada."**



# COLLABORATE

We engaged stakeholders in all of our key initiatives, including planning for procurements for renewable and clean energy, the FIT program reviews, conservation initiatives and the integrated power system plan. We held a total of **80 events** involving **8,366 participants** in 2011.

### Habitat for Humanity – building energy-efficient homes

The OPA has supported Habitat for Humanity since 2007 with financial and in-kind assistance to build affordable, energy-efficient homes. Since that time, we've helped Habitat's Toronto affiliate build Habitat's first official ENERGY STAR® residential building in Canada and supported Habitat's first Green House® certified homes at 1500 Weston Road, equipped with rooftop solar panels.

In 2011, 46 OPA volunteers took part in Habitat for Humanity builds, including the Toronto Women Build in the spring, which also contributed substantially to the $200,000 fundraising goal.

**OPA donations were used to purchase energy saving products and appliances that can make a home 20 to 30 percent more efficient than a standard home.**

### Engaging with our stakeholders

We continued to focus on strengthening community and stakeholder relations in 2011 by proactively and consistently delivering high-quality stakeholder outreach and engagement activities. We are enhancing two-way communications with stakeholders through improvements to our website and we've added a conservation advisory council that will complement our other stakeholder efforts.

2011 Canada's Greenest Employers

**We were selected as one of Canada's Greenest Employers in 2011, as Smart Commute Toronto-Central's 2011 Employer of the Year, and as one of Greater Toronto's Top 90 Employers for a second year in a row.**

Greater Toronto's Top Employers 2012

### Social and environmental responsibility

Through the efforts of our employees, we've continued to improve on our internal environmental performance in areas such as energy use, recycling and waste disposal, resource procurement, transportation, and staff engagement – and we've received local and national recognition for our efforts. We continued our participation in the World Wildlife Fund of Canada's Living Planet@ Work program.

Also with the support and participation of our employees, we remained committed to supporting a number of charitable organizations, including Habitat for Humanity, United Way and the Daily Bread Food Bank.

MANAGEMENT

# DISCUSSION & ANALYSIS

The following is a discussion of the operating results of the Ontario Power Authority (OPA) for the year ended December 31, 2011. Further details can be found in the detailed financial statements and notes.



**2011 financial highlights:**

- **In 2011, the OPA reduced total operating costs by 4 percent from 2010.**
- **Worked to maintain cost containment initiatives while managing a significant increase in conservation and generation program-related activities**
- **Growth in electricity generated under OPA contracts has led to increased generation charges year-over-year.**
- **New province-wide conservation programs were launched to help meet provincial conservation targets.**
- **The OPA worked to diligently and effectively implement legislated programs within short timelines. Consistent with the OPA's own internal audit findings, the Auditor General did not find any significant issues with the administration of the FIT program.**
- **Target to reduce regular OPA full-time equivalent staffing levels by five percent by 2013.**

- The OPA incurs expenses to achieve its mandate. These expenses include wages, professional expenses, leases and other general operating expenses that are incurred to manage and support long-term system planning, electricity generation and provincial conservation programs.
- The OPA incurs charges related to conservation programs to meet Ontario's conservation targets for electricity savings, as well as charges related to generation contracts to provide an adequate, reliable and sustainable electricity supply to the province. These charges are reflected in the global adjustment mechanism (GAM) and are discussed later in this report.

## Financial performance

### Revenue

**Reduced revenue commensurate with lower operating expenses.**

The OPA has three different sources of revenue that are used to fund its expenses:

a) *Fees:* an Ontario Energy Board (OEB)-approved rate charged to Ontario electricity consumers on a consumption basis. Revenue resulting from this consumer fee is established to recover the OPA's operating budget. The fee and its components are reviewed and approved by the OEB through a regulatory proceeding. In 2011, total revenue decreased slightly to $76.3 million from $76.8 million in 2010.

b) *Registration fees:* an administrative charge on OPA procurements. 2011 registration fees are $2.9 million lower than in 2010.

c) *Other revenue:* interest and miscellaneous income.

| OPA Revenue (in millions) | 2011 | 2010 | Change |
|---|---|---|---|
| Fee revenue | $ 62.1 | $ 62.4 | – $ 0.3 |
| Recovery of other financial accounts | $ 14.2 | $ 14.4 | – $ 0.2 |
| Registration fees | $ 0.3 | $ 3.2 | – $ 2.9 |
| Other | $ 1.7 | $ 0.5 | $ 1.2 |
| **Total** | **$ 78.3** | **$ 80.5** | **– $ 2.2** |

### Operating costs:

**Continue to lower costs through flexibility in staffing, reduced reliance on external professional services and ongoing efficiencies.**

Expense items are captured in the following categories: compensation and benefits, professional fees, general operating costs, and other costs. Significant elements within other costs include conservation and technology fund disbursements, as well as amortization of capital assets. In 2011, total operating expenses of $76.4 million (including $14.2 million in amortization of other financial accounts) declined by four percent from 2010. This decrease was due to a reduction in professional fees and costs related to the Technology Development Fund. In 2011, the OPA complied with procurement, travel, meal and hospitality expense directives issued by the provincial government, the *Public Sector Compensation Restraint to Protect Services Act, 2010,* and all other government policies.

- *Compensation and Benefits:* total expenses of $31.6 million increased $1.4 million from 2010. Higher expenses reflect an increase in temporary staffing in 2011 to manage unexpected FIT-related demand and other short term work.
- *Professional Fees:* total 2011 expenses of $14.9 million declined by $4.1 million or 21.6 percent from 2010. This decrease reflects a greater reliance on internal staffing resources in 2011.
- *General Operating Costs:* total expenses of $10.6 million are $0.4 million higher than 2010 expenses. This is mainly due to additional expenses to support the OPA's conservation program management system. These higher expenses were partially offset by lower travel and marketing expenses.
- *Other Costs:* other costs totaling $5.1 million in 2011 are $0.7 million lower than in 2010. Higher depreciation expenses were offset by lower Conservation Fund expenses. The fund's disbursements were lower in the current year due to more time spent to realign the fund's investment priorities and long-term plans for conservation. In 2011, the Technology Fund was merged with the Conservation Fund. Expenses under the new, combined Conservation Fund were treated as charges for projects approved in 2011, resulting in a decrease in fund expenses compared to 2010.

**In February 2011, the Minister issued a new supply-mix directive that further increased the renewable energy target to 19,700 MW, but stipulated that it be achieved seven years earlier than the date set in the 2006 directive. In order to achieve these aggressive new targets, both the Ministry and the OPA expeditiously implemented the actions the Minister requested in his ministerial directives. (Auditor General Report, December 2011, p. 97)**

| OPA Operating Costs (in millions) | 2011 | % of Total $ | 2010 | % of Total $ | Change |
|---|---|---|---|---|---|
| Compensation and benefits | $31.6 | 51% | $30.2 | 46% | $1.4 |
| Professional fees | 14.9 | 24% | 19.0 | 29% | – 4.1 |
| Conservation and technology funds | 1.9 | 3% | 3.6 | 6% | – 1.7 |
| General operating costs | 10.5 | 17% | 10.2 | 16% | 0.3 |
| Amortization of capital assets | 3.3 | 5% | 2.2 | 3% | 1.1 |
| **Sub-total Operating Expenses** | **$62.2** | **100%** | **$65.2** | **100%** | **– $3.0** |
| Amortization of other financial accounts | 14.3 | | 14.4 | | – 0.1 |
| **Total Operating Costs** | **$76.5** | | **$79.6** | | **– $3.1** |

**Figure 1:**

**2011 and 2010 Operating Expenses by Expense Category**

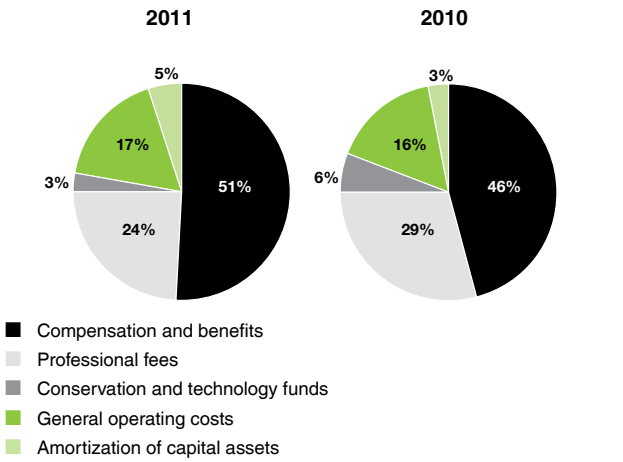
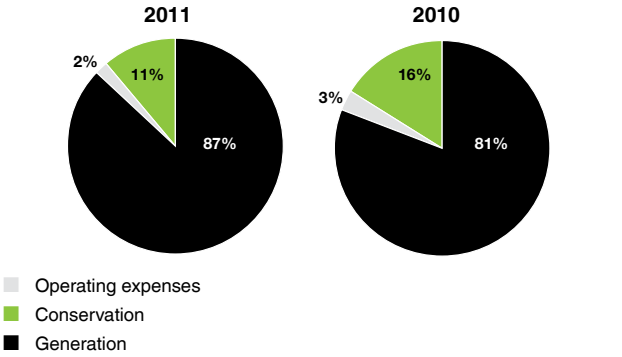



**Figure 2:**

**2011 and 2010 Operating Expenses and Program Costs and Electricity Resource Charges (in millions)**




## Program Spending:

**Program spending, also known as "charges", consists of payments to suppliers and participants in the OPA's conservation and generation initiatives, and is reflected in GAM.**

In the face of a significant increase in program activities and corresponding program spending, the OPA was able to decrease its operating costs for the year. Generation program spending is higher primarily for two reasons: an increase in number of contracts achieving commercial operation, and the "top up" in contract payments which increase as the value of Hourly Ontario Energy Price (HOEP) decreases, as it did in 2011. Conservation-related program spending provided financial assistance toward meeting or exceeding the provincial conservation targets.

### 2011 versus 2010 Operating Expenses and Program Costs

| OPA Expenses and Program Costs (in millions) | 2011 | 2010 | Change |
|---|---|---|---|
| Operating expenses | $ 62.2 | $ 65.2 | $ – 3.0 |
| Conservation programs | 317.8 | 321.6 | – 3.8 |
| Generation programs | 2,561.2 | 1,678.4 | 882.8 |

Electricity supply contracts include nuclear, clean and renewable generation facilities. Generation charges account for new resources coming into operation and for differences between HOEP and the rates paid to contracted generators for electricity in Ontario. In 2011, total electricity generation charges increased 53 percent over 2010 (Figure 2). The lower HOEP contributed the majority of the increase in generation charges as the value of HOEP declined (from $37.49 to $30.89) in 2011.

The slight decrease in conservation program spending reflects the transition from pre-2011 conservation programs to the new 2011 to 2014 conservation program suite. The OPA will continue to develop, implement and manage a robust portfolio of conservation programs while integrating its evaluation, measurement and verification system to track overall progress in meeting Ontario's conservation targets.

## Global Adjustment Mechanism

GAM accounts for differences between HOEP and the rates paid to regulated and contracted generators for electricity in Ontario. It also includes amounts paid for conservation and demand management programs, as well as green energy initiatives. As a result, elements of GAM may be positive or negative, depending on the fluctuation of prices in the wholesale electricity market. GAM applies to business customers who pay the spot market price and customers who have signed a contract with a licensed electricity retailer. For customers who subscribe to the Regulated Price Plan (RPP), it is factored into the rate set by the OEB.

The global adjustment reflects the difference between the market price and:

- regulated rates paid to Ontario Power Generation's (OPG's) nuclear and hydroelectric baseload generating stations
- payments made to suppliers that have been awarded contracts through the OPA, such as new gas-fired facilities, renewable facilities (e.g., FIT and microFIT program projects) and demand response programs
- contracted rates administered by the Ontario Electricity Financial Corporation (OEFC) paid to existing generators.

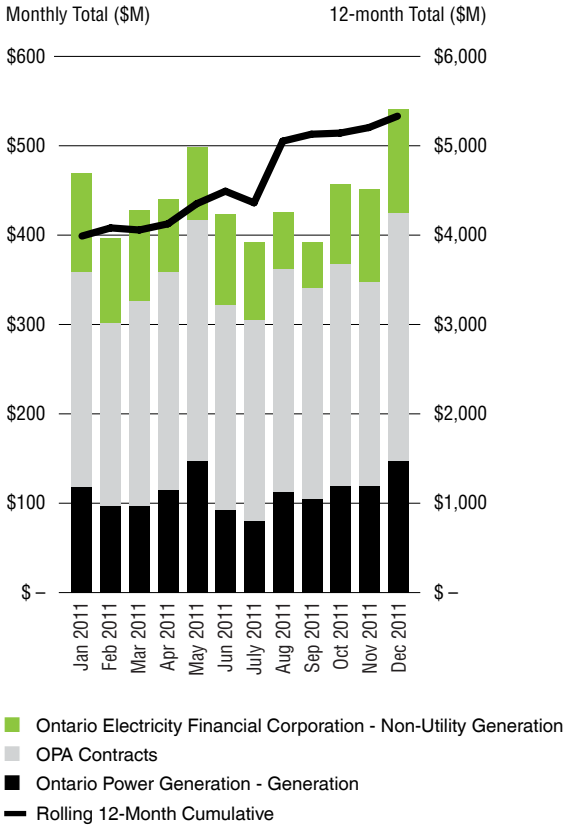
### Accounting for the Global Adjustment Mechanism

The OPA has a legislated responsibility to record transactions that flow through GAM. To meet this requirement, the OPA records the cash flows related to procurement contracts held, managed or under its responsibility. The account is settled monthly; however, the settlement process for OPA contracts requires an estimate of the balance owing to suppliers at each month end. This estimate is filed with the IESO at the end of each month and received by the OPA in the following month to settle electricity payments to contractors. Any variances between the actual amounts paid and estimated amounts payable are included in the following month's settlement. At December 31, 2011, a balance of $326 million existed in relation to amounts receivable from the IESO to fund electricity payments.

Figure 3 highlights OPA cash flows from GAM for the 12-month period ending December 31, 2011. The rolling 12-month trend line reflects the average monthly global adjustment cash flows for the prior 12-month period. This is compared to the global adjustment cash flows for each month. The global adjustment increases and decreases in response to changes in spot market prices. When the spot market price of electricity is lower, the global adjustment is higher to cover the additional payments for energy contracts and other regulated generation. GAM also increases as new projects come into service and contract payments take effect. The trend line in Figure 3 is lower at the beginning of 2011 and increases toward the end of the year due to higher global adjustment cash flows from August to December 2011.

**Figure 3:**

**OPA Cash Flows from the Global Adjustment Mechanism**



## Executive Compensation Plan

### Program Objectives

The OPA executive compensation program is an integrated program for all executive staff. It is designed to attract, retain and motivate the calibre of executives required to support the achievement of the OPA's statutory mandate, corporate vision and business objectives. Accordingly, the compensation philosophy and program have the following objectives:

- to focus executives on meeting the OPA's business objectives
- to attract qualified and talented executive staff needed to carry out the OPA's mandate
- to retain valued executive staff
- to provide flexibility to differentiate total compensation for specific executives based on individual results and demonstrated competencies
- to establish compensation levels that are responsible and defensible to stakeholders.

The philosophy underlying these objectives is that the total compensation for executive management should be sufficient, but not more than required, to attract the skills and competencies needed to carry out the OPA's mandate.

### Program Governance

The Board of Directors establishes the objectives for the compensation program. It delegates to the Human Resources Committee of the Board of Directors the responsibility to review thoroughly the compensation objectives, policies and programs and make recommendations concerning them to the full Board of Directors for approval. In carrying out their mandate, members of the Board of Directors have access to management's perspectives as well as those of expert consultants in the compensation field. The program is reviewed at least annually in terms of business needs, program objectives and design, industry compensation trends, internal compensation relativities and external market relativities.

In addition to the formal governance and oversight structure in place for compensation matters, the OPA annually discloses compensation levels for staff earning above $100,000 as part of its public sector salary disclosure under the *Public Sector Salary Disclosure Act (Ontario)*. For the OPA, a further level of public review and assurance is provided through a statutorily required annual fee review by the OEB. Compensation matters, including management compensation and market relativities, are addressed during this review. A broad range of stakeholder groups, assisted by their legal and professional advisors, are represented in these public proceedings. The OPA is also responsive to various requests for information by the Ministry of Energy in relation to compensation matters. These include enquiries with respect to the Agency Review Panel's 2007 review and report on senior management compensation for agencies in Ontario's electricity sector.

**Executive Compensation Statement**

Compensation decisions may at times be affected by market factors, such as the recruitment of an executive with specialized skills and competencies or possessing unique talents in the industry. These decisions are also influenced by social, economic, legal and political factors, such as prevailing financial and employment conditions, government fiscal considerations, legislation governing compensation and societal perceptions of public sector compensation.

For the fifth consecutive year, the OPA's Board of Directors approved a freeze on the subsequent year's (i.e., 2008, 2009, 2010, 2011 and 2012) salary structure for executives. In freezing the executive's salary structure for 2012, the OPA's Board took into consideration many of the above social, economic and legal factors, including compliance with Bill 16, *Public Sector Compensation Restraint to Protect Public Services Act.*

The following table sets out the annual compensation for the year ended December 31, 2011, for the listed executive officers. The total cash compensation information provided below matches the information published under the *Public Sector Salary Disclosure Act (Ontario)* for the indicated period.

**Summary of Executive Compensation[1]**

| Name, Position Title | Year | Salary Paid | Taxable Benefits | Amounts Reportable Under Public Sector Salary Disclosure Act[2] |
|---|---|---|---|---|
| Colin Andersen, | 2011 | $573,027 | $871 | $573,898 |
| Chief Executive Officer | 2010 | $573,027 | $807 | $573,834 |
| Kimberly Marshall, | 2011 | $254,952 | $799 | $255,751 |
| Vice-President, Business Strategies and Solutions (CFO) | 2010 | $249,249 | $807 | $250,056 |
| Amir Shalaby, | 2011 | $449,939 | $878 | $450,817 |
| Vice-President, Power System Planning | 2010 | $450,968 | $886 | $451,854 |
| Andrew Pride[3], | 2011 | $316,970 | $886 | $317,856 |
| Vice-President, Conservation | 2010 | $ 99,038[4] | $133 | $ 99,171 |
| JoAnne Butler, | 2011 | $371,924 | $878 | $372,802 |
| Vice-President, Electricity Resources | 2010 | $372,609 | $886 | $373,495 |

[1] Executives are listed in the following order:
Chief executive officer, chief financial officer, then in alphabetical order by first name.

[2] Total T4 income, including taxable benefits.

[3] 2011 is the first full year in which Mr. Andrew Pride's compensation is included in the executive compensation plan section of the OPA's annual report and is the first year in which he has received a full year's compensation, since his effective hire date in late 2010.

[4] Hired, effective November 1, 2010.

# FINANCIAL STATEMENTS OF ONTARIO POWER AUTHORITY

for the year ended December 31, 2011

## INDEPENDENT AUDITORS' REPORT

To the Board of Directors of Ontario Power Authority

We have audited the accompanying financial statements of Ontario Power Authority, which comprise the statement of financial position as at December 31, 2011, the statements of operations, changes in net assets and cash flows for the year then ended, and notes, comprising a summary of significant accounting policies and other explanatory information.

### Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with Canadian generally accepted accounting principles, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

### Auditors' Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with Canadian generally accepted auditing standards. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on our judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, we consider internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

### Opinion

In our opinion, the financial statements present fairly, in all material respects, the financial position of Ontario Power Authority as at December 31, 2011, and its results of operations and its cash flows for the year then ended in accordance with Canadian generally accepted accounting principles.

KPMG LLP

Chartered Accountants, Licensed Public Accountants

February 15, 2012
Toronto, Canada

# STATEMENT OF FINANCIAL POSITION

(in thousands of dollars)

Year ended December 31, 2011, with comparative figures for 2010

| ASSETS | 2011 | 2010 |
|---|---|---|
| Current assets: | | |
| Cash and cash equivalents | $ 229,827 | $ 97,263 |
| Accounts receivable (note 3) | 416,102 | 289,123 |
| Prepaid expenses | 300 | 86 |
| | **646,229** | **386,472** |
| Capital assets (note 4) | 10,378 | 11,236 |
| Other financial assets (note 5) | – | 15,689 |
| **Total Assets** | **$ 656,607** | **$ 413,397** |

| LIABILITIES AND NET ASSETS | | |
|---|---|---|
| Current liabilities: | | |
| Accounts payable and accrued liabilities (note 6) | $ 321,995 | $ 296,254 |
| Operating loan (note 13) | 256,368 | – |
| Contract deposits (note 7) | 52,128 | 67,571 |
| Other liabilities | 83 | 68 |
| | **630,574** | **363,893** |
| Deferred rent inducement, net (note 8) | 547 | 691 |
| Other financial liabilities (note 5) | 25,788 | 49,966 |
| Net assets: | | |
| Internally Restricted Conservation Funds (note 9) | 10,667 | 12,581 |
| Invested in capital assets | 10,378 | 11,236 |
| Accumulated operating deficit | (21,347) | (24,970) |
| | **(302)** | **(1,153)** |
| Commitments (note 8) | | |
| Contingencies and guarantees (note 14) | | |
| **Total Liabilities and Net Assets** | **$ 656,607** | **$ 413,397** |

See accompanying notes to financial statements

On behalf of the Board of Directors:

James D. Hinds
Chair

Colin Andersen
Chief Executive Officer

# STATEMENT OF OPERATIONS

(in thousands of dollars)

Year ended December 31, 2011, with comparative figures for 2010

| | 2011 | 2010 |
|---|---|---|
| **Revenue:** | | |
| Fees | $ 62,121 | $ 62,407 |
| Recovery of other financial accounts (note 5) | 14,267 | 14,423 |
| Registration fees | 254 | 3,249 |
| Interest | 1,657 | 451 |
| Other | 17 | 18 |
| | **78,316** | **80,548** |
| **Expenses:** | | |
| Compensation and benefits | 31,610 | 30,153 |
| Professional fees | 14,903 | 18,981 |
| Amortization of other financial accounts (note 5) | 14,267 | 14,423 |
| General operating (note 10) | 10,595 | 10,240 |
| Conservation Funds (note 9) | 1,914 | 3,590 |
| Amortization of capital assets | 3,155 | 2,229 |
| | **76,444** | **79,616** |
| Excess of revenue over expenses before interest expense | 1,872 | 932 |
| Interest expense | 1,021 | 453 |
| **Excess of revenue over expenses** | **$ 851** | **$ 479** |

See accompanying notes to financial statements

# STATEMENT OF CHANGES IN NET ASSETS

(in thousands of dollars)

Year ended December 31, 2011, with comparative figures for 2010

| | Invested in Capital Assets | Internally Restricted (see note 9) | Accumulated Operating Deficit | Total Net Assets 2011 | Total Net Assets 2010 |
|---|---|---|---|---|---|
| **Balance, beginning of year** | $ 11,236 | $ 12,581 | $ (24,970) | $ (1,153) | $ (1,632) |
| Excess (deficiency) of revenue over expenses | (3,155) | – | 4,006 | 851 | 479 |
| Conservation Funds expenses | – | (1,914) | 1,914 | – | – |
| Purchase of capital assets (net) | 2,297 | – | (2,297) | – | – |
| **Balance, end of year** | **$ 10,378** | **$ 10,667** | **$ (21,347)** | **$ (302)** | **$ (1,153)** |

See accompanying notes to financial statements

# STATEMENT OF CASH FLOWS

(in thousands of dollars)

Year ended December 31, 2011, with comparative figures for 2010

| | 2011 | 2010 |
|---|---|---|
| **Cash Flows from (used in) Operating Activities:** | | |
| Excess of revenue over expenses | $ 851 | $ 479 |
| Items not involving cash: | | |
| Amortization of capital assets | 3,155 | 2,229 |
| Amortization of deferred rent inducement | (144) | (145) |
| Amortization of other financial accounts | 14,267 | 14,423 |
| Change in non-cash operating items (note 12) | (116,895) | 30,591 |
| | (98,766) | 47,577 |
| **Cash Flows from (used in) Financing Activities:** | | |
| Received for other liabilities | 15 | 68 |
| Increase in operating loan | 256,368 | – |
| Increase in other financial assets | 1,422 | (436) |
| Increase (decrease) in other financial liabilities | (24,178) | 35,877 |
| | 233,627 | 35,509 |
| **Cash Flows used in Investing Activities:** | | |
| Purchase of capital assets | (2,297) | (5,755) |
| **Increase in cash and cash equivalents** | 132,564 | 77,331 |
| Cash and cash equivalents, beginning of year | 97,263 | 19,932 |
| **Cash and cash equivalents, end of year** | **$ 229,827** | **$ 97,263** |

| Supplemental cash flows information: | 2011 | 2010 |
|---|---|---|
| Interest paid | $ 1,238 | $ 885 |
| Interest received | 2,003 | 1,104 |

See accompanying notes to financial statements

# NOTES TO THE FINANCIAL STATEMENTS

(in thousands of dollars)
Year ended December 31, 2011, with comparative figures for 2010

## 1. Nature of operations:

The Electricity Restructuring Act, 2004 (the Act), established the Ontario Power Authority (OPA) as a non-share corporation on December 20, 2004. The OPA is an independent non-profit, non-taxable corporation. The OPA is not a Crown agent and recovers its costs through fees approved by the Ontario Energy Board (OEB) and through charges to the electricity market through the global adjustment mechanism. In accordance with the Act, the OPA's main objectives are:

- to forecast electricity demand and the adequacy and reliability of electricity resources for Ontario for the medium and long term;
- to conduct independent planning for electricity generation, demand management, conservation and transmission, and develop integrated power system plans for Ontario;
- to engage in activities in support of the goal of ensuring adequate, reliable and secure electricity supply and resources in Ontario;
- to engage in activities to facilitate the diversification of sources of electricity supply by promoting the use of cleaner energy sources and technologies, including alternative energy sources and renewable energy sources;
- to establish system-wide goals for electricity to be produced from alternative energy sources and renewable energy sources;
- to engage in activities that facilitate load management;
- to engage in activities that promote electricity conservation and the efficient use of electricity;
- to assist the OEB by facilitating stability in rates for certain types of customers; and
- to collect and provide to the public and the OEB information relating to medium and long-term electricity needs of Ontario and the adequacy and reliability of the integrated power system to meet those needs.

The OPA's ability to continue as a going concern is dependent upon its ability to obtain financing to support operations. The OPA's creditworthiness is attested by the following:

- the ability of the OPA to meet its obligations is provided for in legislation; and
- the OPA's minimal counterparty risk, given that its principal counterparty is the Independent Electricity System Operator (IESO), a creation of the province and a strong counterparty.

## 2. Significant accounting policies:

### (a) Basis of presentation:

The financial statements have been prepared in accordance with Canadian generally accepted accounting principles.

### (b) Revenue recognition:

Amounts received in the current year that relate to services and programs to be determined in subsequent years are not recognized as revenue and are deferred.

Fees earned by the OPA are based upon OEB-approved rates for electrical energy withdrawn from the IESO-controlled grid by electricity consumers of Ontario. Such revenue is recognized in the year in which it is earned.

### (c) Cash and cash equivalents:

Cash and cash equivalents comprise bank deposit balances, term deposits and other short-term investments with original maturity dates of up to 90 days.

**2. Significant accounting policies (continued):**

**(d) Capital assets:**
Capital assets are recorded at cost and are amortized on a straight-line basis over their estimated service lives, as follows:

| Assets | Estimated Average Service life |
|---|---|
| Furniture and equipment | 10 years |
| Computer hardware | 4 years |
| Computer software | 3 to 5 years |
| Audio-visual equipment | 10 years |
| Telephone system | 5 years |
| Leasehold improvements | Term of lease plus extension option |

Capital assets are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable and exceeds its fair value.

**(e) Employee pension benefits:**
The OPA provides pension benefits to its full-time employees through participation in the Public Service Pension Plan, which is a multi-employer defined benefit pension plan. This plan is accounted for as a defined contribution plan, as the OPA does not have sufficient information to apply defined benefit plan accounting to this pension plan.

The OPA is not responsible for the cost of employee post-retirement, non-pension benefits. These costs are the responsibility of the Ontario Pension Board.

**(f) Measurement uncertainty:**
Uncertainty in determining the amount at which an item is recognized in the financial statements is known as measurement uncertainty. Such uncertainty exists when it is reasonably possible that there could be a material variance between the recognized amount and another reasonably possible amount, as there is whenever estimates are used. Measurements of uncertainty in these financial statements exist in the valuation of the power purchase contracts and the estimated defeasance date for the OPA's obligations. Estimates are based on the best information available at the time of preparation of the financial statements and are updated annually to reflect new information as it becomes available.

The preparation of financial statements requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities and disclosures of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the year. Actual results could differ from those estimates.

**(g) Future Accounting Standards**
Effective January 1, 2012, the OPA will be required to adopt the new accounting standards issued by the Public Sector Accounting Board for government not-for-profit organizations. Government not-for-profit organizations have the option of applying the Public Sector Accounting Handbook supplemented by the Section 4200 series. The OPA will adopt the new standards, effective for periods beginning on January 1, 2012. All changes due to the new standards will be applied retrospectively.

NOTES TO FINANCIAL STATEMENTS

(in thousands of dollars)

Year ended December 31, 2011, with comparative figures for 2010

### 3. Accounts receivable:

| | 2011 | 2010 |
|---|---|---|
| Receivable from IESO (note 13) | $ 326,049 | $ 187,789 |
| Conservation charges | 87,077 | 98,059 |
| Renewable energy fund charges | 2,156 | 1,126 |
| Other | 820 | 1,232 |
| HST/GST receivable | – | 917 |
| | **$ 416,102** | **$ 289,123** |

### 4. Capital assets:

| | Cost | Accumulated amortization | 2011 Net book value | 2010 Net book value |
|---|---|---|---|---|
| Furniture and equipment | $ 3,360 | $ 1,543 | $ 1,817 | $ 2,059 |
| Computer hardware | 4,697 | 4,076 | 621 | 1,330 |
| Computer software | 6,966 | 2,325 | 4,641 | 4,086 |
| Audio-visual equipment | 229 | 127 | 102 | 125 |
| Telephone system | 382 | 284 | 98 | 143 |
| Leasehold improvements | 5,075 | 1,976 | 3,099 | 3,493 |
| | **$ 20,709** | **$ 10,331** | **$ 10,378** | **$ 11,236** |

### 5. Other financial assets and liabilities:

Other financial assets and liabilities arise as a result of the Electricity Act, 1998 and the regulations there under and are reflected by the balances in the Regulated Price Plan (RPP), retailer contract settlement deferral accounts, government procurement deferral account and the global adjustment account. In the absence of rate-regulated accounting, these amounts would have flowed through the statement of operations when incurred.

| | 2011 | 2010 |
|---|---|---|
| Other financial assets | $ – | $ 15,689 |
| Other financial liabilities | (25,788) | (49,966) |

## 5. Other financial assets and liabilities (continued):

### RPP variance accounts

While prices for RPP consumers are set every six months by the OEB based upon a forecast of the cost of power over the next year, it is likely that there will be a difference between the actual and forecast cost of supplying electricity to all RPP consumers. When the hourly Ontario energy price (HOEP) is greater than the RPP, the OPA pays the excess amount and records a financial asset as the electricity market funds paid are receivable from the market. When the HOEP is less than the RPP, the OPA receives the difference and records a financial liability as the funds received will be returned to the market. The OPA tracks this variance in the RPP variance account. The Ontario Power Generation (OPG) rebate is equivalent to the difference between the revenue limit for specific OPG generating facilities and the revenue OPG actually received in the IESO wholesale spot market for that generation.

| | 2011 | 2010 |
|---|---|---|
| OPG rebate contribution | $ (602,750) | $ (599,107) |
| Total RPP variance before interest | 562,467 | 534,311 |
| Interest earned | 14,495 | 14,830 |
| | $ (25,788) | $ (49,966) |

### Retailer contract settlement deferral accounts

Legislative provisions ensure that electricity retailers will be made whole by the OPA for contracts with low-volume and designated consumers that were entered into before prices were frozen by legislation effective November 11, 2002. The OPA and retailers settling any differences between the HOEP and the contract price for each contract meet these provisions. When HOEP is greater than the contract price, the OPA receives payments from the retailers and records a financial liability. When HOEP is less than the contract price, the OPA pays the retailer and records a financial asset. The OPA tracks these variances in the retailer contract settlement deferral accounts.

The retailer contract discount settlement account captures the funds related to the retailer incentives existing at the creation of the RPP. The retailer incentives captured are held in a separate deferral account for settlement concurrent with the retailer settlement deferral accounts.

As the contracts to which the retailer settlement accounts relate have now largely expired, it is appropriate to begin disposing of the balances in these accounts. To mitigate ratepayer impact, the OPA will recover the accumulated balance of total retailer contract settlements over a three-year period from 2009 - 2011. The OPA began amortizing the accumulated balance in 2009 on a straight-line basis over the three-year recovery period. The amortization expense for 2011 is $14,267 (2010 - $14,423).

| | 2011 | 2010 |
|---|---|---|
| 2005 retailer contract settlement account | $ – | $ (13,627) |
| 2006 retailer contract settlement account | – | 18,004 |
| 2007 retailer contract settlement account | – | 12,401 |
| 2008 retailer contract settlement account | – | 45 |
| 2009 retailer contract settlement account | – | 191 |
| 2010 retailer contract settlement account | – | 359 |
| 2011 retailer contract settlement account | – | – |
| Retailer contract discount settlement account | – | (1,684) |
| | **$ –** | **$ 15,689** |

## 5. Other financial assets and liabilities (continued):

### Government procurement deferral account

The OPA reimburses the government for costs incurred for electricity procurement and records the costs as a financial asset. Any subsequent balances will be included in future revenue requirement submissions. The OPA began amortizing the government procurement costs in 2009 on a straight-line basis, with amortization for 2011 totalling $nil (2010 - $99).

### Global adjustment account

The OPA has a legislated responsibility to record the transactions flowing through the global adjustment mechanism. The global adjustment and settlement accounts have been created for this purpose. The nature of the global adjustment transactions results in a zero balance in the account on a monthly basis. The information and explanation below provide transparency for the transactions flowing through the global adjustment mechanism.

The global adjustment and settlement accounts record charges that flow between the OPA and the IESO. The account flows include the amounts paid and received for: Demand Response 2 (DR2), Demand Response 3 (DR3), non-utility generation (NUG), regulated nuclear generation balancing amount (nuclear) and regulated hydro electric generation balancing amount (hydro). These accounts are settled simultaneously by the IESO. The account also records the amounts paid and received for OPA contracts (standard offer, generation and conservation/demand management, Feed-In Tariff and hydroelectric contract initiatives) which the OPA settles on a monthly basis with the IESO.

The DR3, NUG, nuclear, hydro, and OPA contract balances are offset in the global adjustment account eliminating the need for a flow of funds between the IESO and the OPA. The OPA records the effect of the transactions to meet its legislated responsibility.

The OPA generation contracts are estimated each month and settled on the actual amount owing in the following month. This gives rise to timing differences. The settlement dates can cross calendar months, creating a monthly balance in the account. Differences created from timing or settlement dates are re-classified into accounts receivable at month end. The net impact of global adjustment transactions creates a zero balance in the account at every month end.

| | 2011 | 2010 |
|---|---|---|
| DR2 | $ 22,760 | $ 12,448 |
| DR3 | 36,279 | 17,536 |
| NUG | 1,082,964 | 959,670 |
| Nuclear | 1,262,051 | 882,214 |
| Hydro | 84,692 | 7,146 |
| OPA Contracts | 2,820,966 | 1,969,859 |
| Global adjustment balancing amount | (5,309,712) | (3,848,873) |
| | **$ –** | **$ –** |

### 6. Accounts payable and accrued liabilities:

| | 2011 | 2010 |
|---|---|---|
| Accrued contract settlements | $ (12,942) | $ (189,002) |
| HST payable | (128) | – |
| Other accrued liabilities | (308,925) | (107,252) |
| | **$ (321,995)** | **$ (296,254)** |

### 7. Contract deposits:

The OPA receives performance security in the form of deposit amounts received from renewable energy supply, Feed-In Tariff (FIT) Program and demand response suppliers. For suppliers engaged in a contract which involves the construction of a new supply facility, the deposits are larger during the construction phase and are reduced once a project commences commercial operations. Deposits related to the FIT Program are submitted to the OPA with the supplier application and can be returned if one of the following occurs: (a) the supplier withdraws their application from the Program; (b) the supplier obtains a contract with the OPA; or (c) the supplier's application is rejected by the OPA.

The deposits are classified as current liabilities as they can be replaced by a letter of credit by the supplier on request.

### 8. Deferred rent inducement and operating lease commitments:

The OPA has entered into various long-term lease commitments for office space, which include lease inducements. Deferred rent inducement represents the benefit of operating lease inducements amortized on a straight-line basis over the term of the lease. The OPA obtained an allowance for leasehold improvements of $1,430. As at December 31, 2011, the deferred rent inducement, net of amortization, was $547 (2010 - $691).

The OPA reports an average rental cost for premises over the term of the lease agreement and amortizes the benefit of the lease inducements over the same period. As at December 31, 2011, the accrued liability was $250 (2010 - $321).

Lease commitments for premises are set to terminate by October 2015. Lease commitments include amounts for leased computer hardware. Computer hardware commitments terminate between 2012-2013. The minimum annual payments under the operating lease are approximated as follows:

| Lease Commitments | |
|---|---|
| 2012 | $ 1,678 |
| 2013 | 1,652 |
| 2014 | 1,650 |
| 2015 | 1,294 |
| | **$ 6,274** |

### 9. Internally restricted conservation funds:

The OPA established the Conservation Fund to support electricity conservation projects. The Technology Development Fund was established to aid the development of new technology to improve electricity supply or conservation. To date, 11 funds have been set up as depicted in the table below:

| | Restricted Fund | Expensed 2011 | Expensed Prior Years | Balance 2011 |
|---|---|---|---|---|
| 2005 Conservation Fund | $ 1,100 | $ – | $ 837 | $ 263 |
| 2006 Conservation Fund | 1,500 | – | 1,575 | (75) |
| 2007 Conservation Fund | 3,000 | – | 2,674 | 326 |
| 2008 Conservation Fund | 3,000 | 277 | 2,575 | 148 |
| 2009 Conservation Fund | 3,000 | 747 | 1,675 | 578 |
| 2010 Conservation Fund | 5,000 | 44 | 131 | 4,825 |
| 2006 Technology Development Fund | 1,000 | – | 487 | 513 |
| 2007 Technology Development Fund | 1,000 | (3) | 650 | 353 |
| 2008 Technology Development Fund | 1,500 | 156 | 1,537 | (193) |
| 2009 Technology Development Fund | 1,500 | 139 | 1,114 | 247 |
| 2010 Technology Development Fund | 4,500 | 554 | 264 | 3,682 |
| | **$ 26,100** | **$ 1,914** | **$ 13,519** | **$ 10,667** |

### 10. General operating costs:

| | 2011 | 2010 |
|---|---|---|
| General program costs | $ 4,118 | $ 4,799 |
| Premises | 3,616 | 3,447 |
| Information technology | 1,839 | 1,046 |
| Office and administration | 1,022 | 948 |
| | **$ 10,595** | **$ 10,240** |

### 11. Pension plan:

The OPA makes contributions to the Public Service Pension Plan, a multi-employer plan, on behalf of staff. The plan is a contributory defined pension plan, which specifies the amount of the retirement benefit to be received by the employees based on the length of service and rates of pay.

Contribution rates by employers are made at a rate of approximately eight percent of earnings. As at December 31, 2011, the OPA paid or accrued contributions totalling $1,937 (2010 - $1,916) during the year.

### 12. Change in non-cash operating items:

| | 2011 | 2010 |
|---|---|---|
| Increase in accounts receivable | $ (126,979) | $ (82,593) |
| Decrease (increase) in prepaid expenses | (214) | 43 |
| Increase in accounts payable and accrued liabilities | 25,741 | 51,359 |
| Increase (decrease) in contract deposits | (15,443) | 31,782 |
| | **$ (116,895)** | **$ 30,591** |

### 13. Related party transactions:

The OPA considers the OEB, Hydro One, the IESO, OPG, Ontario Financing Authority (OFA), and the Ministry of Energy as related parties due to the relationship they maintain with the Government of Ontario. Transactions between these parties and the OPA were as follows:

Under the Ontario Energy Board Act, 1998, the OPA incurs registration and licence fees. Consistent with other registrants, in 2011 the OPA was allocated a portion of the operating costs of the OEB. The total of the OPA's transactions with the OEB was $1,129 in 2011 (2010 - $1,147).

The OPA procures conservation and demand management from Hydro One. The procurement costs include payments for electricity conservation, program operating costs and management fees. In 2011, the OPA procured $39,860 in conservation demand management (2010 - $31,359) from Hydro One and its wholly owned subsidiaries. Amounts receivable from Hydro One in 2011 were $742 (2010 - $742).

The OPA receives its fee revenue from the IESO. The fee revenue is approved by the OEB and collected each month by the IESO from ratepayers through a usage rate applied to Ontario domestic electricity consumption. Fee revenue for 2011 was $76,388 (2010 - $76,830). In addition, the OPA and the IESO have agreements set up for the settlement of amounts paid and received for the global adjustment account, RPP, and retailer contract settlement deferral accounts on behalf of various market participants (see note 5). At December 31, 2011, the OPA had a net receivable of $326,049 (2010 - $187,789). The OPA also incurred $844 in 2011 (2010 - $447) for IESO professional services.

The OPA has an agreement with OPG for professional services and planning support. In 2011, the OPA incurred $nil (2010 - $nil) for such services.

The OPA has available a revolving operating facility in the amount of $975,000, provided by the OFA to fund its general operating expenses and support the RPP variance account. The line of credit was renewed in 2010 for a three-year term from January 1, 2011 to December 31, 2013. On December 30, 2011, the OPA obtained a $256,368 operating loan from the OFA, which matures on January 31, 2012. The interest rate for this loan is 1.17 percent. In 2011, the OPA incurred $1,021 (2010 - $453) in interest expenses for the loan.

In the 2008 revenue requirement submission to the OEB, the OPA requested and received an OEB decision to carry the costs related to the government procurements in a deferral account to settle coincidentally with the retail contract settlement deferral accounts. The amount of $nil was incurred in 2011 (2010 - $nil).

## 14. Contingencies and guarantees:

### Contingencies:

In the normal course of its operations, the OPA becomes involved in various legally binding agreements. Some of these agreements contain potential liabilities that may become actual liabilities when one or more future events occur or fail to occur. To the extent that a future event becomes likely to occur or fails to occur, and a reasonable estimate of the loss can be made, an estimated liability will be accrued and the expense recorded on the OPA's financial statements. As at December 31, 2011 in the opinion of management, no such liabilities exist.

(a) In October 2009, the OPA signed a contract with TransCanada Energy Ltd. to design, build and operate over a 20-year term a 900 megawatt gas-fired electricity generating station in Oakville. It was decided in October 2010 not to proceed with this project. Negotiations related to this matter are ongoing. A reasonable estimate of any settlement amount cannot be determined at this time.

(b) Contract conditions related to the construction of a new clean energy facility stipulate that the OPA is contingently liable to repay upgrade costs, up to a maximum of $1,000, as incurred by the energy supplier. While none of these costs has been incurred to date, the OPA is liable to cover such costs over a 20-year period ending in 2025. As at December 31, 2011, management is not aware of any information to suggest that these upgrade costs will be incurred by the supplier.

(c) In April 2005, the OPA signed a contract with Greenfield South Power Corporation ("GSPC") to design, build and operate over a 20-year term a 280 megawatt gas-fired electricity generating station in Mississauga. It was decided in October 2011 to seek to relocate this facility. Negotiations related to this matter are ongoing. A reasonable estimate of the settlement amount cannot be determined at this time.

### Guarantees:

The OPA is contingently liable under a loan guarantee provision in a contract with a maximum potential exposure of $8,600. The outstanding loan balance under this contract, which the OPA has guaranteed, is $20 as at December 31, 2011 and is not presently in default. The contract related to this guarantee expires in September 2012.

## 15. Fair value of financial assets and financial liabilities

The carrying amounts for cash and cash equivalents, accounts receivable, accounts payable and accrued liabilities approximate their fair values because of the short-term maturity of these instruments.

The carrying values of the operating loan approximate their fair values as the terms and conditions for similar types of loan arrangements are comparable to current market conditions for similar items.

The fair values of other financial assets and other financial liabilities are not provided because it would not provide additional useful information as they would be offset and/or would not be practical to determine.

## 16. Capital Disclosures:

Due to the OPA's primary objectives (note 1), the OPA plans for revenues to fund expenses. Any variances that occur are addressed in the following year's revenue requirement submission. As at December 31, 2011, the Minister has not provided formal approval of the OPA's business plan or the OPA's proposed usage fee for 2012.

### 17. Financial risk management:

The OPA is exposed to financial risks in the normal course of its business operations, including market risks resulting from credit risk, liquidity risk and interest rate risk. The nature of the financial risks and the OPA's strategy for managing these risks has not changed significantly from the prior year.

**(a) Credit risk:**

Credit risk refers to the risk that one party to a financial instrument may cause a financial loss for the other party by failing to meet its obligations under the terms of the financial instrument. The OPA is exposed directly to credit risk related from accounts receivable and bank deposits held at the chartered bank. Direct exposure to credit risk is limited to the carrying amount presented for these assets on the statement of financial position. Accounts receivable as of December 31, 2011 included no material items past due.

**(b) Liquidity risk:**

Liquidity risk refers to the risk that the OPA will encounter financial difficulty in meeting obligations associated with its financial liabilities. The OPA manages liquidity risk by forecasting cash flows to identify financing requirements. Cash flows from operations and maintaining appropriate credit facilities reduce liquidity risk.

**(c) Interest rate risk:**

The OPA's operating loan has a variable interest rate based on the Province of Ontario's cost of funds for borrowing, with a similar term as determined by the OFA plus a margin. As a result, the OPA is exposed to interest rate risk due to fluctuations in the Province of Ontario's cost of funds for borrowing with a similar term rate.

# CORPORATE INFORMATION

## Board of Directors

**James D. Hinds, Chair**
Retired from TD Securities Inc., where he was a managing director; Newcrest Capital Inc. and CIBC Wood Gundy Inc.

**Charles Bayless, Director**
Retired Provost, West Virginia University Institute of Technology. (Term expired on August 1, 2011)

**Michael Costello,**
**Director and Chair**
**Audit Committee**
Retired from BC Hydro and BC Transmission Corporation (President and CEO); former chair, Canadian Electricity Association; former chair, Energy Council of Canada; board member, InTransit BC, Vancouver Island Health Authority and BC Health Benefit Trust.

**Richard P. Fitzgerald, Director**
Retired chair, Diageo Canada Inc.

**Adèle M. Hurley, Director**
President, Hurley & Associates Inc. and director, Program on Water Issues, Munk School of Global Affairs, University of Toronto.

**Ronald L. Jamieson,**
**Director and Chair,**
**Human Resources Committee**
Retired from BMO Financial Group, where he was senior vice-president, Aboriginal Banking; director, Nuclear Waste Management Organization and Denendeh Investments Inc.; Chair, Canadian Council for Aboriginal Business.

**Bruce Lourie, Director**
President of Ivey Foundation, a director of Environmental Defence Canada and a director of the Consultative Group on Biological Diversity (San Francisco).

**Lyn McLeod,**
**Director and Vice Chair**
Chair of the Ontario Health Quality Council and Ontario representative on the Health Council of Canada and director of Thunder Bay Institute of Technology. Founding chancellor of the University of Ontario Institute of Technology and past chair of the board of Confederation College in Thunder Bay.

**Patrick J. Monahan, Director**
Vice-president, academic and provost at York University. Former dean of Osgoode Hall Law School and founding chair of the Board of Governors of the Law Commission of Ontario.

**Colin Andersen, Director**
Chief Executive Officer,
Ontario Power Authority

## Corporate Officers

**James Hinds**
Chair

**Colin Andersen**
Chief Executive Officer

**JoAnne Butler**
Vice President, Electricity Resources

**Ben Chin**
Vice President,
Corporate Communications
(Resigned February 4, 2011)

**Kristin Jenkins**
Vice President,
Corporate Communications
(Effective June 22, 2011)

**Michael Lyle**
General Counsel and Vice President, Legal, Aboriginal and Regulatory Affairs

**Kimberly Marshall**
Vice President,
Business Strategies and Solutions

**Andrew Pride**
Vice President, Conservation

**Amir Shalaby**
Vice President,
Power System Planning

**John Zych**
Corporate Secretary

## Corporate Information

For more information on the Board of Directors, including the Board Charter and Code of Conduct, Governance and Structure By-Law, and Board committees, please visit the OPA website, www.powerauthority.on.ca and select About Us; Management, Mandate and Organization; Board of Directors.

## Corporate Contact Information

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ONTARIO POWER AUTHORITY




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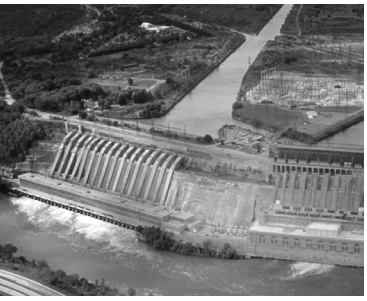
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# 2012 Annual Report

# Innovating for a Sustainable Electricity System

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April 2, 2013

The Honourable Bob Chiarelli
Minister of Energy
900 Bay Street, 4th Floor
Toronto, ON
M7A 2E1

Dear Minister:

I am pleased to submit the Ontario Power Authority's 2012 annual report. The report provides an overview of the OPA's activities and accomplishments during the fiscal year that ended December 31, 2012, and includes the audited financial statements.

Respectfully submitted,



James D. Hinds
Chair
Encl.

# 2012 Annual Report

# Innovating for a Sustainable Electricity System

The Ontario Power Authority fulfills a unique and vital role in Ontario's electricity sector – coordinating province-wide conservation efforts, planning the electricity system for the long term and contracting for clean electricity resources. We work closely with our industry partners and a broad range of stakeholders across the province to carry out these activities.

Together, we are innovating to ensure a sustainable future for Ontario's electricity system through our work to reduce energy use, maintain reliability and establish a clean, modern and cost-effective power grid.

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ONTARIO POWER AUTHORITY

# Message from the Chair and CEO

Ontario has a good story to tell about its electricity system – for many reasons. Our diversified supply mix is one of our strengths. And we continue to make it greener, cleaner and smarter.

Innovation is at the core of this transformation. It drives success, efficiency and cost savings – and it enables us to find smarter and more effective ways of accomplishing our objectives.

Colin Andersen, Chief Executive Officer

James D. Hinds, Chair

Ontario's conservation targets are among the most ambitious in North America – the province's long-term target is a reduction of 7,100 megawatts in peak demand and 28 terawatt-hours in electricity consumption by 2030. That's equivalent to taking one in five households off the grid. Ontario has also set aggressive targets for clean energy that are primarily being met through the first comprehensive feed-in tariff program on the continent – 10,700 megawatts of wind, solar and bio-energy resources and 9,000 megawatts of hydroelectric resources by 2018.

With our sector partners we are helping to build a smarter electricity grid that is creating opportunities for new businesses and innovative products and services. Ontario has nearly completed a full rollout of smart meters with over 4.7 million smart meters installed in homes and businesses across the province and over 4.4 million customers on time-of-use rates. And the province is eliminating coal-fired generation by the end of 2014, which is the biggest climate change initiative in North America. Ontario is the first jurisdiction on the continent to do so. It will reduce the carbon footprint of Ontario's electricity sector by 75 percent.

What's particularly innovative is not just that we are doing these things, but that we are doing all of them at the same time – with success.

The OPA is pursuing innovations in programs, processes and operations to achieve our objectives and deliver on all areas of our mandate more efficiently and cost effectively.

**Innovation in conservation:** The latest verified conservation program results demonstrated that we exceeded our 2011 targets overall – at a program cost to consumers of just three cents per kilowatt-hour, our most cost-effective year ever. This shows that the programs we've been implementing collaboratively with local distribution companies are taking hold and that momentum continues to build.

To maintain this momentum into the future, the Conservation Fund supports innovative electricity conservation initiatives and technologies that can help achieve significant energy savings in Ontario. Funded projects have informed the design and evolution of Ontario's

**saveONenergy** conservation programs. They've also supported efforts to develop and commercialize a wide range of cutting-edge technologies to further energy efficiency and conservation. These programs are helping residents, businesses and institutions to manage their energy use and help build Ontario's culture of conservation.

To help provide informed advice to government, we are also developing a vision for 2020 to guide our conservation efforts over the rest of this decade. Key elements of the vision include: taking a more customer-centric approach, ensuring that customers have relevant and timely information about their consumption and benchmarks for comparison, leveraging the creativity of the marketplace through performance-based conservation products, and engaging the supply chain and influencers to promote conservation through their channels.

**Innovation in planning:** We are innovating the way we plan the power system. Planning is a continuous process that has to respond to ever-changing circumstances. We've identified future growth areas in the province and have been working proactively at the provincial, regional and municipal levels in these areas to more closely integrate electricity and land use planning. The goal is to ensure that future electricity infrastructure needs are better accounted for in official plans.

**Innovation in procuring and managing supply:** As the first comprehensive feed-in tariff (FIT) program in North America, the FIT Program clearly demonstrates Ontario's innovation in procuring renewable energy. This program has successfully met multiple objectives: economic development and job creation, participation by Aboriginal communities, fostering renewable development, and environmental goals – including helping to replace coal-fired generation with clean energy.

Integration of renewable resources into the electricity system will continue to be an important consideration over the next few years, requiring more innovation and collaboration in the sector. With the FIT Program, we are incorporating a larger amount of intermittent resources into an existing system.

The sector has been working collaboratively on a number of initiatives to efficiently integrate these resources. New tools are being developed and implemented to address variability and operability, as well as visibility and predictability.

And we are looking at the potential role for electric vehicles, energy storage in its many forms, and two-way flows of electricity. We believe Ontario is at the forefront of these developments and we continue to monitor advancements in these areas across the globe.

**Delivering ratepayer value:** We are mindful of the economic and fiscal environment within which we operate and are committed to helping Ontario become a world-leading clean energy jurisdiction that will support the economy of tomorrow. In 2012, the OPA and other electricity agencies and crown corporations worked together to identify efficiencies and cost reductions aimed at reducing electricity costs for ratepayers.

We also worked with our sister agency, the Independent Electricity System Operator, to plan a merger of our two organizations that would achieve benefits for Ontario's ratepayers. Although the merger was paused in October due to prorogation of the legislature before the bill to enable the merger was passed, the proposed merger identified potential reductions and efficiencies. We will continue to take steps to achieve these savings for ratepayers.

In 2012, we reduced our operating expenses by 4.7 percent from 2011 and we are on track to reduce our full-time equivalent staff numbers by five percent below our 2012 budget by 2013. These reductions are being undertaken during a period that is expected to see us delivering on an increasingly broad and complex mandate involving a rising number of contracts under management. Currently, we are managing close to 22,500 megawatts under contract, about two-thirds of the province's total capacity.

The electricity customer of tomorrow will be different from the customer of today. Consumers are monitoring and managing their electricity use remotely, generating clean electricity and selling it to the grid. They are becoming more aware of, and responsive to, the cost of electricity. And they are more actively managing their consumption and production as a result.

The OPA is leading and participating in a wide range of innovations as part of our mandate, as are many others in the electricity sector and in the broader community. We're making great progress, but we can accomplish even more. We'll continue to share ideas, collaborate on projects, work with Aboriginal communities and stakeholders, and encourage and support innovation in our sector and in other sectors. Together, we will find ways to work better, smarter and more efficiently to ensure a reliable, sustainable, cost-effective electricity system. And do our part for a stronger economy and a cleaner, healthier environment.



James D. Hinds, Chair



Colin Andersen, Chief Executive Officer

## At the leading edge of conservation

*The OPA is committed to ensuring the electricity needs of Ontario are met both now and in the future, through working with partners to design and deliver new energy-saving initiatives for homes and businesses, funding innovative projects through the Conservation Fund, and engaging the public in energy conservation. These initiatives are building a culture of conservation across the province and benefit all Ontarians – reducing the need to build more expensive forms of generation, helping customers better understand their energy consumption, and enabling the province to meet its long-term energy targets.*

### Conservation programs for Ontario

In 2012, the OPA continued to work with and provide infrastructure support for Ontario's local distribution companies in their delivery of the enhanced set of conservation and demand management programs launched under the **saveONenergy** banner in 2011. These programs, designed for residential and business customers, including industrial customers, from 2011 to 2014, provide customers with incentives, tools and information to help them reduce energy costs and better manage their energy consumption. In December 2012, the Minister of Energy issued a directive to extend the OPA's funding authority for province-wide conservation and demand management programs delivered by local distribution companies to December 31, 2015.

Residential, business, industrial and demand response programs offered by both the OPA directly and through local distribution companies achieved a total of 645 megawatts of demand reduction and 717 gigawatt-hours of energy savings in 2011. Based on these results, the OPA and local distribution companies continued to work together to identify further conservation opportunities that will help the province achieve its overall conservation targets.

With advice from Aboriginal communities, the Aboriginal Conservation Program was launched in early 2013 and is designed to enable First Nations, Métis and the urban Aboriginal community to reduce their electricity consumption. Eight First Nation communities in Ontario will be selected to participate in the first year of the program and 16 in the second year, including remote communities. The program provides customized delivery of conservation programs to meet the needs of First Nations and engage communities, businesses and households in energy conservation measures.

### Supporting conservation through training, technology and awareness-building

The OPA continued to provide support for conservation through training suppliers in the conservation industry, funding the development of new technologies through the Conservation Fund, and building awareness in the province through campaigns and other initiatives.

In 2012, the Conservation Fund committed $8.7 million to eight new projects, including a $5 million pilot with a number of local distribution companies to test the effectiveness of social benchmarking to foster conservation in the residential market. Results and findings from a number of Conservation Fund projects directly influence many of the **saveONenergy** initiatives.

The 2012 **saveONenergy PLEDGE** campaign ran from June to December. The campaign encouraged customers of local distribution companies to enroll in the ***peaksaver* PLUS**™ program and gave Ontarians tangible ways to manage costs on their electricity bill.

### Building a culture of conservation for the future

We continued to lead the province in building a culture of conservation for the future, assisting the government in its work on building codes and new product standards, as well as integrated energy systems with local governments. The current local distribution company directives and targets expire at the end of 2014. We have also started developing future options for consideration by the Ministry of Energy. This involves identifying trends that will influence the shape and nature of future energy-efficiency efforts and targets.

## Planning for a sustainable future

*The OPA updates integrated power system plans to provide context for policy decisions, support program and procurement development, and the implementation of transmission projects. Increasingly, our planning has focused on more regionalized approaches that develop localized solutions encompassing transmission, distribution, conservation and generation. This involves working with transmitters, distributors, the Independent Electricity System Operator, the Ontario Energy Board and local communities.*

### Planning for a reliable and sustainable electricity system

In our ongoing efforts to maintain long-term integrated power system plans, we worked proactively to understand trends for electricity demand, the impacts of conservation and the options for supplying and locating generation. Our work also continued on integrating renewable generation, preparing for nuclear refurbishment, and ensuring the operability of the system. We maintained updated assessments of electricity supply to assess Ontario's long-term reliability needs, identify options to address the needs and propose related actions.

### Maintaining updated forecasts of demand

In 2012, the forecast of electricity demand was updated to reflect changing economic conditions and to incorporate updated assumptions on prices and energy efficiency. It was also developed at the regional level to assist in regional planning.

### Advancing transmission projects to maintain reliability and meet renewable energy targets

Together, Hydro One and the OPA furthered transmission projects in the Greater Toronto Area and the west of London area in order to maintain reliability and meet Ontario's renewable energy targets. We also continued to support the East-West Tie transmission project between Thunder Bay and Wawa.

### Innovative planning approaches for supplying future regional growth

The OPA continued to work on a number of integrated regional plans in areas facing supply constraints in 2012. Regional planning processes were ongoing in Central-Downtown Toronto, York Region, Kitchener-Waterloo-Cambridge-Guelph, Ottawa, Windsor-Essex and northwestern Ontario. We also began to work proactively with provincial, regional and municipal authorities to coordinate future transmission requirements with other linear infrastructure plans in accordance with the government's policies on land use planning in its Provincial Policy Statement.

### Planning for the north

The Northwest is a region with significant potential demand growth from mining development. There is strong commitment to ensure reliability is maintained and we continue to develop and consult with stakeholders on updated plans.

We continued to collaborate with the Northwest Ontario First Nation Transmission Planning Committee to examine the technical and economic viability of connecting 25 remote First Nation communities in Northwestern Ontario that are powered by diesel generation. A final technical report, expected in mid-2013, will assist future proponents in advancing remote community connections beyond the Pickle Lake and Red Lake areas. It will inform Aboriginal communities and other interested parties of the business case for connecting remote communities.

### Supporting a wide range of sector initiatives

We continued to support a wide range of sector initiatives, including assessments for decision makers, the FIT Program for renewable energy procurement, and support of nuclear refurbishment. This work was done in collaboration with our partners, including the Independent Electricity System Operator, Ontario Power Generation and local distribution companies.

In 2012, we continued to develop a sustainability integration framework to help strengthen and expand consideration of sustainability in our planning activities.

## Transforming to a cleaner, more reliable system

*The OPA continued to procure renewable and clean energy through our standard offer programs and bilateral negotiations throughout 2012. These procurements ensure that Ontario's needs for clean, reliable electricity supply are met, now and in the future.*

### Managing contracts for clean energy

The OPA was managing about 22,500 megawatts of electricity supply under contract at the end of 2012. This is all clean energy:

- 8,161 megawatts of renewable wind, solar and bioenergy
- 2,382 megawatts of renewable hydroelectric

- 8,868 megawatts of natural gas, combined heat and power and energy from waste
- 3,000 megawatts of nuclear capacity under contract.

We continued to improve our contract management and settlement processes to handle higher volumes more efficiently and to continue to provide value to Ontario ratepayers. By the end of 2012, we were managing close to 16,800 contracts.

We also finalized contract negotiations with TransCanada Energy and Eastern Power to relocate their contracted facilities to Napanee and Sarnia, respectively.

### Procuring and delivering renewable and clean energy

Much of the significant amount of wind, solar and bio-energy under contract to the OPA is a result of the FIT Program for renewable energy. Following the two-year FIT Program review, the OPA was directed in April to relaunch the program. The microFIT Program was relaunched on July 12, 2012, and the FIT Program was relaunched on December 14. Through the FIT Program, we are incorporating a larger amount of intermittent resources into an existing system. With our sector partners, we have been working collaboratively on a number of initiatives to integrate these resources.

We continued to enter into new contracts with existing hydroelectric facilities under our Hydroelectric Contract Initiative. We also continued to manage procurements for other clean energy projects, such as natural gas-fired generation. And we worked to procure energy supply from other sources, including energy-from-waste projects and conversion of coal-fired facilities to biomass.

In October, Bruce Power's unit 1 and unit 2 reactors achieved commercial operation after seven years of refurbishment. Together, these units can produce enough electricity to power cities the size of Ontario's Ottawa and London combined.

In July 2012, we entered into an agreement with Ontario Power Generation for the conversion of the Atikokan Generating Station from coal to biomass to ensure continued reliable, cost-effective electricity service for homeowners, businesses and industry in the region.

We also developed the Industrial Electricity Incentive Program in late 2012 to allow new and expanding industrial companies to benefit from the province's strong energy supply.

### Working with communities to develop renewable energy projects

After working with the Ministry of Energy on the redesign of the Aboriginal Renewable Energy Fund and the Community Energy Partnerships Program, we launched the revised fund and program in mid-December. We also worked with the Ministry of Energy to examine options to revise the Aboriginal Community Energy Plan Program, expected to relaunch in 2013.

## Achieving innovative solutions together

*Our collaboration with Ontario's First Nations and Métis communities and our continuing stakeholder engagement enables us to achieve innovative approaches and solutions in our programs, processes and operations.*

### Supporting Aboriginal participation

We continued to encourage Aboriginal participation and investment in Ontario's electricity system by engaging First Nations and Métis in energy conservation and planning, transmission initiatives and electricity procurement. Our efforts remained focused on building capacity in Aboriginal communities for participating in these activities, and included supporting a training initiative with the Ontario Waterpower Association for First Nations working on hydroelectric development in Ontario.

In addition, we concluded a Capacity and Relationship Building Funding Agreement with Grand Council Treaty 3, an organization representing 24 First Nation communities in northwestern Ontario. The agreement fostered a discussion about numerous opportunities including renewable energy supply and conservation. Three sessions were well attended by Chiefs, Elders and youth and provided energy-related information from various experts across the sector.

We also continued our support of and work with the Northwest Ontario First Nation Transmission Planning Committee on the development of a regulatory business case for the connection of remote First Nation communities.

### Ongoing stakeholder engagement and social and environmental responsibility

We continued to strengthen community and stakeholder relations, particularly for local and regional supply planning, procurements (including the FIT and microFIT programs), and conservation initiatives with local distribution companies – through outreach engagement and communications activities.

Our social and environmental responsibility remained a top priority and our efforts are earning significant public recognition. Our employees support a wide range of charities. We met our 2012 environmental targets for electricity, paper and waste reduction, and increased staff engagement, awareness and support for ongoing environmental initiatives. The OPA received a Greater Toronto Top Employer award for the third year in a row and won Pollution Probe's Clean Air Commute for our size category for the second straight year. We were also selected as WWF-Canada's 2012 Green Team of the Year.

# Management Discussion and Analysis



### 2012 Financial Highlights

- The OPA reduced total operating expenses by $2.9 million or 4.7 percent from 2011.
- Focused resources on finding organizational efficiencies while delivering on an increasingly broad and complex mandate in 2012, including proposed merger and integration activities.
- Managed significant increase in program-related activities including:
  - increased participation in the Industrial Accelerator Program, renewable energy integration, launched the Industrial Electricity Incentive Program, and relaunched the Community Energy Partnerships Program and the Aboriginal Renewable Energy Fund.
- Managed and settled an increasing volume of contracts accounting for two-thirds of the total electricity system.
- Full-time equivalent staffing levels remained unchanged as temporary staff to support the FIT Program offset ongoing vacancies in other areas.

The following is a discussion of the operating results of the Ontario Power Authority (OPA) for the year ended December 31, 2012. Futher details can be found in the detailed financial statements and notes.

- The OPA incurs expenses to achieve its mandate. These expenses include wages, professional expenses, leases and other general operating expenses that are needed to manage and support long-term system planning, electricity generation and provincial conservation programs.

- The OPA incurs charges related to conservation programs to meet Ontario's conservation targets for electricity savings, as well as charges related to generation contracts to provide an adequate, reliable and sustainable electricity supply to the province. These charges are reflected in the global adjustment mechanism (GAM) and are discussed later in this report.

## Financial performance

### Revenue

***Changes in FIT Program drive registration fees revenue reduction.***

The OPA has three different sources of revenue that are used to fund its expenses:

a) **Fees:** an Ontario Energy Board (OEB)-approved rate charged to Ontario electricity consumers on a consumption basis, with total fees revenue targeted to recover the OPA's operating budget. With the OEB's approval, the OPA continued to collect an interim usage rate of $0.551/MWh, set in 2011. In 2012, total revenue remained unchanged at $76.3 million from 2011.

b) **Registration fees:** an administrative charge on OPA procurements. 2012 registration fees are $1.8 million lower than in 2011, primarily due to reimbursement of registration fees for Feed-in-Tariff (FIT) applications.

c) **Other revenue:** interest and miscellaneous income.

**Table 1: 2012 and 2011 Revenue**

| OPA Revenue (in millions) | 2012 | 2011 | Change |
|---|---|---|---|
| Fee revenue | $76.3 | $76.3 | $0.0 |
| Registration fees | -$1.5 | $0.3 | -$1.8 |
| Other | $0.8 | $1.7 | -$0.9 |
| **Total** | **$75.6** | **$78.3** | **-$2.7** |

## Operating Costs

***Continued to lower costs through flexibility in staffing, reduced reliance on external services and achievement of ongoing efficiencies.***

Expense items are captured in the following categories: compensation and benefits, professional fees, Conservation and Technology Fund disbursements, general operating costs, as well as amortization of capital assets. In 2012, total operating expenses of $59.3 million (before amortization of other financial accounts) declined by $2.9 million or 4.7 percent from 2011.

- **Compensation and Benefits:** total expenses of $32.0 million were $0.4 million higher than in 2011. Higher compensation expenses were primarily due to additional temporary resources to support the FIT and microFIT programs, partially offset by ongoing vacancies.

- **Professional Fees:** total 2012 expenses of $10.9 million declined by $4.0 million or 27.2 percent from 2011. This decrease was due to savings related to the suspension of the second Integrated Power System Plan, reduced outsourced IT project support, timing of research spending and reduced costs for various electricity procurement projects.

- **General Operating Costs:** total expenses of $11.3 million were $0.7 million higher than 2011 expenses. In 2012, additional expenses were incurred to support the OPA's conservation program management system. These higher expenses were partially offset by lower travel and marketing expenses.

- **Other Costs:** other costs totaling $5.2 million in 2012 were $0.1 million higher than 2011. Higher amortization expenses were offset by lower Conservation Fund expenses. As Conservation Fund expenses have been treated as charges for projects approved since 2011, there will be a continuous decline in fund expenses in future years.

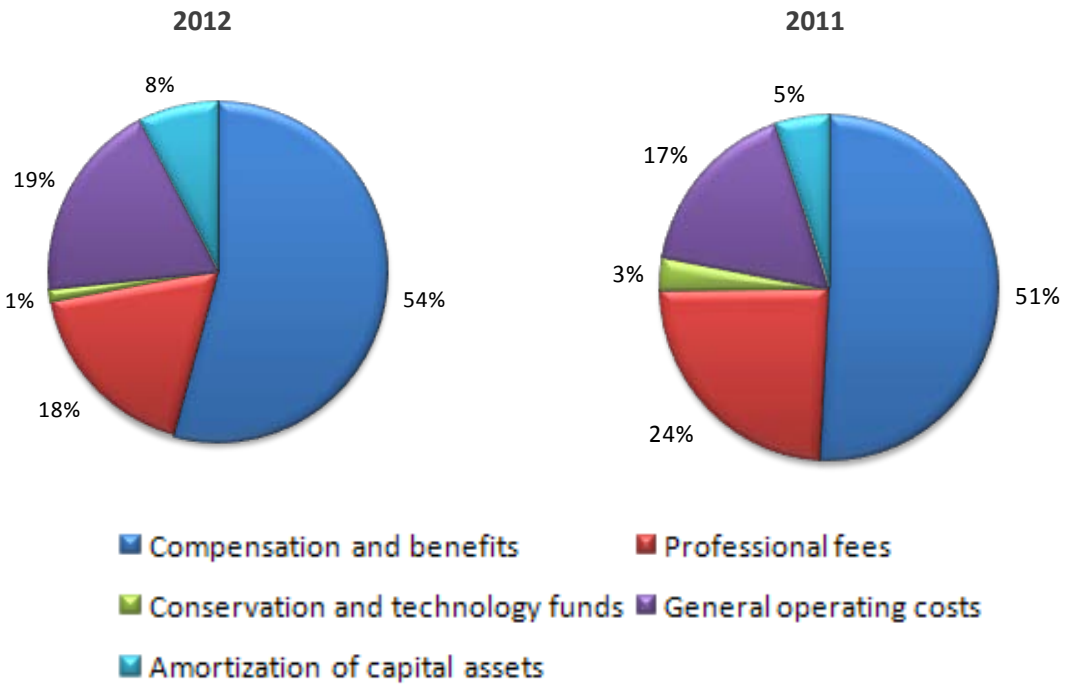
- **Amortization of Capital Assets:** amortization costs of $4.4 million in 2012 were $1.2 million higher than 2011. A 2012 review of OPA's assets resulted in some reclassifications, as well as revisions of useful life of assets.

**Amortization of Other Financial Accounts:** no expense was incurred in 2012 as accounts were fully amortized in 2011. Other financial accounts relate to Retailer Contract Settlements – payments made by the OPA to retailers with respect to certain consumer contracts entered into before prices for electricity were fixed (Regulated Price Plan enactment in 2002). These payments allowed retailers to settle any differences between the Hourly Ontario Electricity Prices (HOEP) and the contract price. Once the contracts with consumers expired, the balances accumulated in deferral accounts and were amortized over three years.

**Table 2: 2012 and 2011 Operating Costs**

| OPA Operating Costs (in millions) | 2012 | 2011 | Change |
|---|---|---|---|
| Compensation and benefits | $32.0 | $31.6 | $0.4 |
| Professional and consulting | 10.9 | 14.9 | -4.0 |
| Conservation and technology funds | 0.7 | 1.9 | -1.2 |
| General operating costs | 11.3 | 10.6 | 0.7 |
| Amortization of capital assets | 4.4 | 3.2 | 1.2 |
| **Sub-total Operating Expenses** | **$59.3** | **$62.2** | **-$2.9** |
| Amortization of other financial accounts | 0.0 | 14.2 | -14.2 |
| **Total Operating Costs** | **$59.3** | **$76.4** | **-$17.1** |

**Figure 1: 2012 and 2011 Operating Expenses by Expense Category**

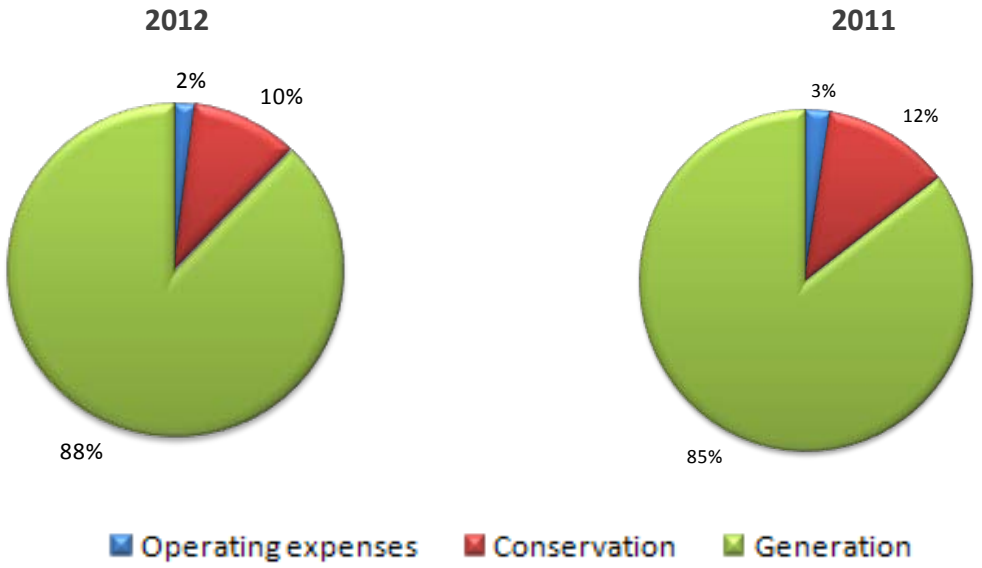


## Program Spending

***Program spending, also known as "charges", consists of payments to suppliers and participants in the OPA's conservation and generation initiatives, and is reflected in GAM.***

In the face of a continuing increase in program activities and corresponding program spending, the OPA was able to decrease its operating costs for the year from three percent to two percent of total program spending. Generation program spending is higher in 2012 due to an increase in the number of contracts achieving commercial operation. Conservation-related program spending provided financial assistance toward meeting or exceeding the provincial conservation targets.

**Figure 2: 2012 and 2011 Operating Expenses, Conservation Program Costs and Generation Charges (in millions)**




Electricity supply contracts include nuclear, clean and renewable generation facilities. Generation charges account for changes in the mix of fuel sources and total installed capacity under contract in operation and for differences between HOEP and the rates paid to contracted generators for electricity in Ontario. These "top up" contract payments increased in 2012 as the value of HOEP continued to decrease. In 2012, total electricity generation charges increased 18 percent over 2011. The lower HOEP and new renewable generation contracts contributed to the majority of the increase in generation charges.

**Table 3: 2012 and 2011 Operating Expenses and Program Costs**

| OPA Expenses (in millions) | 2012 Actual | 2011 Actual | Change in 2012 from 2011 |
|---|---|---|---|
| Operating expenses | $59.3 | $62.2 | -$2.9 |
| Conservation programs | $301.1 | $317.8 | -$16.7 |
| Generation programs | $2,608.3 | $2,210.4 | $397.9 |

The OPA will continue to develop, implement and manage a robust portfolio of conservation programs while integrating its evaluation, measurement and verification system to track overall progress in meeting Ontario's conservation targets.

## Global Adjustment Mechanism (GAM)

GAM accounts for differences between HOEP and the rates paid to regulated and contracted generators for electricity in Ontario. It also includes amounts paid for conservation and demand management programs, as well as green energy initiatives. As a result, elements of GAM may be positive or negative, depending on the fluctuation of prices in the wholesale electricity market. GAM applies to all consumers in Ontario, including business customers who pay the dispatch market price (HOEP) and customers who have signed a contract with a licensed electricity retailer. For customers who subscribe to the Regulated Price Plan (RPP), it is factored into the rate set by the OEB.

The global adjustment reflects the difference between the dispatch market price and:

- regulated rates paid to Ontario Power Generation's (OPG's) nuclear and hydroelectric baseload generating stations
- payments made to suppliers that have been awarded contracts through the OPA, such as new gas-fired facilities, renewable facilities (e.g., FIT and microFIT program projects) and demand response programs
- contracted rates administered by the Ontario Electricity Financial Corporation (OEFC) paid to existing generators.

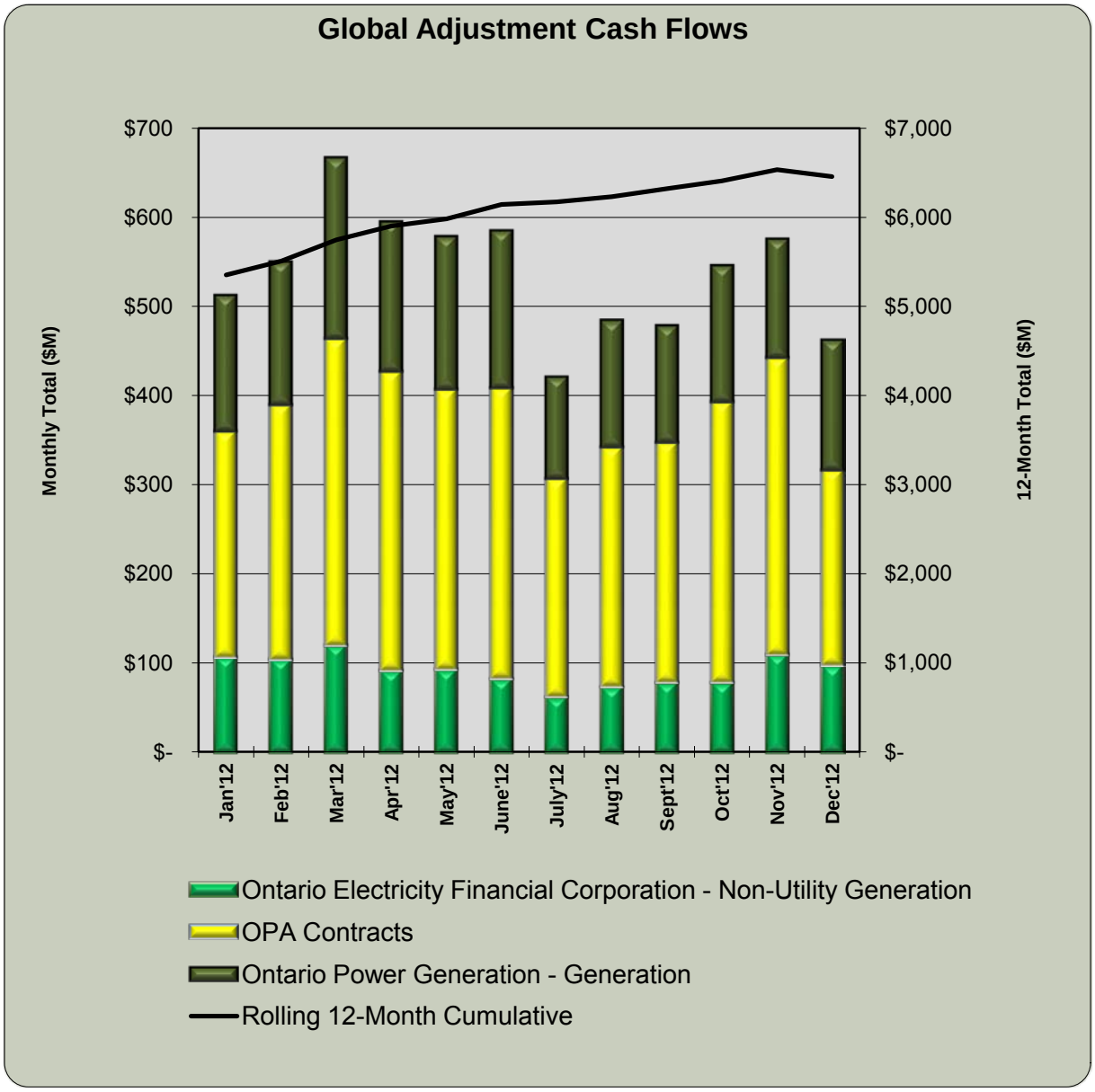
### Accounting for the Global Adjustment Mechanism

The OPA has a legislated responsibility to record transactions that flow through GAM. To meet this requirement, the OPA records the cash flows related to procurement contracts held, managed or under its responsibility. The account is settled monthly; however, the settlement process for OPA contracts requires an estimate of the balance owing to suppliers at each month end. This estimate is filed with the IESO at the end of each month and received by the OPA in the following month to settle electricity payments to contractors. Any variances between the actual

amounts paid and estimated amounts payable are included in the following month's settlement. At December 31, 2012, a balance of $474 million existed in relation to amounts receivable from the market through the IESO to fund electricity payments.

Figure 3 highlights OPA cash flows from GAM for the 12-month period ending December 31, 2012. The rolling 12-month trend line reflects the average monthly global adjustment cash flows for the previous 12-month period. This is compared to the global adjustment cash flows for each month. The global adjustment increases and decreases in response to changes in HOEP. When HOEP is lower, the global adjustment is higher to cover the additional payments for energy contracts and other regulated generation. GAM also increases as new projects come into service and contract payments take effect.

**Figure 3: OPA Cash Flows from the Global Adjustment Mechanism**



# Executive Compensation Plan

## Program Objectives

The OPA executive compensation program is an integrated program for all executive staff. It is designed to attract, retain and motivate the calibre of executives required to support the achievement of the OPA's statutory mandate, corporate vision and business objectives. Accordingly, the compensation philosophy and program have the following objectives:

- to focus executives on meeting the OPA's business objectives
- to attract qualified and talented executive staff needed to carry out the OPA's mandate
- to retain valued executive staff
- to provide flexibility to differentiate total compensation for specific executives based on individual results and demonstrated competencies
- to establish compensation levels that are responsible and defensible to stakeholders.

The philosophy underlying these objectives is that the total compensation for executive management should be sufficient, but not more than required, to attract the skills and competencies needed to carry out the OPA's mandate.

For the sixth consecutive year, the OPA's Board of Directors approved a freeze on the subsequent year's salary structure for executives. In freezing the executives' salary structure for 2013, the Board took into consideration social, economic, legal and political factors, such as prevailing financial and employment conditions, government fiscal considerations, including compliance with the 2012 amendments to the *Broader Public Sector Accountability Act, 2010*.

Table 1 sets out the annual compensation for the year ended December 31, 2012, for the listed executive officers. The total cash compensation information provided below matches the information published under the *Public Sector Salary Disclosure Act (Ontario)* for the indicated period.

**Table 4: Summary of Executive Compensation[1]**

| Name, Position Title | Year | Salary Paid | Taxable Benefits[3] | Amounts Reportable Under *Public Sector Salary Disclosure Act*[2] |
|---|---|---|---|---|
| **Colin Andersen, Chief Executive Officer** | 2011<br>2012 | $573,027<br>$573,027 | $871<br>$900 | $573,898<br>$573,927 |
| **Kimberly Marshall, Vice-President, Business Strategies and Solutions (Chief Financial Officer)** | 2011<br>2012 | $254,952<br>$255,172 | $799<br>$819 | $255,751<br>$255,991 |
| **Amir Shalaby, Vice-President, Power System Planning** | 2011<br>2012 | $449,939<br>$449,541 | $878<br>$900 | $450,817<br>$450,441 |
| **Andrew Pride Vice-President, Conservation** | 2011<br>2012 | $316,970<br>$316,970 | $886<br>$900 | $317,856<br>$317,870 |
| **JoAnne Butler, Vice-President, Electricity Resources** | 2011<br>2012 | $371,924<br>$371,924 | $878<br>$900 | $372,802<br>$372,824 |

[1] Executives are listed in the following order:
Chief executive officer, chief financial officer, then in alphabetical order by first name.
[2] Total T4 income, including taxable benefits.
[3] Increase in 2012 taxable benefits related to rate changes in OPA-funded basic life insurance premiums affecting all staff.



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# INDEPENDENT AUDITORS' REPORT

To the Board of Directors of Ontario Power Authority

We have audited the accompanying financial statements of Ontario Power Authority, which comprise the statements of financial position as at December 31, 2012, December 31, 2011 and January 1, 2011, the statements of operations, changes in net assets and cash flows for the years ended December 31, 2012 and December 31, 2011, and notes, comprising a summary of significant accounting policies and other explanatory information.

*Management's Responsibility for the Financial Statements*

Management is responsible for the preparation and fair presentation of these financial statements in accordance with Canadian public sector accounting standards, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

*Auditors' Responsibility*

Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with Canadian generally accepted auditing standards. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on our judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, we consider internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained in our audits is sufficient and appropriate to provide a basis for our audit opinion.

KPMG LLIP is a Canadian limited liability partnership and a member firm of the KPMG Network of independent member firms affiliated with KPMG International Cooperative ("KPMG International"), a Swiss entity.
KPMG Canada provides services to KPMG LLP.





*Opinion*

In our opinion, the financial statements present fairly, in all material respects, the financial position of Ontario Power Authority as at December 31, 2012, December 31, 2011 and January 1, 2011, and its results of operations, its changes in net assets and its cash flows for the years ended December 31, 2012 and December 31, 2011 in accordance with Canadian public sector accounting standards**.**

KPMG LLP

Chartered Accountants, Licensed Public Accountants

February 20, 2013
Toronto, Canada

# Audited financial statements of

ONTARIO POWER AUTHORITY

## For the year ended December 31, 2012

ONTARIO POWER AUTHORITY

## Statement of Financial Position
## (in thousands of dollars)

## December 31, 2012, December 31, 2011 and January 1, 2011

| Assets | December 31, 2012 | December 31, 2011 | January 1, 2011 |
|---|---|---|---|
| Current assets: | | | |
| Cash and cash equivalents | $ 315,631 | $ 229,827 | $ 97,263 |
| Accounts receivable (note 3) | $ 546,963 | $ 416,102 | 289,123 |
| Prepaid expenses | $ 564 | $ 300 | 86 |
| | **$ 863,158** | **$ 646,229** | **386,472** |
| Capital assets (note 4) | $ 6,628 | $ 10,378 | 11,236 |
| Other financial assets (note 5) | $ - | $ - | 15,689 |
| **Total Assets** | **$ 869,786** | **$ 656,607** | **$ 413,397** |

| Liabilities and Net Assets | | | |
|---|---|---|---|
| Current liabilities: | | | |
| Accounts payable and accrued liabilities (note 6) | $ 474,839 | $ 321,995 | $ 296,254 |
| Operating loan (note 13) | $ 60,000 | $ 256,368 | - |
| Contract deposits (note 7) | $ 28,996 | $ 52,128 | 67,571 |
| Other liabilities | $ 105 | $ 83 | 68 |
| | **$ 563,940** | **$ 630,574** | **363,893** |
| Deferred rent inducement, net (note 8) | $ 403 | $ 547 | 691 |
| Other financial liabilities (note 5) | $ 289,918 | $ 25,788 | 49,966 |
| Net assets: | | | |
| Internally Restricted Conservation and Technology Funds (note 9) | $ 9,939 | $ 10,667 | 12,581 |
| Invested in capital assets | $ 6,628 | $ 10,378 | 11,236 |
| Accumulated operating deficit | $ (1,042) | $ (21,347) | (24,970) |
| | **$ 15,525** | **$ (302)** | **(1,153)** |
| Commitments (note 8) | | | |
| Contingencies and guarantees (note 14) | | | |
| **Total Liabilities and Net Assets** | **$ 869,786** | **$ 656,607** | **$ 413,397** |

*See accompanying notes to financial statements*

ONTARIO POWER AUTHORITY

## Statement of Operations
## (in thousands of dollars)

## Years ended December 31, 2012 and 2011

| | | 2012 | | 2011 |
|---|---|---|---|---|
| **Revenue:** | | | | |
| Fees | $ | 76,298 | $ | 62,121 |
| Recovery of other financial accounts (note 5) | $ | - | $ | 14,267 |
| Registration fees (note 7) | $ | (1,456) | $ | 254 |
| Interest income | $ | 666 | $ | 1,657 |
| Other income | $ | 102 | $ | 17 |
| | **$** | **75,610** | **$** | **78,316** |
| **Expenses:** | | | | |
| Compensation and benefits | $ | 32,034 | $ | 31,610 |
| Professional fees | $ | 10,852 | $ | 14,903 |
| Amortization of other financial accounts (note 5) | $ | - | $ | 14,267 |
| General operating costs (note 10) | $ | 11,272 | $ | 10,595 |
| Conservation and Technology Funds expenses (note 9) | $ | 728 | $ | 1,914 |
| Amortization of capital assets | $ | 4,427 | $ | 3,155 |
| | **$** | **59,313** | **$** | **76,444** |
| Excess of revenue over expenses before interest expense | $ | 16,297 | $ | 1,872 |
| Interest expense | $ | 470 | $ | 1,021 |
| **Excess of revenue over expenses** | **$** | **15,827** | **$** | **851** |

*See accompanying notes to financial statements*

ONTARIO POWER AUTHORITY

## Statement of Changes in Net Assets
## (in thousands of dollars)

## Years ended December 31, 2012 and 2011

| December 31, 2012 | Invested in Capital Assets | Internally Restricted (see note 9) | Accumulated Operating Deficit | Total Net Assets |
|---|---|---|---|---|
| **Balance, beginning of the year** | $ 10,378 | $ 10,667 | $ (21,347) | $ (302) |
| Excess of revenue over expenses | $ (4,427) | $ - | $ 20,254 | $ 15,827 |
| Conservation and Technology Funds expenses | $ - | $ (728) | $ 728 | $ - |
| Purchase of capital assets (net) | $ 677 | $ - | $ (677) | $ - |
| **Balance, end of the period** | **$ 6,628** | **$ 9,939** | **$ (1,042)** | **$ 15,525** |

| December 31, 2011 | Invested in Capital Assets | Internally Restricted (see note 9) | Accumulated Operating Deficit | Total Net Assets |
|---|---|---|---|---|
| **Balance, beginning of the year** | $ 11,236 | $ 12,581 | $ (24,970) | $ (1,153) |
| Excess of revenue over expenses | $ (3,155) | $ - | $ 4,006 | $ 851 |
| Conservation and Technology Funds expenses | $ - | $ (1,914) | $ 1,914 | $ - |
| Purchase of capital assets (net) | $ 2,297 | $ - | $ (2,297) | $ - |
| **Balance, end of the period** | **$ 10,378** | **$ 10,667** | **$ (21,347)** | **$ (302)** |

*See accompanying notes to financial statements*

ONTARIO POWER AUTHORITY

## Statement of Cash Flows
## (in thousands of dollars)

## Years ended December 31, 2012 and 2011

| | 2012 | 2011 |
|---|---|---|
| **Cash Flows from Operating Activities:** | | |
| Excess of revenue over expenses | $ 15,827 | $ 851 |
| Items not involving cash: | | |
| Amortization of capital assets | $ 4,427 | $ 3,155 |
| Amortization of deferred rent inducement | $ (144) | $ (144) |
| Amortization of other financial accounts | $ - | $ 14,267 |
| Change in non-cash operating items (note 12) | $ (1,413) | $ (116,895) |
| | $ 18,697 | $ (98,766) |
| **Cash Flows from Financing Activities:** | | |
| Increase in other liabilities | $ 22 | $ 15 |
| Increase (decrease) in operating loan | $ (196,368) | $ 256,368 |
| Increase in other financial assets | $ - | $ 1,422 |
| Increase/(decrease) in other financial liabilities | $ 264,130 | $ (24,178) |
| | $ 67,784 | $ 233,627 |
| **Cash Flows from Capital Activities:** | | |
| Purchase of capital assets | $ (677) | $ (2,297) |
| | $ (677) | $ (2,297) |
| **Increase in cash and cash equivalents** | $ 85,804 | $ 132,564 |
| Cash and cash equivalents, beginning of year | $ 229,827 | $ 97,263 |
| **Cash and cash equivalents, end of year** | **$ 315,631** | **$ 229,827** |

*See accompanying notes to financial statements*

ONTARIO POWER AUTHORITY

**Notes to Financial Statements**
**(in thousands of dollars)**

**Years ended December 31, 2012 and 2011**

**1) Nature of operations:**

The *Electricity Restructuring Act, 2004* (the Act), established the Ontario Power Authority (OPA) as a non-share corporation on December 20, 2004. The OPA is an independent non-profit, non-taxable corporation. The OPA is not a Crown agent and recovers its costs through fees approved by the Ontario Energy Board (OEB) and through charges to the electricity market through the global adjustment mechanism. In accordance with the Act, the OPA's main objectives are:

- to forecast electricity demand and the adequacy and reliability of electricity resources for Ontario for the medium and long term;
- to conduct independent planning for electricity generation, demand management, conservation and transmission, and develop integrated power system plans for Ontario;
- to engage in activities in support of the goal of ensuring adequate, reliable and secure electricity supply and resources in Ontario;
- to engage in activities to faciliate the diversification of sources of electricity supply by promoting the use of cleaner energy sources and technologies, including alternative energy sources and renewable energy sources;
- to establish system-wide goals for electricity to be produced from alternative energy sources and renewable energy sources;
- to engage in activities that promote electricity conservation and the efficient use of electricity;
- to assist the OEB by facilitating stability in rates for certain types of customers; and
- to collect and provide to the public and the OEB information relating to medium and long-term electricity needs of Ontario and the adequacy and reliability of the integrated power system to meet those needs.

The OPA's ability to continue as a going concern is dependent upon its ability to obtain financing to support operations. The OPA's creditworthiness is attested by the following:

- the ability of the OPA to meet its obligations is provided for in legislation;
- the OPA's minimal counterparty risk, given that its principal counterparty is the Independent Electricity System Operator (IESO), a creation of the province and a strong counterparty.

On January 1, 2011, the OPA adopted Canadian public sector accounting standards, ("PSAS"). The OPA has also elected to apply the 4200 standards for government not-for-profit organizations. These are the first financial statements prepared in accordance with PSAS.

In accordance with the transitional provisions in Canadian PSAS, the OPA has adopted changes retrospectively, subject to certain exemptions allowed under these standards. The transition date is January 1, 2011 and all comparative information provided has been presented by applying Canadian PSAS.

There are no adjustments to net assets as at January 1, 2011 or excess of revenue over expenses for the year ended December 31, 2011 as a result of the transition to Canadian PSAS.

During 2012 the Province of Ontario announced a plan to merge the OPA and the IESO. In October 2012, the Premier prorogued parliament thereby terminating the legislation to enact the merger. The likelihood of such a merger is indeterminable at this time.

ONTARIO POWER AUTHORITY

**Notes to Financial Statements**
**(in thousands of dollars)**

**Years ended December 31, 2012 and 2011**

## 2) Significant accounting policies:

(a) Basis of presentation:

The financial statements have been prepared in accordance with Canadian PSAS including the 4200 standards for government not-for-profit organizations.

(b) Revenue recognition:

Amounts received in the current year that relate to services and programs to be determined in subsequent years are not recognized as revenue and are deferred.

Fees earned by the OPA are based upon OEB-approved rates for electricity withdrawn from the IESO-controlled grid by electricity consumers of Ontario. Such revenue is recognized in the year in which it is earned.

(c) Cash and cash equivalents:

Cash and cash equivalents are comprised of bank deposit balances, term deposits and other short-term investments with original maturity dates of up to 90 days.

(d) Capital assets:

Capital assets are recorded at cost and are amortized on a straight-line basis over their estimated service lives, as follows:

| Assets | Estimated Average Service life |
|---|---|
| Furniture and equipment | 10 years |
| Computer hardware | 4 years |
| Computer software | 3 to 5 years |
| Audio-visual equipment | 10 years |
| Telephone system | 5 years |
| Leasehold improvements | Term of lease |

ONTARIO POWER AUTHORITY

**Notes to Financial Statements**
**(in thousands of dollars)**

**Years ended December 31, 2012 and 2011**

**2) Significant accounting policies (continued):**

(e) Employee pension benefits:

The OPA provides pension benefits to its full-time employees through participation in the Public Service Pension Plan, which is a multi-employer defined benefit pension plan. This plan is accounted for as a defined contribution plan, as the OPA does not have sufficient information to apply defined benefit plan accounting to this pension plan.

The OPA is not responsible for the cost of employee post-retirement, non-pension benefits. These costs are the responsibility of the Ontario Pension Board.

(f) Measurement uncertainty:

Uncertainty in determining the amount at which an item is recognized in the financial statements is known as measurement uncertainty. Such uncertainty exists when it is reasonably possible that there could be a material variance between the recognized amount and another reasonably possible amount, as there is whenever estimates are used. Measurements of uncertainty in these financial statements exist in the valuation of the power purchase contracts and the estimated defeasance date for the OPA's obligations. Estimates are based on the best information available at the time of preparation of the financial statements and are updated annually to reflect new information as it becomes available.

The preparation of financial statements requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities and disclosures of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the year. Actual results could differ from those estimates.

ONTARIO POWER AUTHORITY

**Notes to Financial Statements**
**(in thousands of dollars)**

**Years ended December 31, 2012 and 2011**

## 3) Accounts receivable:

| | December 31, 2012 | December 31, 2011 | January 1, 2011 |
|---|---|---|---|
| Market contracts | | | |
| Generation contracts | $ 474,424 | $ 326,049 | $ 187,789 |
| Conservation contracts | 54,382 | 87,077 | 98,059 |
| Renewable energy contracts | 12,555 | 2,156 | 1,126 |
| | 541,361 | 415,282 | 286,974 |
| Other | 262 | 820 | 1,232 |
| HST/GST Receivable | 5,340 | - | 917 |
| | **$ 546,963** | **$ 416,102** | **$ 289,123** |

ONTARIO POWER AUTHORITY

**Notes to Financial Statements**
**(in thousands of dollars)**

**Years ended December 31, 2012 and 2011**

## 4) Capital assets:

| December 31, 2012 | Cost | Accumulated amortization | Net book value |
|---|---|---|---|
| Furniture and equipment | $ 3,372 | $ 1,870 | $ 1,502 |
| Computer hardware | 4,830 | 4,606 | 224 |
| Computer software | 7,440 | 4,982 | 2,458 |
| Audio-visual equipment | 229 | 150 | 79 |
| Telephone system | 382 | 350 | 32 |
| Leasehold improvements | 5,133 | 2,800 | 2,333 |
| | **$ 21,386** | **$ 14,758** | **$ 6,628** |

| December 31, 2011 | Cost | Accumulated amortization | Net book value |
|---|---|---|---|
| Furniture and equipment | 3,360 | 1,543 | 1,817 |
| Computer hardware | 4,697 | 4,076 | 621 |
| Computer software | 6,966 | 2,325 | $ 4,641 |
| Audio-visual equipment | 229 | 127 | 102 |
| Telephone system | 382 | 284 | 98 |
| Leasehold improvements | 5,075 | 1,976 | 3,099 |
| | **$ 20,709** | **$ 10,331** | **$ 10,378** |

| January 1, 2011 | Cost | Accumulated amortization | Net book value |
|---|---|---|---|
| Furniture and equipment | 3,277 | 1,218 | 2,059 |
| Computer hardware | 4,405 | 3,075 | 1,330 |
| Computer software | 4,623 | 537 | 4,086 |
| Audio-visual equipment | 229 | 104 | 125 |
| Telephone system | 338 | 195 | 143 |
| Leasehold improvements | 5,047 | 1,554 | 3,493 |
| | **$ 17,919** | **$ 6,683** | **$ 11,236** |

ONTARIO POWER AUTHORITY

**Notes to Financial Statements**
**(in thousands of dollars)**

**Years ended December 31, 2012 and 2011**

## 5) Other financial assets and liabilities:

Other financial assets, liabilities and deferrals arise as a result of the *Electricity Act, 1998* and the regulations thereunder and are reflected by the balances in the Regulated Price Plan (RPP), retailer contract settlement deferral accounts, government procurement deferral account and the global adjustment account. In the absence of rate-regulated accounting, these amounts would have flowed through the statement of operations when incurred.

| | December 31, 2012 | December 31, 2011 | January 1, 2011 |
|---|---|---|---|
| Other financial assets | $ - | $ - | $ 15,689 |
| Other financial liabilities | (289,918) | (25,788) | (49,966) |

### RPP variance accounts

While prices for RPP consumers are set every six months by the OEB based upon a forecast of the cost of power over the next year, it is likely that there will be a difference between the actual and forecast cost of supplying electricity to all RPP consumers. When the hourly Ontario energy price (HOEP) is greater than the RPP, the OPA pays the excess amount and records a financial asset as the electricity market funds paid are receivable from the market. When the HOEP is less than the RPP, the OPA receives the difference and records a financial liability as the funds received will be returned to the market. The OPA tracks this variance in the RPP variance account. The Ontario Power Generation (OPG) rebate is equivalent to the difference between the revenue limit for specific OPG generating facilities and the revenue OPG actually received in the IESO wholesale spot market for that generation.

| | 2012 | 2011 |
|---|---|---|
| OPG rebate contribution | $ (602,736) | $ (602,750) |
| Total RPP variance before interest | 299,896 | 562,467 |
| Interest earned | 12,922 | 14,495 |
| | **$ (289,918)** | **$ (25,788)** |

ONTARIO POWER AUTHORITY

**Notes to Financial Statements**
**(in thousands of dollars)**

**Years ended December 31, 2012 and 2011**

**5) Other financial assets and liabilities (continued):**

**Retailer contract settlement deferral accounts**

The retailer contract discount settlement account captures the funds related to the retailer incentives existing at the creation of the RPP. The retailer incentives captured were held in a separate deferral account for settlement concurrent with the retailer settlement deferral accounts.

The contracts to which the retailer settlement accounts relate have expired. The balances in these accounts have been recovered over a three-year period from 2009 - 2011. The OPA finished amortizing the accumulated balance in 2011. The amortization expense for 2012 is $nil (2011 - $14,267)

As at December 31, 2012, the balance in the retailer contract settlement and retailer contract discount settlement accounts was nil (December 31, 2011 - nil; January 1, 2011 - $15,689). As at January 1, 2011, the balance was $15,689 which was comprised of amounts related to retailer contract settlement accounts for 2005 – 2009 - $17,014, 2010 - $359 and 2011 – NIL. There was also a retailer contract discount settlement amount as at Jan 1, 2011 amounting to $1,684

**Global adjustment account**

The OPA has a legislated responsibility to record the transactions flowing through the global adjustment mechanism. The global adjustment and settlement accounts have been created for this purpose. The nature of the global adjustment transactions result in a zero balance in the account on a monthly basis. The information and explanation below provide transparency for the transactions flowing through the global adjustment mechanism.

The global adjustment and settlement accounts record charges that flow between the OPA and the IESO. The account flows include the amounts paid and received for: Demand Response 2, Demand Response 3, non-utility generation, regulated nuclear generation balancing amount and regulated hydro electric generation balancing amount. These accounts are settled simultaneously by the IESO. The account also records the amounts paid and received for OPA contracts (standard offer, generation and conservation/demand management, Feed-In Tariff and hydroelectric contract initiatives) which the OPA settles on a monthly basis with the IESO.

ONTARIO POWER AUTHORITY

**Notes to Financial Statements**
**(in thousands of dollars)**

**Years ended December 31, 2012 and 2011**

## 6) Accounts payable and accrued liabilities:

| | | December 31, 2012 | December 31, 2011 | January 1, 2011 |
|---|---|---|---|---|
| Accrued contract settlements | $ | 211,522 | 12,942 | 189,002 |
| HST/GST payable | | - | 128 | - |
| Other accrued liabilities | | 263,317 | 308,925 | 107,252 |
| | | **474,839** | **321,995** | **296,254** |

ONTARIO POWER AUTHORITY

**Notes to Financial Statements**
**(in thousands of dollars)**

**Years ended December 31, 2012 and 2011**

## 7) Contract deposits:

**Program Deposits:**
The OPA receives performance security in the form of deposit amounts received from renewable energy supply, Feed-In Tarrif (FIT) Program and demand response suppliers. For suppliers engaged in a contract which involves the construction of a new supply facility, the deposits are larger during the construction phase and are reduced once a project commences commercial operations. Deposits related to the FIT Program are submitted to the OPA with the supplier application and can be returned if one of the following occurs: (a) the supplier withdraws their application from the Program; (b) the supplier obtains a contract with the OPA; or (c) the supplier's application is rejected by the OPA.

The deposits are classified as current liabilities as they can be replaced by a letter of credit by the supplier on request.

**Program Registration Fees:**
The OPA also requires a non-refundable registration fee from applicants to some renewable energy programs. Changes to FIT Program rules in 2012 affected the existing applicants to this program. As a result, the registration fees were made available for refund. Refunds were recorded as debits to the registration fee income account resulting in a negative balance.

## 8) Deferred rent inducement and operating lease commitments:

The OPA has entered into various long-term lease commitments for office space, which include lease inducements. Deferred rent inducement represents the benefit of operating lease inducements amortized on a straight-line basis over the term of the lease. The OPA obtained an allowance for leasehold improvements of $1,430. As at December 31, 2012, the deferred rent inducement, net of amortization, was $403 (December 31, 2011 - $547 and January 1, 2011 - $691).

The OPA reports an average rental cost for premises over the term of the lease agreement and amortizes the benefit of the lease inducements over the same period. As at December 31, 2012, the accrued liability was $189 (December 31, 2011 - $250 and January 1, 2011 - $321).

Lease commitments are set to terminate by October 2015. Lease commitments include amounts for leased computer hardware. Computer hardware commitments terminate between 2012-2013. The minimum annual payments under the operating lease are approximated as follows:

| Lease Commitments | | |
|---|---|---|
| 2013 | | 1,652 |
| 2014 | | 1,650 |
| 2015 | | 1,294 |
| | **$** | **4,596** |

ONTARIO POWER AUTHORITY

**Notes to Financial Statements**
**(in thousands of dollars)**

**Years ended December 31, 2012 and 2011**

## 9) Internally restricted conservation and technology funds:

The OPA established the Conservation Fund to support electricity conservation projects. The Technology Development Fund was established to aid the development of new technology to improve electricity supply or conservation. To date, 12 funds have been set up as depicted in the table below. These funds were set up prior to April 2010. After that, per the April 2010 Directive, all recoveries are through the Global Adjustment Mechanism.

| December 31, 2012 | Restricted Fund | Expensed 2012 | Expensed Prior Years | Balance 2012 |
|---|---|---|---|---|
| 2005 - 2008 Conservation Fund | $ 8,600 | $ 71 | $ 7,938 | $ 591 |
| 2009 Conservation Fund | 3,000 | 124 | 2,422 | 454 |
| 2010 Conservation Fund | 5,000 | 1 | 175 | 4,824 |
| 2005 - 2008 Technology Development F | 3,500 | 89 | 2,827 | 584 |
| 2009 Technology Development Fund | 1,500 | 162 | 1,253 | 85 |
| 2010 Technology Development Fund | 4,500 | 281 | 818 | 3,401 |
| | **$ 26,100** | **$ 728** | **$ 15,433** | **$ 9,939** |

| December 31, 2011 | Restricted Fund | Expensed 2011 | Expensed Prior Years | Balance 2011 |
|---|---|---|---|---|
| 2005 - 2008 Conservation Fund | $ 8,600 | $ 277 | $ 7,661 | $ 662 |
| 2009 Conservation Fund | 3,000 | 747 | 1,675 | 578 |
| 2010 Conservation Fund | 5,000 | 44 | 131 | 4,825 |
| 2005 - 2008 Technology Development F | 3,500 | 153 | 2,674 | 673 |
| 2009 Technology Development Fund | 1,500 | 139 | 1,114 | 247 |
| 2010 Technology Development Fund | 4,500 | 554 | 264 | 3,682 |
| | **$ 26,100** | **$ 1,914** | **$ 13,519** | **$ 10,667** |

| January 1, 2011 | Restricted Fund | Expensed 2010 | Expensed Prior Years | Balance 2010 |
|---|---|---|---|---|
| 2005 - 2008 Conservation Fund | $ 8,600 | $ 966 | $ 6,695 | $ 939 |
| 2009 Conservation Fund | 3,000 | 1,242 | 433 | 1,325 |
| 2010 Conservation Fund | 5,000 | 131 | - | 4,869 |
| 2005 - 2008 Technology Development F | 3,500 | 478 | 2,196 | 826 |
| 2009 Technology Development Fund | 1,500 | 509 | 605 | 386 |
| 2010 Technology Development Fund | 4,500 | 264 | - | 4,236 |
| | **$ 26,100** | **$ 3,590** | **$ 9,929** | **$ 12,581** |

ONTARIO POWER AUTHORITY

**Notes to Financial Statements**
**(in thousands of dollars)**

**Years ended December 31, 2012 and 2011**

## 10) General operating costs:

| | | 2012 | | 2011 |
|---|---|---|---|---|
| General program costs | $ | 3,744 | $ | 4,118 |
| Premises | | 3,631 | | 3,616 |
| Information technology | | 3,253 | | 1,839 |
| Office and administration | | 644 | | 1,022 |
| | **$** | **11,272** | **$** | **10,595** |

## 11) Pension plan:

The OPA makes contributions to the Public Service Pension Plan, a multi-employer plan, on behalf of staff. The plan is a contributory defined pension plan, which specifies the amount of the retirement benefit to be received by the employees based on the length of service and rates of pay.

Contribution rates by employers are made at a rate of approximately eight percent of earnings. As at December 31, 2012, the OPA paid or accrued contributions totalling $2,096 (December 31, 2011 - $1,937 and January 1, 2011 - $1,916) during the year.

## 12) Change in non-cash operating items:

| | | 2012 | | 2011 |
|---|---|---|---|---|
| Increase in accounts receivable | $ | (130,861) | $ | (126,979) |
| Increase in prepaid expenses | | (264) | | (214) |
| Increase in accounts payable and accrued liabilities | | 152,844 | | 25,741 |
| Decrease in contract deposits | | (23,132) | | (15,443) |
| | **$** | **(1,413)** | **$** | **(116,895)** |

## 13) Related party transactions:

The Province of Ontario is a related party as it is the controlling entity of the OPA. The OEB, Hydro One, the IESO, OPG, the Ontario Financing Authority (OFA) and the Ministry of Energy are related parties of the OPA, through the common control of the Province of Ontario. Transactions between these parties and the OPA were as follows:

**13) Related party transactions (continued):**

Under the Ontario Energy Board Act, 1998, the OPA incurs registration and licence fees. Consistent with other registrants, in 2012 the OPA was allocated a portion of the operating costs of the OEB. The total of the OPA's transactions with the OEB were $1,041 in 2012 (2011 - $1,129).

The OPA procures conservation and demand management from Hydro One. The procurement costs include payments for electricity conservation, program operating costs and management fees. In 2012, the OPA procured $34,653 in conservation demand management (2011 - $39,860), from Hydro One and its wholly owned subsidiaries. Amounts receivable from Hydro One in 2012 were $nil (December 31, 2011 - $742 and January 1, 2011 - $742).

The OPA receives its fee revenue from the IESO. The fee revenue is approved by the OEB and collected each month by the IESO from ratepayers through a usage rate applied to Ontario domestic electricity consumption. Fee revenue for 2012 was $76,298 (2011 - $76,388). In addition, the OPA and the IESO have agreements set up for the settlement of amounts paid and received for the global adjustment account, RPP on behalf of various market participants (see note 5). At December 31, 2012, the OPA had a net receivable of $264,304 (December 31, 2011 - $326,049 and January 1, 2011 - $187,789). The OPA also incurred $388 in 2012 (2011 - $844) for IESO professional services.

The OPA has available a revolving operating facility in the amount of $975,000, provided by the OFA to fund its general operating expenses and support the RPP variance account. The line of credit was renewed in 2010 for a three-year term from January 1, 2011 to December 31, 2013. On December 31, 2012 the OPA has a $60,000 (December 31, 2011 - $256,368 and January 1, 2011 - nil) outstanding balance from the OFA. In 2012, the OPA incurred $470 (2011 - $1,021) in interest expenses for the loan. This is net of interest expense that was allocated to the market.

These transactions are in the normal course of operations and are measured at the exchange amount, which is the amount of consideration established and agreed to by the related parties.

ONTARIO POWER AUTHORITY

**Notes to Financial Statements**
**(in thousands of dollars)**

**Years ended December 31, 2012 and 2011**

## 14) Contingencies and guarantees:

### Contingencies:

In the normal course of its operations, the OPA becomes involved in various legally binding agreements. Some of these agreements contain potential liabilities that may become actual liabilities when one or more future events occur or fail to occur. To the extent that a future event becomes likely to occur or fails to occur, and a reasonable estimate of the loss can be made, an estimated liability will be accrued and the expense recorded on the OPA's financial statements. As at December 31, 2012 in the opinion of management, no such liabilities exist.

Contract conditions related to the construction of a new clean energy facility stipulate that the OPA is contingently liable to repay upgrade costs, up to a maximum of $1,000, as incurred by the energy supplier. While none of these costs have been incurred to date, the OPA is liable to cover such costs over a 20-year period ending in 2025. As at December 31, 2012 management is not aware of any information to suggest that these upgrade costs will be incurred by the supplier.

### Guarantees:

The OPA is contingently liable under a loan guarantee provision in a contract with a maximum potential exposure of $8,600. The outstanding loan balance under this contract which the OPA has guaranteed, is $nil as at December 31, 2012 and is not presently in default. This program ended in September 2012 and no obligations resulted from the guarantee.

The OPA enters into contracts with suppliers of electricity as part of its normal business operations. In some cases, these contracts require the OPA to support obligations with these entities. In 2012, the OPA entered into a letter of credit amounting to $1,349 in support of a contracted obligation. As at December 31, 2012, no amounts have been drawn on the balance.

## 15) Fair value of financial assets and financial liabilities

The carrying amounts for cash and cash equivalents, accounts receivable, accounts payable and accrued liabilities approximate their fair values because of the short-term maturity of these instruments.

The carrying values of the operating loan approximate their fair values as the terms and conditions for similar types of loan arrangements are comparable to current market conditions for similar items.

The fair values of other financial assets and other financial liabilities are not provided because it would not provide additional useful information as they would be offset and/or would not be practical to determine.

## 16) Capital disclosures:

Due to the OPA's primary objectives (note 1), the OPA plans for revenues to fund expenses. Any variances that occur are addressed in the following year's revenue requirement submission. As of December 31, 2012, the Minister has not provided formal approval of the OPA's business plan or the OPA's proposed usage fee for 2013.

ONTARIO POWER AUTHORITY

**Notes to Financial Statements**
**(in thousands of dollars)**

**Years ended December 31, 2012 and 2011**

## 17) Financial risk management:

The OPA is exposed to financial risks in the normal course of its business operations, including market risks resulting from credit risk, liquidity risk and interest rate risk. The nature of the financial risks and the OPA's strategy for managing these risks has not changed significantly from the prior year.

(a) Credit risk:

Credit risk refers to the risk that one party to a financial instrument may cause a financial loss for the other party by failing to meet its obligations under the terms of the financial instrument. The OPA is exposed directly to credit risk related from accounts receivable and bank deposits held at the chartered bank. Direct exposure to credit risk is limited to the carrying amount presented for these assets on the statement of financial position. Accounts receivable as of December 31, 2012 included no material items past due.

(b) Liquidity risk:

Liquidity risk refers to the risk that the OPA will encounter financial difficulty in meeting obligations associated with its financial liabilities. The OPA manages liquidity risk by forecasting cash flows to identify financing requirements. Cash flows from operations and maintaining appropriate credit facilities reduce liquidity risk.

(c) Interest rate risk:

The OPA's operating loan has a variable interest rate based on the Province of Ontario's cost of funds for borrowing, with a similar term as determined by the OFA plus a margin. As a result, the OPA is exposed to interest rate risk due to fluctuations in the Province of Ontario's cost of funds for borrowing with a similar term rate.

# Corporate Information

## Board of Directors

**James D. Hinds, Chair**
Retired from TD Securities Inc., where he was a Managing Director; Newcrest Capital Inc. and CIBC Wood Gundy Inc.

**Michael Costello, Director and Chair, Audit Committee**
Retired from BC Hydro and BC Transmission Corporation (President and CEO); Director, InTransit BC, Health Benefit Trust and Conifex Timber

**Richard P. Fitzgerald, Director**
President, Mark Anthony Brands, Toronto

**Adèle M. Hurley, Director**
President, Hurley & Associates Inc. and Director, Program on Water Issues, Munk School of Global Affairs, University of Toronto

**Ronald L. Jamieson, Director and Chair, Human Resources Committee**
Retired from BMO Financial Group, where he was Senior Vice-President, Aboriginal Banking; Director, Nuclear Waste Management Organization and Denendeh Investments Inc.; Chairman, Canadian Council for Aboriginal Business

**Bruce Lourie, Director**
President of Ivey Foundation, a Director of Environmental Defence Canada and a Director of the Consultative Group on Biological Diversity (San Francisco)

**Lyn McLeod, Director and Vice Chair**
Former Chair of the Ontario Health Quality Council and former Ontario representative on the Health Council of Canada. Founding Chancellor of the University of Ontario Institute of Technology and past Chair of the Board of Confederation College in Thunder Bay

**Patrick J. Monahan, Director**
Vice-President, Academic, and Provost at York University. Former Dean of Osgoode Hall Law School and former Chair of the Board of Governors of the Law Commission of Ontario.
*Resigned, effective November 23, 2012*
**Colin Andersen, Director**
Chief Executive Officer, Ontario Power Authority

## Corporate Officers

**James D. Hinds**
Chair

**Colin Andersen**
Chief Executive Officer

**JoAnne Butler**
Vice President, Electricity Resources

**Kristin Jenkins**
Vice President, Corporate Communications

**Michael Lyle**
General Counsel and Vice President,
Legal, Aboriginal and Regulatory Affairs

**Kimberly Marshall**
Vice President, Business Strategies and Solutions

**Andrew Pride**
Vice President, Conservation

**Amir Shalaby**
Vice President, Power System Planning

**John Zych**
Corporate Secretary

For more information on the Board of Directors, including the Board Charter and Code of Conduct, Governance and Structure By-Law, and Board committees, please visit the OPA website, www.powerauthority.on.ca and select About Us; Management, Mandate and Organization; Board of Directors.

ONTARIO POWER AUTHORITY

## Corporate Contact Information

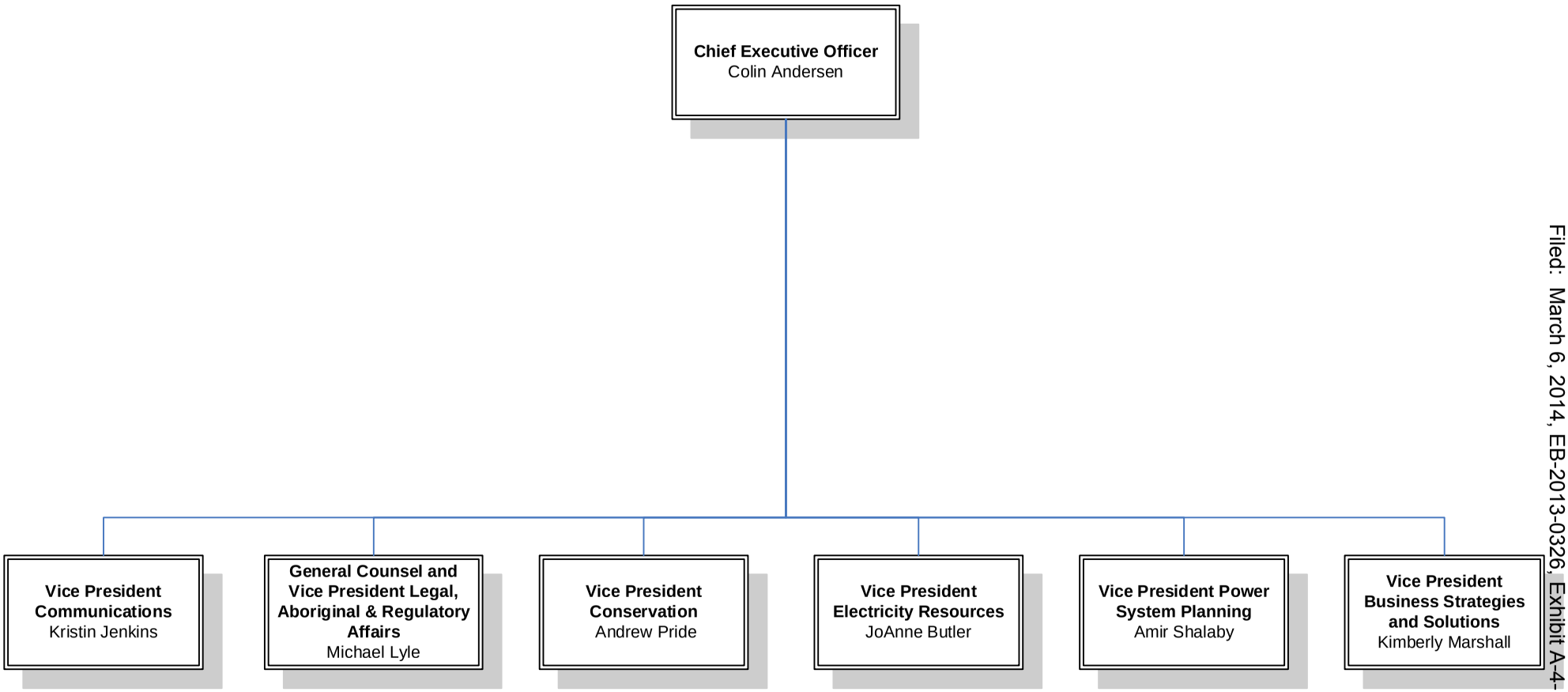
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Toronto, Ontario M5H 1T1
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Fax: (416) 967-1947
Web: www.powerauthority.on.ca

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# Ontario Power Authority

Chief Executive Officer
February 2014



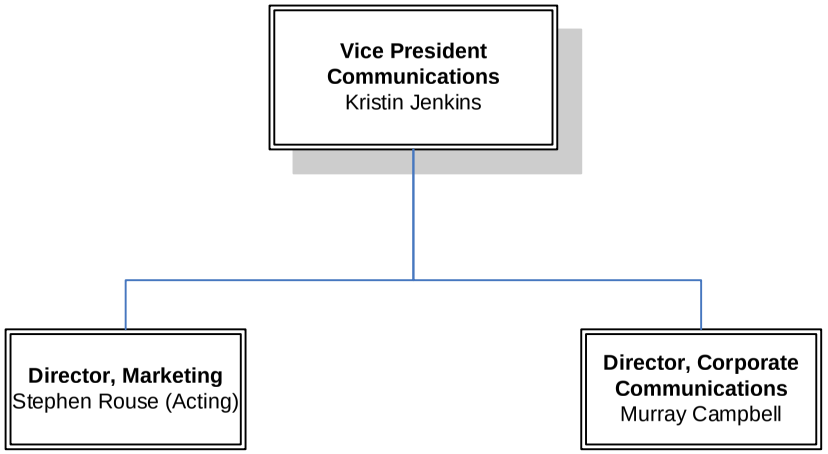

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# Ontario Power Authority

Communications
February 2014

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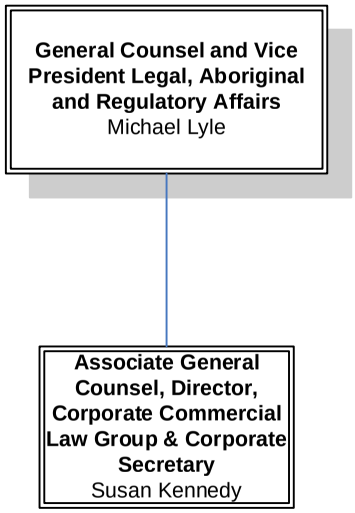
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# Ontario Power Authority

Legal, Aboriginal and Regulatory Affairs
February 2014



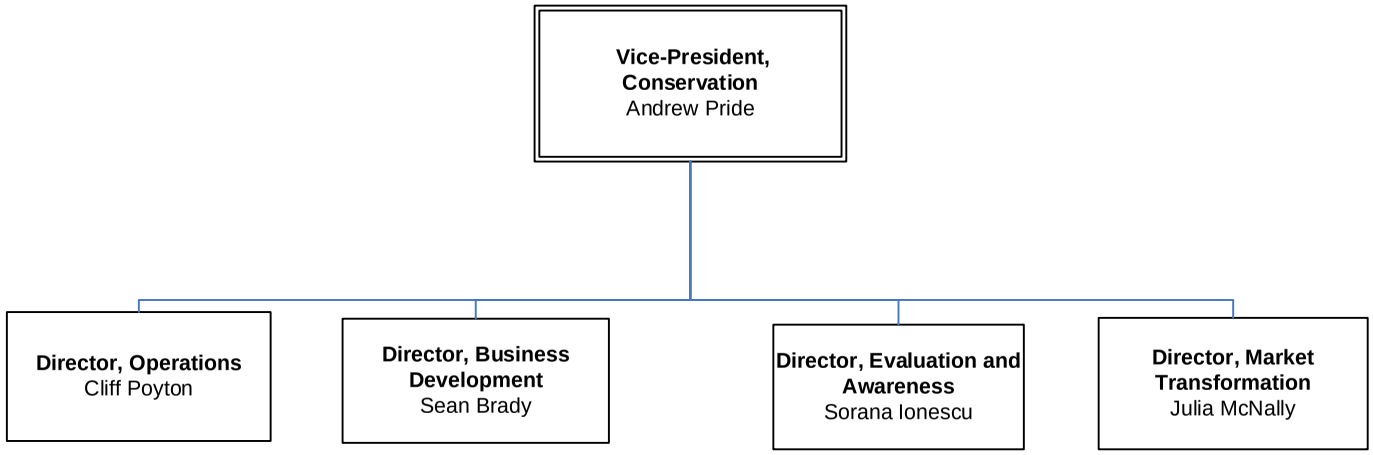



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# Ontario Power Authority

Conservation – Directors
February 2014

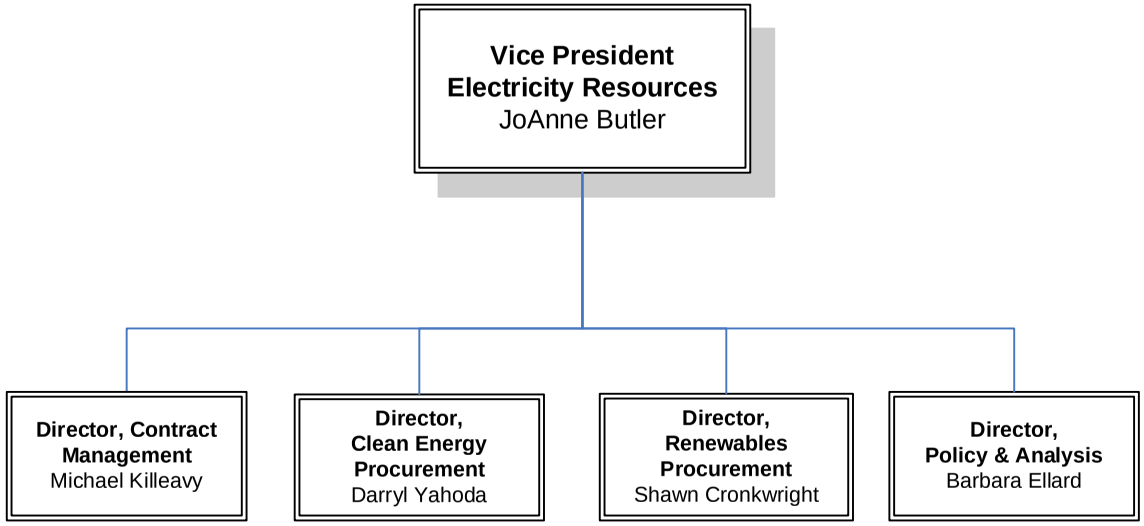



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# Ontario Power Authority

Electricity Resources
Direct Reports
February 2014

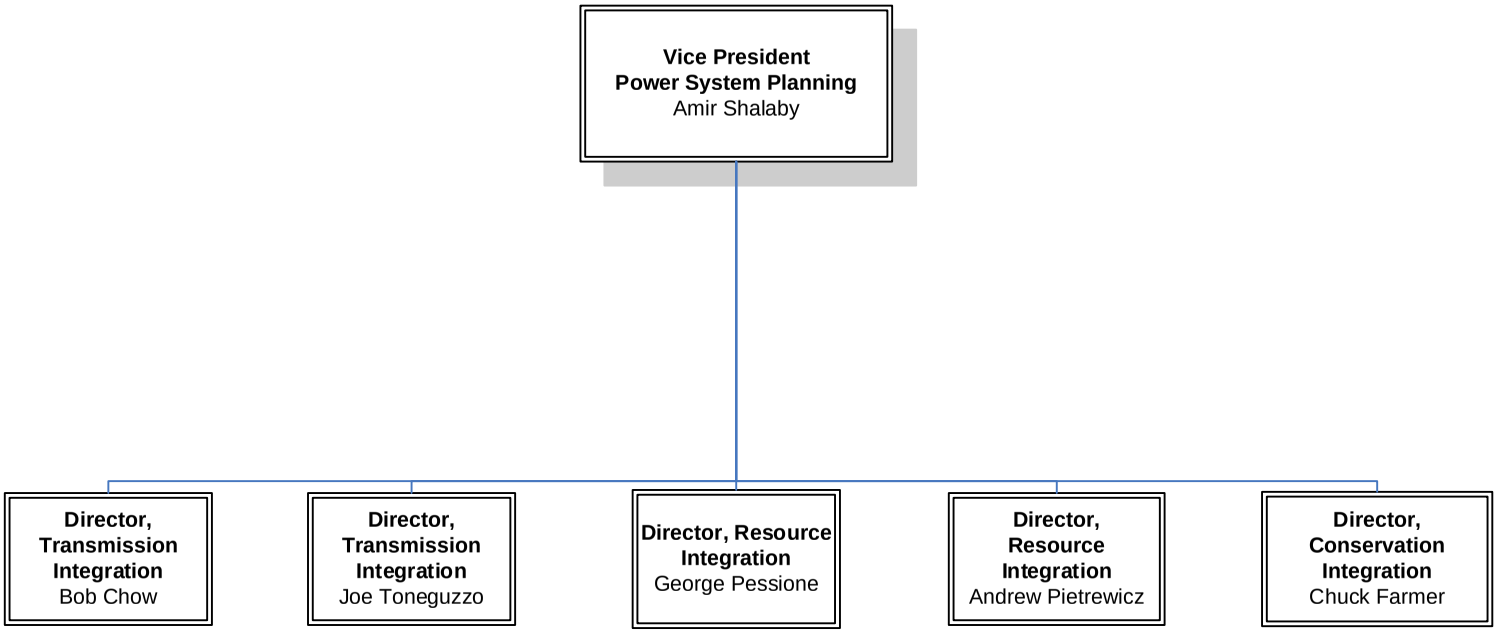
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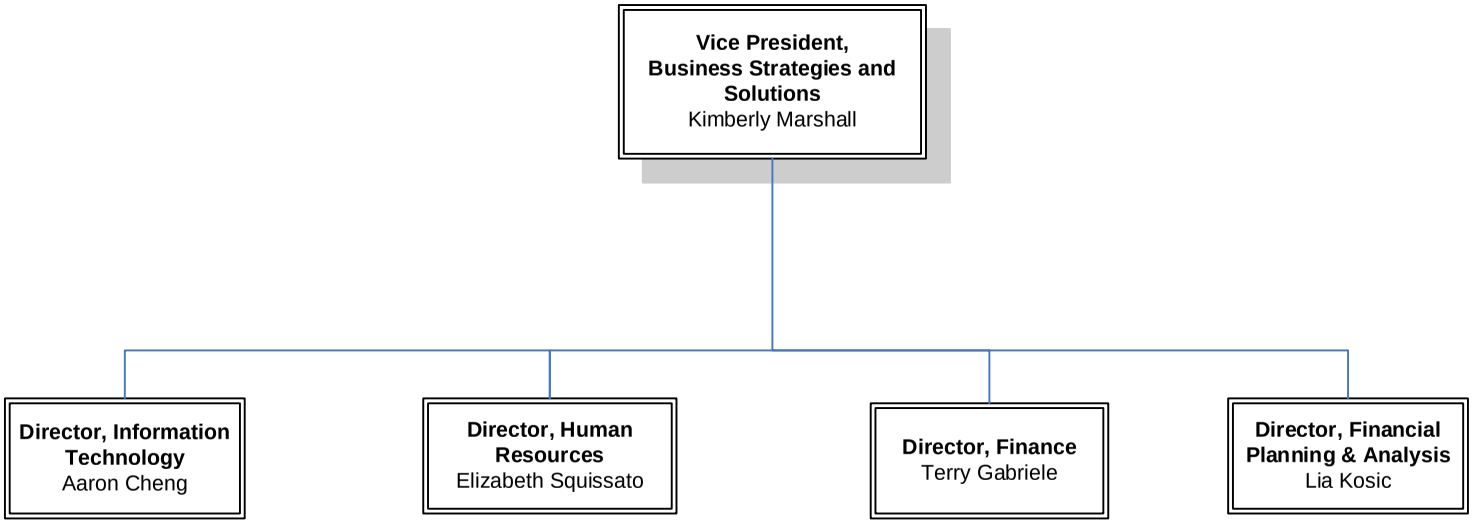
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Directors
February 2014

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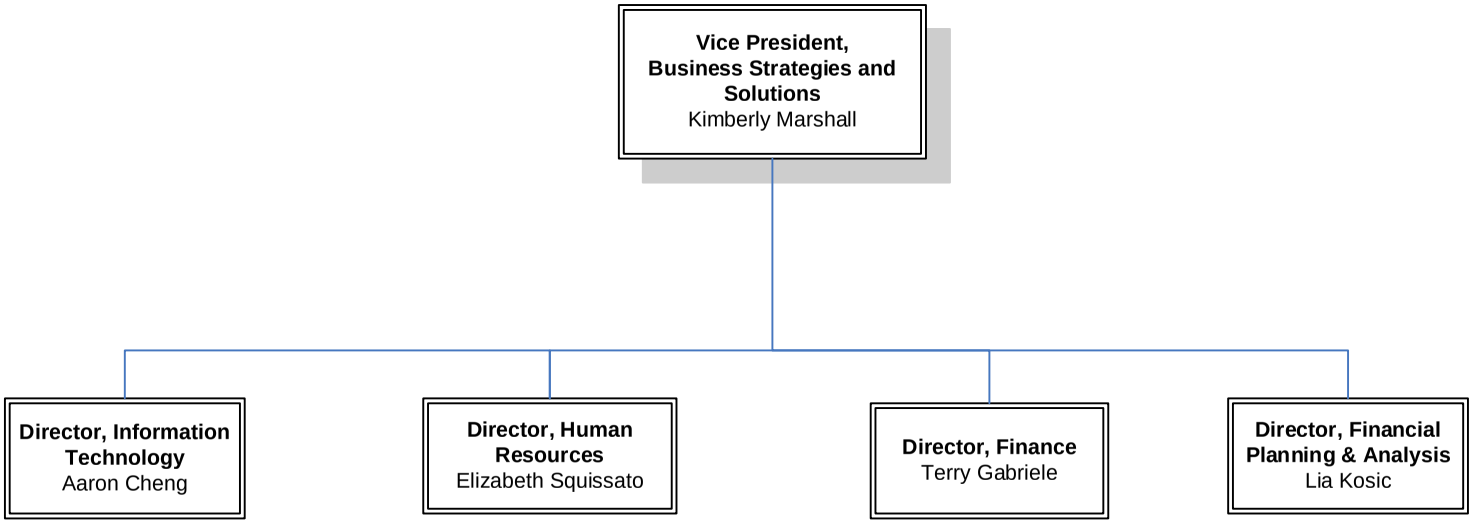

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# Ontario Power Authority

Business Strategies and Solutions
Directors
February 2014

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# CIRRICULUM VITAE OF WITNESSES

TO BE FILED AT A LATER DATE

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# DIRECTIVES AND LETTERS TO THE OPA FROM THE MINISTER OF ENERGY

**The OPA is bound by directives issued under the *Electricity Act, 1998* by the Minister of Energy which articulate government policy.**

**December 16, 2013**

**Moving Forward – Letter Requiring Report Back – Combined Heat and Power ("CHP") –** Amendment to a previous CHP direction – Based on the government's document Achieving Balance: Ontario's Long-Term Energy Plan, the Minister is requiring the OPA to consult and report back to him by the end of February, 2014, on the most appropriate and efficient means by which the OPA could design a targeted procurement program for CHP projects that are capable of maximizing efficiency and/or regional capacity need in respect of the Target Sectors. The letter identifies programs for CHP at greenhouse operations agri-food and district energy projects as the "Target Sectors". The Minister also confirms his desire that the OPA implement the CHP initiative described in the CHP direction of November 23, 2010.

**December 16, 2013**

**Moving Forward with Large Renewable Energy Projects, Renewable Energy Projects in Remote First Nation Communities and Energy Storage –** The OPA has received a directive from the Minister which seeks to outline the implementation of the following three initiatives identified in the government's document Achieving Balance: Ontario's Long-Term Energy Plan:

- Competitive Procurement Process for Large Renewable Energy Projects
- Renewable Energy Projects in Remote First Nation Communities; and
- Energy Storage

The OPA is directed to design and develop the Competitive Procurement Process based on the principles articulated in Achieving Balance and to conduct further outreach with the public, municipalities, the renewable energy sector, the Association of Municipalities of Ontario, other stakeholder and First Nation and Métis communities in early 2014. The OPA shall report back to the Minister with a proposed design for the Competitive Process by March 1, 2014, and subject to a further direction, plan to post the draft Request for Qualification for comment for the Competitive Process before the end of the first quarter of 2014.

The OPA is directed to work with those remote First Nation communities where transmission connection is not identified as economic in the OPA's plans, and other appropriate parties, in order to develop and implement solutions for on-site renewable generation projects that reduce their dependency on diesel fuel and which promote the use of renewable energy sources. Where plans are not already in place, the OPA shall work with these remote communities to analyze options and develop plans by the end of 2014.

The Minister requests that the OPA work closely with the Independent Electricity System Operator and jointly report back to the Minister with a proposed design and outline for an energy storage procurement framework by January 31, 2014.

**December 16, 2013**

**100 percent Biomass Non-Utility Generator Projects –** The Minister is replacing the November 23, 2010 direction as it pertains to negotiating new contracts with non-utility generator facilities ("Biomass NUGs") having certain characteristics listed in Appendix A to that direction. The Minister directs the OPA to seek new contracts with the owners and operators of the Biomass NUGs on terms that include those outlined in the direction.

**December 16, 2013**

**Supply agreement with the Ontario Power Generation for the conversion of Thunder Bay Generating Station ("TBGS") –** The Minister has issued a direction to the OPA that replaces the direction issued on March 16, 2006 and the direction issued on August 17, 2011, both relating to the conversion of the TBGS. The Minister directs the OPA to negotiate and enter into a contract with OPG for the procurement of electricity from advanced biomass at TBGS, subject to the parameters provided in the direction. The contract will cover the output from one unit at TBGS, which is to have a rated capacity of 150 MW. The contract will provide that

OPG is to optimize the operation of the converted unit to maximize reliability in the northwest region, while considering the cost impacts of the operation of the converted unit.

**October 28, 2013**

**Clarification re: Non-application to First Nation reserves of FIT Program restrictions relating to agricultural lands –** In recognition of the authority of band councils elected under the Indian Act to make decisions regarding land use on reserves, the Minister's policy is to defer to band councils in relation to the use of agricultural land for power generation purposes. The Minister therefore directs the OPA not to apply the Agricultural Land Restrictions to FIT projects proposed to be located on reserve lands.

**October 25, 2013**

**Clarification re: Procuring Electricity From Energy from Waste ("EFW") Facilities Using Technologies That Have Completed the Ministry of Environment Pilot or Demonstration Project ("PDP") Initiative –** The Minister of Energy confirms his desire that the OPA implement the Initiative described in the August 19, 2011 direction, and directs the Ontario Power Authority to assume responsibility for this Initiative.

**August 16, 2013**

**Administrative Matters Related to Renewable Energy and Conservation Programs –** the OPA is directed by the Minister to, in consultation with the Ministry of Energy, undertake an evaluation process to identify opportunities to improve, streamline and better align the FIT Program support programs and provide the Ministry with its recommendations by January 31, 2014.

The OPA is directed to make interim pre-FIT funding available to municipalities and public sector entities through two new applicant funding streams. The OPA is directed to also make the remaining education and capacity building funding, as referenced in the July 11, 2012 direction, available to Aboriginal communities and organizations, co-operatives, municipalities, and public sector entities. This funding may be made available to not for profits and charities to provide education and capacity building to the groups indicated above.

For FIT contracts that receive priority as part of a Contract Capacity Set-Aside, the directive establishes that a drop in equity participation to 50% or less, or a drop in local property owner membership below fifty members, will only be grounds for termination of a FIT contract if it occurs before the fifth anniversary of commercial operation being achieved. Drops in local property owner participation will not be a default if it is attributable to death or departure from the community. A minimum participation level of 25% is required to be maintained for the full term of the contract.

As an interim step towards better aligning the FIT program with the World Trade Organization members adopted rulings, the OPA is directed to reduce domestic content requirements to a specified minimum for new FIT procurements undertaken during the implementation period. This period commences at the Fall 2013 procurement window and the reductions apply to Small FIT, microFIT, and pilot solar projects on unconstructed buildings, including any unused capacity from the Small FIT window that closed on January 18, 2013.

The OPA is also directed to amend the Industrial Accelerator Program ("IAP") to include non-industrial transmission connected consumers, and conservation measures addressing equipment replacement and retrofits and new construction. The directive specifies that participants in the Industrial Electricity Incentive Program ("IEI") are not eligible for the new IAP measures authorized by the directive in respect to their IEI eligible load.

**June 26, 2013**

**Hydroelectric Projects -** The Minister has directed the OPA to launch two standard offer programs by September 30, 2013 to procure up to:

- 40 MW of hydroelectric capacity at existing facilities with expansion potential for incremental capacity with the following participants:
    - Non-Utility Generation facilities under current contract with the Ontario Electric Finance Corporation (OEFC); and

- Existing Hydroelectric Contract Initiative (HCI) contracted facilities that were not deemed by the OPA to be under negotiation with the OPA before the Minister's January 21, 2013 directive "Re: Hydroelectric Projects".

- 50 MW of new hydroelectric capacity for municipal hydroelectric projects that are at least 5 MW.

Also, by September 30, 2013 the OPA is directed to launch the procurement of hydroelectric capacity of up to 10 MW for new build distribution-connected hydroelectric projects as set out in the January 21, 2013 directive. Commencing in the summer of 2013, the OPA is further directed to enter into negotiations for a power purchase agreement with OPG to procure electricity from OPG and the Taykwa Tagamou First Nation proposed 25 MW New Post Creek hydroelectric generating station. Further, the OPA is directed to offer a 3-year extension to the Milestone Date for Commercial Operation in existing hydroelectric FIT contracts.

**June 12, 2013**

**Renewable Energy Program -** The Minister has directed the OPA to continue the FIT Program in accordance with this new directive. The directive provides, among other things for:

- The setting of annual procurement targets of 150 megawatts (MW) for small FIT and 50 MW for microFIT for each of the next four years; and

- No further procurement of additional MW for Large FIT projects (large renewable projects will be procured under a competitive procurement process going forward).

The directive further provides for a number of measures to incent municipal and public sector entity participation in the small FIT Program and provides set asides of available contract capacity for municipal or public sector, community and Aboriginal projects.

**January 21, 2013**

**Hydroelectric Projects -** The Minister has directed the OPA to continue the Feed-in Tariff program and that, in offering contracts for hydroelectricity, to take into account that the 9,000 MW target for 2018 remains the total target for existing, new build and incremental hydroelectric projects regardless of the manner of procurement. The capacity target of 50 MW for hydroelectric projects set out in the April 5, 2012 direction is no longer set aside with the FIT Program and is replaced by this direction. The OPA is directed to procure up to 10 MW for new build distribution-connected hydroelectric projects greater than 500 kW and less than 5 MW, under a new municipal program stream for eligible municipal waterpower projects. The OPA created the Hydroelectric Contract Initiative (HCI) to implement the May 7, 2009 direction entitled "Negotiating New Contracts with Hydro-Electric Generation Facilities". The OPA is directed to no longer commence new negotiations relating to refurbishment, upgrade or expansion of existing facilities currently holding HCI contracts. The directive indicates that the government remains committed to allocating the remaining 40 MW of the original capacity target set out in the April 5, 2012 direction and will issue a future direction for later hydroelectric procurement initiatives.

**December 21, 2012**

**Extension of Funding Time-Period for OPA-Contracted Province-Wide CDM Initiatives under the GEA Conservation Framework –** The OPA is directed by the Minister to fund CDM programs, which would meet apart from the timing requirements, the definition of the criteria OPA-Contracted Province-Wide CDM Programs contained in the April 23, 2010 Direction for an additional one-year period from January 1, 2015 to December 31, 2015. Currently contracts entered into under the April 23, 2010 Direction between the OPA and distributors are scheduled to end on December 31, 2014. The Minister states that a one-year time extension for the availability of funding would add stability and enhance continuity to the conservation activities now being undertaken by the OPA and distributors.

**December 13, 2012**

**Addendum No. 1 – Southwest Greater Toronto Area (SWGTA) Supply –** This directive amends the direction of August 18, 2008. The OPA has been directed by the Minister to assume responsibility for the Crown, including the Ministry of Energy to enter into negotiations for a definitive Clean Energy Supply Contract with TransCanada Energy Limited (TCE) with respect to a gas-fired generation facility on the lands of the Lennox Generating Station currently owned by Ontario Power Generation Inc. The contract will be

consistent with the Memorandum of Understanding entered into between the Province, TCE and the OPA on September 24, 2012.

**December 11, 2012**

**Renewable Energy Program Re-Launch –** The OPA received direction from the Minister to continue the Feed-in-Tariff (FIT) program (which supplements or replaces previous provisions in directives related to the FIT program, the microFIT program and FIT Support programs dated September 24, 2009, April 5, July 11 and November 23, 2012). The purpose of the directive is to Strengthen Community and Aboriginal Participation in the FIT program by ensuring eligible applications for the Aboriginal contract capacity set-aside provided for in the November 23, 2012 direction are assessed and processes in a manner that provides an opportunity for a distribution of contracts across a broad range of First Nation and Métis communities. In that regard the Minister directs the OPA to establish an allocation process for the Aboriginal contract capacity set-aside under the Small Fit application window. The allocation process will no longer apply once all of the contract capacity set-aside has either been allocated, or there are no further applications for First Nation or Métis contract capacity set-aside. The OPA is directed to then continue to process applications for all projects, which may include Aboriginal projects based on prioritization points outlined in the July 11, 2012 direction.

**November 23, 2012**

**Renewable Energy Program Re-Launch –** The OPA is directed by the Minister to continue the Feed-in Tariff (FIT) and microFIT programs developed pursuant to the direction issued September 24, 2009 and amended by the April 5 and July 11, 2012 directions. This directive follows the Minister's review and consideration of the Land Use Working Group's recommendations received earlier this month, related to ground-mounted solar PV projects on rural lands with multiple primary uses and rural/agricultural lands with abutting residential uses. The directive outlines specific government policy that needs to be implemented with respect to Ground-mounted Solar PV Projects; Strengthening Community and Aboriginal Participation; Re-launching the Community Energy Partnerships Program (CEPP) and Aboriginal Renewable Energy Fund (AREF); and Connecting Constrained MicroFIT projects. The OPA is directed to open the Small FIT application window as soon as possible and to follow through with awarding 200 MW of projects. The OPA is to work diligently to develop the program rules and contract as soon as possible in 2013 for a pilot program for applicants with un-constructed buildings wishing to apply for small FIT rooftop solar contracts.

**November 1, 2012**

**Industrial Electricity Incentive ("IEI") Program –** The Minister has directed the OPA to develop and implement the IEI program to undertake various initiatives, measures, activities and procurements designed to assist in the management of electricity demand in Ontario. This will include providing eligible participants with electricity-based price adjustments for the incremental consumption they bring to the province. The objectives of the IEI program are to: facilitate load management and the management of electricity demand in Ontario by increasing industrial load to better match supply conditions; minimize the cost impact on existing consumers; and encourage industrial growth, capital investment and job creation in Ontario. The OPA shall design and implement the IEI program in two streams. Stream 1 is intended for industrial consumers willing to operate an industrial facility and undertake a large capital investment in technologies, products or processes that are not currently being used or produced in Ontario. Stream 2 is intended for existing industrial consumers in Ontario that will expand their existing industrial facility, or build a new one. The OPA has been directed to select all IEI program participants through a competitive procurement process and to prioritize applications through a points system set out in the direction. The direction also provides requirements for the form of contract under the IEI program. The OPA shall make best efforts to begin accepting applications on December 1, 2012.

**July 11, 2012**

**Feed-In Tariff Program Launch –** The OPA has been directed to continue the Feed-in Tariff (FIT) and microFIT programs developed under the September 24, 2009 direction and amended by the April 5, 2012 direction, with such amendments as are required to implement the policies set out in this direction. These policies include encouraging greater community and Aboriginal participation by prioritizing applications through a modified points system, and protecting agricultural lands by restricting the OPA from entering into

FIT contracts for ground-mounted solar PV facilities located on certain classes of land. The direction prevents the OPA from entering into a FIT contract for non-hydroelectric projects where the proposed project is located 50 km or more from its proposed connection point on the existing transmission or distribution grid. The direction also provides a requirement for microFIT applicants to seek an Offer to Connect within 30 days of the OPA confirming the application is complete. As well, the direction provides for several changes to the FIT contract, including extending the voluntary withdrawal period for existing FIT contract holders to September 30, 2012. The direction also requires the OPA to design a pilot stream within the FIT program for applicants with unconstructed buildings to be able to apply for small FIT rooftop solar contracts.

**April 5, 2012**

The OPA is directed by the Minister to continue the FIT and microFIT programs developed under the September 24, 2009 direction with such amendments as are required to implement the policies set out in this direction. These policies include prioritizing projects in which a local community, aboriginal community or publicly-funded schools, public colleges, public universities, hospitals and publicly-owned long-term care homes have at least a 15% equity interest. The direction establishes a new price schedule to reflect current costs of developing the different types of renewable generation. The direction also provides for changes to the rules to restrict where certain types of projects may be located. The direction also provides for changes to the FIT Support Programs.

**August 25, 2011**

**Amending the September 24, 2009 direction regarding the Aboriginal Energy Partnerships Program (AEPP) to include capacity funding for participation on transmission projects –** The OPA is directed to adjust the AEPP to fund Aboriginal communities that are exploring equity positions in future and planned major transmission lines in Ontario, where the OPA has identified transmission capacity need. Up to $500,000 of total funding will be made available for each transmission line with funding preference going to Aboriginal communities where transmission lines cross traditional territory. The OPA shall develop the program criteria for this initiative and establish a reasonable timeline for the reimbursement of eligible costs incurred between November 23, 2010 and the date that this initiative is launched.

**August 19, 2011**

**Procuring Electricity from Energy from Waste ("EFW") facilities using technologies that have completed the Ministry of the Environment ("MOE") Pilot or Demonstration Project ("PDP") Initiative –** This directive is designed to help facilitate the further development and commercial introduction of technologies that have fully participated in the MOE's PDP Initiative. The Ontario Power Authority is directed to enter into negotiations with EFW projects using any of the technologies that have satisfactorily completed the PDP Initiative, to procure any net electricity produced and offered, on terms and conditions as determined by the OPA.

**August 19, 2011**

**Constrained microFIT Projects -** In order to help facilitate participation in the microFIT program by applicants who have been unable to connect their projects ("Constrained Applicants"), the Minister of Energy has directed the OPA to allow any Constrained Applicant with one project the option to relocate their project from the original location to another location in Ontario upon written notice to the OPA. The OPA is also directed to allow any Constrained Applicant with more than one project that cannot be connected ("Constrained Project") the option to combine and relocate up to 50 Constrained Projects, having a combined nameplate generation capacity of up to 500 kW, from the original locations to any one new location in Ontario upon written notice to the OPA. Finally, the OPA is directed to allow any Constrained Applicant the option to assign any or all of their Conditional Offer(s) to another Constrained Applicant that is either an Eligible Participant or a co-operative incorporated under the Co-Operative Corporations Act (Ontario).

**August 17, 2011**

**Thunder Bay Generating Station Conversion to Natural Gas –** The Minister has directed the OPA to assume responsibility of the Crown for negotiating and entering into a long-term energy supply contract (the "Agreement") with Ontario Power Generation (OPG) for the output from two generating units at OPG's Thunder Bay Generating Station once they are converted from coal to natural gas. The Minister has asked the Ontario Power Authority to endeavor to execute the Agreement by December 31, 2011.

**August 2, 2011**

**Supporting Manufacturing Supply Chain Development –** The OPA has received a directive from the Minister to allow options to Suppliers with FIT contracts which are designed to eliminate existing contractual risk, firm up financing for equipment orders and support purchase orders with Ontario manufacturers. Under this direction the OPA must allow Suppliers to elect to obtain a waiver of the OPA's termination rights under Section 2.4(a) of the FIT contract, which currently says that until the OPA issues Notice to Proceed to the Supplier and the Supplier has provided to the OPA the Incremental NTP Security, either the OPA or the Supplier may elect to terminate the FIT Contract. For non-Capacity Allocation Exempt (CAE) solar (PV) or wind facilities, the waiver will terminate if the Supplier fails to submit a Domestic Content Plan along with evidence to demonstrate that the minimum required domestic content level will be met or exceeded, and have them reviewed for completeness and substantiation by the OPA by December 31, 2011. For CEA solar (PV) or wind facilities, the waiver will terminate if the Supplier fails to provide the OPA with a Domestic Content Plan by December 31, 2011.

**July 29, 2011**

**Korean Consortium's Haldimand Projects –** This is further to the Minister's April 1, 2010 direction to the OPA to negotiate power purchase agreements (PPAs) with Samsung C&T Corporation and Korea Electric Power Corporation (collectively the "Korean Consortium" or "KC") or the project companies for each of the 5 Phases of the 2,500 MW of wind and solar generation projects that the KC agreed to develop in Ontario. The OPA was also directed to hold in reserve transmission capacity in Haldimand County for the KC or its project companies. Consistent with government objectives to develop economic opportunities for First Nations communities, the Minister has now directed to OPA to enter into PPAs with the KC or its project companies for Phase 1 wind and solar projects in the Haldimand County and, to encourage this, the government has given the Korean Consortium another year to develop an agreement with the Six Nations Elected Council. If no agreement is reached by July 31, 2012 the Korean Consortium may elect between August 1 – 31, 2012, to relocate their Phase 1 projects and to enter into new PPAs. The New PPAs will have a contract capacity of not more than 150 MW for wind and of not more than 100 MW for solar generation at the then current FIT prices, with commercial operation dates of no more than 32 months from the date the PPAs are signed by the OPA and all parties.

**June 8, 2011**

**microFIT domestic content (amending the September 24, 2009, directive) --** The OPA is directed to allow solar microproject applicants who submitted their applications before October 8, 2010, to meet a minimum domestic content requirement of 40 percent. These applicants have the option to meet a higher domestic content requirement. All other applicants will have to meet a minimum domestic content requirement of 60 percent.

**June 3, 2011**

**Bruce and West of London Transmission Areas –** The OPA shall offer FIT contracts for up to 750 MW and 300 MW of renewable generation facilities in the Bruce and West of London transmission areas respectively, based on project priority ranking and available connection resources. The Minister has directed the OPA in making contract offers in these areas to include in its assessment those projects whose connections require upgrades to connection assets paid for by their proponents. The OPA is directed to reserve capacity for small capacity allocation exempt and microFIT projects. The OPA shall provide five business days to proponents with FIT projects on the priority ranking list in Bruce and West of London transmission areas, wishing to change their connections points within these areas.

**February 17, 2011**

**Supply Mix Directive (replaces the Supply Mix Directives of June 13, 2006 and September 17, 2008) –** The OPA is directed by the Minister of Energy to develop an integrated power system plan ("Plan") to meet the government's goals including the following:

Demand – the OPA shall use a medium electricity demand growth scenario of about 15% between 2010 and 2030. However, the Plan must have the flexibility to accommodate the potential for a higher growth outcome;

Conservation – the OPA shall plan to achieve a peak demand reduction target of 7,100 MW and an energy savings target of 28 TWh by The end of 2030;

Nuclear – the OPA shall continue to plan for nuclear generation to comprise about 50% of total Ontario electricity generation. The Plan shall include the refurbishment of 10,000 MW of capacity at the Bruce and Darlington nuclear generating stations as well as the procurement of two new nuclear generating units (about 2,000 MW) at Darlington;

Coal Phase-out and Potential Conversion – the OPA shall assess the conversion of some or all of the remaining coal-fired generating units at Lambton and Nanticoke to natural gas under a range of scenarios for nuclear generation and system peaking requirements;

Renewables – Hydroelectric Resources – the Plan shall provide for installed capacity to reach 9,000 MW by 2018;

Renewables Other Than Hydroelectric (Wind, Solar, Bio-energy) – the OPA shall plan for 10,700 MW of renewable energy capacity, excluding hydroelectric, by 2018;

Transmission – the OPA shall assume in preparing the Plan that the five priority transmission investment projects that it identified for system reliability, serving new load and for incorporating renewable out to 2018, shall proceed. The OPA shall also develop a plan for remote community connections beyond Pickle Lake.

**February 3, 2011**

**Environmental Attributes –** Pilot Program The OPA has been directed to proceed with a time limited (no more than eighteen months) pilot program to sell, track and audit a limited number of environmental attributes ("EAs"). The OPA owns, by virtue of its contracts, the rights to certain EAs related to renewable energy generation. The purpose of the pilot program is to help develop expertise in the capturing of the economic value associated with the EAs for the benefit of Ontario ratepayers. The OPA is directed to select a program manager to sell some of the EAs and foster the voluntary market for EAs.

**December 6, 2010**

**Broadcasting Initiative Amendment – Procurement of Renewable Energy Advertisements –** The Minister issued a directive to the OPA which amends the March 18, 2010 direction by expanding the TV advertising campaign which focused on opportunities for participation in the microFIT program. The OPA is directed to develop advertising campaigns to run through the end of 2010 and into 2011 to raise consumer awareness of clean energy opportunities enabled by the Long Term Energy Plan and through the OPA's development of an Integrated Power System Plan.

**November 26, 2010**

**Amendment to the Community Energy Partnerships Program ("CEPP") portion of the September 24, 2009 directive -** The OPA was directed, using a third party, to develop and deliver a CEPP that would provide grants to community groups interested in developing renewable energy generation projects in Ontario that are 10MW or less. To enhance the development of community projects in respect of co-operatives only, the OPA is further directed to provide funding of up to $500,000 for Ontario resident owned co-operatives, for projects over 10MW, but to maintain the minimum project size requirement at 10kW. The OPA is also directed to allocate no more than $500,000 annually for funding or grants to third parties, for educational outreach programs, to engage local communities and co-operatives, to develop renewable energy projects. The overall CEPP budget is not to exceed $10 million annually.

**November 23, 2010**

**Combined Heat and Power ("CHP") –** The Minister has directed the OPA to work to procure up to a total of 1000 MW of CHP projects consisting of: a) CHP projects procured to date including those procured under the CHP I, CHP II and CHP III RFP processes; b) individually negotiated CHP contracts with projects over 20 MW; c) CHP projects, 20 MW or under, procured through a standard offer program, with procurement limited to cost effective projects located in areas of the Province where local distribution can be accommodated and there are local benefits. This direction replaces and revokes the CHP component of the Minister's direction of June 15, 2005, the Clean Energy Supply Standard Offer Program component of the June 14, 2007 direction, and the direction dated April 10, 2008.

**November 23, 2010**

**Negotiating New Contracts with Non-Utility Generators ("NUG Facilities") (listed in Appendix A of the directive) –** The OPA received direction from the Minister to negotiate for new contracts with the owners or operators of the non-utility generators ("NUG Parties") where these would have cost and reliability benefits to Ontario electricity customers. The New Contracts should be structured to provide clear signals to NUG Facilities to operate in a manner that optimizes operation when power is valued highly and does not provide an incentive to operate when the output is not required, or the value of the power is low. The OPA may seek to negotiate other matters with the NUG Parties that would provide benefits to Ontario electricity customers or the Ontario electricity system.

**September 17, 2010**

**Green Energy Investment Agreement (the "Agreement") with the Government of Ontario and the Korean Consortium dated January 2010 –** The OPA has been directed, in carrying out the Transmission Availability Tests and Economic Connection Tests under the FIT Program Rules, to hold 500 MW of transmission capacity to be made available in the Bruce area in reserve for Phase 2 projects of the Korean Consortium or its Project Companies. The transmission capacity to be made available in the Bruce area is in anticipation of the completion of the Bruce-Milton line.

**August 26, 2010**

**Atikokan Biomass Energy Supply Agreement ("ABESA") with Ontario Power Generation -** After considering the feasibility of converting the Atikokan Generating Station from coal to biomass, OPG is now positioned to commence redevelopment work. The Minister has therefore directed the OPA to make reasonable efforts to complete the negotiation of a long-term energy supply contract and execute the ABESA with OPG by December 1, 2010. It is expected that the ABESA will provide OPG with an incentive to optimize the operation of the facility to reflect the hourly value of power to the Ontario electricity system. The terms of the ABESA should include that OPG source its long-term biomass fuel requirements from Ontario sources, and that OPG seek options to include Aboriginal communities or businesses among its suppliers. In addition, the ABESA should require OPG to undertake any Aboriginal consultation activities required by law.

**July 5, 2010**

**CDM Program Under the GEA Conservation Framework: Low-Income Conservation Initiative -** The OPA received direction from the Minister to commence the design, implementation and funding of an electricity CDM program for low-income residential consumers as part of its suite of OPA-Contracted Province-Wide CDM Programs for the 2011-2014 period. The OPA is to ensure that a component of its program targeting commercial and institutional consumers, targets multi-family buildings, including assisted and social housing. To ensure consumers benefit from a coordinated approach, the OPA is to consider the low-income energy program being developed by the OEB, which is comprised of gas conservation; customer service standards; and emergency financial assistance. In the Fall of 2010, the OPA is to report to the Minister on its recommendations and proposed implementation plan.

**April 23, 2010**

**Conservation and Demand Management Initiatives under the GEA Conservation Framework -** The OPA has received this direction to advance conservation, being one of the most cost effective means of dealing with electricity supply issues. The direction is categorized into three areas: (i) strategic co-ordination of OPA contracted province wide programs; (ii) energy efficiency and demand response programs for First Nation and Métis communities; and (iii) support and funding of CDM research and innovation.

The Board is currently working with the Ministry and the OPA to develop conservation targets and a reporting process for LDCs.

**April 1, 2010**

With respect to the Government's Green Energy Investment Agreement ("GEIA") with Samsung C&T Corporation and Korea Electric Power Corporation (collectively, the "Korean Consortium") to develop 2500 MW of renewable energy projects in Ontario, the OPA is directed to negotiate one or more Power Purchase Agreement(s) ("PPA") with respect to the Korean Consortium projects. The OPA is to commence negotiations on a PPA when the necessary access rights for a project have been demonstrated and upon the

recommendation of the joint MEI / OPA Implementation Task Force. Each PPA shall be substantially similar to the FIT contract and rules, with necessary modifications to reflect the terms of the GEIA. The OPA is further directed to give priority to GEIA projects when assessing transmission availability.

**March 18, 2010**

The directive to the OPA from the Minister as amended requires the OPA to develop a TV advertising campaign to run in September 2010 to raise consumer awareness of the opportunities for greening of the electricity sector through participation in the microFIT program. The OPA is also directed to develop advertising campaigns to run through the end of 2010 and into 2011 to raise consumer awareness of clean energy opportunities enabled by the Long Term Energy Plan and through the OPA's development of an Integrated Power System Plan.

**March 4, 2010**

**Industrial Transmission Connected Electricity Efficiency Program –** The Minister issued a directive to the OPA to create and deliver an industrial energy efficiency program. The program's objective is to achieve cost-effective conservation through industrial process improvements that bring energy efficiency gains. The program will be part of the OPA's efforts towards assisting the Province with achieving its aggressive conservation targets, by providing incentives to industrial consumers directly connected to the IESO-controlled grid, to invest in energy efficiency and conservation, as well as by increasing industrial facilities' own investments. Industrial consumers will have a five year period within which to elect to participate in the program.

**January 6, 2010**

To help support the general adequacy of Ontario's electricity system, the Minister has directed the OPA to move expeditiously to negotiate and execute a New Contract with Ontario Power Generation (OPG) with respect to OPG's Lennox Generating Station (Lennox GS). This contract is necessary in light of the expiry on September 30, 2009 of the most recent Reliability Must Run (RMR) contract between OPG and the IESO with respect to Lennox. Lennox GS is a 2140 MW dual-fuelled generating station owned and operated by OPG near Kingston, Ontario.

**December 8, 2009**

**Supplementary Initiative to July 13, 2006 Direction re Coordination and Funding of LDC activities to deliver Conservation and Demand-Side Management Programs –** the OPA is directed to increase funding for LDC CDM activities by $50 million and extend the timeframe for available funding under the existing CDM Direction to December 31, 2010.

**September 30, 2009**

**Transmission Availability Test Under FIT Program Rules -** The government is exploring opportunities to further enable new green industries through new investment and job creation. The OPA is directed to hold in reserve 240 MW of transmission capacity in Haldimand County and a total of 260 MW of transmission capacity in Essex County and the Municipality of Chatham-Kent jointly for renewable energy generating facilities whose proponents have signed a province-wide framework agreement with the Province.

**September 24, 2009**

The OPA is directed to develop a feed-in tariff ("FIT") program that is designed to procure energy from a wide range of renewable energy sources. The development of this program is a key element of meeting the objectives of the Green Energy and Green Economy Act, 2009 (the "Green Energy Act") and is critical to Ontario's success in becoming a leading renewable energy jurisdiction.

**May 7, 2009**

**Negotiating New Contracts with Hydro-Electric Generation Facilities -** The OPA is directed to enter into new contracts for hydroelectric facilities which are connected to the IESO-controlled grid but not currently owned by OPG. The hydroelectric facilities must not have been previously considered under any renewables RFP, and may have either no contract, or a current contract with a Provincial government body or agency, for any part of the generation output. New contracts for generation facilities without a current contract are to be concluded by August 15, 2009. A new contract for a facility with a current contract will commence after the current contract expires.

**January 23, 2009**

**Biogas Projects and Renewable Energy Standard Offer (RESOP) -** The OPA is directed to contract with new biogas electricity generation projects that meet conditions under the current RESOP except that the facilities need not be restricted to farm-based projects, and that their capacity may be above 250kW but no greater that 5MW.

**December 24, 2008**

**Negotiating New Contracts with Early Movers Generation Facilities –** The OPA is directed to negotiate new contracts with the owners or operators of the facilities that were listed in the direction on early movers dated December 14, 2005. The new contracts are to expire no later than December 31, 2026 and are to reflect a reasonable cost to Ontario electricity customers and a reasonable balancing of risk and reward.

**December 22, 2008**

**Broadcasting Initiative – Procurement for Energy Conservation Advertisements –** As part of the Ministry's education campaign aimed at advancing public awareness of energy conservation, the OPA is directed to procure advertising space for the broadcasting/publishing of Winter Ads in Ontario. The Ads are to be completed by the last week of March, 2009.

**December 19, 2008**

**Procuring Electricity from a Commercial Durham and York Region Energy from Waste ("EFW") Facility –** The Minister has directed the OPA to contract at a price of 8 cents per kilowatt-hour to procure electricity from the proposed commercial EFW facility being developed by the Regional Municipalities of Durham and York. The production of electricity from this facility will be ancillary to the primary purpose of the facility which is to reduce the need for land filing by the thermal treatment of residual wastes.

**September 17, 2008**

This Directive amends the Supply Mix Directive dated June 13, 2006. It requires the OPA to revisit the IPSP with a view to establishing new targets in a number of areas including with respect to renewable energy sources and conservation. The Directive also asks the OPA to undertake an enhanced process of consultation with First Nations and Métis communities in light of potential duty to consult obligations. The OPA is to provide the revised IPSP to the OEB within six months.

**August 18, 2008**

**Southwest Greater Toronto Area (GTA) Supply –** The Minister has directed the OPA to complete a procurement process by the end of June 2009 for a combined-cycle natural gas-fired electricity generation facility for generating up to approximately 850 MW. The new generation facility will address local area supply inadequacy issues in the Southwest GTA and is to be in-service by no later than December 31, 2013 to support the province's goal to replace coal-fired generation by 2014.

**May 1, 2008**

**Broadcasting Initiative –** Procurement for Energy Conservation Advertisements – As part of the Ministry's education campaign aimed at advancing public awareness on energy conservation, the OPA is directed to procure advertising space for the broadcasting/publishing of Summers Ads in Ontario. The goal is to have the Ads timed to run so that they are completed by the second week of August, 2008.

**April 10, 2008**

**Procurement for Electricity From Combined Heat and Power (CHP) Renewable Co-generation Projects –** The OPA is directed to develop and launch a procurement process by no later than June 30, 2008 to result in contracts for about 100 MW with proponents of renewable energy projects deriving their energy source from CHP. Such contracts are to be entered into no later than December 31, 2008.

**March 12, 2008**

**Broadcasting Initiative -** Procurement for Energy Conservation Advertisements - The Ministry has launched a major consumer education campaign on CDM particularly targeting the residential sector. The OPA is directed to assume responsibility for the initiative with respect to the procurement of advertising space for the broadcasting and publishing of certain advertisements. This activity is expected to cost approximately $4 million.

**February 25, 2008**

**Procuring Electricity From Energy From Waste ("EFW") Pilot or Demonstration Projects ("PDPs") -** The Ministry of the Environment has developed an initiative to test and evaluate EFW technologies. The goal of this initiative is to encourage the development of new or improved EFW technologies with improved environmental performance. The Minister of Energy has directed the OPA to negotiate with the proponents of any pilot or demonstration EFW project participating in the initiative to procure any net electricity produced and offered from such project during the time that it is participating in the initiative.

**January 31, 2008**

**Procuring Approximately 350 MW of New Gas-Fired Electricity Generation for Northern York Region -** The letter from the Minister directs the OPA to develop local area generation to address supply inadequacy issues in the Northern York Region. The OPA is therefore directed to competitively procure a simple (single)-cycle gas-fired electricity generation facility with a rated generation capacity of approximately 350 MW and not more than 400 MW. The facility is expected to be in-service by no later than December 31, 2011 and should be in the vicinity of the 230 kV transmission lines supplying the Armitage and Holland transformer stations.

**December 20, 2007**

**Hydroelectric Energy Supply Agreements with Ontario Power Generation Inc. -** Letter from the Ministry to further the renewable energy capacity in Ontario by 2025 by directing the OPA to assume the responsibility of negotiating with OPG a number of contracts respecting hydroelectric projects located at the following OPG hydroelectric station sites: 1. LAC Seul; 2. Upper Mattagami; 3. Healey Falls; 4. Lower Mattagami; and 5. Hound Chute.

**August 27, 2007**

**Procurement of up to 2,000 MW of Renewable Energy Supply -** Directive based on potential identified by OPA for up to 2,000 MW of new renewable generation projects that are greater than 10 MW in size to come into service by 2015. The OPA is further directed to ensure that appropriate consultation with First Nations and Métis peoples takes place with respect to projects procured by the OPA under this directive.

**June 14, 2007**

**Clean Energy and Waterpower in Northern Ontario Standard Offer -** to expand the SOP initiative in the areas of clean energy supply and small, transmission-connected waterpower projects in northern Ontario; and to have these parts of the SOP in place by the fall of 2007. It is expected that the OPA will enter into contracts with small generators to implement these parts of the SOP.

**July 13, 2006**

**Coordination and Funding of LDC activities to deliver CDM Programs -** Immediately organizing the delivery and funding of CDM programs through LDCs in Ontario. Funding limited to $400 million over three consecutive years.

**June 13, 2006**

**Integrated Power System Plan -** OPA to create IPSP to meet DR from conservation by 6,300 MW by 2025. Plan should reduce projected peak demand by 1,350 MW by 2010, and by another 3,600 MW by 2025. The reductions of 1,350 MW and 3,600 MW are to be in addition to the 1,350 MW reduction set by the government as a target for 2007.

**March 21, 2006**

**Standard Offer Program -** directing OPA to have the Program in place by the fall of 2006, and as a consequence enter into contracts with small renewable generators to implement the Program.

**March 10, 2006**

**Conservation and DSM Initiatives (Residential Sector) -** Directing OPA to assume responsibility for this initiative and implement by fall of 2007 reducing demand in residential sector by 150 MW.

**March 10, 2006**

**Conservation and DSM Initiatives Commercial Buildings and MUSH Sector -** Directing OPA to assume responsibility for this expanded initiative and implement by fall of 2007 reducing demand in commercial buildings and MUSH sector by 150 MW.

**February 10, 2006**
**Toronto Reliability Supply and Conservation Initiative -** with respect to 2,500 MW RFP and priority zones 1) Leaside Sector by summer 2008; PEC contract by May 2006; OPA to seek 300 MW of DSM or DR in Toronto by 2010.

**February 9, 2006**
**Procurement Processes -** Addendum #1 to Procurement Processes Directive of June 15, 2005 (to be consolidated as part of the original directive).

**December 14, 2005**
**Early Movers -** Negotiate and Conclude Contracts with Certain Generation Facilities - replaces June 15, 2005 directive - "Early Movers".

**November 16, 2005**
RES II RFP - Contracts relating to the RFP for 1,000 MW of Renewable Energy Supply Projects with a Contract Capacity of between 20 MW and 200 MW, inclusive, issued by the MOE on June 17, 2005, as amended (the "RES II" RFP). The OPA is directed to enter into contracts with the nine suppliers who were selected pursuant to the RES II RFP and listed in the directive.

**November 7, 2005**
**RES I RFP -** MOE directing the OPA to assume, by November 10, 2005 responsibility for all contracts previously the responsibility of the OEFC (Buyer) as agent of the Crown, that were from its June 24, 2004 RFP to procure 300 MW of new electricity supply.

**October 20, 2005**
**GTA West Supply Initiative -** Goreway Station Project - immediately execute an Implementation Agreement with project proponent re costs that must be incurred if in service is summer of 2007; negotiate contract by December 31, 2005.

**October 20, 2005**
**CDM Initiatives (Appliance Change-Out and Efficient Lighting Initiatives) -** to reduce overall electricity consumption and demand by residential, commercial, and industrial customers.

**October 14, 2005**
**Contracts for the Refurbishment of Bruce A at the Bruce Nuclear Facility Generating Station -** Deliver to counterparties on October 17, 2005, the Bruce Power Refurbishment Agreement and the Refinancing Agreement.

**October 6, 2005**
**CDM Initiatives (Residents of Low-Income and Social Housing) -** to reduce overall electricity energy consumption and demand for low-income and social housing.

**June 15, 2005**
**Procurement Processes -** Immediate Launch of Procurement Processes to address needs in Downtown Toronto and Western Greater Toronto Area, and to develop additional Demand Management, Demand Response, and High Efficiency Combined Heat and Power Supply.

**June 15, 2005**
**"Early Movers" -** Negotiate and Conclude Contracts with Certain Generation Facilities.

**March 24, 2005**
**2,500 MW RFP -** Execution and delivery of CES contracts and a DR contract in accordance with the terms of the 2 500 MW RFP.

# LETTERS

**These letters constitute official instruction from the Minister of Energy but are not considered directives.**

## February 20, 2014

Energy Storage Procurement Framework – The Minister's letter sent to the IESO and the OPA is in response to the Energy Storage Procurement Framework submitted jointly to him. The Minister requests that the upper limit for the IESO-led Phase I procurement be raised to up to 35 MW, with the remainder of the 50 MW for the OPA-led Phase II. The Minister said that both phases should aim to cover the broadest possible range of technologies and projects to support the goal of achieving a diversified portfolio of energy storage technologies. The letter acknowledges the readiness for the Phase I RFP to be issued before the end of February and the commencement of the Phase II procurement as soon as possible. The Minister said he intends to issue a directive to the OPA to enable the Phase II process, with the aim of ensuring a timely procurement with contracts awarded before the end of September 2014.

## December 17, 2013

The 2013 Long-Term Energy Plan ("LTEP") – The Chair of the OPA Board of Directors received a letter from the Minister to acknowledge the OPA's contribution to the significant progress that has been made in building a reliable and clean energy system. The Minister stated his wish to ensure the OPA's co-operation and commitment in implementing a number of initiatives identified in the 2013 LTEP. The Minister's letter listed a number of 2013 LTEP elements that the OPA will either lead or partner with the Ministry to achieve under the headings of Conservation First, Renewable Energy, Natural Gas/Combined Heat and Power, Rate Mitigation and Efficiencies, Enhanced Regional Planning, Transmission Enhancements, Transmission Enhancements: Northwest Supply, Aboriginal Engagement, and Energy Innovation and Nuclear Refurbishment.

## June 25, 2013

Stakeholder Engagement – The Director and Chair of the OPA Board of Directors received a letter from the Minister directing the OPA to further enhance its stakeholder engagement strategy by developing a Stakeholder Advisory Committee ("SAC") which could be structured similar to that of the Independent Electricity System Operator ("IESO"). The Minister requests that the OPA Board of Directors give special consideration to the following essential principles and processes:

- Increased transparency;
- Balanced representation;
- How recommendations are efficiently and effectively integrated into the decision making of the OPA;
- OPA Board members are asked to attend the SAC sessions, as observers; and
- At least five SAC meetings be held in each calendar year.

The Minister has asked for a detailed plan by the end of August 2013.

## August 17, 2011

Ontario Power Generation's (OPG) Atikokan Generating Station (GS) conversion from coal to biomass – This is further to the Minister's directive of August 26, 2010 in which the OPA was directed to negotiate an energy supply agreement with OPG for the output from the converted Atikokan GS. The Minister now asks the OPA to finalize negotiations with OPG on the supply agreement as soon as possible. The Minister said he is confident, after reviewing OPG's conversion proposal, that it meets the requirements in terms of capacity and output as envisaged in the government's Long Term Energy Plan, the Supply Mix Directive of February 17, 2011, and the August 26, 2010 directive.

## February 3, 2011

Consent for Third Amending Agreement to the Bruce Power Refurbishment Implementation Agreement ("BPRIA") – The OPA received a letter from the Minister stating that the Ministry of Energy consents to the OPA entering into the Third Amending Agreement to the BPRIA. The letter indicates that the OPA consulted with and briefed Ministry of Energy staff regarding the details of the proposed amendments and notes the Minister's understanding from the OPA that significant legal, financial and technical due diligence was performed with respect to the proposed amendments to the BPRIA.

**January 28, 2011**
Extension for FIT and microFIT contracts – Because of the positive response to the Feed-In Tariff (FIT) Program, a number of applicants have experienced project delays that could jeopardize their ability to bring their projects online in the time specified in their FIT Contract or their Conditional Offer of microFIT Contract. The Ontario Power Authority is to offer to extend the Milestone Date for Commercial Operation as provided for in existing FIT Contracts, and the expiry date for existing microFIT applications with conditional offers by a period of up to 365 days for interested applicants.

**May 7, 2010**
Since the September 2009 ministerial instruction to Hydro One to plan, develop and implement 20 major transmission projects in Ontario, there have been a number of developments, such as the favorable interest in the OPA's Feed-in-Tariff program, and the Korean Consortium agreement to develop 2500 MW of renewable energy projects in Ontario. The Minister writes to emphasize the need for continued co-ordination between the OPA and Hydro One and requires the OPA to submit an updated transmission expansion plan by June 11, 2010. This plan is to provide recommendations for development sequencing of priority transmission projects, taking into account the needs of FIT and the Korean Consortium, and lay out an implementation approach that will ensure that key government commitments are met.

**February 2, 2010**
Ontario Power Generation's (OPG) Proposed Hydroelectric Development on the Lower Mattagami River in Northeast Ontario - The Minister has reaffirmed the instructions outlined in the December 20, 2007 directive stating that with respect to the Lower Mattagami River project, the government continues to support the project and encourages the OPA to proceed to executing a financial supply agreement with OPG.

**July 6, 2009**
Contracts for the Refurbishment of Bruce A at the Bruce Nuclear Facility Generating Station – The Minister's letter to the OPA states that the Ministry of Energy consents to the OPA entering into a Second Amending Agreement to the Bruce Power Refurbishment Implementation Agreement ("BPRIA") dated October 17, 2005. The letter confirms that the OPA briefed the Ministry of Energy and Ministry of Finance staff regarding the details of the proposed amendments and notes the Minister's understanding from the OPA that significant legal, financial and technical due diligence was performed with respect to the proposed amendments to the BPRIA.

**August 28, 2007**
Contracts for the Refurbishment of Bruce A at the Bruce Nuclear Generating Station - Letter from the Ministry consenting to the OPA entering into the First Amending Agreement and to materially amend the Refurbishment Implementation Agreement, and to amend the STAR Agreement. The letter indicated that the OPA provided a Fairness Opinion from CIBC World Markets regarding the First Amending Agreement and that the OPA briefed MOE staff and OFA staff on the details of the proposed amendments; and also that significant legal, financial and technical due diligence was taken with the proposed amendments to both the Refurbishment Implementation Agreement and STAR Agreement.

**March 27, 2006**
Standard Offer Program - OPA to investigate economic and technical issues with connecting small waterpower projects to transmission systems in northern Ontario and provide recommendations to Minister.

**August 18, 2005**
Standard Offer Program - Develop in co-operation with the OEB the terms and conditions for a standard offer program for small generators embedded in the distribution system that use clean or renewable resources.

**May 2, 2005**
Supply Mix - commencement of long-term planning exercise and request for recommendation on supply mix. Minister requesting a report by December 1, 2005 to include amongst other things, conservation targets for 2015, 2020 and 2025; recommendations re adds of new renewable energy capacity by 2015, 2020 and 2025.

**March 1, 2005**
York Region - request to help identify and assess possible solutions to address local reliability issues.

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Ontario

JUN 0 3 2011

MC-2011-2559

Mr. Colin Andersen
Chief Executive Officer
Ontario Power Authority
1600–120 Adelaide Street West
Toronto ON M5H 1T1

Dear Mr. Andersen:

I write pursuant to my authority as the Minister of Energy, in order to exercise the statutory powers of ministerial direction which I have in respect of the Ontario Power Authority (the "**OPA**") under section 25.35 of the *Electricity Act, 1998.*

As you know, the Government released the Ontario Long-Term Energy Plan (LTEP) on November 23, 2010 and accordingly, I directed the OPA on February 17, 2011 to plan for 10,700 megawatts ("**MW**") of renewable energy generating capacity, excluding hydroelectric, by 2018.

I also note that the OPA issued a document titled *FIT and microFIT Guidelines: Connection Capability* dated February 2011 (the "Guidelines") which recognizes the importance of reserving capacity for small capacity allocation exempt and microFIT projects. The Guidelines show conditions under which up to 5 MW of capacity is reserved for small projects at each connection point.

Moving forward, the new Bruce to Milton transmission line will enable the connection of the next phase of capacity allocation required Feed-in Tariff projects ("**FIT**") in the Bruce and the West of London transmission areas.

I hereby direct the OPA as follows:

1. In determining FIT contract offers in each of the Bruce and West of London transmission areas, the OPA shall include in its assessment those projects whose connections require upgrades to connection assets paid for by their proponents.

2. In determining FIT contract offers in each of the Bruce and West of London transmission areas, the OPA shall reserve capacity for small capacity allocation exempt and microFIT projects, in keeping with the spirit of the Guidelines.

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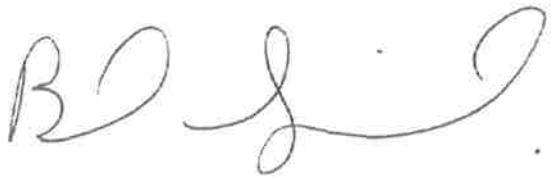
3. Before determining the FIT contract offers, the OPA shall provide a five (5) business day window for proponents to change their connection points. This opportunity to change connection points will only be made available for FIT projects that are on the priority ranking list for the Bruce and West of London transmission areas and only where the proponent wishes to change their connection point to a connection point in one of these two areas.

4. Offer FIT contracts for up to 750 MW of renewable generation facilities in the Bruce transmission area based on priority project rankings in the area and available connection resources.

5. Offer FIT contracts for up to 300 MW of renewable generation facilities in the West of London transmission area based on priority project rankings in the area and available connection resources.

This direction shall be effective and binding as of the date hereof.

Sincerely,



Brad Duguid
Minister

**Ministry of Energy**

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Ontario

JUN 0 8 2011

MC-2011-2589

Mr. Colin Andersen
Chief Executive Officer
Ontario Power Authority
1600-120 Adelaide Street West
Toronto, ON M5H 1T1

Dear Mr. Andersen:

I write pursuant to my authority as the Minister of Energy, in order to exercise the statutory powers of ministerial direction which I have in respect of the Ontario Power Authority (the "**OPA**") under section 25.35 of the Electricity Act, 1998 (the "**EA**").

There has been a very positive response to the microFIT program, including a large number of applications for solar PV microFIT projects ("**Solar MicroProjects**").

Some applicants for Solar MicroProjects for which conditional offers were issued prior to 2011 ("**Pre-2011 Solar MicroProjects**") were unable to reach commercial operation before 2011 owing to delays beyond their control.

On January 28, 2011, Deputy Minister David Lindsay wrote to the OPA requesting an extension for FIT and microFIT contracts. This direction provides further clarity concerning the solar PV microFIT contract extensions referred to in the Deputy Minister's letter.

**Direction**

In order to provide Pre-2011 Solar MicroProject applicants with more flexibility to meet domestic content requirements, I hereby amend the September 24, 2009 Minister's direction to the OPA as follows:

1. Applicants who submitted eligible Solar MicroProject applications that were received by the OPA on or before October 8, 2010 will have to meet a minimum domestic content requirement of 40%. Applicants have the option of choosing to meet a higher domestic content threshold.

2. All other applicants for Solar MicroProjects will have to meet a minimum domestic content requirement of 60%.

.../cont'd

For greater clarity, these amended requirements apply to all Solar MicroProject applicants, including those who submitted Solar MicroProject applications to the OPA before noon on July 2, 2010.

This direction is effective and binding as of the date hereof.

Sincerely,

Brad Duguid
Minister

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Ontario

July 29, 2011,

Mr. Colin Andersen
Chief Executive Officer
Ontario Power Authority
1600-120 Adelaide Street West
Toronto ON M5H 1T1

Dear Mr. Andersen:

**RE: KOREAN CONSORTIUM'S HALDIMAND PROJECTS**

In my capacity as the Minister of Energy, I write to exercise the authority granted to me under subsection 25.32(4.1) of the *Electricity Act, 1998*.

## Background

On January 1, 2010, the Government of Ontario entered into the Green Energy Investment Agreement (the "GEIA") with Samsung C&T Corporation and Korea Electric Power Corporation (collectively, the "Korean Consortium") and the Korean Consortium agreed to develop 2,500 MW of wind and solar renewable generation projects in Ontario in five phases (each a "Phase") and further committed to bring manufacturing plants to Ontario to manufacture wind and solar generation components.

In a direction dated April 1, 2010, I directed the OPA to negotiate one or more power purchase agreements as appropriate with respect to each Phase with the Korean Consortium or the appropriate project company. I also clarified that the OPA shall hold in reserve transmission capacity in Haldimand County for the Korean Consortium or its project companies.

Consistent with government objectives to develop and sustain economic development opportunities for First Nations communities, we remain hopeful that the Korean Consortium will reach an agreement with the Six Nations Elected Council to develop Phase 1 Projects. To that end, we are providing the Korean Consortium with an additional year to develop a mutually beneficial agreement with the Six Nations Elected Council.

## Direction

Pursuant to the authority I have under subsection 25.32(4.1) of the *Electricity Act, 1998*, I hereby direct the OPA to enter into Power Purchase Agreements with the Korean

Consortium or its Project Companies for Phase 1 wind and solar projects in Haldimand County.

If the Korean Consortium and the Six Nations Elected Council are unable to reach an agreement after one year of reasonable effort negotiations – or by July 31, 2012 – then the Korean Consortium may exercise an option to relocate their wind and solar projects for Phase 1.

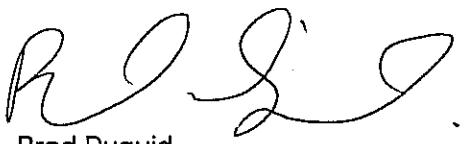
This option, to be exercisable between August 1 and August 31, 2012, would allow the Korean Consortium or its Project Company to enter into new power purchase agreements (i) with contract capacity of not more than 150 MW for on shore wind generation and not more than 100 MW for ground mounted solar generation; (ii) at prices which do not exceed the then current FIT Price for on shore wind and ground mount solar, respectively; (iii) with a milestone date for commercial operation which is no more than 32 months from the date of such power purchase agreement; and (iv) which are otherwise substantially the same as the power purchase agreements signed by the OPA and various Project Companies for the Korean Consortium's other Phases.

The exercise of the option by the Korean Consortium or a Project Company is conditional on the Korean Consortium or Project Company demonstrating that it has either title or rights of access to the new project sites sufficient to build, operate and maintain the contract facility enforceable by contract for the term.

The entering into of the power purchase agreements for Haldimand Phase 1 Projects with the option described above, together with the negotiation and execution of a Phase 1 wind project located in the Municipality of Chatham-Kent, will fully satisfy the OPA's obligations under the April 1, 2010 direction in respect of the negotiation of Phase 1 power purchase agreements.

This direction shall be effective and binding as of the date hereof.

Sincerely,



Brad Duguid
Minister

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Ontario

August 2, 2011,

Mr. Colin Andersen
Chief Executive Officer
Ontario Power Authority
1600-120 Adelaide Street West
Toronto ON M5H 1T1

Dear Mr. Andersen:

**RE: Supporting Manufacturing Supply Chain Development**

In my capacity as the Minister of Energy, I write to exercise the authority granted to me under section 25.35 of the *Electricity Act, 1998.*

**Background**

In a direction dated September 24, 2009, the Minister of Energy and Infrastructure directed the Ontario Power Authority (OPA) to develop a Feed-in Tariff (FIT) program designed to procure renewable energy.

The FIT program has positioned Ontario as a North American leader in clean energy generation and manufacturing. To date more than 2,000 FIT contracts have been announced, creating new sources of power generation and thousands of jobs across the province.

Currently under Section 2.4(a) of FIT Contracts, until the OPA issues Notice to Proceed to the Supplier and the Supplier has provided to the OPA the Incremental NTP Security, either the OPA or the Supplier may elect to terminate the FIT Contract.

In order for the OPA to issue Notice to Proceed (NTP) to a Supplier, the Supplier must provide the OPA with an NTP Request and satisfy the NTP Prerequisites specified in paragraphs 2.4(b) of the FIT Contract, including:

(i) Regulatory Approvals
(ii) Financing Plan
(iii) Domestic Content Plan
(iv) Electricity Connection Approvals

The changes in this direction are designed to eliminate existing contractual risk, firm up financing for equipment orders and support purchase orders with Ontario manufacturers – sustaining continued growth in the sector and ensuring we remain competitive in North America's emerging clean energy economy.

**Direction**

Pursuant to the authority I have under subsection 25.35 of the *Electricity Act, 1998*, I hereby direct the OPA:

1. to allow a Supplier to elect to obtain a waiver of

   (i) the OPA's termination rights contemplated by section 2.4(a) of the FIT Contract; and
   (ii) in conjunction with paragraph (i), where the Supplier's Renewable Fuel is identified as solar (PV) or wind power and the Contract Facility is not a Capacity Allocation Exempt Facility, the waiver will terminate if the Supplier fails submit a Domestic Content Plan and evidence that the Supplier has entered into one or more agreements for the purchase of Generating Equipment, which demonstrate that the Supplier will meet or exceed the Minimum Required Domestic Content Level, and have them reviewed by the OPA for completeness and substantiation by December 31, 2011; and
   (iii) in conjunction with paragraph (i), where the Supplier's Renewable Fuel is identified as solar (PV) or wind power and the Contract Facility is a Capacity Allocation Exempt Facility, the waiver will terminate if the Supplier fails to submit a Domestic Content Plan to the OPA by December 31, 2011.

2. to continue to require Suppliers to provide the OPA with an NTP Request on substantially the same terms and conditions as currently contemplated in the FIT Contract in subsections 2.4(b) to (g), inclusive. Without limitation of the preceding sentence, Suppliers must continue to satisfy the prerequisites specified in 2.4(b) of the FIT Contract, namely documentation of regulatory approvals (including a Renewable Energy Approval), a completed Financing Plan, a Domestic Content Plan and documentation related to required Impact Assessments, in order to obtain Notice to Proceed; and

3. to take any and all steps, which in the opinion of the OPA, are necessary or desirable to implement this direction.

All capitalized terms used in the three preceding paragraphs not otherwise defined have the meaning given to them in the FIT Contract.

This direction shall be effective and binding as of the date hereof.

Sincerely,



Brad Duguid
Minister

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Ontario

AUG 17 2011

MC-2011-2974

Mr. Colin Andersen
Chief Executive Officer
Ontario Power Authority
1600–120 Adelaide Street West
Toronto ON M5H 1T1

Dear Mr. Andersen:

**RE: Thunder Bay Generating Station Conversion to Natural Gas**

I write to you pursuant to my authority as the Minister of Energy to exercise the statutory power of ministerial direction that I have in respect of the Ontario Power Authority ("**OPA**") under section 25.32 of the *Electricity Act, 1998*.

Ontario's Long-Term Energy Plan, released in November 2010, proposed converting two coal-fired units at the Ontario Power Generation ("**OPG**") Thunder Bay Generating Station to natural gas. These converted units are needed not only for local supply to the city of Thunder Bay, but also for system reliability in northwestern Ontario. Given the nature of the conversion, the Ministry of Energy ("**Ministry**") recognizes OPG's requirement for a long-term energy supply contract in respect of the output from these units (the "**Agreement**"). As such, the Ministry has determined to pursue the initiative (the "**Initiative**") of negotiating and concluding such an Agreement.

Direction

Therefore, I hereby direct the OPA to assume responsibility for exercising all powers and performing all duties of the Crown regarding the negotiation and conclusion of the Agreement with OPG. It is my expectation that the financial terms of the Agreement should be commercially reasonable for a facility being converted from coal to natural gas of the size and location of the Thunder Bay Generating Station. The Agreement should also provide an incentive to OPG to optimize the operation of the facility to reflect the hour-by-hour value of power to the Ontario electricity system.

The OPA will make reasonable efforts to complete the negotiations and execute the Agreement by December 31, 2011.

This direction is effective and binding as of the date hereof.

Sincerely,

Brad Duguid
Minister

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Ontario

August 19, 2011

Mr. Colin Andersen
Chief Executive Officer
Ontario Power Authority
1600-120 Adelaide Street West
Toronto, ON M5H 1T1

Dear Mr. Andersen:

Re: Constrained microFIT Projects

I write pursuant to my authority as the Minister of Energy, in order to exercise the statutory powers of ministerial direction which I have in respect of the Ontario Power Authority (OPA) under sections 25.32 and 25.35 of the Electricity Act, 1998.

**Background**

In 2009, our Government launched the Green Energy Act with the goal of creating thousands of jobs by building clean, renewable electricity for our Province. A critical piece of this plan is the microFIT program, which puts individuals – many from rural Ontario – at the heart of creating this electricity and these jobs.

There has been a very positive response to the microFIT program, and a large number of applications for microFIT projects. To date, over 7,000 projects have been connected and another 4,000 are ready to connect. However, as a result of this success, some microFIT projects have been unable to connect to their local distribution company's (LDC's) distribution system owing to connection constraints at their current project location (Connection Constraints).

The microFIT rules were revised by the OPA effective December 8, 2010 to require applicants to obtain an offer to connect from the applicable LDC (Offer to Connect) before receiving a conditional offer of microFIT contract from the OPA (Conditional Offer). However, there are some microFIT project applicants who submitted complete applications (Constrained Applications) before December 8, 2010 and received Conditional Offers that have not yet expired or been cancelled, but have been unable to connect at their current location (Original Location) owing to Connection Constraints (Constrained Projects). Those applicants (Constrained Applicants) should still have the opportunity to participate in the microFIT program, by having the option to relocate their Constrained Projects to another location where they would be able to obtain a connection.

While the Ministry of Energy, the OPA, and Hydro One have made substantial efforts to upgrade the system and maximize the connection of microFIT projects – work which is continuing – a more immediate solution is required to enable connection of these particular constrained projects.

**Direction**

In order to help facilitate participation in the microFIT program by Constrained Applicants, given that the Connection Constraints have been beyond their control, I hereby direct the OPA as follows:

1. Allow any Constrained Applicant with one Constrained Project the option to relocate their Constrained Project from the Original Location to another location in Ontario upon written notice to the OPA. Such relocation shall be subject to such conditions and requirements as the OPA considers appropriate.

2. Allow any Constrained Applicant with more than one Constrained Project the option to combine and relocate any two or more of those Constrained Projects (Combined Project) from the Original Locations to a new location in Ontario (New Property) upon written notice to the OPA. Such a Combined Project shall be subject to the following limits and requirements:

    a. the Constrained Applicant may combine and relocate, to any one New Property, up to fifty (50) Constrained Projects, having a combined nameplate generation capacity of up to 500 kW;

    b. the Combined Project must satisfy all of the regulatory conditions and requirements that would be applicable to a project of that renewable fuel type and nameplate capacity at the New Property, including obtaining any required regulatory approvals, and meeting connection requirements;

    c. the Constrained Applicant must provide evidence to the OPA that the request for a connection for each of the relocated Constrained Projects at their Original Locations was denied by the applicable LDC(s); and

    d. the Constrained Applicant must sign a power purchase agreement with the OPA in respect of the Combined Project at the New Property, which agreement provides for the same price as in the Conditional Offers for the Constrained Projects and contains such other conditions and requirements as the OPA considers appropriate.

3. Allow any Constrained Applicant (Assignor) the option to assign (Assignment) any or all of their Conditional Offer(s) (Assigned Projects) to another Constrained Applicant that is either an Eligible Participant or a co-operative incorporated under the Co-Operative Corporations Act (Ontario) (Assignee). Such relocation shall be subject to such conditions and requirements as the OPA considers appropriate.

This direction is effective and binding as of the date hereof.

Sincerely,

Brad Duguid
Minister

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Ontario

MC-2011-3406

August 19, 2011

Mr. Colin Andersen
Chief Executive Officer
Ontario Power Authority
1600–120 Adelaide Street West
Toronto ON M5H 1T1

Dear Mr. Andersen:

**Re: Procuring Electricity From Energy from Waste ("EFW") Facilities Using Technologies That Have Completed the Ministry of the Environment Pilot or Demonstration Project (PDP) Initiative.**

I write pursuant to my authority as the Minister of Energy in order to exercise the statutory power of ministerial direction which I have in respect of the Ontario Power Authority (the "OPA") under section 25.32 (4.1) of the *Electricity Act, 1998* as amended (the "Act").

Background

On February 25, 2008, the Minister of Energy and Infrastructure directed the OPA to enter into negotiations with the proponents of any pilot or demonstration project participating in the Ministry of the Environment (MOE) Pilot or Demonstration Project (PDP) Initiative.

These facilities were determined to require a higher pricing than facilities using developed commercial scale technologies and a price of 10 cents per kWh was directed, reflecting the value of the electricity plus an additional amount partially recognizing the higher costs of technology development.

The goal of the Ministry of the Environment PDP Initiative is to encourage the development of new or improved EFW technologies with improved environmental performance. Technologies that have fully participated in and exited the PDP Initiative may be ready for inclusion into commercial EFW facilities, or may show merit but need further development.

To help facilitate the further development and commercial introduction of technologies that have fully participated in the Ministry of the Environment PDP Initiative, the Crown has established a new initiative for procurement of electricity from projects using such technologies (the "Initiative").

Details of the Initiative

In order for a proponent to qualify for a procurement contract under the Initiative, the facility must meet the following requirements:

.../cont'd

1. The proponent must provide written confirmation from the Ministry of the Environment that the technology been tested under and has satisfactorily completed the PDP Initiative.

2. The proposed facility must obtain all required licences and approvals for operation as a waste handling and electricity generation facility in Ontario.

3. The proposed facility must be capable of connecting to, and conveying electricity into, out of and through, either a local electricity distributor's distribution system or the Independent Electricity System Operator's controlled grid, without additional cost to that system or grid.

Direction

Therefore, pursuant to my statutory authority under subsection 25.32(4.1) of the Act, I hereby direct the OPA to enter into negotiations with the proponents of EFW projects or facilities using any of the technologies that have satisfactorily completed the Ministry of the Environment PDP Initiative, for the procurement of any net electricity produced and offered from such project or facility, upon such terms and conditions as the OPA may determine.

For the purposes of the Initiative, contract terms shall reflect a reasonable cost for Ontario electricity consumers and the value of electricity generated, and the value of other sources of revenue for the facility including tipping fees, while recognizing the costs of developing new technologies.

Consideration should also be given to environmental benefits associated with the applicable project or facility and its capital and operating costs. The OPA may seek to negotiate other matters with the proponent that would provide benefits to Ontario electricity customers, the Ontario electricity system, and/or the local economic impact. To the extent possible existing contract structures should be relied upon.

The OPA shall not be required to enter into a contract with a project proponent where the OPA determines that the project proponent does not meet the details of the Initiative or the other terms and conditions the OPA has determined.

This direction shall be effective and binding as of the date hereof.

Sincerely,



Brad Duguid
Minister

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Ontario

August 25, 2011

Mr. Colin Andersen
Chief Executive Officer
Ontario Power Authority
1600-120 Adelaide Street West
Toronto, ON M5H 1T1

Dear Mr. Andersen:

**Re: Amending Previous September 24, 2009 Direction Regarding Aboriginal Energy Partnerships Program to Include Capacity Funding for Participation on Transmission Projects**

I write pursuant to my authority as the Minister of Energy in order to exercise the statutory powers of ministerial direction which I have in respect of the Ontario Power Authority (the "OPA") under subsection 25.32 (4.5) of the *Electricity Act, 1998* and to provide the OPA with further direction regarding the Aboriginal Energy Partnerships Program (the "AEPP") as first established by the minister's direction of September 24, 2009.

In its Long-Term Energy Plan ("LTEP"), Ontario recognized the importance of a modern and reliable transmission system in achieving the province's key electricity sector objectives. The LTEP identified five priority transmission projects to integrate renewables, meet provincial demand growth and ensure reliable service. The OPA has also been directed to prepare a plan for remote community connections and will plan and study additional transmission projects as demand and changes to supply require.

Accordingly, I hereby direct the OPA to adjust the AEPP to provide funding support to Aboriginal communities that are exploring equity positions in future, planned, major transmission lines in Ontario where OPA has identified a need for transmission capacity. Funding preference for this initiative should be given to Aboriginal communities where these lines cross a community's traditional territory.

The initiative shall be open to Aboriginal communities as defined by the Feed-in Tariff Program rules. Aboriginal communities applying to the program developed

by the OPA under this initiative must be: a) partnered with or exploring a partnership with a licensed transmitter in Ontario or b) a licensed transmitter in Ontario or seeking to become one. Further, the OPA shall establish a reasonable timeframe for reimbursement of eligible costs incurred between November 23, 2010 and the date the program developed by the OPA under this initiative is launched.

In carrying out this initiative the OPA will make available up to $500,000 in total funding for each transmission line. Funding for this initiative shall come from within existing funding levels established to deliver the AEPP. In addition, the OPA shall develop appropriate program criteria to carry out this initiative.

This direction is effective and binding as of the date hereof.

Sincerely,



Brad Duguid
Minister

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Ontario

APR 0 5 2012

MC-2012-1071

Mr. Colin Andersen
Chief Executive Officer
Ontario Power Authority
1600–120 Adelaide Street West
Toronto ON M5H 1T1

Dear Mr. Andersen:

**RE: Feed-in Tariff Program Review**

The government is committed to implementing the recommendations outlined in *Ontario's Feed-In Tariff Program, Two-Year Review Report.* I acknowledge the work of the Ontario Power Authority during the two-year review. To ensure the long-term sustainability of renewable energy while creating more jobs, lowering prices and giving communities a greater say, the government is committed to the timely implementation of all the recommendations, which include:

- Reducing prices – for solar projects by more than 20 per cent and wind projects by approximately 15 per cent.
- Encouraging greater community and Aboriginal participation through a new priority point system, which will also prioritize projects with municipal support.
- Reserving a minimum of 10 per cent of remaining capacity for projects with significant participation from local or Aboriginal communities.

The province's Long-Term Energy Plan (LTEP) and the February 17, 2011 "Supply Mix Directive" established Ontario's target for clean, renewable energy from wind, solar and bioenergy at 10,700 MW (excluding hydroelectric) and 9,000 MW of hydroelectric by 2018. Ontario is on track to procure 10,700 MW of non-hydro renewable energy generation by 2015. Ontario will continue to grow the clean energy economy through the continuation of the FIT and microFIT programs.

**Direction**

Pursuant to the authority I have, as Minister of Energy, under sections 25.32 and 25.35 of the *Electricity Act, 1998,* I hereby direct the Ontario Power Authority (OPA) to continue the Feed-in Tariff (FIT) and microFIT programs developed pursuant to the direction issued September 24, 2009 subject to such amendments as may be required in order to implement the policies set out below:

.../cont'd

**Continuing the Commitment to Clean Energy**

As a first step, the OPA shall begin by awarding 50 MW of microFIT and 200 MW of small FIT projects as soon as possible.

At the end of 2013, the government will review Ontario's electricity supply and demand forecast to explore whether a higher renewable target is warranted.

**Encouraging Greater Community and Aboriginal Participation**

The OPA shall amend the FIT Program Rules to encourage publicly-funded school, hospital, publicly-owned long-term care home, public university, public college, Aboriginal and community participation by prioritizing applications through a points system in accordance with the document set out in Appendix A.

In offering contracts for small and large FIT projects, the OPA shall allocate of the available capacity:

i. a minimum of 100 MW for projects with greater than or equal to 50 per cent community and Aboriginal equity participation; and
ii. a minimum of 50 MW for hydroelectric projects.

During the term of the FIT Contract, with respect to any facility that is not a rooftop solar photovoltaic project that has been awarded points under the prioritization process based on applicant type, a change shall be prohibited if such change would mean that an economic interest in the project (including a local participation level as set out in Appendix A) would drop below the level that resulted in the project receiving the applicant type points that it did in the prioritization process. The FIT Contract shall provide that, if such a prohibited change takes place from the contract effective date and during the term of the contract, it shall constitute a ground for termination of the contract. For additional clarity, the change restrictions contemplated by this paragraph shall not apply to rooftop solar photovoltaic projects.

With respect to rooftop solar photovoltaic projects, a change to any such project that has been awarded points under the prioritization process based on applicant type prior to the fifth anniversary of the commercial operation date shall be prohibited by the FIT Contract if such change would mean that an economic interest in the project (including a local participation level as set out in Appendix A) would drop below the level that resulted in the project receiving the applicant type points that it did in the prioritization process. The FIT Contract shall provide that, if such a prohibited change takes place from the contract effective date and up to five years after commercial operation, it shall constitute a ground for termination of the contract.

**Support Programs**

The Ministry of Energy remains committed to providing support for community participation through the Community Energy Partnerships Program (CEPP). The CEPP program administrator and the Ministry of Energy will make recommendations regarding the program rules and eligibility criteria of the CEPP to the OPA. I direct the OPA pursuant to subsection 25.32(4.6) of the *Electricity Act, 1998* to redesign the CEPP program rules and eligibility criteria taking into account those recommendations. The CEPP shall be re-launched by July 1, 2012.

.../cont'd

In order to encourage continued Aboriginal participation in the electricity sector, I direct the OPA, pursuant to subsection 25.32(4.5) of the *Electricity Act, 1998,* to amend the Aboriginal Energy Partnerships Program (AEPP) to align with the goal of prioritizing Aboriginal participation in the FIT Program. The OPA shall expand eligibility for the AEPP to include projects developed pursuant to the Green Energy Investment Agreement. The OPA shall amend the Aboriginal Renewable Energy Fund to focus on supporting projects in the design, development and regulatory approvals phases. The OPA shall establish a minimum eligibility threshold for projects with Aboriginal equity participation of at least 15 per cent where the project is smaller than 100 MW and of at least 10 per cent where the project is equal to or larger than 100 MW.

**Protecting Agricultural Lands**

The OPA shall not enter into FIT contracts for ground-mounted solar photovoltaic generation facilities greater than ten (10) kW, or amend an existing FIT contract for a facility greater than ten (10) kW to relocate the facility location, where those facilities are proposed to be located on or relocated to a site that contains:

- Land with any Class 1, 2 and 3 soils or a mix of those soils as they appear on the Canada Land Inventory Agricultural Capability Maps published by the Ontario Ministry of Agriculture, Food and Rural Areas and Agriculture and Agri-Food Canada
- Land comprised of organic order soils as it appears on the Canada Land Inventory Agricultural Capability Maps published by the Ontario Ministry of Agriculture, Food and Rural Areas and Agriculture and Agri-Food Canada
- Specialty Crop Areas within the meaning of the Provincial Policy Statement as amended from time to time

**Strengthening Land Use Rules**

The OPA shall not enter into FIT or microFIT contracts for ground-mounted solar photovoltaic generation facilities or for wind generation facilities up to and including 3 kW where those facilities are located on property that:

- Is zoned to permit residential use; or
- Borders a property zoned to permit residential use.

This restriction does not apply to property that is zoned for agricultural use where residential use is permitted as ancillary to the agricultural use.

The OPA shall not enter into FIT or microFIT contracts for ground-mounted solar photovoltaic generation facilities where those facilities are proposed to be located on property that:

- Is zoned for commercial or industrial use but where no such use is occurring; or
- Is zoned for commercial or industrial use and where the solar ground-mount photovoltaic generation facility is or will be the main or primary purpose for which the property is used.

.../cont'd

**Improving Municipal Engagement**

The OPA shall allocate $100,000 annually of CEPP funding for guidance and outreach purposes related to the municipal role in renewable energy development with the Association of Municipalities of Ontario (AMO). This allocation shall be reviewed in 2013.

The OPA shall not launch the Municipal Renewable Energy Program given new and existing initiatives that support municipal input and participation.

**Reducing Prices to Reflect Lower Costs**

The OPA shall amend the FIT Program Rules to establish pricing for a project at the time the project is offered a contract.

The OPA shall use the price schedules and adders published in the FIT Review Report and included in this direction as Appendix B with the new FIT and microFIT Program Rules. In October of each year, in consultation with the Ministry of Energy, the OPA shall consult about the price schedules. Following consultation, the OPA shall update the price schedules and shall publish the updated schedules in November of each year to be effective January 1st of the following year. During the annual price review in 2012, the OPA shall review price escalation for inflation in new FIT contracts to determine if adjustments are required.

The requirement that the OPA conduct the annual price review described above shall amend and replace the requirement in the direction of the Minister of Energy dated September 24, 2009 for a review of the FIT Program and its Support Programs and report to the Minister at least every two years.

For new large FIT projects, the OPA shall amend the FIT contract to provide for greater generator accountability in circumstances where generation must be dispatched off.

**Transitioning to new FIT and microFIT Rules**

The OPA shall develop and implement a transition process to provide an opportunity for suppliers with existing FIT contracts to withdraw from the FIT Program and have their security returned.

In relation to:

1. microFIT applications submitted on or after September 1, 2011 and prior to the date of this direction; and

2. FIT applications submitted prior to the date of this direction and in relation to which a contract offer had not been made (both 1 and 2 the "Pre-Existing Applications");

the OPA shall develop and implement a transition process to provide an opportunity for a Pre-Existing Application to be revised in accordance with the process and eligibility requirements in the new FIT and microFIT Rules (as applicable) as amended pursuant to this direction.

.../cont'd

The OPA shall provide such transition opportunity during the first available application window applicable to the type project applied for in the Pre-Existing Application to be revised (i.e. microFIT, small FIT and large FIT). Subject to limits in the FIT Rules and microFIT Rules on (i) when a revised application must be submitted, and (ii) the type of revisions to a Pre-Existing Application, a revised Pre-Existing Application shall be entitled to retain its original timestamp. The OPA shall discontinue Pre-Existing Applications that are not revised during the first applicable application window or that are withdrawn by the applicant. The OPA shall return the application fee and application security that had been paid in relation to the Pre-Existing Application.

**Defining microFIT Participation**

The OPA shall not award an individual or farmer (as those terms are defined in the OPA's microFIT Eligible Participant Schedule) more than one microFIT contract. The OPA shall amend the microFIT Eligible Participant Schedule to include farming co-operatives whose members are limited to farmers and require a farming co-operative to locate a microFIT project on the property of a member of the co-operative. The OPA shall not launch the Commercial FIT (CFIT) Program.

**Connecting Constrained microFIT Projects**

In implementing the August 19, 2011 "Constrained microFIT Projects" direction, the OPA shall:

1. Only allow those Constrained Applicants (as defined in the August 19, 2011 direction) to exercise an option identified in that direction if the Constrained Applicant identifies in writing its interest in one of the options to the OPA no later than May 31, 2012, following the posting of this direction on the OPA's website;

2. Only consider a microFIT project applicant that submitted a complete application prior to December 8, 2010 to be a Constrained Applicant if the applicant made an application for connection to the applicable Local Distribution Company by August 19, 2011 and was denied connection;

3. For the purposes of paragraph 2 of the August 19, 2011 direction, the other conditions and requirements that may be included in a power purchase agreement include the requirement for the Constrained Applicant to take such actions as the OPA considers appropriate to remediate Constrained Projects (including of other Constrained Applicants) where the Constrained Applicant had purchased its generation equipment;

4. Where a power purchase agreement includes remediation requirements, the OPA shall provide the price in the Conditional Offer for the Constrained Project only if the Constrained Applicant carries out the remediation requirements.

5. For the purposes of paragraph 2 of the August 19, 2011 direction, "New Property" shall be limited to the same agricultural land protections and land use restrictions contemplated by this direction; and

.../cont'd

6. For the purpose of paragraph 1 and 3 of the August 19, 2011 direction limit the relocation of Constrained Projects to another location in Ontario subject to the land use restrictions contemplated by this direction.

**Clarifying Transmission and Distribution**

To promote efficient use of land and resources for connection infrastructure, I direct the OPA pursuant to subsections 25.35 and 25.32(4.4) of the *Electricity Act, 1998* to work with the Ministry of Energy, consult with stakeholders and revise the FIT Rules to provide a limit with respect to the distance between a project site and its connection point on the existing transmission or distribution grid.

The OPA shall make the FIT Program transmission availability tables publicly available and shall update the tables on a regular basis.

The OPA shall subject small FIT projects to system availability testing similar to the method used for larger projects.

The OPA shall revise the FIT Rules to permit FIT Contract offers to be made to projects where upgrades are not required to the transmission system or where only minor upgrades are necessary.

Given the transmission projects planned through the Long Term Energy Plan and changes to the FIT Program, the OPA shall not run the Economic Connection Test.

**Reducing Delay**

The OPA shall change the FIT Contract to provide for a milestone date for commercial operation for FIT rooftop solar photovoltaic projects of eighteen (18) months.

**General**

This direction supplements previous directions related to the FIT Program, the microFIT Program and FIT Support Programs and replaces provisions of these previous directions only to the extent that a particular provision of this direction is inconsistent with a provision of a previous direction. For greater certainty, nothing in this direction changes the effect of the August 19, 2011 "Constrained microFIT Projects" direction other than the "Constrained microFIT Projects" provisions.

It is my expectation that the OPA will establish appropriate policies and procedures with respect to the administration of the programs, including ensuring that program participants are subject to audit.

This direction takes effect on the date issued.

Sincerely,

Chris Bentley
Minister

## APPENDIX A

## PRIORITIZATION TABLE

| Applicant Type | Points |
|---|---|
| A project in which a local community has a minimum 15% equity interest held by a co-op with, in the case of large FIT projects, 50 or more property owners who live in the municipality where the project is located. In the case of small FIT projects, a project in which a local community has a minimum 15% equity interest held by a co-op with 35 or more property owners who live in the municipality where the project is located. | 3 |
| A project in which an Aboriginal community has a minimum 15% equity interest | 3 |
| A project in which publicly-funded schools, public colleges, public universities, hospitals and publicly-owned long-term care homes have a minimum 15% equity interest or that are a project host | 2 |
| Other Applicants | 0 |
| **Additional Points** | |
| Local Municipal Council Support Resolution | 2 |
| Aboriginal Community Support Resolution | 2 |
| Project Readiness<br>• Applicants for wind, solar ground-mount, bioenergy and waterpower projects on Aboriginal Reserve, Federal land or private land have sufficient space for the project and a firm lease, firm option to lease/purchase, or ownership of the land<br>• Solar rooftop applicants either own the host building or if they do not own the host building have proof of firm site control in the form of a firm lease or option to lease | 2 |
| System Benefit (water and bioenergy) | 1 |

Priority between projects that have an equal number of points shall be determined based on each project's timestamp.

The OPA shall not offer a project a FIT contract if the project does not have any prioritization points.

A publicly-owned long term care home is a municipal home, joint home or First Nations home as provided for under the *Long Term Care Homes Act, 2007*, S.O. 2007, c.8.

## APPENDIX B

## FIT PRICE SCHEDULE

| Fuel | Project Size Tranche | Price (¢/kwh) | Escalation Percentage** |
|---|---|---|---|
| Solar Rooftop | ≤10 kW | 54.9 | 0% |
| | > 10 ≤ 100 kW | 54.8 | 0% |
| | > 100 ≤ 500 kW | 53.9 | 0% |
| | >500 kW | 48.7 | 0% |
| Solar Groundmount | ≤ 10 kW | 44.5 | 0% |
| | > 10 kW ≤ 500kW | 38.8 | 0% |
| | > 500 kW ≤ 5 MW | 35.0 | 0% |
| | > 5 MW | 34.7 | 0% |
| Wind | All Sizes | 11.5 | 20% |
| Water | ≤ 10 MW | 13.1 | 20% |
| | > 10 MW ≤ 50 MW | 12.2 | 20% |
| Biomass | ≤ 10 MW | 13.8 | 50% |
| | > 10 MW | 13.0 | 50% |
| Biogas On Farm | ≤ 100 kW | 19.5 | 50% |
| | 100 kW ≤ 250 kW | 18.5 | 50% |
| Biogas | ≤ 500 kW | 16.0 | 50% |
| | > 500 kW ≤ 10MW | 14.7 | 50% |
| | > 10 MW | 10.4 | 50% |
| Landfill Gas | ≤ 10MW | 11.1 | 50% |
| | > 10 MW | 10.3 | 50% |

**Escalation Percentage based on the Consumer Price Index will be applied to eligible Renewable Fuels as calculated in FIT Contract. The Base Date is January 1 of the year in which the Project achieves commercial operation, unless the Project achieves commercial operation in October, November or December, in which case the Base Date is January 1 of the following year.

## FIT PRICE ADDERS

| | Aboriginal Projects | | Community Projects | |
|---|---|---|---|---|
| Participation Level (Equity) | >50% | >15% ≤50% | >50% | >15% ≤50% |
| Price Adder (¢/kWh) | 1.5 | 0.75 | 1.0 | 0.5 |

Note: The above table applies to all FIT project sizes and all technologies except rooftop solar.

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Ontario

JUL 1 1 2012

MC-2012-1992

Mr. Colin Andersen
Chief Executive Officer
Ontario Power Authority
1600–120 Adelaide Street West
Toronto ON M5H 1T1

Dear Mr. Andersen:

**RE: Feed-in Tariff Program Launch**

The draft program rules and contract documents posted by the Ontario Power Authority in April yielded thousands of comments and insightful suggestions from stakeholders which were carefully reviewed and considered. The government's broad policy objectives of enhancing community and municipal participation, strengthening protection of prime agricultural lands and improving project siting as articulated in the FIT Review Report and my Direction of April 5, 2012 remain unchanged. However, the valuable feedback received through the public consultation phase has helped to inform me of opportunities to define and provide clarity to certain policies and make minor adjustments to the program rules and contract, where warranted.

**Direction**

Pursuant to the authority I have, as Minister of Energy, under sections 25.32 and 25.35 of the *Electricity Act, 1998*, I hereby direct the Ontario Power Authority (OPA) to continue the Feed-in Tariff (FIT) and microFIT programs developed pursuant to the direction issued September 24, 2009 and amended by the April 5, 2012 direction subject to such further amendments as may be required in order to implement the policies set out below:

**Encouraging Greater Community and Aboriginal Participation**

The OPA shall amend the FIT Program Rules by prioritizing applications through a modified points system in accordance with the document set out in Appendix A.

With respect to the contract capacity set-aside for projects with greater than or equal to 50 per cent community or Aboriginal equity participation provided for in the Minister's Direction dated April 5, 2012, the set-aside shall be available for projects with greater than 50 per cent community or Aboriginal equity participation as follows: Within any FIT application window, the OPA shall prioritize over any other applications that obtain prioritization points in accordance with Appendix A the applications of those projects that have a greater than 50 per cent community equity interest held by a co-operative in which at least 50 or more members are local property owners, or greater than 50 per cent Aboriginal equity

.../cont'd

participation in the project. The OPA shall offer contracts to these projects before offering contracts to other projects in the application window.

During the term of the FIT Contract, with respect to any facility that has received priority in accordance with the preceding paragraph, a change shall be prohibited if that change would (i) result in the Aboriginal community or community equity interest held in the project by an Aboriginal community or a community being reduced to 50 per cent or less or, (ii) in the case of a community project, the number of local property owners who are members in the co-operative drops below 50. The FIT Contract shall provide that, if such a prohibited change takes place from the contract effective date and during the term of the contract, it shall constitute a ground for termination of the contract. The OPA shall provide a cure period of six (6) months where a FIT Supplier experiences an event of default contemplated in clause (i) of this paragraph. The default shall only be cured in the case of a default described in clause (i) where the Supplier obtains equity participation from an entity which is in the same category of entity as the prior entity and the equity interest held by the new entity is greater than 50 per cent.

The OPA shall provide a cure period of six (6) months where a FIT Supplier experiences an event of default related to a change in the membership of its co-operative only if the Supplier discovers and reports the default to the OPA within twelve (12) months after the change in membership occurs. The default shall only be cured if the number of co-operative members is restored to a level that would have resulted in the same or a greater number of priority points being awarded to the Supplier, or in the case of an event of default contemplated in clause (ii) of the preceding paragraph, the membership of the co-operative who are local property owners is increased to a minimum of 50.

The OPA shall provide a cure period of six (6) months where a FIT Supplier experiences an event of default related to a drop in Aboriginal or community equity participation to a level below 15 per cent. The default shall only be cured where the Supplier obtains equity participation from an entity which is in the same category of entity as the prior entity and where the same or greater number of priority points as would have been awarded to the Supplier if the new entity had held an equity interest when the priority points were awarded.

The OPA shall provide a cure period of six (6) months where a FIT Supplier that was awarded prioritization points for having an education/health equity participation level of a minimum of 15 per cent or having an education/health host experiences an event of default related to a loss of the project's host or a reduction in equity participation to a level below 15 per cent. In the case of either type of default, the default shall only be cured where the FIT Supplier obtains equity participation or a new host such that if the equity participation or new host had been in place at the time the priority points were awarded, the same or greater number of priority points would have been awarded to the Supplier.

…/cont'd

The OPA shall amend the Community Energy Partnership Program eligibility requirements to align with the eligibility requirements for community projects under the FIT Rules as amended according to the April 5, 2012 direction. I further direct the OPA to allocate a total of not more than $1 million annually for education funding and capacity building. Of that amount, $100,000 shall be allocated to the Association of Municipalities of Ontario for education and outreach initiatives.

**Protecting Agricultural Lands**

The OPA shall not enter into FIT contracts for ground-mounted solar photovoltaic generation facilities greater than ten (10) kW, or amend an existing FIT contract for a facility greater than ten (10) kW to relocate the facility location, where those facilities are proposed to be located on or relocated to a site that contains:

- Land with any Class 1, 2 and 3 soils as they appear on the Canada Land Inventory Agricultural Capability Maps published by the Ontario Ministry of Agriculture, Food and Rural Affairs and Agriculture and Agri-Food Canada, unless the site is located on one of the following:
    - An airport or aerodrome indicated on the municipal official plan in effect at the time the FIT application was made;
    - A closed landfill indicated on the municipal official plan in effect at the time the FIT application was made;
    - A contaminated site that meets the following definition as of the time the FIT application was made:
        - The site is located on a property that has undergone a phase 2 site assessment and as of the date of the phase 2 assessment, did not meet the standards that must be met under the *Environmental Protection Act*, s.168.4(1)4i;
    - An industrial site zoned primarily for industrial use where the solar project is a secondary use to an existing industrial use; or
    - A federal military installation as indicated on the municipal official plan in effect at the time the FIT application was made.
    - In the case of land with Class 3 soils only, land that was owned by a municipality at the time the FIT application was made, as evidenced by a land registry title search.

  In which case the OPA may enter into a FIT contract, subject to any other approval that may apply.
- Land with a mix of Class 1, 2 or 3 soils with another soil class unless the solar facility is located on the non-Class 1, 2 or 3 soil portion of the property as evidenced by a soil study that involves a standardized methodology and peer review.
- Land comprised of organic order soils as it appears on the Canada Land Inventory Agricultural Capability Maps published by the Ontario Ministry of Agriculture, Food and Rural Affairs and Agriculture and Agri-Food Canada.
- Specialty Crop Areas within the meaning of the Provincial Policy Statement as amended from time to time.

.../cont'd

The foregoing land restrictions shall not apply to existing FIT contract holders who submitted requests for site amendments prior to the issue of the April 5, 2012 Minister's direction.

**Strengthening Land Use Rules**

The OPA shall not amend an existing FIT Contract for a facility greater than ten (10) kW to relocate the facility location where those facilities are proposed to be relocated on property that:

- Is zoned to permit residential use or borders a property zoned to permit residential use,
- Is zoned for commercial or industrial use but where no such use is occurring, or
- Is zoned for commercial or industrial use where the solar ground-mounted PV generation facility is or will be the main or primary purpose for which the property is used.

The Ministry of Energy shall establish a working group comprised of a number of interested stakeholders, including the OPA, that will provide further recommendations to address project siting concerns. Specifically, the Working Group will advise on alternative options related to ground-mounted solar PV projects on rural zoned lands with multiple primary uses and rural/agricultural zoned lands with abutting residential uses. Subject to the working group's ability to arrive at solutions that are acceptable to the Ministry and the Minister, further revisions will be made to the FIT Rules.

**Clarifying Transmission and Distribution**

The OPA shall revise the FIT Rules to provide for a limit for non-hydroelectric projects with respect to the distance between a project's connection point on the existing transmission or distribution grid and the land within the project's location to which the applicant has access rights at the time of application.

The OPA shall not enter into a FIT contract where the proposed project is located 50 km or more from its proposed connection point on the existing transmission or distribution grid according to the measurement in the preceding paragraph.

**microFIT 'Offer to Connect' Timelines**

To provide sufficient time for LDCs to process Offer to Connect requests from microFIT applicants, the OPA shall amend the microFIT Rules to require microFIT applicants to seek an Offer to Connect within 30 days of the OPA confirming the application is complete. This period shall be prior to a 90 day period for an applicant to receive and accept an offer to connect from its LDC.

…/cont'd

**Changes to the FIT Contract**

The OPA shall not create additional termination for convenience clauses in the new FIT contract. Existing clauses in FIT 1.0 addressing termination for convenience shall remain part of the FIT 2.0 contract.

The OPA shall extend the voluntary withdrawal period for existing FIT contract holders to September 30, 2012.

For rooftop solar facilities, the OPA shall continue to set the Milestone Date for Commercial Operation as the date that is 18 months following the Contract Date, unless the project includes:(i) a portfolio of rooftop solar facilities greater than 15 MW, (ii) the applications for the projects were submitted during the same application window, (iii) the project applications have the same applicant legal name, and (iv) the 15 MW worth of contracts must be awarded and executed during the same contract award period, in which case the OPA shall set the Milestone Date for Commercial Operation as the date that is 36 months following the Contract Date.

**Pilot Program for Rooftop Solar Projects on Un-constructed Buildings**

The OPA shall design a pilot stream within the FIT program whereby applicants with un-constructed buildings could apply for small FIT rooftop solar contracts. In order to allow time to develop program rules and contract for the pilot stream, the OPA shall implement the pilot stream by the end of 2012. The OPA shall reserve up to 15MW of the total small FIT contract capacity in 2013 for the pilot stream and may renew the pilot in subsequent years.

**General**

This direction supplements previous directions related to the FIT Program, the microFIT Program and FIT Support Programs and replaces provisions of these previous directions only to the extent that a particular provision of this direction is inconsistent with a provision of a previous direction.

This direction takes effect on the date issued.

Sincerely,



Chris Bentley
Minister

## APPENDIX A

## PRIORITIZATION TABLE

| Applicant Type | | Points |
|---|---|---|
| A project in which a local community has a minimum 15% equity interest held by a co-op with, in the case of large FIT projects, 50 or more property owners who live in the municipality where the project is located. In the case of small FIT projects, a project in which a local community has a minimum 15% equity interest held by a co-op with 35 or more property owners who live in the municipality where the project is located. | | 3 |
| A project in which an Aboriginal community has a minimum 15% equity interest | | 3 |
| A project in which publicly-funded schools, public colleges, public universities, hospitals and publicly-owned long-term care homes have a minimum 15% equity interest or that are a project host | | 2 |
| Other Applicants | | 0 |
| **Additional Points** | | |
| Local Municipal Council Support Resolution | | 2 |
| Aboriginal Community Support Resolution | | 2 |
| Project Readiness (Maximum of 2 points) | | 2 |
| • Applicants for wind, solar ground-mount, bioenergy and waterpower projects on Aboriginal Reserve, Federal land or private land have sufficient space for the project and a firm lease, firm option to lease/purchase, or ownership of the land<br>• Solar rooftop applicants either own the host building or if they do not own the host building have proof of firm site control in the form of a firm lease or option to lease | 1 | |
| Projects that applied on or before July 4, 2011. | 1 | |
| Projects that applied on or after July 5, 2011. | 0.5 | |
| System Benefit (water and bioenergy) | | 1 |

Priority between projects that have an equal number of points shall be determined based on each project's timestamp.

The OPA shall not offer a project a FIT contract if the project does not have at least one (1) prioritization point.

A publicly-owned long term care home is a municipal home, joint home or First Nations home as provided for under the *Long Term Care Homes Act, 2007*, S.O. 2007, c.8.

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Ontario

MC-2012-2930

November 1, 2012

Mr. Colin Andersen
Chief Executive Officer
Ontario Power Authority
1600–120 Adelaide Street West
Toronto ON M5H 1T1

Dear Mr. Andersen:

**Re: Industrial Electricity Incentive Program**

I write to you in connection with my authority as the Minister of Energy to exercise the statutory power of ministerial direction that I have in respect of the Ontario Power Authority ("**OPA**") under subsections 25.32 (4) and (4.1) of the *Electricity Act, 1998*.

## Initiative

Since 2007, industrial electricity use in Ontario has dropped by approximately five (5) terawatt-hours ("**TWh**"), primarily due to market conditions for the province's primary industries. As a result of the continued low electricity demand levels and increased generation capacity, Ontario has experienced intermittent periods of surplus generation since 2009.

The Government has decided to implement the Industrial Electricity Incentive ("**IEI**") program to improve load management and the management of electricity demand in Ontario. My intention is to assist in the management of electricity demand by encouraging increased industrial production through electricity-based price adjustments for eligible electricity consumption.

Incremental industrial electricity demand brings several benefits to the electricity system, including reduced surplus energy volumes, reduced transmission congestion, and the ability to potentially provide ancillary market services. Further benefits accrue to the province through related economic and employment impacts.

## Direction

I hereby direct the OPA pursuant to subsections 25.32 (4) and (4.1) of the *Electricity Act, 1998* to develop and implement the IEI program to undertake various initiatives, measures, activities and procurements designed to assist in the management of

.../cont'd

electricity demand. This will include providing eligible participants with electricity-based price adjustments for the incremental consumption they bring to the province. The IEI program shall meet all of the requirements set out herein.

## Objectives

The objectives of the IEI program are to:

- Facilitate load management and the management of electricity demand in Ontario by increasing industrial load to better match supply conditions;
- Minimize the cost impact on existing consumers; and
- Encourage industrial growth, capital investment and job creation in Ontario.

## Description

The OPA shall design and implement the IEI program in two streams:

- Stream 1: Intended for industrial consumers willing to operate an Industrial Facility and undertake a large capital investment in technologies, products or processes that are not currently being used or produced in Ontario.
- Stream 2: Intended for existing industrial consumers in Ontario that will expand their existing, or build a new, Industrial Facility.

"**Industrial Facility**" means a facility that is located in the Province of Ontario, and which is carrying on an activity that is classified within North American Industry Classification System ("**NAICS**") 2012 industry sectors 21 (Mining, quarrying, and oil and gas extraction) or 31 to 33 (Manufacturing).

There shall be no more than three (3) TWh allocated to Stream 1 and two (2) TWh allocated to Stream 2 under IEI contract **("IEI Contract")** as measured on an annual basis. The OPA shall, acting reasonably, continue to make the IEI program available until all of the 5 TWh are allocated. At no time shall the OPA reallocate unused cap space between Stream 1 and 2.

## Eligibility

The OPA shall apply, at a minimum, the following eligibility criteria:

**(i) A Stream 1 applicant must:**

- Be, or intend to be, an industrial consumer (either an Independent Electricity System Operator (**"IESO"**) market participant or distribution-connected) whose participating IEI load did not exist prior to June 1, 2012;
- Operate or intend to operate an Industrial Facility that would represent a peak load of at least 25 megawatts ("**MW**");

.../cont'd

- Undertake a direct capital investment of at least $250 million (in Canadian dollars valued at the time the industrial consumer's application is submitted to the OPA). The direct capital investment must pertain to the Industrial Facility that is the subject of the application to the IEI program. The direct capital investment must occur over a maximum period of five (5) contiguous years, and may include amounts expended no earlier than June 1, 2012; and
- Either (i) produce a product or products not being produced in Ontario at the time of application, or employ technologies or processes that are not being used in Ontario at the time of application, at the Industrial Facility that is the subject of an application under the IEI program; or (ii) within five (5) years of the industrial consumer entering into an IEI Contract with the OPA, transition to produce a product or products not being produced in Ontario at the time of application, or transition to employ technologies or processes that are not being used in Ontario at the time of application, at the Industrial Facility that is the subject of an application under the IEI program.

**(ii) A Stream 2 applicant must:**

- Be an industrial consumer (either IESO market participant or distribution-connected) who has been operating an Industrial Facility for at least one year and whose participating IEI load did not exist prior to June 1, 2012;
- Increase, by at least 7,000 megawatt-hours ("**MWh**"), the total annual consumption at each Industrial Facility with respect to which the applicant is applying to the IEI program; and
- Be applying in respect of an Industrial Facility whose participating load shall be in operation no later than two (2) years from the date the IEI Contract is entered into with the OPA.

## Governance

The OPA shall run a competitive procurement process in selecting all IEI program participants and shall prioritize applications through a points system in accordance with Appendix A. The OPA shall make best efforts to begin accepting applications on December 1, 2012. In light of the relatively short timeframe in which Stream 2 will be available, I request that the OPA make best efforts to expedite the processing of Stream 2 applications.

Program participants shall comply with IEI program rules established by the OPA.

The OPA shall make all executed agreements, including all schedules to the agreements, entered into with IEI program participants publicly available.

## Contracts

**(i) Stream 1**

.../cont'd

If at least one eligible applicant has applied to each of the peak load categories indicated in the table below, the OPA shall select at least one applicant from each peak load category, if feasible.

Each applicant accepted into Stream 1 shall be eligible to enter into negotiations with the OPA for an IEI Contract within the parameters specified in the Table below.

| **Peak Load (MW)** | **Contract Price ($/MWh)*** | **Contract Price Index** | **Term** |
|---|---|---|---|
| 250 and above | 55 | Lesser of CPI and 2% | Up to 25 years |
| Greater than or equal to 25 and less than 250 | Bid parameter (not to be less than 55) | Bid parameter | Two terms available depending upon size of load: (i) if greater than or equal to 25 but less than or equal to 100 MW, up to 15 years; (ii) if greater than 100 but less than 250 MW, up to 20 years |

* The IEI Contract price represents a notional all-inclusive price exclusive of distribution charges and transmission upgrade charges, if applicable. Payments made under the IEI Contract could vary, on a per megawatt hour basis, from the IEI Contract price depending on the extent to which the IEI program participant's actual volume and load shape varies from the volume and load shape set out in its application and in any supporting material it provided.

**(ii) Stream 2**

The OPA shall offer a standard form IEI Contract to each applicant accepted into Stream 2. Under the IEI Contract, the OPA shall rebate charges for Global Adjustment, the variable component of incurred transmission charges, the IESO Administration Fee, the OPA Administration Fee, the Rural and Remote Rate Protection Charge, and Renewable Generation Connection Rate, in connection with all IEI eligible load **("IEI Eligible Load")**. The participant shall also receive an offsetting payment in an amount equal to the Debt Retirement Charge in connection with all IEI Eligible Load. IEI program participants remain responsible for the payment of all other related electricity charges. The IEI Contracts for Stream 2 shall terminate on or before January 1, 2020.

.../cont'd

**Eligibility for other Programs**

Participants in the IEI program will not be permitted to apply for rebates, incentives or other benefits in regard to their IEI Eligible Load under the:

(i) Northern Industrial Electricity Rate (NIER) program; or
(ii) Industrial Accelerator Program ("**IAP**") unless the IEI applicant entered into an agreement with the OPA under the IAP before June 1, 2012.

The OPA shall determine, in its sole discretion, whether a participant in the IEI program may participate in any other electricity incentive program during the term of any IEI Contract with the OPA.

**Energy Management Plans**

The OPA shall require all IEI participants to submit an energy management plan ("**EMP**"). Stream 2 applicants must include data on baseline electricity consumption for the Industrial Facility in their EMP but may also be required to provide baseline data to the OPA before such time that they are required to submit their EMP.

**Selection Committee**

The OPA shall establish an IEI program selection committee ("**Selection Committee**") and shall include a representative from the Ministry of Energy on the Selection Committee. Such representative shall abide by all relevant OPA procurement rules, requirements of confidentiality and conflict of interest and shall be subject to the oversight of a procedural process monitor. The Selection Committee must apply the analysis prepared by the Advisory Panel when selecting IEI program participants.

**Advisory Panel**

It is my intention to establish an advisory panel ("**Advisory Panel**") to assist in addressing certain elements of the IEI program.

For all applications to the IEI program, the Advisory Panel would be expected to provide the OPA with a score, for ranking purposes, relating to job creation and direct capital investment, if applicable. The OPA shall adopt this score as its economic impact **("Economic Impact")** score as set out in Appendix A to this direction. The Advisory Panel, and not the OPA, would also be expected to evaluate whether the applicant meets the requirements for producing products or employing technologies or processes that are not being produced or used in Ontario at the time of application, as set out in greater detail under the section of this direction relating to eligibility for Stream 1.

…/cont'd

**Audit**

It is my expectation that the OPA will establish appropriate policies and procedures with respect to the administration of the IEI program including ensuring that program participants are subject to being audited.

**Reporting**

Beginning in calendar year 2014, the OPA shall include in its 2013 annual report an update on the results of the IEI program.

**Effective Date**

This direction takes effect on the date it is issued.

Sincerely,



Chris Bentley
Minister

…/cont'd

## APPENDIX 'A'
## EVALUATION CRITERIA

| Criterion | Weight |
|---|---|
| Electricity System Benefit<br><br>The evaluation of electricity system benefit for all participants may consider the load size, load factor, load shape, commercial operation date, location, any possible provision of ancillary services by the load and any additional criteria the OPA may seek to consider. The evaluation for Stream 1 applicants may also consider the electricity purchase price, contract duration and index rate. | 70% |
| Economic Impact<br><br>The evaluation of the economic impact for all participants must consider the direct employment during operation (as committed to by the applicant and verified by the OPA). The evaluation for Stream 1 applicants must also consider the capital spending at each Industrial Facility applying to the IEI program (as committed to by the applicant and verified by the OPA). | 30% |

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Ontario

DEC 1 1 2012

MC-2012-3162

Mr. Colin Andersen
Chief Executive Officer
Ontario Power Authority
1600-120 Adelaide Street West
Toronto ON M5H 1T1

Dear Mr. Andersen:

**RE: Renewable Energy Program Re-Launch**

Pursuant to the authority I have, as Minister of Energy, under sections 25.32 and 25.35 of the *Electricity Act, 1998*, I hereby direct the Ontario Power Authority (OPA) to continue the Feed-in Tariff (FIT) program developed pursuant to the direction issued September 24, 2009 and amended by the April 5, July 11 and November 23, 2012 directions subject to such further amendments as may be required in order to implement the policies set out below.

**Strengthening Community and Aboriginal Participation**

In order to ensure eligible applications for the Aboriginal contract capacity set-aside provided for in the November 23, 2012 direction are assessed and processed in a manner that provides an opportunity for a distribution of contracts across a broad range of First Nation and Métis communities, I hereby direct the OPA to establish an allocation process for the Aboriginal contract capacity set-aside under the Small FIT application window as follows:

- In instances where an Aboriginal community or group of communities submits multiple qualifying applications for the set-aside, the OPA shall allocate contract capacity for no more than one application initially per community or group of communities. Any remaining available contract capacity set-aside would be allocated on the basis of an application's priority.
- This process shall be applied to each of the First Nation and Métis portions of the Aboriginal contract capacity set-aside.

Once all of the contract capacity set-aside has been allocated, or there are no further applications for First Nation or Métis contract capacity set-aside, this allocation process will no longer apply and the OPA will proceed to process applications for all projects, which may include Aboriginal projects, based on prioritization points as set out in the Prioritization Points Table in Appendix A of the July 11, 2012 Direction.

**Connecting Constrained MicroFIT projects**

The November 23, 2012 direction is amended by striking the phrase "as contemplated in paragraph 1 of the August 19, 2011 direction" in the third bullet on page 5 and replacing it with the phrase "as contemplated in any of the options identified in the August 19, 2011 direction".

**General**

This direction supplements previous directions related to the FIT Program, the microFIT Program and FIT Support Programs and replaces provisions of these previous directions only to the extent that a particular provision of this direction is inconsistent with a provision of a previous direction.

This direction takes effect on the date issued.

Sincerely,

Chris Bentley
Minister

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Ontario

December 13, 2012

Mr. Colin Andersen
Chief Executive Officer
Ontario Power Authority
1600–120 Adelaide Street West
Toronto ON M5H 1T1

Dear Mr. Andersen:

**Addendum No. 1 -- Southwest Greater Toronto Area (SWGTA) Supply**

I write in connection with my authority as the Minister of Energy in order to exercise the statutory power of ministerial direction that I have in respect of the Ontario Power Authority ( the OPA) under section 25.32 of the *Electricity Act, 1998* (the Act). This is an amendment to the original direction previously provided to the OPA on August 18, 2008 (SWGTA Direction). This amendment is to be read with and considered part of the original SWGTA Direction and collectively they are to be considered a single direction.

**Background**

On August 18, 2008, my predecessor, the then Minister of Energy and Infrastructure, directed the OPA to competitively procure a combined-cycle gas-fired electricity plant with rated capacity of approximately 900 MW to be located in the SWGTA. In October, 2009, the OPA announced that, as a result of its competitive procurement process, it had finalized a contract with the successful proponent, TransCanada Energy Limited (TCE). As part of TCE's proposal to the OPA, TCE intended to locate the plant in the Municipality of Oakville, Ontario.

On October 7, 2010, the then Minister announced that the Oakville Generating Station would not proceed and that a transmission solution would address local supply adequacy requirements in respect of the SWGTA. The most recent Supply Mix Directive issued to the OPA on February 17, 2011 notes that a transmission solution to maintain reliable supply in the SWGTA will be required.

As the OPA has advised, a gas generation facility is still required in order to address system supply adequacy, in particular, additional capacity needs expected to emerge after 2017. To this end, in accordance with the Memorandum of Understanding (MOU) between the Province, TCE and the OPA, dated September 24, 2012 a gas plant in replacement of that originally to be built by TCE in Oakville will now be developed on the lands of the Lennox Generating Station currently owned by Ontario Power Generation Inc.

Direction

Therefore, pursuant to my authority under subsection 25.32(4) of the Act, I hereby direct the OPA to assume responsibility for the Crown, including the Ministry of Energy, for this initiative and to enter into negotiations for a definitive Clean Energy Supply Contract with TCE at the Lennox Generating Station site identified above on terms consistent with the MOU entered into between the Province, TCE and the OPA on September 24, 2012.

This direction shall be effective and binding as of the date hereof.



Chris Bentley
Minister of Energy

**December 13, 2012**

Mr. Colin Andersen
Chief Executive Officer
Ontario Power Authority
Suite 1600
120 Adelaide Street West
Toronto, ON M5H 1T1

Dear Mr. Andersen,

**Addendum No. 1 -- Southwest Greater Toronto Area (SWGTA) Supply**

I write in connection with my authority as the Minister of Energy in order to exercise the statutory power of ministerial direction that I have in respect of the Ontario Power Authority ( the OPA) under section 25.32 of the *Electricity Act, 1998* (the Act). This is an amendment to the original direction previously provided to the OPA on August 18, 2008 (SWGTA Direction). This amendment is to be read with and considered part of the original SWGTA Direction and collectively they are to be considered a single direction.

Background

On August 18, 2008, my predecessor, the then Minister of Energy and Infrastructure, directed the OPA to competitively procure a combined-cycle gas-fired electricity plant with rated capacity of approximately 900 MW to be located in the SWGTA. In October, 2009, the OPA announced that, as a result of its competitive procurement process, it had finalized a contract with the successful proponent, TransCanada Energy Limited (TCE). As part of TCE's proposal to the OPA, TCE intended to locate the plant in the Municipality of Oakville, Ontario.

On October 7, 2010, the then Minister announced that the Oakville Generating Station would not proceed and that a transmission solution would address local supply adequacy requirements in respect of the SWGTA. The most recent Supply Mix Directive issued to the OPA on February 17, 2011 notes that a transmission solution to maintain reliable supply in the SWGTA will be required.

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Direction

Therefore, pursuant to my authority under subsection 25.32(4) of the Act, I hereby direct the OPA to assume responsibility for the Crown, including the Ministry of Energy, for this initiative and to enter into negotiations for a definitive Clean Energy Supply Contract with TCE at the Lennox Generating Station site identified above on terms consistent with the MOU entered into between the Province, TCE and the OPA on September 24, 2012.

This direction shall be effective and binding as of the date hereof.



Chris Bentley
Minister of Energy

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Ontario

DEC 2 1 2012

MC-2012-3223

Mr. Colin Andersen
Chief Executive Officer
Ontario Power Authority
1600–120 Adelaide Street West
Toronto ON M5H 1T1

Dear Mr. Andersen:

**Re: Extension of Funding Time-Period for OPA-Contracted Province-Wide Conservation and Demand Management (CDM) Initiatives under the GEA Conservation Framework**

I write pursuant to my authority as Minister of Energy in order to exercise the statutory power of ministerial direction which I have in respect of the Ontario Power Authority (OPA) under subsection 25.32(4.1) of the *Electricity Act, 1998*, as amended.

Background

On April 23, 2010, a Direction was issued to the OPA entitled, "Conservation and Demand Management Initiatives Under the GEA Conservation Framework" (April 23, 2010 Direction) representing an important step in building a culture of conservation in Ontario. Currently, contracts entered into thereunder between the OPA and distributors are scheduled to end on December 31, 2014.

I understand that further gains could be achieved if the funding for province-wide CDM activities were extended past the end of 2014. A one-year time extension for the availability of such funding would add stability and enhance continuity to the conservation activities now being undertaken by the OPA and distributors.

Direction

Therefore, pursuant to my statutory authority under subsection 25.32(4.1) of the *Electricity Act, 1998*, I hereby direct the OPA to fund CDM programs which would meet, apart from the timing requirements, the definition of and criteria for OPA-Contracted Province-Wide CDM Programs contained in the April 23, 2010 Direction for an additional one-year period from January 1, 2015 to December 31, 2015.

The OPA will conduct its activities in implementing this Direction in a prudent manner, adhering to all applicable procurement standards when exercising the authority provided herein, and ensure that appropriate reporting and evaluation of conservation results is conducted. The OPA shall take steps to enhance collaboration with distributors and seek to maximize administrative and delivery efficiencies.

This Direction does not amend or replace any other Direction previously issued.

This Direction shall be effective and binding as of the date hereof.

Sincerely,

Chris Bentley
Minister

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JAN 2 1 2013

MC-2013-89

Mr. Colin Andersen
Chief Executive Officer
Ontario Power Authority
1600-120 Adelaide Street West
Toronto ON M5H 1T1

Dear Mr. Andersen:

**RE: Hydroelectric Projects**

The Province's Long-Term Energy Plan and the February 17, 2011 Supply Mix Directive established Ontario's targets for clean and renewable energy, including 9,000 MW of hydroelectric projects by 2018. The government is committed to meeting the hydroelectric target.

## Direction

Pursuant to the authority I have, as Minister of Energy, under sections 25.32 and 25.35 of the *Electricity Act, 1998*, I hereby direct the Ontario Power Authority to continue the Feed-in Tariff (FIT) program developed pursuant to the direction issued on September 24, 2009, and amended by subsequent directions, subject to such further amendments as may be required in order to implement the policies set out below.

I further direct the OPA that, in offering contracts for hydroelectricity, the OPA shall take into account that the 9,000 MW target for 2018 remains the total target for existing, new build and incremental hydroelectric projects regardless of the manner of procurement. The capacity target of 50 MW for hydroelectric projects set out in the April 5, 2012 Direction (the "April Direction") is no longer set aside within the FIT Program and is replaced by this Direction.

In recognition of the unique characteristics associated with developing hydroelectric projects, I hereby direct the OPA pursuant to my Authority under section 25.32 of the *Electricity Act, 1998*, to undertake the procurement of up to 10 MW for new build distribution-connected hydroelectric projects greater than 500 kW and less than 5 MW, under a new municipal program stream, for eligible municipal waterpower projects.

For this stream, connection availability will be based on impact assessments carried out by the distributor, transmitter or Independent Electricity System Operator as appropriate, prior to contract execution. Eligibility for this stream requires that a pre-existing FIT application was submitted to the OPA before June 5, 2010. Project size must be consistent with the size indicated in the project's pre-existing FIT application.

Following the award of Small FIT contracts under the initial Small FIT application window, the OPA shall plan for opening an application window for hydroelectric projects for this new municipal program stream. Applications submitted for this new stream shall be prioritized on the basis of the FIT priority points and FIT prices shall apply.

The OPA created the Hydroelectric Contract Initiative (HCI) to implement the May 7, 2009 Ministerial direction entitled "Negotiating New Contracts with Hydro-Electric Generation Facilities" (the "HCI Direction"). In implementing the HCI Direction, the OPA shall not, from the date of this Direction, commence new negotiations relating to refurbishment, upgrade or expansion of existing facilities currently holding HCI contracts.

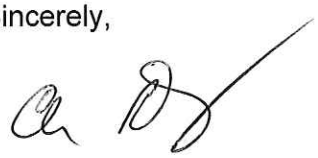
The Ontario government remains committed to allocating the remaining 40MW of the original capacity target set out in the April Direction for future hydroelectric projects. A future direction will include the criteria for later hydroelectric procurement initiatives.

**General**

This Direction supplements previous directions related to the HCI, the FIT Program, the microFIT Program and FIT Support Programs and replaces provisions of these previous directions only to the extent that a particular provision of this Direction is inconsistent with a provision of a previous direction.

This Direction takes effect on the date issued.

Sincerely,



Chris Bentley
Minister

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MC-2013-1450

JUN 12 2013

Mr. Colin Andersen
Chief Executive Officer
Ontario Power Authority
1600–120 Adelaide Street West
Toronto ON M5H 1T1

Dear Mr. Andersen:

**RE: Renewable Energy Program**

The Ontario government is committed to ensuring that a clean, reliable and sustainable supply of electricity is developed through processes that encourage local participation and respect communities. Going forward, the following changes will be made to the Feed-in Tariff (FIT) Program:

- Supporting the long-term sustainability of the FIT Program by setting annual procurement targets of 150 megawatts for Small FIT and 50 megawatts for microFIT for each of the next four years.
- Replacing the Large FIT program with a new competitive procurement process and working with municipalities and Aboriginal communities to help identify appropriate locations and siting requirements.
- Providing potential new economic development and revenue opportunities for municipalities and public sector entities by strengthening their participation in the Small FIT program. Public sector entities are publicly funded schools, public colleges, public universities, hospitals, publicly-owned long-term care homes, public transit services and Metrolinx.

## Direction

Pursuant to the authority I have, as Minister of Energy, under sections 25.32 and 25.35 of the *Electricity Act, 1998*, I hereby direct the Ontario Power Authority to continue the FIT Program developed pursuant to the direction issued September 24, 2009, and amended by subsequent directions, subject to such further amendments as may be required in order to implement the policies set out below.

**Future Procurement of Renewable Energy Projects**

*Price Review*

In October of each year, in consultation with the Ministry of Energy, the OPA shall consult about the price schedules. Following consultation, the OPA shall update the price schedules and shall publish the updated schedules in November of each year to be effective January 1st of the following year, per the April 5, 2012 direction.

*microFIT*

The OPA shall continue to procure renewable energy capacity under the microFIT program (10 kW and under). In each of the next four years, starting in 2014, the OPA will award up to 50 MW under the program. Upon publishing the updated price schedule for 2013, the OPA shall award up to 30 MW under the microFIT program. This will allow microFIT procurement to continue in 2013 before the 2014 target is in effect. If the full annual microFIT MW procurement target is not allocated in a given year, the remaining capacity will be added to the microFIT MW procurement target to be procured in the following year.

*Small FIT*

The OPA shall continue to procure renewable energy capacity in the form of Small FIT Projects under the FIT Program[1]. The OPA shall launch another application window in Fall 2013 for up to 70 MW of Small FIT Projects. If there is unused capacity from the 200 MW procurement target in the Small FIT window that closed on January 18, 2013, this unused capacity shall be added to the 70 MW target for Fall 2013. The OPA shall simultaneously launch the pilot program for rooftop solar projects on un-constructed buildings with the Fall 2013 Small FIT window.

For clarity, the 70 MW procurement target is in addition to the 15 MW of capacity reserved for the pilot program for rooftop solar projects on un-constructed buildings (per the July 11, 2012 direction) and the 10 MW procurement target for the municipal program stream for hydroelectric projects (per the January 21, 2013 direction).

Furthermore, in each of the next four years, starting in 2014, the OPA will award up to 150 MW of contracts for Small FIT Projects. If the full annual Small FIT MW procurement target is not allocated in a given year, the remaining capacity will be added to the Small FIT MW procurement target in the following year.

Further to recommendations provided by the Association of Municipalities of Ontario during the FIT two-year program review, the OPA shall amend the FIT Program to encourage participation from municipalities as set out further below in this direction under the headings "Encourage Participation by Municipalities and Public Sector Entities" and "Contract Capacity Set-asides". The amended program will be in effect for the Fall 2013 Small FIT application window.

[1] As currently provided in the FIT Program, a Small FIT Project is a capacity allocation exempt small embedded generation facility which has a name-plate rated capacity that is greater than 10 kW and is 250 kW or less in the case of a facility connected to a less than 15 kV line and is 500 kW or less in the case of a facility connected to a 15 kV or greater line.

*Large FIT*

The OPA shall not procure any additional MW under the FIT Program for Large FIT projects (i.e., projects that are larger than Small FIT projects) and shall begin to develop a competitive process for procurement of large renewable energy capacity. In developing the competitive process, the OPA shall engage with municipalities to help inform the identification of appropriate locations and siting requirements for future renewable energy projects. The OPA shall also engage with and consider input provided by stakeholders and Aboriginal communities as it develops the process and report back to me with interim recommendations by September 1, 2013.

It is the government's expectation that this engagement will support the development of a competitive procurement process for large renewable energy projects that takes into account local needs and considerations before contracts are offered. A Minister's direction will be issued at a later date to authorize the commencement and content of a competitive procurement following the completion of the Long-Term Energy Plan review.

The OPA shall permit Ontario Power Generation to compete in this procurement process.

The OPA shall discontinue Large FIT Project applications submitted prior to the date of this direction and in relation to which a contract offer had not been made. The OPA shall return the application fee and application security that had been paid in relation to these discontinued applications. The OPA shall include discontinued applicants in its stakeholder engagement regarding the competitive process noted above.

**Encourage Participation by Municipalities and Public Sector Entities**

To further support local participation, the OPA shall revise the FIT Program for Small FIT Projects to provide municipalities and public sector entities with incentives under the Program similar to incentives currently provided to communities, as follows:

a. To incorporate the revised prioritization points system in accordance with Appendix A.

b. To incorporate contract capacity set-asides as set out further below in this direction under the heading "Contract Capacity Set-asides".

c. To provide that projects with the eligible municipal or public sector entity equity participation level shall receive the same applicable price adders as those provided to projects with an equivalent Community Participation Level (as per the Appendix B in the April 5, 2012 direction). These projects shall also be eligible for reduced security payment requirements.

In recognition of the government's goal for broad participation by municipalities and public sector entities, the OPA shall ensure that the site access requirements for municipalities or public sector entities with a minimum of 15% equity interest or hosting a project are compatible with applicable public sector procurement legislation and directives, while continuing to ensure that all FIT applicants demonstrate sufficient site access rights to build, operate and maintain their projects.

The OPA shall provide municipalities and public sector entities with access to funding for costs associated with the development and design of their Small FIT Projects, similar to funding available under the Community Energy Partnerships Program (CEPP) and the Aboriginal Energy Partnerships Program (AEPP). The Ministry remains committed to these programs and a subsequent direction will provide details on amendments to the programs to align them with the FIT Program changes described in this direction. In the interim, the OPA shall proceed to provide municipalities and public sector entities with access to funding for costs associated with the development of their Small FIT applications similar to funding currently available under the programs.

**Contract Capacity Set-asides (CCSA)**

For the next 2013 Small FIT application window, the OPA shall provide CCSAs for projects involving greater than 50 per cent equity participation from municipalities or public sector entities (24 MW), communities (12 MW), and Aboriginal communities (12 MW). Consistent with the apportionment of the Aboriginal community CCSA as specified in the November 23, 2012 Direction, 8 MW will be provided to applications with greater than 50 per cent First Nation equity participation and 4 MW for those applications with greater than 50 per cent Métis equity participation.

The OPA shall provide projects involving greater than 50 per cent equity participation from municipalities or public sector entities with access to a 50 MW CCSA for Small FIT Projects for each of the next four years. In addition, the OPA shall provide projects involving greater than 50 per cent equity participation from communities with a 25 MW CCSA and projects involving greater than 50 per cent equity participation from Aboriginal communities with a 25 MW CCSA for Small FIT Projects in each of the next four years. The OPA shall further apportion the Aboriginal community CCSA as specified in the November 23, 2012 direction.

If a MW procurement target is not fully allocated in a given year, the OPA shall apportion the remaining capacity for projects, involving greater than 50 per cent equity participation, as follows: municipalities or public sector entities (1/3 of MW), communities (1/6 of MW), and Aboriginal communities (1/6 of MW).

Within any FIT application window, the OPA shall prioritize over any other applications that obtain prioritization points in accordance with Appendix A, the applications of those projects that have a greater than 50 per cent equity participation level by municipalities, public sector entities, communities and Aboriginal communities in accordance with the contract-capacity set asides outlined above. The OPA shall offer contracts to these projects before offering contracts to other projects in the application window.

The provisions of the April 5, 2012 and July 11, 2012 directions that apply to community and Aboriginal community projects that are awarded prioritization points or prioritization as a CCSA project for having the necessary participation level also apply to municipality and public sector entity projects prioritized in the same manner. This direction amends the April 5, 2012 and July 11, 2012 directions to include "municipalities and public sector entities" wherever requirements applicable to the FIT contract pertaining to reduction of equity interest prohibitions or cure periods for community and Aboriginal community projects are specified.

In awarding FIT contracts in any application period, the OPA shall offer contracts to the CCSA projects first until the CCSA target for each category of set-aside is reached, or until there are no more projects that are eligible for the CCSA in such category.

Once the CCSA for projects with greater than 50 per cent municipal, public sector, community or Aboriginal equity participation has been allocated or once all such applications have been processed, the OPA will then no longer prioritize projects with greater than 50 per cent municipal, public sector entity, community or Aboriginal equity participation over any other applications and will proceed to process applications for all projects based on prioritization points as set out in the points system in Appendix A to this direction, which may include municipal, public sector entity, community or Aboriginal projects.

**Domestic Content**

The Appellate Body of the World Trade Organization (WTO) recently issued rulings in two WTO disputes involving the FIT program, which rulings were adopted by the WTO members on May 24, 2013. It is the Ministry's desire and intent that the FIT program be brought into compliance with these rulings. As such, the Ministry intends to pursue the necessary legislative steps and other steps to achieve this outcome. Subject to the approval of the Legislature, I expect that this would affect the domestic content requirements in new FIT program procurements launched after May 24, 2013. I intend to issue further direction to the OPA at a later date with respect to these domestic content requirements.

**Connecting Constrained microFIT Projects**

The OPA shall sign Power Purchase Agreements (PPA) with Constrained Applicants who have Combined Projects within 30 days after a successful result from the Transmission Availability Test (TAT) and the Distribution Availability Test (DAT). The OPA shall provide the Constrained Applicants with a draft PPA within 15 days of the date of this direction. It is my expectation that as complete applications are submitted, the TAT and DAT tests will be completed as soon as possible. For clarity, the OPA shall conduct the TAT and DAT tests as each application is received. Since this procurement initiative commenced in August 2011, these Combined Projects will be subject to the requirements for domestic content which took effect on January 1, 2011.

The OPA shall ensure that any PPA signed by a Constrained Applicant whose aggregate capacity exceeds 200 kW contains a condition precedent that all Constrained Projects that have a Constrained Applicant who has purchased generation equipment for the Constrained Project must be remediated and provide documentation to the satisfaction of the OPA.

The OPA shall apply the same agricultural land protections, land use restrictions and project siting requirements to Combined Projects (as that term is defined in the August 19, 2011 direction) as those that currently apply to FIT contracts.

Without limiting the generality of the foregoing, for the purposes of paragraph 2 of the August 19, 2011 direction, "New Property" shall be limited to the same agricultural land protections, land use restrictions and project siting requirements contemplated by the April 5, 2012; July 11, 2012 and November 23, 2012 (as amended by the December 11, 2012 direction) directions.

"Constrained Applicants", "Combined Projects" and "New Property" have the same meaning as given to those terms in the August 19, 2011 direction as amended.

**Aboriginal Projects on Reserve Lands**

The government is committed to supporting Aboriginal community participation in the development of FIT projects. The government also recognizes the desire of First Nation communities to take advantage of local economic development opportunities on reserve lands. In acknowledgement of the unique and significant land control challenges facing Aboriginal FIT projects on reserve lands, the OPA shall offer a four year extension to the Milestone Date for Commercial Operation in existing Large FIT (as that term is used in this direction) contracts for Aboriginal Participation Projects where the generating facilities are located entirely on reserve lands.

**General**

This direction supplements previous directions related to the FIT Program, the microFIT Program and FIT Support Programs and replaces provisions of these previous directions only to the extent that a particular provision of this direction is inconsistent with a provision of a previous direction.

This direction takes effect on the date issued.

Sincerely,

Bob Chiarelli
Minister

## APPENDIX A

## PRIORITIZATION TABLE

| Applicant Type | Points |
|---|---|
| A project in which a municipality or public sector entity (publicly funded schools, public colleges, public universities, hospitals, publicly-owned long-term care homes, public transit services and Metrolinx) has a minimum 15% equity interest | 3 |
| A project in which a local community has a minimum 15% equity interest held by a co-op with 35 or more property owners who live in the municipality where the project is located. | 3 |
| A project in which an Aboriginal community has a minimum 15% equity interest | 3 |
| Other Applicants | 0 |
| **Additional Points** | |
| Local Municipal Council Support Resolution | 2 |
| Aboriginal Community Support Resolution | 2 |
| A project in which a municipality or public sector entity are a project host | 2 |
| System Benefit (water and bioenergy) | 1 |

Priority between projects that have an equal number of points shall be determined based on each project's timestamp.

The OPA shall not offer a project a FIT contract if the project does not have at least one (1) prioritization point.

Municipality is defined as a municipal corporation. There are 444 municipalities in Ontario organized into Regions, Counties, Districts and Single-Tiers. A project can only obtain points as one applicant type. For greater clarity, a single project cannot be eligible for more than 3 points under the applicant type category.

A publicly-owned long term care home is a municipal home, joint home or First Nations home as provided for under the *Long Term Care Homes Act, 2007*, S.O. 2007, c.8.

Public transit service is defined in the *Employment Standards Act, 2000*, Ont. Reg 390/05.

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Ontario

JUN 2 6 2013

Mr. Colin Andersen
Chief Executive Officer
Ontario Power Authority
1600-120 Adelaide Street West
Toronto ON M5H 1T1

Dear Mr. Andersen:

**RE: Hydroelectric Projects**

Hydroelectric power is a central pillar of the Government's renewable electricity portfolio. The Government wishes to see continued procurement of hydroelectric capacity. I anticipate that an updated target for installed hydroelectric capacity will be established through the review of the Long-Term Energy Plan.

**Direction**

I hereby direct the Ontario Power Authority (OPA), pursuant to my authority under sections 25.32 and 25.35 of the *Electricity Act, 1998*, to undertake the following:

**Hydroelectric Project Procurement**

**(i) Expansion of existing hydroelectric projects**

The OPA shall launch a standard offer program by September 30, 2013 to procure up to 40 MW of hydroelectric capacity at existing facilities with expansion potential for incremental capacity. This procurement process shall only include the following participants:

- Currently contracted Non-Utility Generation facilities under contract with the Ontario Electricity Financial Corporation (OEFC)
- Existing Hydroelectric Contract Initiative (HCI) contracted facilities that were not deemed by the OPA to be under negotiation with the OPA prior to the issuance of the January 21, 2013 Ministerial direction entitled "Re: Hydroelectric Projects"

The Ministry will work with the OEFC and the OPA to develop an appropriate approach to managing existing and new contracts for existing hydroelectric projects.

New contracts will be on terms that reflect a reasonable cost to Ontario electricity ratepayers and a reasonable balancing of risk and reward, taking into account the specific operating characteristics and value of the output of these types of projects.

### (ii) New hydroelectric projects

The OPA shall launch a standard offer program by September 30, 2013 to procure up to 50 MW of new hydroelectric capacity.

The OPA shall include the following features and eligibility criteria in this new municipal program stream:

- Project size must be at least 5 MW
- Open only to eligible municipal waterpower projects
- Project had been the subject of one or more FIT applications submitted before June 5, 2010
- Connection availability testing should take into account the reasonably expected time for these projects to reach commercial operation, in parallel with approved transmission and distribution system upgrades currently underway
- Milestone date for commercial operation shall be eight (8) years from the Contract Date in order to reflect the realities of the projects successfully satisfying the required environmental approvals
- Projects involving provincial Crown lands shall be subject to requirements to comply with Ministry of Natural Resources' policies, procedures and regulations prior to and after contract award regarding allocation of provincial Crown lands

New contracts will be on terms that reflect a reasonable cost to Ontario electricity ratepayers and a reasonable balancing of risk and reward, taking into account the specific operating characteristics and value of the output of these types of projects.

**Relationship to the January 21, 2013 Direction**

The procurement of hydroelectric capacity authorized by this direction is in addition to the procurement of up to 10 MW for new build distribution-connected hydroelectric projects (greater than 500 kW and less than 5 MW) set out in the January 21, 2013 Hydroelectric Projects direction. The OPA shall also launch the procurement of hydroelectric capacity authorized in the January 21, 2013 direction by September 30, 2013.

**Aboriginal Partnership Project**

Ontario Power Generation Inc. (OPG) and its First Nation partner, the Taykwa Tagamou Nation, has entered into a reciprocal and partnership agreement for a proposed New Post Creek hydroelectric generating station. The OPA shall enter into negotiations commencing in summer 2013 for a power purchase agreement to procure electricity from the proposed New Post Creek hydroelectric generating station. With a capacity of approximately 25 MW, this LTEP-referenced project is being proposed by OPG and the Taykwa Tagamou Nation for construction on New Post Creek near its outlet to the Abitibi River. Any agreement resulting from these negotiations shall be on financial terms that recognize the benefits associated with Aboriginal participation in hydroelectric generation projects. The agreement shall also reflect the risk structure of the Hydro Electric Supply Agreements, as negotiated between the OPA and OPG, for hydro-electric power projects such as the Upper Mattagami project.

**Ontario Power Generation (OPG) Hydroelectric Facilities Leased and Operated by Third Parties**

Third parties currently leasing and operating hydroelectric generating stations owned by OPG shall be permitted to apply to the HCI program. The term of the contract should begin after the date of this direction and once a complete HCI application has been provided and determined complete by the OPA, and be for a duration coincident with the end date of any lease of the station, or the standard HCI contract, whichever occurs first.

**Duty to Consult**

The OPA shall require Suppliers to cooperate with the Crown in fulfilling any duty to consult First Nation and Métis communities triggered by the project, by fulfilling all delegated procedural consultation responsibilities and entering into relevant arrangements with the Crown as requested.

**Existing FIT Contracts**

In acknowledgement of the unique regulatory approval requirements required for waterpower FIT projects, the OPA shall offer a three (3) year extension to the Milestone Date for Commercial Operation in existing waterpower FIT contracts.

**General**

The procurements authorized by this direction do not constitute large FIT projects, nor should they be considered part of the development of a competitive process for procurement of large renewable energy capacity as contemplated by the June 12, 2013 direction.

This direction supplements previous directions related to the HCI, the FIT Program, the microFIT Program and FIT Support Programs and replaces provisions of these previous directions only to the extent that a particular provision of this direction is inconsistent with a provision of a previous direction.

This direction takes effect on the date issued.

Sincerely,

Bob Chiarelli
Minister of Energy

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Ontario

MC-2013-1950

AUG 16 2013

Mr. Colin Andersen
Chief Executive Officer
Ontario Power Authority
1600-120 Adelaide Street West
Toronto ON M5H 1T1

Dear Mr. Andersen:

**RE: Administrative Matters Related To Renewable Energy and Conservation Programs**

The Ontario government is committed to ensuring that a clean, reliable and sustainable supply of electricity is developed through processes that encourage local participation and respect communities. Ontario also recognizes the key role that energy conservation plays in our electricity system.

**Direction**

Pursuant to the authority I have, as Minister of Energy, under sections 25.32 and 25.35 of the *Electricity Act, 1998*, I hereby direct the Ontario Power Authority (OPA) to continue the Feed-in Tariff (FIT) Program developed pursuant to the direction issued September 24, 2009, and amended by subsequent directions, subject to such further amendments as may be required in order to implement the policies set out below.

**Renewable Energy Support Programs**

In keeping with the government's renewed commitment to renewable energy, the OPA shall continue to deliver the support programs established as part of the FIT Program, including transitioning to the direct administration and management of all of the support programs. In addition, the OPA, in consultation with the Ministry of Energy, shall undertake an evaluation process to identify opportunities to improve, streamline and better align the support programs. The evaluation process will help to ensure that these programs continue to help meet the needs of Aboriginal communities and co-operatives as they develop renewable energy projects in the context of the June 12, 2013 Direction and that the programs offer similar types of support for municipalities and public sector entities involved in the development of projects.

The OPA shall report back to the Ministry with recommendations by January 31, 2014.

To ensure consistency between the support programs for Aboriginal communities, co-operatives, municipalities, and public sector entities, interim pre-FIT funding shall be made available to municipalities and public sector entities through two new applicant funding streams. The interim funding amount available to each applicant funding stream will be limited to $500,000 per year. With respect to municipalities, priority may be given to those that are small and medium-sized.

For Small FIT contract holders, development and approvals funding shall remain on a per project basis. Funding available for Small FIT projects shall be reduced to reflect the fact that these projects have lower development costs than large renewable energy projects. Economies of scale should also be recognized in funding applicants with multiple FIT contracts by limiting their access to funding under the program.

The OPA shall also make the remaining education and capacity building funding, as referenced in the July 11, 2012 direction, available to Aboriginal communities and organizations, co-operatives, municipalities, and public sector entities. In addition, this funding may be made available to not for profits and charities to provide education and capacity building to the groups indicated above. Given that municipalities can now access funding for education and capacity building, the $100,000 in annual funds allocated to AMO for education funding and capacity building in the July 11, 2012 Direction shall be reallocated to the education and capacity building program.

**Contract Capacity Set-Asides (CCSA)**

For projects with a FIT contract that receive priority as part of a CCSA under the FIT Rules, a drop in equity participation to 50 per cent or less, or for the purposes of a Community CCSA Project, a drop of local property owner membership below fifty members, shall only be grounds for termination of the contract if it occurs before the fifth anniversary of achieving Commercial Operation. A minimum participation level of 25 per cent must be maintained for the full term of the contract.

In addition, prior to the fifth anniversary of achieving Commercial Operation of a Community CCSA Project, a drop of local property owner membership below fifty members, and of equity participation to 50 per cent or less, shall not be treated as an event of default if the drop is attributable to the death or the departure from the community of one or more local property owner members. These changes shall apply to contracts resulting from future procurements as well as the current Small FIT procurement cycle.

**Domestic Content**

On May 24, 2013, the World Trade Organization (WTO) members adopted rulings from two WTO disputes involving the FIT program. The Ministry intends to bring the FIT program into compliance with these rulings.

As an interim step towards compliance, the OPA shall reduce domestic content requirements for new FIT procurements undertaken during the implementation period. New FIT contracts will require that facilities achieve the following minimum domestic content levels:

- For on-shore wind facilities, the minimum required domestic content level shall be 20 per cent.
- For solar photovoltaic (PV) facilities utilizing crystalline silicon PV technology, the minimum required domestic content level shall be 22 per cent.
- For solar photovoltaic (PV) facilities utilizing thin-film PV technology, the minimum required domestic content level shall be 28 per cent.
- For solar photovoltaic (PV) facilities utilizing concentrated PV technology, the minimum required domestic content level shall be 19 per cent.

These new domestic content levels shall apply to the Fall 2013 procurement window for Small FIT, microFIT, and pilot solar projects on unconstructed buildings. For clarity, they shall also apply to the unused capacity carried over from the Small FIT window that closed on January 18, 2013.

The new domestic content levels shall remain in effect until further direction to the OPA is issued with respect to domestic content requirements under the FIT program.

**Annual Small FIT Procurement Schedules**

Commencing in 2014, the OPA shall prepare annual schedules of planned Small FIT application windows. These schedules shall be published in January of each year.

**Changes to the Industrial Transmission Connected Electricity Efficiency Program**

The Industrial Transmission Connected Electricity Efficiency Program, commonly referred to as the Industrial Accelerator Program (IAP), was established by a ministerial direction to the OPA issued on March 4, 2010. Recognizing the importance of access to programs delivering conservation and local distributed generation, I hereby direct the OPA to amend the IAP as follows:

i. **Inclusion of non-industrial transmission connected consumers**
Commercial and institutional consumers shall be eligible to participate in the IAP. The OPA shall expand the current IAP eligibility criteria to include industrial, commercial and institutional consumers who have projects, buildings or facilities that are directly or indirectly connected to the IESO-controlled grid, and who are not otherwise eligible for conservation incentives from any local distribution company.

ii. **Inclusion of conservation measures addressing equipment replacement and retrofits and new construction**
The OPA shall design and deliver new initiatives that would offer incentives for eligible equipment replacement, retrofit and efficient new construction measures, and which will be added to the existing IAP eligible measures. Eligible consumers may apply for new initiatives and existing measures. Projects receiving incentives under the new initiatives must be complete before June 1, 2017 in order to be eligible to receive funding.

iii. **Eligibility for other electricity incentive programs**
Participants in the Industrial Electricity Incentive Program (IEI) will not be permitted to apply for the new IAP measures authorized by this direction in respect to their IEI eligible load.

When including new measures and consumers, the OPA shall continue to use all appropriate cost benefit tests.

**General**

This direction supplements or amends previous directions only to the extent that a particular provision of this direction is inconsistent with a provision of the original direction. All other terms included in the original direction remain in place.

This direction takes effect on the date issued.

Sincerely,

Bob Chiarelli
Minister

OCT 25 2013

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Ontario

MC-2013-2682

Mr. Colin Andersen
Chief Executive Officer
Ontario Power Authority
1600-120 Adelaide Street West
Toronto ON M5H 1T1

Dear Mr. Andersen:

**Re: Clarification Re: Procuring Electricity From Energy from Waste ("EFW") Facilities Using Technologies That Have Completed the Ministry of Environment Pilot or Demonstration Project (PDP) Initiative.**

I write further to the letter of direction which my predecessor issued to the Ontario Power Authority on August 19th, 2011, entitled, Re: Procuring Electricity From Energy from Waste ("EFW") Facilities Using Technologies That Have Completed the Ministry of the Environment Pilot or Demonstration Project (PDP) Initiative (the "August 19th Direction").

In that direction, the then Minister of Energy had noted that to help facilitate the further development and commercial introduction of technologies that have fully participated in the Ministry of the Environment PDP Initiative, the Crown had established what, at that time, was a new initiative for the procurement of electricity from projects using such technologies (the "Initiative").

In the August 19th Direction, subsection 25.32(4.1) of the *Electricity Act, 1998* (the "Act") was referenced as the statutory basis for the Direction, rather than subsection 25.32(4).

I wish to confirm my desire that the OPA implement the Initiative described in the August 19th Direction.

Therefore, pursuant to my statutory authority under subsection 25.32(4) of the Act, I hereby direct the OPA to assume responsibility for the Initiative as outlined in the August 19th direction.

This direction is effective and binding as of the date hereof.

Sincerely,

Bob Chiarelli
Minister of Energy

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OCT 28 2013

MC-2013-2841

Mr. Colin Andersen
Chief Executive Officer
Ontario Power Authority
1600-120 Adelaide Street West
Toronto ON M5H 1T1

Dear Mr. Andersen:

**Re: Clarification Re: Non-application to First Nation reserves of FIT Program restrictions relating to agricultural lands**

I write further to the letters of direction with respect to the Feed-in Tariff (FIT) Program which my predecessors issued to the Ontario Power Authority (OPA). In those directions the OPA was directed not to enter into a FIT contract, or amend an existing FIT contract, for ground-mounted solar photovoltaic generation facilities greater than 10 kW where those facilities were proposed to be located on or relocated to a site that contained certain classes of agricultural land, as set out in detail in prior directions (the "Agricultural Land Restrictions").

In recognition of the authority of band councils elected under the *Indian Act* to make decisions regarding land use on reserves, it is the policy of the Ministry to defer to band councils in relation to the use of agricultural land for power generation purposes.

Therefore, pursuant to my statutory authority under Section 25.35 of the *Electricity Act, 1998*, I hereby direct the OPA not to apply the Agricultural Land Restrictions to projects proposed to be located on reserve lands.

This direction supplements previous directions related to the FIT Program and replaces provisions of these previous directions only to the extent that a particular provision of this direction is inconsistent with a provision of a previous direction.

This direction is effective and binding as of the date hereof.

Sincerely,

Bob Chiarelli
Minister

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DEC 16 2013

MC-2013-3401

Mr. Colin Andersen
Chief Executive Officer
Ontario Power Authority
1600–120 Adelaide Street West
Toronto ON M5H 1T1

Dear Mr. Andersen:

**Re: 100 Per cent Biomass Non-Utility Generator Projects**

I write pursuant to my authority as the Minister of Energy, in order to exercise the statutory power of ministerial direction that I have in respect of the Ontario Power Authority ("**OPA**") under section 25.32 of the *Electricity Act, 1998* (the "**Act**") and to provide the OPA with further direction regarding the negotiation of new power purchase contracts with certain non-utility generators as first outlined in my predecessor's ministerial direction of November 23, 2010.

**Background**

On November 23, 2010, my predecessor directed the OPA to seek to negotiate new contracts ("**New Contracts**") with the owners or operators of the non-utility generator facilities ("**NUGs**") listed in Appendix A to that direction.

To support the objective of renewable electricity generation in Ontario, I now replace, with this direction, the November 23, 2010 direction as it pertains to NUGs (the "**Biomass NUGs**") having the following characteristics (the "**Biomass NUG Characteristics**"):

1. electricity generation that is 100 per cent fuelled by biomass, as defined in O. Reg. 160/99 made under the Act ("**Biomass**"), other than minimal supplemental fuel required for ignition or other related operational purposes;
2. capacity of 15 MW or less;
3. any contract with a Provincial government body or agency for electricity generation from that NUG has already expired; and
4. at no time the subject of a contract with a Provincial government body or agency for electricity generation from that NUG that allowed any part of the contracted electricity output to be generated from a fuel other than Biomass.

.../cont'd

**Direction**

Therefore, pursuant to my authority under section 25.32(4.1) of the Act, I hereby direct the OPA to seek New Contracts with the owners or operators of the Biomass NUGs ("**Biomass NUG Parties**") on terms that include the following:

1. A contract length of no more than ten years from the term commencement date.
2. A contract rate ("**Contract Rate**") offered on a 5 business day per week, 16 hour per day, basis ("**5 x 16 Period**"), and solely in respect of electricity generation that is 100 per cent fuelled by Biomass. Electricity generated outside of this 5 x 16 Period will not be covered by the New Contract.
3. Any wholesale market revenues received by the Biomass NUG that are applicable to the 5 x 16 Period will be applied against the amounts otherwise payable by the OPA to the Biomass NUG under the New Contract. Any other wholesale market revenues will not be so applied.
4. The Contract Rate should be 80 per cent of the Feed-in Tariff ("**FIT**") program price for Small FIT renewable biomass projects as set out in the FIT/microFIT Price Schedule as of August 26, 2013 that takes effect January 1, 2014 (the "**FIT Price Schedule**"), which for greater clarity does not include eligibility for FIT price adders or peak performance factors.
5. In the case of Biomass NUG facilities that are co-located with industrial hosts, the settlement of the Contract shall take into account the value of any behind-the-meter benefits accruing to the host facility.
6. Price escalation shall be at the same rate as that applying under the FIT Price Schedule to Small FIT renewable biomass projects.
7. The Biomass NUGs shall be required to maintain the Biomass NUG Characteristics throughout the term of the Contract.
8. A New Contract may not come into effect until after the expiry or mutually agreed termination of any existing contract with a Provincial government body or agency for electricity generation from that Biomass NUG.
9. The OPA is not required by this direction to enter into a New Contract with a Biomass NUG party where the OPA is unable to reach agreement with the Biomass NUG Party on terms that satisfy the requirements outlined in this direction.

This direction replaces the November 23, 2010 direction as it applies to negotiating New Contracts with Biomass NUGs.

This direction shall be effective and binding as of the date hereof.

Sincerely,

Bob Chiarelli
Minister

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DEC 16 2013

MC-2013-3397

Mr. Colin Andersen
Chief Executive Officer
Ontario Power Authority
1600–120 Adelaide Street West
Toronto ON M5H 1T1

Dear Mr. Andersen:

**Re: Moving Forward - Letter Requiring Report Back –Combined Heat and Power (CHP) – Amendment to a previous CHP direction**

I write pursuant to my authority as Minister of Energy in order to exercise the statutory authority I have in respect of the Ontario Power Authority (OPA) under the *Electricity Act, 1998* (the "Act").

**Background: *Achieving Balance: Ontario's Long Term Energy Plan* and CHP**

In its recently published document, *Achieving Balance: Ontario's Long-Term Energy Plan* (*Achieving Balance*), which was released on December 2, 2013, the government highlighted its intention to procure further CHP projects as a way to promote more efficient natural gas-fired generation and address regional capacity issues. Since 2005, the OPA has run three rounds of competitive procurements and one standard offer program for natural gas-fired CHP. This has resulted in 425 MW of CHP capacity, of which 414 MW are currently in commercial operation.

*Achieving Balance* set out the government's intention to consider procuring additional CHP when it is efficient to do so and when it can be located in regions with capacity needs or which would provide regional benefits to the electricity system. Specifically, programs for CHP at greenhouse operations, agri-food and district energy projects the (Target Sectors) were identified as being primary candidates for future procurements.

**OPA Consultation and Report Back**

Therefore, pursuant to the statutory authority I have under section 25.26 of the Act, I now require the OPA to consult and report back to me by the end of February, 2014, on the most appropriate and efficient means by which the OPA could design a targeted procurement program for CHP projects that are capable of maximizing efficiency and/or regional capacity needs in respect of the Target Sectors, and which would provide regional benefits to the electricity system.

.../cont'd

In crafting its report, the OPA should consult with the IESO and stakeholders in the Target Sectors, and report back to me with a proposed design for a procurement program or programs which are focused on efficient CHP in locations with capacity needs. The report should include a proposal for a procurement design which also encourages efficient CHP projects which effectively use the heat produced by the project facility, with electricity as a by-product. The report should further capture the government's policy that any procurement must encourage projects that are dispatchable (which includes the requirement that the facility must be capable of providing electricity or ancillary services to, or to stop providing electricity or ancillary services to, the IESO-controlled grid at specific times in response to direction from the IESO), and therefore capable of following electricity system needs.

Finally, such report should also recognize the government's policy that any procurement should be based on competition between proponents in order to ensure that value is maximized for Ontario's electricity ratepayers.

This letter requiring a report from the OPA is effective and binding as of the date hereof.

**Background: Amending a Previous CHP Direction**

I also wish to clarify and confirm the government's commitment to a previous CHP initiative.

In the letter of direction which my predecessor issued to the OPA on November 23, 2010, entitled, "Combined Heat and Power" (the "November 23rd Direction"), the then Minister of Energy had noted that "....Combined heat and power (CHP) facilities can play an important strategic role in Ontario's energy supply. CHP projects of the right size and in the right location can be an economically and technically efficient means of providing heat and electricity for residential, commercial and/or industrial consumers within the Province....".

In the November 23rd Direction, subsection 25.32(4.1) of the Act was referenced as the statutory basis for the Direction, rather than subsection 25.32(4).

I wish to confirm my desire that the OPA implement the initiative described in the November 23rd Direction.

**Direction**

Therefore, pursuant to the statutory authority I have under subsection 25.32(4) of the Act, I hereby direct the OPA to assume responsibility for the initiative set out in the November 23rd Direction.

This direction is effective and binding as of the date hereof.

Sincerely,

Bob Chiarelli
Minister

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DEC 16 2013

MC-2013-3400

Mr. Colin Andersen
Chief Executive Officer
Ontario Power Authority
1600–120 Adelaide Street West
Toronto ON M5H 1T1

Dear Mr. Andersen:

**RE: Moving Forward with Large Renewable Energy Projects, Renewable Energy Projects in Remote First Nation Communities and Energy Storage**

Our government has made significant progress transforming our electricity system into one that Ontarians can count on. Over the past 10 years, Ontario has brought more than 3,700 megawatts (MW) of wind, solar, hydroelectric and bioenergy capacity online. This capacity is the result of a variety of initiatives, including competitive procurements, the Feed-In Tariff (FIT) Program, other standard offer programs, projects undertaken by Ontario Power Generation and technology specific Ontario Power Authority (OPA) procurements.

As outlined in *Achieving Balance*: *Ontario's Long-Term Energy Plan* (*Achieving Balance*), the government would like to provide the renewable sector with a predictable procurement schedule. The government is extending the existing target of 10,700 MW for wind, solar and bioenergy to 2021, and expanding the existing hydro target of 9,000 MW to 9,300 MW by 2025. By 2025, 20,000 MW of renewable energy will be online, representing about half of Ontario's installed capacity.

As set out in *Achieving Balance*, the procurement targets for the Competitive Process will be up to 300 MW of wind, 140 MW of solar, 50 MW of bioenergy and 50 MW of hydroelectricity in the first round of large renewable procurement to commence in 2014. The targets will be up to 300 MW of wind, 140 MW of solar, 50 MW of bioenergy and 45 MW of hydroelectricity in the large renewable procurement anticipated to commence in 2015. These procurements shall be made according to the Competitive Process described in section 1 of this direction. Any capacity referred to in this paragraph that is left un-procured is to be made available for procurement of large renewable projects in 2016, along with any capacity from large renewable energy contracts that expire or terminate prior to the commencement of the procurement in 2016.

.../cont'd

This direction seeks to outline the implementation of the following three initiatives identified in the *Achieving Balance* released by the government on December 2, 2013.

- Competitive Procurement Process for Large Renewable Energy Projects;
- Renewable Energy Projects in Remote First Nation Communities; and
- Energy Storage.

**Direction**

Pursuant to the authority I have, as Minister of Energy, under the *Electricity Act*, 1998, I hereby request under section 25.26 that the OPA submit the following reports and direct under 25.32 that the OPA undertake the following initiatives:

**1. Development of a Competitive Procurement Process for Large Renewable Energy Projects**

On August 30, 2013, the OPA provided a report entitled "*Development of a New Large Renewable Procurement Process: Initial Engagement Feedback and Interim Recommendations*" (Report). The Report provides a useful foundation for the development of a new competitive process for large (generally over 500 kW) renewable energy projects (the "Competitive Process").

Pursuant to my authority under section 25.32 of the *Electricity Act*, I direct the OPA to design and develop the Competitive Process based on the principles articulated in *Achieving Balance* and to conduct further outreach with the public, municipalities, the renewable energy sector, the Association of Municipalities of Ontario, other stakeholders and First Nation and Métis communities in early 2014 on the following elements:

- Key factors to be used in evaluating proposals, including but not limited to bid price, proponent experience, financial capability and site due diligence;
- Options for how to address local considerations and interests in the siting of projects;
- Potential minimum community acceptance criteria;
- Options for providing proponents with timely connection information and connection costs for proposal purposes;
- Mechanisms to encourage participation by cooperatives, municipalities and public sector entities;
- Mechanisms to encourage First Nation and Métis community participation in a way that reflects their unique circumstances and the time needed for them to build meaningful partnerships and community support.

The OPA shall review and report back with mechanisms to encourage innovative technologies and approaches, including consideration of proposals that integrate energy storage with renewable energy generation for upcoming procurement cycles.

The OPA shall review and report back with options to enable hydroelectric projects located outside of Ontario that are or will be connected to the Ontario transmission system or an Ontario distribution system to participate in this competitive procurement process.

.../cont'd

Pursuant to s.25.26, the OPA shall report back to the Minister of Energy with a proposed design for the Competitive Process by March 1, 2014 and subject to a further direction, plan to post the draft Request for Qualification for comment for the Competitive Process before the end of the first quarter of 2014.

## 2. Renewable Energy Projects in Remote First Nation Communities

The government recognizes the unique challenges faced by the 25 remote First Nation communities in northwestern Ontario. Their electricity is supplied by on-site diesel generators, a non-renewable fuel source that is increasingly expensive and poses health and environmental risks through emissions and fuel storage.

As you are aware, the OPA's 2012 draft "*Remote Community Connection Plan*" indicated there is a strong economic case to connect up to 20 of the remote First Nations to the provincial electricity grid. Subsequent analysis in the OPA's August 2013 draft *"North of Dryden Reference Integrated Regional Resource Plan*" identified another community for connection, revising the economic case to connect up to 21 communities. The analysis indicates that over the next 40 years, connection of these communities to the grid could be 30% to 40% less expensive than the continued use of diesel, resulting in about $700M in avoided costs. The potential savings, as well as social, environmental and health benefits make connection of these communities to the transmission system a priority for Ontario identified in *Achieving Balance*. In addition, there may be cost-effective alternatives to reduce diesel use in the remaining remote First Nation communities in northwestern Ontario, including renewable generation opportunities, which can also support the Government's goal of promoting the use of cleaner and renewable energy sources as well as having the added benefits of stemming community economic development.

Pursuant to my authority under section 25.32, I hereby direct the OPA to work with those remote First Nation communities where transmission connection is not identified as economic in the OPA's plans, and other appropriate parties, in order to develop and implement solutions for on-site renewable generation projects that reduce their dependency on diesel fuel and which promote the use of renewable energy sources. The OPA shall take into consideration the following principles:

- Proposed solutions must demonstrate the ability to increase the community's use of renewable energy sources;
- Communities must have completed implementation plans that demonstrate the cost effectiveness of the proposed solution in comparison to continued diesel use, any community economic development interests, as well as the opportunities for federal and provincial funding that may be used to offset costs which would otherwise be borne by Ontario ratepayers. Where plans are not already in place, the OPA shall work with these remote communities to analyze options and develop plans by the end of 2014.

.../cont'd

**3. Energy Storage**

*Achieving Balance* stated the government's intention to include 50 MW of energy storage into energy storage procurement processes by the end of 2014 and review the regulatory barriers to storage's participation in Ontario's electricity market. The government will also commission an independent study assessing the value of energy storage for Ontario.

To address these commitments, I request pursuant to my authority under section 25.26 that the OPA work closely with the Independent Electricity System Operator and jointly report back to the Minister with a proposed design and outline for an energy storage procurement framework by January 31, 2014. For greater clarity, the proposed procurement framework will include IESO-led procurements and possible OPA-led procurements.

The framework shall address the main regulatory barriers preventing energy storage technologies from competing in the energy market on an equal footing and the options for addressing these barriers. The framework shall also include a proposed work plan that would enable new competitive energy storage procurement processes as early as possible.

The Ministry will work with applicable stakeholders to direct the development of the independent study to assess the value of energy storage for Ontario, such study taking into consideration those projects that are brought on line through these new procurement processes as well as existing storage initiatives.

**General**

This direction supplements or amends previous directions only to the extent that a particular provision of this direction is inconsistent with the provisions of a previous direction. All other terms of any previous direction remain in full force and effect.

This direction takes effect on the date it is issued.

Sincerely,

Bob Chiarelli
Minister

**Ministry of Energy**

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Ontario

DEC 16 2013

MC-2013-3398

Mr. Colin Andersen
Chief Executive Officer
Ontario Power Authority
1600–120 Adelaide Street West
Toronto ON M5H 1T1

Dear Mr. Andersen:

**Re: Supply agreement with Ontario Power Generation for the conversion of Thunder Bay Generating Station**

I write pursuant to my authority as the Minister of Energy, in order to exercise the statutory power of ministerial direction that I have in respect of the Ontario Power Authority (OPA) under section 25.32 of the *Electricity Act, 1998* (Act). This direction replaces the direction issued on March 16, 2006 and the direction issued on August 17, 2011, both relating to the conversion of the Thunder Bay Generating Station (TBGS).

**Background**

As part of its effort to reduce greenhouse gases and air pollution, the Province of Ontario has committed to phasing out coal-fired electricity generation at Ontario Power Generation (OPG) generating stations and increasing renewable energy generation. The Atikokan Generating Station is currently undergoing conversion to biomass, and OPG has studied the feasibility of converting other coal stations to clean fuels.

Advanced biomass has emerged as a leading candidate for future conversions due to its handling and storage properties. An advanced biomass conversion can be done with minimal capital expenditure, and the fuel is well-suited to the type of valuable peaking operation that the coal plants have provided to the province. In response to my predecessor's letter to OPG dated January 16, 2013, OPG has studied the conversion of a unit at the TBGS to advanced biomass and has determined that it is feasible.

**Direction**

Pursuant to my authority under Section 25.32(4.1) of the Act, I hereby direct the OPA to negotiate and enter into a contract (Contract) with OPG for the procurement of electricity from advanced biomass at TBGS, subject to the parameters provided in this direction.

.../cont'd

The Contract will cover the output from one unit at TBGS, which is to have a rated capacity of 150 MW. The Contract will allow for the recovery of the total actual capital costs of placing the converted unit into service (including without limitation all capital requirements such as burner modifications and fuel handling capability and storage and commissioning costs, but excluding pre-commissioning operating costs), which recovery will not exceed $5 million (2013 dollars) and will allow for a return only on the capital cost of the conversion. The Contract will also allow for the recovery of OPG's actual annual operating costs of the converted unit for the term of the Contract, such recovery not to exceed $40 million per year (in 2013 dollars, subject to indexing on a commercially reasonable basis), and project financing costs limited to the conversion capital cost.

Once converted, the Contract will contemplate that TBGS will operate running solely on advanced biomass fuel (with the exception of ignition fuel). The Contract will be for a five-year term commencing on the commercial operation date of the converted unit. The commercial operation date of the converted unit is expected to occur in 2014, but the actual date will be dependent on the availability of fuel. In addition to the above noted actual capital and actual annual operating costs, the Contract will also reimburse OPG for the cost of $2 million already incurred for the project development and testing costs, for the actual cost of the fuel, for all costs associated with station service load and for prudently incurred sustaining capital costs (primarily a turbine rehabilitation project) during the term of the Contract. In order to mitigate the operating and fuel costs, the Contract will provide that the converted unit will plan to be available, in accordance with good utility practices and regulatory requirements, for one 8-hour shift on weekdays only (including start up and shutdown within the 8 hour shift), not including statutory holidays (8 x 5 Period), and fuel purchase will be limited to 15,000 tonnes per year (Total Yearly Fuel). Despite the foregoing, if additional production is required to meet electricity system needs in the northwest region, the converted unit may be run outside of the 8 x 5 Period and OPG may purchase fuel in excess of the Total Yearly Fuel, but any costs associated with the production of electricity generated outside of the 8 x 5 Period will not be paid under the Contract, and the cost of any fuel used outside of the 8 x 5 Period or in excess of the Total Yearly Fuel will not be reimbursed under the Contract. OPG may use wholesale electricity market mechanisms to help recover costs associated with running the converted unit outside of the 8 x 5 period.

The Contract will provide that OPG is to optimize the operation of the converted unit to maximize reliability in the northwest region, while considering the cost impacts of the operation of the converted unit.

For greater clarity, the Contract should provide that any wholesale market revenues received by OPG in respect of the converted unit (OPG Market Revenues) that are applicable to the 8 x 5 Period will be applied against the amounts otherwise payable by the OPA to OPG under the Contract. The Contract should also provide that any other OPG Market Revenues will not be so applied, thus enabling OPG to use existing wholesale market mechanisms to help recover any operational costs it might incur outside of the 8 x 5 Period.

.../cont'd

The terms of the Contract with respect to costs, return and risk allocation must be commercially reasonable in the context of TBGS converting from coal to using advanced biomass fuel under the parameters provided in this direction. For certainty, references in this direction to costs and returns are intended to be references to commercially reasonable costs and returns in that context.

The completion and execution of the Contract is contingent on the amendment of paragraph 5 of the Memorandum of Agreement between Her Majesty the Queen and OPG dated August 17, 2005, or alternatively, a direction to OPG from the Minister as sole shareholder of OPG, such amendment or direction allowing OPG to pursue investment in non-hydroelectric renewable generation that covers advanced biomass.

The OPA will make reasonable efforts to complete the negotiations and execute the Contract by March 31, 2014.

Sincerely,

Bob Chiarelli
Minister

# GOAL 1

**Sustain Ontario's leadership in energy efficiency while promoting a culture of conservation through innovation, cost-effective customer-centric solutions and verified resources**.

The OPA is putting conservation first and strengthening the culture of conservation in Ontario by helping customers better manage their electricity consumption, and achieving cost-effective electricity savings.

Customers are beginning to better understand their energy consumption, and plans are underway to further engage them, as well as delivery and channel partners, in the value of conservation and demand management ("conservation" or "CDM") for today and the future. During this business planning period customers and partners will be provided with enhanced tools and systems, as well as increased access to conservation information. A key area of focus will be on ensuring the effective delivery and enhancement of existing and new conservation programs and initiatives to achieve Ontario's conservation goals.

The division is also responsible for driving innovation and planning for the future of conservation. Three key themes moving forward will be integration of fuels in program delivery, using benchmarks and information as the driver for achieving conservation, and enabling customers' to manage their energy consumption more effectively.

In 2014, the Conservation division will be preparing for the next conservation framework. As of the submission of this application, the details of the new six-year framework have not yet been announced. As such, the amount of effort and resources needed for a smooth transition to the new framework are not yet known, and there will be some variability around resource requirements. Prioritization of activities will be required throughout the year.

The OPA's Conservation division is divided into five groups: (1) Business Development, (2) Operations, (3) Conservation Performance, (4) Market Transformation and (5) Office of the Vice President ("VP").

The functional priorities of these groups are as follows:

| | |
|---|---|
| **Business Development:** Encouraging conservation | • Engage the marketplace and manage relationships<br>• Train and grow capability<br>• Communicate the vision<br>• Provide strategic guidance for sector based marketing and awareness outreach |
| **Operations:** Ensuring fiscally responsible program delivery | • Demonstrate the value proposition<br>• Procure and manage all conservation contracts<br>• Manage risk and partner audits |
| **Conservation Performance:** Validating the value of conservation | • Provide industry leading technical review and support<br>• Perform credible and rigorous evaluations of conservation efforts<br>• Consistently and accurately report results |
| **Market Transformation:** Preparing for the future of conservation | • Fund innovation<br>• Investigate industry trends<br>• Identify solutions for future conservation<br>• Support policy and regulation to enable market transformation |
| **Office of the VP:** Collaborating and integrating | • Develop and implement strategy and business plans<br>• Integrate and coordinate efforts between groups |

Ontario's conservation portfolio consists of seven programs. Under the **save**ON**energy** brand, 76 local distribution companies ("LDCs") across the province deliver the Consumer, Business, Industrial and Home Assistance Programs. The OPA designs and delivers the Industrial Accelerator Program and Demand Response Programs to transmission-connected customers, and the Aboriginal Conservation Program to First Nation and Métis communities. Please refer to Appendices A and B of this exhibit for more information about these programs.

In order to achieve OPA Goal 1, the Conservation division is pursuing the following three strategic initiatives in 2014:

1. *Effectively communicate and engage customers and channel partners in the value of conservation*
2. *Achieve meaningful energy results with partners through operational excellence*
3. *Develop and implement a strategy for the future of conservation.*

## Strategic Initiatives

### Initiative 1 – Effectively communicate and engage customers and channel partners in the value of conservation

Customer decisions are the foundation on which conservation achievements are built, and the division will support customers to take action and make conservation the business-as-usual approach. The OPA will support customer action by working with LDC partners, leveraging the channels that influence customers' decisions that affect their energy consumption (e.g. buying space heating equipment or investing in new lighting fixtures), and undertaking direct customer engagement with large strategic customers.

In December 2011, the OPA established the Advisory Council on Conservation ("ACC"). The mandate of this group is to provide insight into the future of conservation that informs program design and customer-centric strategy. In 2014, the ACC will continue to meet on a quarterly basis to provide advice on the transition from the current to the next generation conservation framework.

*LDC and Channel Engagement*

In 2014, the division will build on existing relationships with LDCs to effectively promote the value of conservation today and in the future. The division will also expand outreach and engagement with six strategic channels: HVAC, building controls, lighting,

compressed air, industrial controls and retailers. Many of these channel partners have province-wide reach, and therefore span the service territories of multiple LDCs.

Specific activities in 2014 to support this initiative are as follows:

- Engaging strategic channels through direct outreach, networking and participation as a presenter at up to 20 industry events.
- Hosting 10-20 channel-specific workshops, with the objective of leveraging the relationships that channel partners have with their customers to encourage unincented and incented conservation activities.
- Supporting Energy Managers in partnership with LDCs. This includes OPA-funded Embedded Energy Managers, Roving Energy Managers, Key Account Managers and Energy Efficiency Service Providers (collectively, "Energy Managers"). The OPA will organize regular meetings for Energy Managers to network and share best practices, participate in monthly conference calls, and provide other support as needed.
- Account-managing Energy Efficiency Service Providers ("EESPs"), including hosting weekly calls, and regular in-person meetings. The EESPs are sector-based resources meant to drive customer participation in **save**ON**energy** initiatives and build a culture of conservation. The EESPs are currently active in five sectors: health care, retail, municipalities, hospitality, and water/wastewater.
- Working with LDCs to encourage the participation of small businesses in conservation initiatives.
- Working with natural gas distribution companies to co-promote existing conservation programs, and identify opportunities for integrated solutions.
- Enabling LDCs, channel partners, and others to effectively communicate the value of conservation to their customers by providing research, marketing and technical support.
- Building market capability to provide conservation services. The focus of the OPA's training and support will be on strategic channels. The 2014 training offerings and the targeted number of participants are listed in the table below.

| Training Initiative | Target # of Participants* |
|---|---|
| Building Operator Certification | 300 |
| Energy Manager Training | 100 |
| HVAC Installation Optimization Training | 1500 |
| Certified Energy Manager | 100 |
| Certified Measurement and Verification Professional | 50 |
| Commissioning Agents | 50 |
| Low-Rise Builder Training | 200 |

* Participant numbers have been rounded to the nearest 50.

The following capability building initiatives will continue to be offered to LDCs in 2014:

- LDC Support Email Helpdesk: OPA processes approximately 5,000 direct queries from LDCs annually.
- E-Blast newsletters: OPA prepares and distributes bi-weekly information E-Blasts, and Special Bulletins as required, to augment communications to LDCs on specific topics.
- Hosting approximately 20-30 LDC **save**ON**energy** webinars, full-day workshops for LDC staff, and regional **save**ON**energy** symposia for LDC staff, customers and the supply chain.
- Operating the LDC Extranet, a one-way file-sharing service to assist LDCs with document access. Materials include schedules, reports, training, and support files.

*Customer Engagement*

The division will work directly with transmission-connected and multi-jurisdiction businesses to promote and support participation in conservation programs.

On August 16, 2013, the OPA received a directive to expand its work with transmission-connected customers by extending programs to non-industrial customers, and allowing the inclusion of conservation measures addressing equipment replacement, retrofits, and new construction in the Industrial Accelerator Program ("IAP"). As a result, in 2014 the division plans to work directly with 58 transmission-connected customers to identify

innovative process and energy management opportunities, and support their participation in the newly-expanded program .

The OPA works with large property managers/owners, national brand retailers, large grocery, telecom, the financial sector, and other strategic commercial customers to encourage participation in the **save**ON**energy** programs. The OPA provides support to these businesses, which have a presence in multiple LDC service territories, through a head-office model. This includes providing strategies and recommendations to customers on the best approach for advancing their projects, liaising with the LDC managing the application (whose role it is to coordinate with other LDCs), and providing any required support to ensure a positive user experience.

The OPA will develop and implement an outreach strategy for small business customers. The strategy will include specific marketing efforts aimed at increasing awareness and participation in conservation initiatives targeted at this sector. The OPA will also examine opportunities to accelerate the launch of new initiatives, and generate and share interest in conservation amongst these customers with LDCs.

The division will monitor and analyze customer feedback and use the results to inform the promotion of conservation programs. This includes undertaking new market research on attitudes, motivations, barriers, and behaviours of customers in the business sector. In addition, all customers that participate in **save**ON**energy** FOR BUSINESS programs that provide the OPA with their e-mail address, as well as a sample of residential participants, will be surveyed for satisfaction.

The OPA will undertake province-wide marketing to residential customers. This overarching marketing ensures a consistent conservation message across the province, and is complemented by local LDC marketing. The Conservation division provides strategic direction to the Communications division on the content and messages to be

included in marketing materials. More information on the OPA's marketing activities is provided in Exhibit B-5-1.

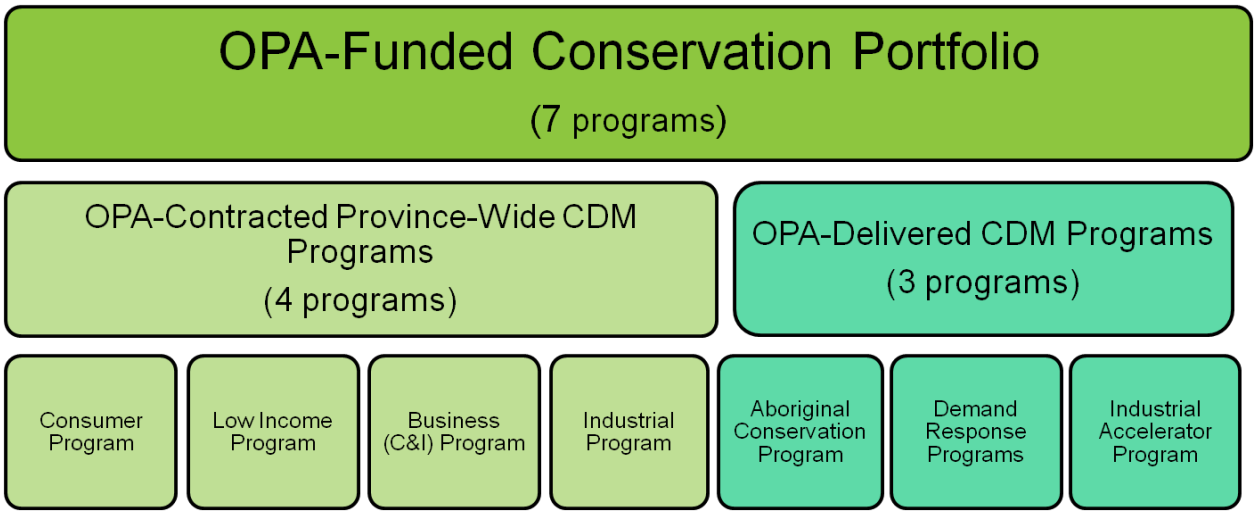
Finally, the division will continue to recognize conservation achievements across the province. In collaboration with the Association of Municipalities of Ontario ("AMO") and the Electricity Distributors Association ("EDA"), the OPA will present the third annual Community Conservation Awards to municipalities, as well as publically recognize service providers and customers who demonstrate a commitment to conservation.

**Initiative 2 - Achieve meaningful energy results with partners through operational excellence**

A key focus for 2014 will be supporting the LDCs' pursuit of their 2011-2014 CDM targets. Other major activities include finalizing the extension of programs to 2015, as well as continuing to work with transmission-connected customers and First Nations and Métis communities. The three operational activities necessary to achieve meaningful results include: program management and enhancement; procurement, contract and financial management; and evaluation and reporting on conservation results. The evidence below is divided into these three categories.

*Program Management and Enhancement*

Ontario has a portfolio of seven conservation programs: four delivered by LDCs and three designed and delivered directly by the OPA. These are shown in the figure below.




More information about these programs is available on the OPA website, and in Appendices A and B to this exhibit.

The OPA manages contracts with 76 LDCs for the delivery of LDC-delivered programs. Management activities include audits of the LDC expenditure of the Program Administration Budget provided as part of the contract, quality assurance audits for program delivery and project applications, and audits of third-party service providers serving LDCs. As audits to date have demonstrated compliance, the OPA expects to streamline its oversight role, giving more responsibility to its partners to ensure quality.

In 2014, the division will continue to maintain a customer care call centre and directly deliver an LDC Support service to ensure timely responses to inquiries. It is expected that these services will support approximately the same demand as in 2013, meaning approximately 100,000 calls to the call centre, and 5,000 e-mails to LDC Support.

Programs need to evolve to reflect implementation experience, customer feedback and opportunities for strategic and operational improvement. Throughout 2014, the Conservation division will continue to participate in regular meetings of the LDC Industrial, Commercial and Institutional ("C&I"), Residential, and Reporting working groups. These groups provide valuable insight into program opportunities, undertake program design work, and provide recommendations for changes to **save**ON**energy** programs.

The OPA continues to manage and optimize the program change management process established in the Master Agreement. As part of the change management process, the OPA assesses the impact of potential changes on program budgets and electricity savings; coordinates the approval and contract amendment processes; and develops or amends supporting materials as necessary to implement approved program changes. Significant streamlining was undertaken to the process in 2013, working collaboratively with LDCs.

The OPA will continue to support LDC program innovation through the "LDC fast-track" stream of the Conservation Fund. Through this stream, LDCs can develop unique conservation program offers that are not addressed by existing OPA-Contracted Province-Wide CDM programs. If successfully piloted, program ideas can be made available province wide. LDCs will be able to claim savings resulting from the pilot projects they have undertaken, helping them achieve their 2014 CDM targets. Going into 2014, there are five additional LDC program ideas under development.

The OPA was directed on December 21, 2012 to extend funding for the suite of OPA-Contracted Province-Wide CDM Programs by one year to December 31, 2015. Implementation of the extension is well underway. In 2013, the OPA worked with LDCs to identify which programs to extend into 2015, and is now working with LDCs to finalize contract changes necessary to implement the extension in the first quarter of 2014. The

OPA is also working with LDC partners to communicate the extension to customers and the supply chain.

For 2014, the OPA will work to further streamline the program application process. This will involve the development of additional worksheets for channel partners and customers that are used to validate the cost-effectiveness of conservation investments.

The Aboriginal Conservation Program ("ACP") was launched in early 2013 and is designed to enable First Nations, Métis, and urban Aboriginal communities to reduce their electricity consumption. The ACP provides customized delivery of conservation programs to meet the needs of businesses and households in these communities. As of September 30, 2013, 12 First Nations communities were participating in the ACP. Work is underway to expand the program to more communities, including additional remote communities.

As described in the 2013 Long-Term Energy Plan, the Independent Electricity System Operator ("IESO") will be responsible for evolving existing demand response programs and introducing new initiatives. The OPA and the IESO will continue to collaborate on increased integration of demand response resources into IESO operations. The goal of this effort is to increase the value of demand response, and enable it to provide additional services in the future. New market engagement activities and pilot projects are expected to take place in 2014 to support this effort.

*Procurement, Contract, and Financial Management*

In 2014, approximately 550 new and existing conservation related contracts will be managed. Contract counterparties include LDCs, fulfillment service partners, third-party delivery partners, and customers. The OPA will process approximately 6,000 invoices in compliance with these contracts; this work will be led by staff in the Business Strategies and Solutions division with support from staff in the Conservation division.

The Conservation division will manage an annual budget of $483.4 million in charges. This does not include the Conservation division's fees budget.

To maintain prudent financial management of spending, the OPA conducts annual and quarterly forecasts, monthly accruals, tracks spending, and updates budgets on a regular basis. A focus in 2014 will be on increasing the flexibility and timeliness of procurement and contracting functions to improve the customer and partner experience.

*Evaluation and Reporting*

The performance of all OPA conservation programs will continue to be assessed using the OPA's rigorous evaluation, measurement and verification ("EM&V") protocols. EM&V is critical in establishing conservation as a credible and reliable resource in meeting Ontario's current and future electricity supply needs.

In 2014, the division will oversee the management of 15 contracts with independent EM&V service providers to verify energy and demand savings from conservation programs, and to provide recommendations to maximize the performance of both existing programs and future program design.

Evaluation activities have been expanded in 2014 to further quantify the savings and validate the benefit of Ontario's conservation efforts. In addition to evaluating the OPA's seven conservation programs, the division will commence the evaluation of the OPA's capability building initiatives, program-enabled savings (also referred to as non-incented savings), and the impact of energy efficiency codes and standards.

The OPA will continue to work with the Ontario Energy Board ("Board"), the IESO, the Ministry of Energy, and LDCs to evaluate the impact of time-of-use rates in Ontario. Preliminary first-year results for five participating LDCs were provided in 2013, with draft results for all LDCs planned for 2014, and the final three-year study report expected in 2015.

All evaluations undertaken by the OPA's service providers must adhere to the OPA's EM&V protocols. The protocols provide guidance on how to conduct a robust evaluation, identifying the practice required to measure and verify energy savings and demand reductions associated with conservation activities in Ontario, and have been supported by the Environmental Commissioner of Ontario. In 2014, the protocols will be enhanced to include new sections for the evaluation of behaviour-based programs, providing best practices for evaluating behaviour intervention programs designed to change the behaviour of market actors resulting in changes in energy consumption.

The OPA maintains a Measures and Assumptions List ("MAL") which provides the deemed energy and demand savings, measure life, and other data associated with energy conservation measures. This publically available database is updated on an annual basis and serves as a vital resource for the design, implementation and evaluation of conservation programs in Ontario.[1] A series of enhancements to the MAL will be implemented in 2014, focused on improving the usability of the database, including providing additional cost and program design information for all measures presented.

The OPA will continue to provide results reports in order to monitor and report on conservation achievements and their impact on system needs and conservation targets. This includes providing: quarterly reports to LDCs of preliminary results (unverified); final annual results reports (verified) to LDCs, the Ministry of Energy, the Environment Commissioner of Ontario, and the Board; and an annual report published on the OPA website in support of the OPA's annual energy reporting activities.

A series of enhancements will be implemented in 2014 to the division's centralized conservation information and application processing management system focused on improving the settlement process, and updating the system to reflect changes to

[1] http://www.powerauthority.on.ca/evaluation-measurement-and-verification/measures-assumptions-lists

program design. In addition, a conservation reporting tool will be developed to consolidate data from multiple sources for more efficient reporting.

Finally, a series of technical road shows featuring EM&V and reporting functions will continue for 2014 in order to facilitate productive and solution-oriented discussions with LDCs. Examples of key topics covered in the road shows will include understanding and documenting program-enabled savings, identifying measures and end-uses of greatest potential, and using technical tools to extract maximum value from current programs (such as new or revised engineered worksheets and enhanced application processes). Over 35 LDCs are expected to participate in these face-to-face discussions, providing LDCs with the opportunity to understand their current results and support the achievement of their 2014 conservation targets.

**Initiative 3 - Develop and implement a strategy for the future of conservation**.

The Conservation division's strategy is to work with LDCs and channel partners to make conservation second nature for consumers in Ontario. A major focus of 2014 will be the implementation of the next generation conservation framework. Working with LDC and sector partners, the OPA will also continue to research, pilot and/or design next generation programs and policies. Key themes will be the integration of electricity conservation activities with gas, and water conservation; leveraging of benchmarks and data to drive conservation action; and promotion and support for energy management. A third area of focus for the division is on regional and community energy planning.

*2015-2020 Conservation Framework*

The OPA will be working closely with customers, LDCs, the Ministry of Energy and other partners to enable a seamless transition from the current conservation framework to the future framework referenced in the December 2013 Long-Term Energy Plan. It is expected that this work will involve the development of new funding arrangements with LDCs, the evolution of customer-centric programs, and the introduction of new and

innovative conservation tools for customers and partners. As the new framework is not yet fully developed, there is uncertainty regarding human and financial resource requirements to carry out this work. The OPA anticipates the need to prioritize resources throughout 2014 in support of this new framework.

*Program and Policy Innovation*

The division will continue to fulfill a critical role in conservation innovation in Ontario through its Conservation Fund. The Conservation Fund identifies, promotes and funds strategic conservation solutions and pilots. The Fund typically assesses 50 applications per year. Those projects that meet Fund criteria are brought forward to the Grant Awards Committee for funding approval. The Grant Awards Committee is comprised of OPA and external members. Staff manage the Conservation Fund's portfolio of 35-50 ongoing projects, including holding regular meetings with proponents. The portfolio includes the social benchmarking project, which involves working with three LDCs to provide alternative approaches to comparing customers' energy use to those of their peer group. In 2014, new strategic piloting opportunities will focus on fuel and water integration, energy management and behavioural changes, and data and benchmarking. To support project recruitment and sharing of lessons learned from funded projects, the Conservation Fund publishes and promotes case studies.

The OPA's work to further program and policy innovation is grounded in research and analysis. The division will conduct market research to inform the OPA's understanding of markets and channels, and profile customers and their expectations, motivations, and barriers, as they relate to energy conservation. This information will be used to inform OPA decisions related to the design and delivery of conservation initiatives.

Benchmarks for all sectors will be established building on an achievable conservation potential study. Benchmarks can set a standard for best in class achievement, and will enable customers to compare their energy consumption against that of their peer group, track progress towards targets for each building type, and inform performance-based

programming. These benchmarks will also be used to develop next generation performance based programs.

A supportive policy framework is vital to making conservation second nature in Ontario. Significant progress has already been made through the adoption of the 2012 Ontario Building Code and advanced equipment efficiency standards. The OPA will continue to provide support to policy development and standard setting, and will:

- Facilitate customer access and control of their electricity consumption data by working with Natural Resources Canada ("NRCan") to support the market adoption of ENERGY STAR Portfolio Manager, and working with the Ministry of Energy to identify other data access opportunities.
- Participate in the Green Button working group to implement this initiative across Ontario, and work with government and partners to identify next steps regarding energy feedback tools, and opportunities for residential customers.
- Participate in the Collaboration on Home Energy Efficiency Retrofits in Ontario (CHEERIO) working group that will develop local improvement charges financing pilots with municipalities in Ontario.
- Participate in the Canadian Standards Association's Steering Committee on Energy Efficiency, Performance and Renewables, and associated technical committees, which provide direction and support for the development of product testing and performance standards that can be referenced in regulations.
- Participate in regular meetings as a member of the National Research Council's Standing Committee on Energy Efficiency in Buildings, which is expected to publish an updated National Energy Code for Buildings (NECB) in 2015.
- Participate in regular meetings with the Ministry of Municipal Affairs and Housing, and its Building Code Conservation Advisory Council. This work will support the development of increased energy efficiency requirements that come into effect in 2017.
- Participate in the National Advisory Committee on Energy Efficiency, which provides advice to NRCan on the development of its energy efficiency programs and policies.
- Participate in Quality Urban Energy System of Tomorrow ("QUEST") National Advisory Committee and Ontario caucus.

*Conservation Planning*

The OPA is working to integrate conservation into provincial, regional, and Community Energy Plans. This work is informed by the recent regional planning and siting recommendations developed by the OPA and the IESO in August 2013, and adopted by the provincial government.[2]

In 2014, the division will leverage the results of its achievable conservation potential study initiated in 2013 to identify conservation resource availability and to compare different strategies for obtaining savings. The OPA will develop a regional achievable potential tool that can be used by LDCs and others to estimate potential and develop targets. This information can be used in quantifying opportunities and calculating incentive levels for conservation programs, and will support the regional planning process by providing an estimate of regional conservation potential.

With respect to regional plans, conservation activities in 2014 include convening regional tasks forces on conservation, conducting regional conservation potential assessments, identifying regional conservation program and policy opportunities, and developing and implementing regional conservation program strategies and action plans for achieving results. The Conservation division expects to participate in regional planning activities for several regions that are already underway, including the regions of Central Toronto, Kitchener-Waterloo-Cambridge-Guelph, Brant, and North of Dryden. In addition to these regions, the Conservation division will also support planning activities in the eight regions identified in the Board's preliminary list of Group 1 regions as required.

The OPA is committed to working with municipalities to develop Community Energy Plans ("CEP"). Community energy planning refers to the development by a community of a plan to address the community's energy needs broadly, including natural gas,

[2] http://www.onregional-planning-and-siting-dialogue.ca

transportation, and district heating in addition to electricity. This is distinct from Regional Electricity planning which focuses on the electricity needs of a region, which typically includes numerous communities. Community Energy Plans can be valuable input to a regional planning process as they often provide information about a community's values and priorities, as well as growth projections. In 2014, the OPA expects to participate in the development of CEPs, including those of Kitchener-Waterloo, Cambridge, Guelph, London, and those of communities applying to the Ministry's Municipal Energy Plan program.

### **2014** Milestones

By the end of 2014, the OPA will have reached the following milestones:

- Enhanced conservation participation and awareness for partners and customers through effective communication strategies, and celebration and promotion of Ontario's conservation successes
- Exceeded energy savings forecasts through local distribution company partners achieving their conservation objectives; retail, aggregator and contractor partners delivering successful conservation initiatives; and increased conservation capability for the future
- Ensured that regional and provincial plans incorporate conservation and integrate land use, natural gas, water and other resources
- Improved support and increased relationship building with: enhanced tools and information for partners and customers, an optimized platform to manage and track new and existing contracts, nimble and responsive customer service, and effective and transparent conservation reporting.

## 2014 Budget

The table below shows the 2014 budget for the Conservation division by major cost category, the 2011 Board-approved budget and the 2013 actuals, and the variances to the 2014 budget. Analysis of variances is presented in Exhibit D-2-2.

**Goal 1 (Conservation)**
**Variance between 2014 Budget and 2011 Board-approved Budget and variance between 2014 Budget and 2013 Actual**
**($'000)**

| Major Cost Category | 2011 Budget Board-approved | 2014 Budget | 2011-2014 Variance | 2013 Actual | 2013-2014 Variance |
|---|---|---|---|---|---|
| Compensation & Benefits | 8,182 | 6,700 | (1,482) | 7,285 | (585) |
| Professional & Consulting Fees | 3,602 | 3,046 | (556) | 2,616 | 430 |
| Conservation/Technology Funds | 3,866 | 311 | (3,555) | 405 | (94) |
| Operating & Administration Expenses | 771 | 531 | (240) | 1,216 | (685) |
| **Total Operating Costs Before Allocation** | **16,421** | **10,588** | **(5,833)** | **11,522** | **(934)** |
| Shared Services Allocated Expenses | 11,728 | 11,810 | 82 | 12,236 | (426) |
| **Total Operating Costs After Allocation** | **28,149** | **22,398** | **(5,751)** | **23,758** | **(1,360)** |

## 2011-2013 Results

The following sections discusses the results of Conservation division activities and CDM program activities from 2011-2013. Results have been broken into the following three categories:

1. Energy results through operational excellence
2. Engage customers and channel partners in the value of conservation
3. Planning for the future of conservation.

### Energy Results Through Operational Excellence

*Conservation Savings*

In 2012, conservation programs in Ontario achieved 671 million kWh of verified annual energy savings, and reduced 643 MW of demand across the province. This includes savings from energy efficiency and demand response initiatives offered directly by the OPA and through LDCs.

Since the launch of **save**ON**energy** programs in January 2011, LDCs have generated 379 MW of demand reduction and saved 3,906 GWh of energy cumulatively for the

province and toward their 2014 CDM targets. More information on LDC performance can be found in Appendix A of the Board's Conservation and Demand Management Report – 2012 Results.[3]

Since 2006, Ontarians have conserved more than 2,400 MW of electricity, equivalent to powering over 750,000 homes across the province. In 2012, conservation was delivered at a program cost to consumers of under 4 cents per kWh. Verified results for 2013 will be available by September 2014.

Additional savings were achieved through time-of-use rates, codes and standards and other influenced conservation. Details can be found in the OPA's 2012 Conservation Results Report found at Appendix C to this exhibit.

*Program Management and Evolution*

Through 2011-2013, OPA's conservation portfolio included seven programs as described previously. Program evolution is a natural part of the management of these programs. Three LDC-OPA working groups (residential, commercial and industrial) were established to enhance existing initiatives, propose new ideas, and improve processes. More than 50 program enhancements have been made since the implementation of the 2011-2014 suite of conservation programs in 2011. These include the development of an Expedited Change process in 2012 to implement program changes in a more streamlined fashion and to increase the responsiveness of programs to market needs. Some notable enhancements in 2013 include:

- Completed head office model enhancements: OPA enhanced its Customer Relationship Management (CRM) system to accept applications for the Retrofit, Audit and High Performance New Construction initiatives with multiple locations, and worked with representatives of multi-jurisdiction customers and LDCs to help process their applications in a timely fashion. Changes to the head office model will allow LDCs to review and approve projects faster and with more provincial

[3] http://www.ontarioenergyboard.ca/oeb/_Documents/EB-2010-0215/CDM_Summary_Report-2012_Results_20131205.pdf

consistency, which will ultimately improve relationships and encourage participation by these customers.

- Streamlined incentive for prescriptive unitary air conditioners: OPA identified barriers to program participation within the HVAC channel and worked with the C&I Working Group to test the enhancement of the prescriptive unitary air conditioner incentive based on these findings. As a result, a 45-day application submission allowance for unplanned replacements, and increased incentives for 3-7 Ton units, was developed and made available until December 31, 2013. To promote the changes, OPA and LDCs conducted outreach to contractors, wholesalers, and manufacturers through meetings, e-mail sell sheets, and contractor breakfast events.
- Launched LDC Program Innovation Stream of the Conservation Fund to fast-track LDC-led pilots to build the next portfolio of CDM programs. These pilot projects will typically run for one year. If the pilot is a success, the OPA with its partners will develop a province-wide program offering. Guidelines for this initiative were drafted, and LDCs have been engaged through working groups, LDC-groups, and individual meetings. Two initiatives were contracted in 2013, with additional projects under development.

The Industrial Accelerator Program has been in the market since June 2010. As of the end of 2013, the IAP had received 53 preliminary and 96 detailed engineering study funding applications, 35 project incentive applications, and eight micro-project incentive applications, which represent a combined value of 169.5 MW of average demand savings. By the end of 2013, the OPA had signed 15 capital incentive contracts representing 18.8 MW in savings, while 20 additional applications were proceeding through the approval process.

From 2011 to 2013, the OPA delivered two demand response initiatives (DR-2 and DR-3) to transmission-connected customers. The DR-3 initiative is identical to the initiative available to distribution-connected customers through LDCs. The OPA manages contracts with aggregators and larger loads, sets baseline loads, and determines the pricing and trigger conditions for demand response events. The IESO provides settlement support and participates in the process to define triggers. The DR-3 program was activated 11 times in 2011, five times in 2012, and three times in 2013. As the primary trigger for DR-3 events is the supply cushion, the current strength of

supply availability means that activation has not been required as frequently in recent years. DR-2 is a daily load shifting program, and the OPA manages contracts and sets baseline loads.

Between 2011 and 2013, the OPA maintained the Measures and Assumptions Lists which are referenced in the Board's Guidelines for Electricity Distributor Conservation and Demand Management (EB-2012-0003). These lists are used by all LDCs, and describe the energy and demand savings associated with energy conservation measures.

With the goal of maintaining a simplified incentive application process, the OPA continued with the development and refinement of engineering worksheets to help end users calculate savings from specific technologies. In 2013, the OPA added five new worksheets and revised seven others, including an add-on tool to simplify large volume head-office applications. A similar level of effort was applied in 2011 and 2012 to support participants' use of these tools.

*Contract Management*

In 2013, the division managed over 580 contracts for the delivery of conservation services. In 2013, the OPA began a process to update and improve its contract management software to support the efficient management of these contracts.

The Conservation division also manages the centralized conservation information and application processing management system. Between 2011 and 2013, the division processed approximately 75,000 individual applications for the **save**ON**energy** FOR BUSINESS program, and more than 3.5 million incentives for the **save**ON**energy** FOR HOME program. In 2013, overall payments timelines have been reduced to an average of 20 days, from an average of 45 days in 2012, through overall process enhancement and dedicated resourcing. Improvements made to the system include introduction of

the ***peaksaver* PLUS®** initiative, and enhancements to the **RETROFIT PROGRAM** online application process.

In 2013, independent quality control and quality assurance assessments of LDCs were undertaken. More than 30 LDCs were assessed for compliance in their delivery of programs, and 21 LDCs were also assessed to ensure proper program administrative spending as outlined in the Master Agreement. For quality assurance purposes, OPA staff also conducted an internal engineering review of selected business program applications. In 2013, over 110 custom applications with conservation incentives greater than $25,000 were reviewed to ensure the accuracy of the engineering calculations and their assumptions.

*Evaluation and Reporting*

Since 2011, 22 contracts with independent EM&V contractors have been managed to verify the results of conservation activities and provide recommendations for program enhancements. The OPA's EM&V reports can be found on the OPA's webpage.[4]

## Engage customers and channel partners in the value of conservation

*Channel Partners and LDCs*

Channel partners play a crucial role in enabling customers to take conservation actions. In 2013 a key focus of the OPA was on building relationships with key manufacturers and equipment distributors. Examples of this work include:

- Outreach to the commercial HVAC and motor industries, including attendance at third-party channel events.
- Hosting Roof-top Unit Contractor Breakfasts: The OPA hosted six information sessions in collaboration with LDCs for HVAC contractors to promote an enhanced **RETROFIT PROGRAM** incentive for high efficiency pre-packaged roof-top units.

[4] http://www.powerauthority.on.ca/evaluation-measurement-and-verification/evaluation-reports

- Holding three technology and segment specific workshops, with an estimated 300 attendees from LDCs and their contractors. These workshops featured expert presentations on how to increase the level of participation by segments, or of technologies, that hold the opportunity for greater participation in **save**ON**energy** initiatives.
- Working with the Heating, Refrigeration and Air-Conditioning Institute of Canada to promote the **HEATING & COOLING INCENTIVE**. As of December 31, 2013, participating contractors installed over 250,000 energy efficient furnaces and central air conditioners systems as a result of this program.
- Convening a retailer breakfast workshop to share information about **save**ON**energy** with Canada's leading retailers.

To support LDCs in their role as the lead delivery channel for distribution-connected customers, the Conservation division provided extensive support to LDCs. Support services included:

- LDC Support, a help desk to manage questions from LDCs on program eligibility and administration. In 2012, over 6,000 questions were posed to LDC Support, and in 2013, 4,900 inquiries were submitted on a wide range of program-related topics. Due to enhancements in the OPA's customer service process, the average response time was under 2 days in 2013.
- E-BLASTs were sent on a bi-weekly basis, which provided information and updates on programs, training, events, and support related to OPA-LDC interaction on the **save**ON**energy** programs.
- A dedicated OPA channel manager was assigned in 2012 to enhance LDC engagement by building relationships, understanding LDC needs, and working with other staff to develop solutions to meet these needs.
- Proactive OPA staff engagement with LDCs via routine calls and individual LDC and work group meetings and events.
- LDC Extranet web portal, as the go-to source for all **save**ON**energy** program documents and resources. Since its launch in early 2013, 1,400 visitors have accessed the site.
- Market research results provided by the OPA in 2013 from studies conducted at the LDC level. This information was made available to help LDCs develop a deeper understanding of their customers' views on conservation that will enable effective promotion of CDM programs.

- **save**ON**energy** webinars held. These webinars serve as a forum for communicating changes and updates to **save**ON**energy** initiatives. Polls revealed that participants had an average satisfaction ranking of 83% for the webinars taking place between 2011 and 2013 inclusive.

In December 2012, the Minister directed the OPA to extend funding for the OPA-Contracted Province-Wide CDM Programs to 2015. The Conservation division collaborated with LDCs and customers scoping the implementation of this directive by hosting a series of interviews, meetings, and webinars, and by soliciting written submissions. In 2013, changes were made to the majority of **save**ON**energy** FOR BUSINESS initiatives to extend them to 2015.

The OPA recognizes that building LDC, channel and customer conservation capability is important to achieving its goals and fostering a culture of conservation in Ontario. Since 2011, the OPA has delivered technical training for LDC sales staff to provide them with the knowledge, skills, and tools to identify areas of potential conservation savings in businesses. In total between 2011 and 2013, 10 workshops were held with 810 participants. In 2012 the Conservation division also began co-sponsoring the widely respected Dollars to $ense workshops offered by Natural Resources Canada which covered energy management, financing, information systems, and recommissioning. Four workshops were held in 2012, and an additional eight were held in 2013. Over 300 LDC staff and **save**ON**energy** funded Energy Managers attended these sessions.

The Industrial Program also includes incentives for LDCs to hire key account managers to work directly with distribution-connected customers and assist them with the development of energy efficiency projects. In 2013, two workshops for OPA-funded Energy Managers were held, with approximately 180 attendees. Topics included sharing technical best practices, project development, and getting executive approval for projects.

In 2012 and 2013, the OPA signed contracts with five host organizations to deliver energy management services to their sector members (municipal, retail, water/wastewater treatment, healthcare and hospitality) to raise the importance of energy efficiency within these sectors, and drive participation in the **save**ON**energy** programs.

*Customers*

Customers make the ultimate decision about whether and how to invest in conservation. The OPA has developed direct relationships with large commercial accounts, including national retailers. As previously discussed, the Business Program has a head office model that enables organizations to apply for multiple-facilities projects across Ontario through a single lead LDC. This streamlined application process allows for faster project approval and incentive payment. As an example of the success of this model, in 2012 Sears was approved for a lighting retrofit project for its stores across Ontario, which generated 2.7 MW and over 10 million kWh in savings.

The OPA established a province-wide customer care call centre to answer questions from consumers and/or help them apply to initiatives under the Consumer Program. From 2011 to 2013, there were over 275,000 calls to the customer care call centre regarding conservation programs.

The OPA has also developed training initiatives for commercial and industrial customers and for the supply chain to implement energy conservation projects. New training courses for low-rise builders (delivered by EnerQuality Corp.) and HVAC installation optimization training (delivered by the Heating, Refrigeration and Air Conditioning Institute of Canada) were developed for delivery in 2013. Certification in building commissioning was also made available to qualifying professionals in 2013. These courses are designed and delivered by third parties under contract to the OPA.

Training courses for building operators and Energy Manager training (delivered by the Canadian Institute for Energy Training and Seneca College, respectively) were procured in 2012. Incentives for the Certified Energy Manager® and Certified Measurement and Verification Professional® designations were developed for launch in 2013, with LDCs able to participate in OPA-sponsored training in 2012.

To support program participation and effective energy management, the Industrial Program provided incentives for companies to hire Energy Managers. Embedded Energy Managers work for companies developing energy efficiency projects and energy management plans. The Industrial Program also provided incentives to LDCs to hire Roving Energy Managers, who work for the LDC and provide support to multiple facilities that are not large enough to require the services of a full-time Energy Manager. In 2012, 39 Energy Managers were in place, and achieved over 7 million kWh in energy savings, in addition to any savings they may have achieved with the support of an incentive program. As of December 2013, 40 Embedded and 15 Roving Energy Manager positions have been filled. The OPA hosted training events to provide additional technical training to these individuals. An impact evaluation of these Energy Managers completed in 2013 highlighted the important role they have played in moving conservation projects from the conceptual stage through to implementation.

To create a first point of contact with customers, the **save**ON**energy** website provides information on programs and energy conservation tips. In 2012, the website was updated with new content and search engine marketing to drive additional webpage views. Since January 2011, the **save**ON**energy** website has provided over 9 million page views from more than 2 million visits, of which 1.3 million were unique.

To further strengthen the communication of the conservation value proposition to Ontarians, in 2011-2013 the OPA used an integrated marketing approach which combined radio, television and on-line advertising for the suite of **save**ON**energy** conservation programs.

The **save**ON**energy** conservation brand has established a unified theme and a consistent message for conservation across the province. The **save**ON**energy** brand has achieved high awareness in its first years thanks to both OPA and LDC efforts, and has raised awareness of the individual initiatives in the conservation programs.

The integrated "Do More" campaign was launched for the Consumer Program in 2012 to encourage residential customers to engage more in conservation, with simple value-based messaging and a focus on key initiatives such as ***peaksaver* PLUS** and the bi-annual retail event. By making conservation visible, the campaign worked to establish new social norms for conservation. LDCs were also provided with marketing strategy guides and marketing templates to support a cohesive approach between province-wide and local advertising.

The **save**ON**energy** PLEDGE was also integrated into the overall Do More campaign. More information about the **save**ON**energy** PLEDGE can be found in Exhibit B-5-1.

For the business programs, communication objectives were focused on engaging businesses from all sectors with targeted information to increase awareness of programs and encourage participation. A year-round communications presence was maintained, using media in a targeted fashion to speak to decision makers in each sector. This included online, radio and print advertising. In addition, sector-specific resources such as case studies and program information packages were developed and provided to LDCs.

In collaboration with AMO and the EDA, the OPA launched the Community Conservation Awards in 2012 to recognize municipalities for their energy-saving initiatives and for promoting a culture of conservation throughout their communities. The awards celebrated nine finalists in 2012 and eight in 2013. Three winning communities were chosen each year and presented with an award at AMO's annual local authority symposium. In 2012, the winners were the Town of East Gwillimbury, the

City of Markham, and the City of Hamilton. In 2013, winners were the cities of Burlington and Sault Ste. Marie and the Township of South-West Oxford.

## Planning for the Future of Conservation

Ontario's long-term conservation targets are ambitious. Strategic planning and the support of innovation enable Ontario to leverage existing and emerging opportunities, ensuring that we can reach these targets in a cost-effective and sustainable way. Between 2011 and 2013, the OPA undertook a number of activities to plan for the future of conservation, including supporting program and policy innovation, investments through the Conservation Fund, and supporting provincial and regional conservation planning.

### *Program and Policy Innovation*

The following are some of the activities undertaken in 2013 to support the development of the next generation of conservation programs:

- Reviewed retailer programs and recommended enhancements for 2014 and beyond, focusing on upstream and performance-based programs.
- Began working with the IESO on a demand response evolution. Between December 2012 and April 2013, the OPA and IESO prepared a DR Plan for submission to the Minister. Building on the DR Plan, the OPA and IESO began to explore options for improved integration of DR programs into IESO operations and the development of new DR products, including regional products.
- Participated in research and informal consultation with municipalities, the Ministry of Municipal Affairs and Housing, the Ministry of Energy, Natural Resources Canada, non-government organizations and gas utilities on the use of local improvement charges (LICs) for energy efficiency upgrades in municipalities.
- Recognizing untapped regional and market conservation opportunities, the OPA introduced an LDC Program Innovation Stream. Funded through the Conservation Fund, it supports LDCs in the design and piloting of new program concepts. To date, two pilots have been approved and launched under the stream, with several LDCs signaling interest in this fast-track support mechanism. In addition to administering the Innovation Stream, OPA staff worked closely with LDCs to support their development of business cases.

From 2011-2013, the Conservation division played a leadership role in the development of energy efficiency codes, standards and other policy:

- Participated in the standing committees for the National Building Code and the National Energy Code for Buildings.
- Chaired the national Next Generation ENERGY STAR® for New Homes Advisory Committee.
- Contributed to the Canadian Standards Association's Strategic Steering Committee on Performance, Energy Efficiency and Renewables, and numerous technical committees and subcommittees, including that for the Building Energy Estimation Methodology. In 2013, the OPA supported the development of 16 energy performance standards.
- Participated as an observer in the Ontario Building Code Conservation Advisory Committee.
- Worked with NRCan to promote the Portfolio Manager benchmarking tool for commercial buildings.
- Participated in the Electronic Data Access Project led by MaRS and the Ministry of Energy to adopt the Green Button standard to Ontario and support its implementation by several LDCs.
- Participated as a voting member on the Standards Council of Canada/Canadian Standards Association committee that represents Canada to the International Standards Organization on the ISO 50001 Energy Management System Standard and related standards, and which works to support and promote uptake of this standard by Canadian companies.
- Participated in the National Advisory Council and the Ontario Caucus of QUEST (Quality Urban Energy Systems of Tomorrow) to advance integrated community energy solutions.

The OPA initiated several market research activities to provide valuable input into the next generation of programs. The OPA provided LDC-level and regional-level results of market research to LDCs, and made provincial level results public through its webpage. 2013 market research activities included:

- Surveys to understand the priority of energy efficiency for commercial & institutional senior management, and to identify strategies for maintaining, or increasing it as an organizational priority
    - This work showed a rise in interest in energy efficiency over the past five years among senior managers, with more awareness of both bottom-line and corporate social responsibility benefits
- Tracking public engagement with electricity conservation through an annual public opinion poll
    - The poll revealed a decrease in the level of priority of electricity conservation among Ontarians
- Reporting on the effectiveness of OPA-funded external marketing
    - Results showed awareness of **save**ON**energy** advertising is associated with significantly higher program awareness and participation
- Implementing a survey with LDC conservation officers on the support they receive from the OPA's Conservation division
    - Results show satisfaction with the relationship and recognition that it continues to improve over time

*Conservation Fund*

The OPA's commitment to innovation is demonstrated in the targeted research, development and demonstration projects undertaken in its Conservation Fund. Between 2011 and 2013, the Fund has supported over 80 projects. As of December 31, 2013, the Conservation Fund had a portfolio of 30 projects under active management. Each project in the portfolio is designed to deliver a unique set of outcomes and the fund partners with conservation innovators such as LDCs, industry associations, building owners and managers, technology developers and conservation solutions providers.

Conservation Fund projects are piloting next generation conservation approaches and program concepts, with recent notable topics including pay for performance models in the retail sector (with Loblaw), innovative Local Improvement Charge financing mechanisms (with City of Toronto), high performance building collaborative research (with National Research Council of Canada), energy density mapping strategies (with

Horizon Utilities Corporation), novel industrial lighting and motor cooling approaches (ArcelorMittal Dofasco Inc.), and an assessment of local demand response potential in Toronto (Toronto Hydro-Electric System Ltd.). Additionally, Conservation Fund projects are supporting the creation of provincial and national benchmarks for commercial and institutional buildings. By requiring relevant projects to integrate their services with Portfolio Manager, projects such as those led by RacetoReduce and GLOBE are helping building and Energy Managers understand the performance of their buildings against their own portfolio and against their class of building nation-wide.

One notable project will result in the piloting of three new residential engagement tools as part of a social benchmarking project. More than 130,000 customers of Hydro One Networks Inc. and two other LDCs will participate in the pilots and the resulting savings can be claimed by participating LDCs toward their 2014 targets. The results of the project will shape future offerings for the residential market in Ontario.

*Conservation Planning*

The Conservation division supports planning for conservation at the provincial, regional and community levels. To support provincial plans, the division developed an achievable conservation potential study to identify the potential for conservation (excluding demand response and customer based generation) from 2013-2032. The study, which will be complete in Q1 2014, will provide an analysis on the amount and cost of savings available under different program scenarios, with results by sector and IESO region at five-year intervals.

The Conservation division has developed benchmarks of current and future energy consumption by each sector based on load forecast and industry data. These benchmarks may be used in program development, target setting, and determining regional potential.

Between 2011 and 2013, the Conservation division provided support to the Power System Planning division for ongoing regional planning supply studies in the Kitchener-Waterloo-Cambridge-Guelph, York Region, Central Toronto, Ottawa, and Northwestern Ontario areas. The Conservation division assisted with the development of the conservation forecasts, the assessment of conservation options, and provided support to the LDCs' conservation staff.

In 2013, the Conservation division was an active participant in the development of the planning and siting recommendations submitted to the Minister of Energy in August 2013. The Conservation division will lead the implementation of recommendation #10 relating to Community Energy Planning.

Community energy planning is a powerful tool to enable communities to be engaged in electricity planning and identify conservation opportunities. The Conservation division has been an active supporter of Community Energy Plans. The OPA has been a supporter of QUEST since 2007, and recently supported the development "Advancing Community Energy Planning in Ontario: a Primer". OPA staff have also supported and participated in the development of Community Energy Plans and maps, including the Guelph community energy initiative and the Burlington Community Energy Plan.

## APPENDIX A - OPA-CONTRACTED PROVINCE-WIDE CDM PROGRAMS

OPA-Contracted Province-Wide CDM Programs are delivered by LDCs in partnership with the OPA, and governed by a Master Agreement between the OPA and each LDC. The OPA-Contracted Province-Wide CDM Programs consist of the Business, Consumer, Industrial and Low-Income Programs. Additional information about programs can be found at https://saveonenergy.ca. The following table provides a listing of the OPA-Contracted Province-Wide CDM Programs and the OPA's role in delivering the programs.

**OPA-Contracted Province-Wide CDM Programs**

| Program | OPA Role | Selected Initiatives |
|---|---|---|
| Consumer Program (**save**ON**energy** FOR HOME) | - Support LDC delivery of programs<br>- Provide province-wide marketing campaigns and provide tools and templates for LDC marketing efforts<br>- Manage contracts with province-wide service providers and delivery channels<br>- Evaluate and report on results | • **FRIDGE & FREEZER PICKUP**<br>• **COUPONS**<br>• ***peaksaver* PLUS®**<br>• **HEATING & COOLING INCENTIVE**<br>• **EXCHANGE EVENT**<br>• **BUYING A NEW HOME**<br>• **RETAILER EVENT** |
| Business (Commercial and Institutional) Program (**save**ON**energy** FOR BUSINESS) | - Support LDC delivery of programs<br>- Support customer applications<br>- Provide technical review of projects<br>- Engage with channels to promote participation | • **SMALL BUSINESS LIGHTING**<br>• **RETROFIT PROGRAM**<br>• **AUDIT FUNDING**<br>• **EXISTING BUILDING COMMISSIONING**<br>• **HIGH PERFORMANCE NEW CONSTRUCTION**<br>• **TRAINING OPPORTUNITIES**<br>• ***Peaksaver PLUS*® for Small Business**<br>• **DEMAND RESPONSE (DR-3)** |
| Industrial Program (**save**ON**energy** FOR BUSINESS) | - Support LDC delivery of programs<br>- Provide technical review of projects<br>- Support customer applications<br>- Engage with channels to promote participation<br>- Support Energy Managers | • **PROCESS AND SYSTEM UPGRADES**<br>• **DEMAND RESPONSE (DR-3)**<br>• **TRAINING OPPORTUNITIES** |
| Low-Income Program (**save**ON**energy** HOME ASSISTANCE) | - Support LDC delivery of programs<br>- Provide province-wide marketing campaigns and provide tools and templates for LDC marketing efforts<br>- Manage contracts with province-wide service providers and delivery channels | • **HOME ASSISTANCE PROGRAM** |

Source: OPA

## APPENDIX B - OPA-DELIVERED CDM PROGRAMS

There are three OPA-Delivered CDM Programs: Industrial Accelerator, Demand Response, and Aboriginal Conservation Program.

The Industrial Accelerator program, launched in 2010, was designed with input from industrial consumers and is expected to end on December 31, 2017.

The Demand Response program was launched in 2006 and has been revised, expanded and enhanced since that time. This program is made up of two initiatives, one of which (DR-3) is also available to distribution-connected customers through LDCs.

The OPA has developed the Aboriginal Conservation Program, which was launched in 2013 and is being delivered to members of First Nation, Métis and urban Aboriginal communities in Ontario. A small number of highly engaged First Nation communities were selected for initial participation in the program in 2013 based on a detailed application process. The program will be delivered to a larger number of communities in 2014 and beyond. The following table provides a listing of the OPA-Delivered CDM Programs and the OPA's role in delivering the programs.

**OPA-Delivered CDM Programs**

| Program | OPA Role |
|---|---|
| **Industrial Accelerator** | - Design and implement program<br>- Provide technical review of projects<br>- Support customer applications<br>- Process customer incentive payments<br>- Evaluate and report on program results |
| **Demand Response** | - Design and implement program<br>- Manage contracts with aggregators<br>- Engage with IESO for settlement<br>- Evaluate and report on program results |
| **Aboriginal Conservation Program** | - Design and implement program<br>- Manage contracts with province-wide service providers and delivery channels for delivery of program to First Nation communities<br>- Support LDC delivery of program for urban Aboriginal and Métis communities<br>- Provide province-wide marketing campaigns and provide tools and templates for LDC marketing efforts |

Source: OPA

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# 2012
# Conservation Results

December 2013

ONTARIO POWER AUTHORITY

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## Message from Vice-President, Conservation



**Conservation is our first priority and is at the forefront while planning for the province's electricity in the future. Ontario is committed to investing in cost-effective programs to meet provincial and local energy needs before investing in other forms of new generation.**

The Ontario Power Authority (OPA) is pleased to provide the 2012 conservation results report. In 2012, conservation programs in Ontario achieved **671 million kWh of verified annual energy savings and reduced 643 MW of demand across the province.** This includes savings from energy efficiency and demand response initiatives offered directly by the OPA and through local electric utilities.

Since the launch of **saveONenergy** programs in January 2011, local distribution companies (LDCs) have generated 379 MW of demand reduction and saved 3,906 GWh of energy cumulatively for the province and toward their regulated conservation targets.

Customers are becoming more actively engaged in reducing their energy consumption by participating in programs that encourage businesses to improve their overall operations and motivate residents to learn more about how to reduce their annual energy consumption. **Since 2006, Ontarians have conserved more than 2,400 MW of electricity, equivalent to powering over 750,000 homes across the province.**

Ontario is also continuously piloting new technologies and programs that are cost effective to help customers better manage their energy consumption. The province's conservation efforts and the suite of **saveONenergy** programs are valuable and cost-effective tools for consumers. **In 2012, conservation was delivered at a program cost to consumers of under 4 cents per kWh.** For every dollar invested in energy efficiency programs, Ontarian's have saved two dollars in avoided energy costs.

We hope you enjoy reviewing this year's report.

***The OPA remains focused on engaging with communities and building relationships with our customers to sustain the effective delivery of conservation across the province today and in the future.***

Sincerely,

Andrew Pride
Vice-President Conservation, Ontario Power Authority

# Introduction

***Conservation programs are available to residents and businesses across Ontario and include energy and demand saving initiatives that cost-effectively reduces the demand for electricity, while providing customers with real time energy saving data and educational tools to help them better manage their overall energy use.***

**The Ontario Power Authority (OPA) guides the province's electricity conservation efforts and works collaboratively with local distribution companies (LDCs) and other industries to ensure Ontarian's have reliable, clean and cost-effective sources of energy today and in the future.**

This report provides insight into conservation programs and activities across the province, including Ontario's conservation efforts through the delivery of **save**ON**energy** programs. These programs help increase energy conservation awareness with customers and enable our partners to effectively deliver conservation across the province. Information on the energy and demand savings results and participation can be found in appendix A.

Information on new innovative projects and technologies supported through the OPA's Conservation Fund is also provided, as well as information on codes and standards, time-of-use rates and other influenced conservation. All of these contribute to the overall energy and demand savings for the province's energy target set out in the Long-Term Energy Plan. The 2010 plan includes a target of 7,100 MW in demand reduction and 28TWh in energy savings by 2030.

The OPA is committed to transparently reporting on the energy savings and demand reduction achieved. All programs funded through the OPA in 2012 were evaluated using the evaluation, measurement and verification (EM&V) process and the learning's gained from this will help shape the future of conservation. The EM&V process involves undertaking activities aimed at assessing the resource savings, cost-effectiveness and market impacts of each program. The detailed EM&V reports are produced by third-party program evaluators and are among the most comprehensive in North America. A summary of the detailed EM&V reports can be found in appendices F and G and full reports can be viewed on the OPA website at powerauthority.on.ca.

## Conservation Program Highlights:

- Over **1 million** energy efficient products through the **COUPON** program in collaboration with over 900 retail partners and stores
- Over **34,000** inefficient appliances were collected through the **FRIDGE & FREEZER** program
- Over **3,800** appliances were collected at retail locations across the province through the **EXCHANGE EVENT**
- Over **85,000** upgrades were completed through the **HEATING & COOLING INCENTIVE** – over half of all Ontarians who replaced their furnace or central air conditioning used the incentive
- Over **190,000** load control devices are now available in homes and small businesses across the province through the ***peaksaver* PLUS®** program
- Over **18,000** upgrades were completed through the **SMALL BUSINESS LIGHTING PROGRAM**
- Over **5,500** energy-efficient projects were completed though the **RETROFIT PROGRAM**



## Business Program Success




**PROJECT DETAILS**

**Incentive Amount Received**

**$16,176**

**Project Completion Date**

**MAY 2011**

**147,684 kWh/YEAR ENERGY SAVINGS**

**DEMAND SAVINGS 5.8 kW**

**The project at Rogers K-Rock Centre was one of dozens of energy conservation projects the City of Kingston undertook to improve energy efficiency at its buildings. Kingston Hydro worked with the City of Kingston and its energy management contractor, MCW Custom Energy Solutions, to help identify opportunities, through the saveONenergy incentives.**

## THE SCOPE OF THE PROJECT

Thanks to the saveONenergy program, Rogers K-Rock Centre received incentives which allowed for a variety of energy-saving retrofits throughout 2011- 2012. The scope of the work included:

- Upgrades to the automation system, which have vastly improved the facility operator's ability to control the schedule and set points of the air handling units;
- Adding variable frequency drives to the blowers that supply the main bowl of the ice rink, allowing for considerable savings during the often long periods when the area isn't occupied;
- Enhancing the lighting control system so that arena operators can adjust light levels depending on the use of the space. Now lights can be reduced or zoned off completely when the area is unoccupied;
- Replacing piping to the existing heating boilers and domestic hot water boilers to maximize the efficiency of the equipment.

## Building New Skills for a Sustainable Future



**Since 2011, the OPA has delivered technical training for LDC sales staff and customers to provide them with the knowledge, skills, and tools to confidently identify areas of potential conservation savings in businesses across the province.**

The OPA provides incentives for the following training and certification initiatives:

- Building Operator Certification (BOC®)
- Energy Manager Training
- HVAC Installation Optimization
- Low-rise Builder Training
- Certified Energy Manager (CEM®)
- Certified Measurement and Verification Professional (CMVP®)
- Commissioning Agent Certification
- NRCan "Dollars to $ense" energy efficiency workshops to technical and management staff across Ontario

To support **saveONenergy** program participation and effective energy management, the Industrial Program provides incentives for companies to hire energy managers. Embedded Energy Managers (EEMs) work for large businesses developing energy efficiency projects and energy management plans into their daily operations. The Industrial Program also provides incentives to LDCs to hire Roving Energy Managers (REMs). REMs provide support to multiple smaller facilities that cannot support the services of a full-time energy manager. **In 2012, 46 Energy Managers achieved over 7 million kWh in energy savings**, in addition to savings they may have achieved with the support of an incentive program. As of September 2013, funding for 67 EEMs and 26 REM positions has been approved, with 37 EEMs and 18 REM positions filled. The Industrial Program also includes incentives for LDCs to hire Key Account Managers (KAMs) to work directly with distribution-connected customers and assist them with the development of energy-efficiency projects.

To raise the importance of energy efficiency within the sectors, and drive participation in the **saveONenergy** programs the OPA launched the Energy Efficiency Services Provider (EESP) initiative. Five host organizations are now delivering energy management services through EESPs to their sector members, including municipalities, retail, water/wastewater treatment, healthcare, and hospitality.

## Conservation Fund

***Building a sustainable and prosperous Ontario by bringing innovative conservation solutions to market.***

The OPA's Conservation Fund is helping transform the market by supporting customers and partners in the implementation of innovative energy saving projects and technologies**. Since 2005, the fund has committed $37.3 million support to 176 projects**. These projects leveraged an additional $121.6 million in partner support.

**In 2012, the fund committed over $8 million to 9 new projects**. The new projects are contributing to overall energy savings, informing policies and programs, and promoting awareness of innovative conservation activities.




2012 Year in Review

**NINE** NEW PROJECT COMMITMENTS

**$8,461,133 AWARDED**

**35 ACTIVE PORTFOLIO PROJECTS**

**70 APPLICATIONS**

SOCIAL BENCHMARKING PILOT

## Conservation Fund - Supporting Innovative Projects and Technologies




### Loblaw Companies Limited

The pilot program will test a performance-based approach to encouraging the commercial sector to capture energy saving opportunities through site-specific optimization of management practices, building operations, and capital upgrades. Individual stores will be motivated by a "pay for performance" incentive through which actual, not forecasted, energy savings are rewarded and lessons will provide insight into the feasibility of procuring conservation resources through this incentive model.



### Social Benchmarking Pilot

New opportunities are arising in the market place to motivate and measure electricity savings based on **behavioural changes**. Supported through the Conservation Fund a series of social benchmarking pilots programs are being planned to run for approximately 14 months beginning in the fall of 2013. The purpose of these pilots is to test residential engagement strategies, savings potential, behavioural impact, and feasibility of integration into the overall Ontario market. Pilot hosts include Hydro One and Milton Hydro with more to be added.



### Demand Response in Multi-Unit Residential Buildings Sector (MURB DR)

As part of a new innovation stream for LDCs, the MURB DR initiative is focused on the multi-unit residential sector. The pilot project will verify the energy and demand savings possible through building subsystem energy audits, installation of in-suite programmable thermostats and remote control of in-suite and common area cooling loads. If proven effective, pilot results will influence the design of a new province-wide demand response initiative for the multi-unit residential sector.



## Culture of Conservation

**The OPA conducts market research to monitor the culture of conservation across the province to identify the key influences driving energy-efficiency behaviour, and to help establish goals for future progress.**

In 2012, the following common themes emerged in the residential sector:

- Many Ontarians recognize the financial and environmental benefits of conserving electricity but many feel that other Ontarians are more wasteful and believe that they themselves consume no more than an average amount of electricity, meaning there is no social norm prompting action. Ontarians are reducing the priority they place on conserving electricity and individual consumers are less confident that what they are doing to reduce electricity usage in their home is worthwhile.
- The amount of 'buzz' about conservation – the extent to which people are seeing, hearing and talking about it remains lower than two years ago.
- The OPA has been successful in engaging people through its **saveONenergy** programs. However, there is a clear opportunity for leadership in engaging people with electricity conservation on a broader, day-to-day level.

Ensuring customers have access to electricity conservation information is a priority in addressing these findings. Through the **saveONenergy** programs and the Conservation Fund, in particular through the social benchmarking pilot program, the OPA and its partners are focusing on encouraging residents and businesses to learn more about their own daily energy consumption habits.

In 2012, the OPA conducted market research among senior management in the business sector. The results indicated a rise in awareness of energy conservation over the past five years. Increasingly, energy efficiency is on the radar and electricity management is being intertwined with other top priorities within an organization. Savings are viewed as cost reductions and as a source of revenue to fund operations. Organizations and consumers look to government agencies to ensure the credibility of claims made about the impact and benefits when considering whether to participate in energy efficiency programs.

Survey research was also conducted across Ontario throughout 2012 to measure awareness of and participation in **saveONenergy** and consumer initiatives. Reported awareness was at 65%, higher than at any point in 2011. Other findings included:

- 62% of Ontarians agree that **saveONenergy** programs help save money
- 60% believe the programs do a good job at promoting more ways to save energy in the home
- 56% believe the programs make them want to take more responsibility for the amount of energy used in their home

## Time-of-Use Pricing

**Time-of-Use pricing (TOU) provides customers with a new way to manage their energy costs. TOU prices take into account when, as well as how much, electricity is used by each consumer. The goal of TOU pricing is to provide an incentive for consumers to shift some of their consumption away from periods of high demand (called "on-peak") to periods of low demand (called either "mid-peak" or "off-peak".)**

TOU prices were developed by the Ontario Energy Board (OEB) for low-volume electricity consumers (households and small businesses) as part of the Regulated Price Plan (RPP) for customers with smart meters. Savings from TOU pricing contribute to the overall provincial energy target.

Unlike conventional (analog) meters, smart meters not only track how much electricity customer use but also when they use it, providing key information to help consumers manage electricity costs. As of June 30 2013, 4.7 million customers in Ontario have smart meters and 96% are on TOU rates.

There are three different TOU rates as shown on the graphic provided. Twice a year (May 1st and Nov 1st) the prices are evaluated by the OEB and if necessary, the appropriate adjustments are made. The OEB adjust prices based on the electricity supply cost forecast, and any adjustments required due to differences between what was paid and the actual electricity supply costs for the previous period. Furthermore, TOU rates are adjusted to reflect winter or summer periods.

In 2013, under request of the OEB and in collaboration with LDCs, the OPA kicked off a third party independent evaluation of the impact of TOU prices in Ontario. Preliminary results from the first year analysis indicate that TOU prices have started to reduce consumption in peak periods by approximately 2-5%. The OPA will continue to work with its partners in 2014 to finalize TOU savings estimates.

**Winter Weekdays**




**Summer Weekdays**




Ontario Energy Board
http://www.ontarioenergyboard.ca/OEB/Consumers/Electricity/Electricity+Prices

## Other Influenced Conservation

**Other influenced conservation is the result of conservation activities by organizations and programs not funded by the OPA which result in electricity savings. There has not been a formal verification performed by the OPA. These numbers and the level of accuracy will vary with each organization's evaluation methodology.**

| | Energy Savings (GWh) | Demand Savings (MW) |
|---|---|---|
| Federal Government | 99.6 | N/A |
| Gas Utilities | 51.9 | N/A |
| GAM High-5 | N/A | 300 |

On January 1 2011, the manner in which the Global Adjustment Mechanism (GAM) charges are calculated changed for customers with an average peak demand over 5 MW (known as Class A customers)[1]. GAM charges for these customers are now based on the percentage that their peak demand contributes to overall system demand during the peak hour of the five highest system load days within a year (called GAM High-5 days). These new rules provide Class A customers with strong incentive to reduce demand during the peak hours on high system load days since they will save on their electricity bill costs and increase their competitiveness. However, although GAM charges are based on five hours, customers do not know in advance which days or hours will be used to determine the charges. Therefore, Class A customers tend to reduce loads whenever system loads are expected to be high, which typically occur on summer afternoons.

A number of studies have estimated the change in consumption by Class A customers during system peaks. In 2013, the Market Surveillance Panel of Ontario commissioned a report estimating the impact of GAM High-5 between 200 and 379 MW, depending on the period of investigation (e.g., GAM-High 5 hours only vs. top 1% highest demand hours in 2011 and 2012)[2].

[1] The components of the Global Adjustment and the allocation methodology are set out in Ontario Regulation 429/04 (Adjustments under Section 25.33 of the Act) made under the Electricity Act, 1998

[2] Sen, Anindya, "Estimating the Effect of Global Adjustment on Electricity Consumption by Class A Customers: Evidence from a Natural Experiment", Report Submitted to the Market Surveillance of Ontario, Professor Anindya Sen, Department of Economics, University of Waterloo, Appendix A: Monitoring Report on the IESO-Administered Electricity Markets for the period from May 2012-October 2012, June 2013.
www.ontarioenergyboard.ca/OEB/_Documents/MSP/MSP_Report_May2012-Oct2012_20130621.pdf

## Codes and Standards

**Codes and Standards are a powerful, cost-effective tool for achieving energy savings and building a culture of conservation in Ontario. All savings from codes and standards are allocated towards achievement of the provincial conservation target.**

In February 2012, energy efficiency regulation was amended to include a ban on in-efficient incandescent lighting beginning in 2014. This amendment harmonized both efficiency standards and compliance dates for general service lighting with federal energy efficiency regulations to ensure a consistent approach and to make compliance easier for consumers, retailers and manufacturers. Beginning on January 1, 2014, the sale of 100 and 75 watt incandescent bulbs manufactured after January 1, 2014 will not be permitted in Ontario. By the end of 2014, efficiency levels will also be raised for 60 and 40 watt equivalent light bulbs. According to data from Natural Resources Canada (NRCan), the new general service lighting efficiency standards will result in an estimated 5,700 GWh of annual electricity savings in Ontario's residential and commercial sectors by 2030.

In December 2012, the province filed an update to subject 19 new product classes to regulation, while enhancing the stringency for 26 others. Products in all sectors and all fuel types were impacted by these amendments including; air conditioning, water heaters, fluorescent lamps and ballasts, electronic equipment and induction motors. According to data from NRCan, this will results in an annual reduction of about 2,100 GWh of electricity per year by 2030. In addition, this update to regulation will reduce consumption of gas and oil in Ontario by 17 PJ/year by 2030.

Federally, Amendment 11 to the Energy Efficiency Regulations was published in October 2011 and came into force April 2012. As a result, seven products are now subject to increased stringency and/or scope of regulation, while five types of products are now subject to minimum energy performance standards and associated reporting and compliance requirements. All of these products (except for oil and electric boilers) have been updated in the new provincial regulation; seven have been harmonized with NRCan and three products (Large AC/HP, Commercial self-contained refrigeration and Incandescent reflector lamps) to higher, more stringent efficiency standards.

A new edition of Ontario's Building Code was filed in November, 2012 and will come into force on January 1, 2014. By January 1, 2017 the new building code will require permits for commercial buildings to reflect requirements that are 13% more efficient than they are today, and houses requiring a minimum of 15% more energy efficiency. Taking a longer term perspective, by adhering to the new edition of the building code, new houses will consume only 50% of the energy versus those built according to pre-2006 building codes, and large buildings only 65 percent of pre-2006 levels.

Ontario is the first jurisdiction to include limiting green house gas emissions and peak demand on the energy infrastructure as formal sub-objectives in its building code. These requirements take effect as of January 1, 2014. Together with the increased energy efficiency requirements of the code, these changes demonstrate Ontario's continuing leadership among its North American peers in making high energy performance integral to its building code.



## Conclusion

**Conservation in Ontario continues to evolve and a strong, cost-effective foundation is in place. Ontario's conservation efforts have resulted in thousands of jobs across the province and the many incentives available are enabling residents and businesses to become more active in reducing their energy consumption.**

Many initiatives in 2012 achieved positive results contributing to greater energy savings for the province. The **saveONenergy RETROFIT** program participation rate doubled from 2011 and on the demand side, ***peaksaver* PLUS** has contributed to over 190,000 load control devices for homes and small businesses – helping reduce energy costs and helping the province reduce the strain on the electricity grid. More tools and training programs are also being created to help customers improve their operations and save on energy costs. It's successes like these that encourage our customers and partners to continue do more.

Conservation programs continue to be enhanced to make it easier for customers and LDCs to participate in **saveONenergy** programs. In 2012 OPA worked with LDCs to undertake approximately 17 significant improvements to the conservation programs such as the implementation of enhanced incentives, new measures, streamlined and reduced application and documentation requirements, and expedited processes for undertaking program updates. These improvements, combined with those undertaken in 2011 helped to contribute to a 39% increase in **saveONenergy** energy savings in 2012 over 2011.

There is also an increase in capability efforts for businesses and partners and momentum continues to grow as customers and marketplace becomes more familiar with the suite of programs. The OPA is ramping up capability initiatives and has expanded its channel engagement activities to create a number of technical training programs and workshops for customers and LDCs. Thousands of individuals have attended the workshops and these initiatives are providing the tools necessary to confidently identify areas of potential savings in businesses across the province.

The OPA remains committed to enabling programs and providing information to help customers across all sectors save energy and reduce costs. Conservation remains a cost-effective resource, reducing the need to build more expensive forms of generation. At a program cost of under 4 cents per kWh, the innovative technologies and energy-saving projects that all Ontarian's continue to implement will demonstrate Ontario's leadership and inspire plans for the future of energy conservation.

For more information on Ontario's electricity conservation efforts please visit **saveonenergy.ca** and **powerauthority.on.ca**.

## About the Ontario Power Authority

### OPA Vision

Leading Ontario in the development of North America's most reliable, cost-effective and sustainable electricity system.

### OPA Mission

Together with our partners, we ensure that electricity needs are met for the benefit of Ontario both now and in the future. We plan and procure electricity supply form diverse resources and facilitate the measures needed to achieve ambitious conservation targets.

The OPA is responsible for ensuring a reliable, cost-effective and sustainable supply of electricity for Ontario. Its main activities are focused on planning the power system for the long term, ensuring the development of needed generation resources and strategic coordination of conservation efforts across the province.

## About this Report

This report highlights the conservation results of OPA funded energy-efficiency and demand response initiatives implemented in Ontario in 2012. It includes verified savings from LDC and OPA delivered programs, as well as saving estimates from building codes, appliance and equipment standards, provincial and federal government programs, smart meter and time-of-use implementation, which also contribute to Ontario's conservation goals.

The contribution of projects under the OPA's Feed-in Tariff (FIT) and microFIT programs is also not included. Renewable resources associated with these programs are separately metered for the purpose of injecting electricity into the grid.











ONTARIO POWER AUTHORITY

## Appendix A – Conservation Initiatives

| Initiatives | Delivery | Net Demand Savings (MW) | | | Net Energy Savings (GWh) | | | Participation | | | Metric |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Residential Programs** | | **2011** | **2011*** | **2012** | **2011** | **2011*** | **2012** | **2011** | **2011*** | **2012** | |
| **FRIDGE & FREEZER PICKUP** | Contractors | 4 | - | 2 | 25 | - | 14 | 56,110 | - | 34,146 | Appliances |
| **HEATING & COOLING INCENTIVE** | Contractors | 34 | -6 | 20 | 64 | -10 | 35 | 111,587 | -18,866 | 85,221 | Installations |
| ***peaksaver* PLUS** | LDCs | 11 | - | 53 | 0 | - | 0 | 19,550 | - | 98,388 | Devices |
| ***peaksaver* PLUS IHDs** | LDCs | - | - | - | - | - | - | - | - | 49,689 | Devices |
| **COUPONS** | Retailers | 1 | 0 | 0 | 23 | 0 | 1 | 559,462 | 8,216 | 30,891 | Products |
| **EXCHANGE EVENT** | Retailers | 0 | - | 1 | 0 | - | 1 | 3,688 | - | 3,836 | Appliances |
| **SPRING & FALL EVENT** | Retailers | 2 | 0 | 2 | 31 | 2 | 29 | 870,332 | 81,817 | 1,060,901 | Products |

**2011 numbers previously reported experienced an adjustment after the reporting period due to additional data availability in 2013.*
*"-" means no adjustment was made*
*IHD means In-Home Display*

## Appendix A – Conservation Initiatives

| Initiatives | Delivery | Net Demand Savings (MW) | | | Net Energy Savings (GWh) | | | Participation | | | Metric |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Business Programs** | | **2011** | **2011*** | **2012** | **2011** | **2011*** | **2012** | **2011** | **2011*** | **2012** | |
| **DEMAND RESPONSE 2** | Aggregators | 69 | - | 56 | 56 | - | 78 | 2 | - | 2 | Facilities |
| **DEMAND RESPONSE 3** | Aggregators | 315 | - | 367 | 15 | - | 10 | 476 | - | 531 | Facilities |
| **SMALL BUSINESS LIGHTING** | LDCs | 25 | 1 | 16 | 65 | 1 | 61 | 20,297 | 444 | 18,494 | Projects |
| ***peaksaver* PLUS** (small commercial) | LDCs | 0 | - | 0 | 0 | - | 0 | 132 | - | 294 | Devices |
| **RETROFIT PROGRAM** | LDCs | 31 | 3 | 66 | 177 | 17 | 338 | 2,949 | 303 | 5,605 | Projects |
| **AUDIT FUNDING** | LDCs | 0 | 1 | 2 | 0 | 3 | 8 | 103 | 93 | 280 | Audits |
| **HIGH PERFORMANCE NEW CONSTRUCTION** | LDCs | 0 | 1 | 1 | 0 | 4 | 2 | 10 | 12 | 69 | Projects |
| **NEW HOME CONSTRUCTION** | LDCs | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 19 | 19 | Projects |
| Industrial Accelerator | OPA | 0 | - | 5 | 1 | - | 46 | 2 | - | 3 | Projects |
| Pre-2011 Projects | LDCs & service providers | 48 | 2 | 3 | 259 | 3 | 13 | - | - | - | - |

## Appendix A – Conservation Initiatives

| Initiatives | Delivery | Net Demand Savings (MW) | | | Net Energy Savings (GWh) | | | Participation | | | Metric |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Business Programs** | | **2011** | **2011*** | **2012** | **2011** | **2011*** | **2012** | **2011** | **2011*** | **2012** | |
| Pre-2011 *peaksaver* Residential | | 100 | - | 41 | 0 | - | 0 | 167,770 | - | 77,671 | Devices |
| Pre-2011 *peaksaver* Business | | 3 | - | 3 | 0 | - | 0 | 4,657 | - | 4,350 | Devices |
| Energy Manager | | - | - | 1 | - | - | 8 | - | - | 39 | Projects |
| Home Assistance Program | LDCs | 0 | - | 1 | 0 | - | 6 | 46 | - | 5,033 | Homes |
| Program Enabled Savings | | - | - | 2 | - | - | 1 | - | - | 16 | Projects |
| **Total** | | **645** | **2** | **642** | **717** | **20** | **651** | | | | |

*All results with a value of "0" represent a result of less than .5 MW/GW*
*Business programs include (Commercial & Institutional, Industrial, and Agricultural)*
*Pre-2011 Projects includes LDC Custom Programs, Electricity Retrofit Incentive Program, Multi-Family Energy Efficiency Rebates, and Toronto Comprehensive*

# Appendix B – Cost-Effectiveness Evaluation

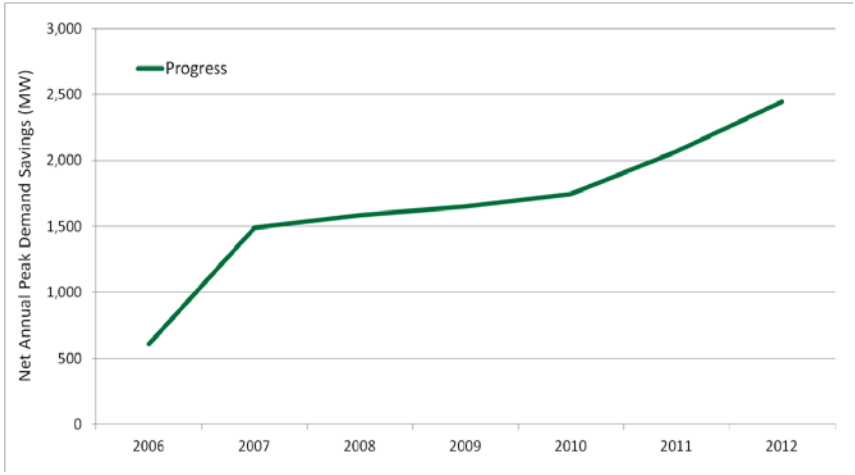
The OPA cost-effectiveness evaluations are used to identify the value of conservation for Ontario. Cost effectiveness is calculated using a suite of standard industry benefit-cost analysis and metrics: The tests evaluate the cost-effectiveness of the suite of saveONenergy programs delivered by the OPA and LDCs. A more detailed explanation of these tests can be found in appendix D.

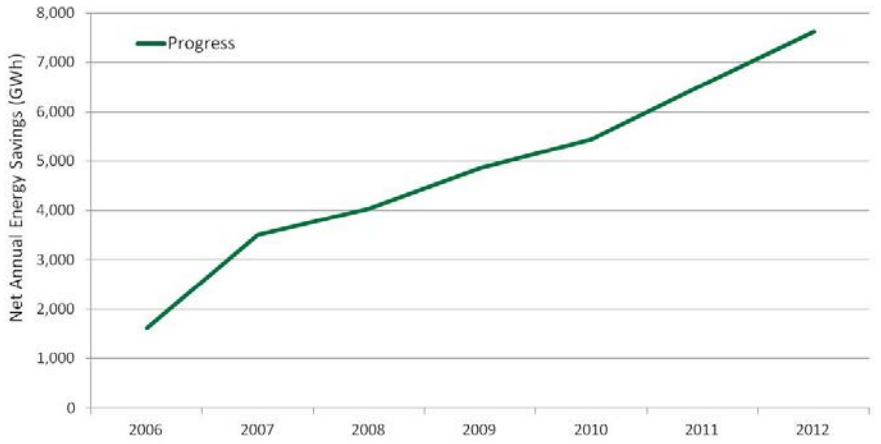
| **2012 Total Resource Cost Test** | |
|---|---|
| Benefit ($ millions) | 465.6 |
| Cost ($ millions) | 351.2 |
| Net Benefit ($ millions) | 114.4 |
| Net Benefit Ratio | **1.3** |
| **2012 Program Administrator Cost Test** | |
| Benefit ($ millions) | 484.3 |
| Cost ( $millions) | 256.9 |
| Net Benefit ($ millions) | 227.4 |
| Net Benefit Ratio | **1.9** |
| **2012 Levelized Delivery Cost (Demand Response)** | $9,227/MW month |
| **2012 Levelized Delivery Cost (Energy Efficiency)** | $39/MWh (3.9 cents /kWh) |

# Appendix C - Conservation Program Savings

The conservation savings achieved from energy efficiency and demand response initiatives contribute to the overall energy targets set out in Ontario's Long-Term Energy Plan (LTEP); 7,100 MW in demand reduction and 28TWh in energy savings by 2030. The table and graphs below show the province's 2012 savings and progress towards to LTEP targets.

| Savings | Gross Peak Demand Savings (MW) | | Gross Energy Savings (GWh) | | Net Peak Demand Savings (MW) | | Net Energy Savings (GWh) | |
|---|---|---|---|---|---|---|---|---|
| | 2011 | 2012 | 2011 | 2012 | 2011 | 2012 | 2011 | 2012 |
| Demand Response | 639 | 520 | 71 | 88 | 498 | 519 | 71 | 88 |
| Energy Efficiency | 229 | 181 | 1015 | 776 | 147 | 124 | 646 | 583 |
| **Total** | **868** | **702** | **1,086** | **864** | **645** | **643** | **717** | **671** |



# Appendix D – Cost-Effectiveness Test

The cost-effectiveness test is designed to evaluate the benefits and costs of conservation efforts. The net benefit of each test may be expressed either in absolute terms (where the net benefit is the difference between the present value (PV) of both the benefits and the costs) or as a ratio (where the net benefit is determined by dividing the PV of the benefits by the PV of the costs). A positive net benefit in absolute terms or a net benefit ratio greater than 1.0 indicates that benefits exceed costs from the perspective of each particular cost-effectiveness test.

Two tests, the Total Resource Cost (TRC) and the Program Administrator cost (PAC) test, along with the levelized delivery cost metric have been used to assess the cost-effectiveness of the conservation portfolio's resources.

## Total Resource Cost Test

The total resource cost test measures the benefits and costs of conservation efforts from a societal perspective. It includes costs for incentives and all incremental customer equipment costs. This test is described by the following equation:

**TRC Test Net Benefit ($) = PV avoided supply cost – (PV incremental equipment cost + PV program cost)**

*Or (to determine net benefit as a ratio):*
**TRC test (ratio) = PV avoided supply cost/ (PV incremental equipment cost + PV program cost)**

Incentive costs are not included in the determination of the total resource cost test net benefit because incentives are a transfer of funds from the program sponsoring organization to participating

benefit from a societal perspective.

## Program Administrator Cost Test

The program administrator cost test measures the benefits and costs of conservation efforts from the perspective of the program administrator. It includes the incentive and program administration costs and the verified net electricity savings. This test is described by the following equation:

**PAC test net benefit ($) = PV avoided supply cost – (PV incentive cost + PV program cost)**

*Or (to determine net benefit as a ratio):*

**PAC test (ratio) =**
**PV avoided supply cost/(PV incentive cost + PV program cost)**

## Levelized Delivery Cost Metric

Levelized delivery costs reflect the combined program administration and incentive costs required to procure conservation resources, expressed on a levelized basis by spreading these costs over lifetime energy savings (expressed as $/MWh).

**Levelized delivery cost ($/MWh) = PV (incentive cost + program cost)/PV lifetime MWh savings**

# Appendix E – Glossary of Terms

### Net Energy/Demand Savings
Peak demand or energy savings directly influenced and attributable to a conservation initiative, taking into consideration the net to gross ratio.

### Gross Energy/Demand Savings
Peak demand or energy savings that result directly from program-related actions taken by participants in a conservation initiative, regardless of the reasons for participation.

### Incremental Savings
Peak demand or energy savings attributable to activity procured in a particular reporting period.

### Net to Gross Ratio
The ratio of net savings to gross savings, which takes into account factors such as free-ridership and spillover.

### Levelized Delivery Cost
A metric that expresses delivery costs per unit of energy or peak demand saved on an annualized basis, expressed in $MWh or $/MWmonth, respectively, taking into account the lifetime energy savings associated with the implementation of a conservation and demand management initiative.

### Ex Ante Load Impacts
Load reduction capability of a demand response initiative under a set of pre defined conditions (e.g., 1-in-10 weather year), factoring in the amount of contracted resources, historical performance, load patterns, and forced outage rates, where applicable. The Ex Ante load impacts are, by nature, forward looking (representing the “insurance value” of the demand response resource) and are based on the number of registered participants on December 31. **Ex Ante is used throughout this report unless otherwise specified.**

### Ex Post Load Impacts
Actual load impacts attributable to a demand response resource for a given year, but do not necessarily reflect the load reduction capability of the Demand Response initiative. Effectively, historical Ex Post results are tied to specific conditions that occurred for that given event, including weather conditions, market prices, and the number of participants dispatched through the demand response initiative.

# Appendix F – Residential Programs

## COUPONS (Annual)

This initiative encourages customers to purchase energy-efficient products through year round coupons. The coupons offer instant savings towards the purchase of a variety of low cost, easy to install energy efficient measures and can be redeemed at participating retailers. Downloadable coupons can be found at saveonenergy.ca. This initiative is delivered by the OPA contracting centrally for the distribution of the coupon booklets across Ontario. LDCs also distribute coupons at local events. The OPA entered into agreements with specified retailers to honor the coupons.

***Key Findings from Evaluation Report***

- *The number of coupons associated with the redemption of 2012 Annual Coupons was 90% lower than 2011 Instant Coupon Booklet. Key factors for the decrease include:*
    - *Shorter duration of available coupons (September 2012 – December 2012)*
    - *In 2012, only online coupons were available.*
        - *2011 had both online coupons and coupon mailing booklets.*

## SPRING EVENT and FALL EVENT

This initiative provides instant point of purchase discounts to individuals at participating retailers for a variety of energy-efficient products. Twice a year (spring and fall), participating retailers host month-long rebate events. Customers are encouraged to visit participating retailers where they can find coupons redeemable for instant savings towards a variety of low cost, easy to install energy-efficient measures. This initiative is delivered by the OPA entering into arrangements with participating retailers to promote the discounted products, and to post and honour related coupons. LDCs refer retailers to the OPA and participate in in-store events.

***Key Findings from Evaluation Report***

- *15% lower net savings due to a change in the net-to-gross factors (increased free-ridership, less participant behavior spillover, and less non-participant like spillover).*
- *Majority of participation, energy and demand savings resulting from standard CFLs.*
- *15% of net savings due to approximately 73,000 coupons for new LED measures. Consumers and retailers alike are communicating their appreciation for the inclusion of LED coupons and hope for more in the future.*

# Appendix F – Residential Programs

## EXCHANGE EVENT

This initiative permanently decommissions older, inefficient window air conditioners and portable dehumidifiers in Ontario. Appliance exchange events are held during specific periods throughout the year at retail locations across the province. Customers are encouraged to bring in their old air conditioners and dehumidifiers in exchange for coupons/discounts towards the purchase of new energy-efficient products. The OPA contracts with participating retailers for the delivery of this program and for the collection of eligible units.

***Key Findings from Evaluation Report***

- *Higher per unit savings for dehumidifiers drove the overall increase in 2012 savings.*
- *30% increase in exchanged dehumidifiers over 2011, leading to an increase of 4% in overall participation.*

## FRIDGE AND FREEZER PICKUP

This initiative facilitates the removal of older inefficient appliances from customers in Ontario. This is an energy efficiency initiative that offers free pick up and decommissioning of large secondary refrigerators, freezers, window air conditioners and portable dehumidifiers. The OPA centrally contracts for province-wide marketing, call centre, appliance pick up and decommissioning. LDCs provide local marketing and coordination with municipal pick up where available.

***Key Findings from Evaluation Report***

- *Decrease in 2012 participation by 39% compared to 2011*
- *On-site metering provided updated per unit assumptions:*
  - *Small decrease (3.5%) in savings for refrigerators; and*
  - *Sizeable increase (17.5%) in savings for freezers*

# Appendix F – Residential Programs

## HEATING AND COOLING INCENTIVE

This initiative encourages the replacement of existing heating systems with high efficiency furnaces equipped with electronically commutated motors (ECM), and of existing central air conditioners with ENERGY STAR® qualified systems and products. The replacement systems are installed by approved Heating, Refrigeration, and Air Conditioning Institute (HRAI) qualified contractors. The OPA contracts centrally for delivery of this program and LDCs encourage local contractors to participate in the initiative.

***Key Findings from Evaluation Report***

- *Small decrease (10%) in per unit savings assumptions for furnace with ECM due to change in 2012 customer mix and furnace fan usage.*
- *Small increase (10%) in free-ridership related to the furnace with ECM measure.*

## *peaksaver PLUS*

This initiative serves as a demand response initiative designed to help residential customers reduce their demand during peak times throughout the year. Load control devices are installed and can be remotely activated when demand is high to help manage electricity consumption. This is done by making small adjustments to the appliance(s) that the customer enrolls in the program (including central air conditioner, electric water heater and/or in-ground pool pump) for short periods of time. This initiative is delivered by LDCs recruiting customers and procuring technology.

***Key Findings from Evaluation Report***

- *Province-wide per-unit estimates for an extreme peak August day were determined to be 0.50 kW for residential Central Air Conditioning (CACs) and 0.64 kW for small commercial CACs.*
- *The energy display offer had a positive influence on enrollment and re-enrollment with between 20 to 35% of new participants saying they wouldn't have enrolled without the IHD offer.*

# Appendix G – Business Programs

## SMALL BUSINESS LIGHTING

This initiative helps businesses achieve savings though the free installation of more energy-efficient lighting and water heating measures to eligible owners and tenants of commercial, institutional and agricultural facilities and multi-family buildings. The initiative targets customers in the general service <50kW account category and offers turnkey lighting and electric hot water heater measures. This initiative is delivered through LDCs, participants enroll directly with an LDC, or would be contacted by the LDC/LDC designated representative.

***Key Findings from Evaluation Report***

- *The saturation of eligible customers, preferred business types and increased participation from buildings that operate less during the summer peak period contributed to lower realization rates for demand savings in 2012.*
- *It is expected that participation in the initiative will increase in 2013 due to the incentive cap change from $1,000 to $1,500.*

## RETROFIT

This initiative offers incentives to customers to upgrade to more energy-efficient equipment for lighting, space cooling, ventilation and other measures. Upgrade projects can be classified into either: 1) prescriptive projects where prescribed measures replace associated required base case equipment; 2) engineered projects where energy and demand savings and incentives are calculated for associated measures; or 3) custom projects for other energy-efficiency upgrades. This initiative is delivered by the LDCs.

***Key Findings from Evaluation Report***

- *Verified savings for prescriptive lighting projects were 15% higher than reported; and verified operating hours were 11% higher than assumed.*
- *A lower realization rate in the engineered measure track can be partially explained by overstated lighting operation hour assumptions reported on the application.*
- *Net-to-gross ratios for the initiatives were above 75% in 2012, which is about 5% higher than in 2011.*

## Industrial Accelerator

Industrial Accelerator is designed to assist eligible large transmission-connected companies to fast track capital investment in major energy efficiency projects. Participants will contractually commit to delivering specific conservation targets within a set period of time and to maintaining them over the expected life of the project.

***Key Findings from Evaluation Report***

- *Projects have long lead times and in 2012 only one was put into service*
- *There were 16 engineering studies completed during 2012, 8 preliminary engineering studies and 9 detailed engineering studies*

# Appendix G – Business Programs

## DEMAND RESPONSE 2

This initiative is a contractual load shifting program in which participants specify the load shift window and amount of load shifting.

***Key Findings from Evaluation Report***

- *The DR2 program led to distinct changes in customer loads and reduced the volatility of use during peak hours, however the demand reductions were not fully matched by shifting to off peak hours.*
- *A significant portion of reductions occurred outside of customers contracted windows.*

## DEMAND RESPONSE 3

This initiative is for commercial and industrial customers, of 50 kW or greater to reduce the amount of power being used during certain periods of the year. The Demand Response 3 (DR3) Initiative is a contractual resource that is an economic alternative to procurement of new peak generation capacity. DR3 comes with specific contractual obligations requiring participants to reduce their use of electricity relative to a baseline when called upon. This Initiative makes payments for participants to be on standby and energy payments for the actual energy reduction provided during a demand response event. Participants are scheduled to be on standby approximately 1,600 hours per calendar year for possible dispatch of up to 100 hours or 200 hours within that year depending on the contract. DR3 is delivered by Demand Response Providers (DRP), under contract to the OPA. The OPA administers contracts with all DRPs and Direct Participants that provide in excess of 5 MW of demand response capacity. OPA provides administration including settlement, measurement and verification, and dispatch. LDCs provide outreach and marketing efforts.

***Key Findings from Evaluation Report***

- *2012 saw improvements in the performance of DR-3 participants resulting in higher ex ante realization rates, particularly for industrial participants.*
- *The program diversified but still remains highly concentrated.*
- *The largest 20 contributors account for 60% of the contractual demand reduction.*

## HIGH PERFORMANCE NEW CONSTRUCTION (HPNC)

This initiative encourages builders to construct more energy-efficient homes. It provides builders and their project decision makers with incentives for offsetting the cost of energy-efficiency measures, resulting in lower long-term operating costs, greatly improved marketability and enhanced occupant comfort. This initiative is delivered by LDCs.

***Key Findings from Evaluation Report***

- *Custom projects account for 66% of program savings, with the remainder coming from the prescriptive track.*

# Appendix G – Business Programs

## EXISTING BUILDING COMMISSIONING

This initiative offers incentives for optimizing (but not replacing) existing chilled water systems for space cooling in non-residential facilities. Incentives are offered to customers for the following project phases; scoping study phase, investigation phase, implementation phase, and hand off/completion phase. This initiative is delivered by LDCs.

***Key Findings from Evaluation Report***

- *Initiative was not evaluated in 2012*

## NEW HOME CONSTRUCTION

Working with participating home builders and renovators across Ontario, this initiative provides incentives to builders for the purpose of promoting the construction of energy-efficient residential homes. It encourages home builders to construct new homes that are efficient, smart, and integrated (applicable to new single family dwellings). Incentives are provided in two key categories as follows; incentives for home builders who install energy-efficient measures as determined by a prescriptive list or via a custom option; and incentives for home builders who meet or exceed aggressive efficiency standards using the EnerGuide performance rating system. LDCs engage local builders, supported by the OPA air coverage driving builders to their LDC for additional information.

***Key Findings from Evaluation Report***

- *All projects are opting for the prescriptive or performance path – there have been no custom project applications to date*

## PROCESS AND SYSTEMS

The process and systems upgrade program is designed to help facilities find and hold onto major energy savings. It includes valuable financial incentives and technical expertise needed to upgrade key systems and make improved energy management a part of how Ontarians do business. The program is made up of two complementary streams; energy efficiency upgrades, which includes a three-step feasibility and upgrade process (preliminary engineering study, detailed engineering study and capital incentives); and energy management and monitoring (embedded energy manager and monitoring and targeting), which provides long-term support to grow savings.

***Key Findings from Evaluation Report***

- *Energy managers are seen as important drivers of program enables savings projects*
- *Additional support (training and guides) to energy managers may further influence the adoption of energy efficient measures by participants*

# GOAL 2

## Develop Integrated and Regional Power System Plans and Communicate with Stakeholders.

The Power System Planning division ("PSP") develops plans for Ontario, an ongoing process that supports the implementation of government policies, directives and goals, and provides advice to government on the status and outlook for electricity service. Plans and advice developed by PSP consider changes to provincial and regional electricity service, account for reliability standards, and provide context for policy development, stakeholder discussions, regulatory proceedings, and procurement programs.

In order to achieve OPA Goal 2, the PSP division is pursuing the following four strategic initiatives in 2014:

1. *Maintain a current assessment of the status and outlook for electricity service in Ontario*
2. *Participate in regional planning*
3. *Support current procurements and programs*
4. *Provide analysis and advice on policy initiatives and support for regulatory proceedings.*

## Strategic Initiatives

### Initiative 1 – Maintain a Current Assessment of the Status and Outlook for Electricity Service in Ontario

The 2013 Long-Term Energy Plan (“2013 LTEP”) identifies the requirement for an annual Ontario Energy Report to update the sector on changing supply and demand conditions, and to outline the progress to date on the implementation of the plan. The OPA will work together with the Independent Electricity System Operator (“IESO”), the Ontario Energy Board (“Board”), and the Ministry of Energy to produce enhanced energy reporting that includes an update on the implementation of the 2013 LTEP, and to support the government’s open data initiative. In Q1 2014, work began on this initiative with the publication on the OPA website of information modules that underpin the 2013 LTEP.

In support of maintaining a current assessment of the status and outlook for electricity service in Ontario, PSP will undertake the following three key areas of work:

- demand forecasting and conservation integration;
- resource integration; and
- transmission integration.

The division will maintain an updated demand forecast, and analyze electricity-use patterns and conservation progress to update the provincial mid- and long-term forecasts. The OPA maintains a proprietary demand forecasting model that forecasts energy and peak demand on an hourly basis at a provincial and regional level. In 2014 the division will update the data and assumptions that support this analysis.

Electricity demand forecasts are developed at an end-use level and consider changes in technology adoption patterns, impacts of prices and other factors, including economic and sector trends. Throughout 2014, these factors will be monitored on a provincial and regional basis.

To integrate conservation, the division develops conservation forecasts that include assessment of the impacts of codes and standards, incentive-driven efficiency programs and rate designs. Current conservation performance is also integrated to inform updates to conservation plans. PSP will support the development of conservation reports.

Resource integration includes developing strategies and advice for emerging supply issues, evaluating system supply requirements, and developing options. These strategies and assessments are provincial in scope, and include an evaluation of the operability requirements of the system and assessments of storage opportunities. To support this effort, in 2014 the OPA will work with sector participants to collect and maintain updated data on generation facility characteristics and availability. This contributes to the development of forecasts of existing, committed and planned generation resources. These forecasts will be compared to the evolving demand for electricity, to assess resource requirements and evaluate generation options. This requires the maintenance of extensive

energy modeling capability. Efforts will continue in 2014 to update the data and assumptions that support this analysis.

In the 2013 LTEP, the government stated its intention to include 50 MW of energy storage into energy storage procurement processes by the end of 2014. On December 16, 2013 the Minister of Energy issued a direction to the OPA requiring the OPA to work with the IESO to develop a proposed design and outline for an energy storage procurement framework by January 31, 2014. In Q1 2014, PSP supported the development of recommendations for an energy storage procurement framework, and will support resulting procurement programs.

Changes in demand and supply balance may require transmission solutions to maintain a reliable supply of electricity. Transmission planning is conducted at the bulk system level, as well as the regional level. In 2014, the division will develop transmission solutions in response to the supply demand outlook as it is updated. This will include assessments of existing transmission system capability, support for priority transmission expansion projects, and identifying additional transmission solutions that may be required.

**Initiative 2 – Participate in Regional Planning**

Under the Board's Renewed Regulatory Framework for Electricity (RRFE), and the OPA's recently amended licence (EB-2013-0192), the OPA leads the integrated regional resource planning ("IRRP") process that identifies options to meet regional electricity needs and recommends the preferred mix of conservation, local generation, transmission and distribution resources to meet the needs of each region. In each IRRP, the OPA works closely with local distribution companies ("LDCs"), transmitters, the IESO, Aboriginal communities, municipal and regional officials and community members as appropriate. The expectations around regional planning are expanding rapidly with increased requirements for engagement. Throughout 2014, the work associated with IRRPs will have to be prioritized.

In 2014, planning and implementation work will continue for several regional plans that are already under way. The OPA anticipates completing IRRPs for the Central Toronto,

Kitchener-Waterloo-Cambridge-Guelph, Brant, and North of Dryden areas. The division will also support the lead transmitter as regional planning activities formally commence in the remaining regions identified in the Board's preliminary list of Group 1 regions. These processes may identify future IRRPs that will have to be developed. To support these efforts, electricity demand and conservation forecasts will be developed on a zonal basis, and PSP will assess the capability of existing infrastructure to reliably supply customers.

In 2014, the division will also support the implementation of recommendations in the OPA and IESO joint report to the Minister of Energy on *Engaging Local Communities in Ontario's Electricity Planning Continuum – Enhancing Regional Planning and Siting*.[1] This support will include participating in local advisory committees, maintaining a regional planning website, and working proactively with provincial, regional and municipal authorities to coordinate future infrastructure requirements.

**Initiative 3 – Support Current Procurements and Programs**

In 2014 PSP will support the implementation of plans, policies and directives identified in Goals 1 and 3, presented at Exhibits B-1-1 and B-3-1 respectively, and any others that should arise as a result of the implementation of the 2013 LTEP.

Each of these procurements will require detailed evaluations of the system's capability to accommodate new or expanded generation connections and/or conservation. In particular, in 2014, the OPA will carry out connection screening assessments of transmission availability, and coordinate with LDCs for distribution-connected projects for the various procurement programs.

The 2013 LTEP considers the refurbishment of 10 units at the Darlington and Bruce Nuclear Generating Stations. In 2014, the OPA will work closely with the operators to ensure a coordinated schedule for the necessary outages at these facilities to comply with the nuclear refurbishment principles identified in the 2013 LTEP.

[1] http://www.onregional-planning-and-siting-dialogue.ca/

The division will also support the development of conservation programs and the implementation of the new conservation framework. In 2014, the division will update estimates of the costs avoided by energy efficiency to assess cost effectiveness of program design and delivery.

**Initiative 4 – Provide Analysis and Advice on Policy Initiatives and Support for Regulatory Proceedings**

In 2014, the division will provide analysis, advice and outlooks on an ongoing basis to the OPA's Board of Directors, provincial government, and the OPA's Stakeholder Advisory Committee with regards to conservation, electricity policy initiatives, and Ontario's generation and transmission options. To support these activities, the division will assess the impacts of electricity sector initiatives on sustainability and the environment, customer costs, and total capital investments by maintaining detailed data and specialized analytical tools.

As Ontario's conservation delivery framework evolves, the division will provide advice and planning input on implementation, target setting and integration of conservation as a first resource at the provincial and regional level. Key initiatives in support of these activities include maintaining assessments of the cost effectiveness of conservation, and developing long-term conservation plans.

The OPA will evaluate generation options in order to provide advice on addressing future requirements. It is important that options be considered along with conservation and transmission in an integrated manner, rather than on a stand-alone basis, in order to assess value. Major projects include the planned retirement of the Pickering Nuclear Generating Station and coordination of the refurbishments at the Bruce and Darlington Nuclear Generating Stations. In 2014, where an integrated planning perspective could add value, PSP will participate in regulatory proceedings before the Board. It is anticipated that the division will participate in a number of proceedings, including Ontario Power Generation's ("OPG") 2014-2015 payment amounts proceeding, leave to construct applications for the East-West Tie transmission line, the Supply to Essex County Transmission Reinforcement ("SECTR") project, and the new line to Pickle Lake.

In September, 2013 OPG applied to the Board for the approval of payment amounts for its prescribed hydroelectric and nuclear generating facilities. In 2014, the OPA will participate in this proceeding as required.

As part of the support for the development of the new East-West Tie transmission line, the OPA will provide updates on the project need to the Board, participate in community and First Nations and Métis engagement sessions, and prepare evidence on the need for, and alternatives to, the proposed undertaking.

For the SECTR project and the new line to Pickle Lake, the OPA will support regulatory processes of interested proponents, as appropriate, including the preparation of evidence on the need for, and alternatives to the proposed undertaking.

Throughout 2014, PSP will participate in other regulatory proceedings as required.

**2014 Milestones**

By the end of 2014, the OPA will have reached the following milestones:

- Implemented the planning aspects of the 2013 LTEP, particularly the annual Ontario Energy Report, assessment of storage opportunities, and release of technical data and analysis
- Completed four integrated regional resource plans (e.g., Central Toronto, Kitchener-Waterloo-Cambridge-Guelph, Brant and North of Dryden) and made substantial progress on the Group 1 Regions
- Participated in program design (e.g., Conservation framework development and target-setting) and provided analytical support for procurements (e.g., the FIT program, large renewable procurement, combined heat and power, Bruce refurbishment and non-utility generators)
- Participated in regulatory proceedings (e.g. OPG, East-West Tie, line to Pickle Lake, local distribution company rate applications), and provided analysis, advice and outlooks to the OPA's Board of Directors, provincial government and the OPA's Stakeholder Advisory Committee.

## 2014 Budget

The table below shows the 2014 budget for the PSP division by major cost category, the 2011 Board-approved budget and the 2013 actuals, and the variances to the 2014 budget. Analysis of variances is presented in Exhibit D-2-2.

**Goal 2 (Power System Planning)**
**Variance between 2014 Budget and 2011 Board-approved Budget and variance between 2014 Budget and 2013 Actual ($'000)**

| Major Cost Category | 2011 Budget Board-approved | 2014 Budget | 2011-2014 Variance | 2013 Actual | 2013-2014 Variance |
|---|---|---|---|---|---|
| Compensation & Benefits | 4,876 | 4,971 | 95 | 4,961 | 10 |
| Professional & Consulting Fees | 874 | 385 | (489) | 14 | 371 |
| Operating & Administration Expenses | 320 | 393 | 73 | 267 | 126 |
| **Total Operating Costs Before Allocation** | **6,070** | **5,749** | **(321)** | **5,242** | **507** |
| Shared Services Allocated Expenses | 9,327 | 7,531 | (1,795) | 7,518 | 13 |
| **Total Operating Costs After Allocation** | **15,397** | **13,280** | **(2,116)** | **12,760** | **520** |

## 2011-2013 Results

*Maintain a Current Assessment of the Status and Outlook for Electricity Service in Ontario*

From 2011 to 2013 PSP carried out ongoing planning, including developing updates on the status and outlook of electricity demand and supply in Ontario. This work included updated demand forecasts, system supply options and requirements, and transmission priorities. Maintaining an updated status and outlook provided context for policy development, stakeholder discussions, regulatory proceedings, and procurement programs.

In 2011, significant effort across the PSP division was put forth to develop the IPSP II. The OPA developed and executed stakeholder and First Nations and Métis engagement plans, including consultation sessions led by PSP. The IPSP II was developed through studies and assessments, and was guided by the Supply Mix Directive and the 2010 Long-Term Energy Plan. The IPSP II was provided to the government in August 2011. In April 2012, Bill 75 proposed changes to the long-term planning process in Ontario, and activities associated with IPSP II filing were suspended.

In 2011 PSP completed the development of a demand forecasting model which assists in developing detailed forecasts of electricity demand by end use, sector and sub-sectors, at

regional and provincial levels. In 2012, a major update to the provincial demand forecast was completed. Results were discussed with an advisory committee of sector participants, communicated publicly through a webinar, and were posted on the OPA website.

In 2013, the OPA provided advice and technical input to the development of the 2013 LTEP, including updating demand forecast and supply outlooks, and assessing the requirements for integrating intermittent resources into the electricity system. The PSP division also played a key role in the engagement process for the 2013 LTEP, participating in 22 stakeholder engagement sessions across the province. The OPA developed and posted supporting materials to its website, and led the technical discussions during each of the 2013 LTEP engagement sessions. OPA staff were on hand at consultation sessions to address questions from participants.

*Participate in Regional Planning*

In 2011 to 2013, the division continued its focus on regional planning in partnership with LDCs, the IESO, and transmitters. Key areas in which the OPA was engaged in developing regional plans include Kitchener-Waterloo-Cambridge-Guelph, Windsor-Essex, Central Toronto, Ottawa, York Region, North of Dryden, and the remote communities North of Pickle Lake. As part of the regional planning process, PSP supported the implementation of near-term projects including the Guelph Area Transmission Refurbishment project and the Clare R. Copeland Transformer Station ("TS") in downtown Toronto.

Throughout 2011, 2012 and 2013, PSP assessed the feasibility of connecting remote communities in Northwestern Ontario to Ontario's transmission system. This work was undertaken in conjunction with the Northwestern Ontario First Nations Transmission Planning Committee; a committee consisting of members of the remote communities. In 2012, the OPA released a draft of the technical report for the connection of remote First Nation communities in Northwestern Ontario ("Remotes Report") to the committee. Engagement on the Remotes Report, including visits to remote communities, was

undertaken throughout 2013, and the OPA will continue to support the development and implementation of the Remotes Report throughout 2014.

In 2011-2013, the OPA completed the North of Dryden Draft Reference Integrated Regional Resource Plan (the “Draft North of Dryden Plan”), which describes the technical feasibility and economic value of various options for meeting the electricity service needs of the area North of Dryden. To inform these studies, the OPA undertook significant engagement with Aboriginal peoples, industrial customers, and community representatives. The Draft North of Dryden Plan was developed in collaboration with the Ministry of Energy, Hydro One Networks Inc. (“Hydro One”) and the IESO.

*Support Current Procurements and Programs*

From 2011 to 2013, PSP supported various renewable and clean energy procurements by undertaking capacity screening assessments, and providing technical advice and input to the development and implementation of the programs.

In 2011, the second phase of the capacity screening using the Transmission Availability Test and Distribution Availability Test process was completed in conjunction with LDCs, which supported the award of new contracts under the Feed-in Tariff (“FIT”) program. The division also carried out capacity screening to complete the allocation process of projects enabled by the new Bruce to Milton transmission line. In 2012, the division monitored the evolution of FIT program rules following the review of the program, and updated relevant assessment processes to align with updated FIT program rules.

In addition to support for the FIT program, PSP also provided analytical support to other OPA procurements including Combined Heat and Power, non-utility generator contract negotiations, and the relocation of gas-fired generation facilities. Assessments of the future value to the system of these resources contributed to procurement decisions.

*Provide Analysis and Advice on Policy Initiatives and Support for Regulatory Proceedings*

Throughout 2012 and 2013, the OPA participated in the Board's consultation to develop a policy framework for regional planning, as part of the Board’s RRFE initiative. PSP staff

participated in the working group to develop recommendations to the Board on formalizing the regional planning process.

In 2013, in response to a request from the Minister, the OPA developed a Demand Response ("DR") plan in consultation with the IESO. In developing the plan, the OPA engaged with key industry stakeholders. The DR plan was submitted to the Minister of Energy in April 2013. PSP supported the development of this plan.

In 2013, the OPA worked with the IESO to provide joint recommendations for a new integrated regional energy planning process, specifically looking at improving the way large energy projects are sited in the province. During the months of June and July, the OPA and the IESO engaged with a broad spectrum of municipalities, First Nation and Métis communities, community associations, advocacy groups, and other stakeholders to hear their perspectives about how best to improve these processes. This feedback informed the development of the OPA and IESO's joint recommendations to the Minister of Energy: *Engaging Local Communities in Ontario's Electricity Planning Continuum*, submitted in early August 2013. PSP was an active participant in the development of this report. The recommendations were all accepted by the government.

In 2011 to 2012 the division carried out development work for projects, including system assessments and support for Hydro One's Leave to Construct application for the west of London transmission upgrade project (EB-2012-0082). This project consisted of rewiring of the transmission line between the Lambton TS (south of Sarnia) and the Longwood TS (west of London) to provide additional capacity to connect new renewable generation in the area.

In 2011 to 2013 the division also continued to support the East-West Tie transmission project – a proposed new 400 km transmission line between Thunder Bay and Wawa – by providing the need analysis, and other regulatory support to the Board in the Board's transmitter designation process (EB-2011-0140). As ordered by the Board at the conclusion of the designation process, in 2013 the OPA continued to assess and provide

updates on project need in addition to supporting the designated transmitter in carrying out project development work.

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# GOAL 3

**Ensure Ontario ratepayers benefit from environmentally sustainable electricity generation through cost-effective procurement and contracts with effective risk sharing.**

The Electricity Resources division ("ER"), responsible for carrying out Goal 3, consists of the following four groups: 1) Clean Energy Procurement; 2) Renewables Procurement; 3) Contract Management; and 4) Policy and Analysis.

The Clean Energy Procurement group ("Clean Energy Procurement") is responsible for the procurement of electricity supply from clean energy resources undertaken in response to directives received from the Minister of Energy. The primary focus of the group is the design and implementation of procurements for natural gas-fired generation, including combined-cycle, simple-cycle, and combined heat and power ("CHP"). Clean Energy Procurement activities also include the procurement of electricity supply from other sources of electricity generation, such as energy recovery projects, energy from waste ("EFW") projects, coal-fired facilities converted to natural gas, and the procurement of load management services. Design and implementation of the procurements includes the design of contracts to meet specific technical, legal, financial and environmental criteria, as well as the administration of the procurement (application/proposal intake, review, evaluation, and contract offering).

The Renewables Procurement group ("Renewables Procurement") is responsible for the procurement of electricity supply from renewable resources undertaken in response to directives received from the Minister of Energy. The primary focus of the group is the design and administration of the FIT and microFIT programs; however, the group is also responsible for other procurement activities, such as the design and implementation of a new competitive procurement process for large renewable resources, and the negotiation of bilateral contracts for renewable energy such as the conversion of the Thunder Bay Generating Station to advanced biomass, and the proposed New Post Creek hydroelectric Generating Station.

The Contract Management group (“Contract Management”) is responsible for the management of the contracts resulting from the OPA's electricity supply procurements. As of Q4 2013, the OPA had approximately 22,500 MW of electricity supply capacity under contract. This group is responsible for the fulfillment of the OPA's obligations under procurement contracts, including financial settlement, and the enforcement of supplier's obligations under these procurement contracts.

The Policy and Analysis group (“Policy and Analysis”) is responsible for providing strategic, analytical and research support to the other groups in the Electricity Resources division, as well as to the OPA generally. The Policy and Analysis group also manages various support programs under the *Green Energy and Green Economy Act, 2009* ("Green Energy Act") – the Community Energy Partnerships Program (“CEPP”), the Municipal Public Sector Energy Partnerships Program (“MPSEPP”), the Education and Capacity Building (“ECB”) program, and the Aboriginal Energy Partnerships Program (“AEPP”) which includes the Aboriginal Renewable Energy Fund (“AREF”), the Aboriginal Transmission Fund (“ATF”), the Aboriginal Community Energy Plan (“ACEP”) program, and the Aboriginal Renewable Energy Network (“AREN”).

In order to achieve OPA Goal 3, the Electricity Resources division is pursuing the following four strategic initiatives in 2014:

1. *Procurement of clean energy resources*
2. *Procurement of renewable resources*
3. *Management and settlement of contracts*
4. *Analysis of sector, policy and contractual issues.*

How these initiatives are expected to achieve the divisional targets is described below.

## Strategic Initiatives

### Initiative 1 – Procurement of Clean Energy Resources

The Clean Energy Procurement group continues to undertake procurement activity under the authority of ministerial directives. Procurement activity in 2014 is expected to include a mix of bilateral negotiations, standard offer contracting and competitive procurements.

### Bilateral Negotiations

*Non-Utility Generators*

On November 23, 2010 the OPA received a ministerial directive to enter into negotiations with non-hydroelectric non-utility generators ("NUGs"), in respect of contracts to be entered into upon expiry of their current Ontario Electricity Finance Corporation ("OEFC") contracts. The non-hydroelectric NUG facilities consist of electricity generation from natural gas, biomass, and energy from waste facilities, totaling approximately 1,400 MW from over 31 facilities. The OPA is currently in negotiations with a number of these NUG parties with contracts that have either expired or will be expiring before the end of 2015. The OPA anticipates continuing negotiations with NUG parties throughout 2014, and will execute contracts in respect of facilities that provide value to ratepayers.

On December 16, 2013 the OPA received a directive prescribing terms for negotiating 100% Biomass NUG contracts. In 2014, the OPA will enter into negotiations with NUG facilities eligible under this directive.

### Standard Offer Contracting and Competitive Procurement

*Combined Heat and Power ("CHP")*

On December 16, 2013, the OPA received a ministerial directive in relation to the design of a targeted CHP program. In the 2013 Long-Term Energy Plan ("2013 LTEP"), the government highlighted its intention to procure further CHP projects as a way to promote more efficient natural gas-fired generation, and address regional capacity issues. The directive requires that the OPA consult and report back to the Minister by the end of February 2014 on the most appropriate and efficient means by which the OPA could design

a procurement for projects targeted at specific sectors (greenhouse operations, agri-food and district energy projects). The OPA provided the report to the Minister in February 2014 which includes a set of recommendations to inform the development of a procurement process.

*Industrial Electricity Incentive ("IEI")*

On November 1, 2012, the OPA received a directive to develop and implement the IEI program to undertake various initiatives, measures, activities and procurements designed to assist in the management of electricity demand. The objectives of this program are to facilitate load management and the management of electricity demand in Ontario by increasing industrial load to better match supply conditions; minimize the cost impact on existing consumers; and encourage industrial growth, capital investment and job creation. The program has two streams: Stream 1 for large loads and new entrants into Ontario, and Stream 2 for companies that have established operations but will be adding incremental load. Stream 1 was opened to applicants in December 2012 and Stream 2 was opened to applicants in April 2013. Stream 2 resulted in five contracts executed representing approximately 1 TWh of annual incremental energy consumption. No contracts were awarded through the Stream 1 process. In 2014, the OPA, in consultation with the Ministry of Energy, will assess whether to proceed with additional application windows for this program. This assessment is expected to include a review of the TWh remaining, and an assessment of the current electricity supply outlook over the life of the IEI contract and the remaining interest in the program.

**Initiative 2 – Procurement of Renewable Resources**

The 2013 LTEP outlined the government's continued commitment to the procurement of renewable energy and committed to reaching a target of 10,700 MW of installed wind, solar and bioenergy by 2021, and 9,300 MW of hydroelectric by 2025. In order to achieve these commitments, and in accordance with directives from the Minister of Energy, Renewables Procurement will utilize three types of procurement methods: standard offer programs, competitive procurement, and other negotiations.

## Standard Offer Programs

*Feed-In Tariff*

In a directive dated June 12, 2013, the Minister committed to ensuring the long term sustainability of the FIT program by setting annual procurement targets for Small FIT ("FIT"; meaning renewable generation projects generally between 10 kW and 500 kW in size) and requiring an annual price review take place with updated price schedules to be published in November of each year.

In September 2013, draft program documents for the FIT 3 program were posted for stakeholder review. These drafts reflected policy decisions made by the Minister in directions received June 12, 2013 and August 16, 2013. The application period closed on December 13, 2013 for the 123.5 MW target of FIT 3 projects, with application review and contract offers occurring in Q1-Q2 2014. Also contained in this directive is the requirement that beginning in 2014 the OPA procure 150 MW of FIT projects each year for four years. The OPA anticipates launching the FIT 4 program in the second half of 2014.

*microFIT*

According to the June 12, 2013 directive, the OPA is required to procure renewable energy under the microFIT program. MicroFIT is designed as a more streamlined process for projects under 10 kW. Specifically, the OPA is to target the award of up to 50 MW under the program in each of the next four years, beginning in 2014. The target for the remainder of 2013 was up to 30 MW, with 14.7 MW actually procured as of the end of the year. The 15.3 MW of unallocated capacity has been added to the 2014 target, such that the 2014 target is 65.3 MW.

*Unbuilt Rooftop Solar Pilot Program ("URSP")*

On July 11, 2012 with follow-up on November 23, 2012, the OPA was directed to design a pilot stream within the FIT program whereby applicants with un-constructed buildings could apply for small FIT rooftop solar contracts. The procurement target for this initiative is 15 MW, with the ability to renew in subsequent years. The application period for the URSP

was concurrent with FIT 3 and closed on December 13, 2013. Contract offers for successful applicants are expected in Q2 2014. After the procurement process has concluded, the OPA will examine the results and determine if unbuilt rooftop solar projects should be considered for inclusion as part of the broader FIT 4 program.

*Hydroelectric Standard Offer Program ("HESOP")*

On June 26, 2013, the OPA was directed to launch two new standard offer programs, building on an earlier directive of January 21, 2013 for an additional new standard offer procurement. These directions state that the OPA is to launch procurements targeting two different sizes of municipal hydroelectric projects, as well as existing contracted facilities with expansion potential. In response, the OPA developed the HESOP, with two separate application streams. The program components were introduced to interested stakeholders on September 30, 2013, with these components finalized on October 30, 2013. The application period for the municipal stream of the program closed on December 6, 2013. The procurement process for the municipal stream concluded in Q1 2014 with three successful applicants. The expansion stream will be launched in 2014.

*Hydroelectric Contract Initiative ("HCI")*

The HCI program originated from a May 2009 directive whereby existing hydroelectric facilities (primarily with expiring NUG contracts) could re-contract with the OPA for their existing facility which had useful life remaining. In addition, applicants could apply to upgrade or expand their facility. In a January 2013 directive, the Minister directed the OPA to make changes to the HCI program to no longer contract for expansions of existing facilities. In 2014, the HCI program remains in place for hydroelectric facilities that wish to re-contract for the existing capacity following the expiry of their NUG contract.

**Competitive Procurement (Request for Proposals)**

*Large Renewable Procurement ("LRP")*

The June 26, 2013 directive, required that the OPA cease procuring large renewable projects (>500 kW) through the standard offer FIT program, and instead develop a

competitive process to procure these projects. The OPA engaged stakeholders in late summer and presented an interim recommendations report to the Minister on August 30. On December 16, 2013, the Minister directed the OPA to conduct outreach with the public, municipalities, the renewable energy sector, the Association of Municipalities of Ontario, and First Nation and Métis communities to develop a competitive procurement process for large renewable energy projects by March 1, 2014. As part of the procurement design, the OPA is to review and report back to the Minister on mechanisms to encourage participation from innovative technologies and approaches including integration of energy storage with renewable energy generation. The Minister has announced that the draft RFQ for the LRP process shall be available before March 31. The OPA has developed draft procurement timelines that span from March 2014 to summer 2015 for the first tranche of procurement. A subsequent tranche is planned for 2015-2016, with the option of a third tranche in 2016 depending on the results of the previous two tranches, and of other changes or updates to the status of other contracted facilities.

*Renewable Energy Projects in Remote First Nation Communities*

In a December 2013 directive, the Minister directed the OPA to work with First Nations communities where transmission connection is not economic to develop, and implement solutions for on-site renewable generation projects. This can reduce the reliance of such communities on diesel fuel. Over the next year, it is expected that the OPA will be working with the communities to identify solutions that demonstrate the principles articulated in the directive, specifically that the communities increase their use of renewable energy resources and can do so in a cost-effective way in comparison to continued diesel use.

**Other Negotiations**

*Korean Consortium*

Further renewable investment has been implemented through the Green Energy Investment Agreement ("GEIA"). The Government of Ontario entered into the GEIA with the Korean Consortium in April 2010. As directed by the Minister of Energy, in accordance with the GEIA, Renewables Procurement continues to negotiate a series of power

purchase agreements ("PPAs") with the Korean Consortium. In 2014, Phase 3 project negotiations are expected to conclude, resulting in PPAs for 200 MW of wind and 100 MW of solar projects.

*New Post Creek*

In accordance with the June 16, 2013 directive, the OPA began negotiations with the Ontario Power Generation Inc. ("OPG") and their project partner, Taykwa Tagamou First Nation, for a proposed 25 MW New Post Creek hydroelectric generation station. According to the terms of the directive, the contract is to be on financial terms that recognize the benefits associated with aboriginal participation on such projects, and shall reflect the risk structure of the existing Hydroelectric Energy Supply Agreements that the OPA has with OPG. These negotiations are expected to continue throughout 2014.

*Thunder Bay Generating Station*

On December 16, 2013, the OPA received a directive from the Minister of Energy to enter into a contract with OPG for the conversion of the Thunder Bay Generating Station from coal to advanced biomass. The contract is to cover the output from one unit at the facility with a rated output of 150 MW. The contract is to provide that OPG is to optimize the operation of the converted unit to maximize reliability in the Northwest region, while considering the cost impacts of the operation of the converted unit. It is expected that this negotiation and contract development will take place in early 2014.

**Initiative 3 - Management and Settlement of Contracts**

As of Q4 2013, the OPA had approximately 22,500 MW of electricity supply capacity under contract. Almost 16,000 MW of this capacity is in commercial operation, with the remainder in various stages of development and construction. By the end of 2014, the OPA expects to be managing approximately 28,000 contracts representing nearly 27,000 MW of supply (more than two-thirds of the installed capacity in Ontario). These contracts include renewable generation (wind, hydroelectric, solar and bioenergy), natural gas-fired simple cycle, combined cycle and CHP generation, as well as nuclear refurbishment. In addition to the electricity supply contracts the OPA will be managing the Industrial

Electricity Incentive Program which will have under contract approximately 1.44 TWh/year of electricity consumption.

*Management of Contracts*

As counterparty to these contracts, Contract Management is responsible for managing these contracts with the developers to ensure that all contractual obligations are fulfilled. This includes timely completion of the facilities for commercial operation, and ensuring that good engineering and operating practices are used in the operation and maintenance of facilities during their contract terms. These activities may include, but are not limited to, negotiations of contract amendments triggered by IESO market rule changes and ministerial directives, assessment of force majeure claims by counterparties, processing contract counterparty change of control or contract assignment to another eligible counterparty, reporting project progress to the public through published reports and the OPA website, conducting site inspections, technical audits of operating records and data, and auditing domestic content compliance for FIT contracts. In 2014, Contract Management will continue to manage the existing generation facilities under contract and any additional electricity supply capacity procured during the course of the year. Current estimates indicate that in 2014, over 600 facilities are anticipated to reach commercial operation, representing between 2,000 and 3,000 MW.

Ontario is incorporating a larger amount of intermittent resources into the existing system. The sector has been working collaboratively on a number of initiatives to address the challenges associated with the incorporation of this generation. Solar generators with transmission connected projects are subject to market rules regarding the dispatch of renewable energy facilities. It is expected that negotiations with solar counterparties regarding the impact of these market rules will conclude in 2014. Staff from Contract Management and Policy and Analysis will support these efforts.

As part of the management of the FIT program, the OPA will initiate and conclude audits on a random selection of approximately 70 FIT contracts during 2014. These audits will be to assess compliance with key contract parameters. OPA will engage an external party,

which will be selected through competitive request for proposal ("RFP") process, to perform the 2014 audits.

In addition, the OPA has worked cooperatively with local distribution companies ("LDCs") to establish an LDC Working Group, which meets quarterly to discuss any issues relating to the FIT and microFIT programs and other OPA initiatives. These LDC Working Group activities will continue throughout 2014.

In 2012, the OPA reached agreements with both Greenfield South Power Corporation and TransCanada Energy Ltd. for the relocation of their generation facilities. In 2014, both suppliers will be engaged in the pre- commercial operation date ("COD") activities that are required for the development of their facilities, including environmental approvals. The OPA will continue working with both suppliers as they proceed toward achieving commercial operation status.

As counterparty to the IEI contracts, Contract Management will be responsible for managing these contracts with the participants to ensure that all contractual obligations are fulfilled. This includes, but is not limited to, timely completion of the facilities, monitoring regular participant reporting on annual plans, increased employment levels and any conservation activities undertaken by the participant on their facility during the contract term.

Contract Management will also continue to produce quarterly progress reports on contracted electricity supply and support the OPA's annual energy reporting activities.

*Settlement of Contracts*

The Contract Management group is responsible for the financial settlement of contracts under management. Currently, the OPA financially settles the contracts for transmission-connected facilities as listed in Appendix A to this exhibit (the list excludes FIT projects, microFIT and RESOP contracts which are summarized in a separate table in Appendix A). The remaining contracts are settled by LDCs.

As the number of OPA contracts increase, so too have the settlement requirements for the Electricity Resources division. In 2011 the OPA settled approximately 620 settlement statements and invoices resulting in approximately $2.25 billion in disbursements. In 2012, the number of settlement statements and invoices increased by 6.5% to 660 statements and invoices, for a total value of $2.6 billion. This increase has continued in 2013, with 729 settlements statements and invoices as of the end of December 2013 for a total value of $3.5 billion. Settlement statements and invoices for 2014 are projected to exceed 1,000 with just over $4.0 billion in disbursements as this growth continues.

To support these settlements, the OPA has been building an MS SharePoint system that will meet its needs in ongoing monthly settlement obligations with contract counterparties and will also provide flexibility required for future needs. In 2014, the OPA will develop further system enhancements to support any additional programs and contracts managed by Contract Management.

*Nuclear refurbishments*

Contract Management is responsible for the day-to-day management of the Bruce Power Refurbishment Implementation Agreement ("BPRIA"). The 2013 LTEP articulates the government's decision to embark on further refurbishments at the Bruce Generating Station and refurbishments at the Darlington Generating Station beginning in 2016. In 2014, the Policy and Analysis and Contract Management groups will continue commercial negotiations with Bruce Power to implement contractual agreements for refurbishment of the units which have not yet been refurbished. Contractual requirements will include adherence to the principles established by the government in the 2013 LTEP, including minimizing commercial risk to the ratepayer and ensuring that operators and contractors are held accountable for refurbishment costs and schedules.

**Initiative 4 - Analysis of Sector, Policy and Contractual Issues**

Within the Ontario electricity sector, there are a number of developments that Policy and Analysis monitors and provides advice on that have the potential to impact either OPA's contract management function and/or its procurement processes. The Policy and Analysis

group also continues to design and administer funding programs that support the province's commitment to renewable energy and participation in the sector by community and Aboriginal groups.

**Policy and Contractual Issues**

The Policy and Analysis group continues to monitor sector evolution initiatives that may have implications for its contract counterparties, such as changes to the IESO market and regulatory initiatives to control greenhouse gas ("GHG") emissions. The Policy and Analysis group also monitors developments in procurement practices to ensure OPA's processes reflect best practices.

One of the IESO's strategic priorities for 2014–2016 is the preparation of an Electricity Sector development plan. Implementation of such a plan would require changes to IESO Market Rules which is of interest to the OPA given the linkages between the market and generation contracts. Specifically, the IESO is currently undertaking stakeholder engagement initiatives related to a review of its Generation Guarantee Programs, the Energy Market Pricing System, and Global Adjustment, and the development of a General Conduct Rule. The IESO is also studying how a capacity market might be applied to the Ontario market. In all of these consultations, Policy and Analysis will be following developments to identify and assess any potential implications in collaboration with contract counterparties.

The OPA continues to proactively monitor and provide feedback to the Ontario government on climate change policies, environmental attributes, and carbon mitigation strategies and regulations. As these policies evolve together with any potential new federal regulations, the OPA will examine options and solutions to ensure impacts on OPA electricity suppliers and Ontario ratepayers are minimized, where relevant.

The Minister has also directed the OPA to consider energy storage in a December 16, 2013 directive. In this directive, the Minister requested that the OPA report back on a procurement framework that addresses the regulatory barriers preventing energy storage technologies from competing in the energy market, and to include a proposed work plan

that would enable new competitive energy storage procurement processes as early as possible. The report which includes a multi-phase approach to the procurement was developed in collaboration with the IESO, and provided to the Minister on January 31, 2014. This work will continue with the implementation of the proposed framework, with the intent of awarding contracts before the end of September 2014, per the Minister's February 20, 2014 letter to the OPA and IESO.

Policy and Analysis in collaboration with the IESO and the other OPA divisions supported the formation of 18 recommendations aimed at improving the planning and siting of large electricity infrastructure. In 2014, Policy and Analysis will lead this file for the Electricity Resource division, by coordinating a review of both clean and renewable energy procurements to determine how they might be adjusted to accommodate the recommendations that were made in the planning and siting report.

In the interest of transparency around sector costs, the OPA publishes generation cost information. This cost disclosure information will be part of the OPA's annual energy reporting activities. Policy and Analysis is responsible for collecting, validating and collating the generation cost data required for reporting.

**Funds**

The Community Energy Partnerships Program ("CEPP") and the Aboriginal Energy Partnerships Program ("AEPP") are support programs administered by Policy and Analysis. In the August 16, 2013 directive, the Minister provided the direction that the OPA should continue to deliver these existing support programs. It also directed the OPA to develop a similar program to support municipalities and public sector entities. As a result, the Interim Municipal and Public Sector Energy Partnerships Program was launched in August 2013.

This directive also required that the OPA undertake an evaluation of these programs to improve, streamline and better align them, and to ensure they meet the needs of applicants. The evaluation was also conducted to ensure similar support is available for municipalities and public sector entities through the Municipal and Public Sector Energy

Partnerships Program. The OPA reported back to the Ministry with recommendations on how to improve these programs on January 31, 2014.

In August of 2013, the first call for proposals for the Aboriginal Community Energy Plan program was opened, and proposals were received by the end of November 2013. Proposals are undergoing review and evaluation, with an aim to be complete by March 2014.

In the August 16, 2013 directive, the OPA was instructed to expand the eligibility of the remaining education and capacity building program funding to include Aboriginal communities, municipalities and public sector entities in addition to co-operatives, not-for-profits and registered charities. On December 10, 2013, the OPA launched the Education and Capacity Building Program. Proposals for this program were accepted until February 10, 2014 and the selected initiatives will be implemented this year.

On August 25, 2011, the OPA was directed to establish an Aboriginal Transmission Fund to support Aboriginal communities exploring equity positions in major transmission lines. The program is expected to launch by the end of Q1 2014. The program will begin by supporting Aboriginal partnership development on the East-West Tie and Pickle Lake transmission lines, and will open up to include additional transmission lines on a going forward basis. The program will be fully administered by Policy and Analysis including intake, review and grant management, in collaboration with the OPA's First Nations and Métis Relations group.

The August 16, 2013 directive also noted that the OPA shall transition to the direct administration and management of all support programs. Currently, some components of the Community Energy Partnerships Program are managed by a third-party program manager including intake, application review and grant management processes.

Policy and Analysis also co-manages an online resource for First Nations and Métis communities, the Aboriginal Renewable Energy Network. This website will continue to be maintained throughout 2014.

## 2014 Milestones

By the end of 2014, the OPA will have reached the following milestones:

- made progress in fulfilling government objectives/directives associated with the 2013 LTEP, including:
    - continued procurement of directed targets for renewable energy from wind, solar, bio-energy and hydroelectric generation
    - launched a competitive procurement process for large-scale renewable generation projects
    - negotiated and executed contracts for clean energy generation, including those with non-utility generators
    - launched new processes for improved siting of large-scale energy projects
- implemented system enhancements to support the ongoing evolution of the FIT and microFIT programs
- attracted a diverse range of FIT and microFIT program participants, including First Nation and Métis communities, municipalities and other public sector entities
- completed determination and implementation of contractual needs, as appropriate with respect to the nuclear fleet
- maintained effective project management of contracts, including no OPA default events, on-time and accurate settlements, and the conclusion of required audits
- concluded contract negotiations and amendments where needed with counterparties to provide ratepayer benefits and system reliability
- changes to the external environment that have a material impact on OPA contracts, such as IESO market rule amendments and greenhouse gas regulations, proactively identified, assessed, and responded to where required
- the Community Energy Partnerships Program, Aboriginal Renewable Energy Fund, Aboriginal Community Energy Plan program, Aboriginal Transmission Fund, as well as similar programs to support municipalities and public sector bodies, operational with funding under each program dispersed to grant recipients and project partners.

## 2014 Budget

The table below shows the 2014 budget for the Electricity Resources division by major cost category, the 2011 Board-approved budget and the 2013 actuals, and the variances to the 2014 budget. Analysis of variances is presented in Exhibit D-2-2.

| Goal 3 (Electricity Resources) Variance between 2014 Budget and 2011 Board-approved Budget and variance between 2014 Budget and 2013 Actual ($'000) | | | | | |
|---|---|---|---|---|---|
| **Major Cost Category** | **2011 Budget Board-approved** | **2014 Budget** | **2011-2014 Variance** | **2013 Actual** | **2013-2014 Variance** |
| Compensation & Benefits | 5,937 | 7,911 | 1,974 | 8,784 | (873) |
| Professional & Consulting Fees | 4,970 | 6,849 | 1,879 | 4,138 | 2,711 |
| Operating & Administration Expenses | 265 | 268 | 3 | 263 | 5 |
| **Total Operating Costs Before Allocation** | **11,172** | **15,028** | **3,856** | **13,185** | **1,843** |
| Shared Services Allocated Expenses | 9,389 | 9,634 | 244 | 10,460 | (826) |
| **Total Operating Costs After Allocation** | **20,561** | **24,662** | **4,100** | **23,645** | **1,017** |

## 2011-2013 Results

### Procurement of Clean Energy Resources

By the end of 2012, Clean Energy Procurement concluded all negotiations with OPG in respect of the Lennox Generating Station ("Lennox GS"). In prior years, there were a series of shorter term agreements for the Lennox facility that allowed continued use of Lennox GS as a reliability resource, available to the electricity system when needed. In December 2012, a longer-term supply agreement was executed which provides value to ratepayers while still ensuring that Lennox GS continues to be a low-cost resource to the Ontario electricity system.

In addition, Clean Energy Procurement engaged in negotiations with OPG on a number of other resources that contribute to the reliability, adequacy and operability of Ontario's electricity system, including specific regions, such as Northwestern Ontario. On August 26, 2010, the OPA received a directive to negotiate a long-term contract with OPG for the conversion of the Atikokan Generating Station ("Atikokan GS") to biomass and to operate using biomass supply from Ontario. Clean Energy Procurement concluded negotiations with OPG on Atikokan GS in July 2012. This, along with the expansion of the East-West Tie transmission line, will help to ensure the electricity needs for the Northwest continued to be met.

Clean Energy Procurement developed and implemented the Industrial Electricity Incentive program in late 2012 to allow new and expanding industrial companies to benefit from the province's energy supply. The program has two streams: Stream 1 for large loads and new entrants into Ontario making a minimum investment of $250 million, and Stream 2 for

companies that have established operations in Ontario that will be adding incremental load of a minimum 7,000 MWh per year. The first application periods for Stream 1 and 2 were opened to applicants in December 2012 and April 2013, respectively. The OPA concluded the evaluation of applications for both streams by the end of 2013 and moved to the contract offering phase. Stream 2 resulted in five contracts executed representing approximately 1 TWh of annual incremental energy consumption. No contracts were awarded through the Stream 1 process.

In response to the November 26, 2010 ministerial directive Clean Energy Procurement designed the contract, RFP, stakeholder materials and sessions for the launch of the CHP IV procurement process, targeting combined heat and power ("CHP") projects greater than 20 MW. The RFP was launched on May 10, 2011. In-person stakeholder sessions were conducted on June 7, 2011 and stakeholder input was received through a series of online question and answer sessions. One-on-one individual stakeholder sessions were also held, gaining insight from proponents on their projects and the CHP IV process. The OPA received proposals in response to the CHP IV RFP on September 1, 2011. Clean Energy Procurement evaluated the proposals but did not award any contracts at the end of the process. After the close of the CHP IV RFP process, the group commenced discussions with proponents in the process to determine if the projects could be improved to meet OPA requirements ensuring high quality cogeneration projects and providing value to ratepayers. These discussions concluded early in 2012 without any contracts being awarded.

Further to the ministerial directive of November 23, 2010, related to non-utility generators, Clean Energy Procurement recommenced negotiations in the spring of 2013 after the initiative was placed under review in the summer of 2012. In August 2013, the OPA signed an agreement for a new contract with TransAlta for their Ottawa natural gas-fired facility. This facility provides both electricity to the provincial grid as well as steam, hot water and chilled water to the Ottawa Health Sciences Centre. Under the new agreement with the OPA, the plant is dispatchable in the IESO market. The new agreement is for 20 years and was effective January 2014. Clean Energy Procurement is continuing negotiations with

other NUG parties and will only sign contracts with facilities that provide appropriate value for ratepayers.

Further to a ministerial directive of November 23, 2010 to procure CHP projects, the OPA has standard offer programs for Combined Heat and Power facilities and Energy Recovery projects (respectively “CHPSOP” and “ERSOP”, collectively known as Clean Energy Standard Offer Programs “CESOP”). Two CHPSOP contracts, totaling 6 MW, were awarded in 2011 before the CESOP initiative was placed under review. The CESOP initiative was under review throughout 2012 and the beginning of 2013. The decision resulting from the review process was to move forward with contracting any remaining launch period applications and terminating all “second tranche” applications. This has resulted in three additional CHPSOP contracts being awarded totalling 14.4 MW. The OPA is in the process of completing the contracting process for the two remaining launch period applications representing an additional 4 MW.

On August 19, 2011 the OPA received a directive to negotiate electricity supply agreements with Energy from Waste facilities that, in addition to other conditions, have satisfactorily participated in the Ministry of the Environment's Pilot or Demonstration Project Initiative. Clean Energy Procurement commenced the design of the process in 2011 and has since initiated and concluded negotiations that resulted in contracts for two projects totaling approximately 12 MW. The potential remains for discussions with additional eligible projects as they emerge.

**Procurement of Renewable Energy Resources**

Since the launch of the FIT program in October 2009, over 16,000 FIT program applications have been received, with a combined capacity of approximately 22,500 MW. Approximately 4,600 MW of FIT contracts having been offered by the OPA as of December 2013. The microFIT program has received approximately 66,000 applications to date, representing approximately 615 MW that has resulted in just over 18,000 contracts totalling 159 MW. The majority of the applications received under the microFIT program are for roof-top solar photovoltaic projects.

The first mandatory two-year FIT program review was announced on October 31, 2011. Following issuance of the program review report, the OPA was directed on April 5, 2012 to re-launch the program. The OPA's draft microFIT and FIT rules and contracts were reviewed by stakeholders and improvements were made as needed by Renewables Procurement. Version 2.0 of the microFIT program was successfully launched on July 12, 2012, following a second ministerial directive on July 11, 2012. Further directives were issued to the OPA on November 23, 2012 and December 11, 2012 that followed the Ministry's review and consideration of the Land Use Working Group's recommendations related to ground-mounted solar photovoltaic projects on rural lands with multiple primary uses and rural lands that abut residential uses, as well as further policy refinement.

Pursuant to the ministerial directions of April 5, 2012, July 11, 2012, November 23, 2012, and December 11, 2012, the OPA launched the FIT 2.0 program on December 14, 2012. A total of 951 contracts were awarded as result of FIT 2.0, for a total of 146.5 MW. Based on the ministerial direction issued June 12, 2013, Renewables Procurement opened a FIT 3 application period in November 2013. It closed on December 13, 2013 with 1,982 applications received representing 493 MW. It is expected that the OPA will award up to 123.5 MW of contracts as a result of these applications. Further procurement of renewable energy took place based on direction received by the OPA on April 1, 2010 with respect to the government's GEIA with the Korean Consortium. Based on this, contracts have been executed for approximately 870 MW of wind power and 200 MW of solar power in 2011.

The June 12, 2013 directive included a requirement for the OPA to develop a new competitive procurement process for large renewable projects that considers input from stakeholders, municipalities, and Aboriginal communities to help identify appropriate locations and siting requirements for these projects. In the summer 2013, the OPA reached out to these groups and others to solicit input into what a new competitive process should look like. This feedback was consolidated, along with a review of procurement practices in other jurisdictions and lessons learned from previous OPA procurement activities. The OPA provided a report to the Minister on August 30, 2013 entitled:

*Development of a New Large Renewable Procurement Process – Initial Engagement Feedback and Interim Recommendations*, which was subsequently posted on the OPA's website in September 2013. This report provided recommendations for the Minister of Energy to consider in procuring for large renewable resources. Based on this, the OPA received direction from the Minister to engage in further consultation in the development of a large renewable procurement process.

As part of the province's commitment to increase Ontario's supply of clean, renewable generation, the Renewables Procurement group has been entering into new contracts with existing hydroelectric facilities under HCI in accordance with the May 7, 2009 directive. Since January 2010, over 1,000 MW of capacity has been contracted, representing 78 facilities. As the program encouraged project development and investment in advance of an OPA contract, the OPA worked with applicants who felt they were eligible under the original program guidelines. Following a review of project development materials, the OPA advised six applicants representing 11 projects that they would remain eligible to complete their expansions under the original program guidelines.

**Management and Settlement of Contracts**

As of Q4 2013, the OPA had approximately 22,500 MW of electricity supply capacity under contract. This includes over 10,500 MW of renewable energy, over 8,800 MW of clean energy and 3,000 MW of nuclear energy. Of the overall total, over 15,900 MW is in commercial operation. The remaining capacity is either under development or construction. This represents over 21,000 contracts, including over 18,000 microFIT contracts, over 2,600 FIT contracts, and 127 RESOP contracts, as well as 94 contracts for energy supply from transmission-connected renewable energy, clean energy and nuclear energy facilities.

Financial settlements continue to increase on a year-over-year basis, but remain settled on time and with a high level of accuracy; since 2011, settlements have achieved a level of 99.9% or greater accuracy. In 2011 there were 620 statements/invoices processed with a value of approximately $2.25 billion; and in 2012 there were 660 statements/invoices processed with a value of approximately $2.6 billion. As of the end of December 2013, the

OPA had processed approximately 729 settlement statements/invoices resulting in about $3.5 billion in total payments to suppliers. These payments were for the January 2013 to December 2013 settlement months.

Contract Management had no uncured events of default from 2011-2013 as a result of OPA's failure to perform any material covenant or obligation as set out in the contracts.

In 2013, the OPA continued to improve its contract management and settlement processes to handle higher volumes more efficiently and to continue to provide value to Ontario ratepayers. An MS-SharePoint solution was implemented to enhance workflow capabilities and security. This solution addresses the needs of the OPA in meeting its ongoing monthly settlement obligations with contract counterparties and also provides the flexibility required to meet future needs.

Over the last three years, Electricity Resources continued to manage the existing BPRIA and supported assessments required for decision makers related to potential future nuclear refurbishments. As of October 2012, when Bruce A Units 1 and 2 were restarted and achieved commercial operation, the OPA has had 3,000 MW of nuclear energy supply capacity under contract and in commercial operation with the Bruce A facility.

In July 2012, the OPA reached an agreement with Greenfield South Power Corporation to relocate its 300 MW natural gas-fired power plant from Mississauga to the Sarnia area. Also in 2012, the OPA reached an agreement with TransCanada Corporation to relocate its 900 MW natural gas-fired power plant from Oakville to a site at OPG's Lennox GS in eastern Ontario.

With the FIT program, Ontario is incorporating a larger amount of intermittent resources into the existing system. Increasing amounts of wind and solar generators in the system bring some new challenges to system operation due to their variable output, unpredictability, and lack of visibility. The sector has been working collaboratively on a number of initiatives to address these challenges. In 2012 and 2013, the OPA engaged with renewable energy suppliers to address generator concerns about the alignment of the

contracts with the market rule amendments that came into force on September 11, 2013. Agreements were made with counterparties to wind generation contracts that were subject to these new market rules. All together, contract amendments were made to 43 contracts totaling over 4,500 MW of capacity.

The OPA continues to monitor the progress of the six Korean Consortium contracts entered into in August 2011. These consist of four wind energy projects totaling approximately 870 MW of capacity and 200 MW of ground-mount solar projects. Notice to Proceed was issued for two wind projects in 2013, and the remaining projects are in various stages of development. The OPA also concluded agreements with three of the four wind energy projects to address the market rule amendment that came into force on September 11, 2013.

A number of wind energy projects have experienced delays associated with their Renewable Energy Approvals being appealed to the Environmental Review Tribunal. The OPA has worked with the developers of these projects to grant relief in the form of extensions to the milestone dates for commercial operation if the developers agree to cease specified site preparation and construction activities.

The OPA is mindful of the important role that LDCs play in administering the microFIT program. In 2011, the OPA conducted two LDC engagement sessions by web-enabled teleconference, along with one in-person meeting, to explain the microFIT program from the perspective of contract management. In the last web-enabled teleconference, members of the OPA's Renewables Procurement group participated to field any application-related questions from the LDCs. During these sessions, the OPA explained how LDCs could fulfill their obligations under the Retail Settlement Code to make contract payments to microFIT contract counterparties. The OPA also explained some of the more common contract management processes that are typical of microFIT contracts. The OPA has established a dedicated LDC e-mail account for LDCs to use to communicate directly to OPA Contract Management and Procurement staff.

As part of the OPA's ongoing due diligence related to the FIT program, in 2013 the OPA audited compliance of FIT contracts that reached commercial operation as of December 31, 2012. In all, 67 FIT contracts were randomly selected to assess compliance with respect to the minimum required domestic content level. The OPA also conducted 67 on-site verification audits of suppliers for specific FIT contract parameters. The audit found no evidence of events of default at any of the facilities audited.

**Analysis of Sector, Policy and Contractual Issues**

The Policy and Analysis group actively monitors and assesses market and policy developments while working closely with other industry participants and stakeholders. Over the past few years, there have been several initiatives that Policy and Analysis has monitored to assess and respond to if needed. The most significant has been the IESO's initiative to integrate renewable generators into the market including dispatching them when required. To dispatch these facilities, the IESO needed to implement Market Rule changes. In order to ensure the contracts are effectively aligned with these changes, the OPA amended over 45 renewable generation contracts. Policy and Analysis worked closely with the IESO and contract counterparties as these rules were being developed, and conducted assessments of the implications on contracts. Working closely with Contract Management, Policy and Analysis assisted in the negotiations with contract counterparties once the form and structure of the Market Rules were finalized.

Policy and Analysis has also been the lead group in the Electricity Resources division responsible for the disclosure of generation costs. In an effort to respond to calls for increased transparency around the OPA contract costs, the OPA released generation cost data in September 2013. Policy and Analysis was responsible for collecting, validating and collating the costs data required for OPA's annual energy reporting and providing it in a manner that is consistent with methodologies used by other OPA divisions.

In 2011, the IESO created a forum to address the future role and development of the IESO market. The OPA, through the Policy and Analysis group participated in this forum. The final report from the forum was released in December 2011.

As part of continuous market and policy changes regionally and globally, Policy and Analysis is responsible for broader assessment of future procurement and contracting evolution. Such assessments included analysis of best practices for large scale renewable generation procurement and future evolution of nuclear contracting. As the counterparty to the contract with Bruce Power, the largest public-private partnership agreement in Canada, the OPA pays special attention to current and future contractual matters arising from this agreement. In 2013, Policy and Analysis worked with Contract Management to analyze issues arising from the BPRIA.

On May 6, 2013, the Minister of Energy asked the OPA and the IESO to provide recommendations for a new integrated regional planning process that would focus on improving how large energy projects are sited in Ontario. Policy and Analysis participated in this consultation process as a member of the working group along with others from the OPA's Conservation and PSP divisions, and the IESO. This entailed reviewing both past procurements and best practices from other jurisdictions to determine how the current process could be improved. This work also assisted Renewables Procurement in recommendations related to future large renewable procurements.

Policy and Analysis has, and continues to, closely monitor carbon mitigation and climate change policies. This is achieved through actively tracking climate change news and participating in discussions regarding policy developments in Ontario and other jurisdictions. In January 2013, the Ontario government released a discussion paper entitled *Greenhouse Gas Emissions in Ontario*. Following the release of this paper, the OPA worked closely with the Ministry of the Environment to analyze the benefits and costs of potential GHG programs with respect to the electricity sector. The OPA participated in electricity sector stakeholder sessions with respect to the proposed GHG program.

The OPA retains all environmental attributes created from renewable energy supply contracts and conservation activities. Policy and Analysis has also been continuously monitoring all issues related to environmental attributes, including a previously

contemplated sale. Most recent analysis indicates that the OPA should continue to retain these attributes and retire them on behalf of consumers.

On September 24, 2009, the Minister of Energy directed the OPA to develop specific support programs for co-operatives and Aboriginal communities to encourage their involvement in renewable energy project development. Two funding programs were developed in response to this directive - the Community Energy Partnerships Program ("CEPP") and the Aboriginal Renewable Energy Fund ("AREF"). Both are now in their fourth year of operation. In 2012, the OPA worked with the Ministry of Energy to redesign these programs to ensure their continued alignment with the FIT program. No applications were processed while these reviews and the broader FIT review were underway. Both programs were re-launched in December 2012.

The CEPP provides financial grants to Ontario community groups pursuing the development of renewable energy projects greater than 10 kW in size. Depending on the size of the project, eligible applicants may receive up to $500,000 per project for soft costs such as resource assessments, engineering designs and studies required for a renewable energy approval or other approval requirements. As of December 2013, the CEPP has approved $10.6 million in funding to 197 renewable energy projects across the province.

To align with the eligibility under the FIT program, the eligibility for CEPP Version 2.0, which launched in December 2012, changed from not-for-profits, charities, co-ops, farmers and one or more Ontarians, to co-ops only. In June 2013, the CEPP also stopped accepting applications for projects with an intended capacity of more than 500 kW that do not have existing FIT contracts, to align with the removal of large projects from the FIT program. As such, the maximum funding available for projects between 10 kW and 500 kW in size with a FIT contract has been reduced to $100,000 per project. Projects greater than 500 kW in size with FIT contracts signed on or before December 13, 2012, may still receive up to $500,000 per project. In addition, under Version 2.2 of the CEPP, the application process for the Pre-FIT Organizational Development Stream was modified so that co-ops

could apply for multiple projects in a single application to reflect the fact that many projects, particularly solar projects, are developed as portfolios.

The program management structure of the CEPP was revised in 2012 from a joint third-party program manager structure to a single third-party program manager. To date, the OPA has assumed the responsibility of the education and capacity building grants program, formerly a funding component of the CEPP, and has also taken over the administration of the CEPP website.

In December 2013, the OPA launched the Education and Capacity Building program, in accordance with the Minister of Energy's August 16, 2013 directive to allocate up to $1 million in funding for education and capacity building initiatives for Aboriginal communities, co-operatives, municipalities and public sector entities. The ECB program launched on December 10, 2013 and proposals were accepted until February 10, 2014. Once the successful proposals are selected, the initiatives will be implemented throughout 2014.

The Aboriginal Energy Partnerships Program aims to address some of the barriers Aboriginal communities may face in participating in Ontario's electricity sector.

The Aboriginal Renewable Energy Fund, is a component of the Aboriginal Energy Partnerships Program, and is similar to the CEPP. The AREF provides funding to First Nations and Métis communities for development costs associated with renewable energy projects greater than 10 kW in size. Depending on the size of the project, eligible applicants may receive up to $500,000 per project for costs such as resource assessments, engineering designs and studies required for a renewable energy approval or other approval requirements. As of December 2013, 77 proposed renewable energy projects, representing 49 communities have been approved for funding totaling over $7.8 million in committed funding.

In June 2013, the AREF stopped accepting applications for projects with an intended capacity of more than 500 kW that do not have existing FIT Contracts, to align with the

removal of large projects from the FIT Program. As such, the maximum funding available for projects with FIT Contracts between 10 and 500 kW in size has been reduced to $100,000 per project. Projects greater than 500 kW in size with FIT Contracts signed on or before December 13, 2012, may still receive up to $500,000 per project. In addition, under Version 2.2 of the AREF program, the application process for the Organizational Development and Partnership Streams (Pre-FIT funding) was modified so that communities could apply for multiple projects in a single application to reflect the fact that many projects, particularly solar projects, are developed as portfolios.

Policy and Analysis is responsible for the administration of the AREF, including application intake, review, payments and grant management. Policy and Analysis works in collaboration with the OPA's First Nations and Métis Relations group to ensure stakeholder opportunities are explored, strong relationships are built, and issues are managed in a consistent manner.

In 2012 and 2013, the OPA worked closely with the Ministry of Energy to examine options to revise the Aboriginal Community Energy Plan program to better meet the needs of communities. The revised program was re-launched in August 2013. The ACEP program is a proposal-based program that provides funding for First Nations and Métis communities in Ontario to develop a plan for electricity use by looking at the community's current consumption, forecasting future need and by exploring options for conservation and small-scale renewable energy generation. The program accepted applications up to November 29, 2013 and the successful selected communities will begin work on their energy plans throughout 2014. The program received considerable interest and the OPA expects to launch another ACEP call for proposals in 2014.

In September 2013, the OPA also launched the Interim Municipal and Public Sector Energy Partnerships Program ("MPSEPP"). The Interim MPSEPP is similar to the pre-FIT funding support for AREF and CEPP. Funding under the Interim MPSEPP is limited to costs related to independent legal, technical and financial due diligence associated with developing and instituting the organizational structure that will own the FIT project and/or

the costs associated with due diligence to assess whether the applicant should enter into a business partnership with a project partner. Proposals were accepted until November 12, 2013.

In August 2013, the OPA was directed to undertake an evaluation process to identify opportunities to improve, streamline and better align the support programs and report back to the Minister with recommendations by January 31, 2014. In order to undertake the program evaluation, the OPA competitively procured a third party to assist in soliciting feedback, evaluating the success of the Support Programs (CEPP, AREF and Interim MPSEPP), and developing recommendations for the evolution of the programs. In its review, the OPA engaged community stakeholders, Aboriginal and municipal stakeholders, as well as public sector entities. The OPA also took other feedback into account from a variety of sources such as the CEPP internal audit, and review committees. The OPA's recommendation report is now with the Ministry of Energy for consideration.

# Appendix A: OPA – Contract Management group-managed contracts

## 1. Contracts in Commercial Operation

| Renewable Energy – Hydroelectricity | | | |
|---|---|---|---|
| Contract Facility | Average Contract Capacity (MW) | Term Commencement Date | Settlement |
| Andrews Generating Station | 47.0 | 1-Dec-09 | √ |
| Appleton Eco Power Centre | 1.4 | 1-Jan-11 | |
| Aubrey Falls Generating Station | 162.0 | 1-Dec-09 | √ |
| Ayton Mills NUGS | 0.3 | 1-Apr-13 | |
| Barrie Small Hydro Limited | 0.1 | 17-Jul-10 | |
| Bracebridge Falls Generating Station | 2.6 | 1-May-10 | |
| Brewers Mills | 0.9 | 1-May-10 | |
| Burk's Falls | 1.1 | 1-May-10 | |
| Calm Lake Generating Station | 9.0 | 1-Dec-09 | √ |
| Campbellford-Seymour Electric Generation Inc. – Plant No. 1 | 2.0 | 1-Jan-10 | |
| Casselman Generating Station | 0.5 | 1-Nov-11 | |
| Chaudiere No. 2. Generating Station | 8.4 | 1-Apr-10 | |
| Chaudiere No. 4 Generating Station | 9.3 | 1-Apr-10 | |
| Clergue Generating Station | 52.0 | 1-Dec-09 | √ |
| Conestogo Dam Generating Station | 0.6 | 1-Jan-13 | |
| Current River Hydro | 0.5 | 1-Mar-10 | |
| Devil's Gap Generating Station | 0.5 | 1-Jun-10 | |
| Domtar, Espanola Mill | 18.0 | 1-Jan-12 | √ |
| Drag River GS | 0.3 | 11-Mar-13 | |
| Dunford Generating Station | 45.0 | 1-Dec-09 | √ |
| Enerdu Power Systems Ltd. | 0.3 | 1-Mar-11 | |
| Fort Frances Generating Station | 10.0 | 1-Dec-09 | √ |
| Galetta Eco Power Centre | 1.6 | 1-Jan-11 | |
| Gananoque | 0.7 | 1-May-10 | |
| Gartshore Generating Station | 23.0 | 1-Dec-09 | √ |

| Renewable Energy – Hydroelectricity | | | |
|---|---|---|---|
| Contract Facility | Average Contract Capacity (MW) | Term Commencement Date | Settlement |
| Glen Miller Generating Station | 8.0 | 19-Dec-05 | √ |
| Harmon Generating Station | 141.0 | 22-Jun-10 | |
| Harris Generating Station | 12.0 | 1-Dec-09 | √ |
| Healey Falls Generating Station | 15.7 | 7-Apr-10 | √ |
| Heywood Generating Station | 7.2 | 1-Jan-10 | |
| High Falls Generating Station #1 | 0.8 | 1-Oct-10 | |
| Hogg Generating Station | 18.0 | 1-Dec-09 | √ |
| Hollingsworth Generating Station | 23.0 | 1-Dec-09 | √ |
| Hound Chute Generating Station | 9.5 | 27-Oct-10 | √ |
| Hurdman Dam | 0.6 | 1-Jun-11 | |
| Iroquois Falls Generating Station | 29.0 | 1-Dec-09 | √ |
| Island Falls Generating Station | 38.0 | 1-Dec-09 | √ |
| Jones Falls | 2.4 | 1-May-10 | |
| Kagawong Generating Station | 0.8 | 1-Jan-10 | |
| Kenora Generating Station | 6.0 | 1-Dec-09 | √ |
| Kingston Mills | 1.9 | 1-May-10 | |
| Kipling Generating Station | 157.0 | 22-Jun-10 | |
| Lac Seul/Ear Falls Generating Station | 29.3 | 18-Feb-09 | √ |
| Little Burgess Generating Station | 0.2 | 1-Aug-13 | |
| Little Long Generating Station | 133.0 | 22-Jun-10 | |
| London Street Generating Station | 4.1 | 1-Jan-10 | |
| Long Slide GS | 0.7 | 1-Mar-13 | |
| Lower Sturgeon Generating Station | 14.0 | 27-Oct-10 | √ |
| MacKay Generating Station | 62.0 | 1-Dec-09 | √ |
| Maple Hill | 0.6 | 1-Dec-10 | |
| Marmora GS | 1.0 | 28-Jul-13 | |

| Renewable Energy – Hydroelectricity | | | |
|---|---|---|---|
| Contract Facility | Average Contract Capacity (MW) | Term Commencement Date | Settlement |
| Matthias Generating Station | 3.0 | 1-Jan-10 | |
| McPhail Generating Station | 13.0 | 1-Dec-09 | √ |
| Minden Generating Station | 4.0 | 1-Jan-10 | |
| Mission Generating Station | 16.0 | 1-Dec-09 | √ |
| Moose Rapids Generating Station | 1.4 | 1-Jan-11 | |
| Norman Generating Station | 10.0 | 1-Dec-09 | √ |
| Parry Sound PowerGen Corporation – Cascade Street Generating Station | 1.2 | 1-Mar-10 | |
| Rayner Generating Station | 46.0 | 1-Dec-09 | √ |
| Red Rock Falls Generating Station | 41.0 | 1-Dec-09 | √ |
| Renfrew Power Generation Inc. – Lower Plant | 1.0 | 1-Jan-10 | |
| Renfrew Power Generation Inc. – Upper Plant | 1.0 | 1-Jan-10 | |
| Rideau Falls | 2.0 | 1-May-10 | |
| Sandy Falls Generating Station | 5.5 | 27-Oct-10 | √ |
| Saugeen Generating Station | 0.3 | 1-Aug-12 | |
| Scone Generator | 0.1 | 1-Jan-10 | |
| Scott Falls Generating Station | 22.0 | 1-Dec-09 | √ |
| Shand Dam Generating Station | 0.7 | 1-Sep-10 | |
| Smoky Falls Generating Station [1] | 53.0 | 22-Jun-10 | |
| Stanley Adamson Powerhouse | 3.9 | 16-Jun-13 | |
| Steephill Generating Station | 16.0 | 1-Dec-09 | √ |
| Stewart Generating Station | 0.2 | 5-Jun-10 | |
| Sturgeon Falls Generating Station | 7.0 | 1-Dec-09 | √ |
| Swift Rapids Generating Station | 7.9 | 1-Jan-10 | |
| Tembec, Smooth Rock Falls Facilities | 8.0 | 14-Mar-10 | √ |
| Truisler Chute Generating Station | 0.6 | 1-Jun-11 | |

[1] The existing Smoky Falls Generating Station with a capacity of 53 MW will be decommissioned in January 2015

| Renewable Energy – Hydroelectricity | | | |
|---|---|---|---|
| Contract Facility | Average Contract Capacity (MW) | Term Commencement Date | Settlement |
| Tweed Generating Station | 0.2 | 1-Nov-10 | |
| Twin Falls Generating Station | 22.0 | 1-Dec-09 | √ |
| Umbata Falls Generating Station | 23.0 | 12-Nov-08 | √ |
| Washburn | 0.2 | 1-May-10 | |
| Water Street Pumphouse | 1.3 | 1-Mar-13 | |
| Wawaitin Generating Station | 15.0 | 27-Oct-10 | √ |
| Wells Generating Station | 239.0 | 1-Dec-09 | √ |
| West Nipissing Power Generation | 6.5 | 1-Mar-10 | |
| Wilson's Falls | 2.9 | 1-May-10 | |
| York River Generating Station | 0.6 | 1-Sep-13 | |
| 635294 Ontario Inc. | 0.5 | 1-Feb-10 | |
| 1149377 Ontario Limited | 2.3 | 1-Jan-10 | |
| **Subtotal** | **1691** | | |

1

| Renewable Energy – Wind | | | |
|---|---|---|---|
| Contract Facility | Average Contract Capacity (MW) | Term Commencement Date | Settlement |
| Enbridge Ontario Wind Farm | 181.5 | 19-Feb-09 | √ |
| Erie Shores Wind Farm | 99.0 | 24-May-06 | √ |
| Gosfield Wind Project | 50.6 | 16-Sep-10 | √ |
| Greenwich Wind Farm | 98.9 | 14-Oct-11 | √ |
| Kingsbridge I Wind Power Project | 39.6 | 16-Mar-06 | √ |
| Kruger Energy Chatham Wind Project | 99.4 | 1-Jan-11 | √ |
| Kruger Energy Port Alma Wind Power Project | 101.2 | 31-Oct-08 | √ |
| Melancthon I Wind Plant | 67.5 | 4-Mar-06 | √ |
| Melancthon II Wind Plant | 132.0 | 24-Nov-08 | √ |
| Prince I Wind Power Project | 99.0 | 21-Sep-06 | √ |

| Renewable Energy – Wind | | | |
|---|---|---|---|
| **Contract Facility** | **Average Contract Capacity (MW)** | **Term Commencement Date** | **Settlement** |
| Prince II Wind Power Project | 90.0 | 19-Nov-06 | √ |
| Raleigh Wind Energy Centre | 78.0 | 29-Jan-11 | √ |
| Ripley Wind Power Project | 76.0 | 22-Dec-07 | √ |
| Talbot Wind Farm | 98.9 | 16-Dec-10 | √ |
| Wolfe Island Wind Project | 197.8 | 26-Jun-09 | √ |
| **Subtotal** | **1509** | | |

1

| Renewable Energy – Bioenergy | | | |
|---|---|---|---|
| **Contract Facility** | **Average Contract Capacity (MW)** | **Term Commencement Date** | **Settlement** |
| Eastview Landfill Gas Energy Plant | 1.7 | 18-Aug-05 | √ |
| Hamilton (Digester Gas) Cogeneration Project | 1.6 | 10-Jul-06 | √ |
| Trail Road Landfill Generating Facility | 6.0 | 31-Jan-07 | √ |
| Thunder Bay Condensing Turbine Project | 40.0 | 20-Mar-13 | √ |
| **Subtotal** | **49** | | |

| | |
|---|---|
| **Total Renewable Energy** | **3,249** |

2

1

| Clean Energy - Simple/Combined Cycle | | | |
|---|---|---|---|
| **Contract Facility** | **Average Contract Capacity (MW)** | **Term Commencement Date** | **Settlement** |
| Brighton Beach Power Station | 541.3 | 1-Jan-06 | √ |
| Goreway Station | 839.1 | 4-Jun-09 | √ |
| Greenfield Energy Centre | 1,005.0 | 16-Oct-08 | √ |
| GTAA Cogeneration Plant | 90.0 | 1-Feb-06 | √ |
| Halton Hills Generating Station | 641.5 | 1-Sep-10 | √ |
| Lennox Generating Station | 2,000.0 | 1-Jan-13 | √ |
| Ottawa Health Science Centre | 73.7 | 1-Jan-14 | √ |
| Portlands Energy Centre | 550.0 | 22-Apr-09 | √ |
| Sarnia Regional Cogeneration Plant | 444.0 | 1-Jan-06 | √ |
| St. Clair Energy Centre | 577.0 | 30-Mar-09 | √ |
| Sudbury District Energy Cogeneration Plant | 5.0 | 1-Jan-06 | √ |
| Sudbury District Energy, Hospital Cogeneration | 6.7 | 1-Jan-06 | √ |
| Trent Valley Cogeneration Plant | 6.7 | 1-Jan-06 | √ |
| York Energy Centre | 393.0 | 9-May-12 | √ |
| **Subtotal** | **7,173** | | |

2

| Clean Energy - Combined Heat and Power | | | |
|---|---|---|---|
| **Contract Facility** | **Average Contract Capacity (MW)** | **Term Commencement Date** | **Settlement** |
| Durham College District Energy Project | 2.3 | 11-Mar-08 | √ |
| East Windsor Cogeneration | 84.0 | 6-Nov-09 | √ |
| Essar Cogeneration Facility | 63.0 | 13-Jun-09 | √ |
| Great Northern Tri-Gen Facility | 11.3 | 31-Oct-08 | √ |
| London Cogeneration Facility | 12.0 | 31-Dec-08 | √ |
| Thorold Cogen | 236.4 | 28-Mar-10 | √ |
| Warden Energy Centre | 5.0 | 4-Jun-08 | √ |

| Clean Energy - Combined Heat and Power | | | |
|---|---|---|---|
| **Contract Facility** | **Average Contract Capacity (MW)** | **Term Commencement Date** | **Settlement** |
| Villa Colombo Vaughan | 0.2 | 1-Aug-13 | √ |
| **Subtotal** | **414** | | |
| **Total Clean Energy** | **7,587** | | |

1

| Energy-from-Waste | | | |
|---|---|---|---|
| **Contract Facility** | **Average Contract Capacity (MW)** | **Term Commencement Date** | **Settlement** |
| Plasco Trail Road Facility | 2.8 | 1-Jan-08 | |
| **Total Energy-from-Waste** | **2.8** | | |

| Nuclear | | | |
|---|---|---|---|
| **Contract Facility** | **Average Contract Capacity (MW)** | **Term Commencement Date** | **Settlement** |
| Bruce Power | 3000.0 | 31-Oct-05 | √ |
| **Total Nuclear** | **3,000** | | |
| **TOTAL in Commercial Operation** | **13,839** | | |

2

## 2. Contracts under Development

| Energy Source | | Contract Facility | Average Contract Capacity (MW) |
|---|---|---|---|
| Renewable Energy | Hydroelectricity | Harmon Generating Station ( Expansion and Runner Upgrade) | 95.6 |
| | | Yellow Falls Hydroelectric Project | 16.0 |
| | | Kipling Generating Station | 78.0 |
| | | Little Long Generating Station (Expansion and Runner Upgrade) | 74.5 |
| | | Smoky Falls Generating Station | 267.9 |
| | | Thomas Low Generating Station | 1.5 |
| | | Twin Falls Generating Station | 5.0 |
| | Wind | Armow Wind Project | 180.0 |
| | | Grand Renewable Energy Park | 148.6 |
| | | K2 | 270.0 |
| | | South Kent Wind Project | 270.0 |
| | Bioenergy | Atikokan Generating Station | 205.0 |
| | | Becker Cogeneration Plant | 8.0 |
| | Solar | Grand Renewable Energy Park | 100.0 |
| | | Sol-Luce Kingston solar Energy Project | 100.0 |
| Clean Energy | Combined Heat and Power | Birchmount Energy Centre | 2.6 |
| | | Bur Oak Energy Centre | 3.3 |
| | | Rosa Flora Growers | 4.0 |

| Energy Source | | Contract Facility | Average Contract Capacity (MW) |
|---|---|---|---|
| | Simple/ Combined Cycle | Green Electron Power Plant | 289.0 |
| | Simple/ Combined Cycle | Napanee Generating Station | 900.0 |
| | Energy From Waste | Elementa Algoma | 9.5 |
| | Energy From Waste | Durham York Energy Centre | 20.0 |
| Nuclear Energy | Nuclear | | 0.0 |
| | **TOTAL** | | **3,048** |

| 3. FIT, microFIT and RESOP Contracts | | | |
|---|---|---|---|
| Energy Source | Contract Facility | MW Under Development | MW in Commercial Operation |
| RESOP (830 MW) | Bio-Energy | 4.0 | 39.7 |
| | Hydroelectricity | 0.0 | 28.2 |
| | Solar PV | 8.5 | 465.2 |
| | Wind | 15.5 | 269.4 |
| FIT (4624 MW) | Bio-Energy | 39.4 | 22.6 |
| | Hydroelectricity | 163.5 | 22.0 |
| | Solar PV | 911.3 | 394.8 |
| | Wind | 2,362.5 | 707.7 |
| microFIT (159 MW) | Total 18,265 microFIT Contracts | | 158.7 |
| **Totals** | | **3,505** | **2,108** |

Notes
1. Some contracts have more than one facility.
2. The OPA only settles transmission-connected facilities; non-transmission connected facilities are settled by LDCs.

1

# GOAL 4

**Develop and maintain organizational capacity and be recognized as a partner in achieving the 2014-2016 goals.**

The internal service groups of the OPA provide decision support and act as strategic business partners with other business units in the organization. Their main objective is to provide the OPA with support and guidance to fulfill its mandate. The strategic initiatives for each of these groups are discussed below. The OPA's internal service groups are organized into the CEO's Office, the Business Strategies and Solutions division (which includes the Finance, Information Technology, Planning and Reporting/Office and Facility Services, and Human Resources groups) and the Legal, Aboriginal and Regulatory Affairs division.

The divisions that perform this strategic function, and their respective budgets, are provided in Table 1:

Table 1

**Goal 4 (CEO Office; Business Strategies and Solutions; and Legal, Aboriginal and Regulatory Affairs)**
**Variance between 2014 Budget and 2011 Board-approved Budget and variance between 2014 Budget and 2013 Actual**
**($'000)**

| Division | 2011 Budget Board-approved | 2014 Budget | 2011-2014 Variance | 2013 Actual | 2013-2014 Variance |
|---|---|---|---|---|---|
| CEO Office | 811 | 852 | 41 | 872 | (20) |
| Business Strategies and Solutions | 13,669 | 16,807 | 3,138 | 18,434 | (1,627) |
| Legal, Aboriginal and Regulatory Affairs | 10,173 | 6,918 | (3,255) | 7,223 | (305) |
| **Total Operating Costs** | **24,653** | **24,577** | **(76)** | **26,529** | **(1,952)** |

## 1. CEO OFFICE

The office of the CEO provides leadership and guidance to the organization in formulating and accomplishing its goals. In this capacity, the CEO is responsible for representing the OPA's position to the Ministry of Energy, industry participants and other stakeholders through speaking engagements and active participation in meetings and public forums.

## 2014 Budget

Table 2 shows the 2014 budget for the CEO office by major cost category, the 2011 Board-approved budget and the 2013 actuals, and the variances to the 2014 budget. Analysis of variances is presented in Exhibit D-2-2.

Table 2

**CEO Office**
**Variance between 2014 Budget and 2011 Board-approved Budget and variance between 2014 Budget and 2013 Actual**
**($'000)**

| Major Cost Category | 2011 Budget Board-approved | 2014 Budget | 2011-2014 Variance | 2013 Actual | 2013-2014 Variance |
|---|---|---|---|---|---|
| Compensation & Benefits | 778 | 826 | 48 | 835 | (9) |
| Professional & Consulting Fees | | | | | |
| Operating & Administration Expenses | 33 | 26 | (7) | 37 | (11) |
| **Total Operating Costs** | **811** | **852** | **41** | **872** | **(20)** |

# 2. BUSINESS STRATEGIES AND SOLUTIONS

The Business Strategies and Solutions division ("BS&S") delivers high-quality financial reports, data analysis, business insights and decision support tools to internal and external stakeholders. The division provides support to the organization through its Finance, Information Technology, Planning and Reporting and Office and Facility Services, and Human Resources groups.

In order to achieve Goal 4, the BS&S division is pursuing the following four strategic initiatives in 2014:

1. *Support the finance, planning and procurement needs of the organization*
2. *Maintain and enhance technology solutions for the OPA*
3. *Optimize the efficiency and value of the OPA's facilities*
4. *Recruit, retain, engage and develop a high-performing workforce.*

## Strategic Initiatives

### Initiative 1 – Support the finance, planning and procurement needs of the organization

The Finance group manages and is responsible for asset stewardship, controls and transaction processing at the OPA. This includes ensuring that financial resources are

used effectively and that appropriate corporate policies and procedures are deployed in the areas of financial accounting, procurement, treasury, risk management and payroll. The activities carried out by the Finance group relate to ensuring appropriate controls exist and are implemented to validate the OPA's management of public funds. The functional responsibilities for this group are as follows:

- transaction processing, accounting and financial reporting;
- treasury and cash flows;
- tax compliance and reporting;
- financial support for program and contract structures;
- monitoring and review of internal controls;
- payroll;
- procurement;
- internal audit; and
- risk management.

*Process Automation and Innovation*

In 2014, the Finance group will partner with the Information Technology group ("IT") to support the implementation of the Customer Relationship Management ("CRM"), Contract Life-cycle Management ("CLM"), and Document Management ("SharePoint") systems. These systems will support process efficiency and document control, and provide an automated contract management solution to the organization. Enhancements have also been made to existing SAP/SharePoint software, including new workflow capabilities and methodologies in transactional (accounts payable and procurement requests) and financial accounting processes (increased use of automated versus manual entries, standardized processing). In 2014, the OPA will build on these enhancements through the addition of centralized invoice handling, applying project management approaches to procurement processes, and enhancements to software to build greater performance measurement on transaction processing. In 2014, Finance will explore new ways to improve and automate internal and external functions for ongoing efficiency.

*Value-Added Services*

Initiatives in 2014 aim to improve finance processes and procedures. The group will continue to provide orientation training to refresh knowledge and build relationships between operations personnel and support staff. The Finance group is in the process of creating a procurement resource page with tools and information to improve customer experience, provide education, and reduce risk. By strengthening relationships, improving communication, and providing procedural and technical guidance, the OPA will reduce processing times, improve the quality of vendor proposals received, and have a positive impact on customer experience. In 2014, the OPA will access the Ministry of Government Services' best practice and Vendor of Record arrangements to deliver cost and resource efficiencies.

*Strategic Risk Management*

Risk management evolution will focus OPA staff on incorporating mitigation activities and addressing the top strategic risks when developing corporate and divisional business plans and actions. In 2014, the Finance group will implement a process that assesses risks as linked to specific OPA initiatives, leading to more efficient use of resources based on explicit risk and reward decisions at earlier stages of the planning cycle.

*Internal Audit and Value for Money Audits*

Examination of internal processes and benchmarking best practices through value for money audits are planned to continue for the 2014 internal audit program. In 2014, the audit program will incorporate value-for-money audits to evaluate program performance within the business units.

*Compliance with relevant directives and expense policy guidelines*

In 2014 Finance will ensure the OPA is compliant with applicable government directives and policy guidelines, such as the travel, meal and hospitality expenses directive, as well as the *Public Sector Expenses Review Act, 2009*. This will entail prudent management of the OPA's business expenses and procurement processes, and timely submissions of expense information to the Ontario Integrity Commissioner.

**Initiative 2 – Maintain and enhance technology solutions for the OPA**

Initiative 2 is supported by the Information Technology group. IT supports the OPA's existing business applications and infrastructure, provides internal customer service relating to the OPA's information technology systems, and develops solutions to respond to changing business needs. The activities to be carried out by IT in 2014 are outlined below.

*Develop the Next Generation of Enterprise Solutions for the OPA*

IT partners with business units to develop and implement next generation Enterprise Solutions, focusing on providing standardized, company-wide solutions. In 2014, IT will focus on aligning this new generation of solutions with the long-term strategic direction of the OPA and its business units, promoting stronger links among them. This will include enhancements and upgrades to the Conservation Data Reporting and Electricity Resources Funds Case Management systems, as well as the development of data analytics and social media tools.

In order to protect the OPA's data, information security beyond the use of technical tools such as password protection and firewalls will be an area of focus, where continuous security reviews will identify the areas for action as threats evolve. In 2014, IT will facilitate and promote a people-centric security culture at the OPA so that employees value the importance of protecting and handling information.

Additionally, in 2014 the IT group will be developing tools and platforms that will enable increased information sharing, including website development and the establishment of an OPA-wide data governance process that will facilitate more effective data sharing and support transparency.

*To be the Valued Trusted Service Provider, Quickly Delivering Solutions to Meet Business Needs*

IT recognizes the value of providing timely support and building its capability to deliver on its mandate.

To increase responsiveness and the speed at which a solution is delivered, in 2014 IT will continue to leverage enterprise architecture best practices, partner with business units to iteratively develop required solutions, and continue to mature project management processes.

IT will also continue to evolve the IT Service Centre to be the 'control centre' to monitor, fulfill, and support IT services. This will involve enhancing the system alarm monitoring function to detect service disruptions and take proactive preventive action. At the same time, the IT group will continue to develop and implement processes and protocols to proactively minimize business risk, and maintain a high level of system availability so that business operations can run smoothly. Where advantageous sourcing opportunities arise, competitive procurements will be completed to acquire improved services and/or infrastructure to drive additional efficiencies.

*Evolve IT Governance and Enterprise Architecture to Maximize the Benefit of Information Technology Investments and Assets*

IT will continue to mature its governance model to further strengthen its alignment with OPA business objectives. Working jointly with the IT Steering Committee, in 2014, IT will engage internal and external business partners to maximize the value of the OPA's investment in information technology by leveraging existing infrastructure and by providing enterprise-wide business technology solutions.

Based on the established architecture principles, FIT and microFIT applications will be redeveloped in order to enable more efficient business processes, add new features, and reduce maintenance costs. A company-wide Contract Life-cycle Management system will be implemented to reduce contract risks. An enterprise CRM system to enable a single view of the OPA's stakeholders will be developed and implemented through a phased approach throughout 2014 and 2015. A stakeholder relationship management solution will also be developed to support the OPA's outreach to stakeholders and business partners.

**Initiative 3 – Optimize the efficiency and value of the OPA's facilities**

Initiative 3 is supported by the Planning and Reporting and Office and Facility Services group. The Planning and Reporting function ("Planning and Reporting") supports decision making and strategy development through leading strategic business planning, budgeting and forecasting, delivering timely, high-quality analysis, decision support and business insights to our customers. The Office and Facility Services function ("OFS") creates a healthy, environmentally friendly and engaging working environment.

*Assist Business Units to Deliver their Initiatives Through Providing Value-Added Analysis and Strategic Decision Support*

Planning and Reporting will continue to provide high-quality analysis to support decisions on both strategic and operational levels. The function's core goal is to provide reliable reporting with analytical support and recommendations, in a consistent and timely manner so as to enable effective decision-making by management, and to maximize organizational efficiency with respect to financial planning, reporting and monitoring. Activities in 2014 will include development of the OPA's 2015-2017 Business Plan, monitoring and forecasting OPA's actual expenditures, and communicating this information throughout the organization as required. The 2014 objectives also include software enhancements to drive reporting customization, speed and ease of use.

Planning and Reporting will also further develop and monitor performance metrics that link to the OPA's strategic objectives, goals and initiatives; including both outcome based measures and financial operating metrics. These metrics will enable the OPA to assess with reasonable confidence the actual value and costs associated with executing each initiative.

*Optimize the Efficiency and Value of the OPA's Facilities*

In 2014, the OFS function will lead a review of the OPA's office space to assess rental competitiveness, space efficiency and value in order to optimize the use of existing space and develop long-term recommendations for the OPA's facility needs. In addition, OFS will be a key participant in the OPA's initiative to update and enhance its records management

policy and practices. This will involve incorporating revised business processes and technology solutions, and engaging with executives, management and staff to implement records management practices to support the creation, maintenance, and protection of accurate and reliable records.

*Support the OPA's Environmental Goals*

While meeting the OPA's essential facility needs with high-quality service, OFS is a major contributor to the organization's internal environmental initiatives. In 2014, OFS will focus on supporting improvements to the OPA's key areas of internal environmental performance which include energy use, resource consumption, recycling, waste disposal, transportation, and supplier and staff engagement.

In addition, the OFS function will also lead organizational environmental initiatives including: minimizing the use of electricity, reducing the amount of natural resources required to sustain our business, and facilitating the diversion of waste to enhance recycling.

*Improve Overall Customer Service Experience*

The ongoing improvement of overall customer service experience is a key objective for OFS. In 2014, OFS will seek feedback and conduct periodic reviews to monitor and improve customer satisfaction relating to the OPA's physical environment.

The Planning and Reporting and Office and Facility Services group will also look for opportunities to leverage technology and use enhanced functionality from system upgrades to improve processes, reduce costs, and achieve greater efficiencies leading to an improved customer service experience.

**Initiative 4 – Recruit, retain, engage and develop a high-performing workforce**

Attracting, developing, engaging and retaining skilled individuals is critical to ensuring that the OPA can continue to effectively carry out its mandate. In the context of a highly competitive labour market, in 2014 the Human Resources group ("HR") will continue its

pivotal role of providing leadership, systems, policies and processes to achieve these organizational goals.

*Provide Continued Support to the OPA in a Changing, Uncertain Environment*

Working with management, and in the context of heightened demand for core human resources services and support, in 2014 HR will maintain appropriate staffing levels and organizational performance through ongoing and effective support for recruitment and selection, performance management, conflict facilitation, resolution of employee relations and legal issues, and employee communications. Additionally, in 2014 HR will provide support relating to labour relations and first collective agreement negotiations.

Working with senior management, HR will prioritize and assist with the implementation of actions to increase individual, group and organizational effectiveness, such as learning and development initiatives, career planning, talent review and succession management planning, and group effectiveness facilitation.

*Further Enhance the Design and Delivery of the Talent Management System*

In 2014, HR will identify core capabilities, and job/job family-specific professional/technical skills and competencies in the Information Technology group, and in an additional area to be identified over the course of the year. These competencies will be deployed in selection, performance management, development and career planning.

To increase operational efficiencies and capability, HR will also implement on-line performance management and learning systems, design, develop and implement core values and management essentials training programs, and review and re-launch employee recognition and job shadowing programs.

*Broaden and Deepen Learning Partnerships with Other Public Sector Agencies and Organizations*

In 2014, HR will identify and pursue opportunities with other public sector agencies and organizations for inter-agency secondments and for joint training and development

initiatives. The OPA will continue to share information with its sister agencies, to enrich the knowledge base at each organization in respect of Human Resources best practices, systems and processes.

## 2014 Milestones

By the end of 2014, the OPA will have reached the following milestones:

- realized ratepayer savings through compliance with all provincial government initiatives
- achieved efficiency improvements by pursuing cost reductions
- successfully responded to the increasing volume and breadth of the organization's activities
- OPA's culture will be one of high performance, collaboration, learning and innovation.

## 2014 Budget

Table 3 shows the 2014 budget for the Business Strategies and Solutions division by major cost category, the 2011 Board-approved budget and the 2013 actuals, and the variances to the 2014 budget. Analysis of variances is presented in Exhibit D-2-2.

Table 3

**Business Strategies and Solutions**
**Variance between 2014 Budget and 2011 Board-approved Budget and variance between 2014 Budget and 2013 Actual**
**($'000)**

| Major Cost Category | 2011 Budget Board-approved | 2014 Budget | 2011-2014 Variance | 2013 Actual | 2013-2014 Variance |
|---|---|---|---|---|---|
| Compensation & Benefits | 4,843 | 4,549 | (294) | 5,391 | (842) |
| Professional & Consulting Fees | 755 | 3,504 | 2,749 | 2,761 | 743 |
| Operating & Administration Expenses | 8,071 | 8,754 | 683 | 10,282 | (1,528) |
| **Total Operating Costs** | **13,669** | **16,807** | **3,138** | **18,434** | **(1,627)** |

## 2011-2013 Results

## Finance

From 2011-2013, the Finance group ensured compliance with all travel, meal and expense policy guidelines, leveraged information technology to achieve efficiency improvements, developed an updated accounting policy, managed and coordinated the OPA's internal

audit program, and made Vendor of Record arrangements. Further information on each of these 2011-2013 results is provided below.

*Compliance with all Travel, Meal and Expense Policy Guidelines*

During this period, the OPA has complied with the travel, meal and hospitality expenses directive, as well as the *Public Sector Expenses Review Act, 2009*. This entailed prudent management of the OPA's business expenses and timely submissions of expense information to the Ontario Integrity Commissioner. Compliance was facilitated by building system controls in an automated expense document that aligned with the requirements in the travel, meal and hospitality expenses directive, along with continued oversight and support by the Finance group to ensure travelers' claims were compliant. The document handling and approvals were also automated and implemented through the SAP enterprise management system.

*Achieved Efficiency Improvements Through Leveraging Information Technology-based Applications and Resources*

During this period, the Finance group has achieved increased administrative efficiencies, and has further leveraged the use of its accounting software package to introduce more automated processing of accounts payable, purchase orders and business expense transactions. This included establishing electronic workflows to enhance controls over transaction processing. System enhancements were also made to address the approval process on mass purchase order amendments.

*Provided Guidance for the OPA's Operational Process and Financial Management Decisions Through the Development and Communication of an Updated Accounting Policy*

In 2012, the OPA's accounting policy was updated to reflect recent changes in accounting standards and to serve as a guide for the OPA's accounting transactions and financial management decisions. The updated accounting policy includes detailed guidance on the application of accounting principles that apply to the OPA's operations.

*Internal Audit Program*

During this period, the OPA managed and coordinated 35 internal audit projects to confirm the effectiveness and efficiency of its business processes and systems. The status of actions taken to implement ongoing improvements in operations provided in the audit recommendations confirmed that the OPA has addressed all outstanding recommendations. In addition, the OPA achieved further assurance through internal audits conducted at the program counter-party level (i.e. at the LDC level). These related to the review of the legitimacy and accuracy of amounts paid or received pertaining to OPA funded conservation and FIT programs.

*Vendors of Record Arrangements*

During this period, the OPA established 20 Vendor of Record arrangements, providing internal customers with access to a variety of pre-qualified vendors for various professional services and consulting support.

**Information Technology**

From 2011-2013, the Information Technology group developed and maintained the OPA's core business solutions, improved its long-term planning to better align with business priorities, and increased its focus on customer service. Further information on each of these 2011-2013 results is provided below.

- Implemented a sustainable information technology architecture that will allow easy integration of new applications and effective consolidation for legacy systems including the adoption of SAP, Microsoft SharePoint and Dynamics CRM as the OPA standard application platforms. Several new information technology solutions for the Conservation, Electricity Resources and Power System Planning divisions were built on this platform.
- Transitioned into a service-centric organization, by restructuring the group into three teams: IT Services, IT Solutions and IT Operations, to accomplish the goal 'to be the valued trusted service provider, quickly delivering solutions to meet business needs'.
- Established a comprehensive 2013 information technology program for all business units through the IT Steering Committee.
- Adopted a business case approach to release new projects, analyze alternatives to address business needs, and to justify benefits.

- Founded a cross-functional Enterprise Data Management Team, with representation from each business unit, to establish data governance protocols and promote data sharing.
- Upgraded all end user computing devices to Windows 7 through a remote deployment approach which led to time and resource savings, as well as enhanced features for future maintenance and upgrades. The upgrade also eliminated the risk of Microsoft's withdrawal of support for the previous version of the OPA's operating system.
- Successfully completed upgrades and system changes for microFIT and FIT 2.0 and FIT 3.0 program launches and implemented a contract settlement solution for electricity generation contracts to allow for improved and more efficient settlement processes.
- Delivered a number of back office and process enhancements to the conservation program system to streamline processes for the OPA and LDCs.
- Delivered websites for the Conservation and Power System Planning divisions that facilitate collaboration between the OPA and external stakeholders on conservation initiatives and regional planning.
- Assisted in the successful launch of the OPA's social media presence via Twitter.
- Delivered organization-wide solutions that drove increased productivity, including mobile devices, tools for document discovery, and document collaboration services.

**Planning and Reporting and Office and Facility Services**

From 2011-2013, the Planning and Reporting and Office and Facility Services group automated a number of tasks performed across the organization, managed the OPA's facility needs, and supported the OPA's environmental goals. Further information on each of these 2011-2013 results is provided below.

*Supported the Development and Communication of the OPA's Annual Business Plan*

From 2011-2013 the Planning and Reporting function supported the development and communication of the OPA's annual budgets and business plan, monitoring and forecasting OPA's actual expenditures, and communicating this information throughout the company as required.

*Continued use of the Business Intelligence System to Automate Manual Tasks Performed Across the Organization.*

The use of the business intelligence system has enabled the Planning and Reporting and Office and Facility Services group to provide high-quality analysis and business insights. Over the 2011-2013 period, previously manual tasks have been automated and centralized. This provides the group with the capacity to assume more decision-support responsibilities with the same high level of accuracy, while further accumulating operational knowledge and enhancing its collaboration with other divisions in the OPA.

Additionally, during 2012, the Planning and Reporting and Office and Facility Services group provided significant support to merger related synergy modeling.

In 2013, the group continued to leverage technology through further enhancements of its business intelligence software to automate and improve processes, and provide value-added analysis and business insights to its customers.

*Continued Management of the OPA's Facility Needs and Support of the OPA's Environmental Goals*

The group has taken steps to ensure that all OPA divisions receive high-quality service through ongoing consultation and communication. Process improvements, such as an online tracking system for requests, have provided greater clarity in managing multiple customer priorities. The group has also increased OPA staff awareness of the services available, and has monitored feedback to continue to deliver performance enhancements.

**Human Resources**

From 2011-2013, HR was active in three main areas:

- policy formulation and implementation;
- core human resources deliverables that support the effective operation of OPA business activities; and
- maintaining and enhancing OPA's talent management systems and processes.

*Policy Formulation and Implementation*

During 2011-2013, HR revised a number of existing policies and procedures, including changes to the Respect at Work, Vacation and Vacation Pay, and Holidays and Floater Days policies. Also, the HR group formulated and implemented new policies and procedures, including Workplace Accident-Incident Reporting, Reporting & Investigation of Incidents, Threats & Complaints, Summoning Immediate Assistance/Workplace Violence, Work Refusals, Working Alone, and Jury or Court Witness Leave policies.

*Core Human Resources Deliverables that Support Effective Operation of OPA Business Activities*

During the 2011-2013 period, HR continued to support the OPA's business operations through recruiting, hiring and orienting new staff. The group has promoted the OPA employer brand through career fairs, on-campus recruitment, networking and use of social media, and assisted managers in making 100 placements in 2011, 144 placements in 2012, and 154 placements in 2013. The HR group also conducted competitive procurements for a new Applicant Tracking System, and to identify Vendors of Record for recruiting and staffing services.

In 2012, HR played a significant role in supporting the planned merger between the OPA and the IESO.

The HR group also achieved efficiencies and contributed to organizational effectiveness through streamlining operations, and increased use of technology systems and automation of routine work (for example, the implementation of an online vacation tracking tool).

*Maintaining and Enhancing OPA's Talent Management Systems and Processes*

HR developed a training and development strategy, and implemented training and development systems, processes and programs to sustain an innovative, high-performing organization. These systems, processes, and programs are grounded in a strategic framework for individual, group and organizational development, and are aligned with the OPA's competency profiles and needs analyses.

The OPA has established and maintains five learning tracks with related training programs:

1. mission critical competency building;
2. technical / professional development;
3. administrative professionals' development;
4. new and emerging managers' development; and
5. management / leadership development.

With respect to organizational development, HR delivered programs to facilitate team and group cohesiveness, collaboration and high performance, including conducting annual employee engagement surveys, communicating results, and supporting action planning. HR also led the OPA's annual talent review and succession planning and management processes.

Finally, HR conducted annual training and communication on performance management and objective setting. HR reviewed its performance management system and processes, and made changes to improve the effectiveness and efficiency of those processes. In 2013, HR conducted a competitive procurement to select on-line performance and learning management software (which will be implemented in 2014).

## 3. LEGAL, ABORIGINAL AND REGULATORY AFFAIRS

The Legal, Aboriginal and Regulatory Affairs ("LARA") division provides support to the organization through its Legal Services, Regulatory Affairs and First Nation and Métis Relations groups.

In order to achieve OPA Goal 4, the LARA division is pursuing the following three strategic initiatives in 2014:

1. *Effectively meet the legal needs of OPA clients*
2. *Lead and coordinate the OPA's participation in regulatory proceedings*
3. *Provide effective support to clients in the OPA with respect to Aboriginal matters, and support the participation of First Nations and Métis communities in OPA planning, conservation, transmission and generation initiatives.*

Details of the activities to be undertaken in 2014 in support of these initiatives are provided below.

## Strategic Initiatives

### Initiative 1 - Effectively meet the legal needs of OPA clients

The Legal Services group ("Legal Services") provides legal advice and support as required to the organization related to compliance with all relevant laws, litigation support, contract development, contract management and procurement processes for the full range of OPA activities, including conservation programs and generation supply procurements. It also provides governance and logistical support for the OPA's Board of Directors to ensure effective and timely decision making, and manages requests to the organization under the *Freedom of Information and Protection of Privacy Act.*

The Legal Services group expects the number of matters requiring assistance in 2014 to increase with additional support being required in the area of conservation program development, electricity supply contract management, and litigation. In addition, Legal Services expects a continued trend of increased numbers of Freedom of Information requests, and will also take a leadership role with regard to the OPA's records management practices.

With respect to the Electricity Resources division, Legal Services will provide continued support to the division's Procurement, Contract Management and Policy and Analysis groups. This includes support for ongoing major initiatives such as the FIT program (both support for FIT program application management and FIT contract management), the Industrial Electricity Incentive (IEI) program, and the Bruce Power nuclear generation refurbishment, among others.

With respect to the Conservation division, Legal Services will continue to provide contract management support for conservation contracts executed with LDCs and service providers. In addition, Legal Services will provide increased support for program development

initiatives as the Conservation division begins the development of the next generation of conservation programs, expected to be in effect in the 2015-2020 timeframe.

With respect to the Power System Planning, Business Strategies and Solutions, and Communications divisions, the Legal Services group will continue to provide contract support for service provider agreements as required; support for procurement group staff in connection with requests for proposals, submissions, or quotes; and contract management support for existing contracts and management of the OPA's intellectual property portfolio.

The Legal Services group anticipates higher levels of activity in matters, including involvement in ongoing trade disputes initiated against the Government of Canada in respect of the Feed-In Tariff Program. This work will require increased document searching and review. In addition, increased staff lawyer time is expected to be required to manage files and to liaise with staff and external litigation counsel.

In 2014, Legal Services will continue to offer training for various business units on contracting processes, contract management, and responding to Freedom of Information requests. Legal Services will focus on supporting the implementation of Contract Life-cycle Management software, in cooperation with the OPA's IT and Procurement groups to further streamline contract preparation and enhance contract tracking and management.

The Corporate Secretary will continue to provide support to the OPA's Board of Directors, including preparation and coordination of meetings and meeting materials.

**Initiative 2 - Lead and coordinate the OPA's participation in regulatory proceedings**

The Regulatory Affairs group ("Regulatory Affairs") is responsible for managing OPA applications to the Ontario Energy Board ("Board"), including its annual revenue requirement submission, as well as managing the OPA's participation in applications by other entities to the Board. These proceedings may include transmitter leave to construct applications, transmitter and distributor rate cases and conservation proceedings, and Ontario Power Generation Inc. ("OPG") payment amounts applications. The Regulatory

Affairs group also leads the OPA's participation in Board policy initiatives that may impact the OPA.

A key focus in 2014 for Regulatory Affairs will be managing activities associated with the regulatory review of the OPA's 2014 revenue requirement submission ("RRS"). This includes ensuring a timely submission of the 2014 RRS following ministerial approval of the OPA's 2014-2016 Business Plan, the provision of interrogatory responses, and coordination of expert testimony as required. Regulatory Affairs will also be responsible for coordinating the development of the subsequent 2015 RRS, which is targeted to be submitted to the Board in the fall of 2014 following approval of the 2015-2017 Business Plan.

In 2014, the group will also provide regulatory support for applications to the Board by other entities as needed. With regards to transmitter leave to construct applications, the OPA will provide evidence on the need for, and alternatives to, the proposed undertaking, as well as recommendations on the appropriate allocation of project costs as necessary. This support will be similar to that provided for projects resulting from the 2010 Long-Term Energy Plan ("LTEP"), such as the OPA's evidence in the Section 92 application for the Lambton to Longwood Transmission Upgrade Project (EB-2012-0082). In 2014, the OPA anticipates providing such support for proposed facilities in the Windsor-Essex area (the Supply to Essex County Transmission Reinforcement project), as well as the new East-West Tie transmission line connecting northeastern and northwestern Ontario. Support will also be provided as work progresses on the development of a new transmission line to Pickle Lake, remote community connections, the Northwest Bulk transmission line, and other projects as identified in the 2013 LTEP.

With respect to transmitter and distributor rate cases and distributor conservation and demand management applications, in 2014 Regulatory Affairs will manage and coordinate the OPA's participation in these proceedings. This will include the provision of studies or analysis performed by OPA staff to applicants; preparation and submission of OPA evidence; support for, and/or preparation of, interrogatory responses; provision of oral

testimony by OPA witnesses; and submission of written or oral argument as appropriate. Regulatory Affairs will also ensure the timely review and provision of OPA comments on an anticipated 20 Distribution System Plans in accordance with the Board's Chapter 5 Filing Requirements for Electricity Distribution Rate Applications.

In 2014, the OPA will participate in OPG's 2014-2015 Payment Amounts application (EB-2013-0321). OPG has included a letter from the OPA in its evidence describing the integrated power system context for OPG's nuclear assets. Regulatory Affairs will manage and coordinate the OPA's participation throughout this proceeding as necessary.

Throughout 2014, the OPA will be actively involved in the execution of regional planning processes. The Regulatory Affairs group will ensure regional planning activities are conducted in accordance with the OPA's licence, the Board's Transmission System Code ("TSC") and Distribution System Code ("DSC"), and the Planning Process Working Group Report to the Board. In 2014, the Regulatory Affairs group expects to support regional plans for the Board's preliminary list of Group 1 Regions as identified in the Planning Process Working Group Report to the Board, several of which are already under way, including the Windsor-Essex area, the Kitchener-Waterloo-Cambridge-Guelph area, and a comprehensive plan for northwestern Ontario including remote community connections. The Regulatory Affairs group will continue to support the development and refinement of regional planning processes, as well as the implementation of the joint OPA and IESO regional planning and siting recommendations.

Regulatory Affairs monitors various regulatory proceedings and initiatives to assess potential impacts to the OPA. Throughout 2014, the group will be responsible for leading the OPA's involvement in Board initiatives and other regulatory proceedings as it has determined to be relevant. For example, Regulatory Affairs will coordinate the OPA's support of the Board's transmitter designation process for the East-West Tie transmission expansion project, including the production of a detailed need assessment update for submission to the Board in May 2014. Regulatory Affairs will also coordinate the OPA's involvement in the Board's time-of-use price review consultation process as appropriate.

**Initiative 3 - Provide effective support to clients in the OPA with respect to Aboriginal matters, and support the participation of First Nations and Métis communities in OPA planning, conservation, transmission and generation initiatives**

The First Nations and Métis Relations group ("FNMR") is responsible for developing and maintaining the OPA's relationship with First Nations and Métis communities across the province, and carrying out the procedural aspects of any duty to consult with Aboriginal communities as identified by the Crown.

The OPA works to support the participation of Aboriginal communities in renewable energy and conservation programs through relationship building and targeted initiatives. The OPA also works to raise awareness and encourage Aboriginal community participation in OPA procurement processes, and long-term energy planning initiatives, including the North of Dryden Draft Reference Integrated Regional Resource Plan (the "Draft North of Dryden Plan"), and the Technical Report for the Connection of Remote First Nation Communities in Northwest Ontario ("Remotes Report"). FNMR will also support the implementation of the joint OPA and IESO regional planning and siting recommendations.

In 2014, the OPA will maintain effective channels of communication and relationships with Aboriginal political, economic, and technical organizations. The group plans continued outreach to the communities by networking with Aboriginal industry organizations. In 2013, the OPA created the Aboriginal Energy Working Group ("AEWG") to share non-confidential sector information, obtain advice on the OPA's programs, and provide updates on OPA initiatives relating to First Nations and Métis communities, and the electricity sector. The AEWG is composed of First Nation and Métis individuals from across Ontario. Members participate in their personal capacities and not as representatives of their home communities or employers. The AEWG is not a forum for consultation; rather it is a forum to share information. These meetings will continue throughout 2014 and the scope and work of the AEWG will be refined based on input from members.

Social media resources will also be used to maintain relationships with communities. A First Nation & Métis Facebook page was established in 2013 to develop an online

community around Aboriginal energy issues. In 2014, content on the Facebook page will be updated regularly to raise awareness of the OPA's Aboriginal programs.

In 2014, FNMR will also assist with the OPA's Aboriginal Energy Partnerships Program ("AEPP"). The AEPP consists of four components:

1. the Aboriginal Renewable Energy Fund ("AREF")
2. the Aboriginal Renewable Energy Network ("AREN")
3. the Aboriginal Community Energy Plans ("ACEP") program
4. the Aboriginal Transmission Fund ("ATF")

Program details are provided at Exhibit B-3-1.

AREF provides funding for Aboriginal communities to assess the feasibility of, and develop, renewable energy generation facilities. The fund is administered by the OPA's Policy and Analysis group in the Electricity Resources division. In 2014, FNMR will act as a facilitator for the program to engage the communities, provide information about the availability and content of funding, and provide advice regarding program development.

AREN is a web-based resource that provides information to Aboriginal communities to assist them with increasing their participation in the development of renewable energy generation facilities and electricity conservation programs. This website can be accessed at www.aboriginalenergy.ca. In 2014, FNMR will assist in updating the website regularly with program information.

ACEP provides funding to develop community energy plans which identify community conservation measures and small renewable energy development opportunities. The original ACEP concept has been refined and re-launched in response to feedback to help target the needs of the communities. Community energy plans provide a basis for the OPA to work with the communities to understand local energy needs, and to develop strategies to suit each community's needs and circumstances. ACEP is also managed by the Policy and Analysis group in the Electricity Resources division. FNMR will work closely with the Electricity Resources division, liaising with Aboriginal communities to provide information and encourage participation in the program throughout 2014.

The Aboriginal Transmission Fund ("ATF") was established in August 2011 following the August 25, 2011 directive which says "the OPA [is] to adjust the AEPP to provide funding to support Aboriginal communities that are exploring equity positions in future planned major transmission lines in Ontario where the OPA has identified a need for transmission capacity." The program will be launched in early 2014 and will support partnership development on the transmission line to Pickle Lake and the East-West Tie transmission line. The program will provide funding for additional transmission lines on a forward going basis and, as per the directive, "[t]he OPA has also been directed to prepare a plan for remote community connections and will plan and study additional transmission projects as demand and changes to supply require." The program will be administered by the Policy and Analysis group in the Electricity Resources division. The FNMR group will support the implementation of the program by providing strategic advice.

In addition to the AEPP programs discussed above, the Aboriginal Conservation Program ("ACP") was launched in August 2013. This program is built upon some of the initiatives from the OPA-Contracted Province-Wide CDM Programs. In 2014, the OPA's service provider, First Nations Engineering Services Ltd. ("FNESL"), will deliver the program to up to 16 First Nation communities to identify opportunities, and complete energy efficiency retrofits. FNESL will also deliver conservation workshops for Métis and urban Aboriginal peoples to drive participation in the province-wide **save**ON**energy** programs delivered by local electric utilities. FNMR will support and advise the OPA's Conservation division in the implementation of the ACP.

In 2014 the OPA will also develop and deliver a new program called the Education and Capacity Building ("ECB") program. The ECB program will provide funding to support diverse education and capacity-building initiatives for Aboriginal communities, municipalities, public sector entities and cooperatives, as well as to facilitate knowledge-sharing and the participation of these groups in Ontario's renewable energy sector. Two key types of initiatives will be eligible for funding: (i) knowledge transfer and knowledge sharing; and (ii) education, skills development and capacity building. Up to $125,000 in funding will be available for each application. The ECB program is administered by the

OPA's Policy and Analysis group in the Electricity Resources division. FNMR will act as a facilitator for the program to engage Aboriginal communities, provide information about the availability and content of funding, and provide advice regarding program development and delivery.

In 2014, the OPA will develop a new process known as the Large Renewable Procurement for procuring renewable energy generation facilities larger than 500 kW. On June 12, 2013, the Minister of Energy directed the OPA to make changes to the FIT program, including removing large projects (those greater than 500 kW in size) from the program, and developing a new competitive procurement process that considers input from stakeholders, municipalities and First Nation and Métis communities to help identify appropriate locations and siting requirements for these large projects. In 2014, FNMR will provide strategic advice and assistance to the Electricity Resources and Communications divisions in organizing and staging engagements with First Nations and Métis. For example, three First Nation sessions in Chatham-Kent, Sudbury, and Toronto, as well as meetings with the Métis Nation of Ontario and the two independent Métis communities, were held in Q1 2014.

With respect to the OPA's electricity planning initiatives, FNMR will continue to support the work of the Northwest Ontario First Nations Transmission Planning Committee ("NWOFNTPC" or "Committee") as the Remotes Report is finalized. A business case contained in the draft report for the expansion of the Ontario electricity transmission system to the remote North was developed in 2012. In developing the business case, the Committee, by conferring with the communities, captured their diverse needs and reflected those needs in the technical options for connecting 21 remote First Nation communities to the provincial transmission system. OPA staff has met with many of the remote communities to discuss the Remotes Report and plans to meet with the remaining communities in early 2014. In early 2014, a plain language version of the executive summary from the draft Remotes Report was created. Cree, Ojibway and Oji-Cree versions were developed. The summary will be used in discussions with Aboriginal communities, industry and various levels of government to support the effort to connect the remote communities to the provincial transmission grid.

## 2014 Milestones

By the end of 2014, the OPA will have reached the following milestones:

- high-quality legal services provided to internal clients.
- annual revenue requirement submission approved substantially as filed.
- the OPA's views are effectively presented in regulatory proceedings.
- support provided to First Nations and Métis community participation in energy-related projects.
- completed outreach and development of options to support remote First Nation communities that are not economic to connect, and continued to provide support on the remote transmission plan.

## 2014 Budget

Table 2 shows the 2014 budget for the LARA division by major cost category, the 2011 Board-approved budget and the 2013 actuals, and the variances to the 2014 budget. Analysis of variances is presented in Exhibit D-2-2.

Table 4

**Legal, Aboriginal and Regulatory Affairs**
**Variance between 2014 Budget and 2011 Board-approved Budget and variance between 2014 Budget and 2013 Actual**
**($'000)**

| Major Cost Category | 2011 Budget Board-approved | 2014 Budget | 2011-2014 Variance | 2013 Actual | 2013-2014 Variance |
|---|---|---|---|---|---|
| Compensation & Benefits | 3,566 | 3,354 | (212) | 3,547 | (193) |
| Professional & Consulting Fees | 4,014 | 1,983 | (2,031) | 2,416 | (433) |
| Operating & Administration Expenses | 2,593 | 1,581 | (1,012) | 1,260 | 321 |
| **Total Operating Costs** | **10,173** | **6,918** | **(3,255)** | **7,223** | **(305)** |

## 2011-2013 Results

## Legal Services

From 2011-2013, the Legal Services group provided support to the OPA in the areas of contract development, procurement processes, and contract management, primarily relating to generation facilities and conservation programs. Further information on each of these 2011-2013 results is provided below.

*Significant Matters in 2011:*

- *Negotiation of power purchase agreements with the Korean Consortium*: As directed by the Minister of Energy in April 2010, the OPA began to negotiate a series of power purchase agreements with the Korean Consortium for the development of wind and solar projects in Ontario. This work was contemplated by the Green Energy Investment Agreement ("GEIA") executed between the Government of Ontario and the Korean Consortium. The OPA executed six contracts for Phases 1 and 2 in August 2011.

- *Rollout of Conservation and Demand Management Initiatives*: Following the April 23, 2010 directive on CDM Initiatives under the *Green Energy and Green Economy Act, 2009*, the OPA developed and implemented the contractual framework to implement the directive. This included working with Ontario's LDCs to design and execute master agreements and supporting documentation. Program rollout was substantially completed in Q2 2011.

- *Support for the FIT program:* Legal Services provided ongoing primary program support for the policy development and intake and application process for the FIT program, including assistance with the application review and processing function, revisions to program rules, and implementation of directives received from the Minister of Energy on June 3, 2011, June 8, 2011 and August 19, 2011.

- *Contract Training Program:* A formal contract training program to assist staff to more effectively manage OPA service contracts was launched in Q4 2011.

- *Documentation Updates:* An OPA standard services contract specifically for conservation program-related services was developed and deployed in 2011. In addition, a shorter-form request for submissions document was developed for use in less complex services procurements.

- *Cross-functional Training:* Legal Services staff commenced cross-functional training to enhance their knowledge levels and their ability to provide more services

internally, as well as backup and assistance for the Corporate Secretary role, Freedom of Information requests, and regulatory support.

*Significant Matters in 2012:*

- In 2012, the Legal Services group introduced a new filing and matter open protocol, allowing it to better track files and services provided to internal clients. In 2012, the Legal Services group assisted in over 750 discreet matters. Assistance in relation to conservation and electricity supply activities made up over 80% of the work.

- *Electricity Resources Support:* In 2012, the Legal Services group opened 366 discrete matters relating to Electricity Resources support, including relatively short-term matters such as the drafting of confidentiality agreements in connection with contract negotiations and specific contract management matters (assignments, changes of control, force majeure claims), and longer-term matters such as the FIT program review and revision, and the design and implementation of the "constrained microFIT program", among others.

  The Legal Services group hired two new counsel in early Q3 of 2012 to provide additional internal support for the management of electricity supply contracts. The increased salary expenditures were offset by decreased external counsel expenditures for an estimated overall saving of 32%.

  Throughout the year considerable resources were dedicated to supporting the evolution of the FIT program, including program review, revision, and re-launch. Activities in 2012 culminated with the opening of the small FIT application window on December 14, 2012.

  In addition, the Legal Services group (in conjunction with external legal counsel) assisted in the development of the Industrial Electricity Incentive program in response to a directive dated November 1, 2012.

- *Conservation Support:* During 2012, the Legal Services group supported the Conservation division in the ongoing management of its CDM Initiatives. The Legal Services group opened 267 discrete matters relating to Conservation support, dealing with contract and program management (for example, amendments, waivers, contractual interpretation questions), intellectual property infringements, program pilot design and contracting (for example, design and contract drafting for the social benchmarking pilot), among others.

- *OPA-IESO Merger:* In Q2-Q3 2012, the Legal Services group provided one FTE in support of the proposed OPA-IESO merger. Certain planned projects were deferred pending the merger, which enabled the Legal Services group to support this unplanned initiative. The prorogation of the legislature in early Q4 suspended merger activity.

- *Freedom of Information:* In 2012, the Legal Services group managed an increased number of requests under the *Freedom of Information and Protection of Privacy Act* ("FIPPA" or "FOI"). The number of requests in 2012 increased by 47% over 2011.

  The Legal Services group created an acting position of FOI Coordinator to handle the increased FOI request load, and implemented new FOI search and processing protocols. In addition, the group procured e-discovery (electronic document search) software to facilitate searching for records and to ease the burden on both the Legal Services group and various business units.

- *Large Document Searches:* In Q2-Q3 2012, members of the Legal Services group were involved in assisting with large document searches in response to requests from the Standing Committee on Estimates.

  In Q4 2012, the Legal Services group collaborated with the Information Technology group to develop and institute a protocol for large document discovery requests. The Document Discovery protocol and process is now being managed by the Legal Services group. The first implementation of the new protocol occurred in late

Q4 2012 to manage a document request in connection with a review by the Auditor General of the Greenfield South gas plant cancellation.

- *Litigation Support:* In 2012, the Legal Services group provided support in respect of a number of litigation matters, arbitrations, and trade disputes. These included two lawsuits launched in respect of the FIT program, an intellectual property dispute, and actions against the Government of Canada by Japan and the European Union under the auspices of the World Trade Organization and two actions pursuant to the North American Free Trade Agreement ("NAFTA") by a U.S. investor.

*Significant Matters in 2013*

- *Large Document Searches:* Document searches continued to require considerable support from the Legal Services group, which continued to utilize the Document Discovery protocol implemented in 2012. Large document searches were conducted in connection with a review by the Auditor General of the Oakville gas plant cancellation, an action pursuant to NAFTA, and document requests from the Standing Committee on Justice Policy.

- *Freedom of Information:* The number of FOI requests continued to increase. In 2012, the OPA received a total of 47 FOI requests. In 2013, a total of 96 requests were received. This represents a greater than 100% increase over 2012.

  The FOI Coordinator position was made permanent and an additional contract position, FOI Administrator, was created to assist in managing the increasing workload.

- *Electricity Resources Support:* The Legal Services group opened 394 discrete matters relating to Electricity Resources support. As in the previous year, matters included relatively short-term matters such as the drafting of confidentiality agreements in connection with contract negotiations and specific contract management matters (assignments, changes of control, force majeure claims), and

longer-term matters, such as drafting of the FIT 3.0 program documents and providing continued support for ongoing matters commenced in previous years (for example, design and development and implementation of the constrained microFIT program), among others.

- In 2013, considerable resources continued to be directed toward supporting the FIT program. Activities in 2013 supported the issuance of 951 Small FIT renewable energy contracts and the posting of draft FIT 3.0 program documents for comment on September 4, 2013.

  In Q4, the focus turned to responding to directions received from the Minister on January 21, 2013 (Hydroelectric Projects), June 12, 2013 (Renewable Energy Program), and June 26, 2013 (Hydroelectric Projects).

- *Conservation Support:* In 2013, support for the Conservation division continued to focus on the management of the CDM initiatives. The Legal Services group opened 273 discrete matters relating to Conservation support. As in the previous year, these matters dealt primarily with contract and program management (for example, amendments, waivers, contractual interpretation questions), intellectual property infringements, program pilot design and contracting (for example, continued work on the social benchmarking pilot, which was commenced in 2012, drafting of the new program agreement forms and applications), among others.

**Regulatory Affairs**

From 2011-2013, the Regulatory Affairs group coordinated and provided support for OPA applications to the Ontario Energy Board, the OPA's participation in applications by other entities before the Board, and the OPA's participation in other regulatory processes and consultations. Further information on each of these 2011-2013 results is provided below.

*OPA Applications to the Ontario Energy Board*

On February 17, 2011, the Minister of Energy directed the OPA to prepare the second Integrated Power System Plan ("IPSP II") through the issuance of the 2011 Supply Mix

Directive. The directive outlined the government's goals with respect to electricity demand, generation resource mix, and transmission investments. This directive formed the basis of the IPSP II, a draft of which was submitted to the Ministry of Energy in August 2011. The preparation of the IPSP II involved considerable effort by staff in several divisions, primarily Power System Planning, Conservation and LARA. Regulatory Affairs managed the development of IPSP II, including the preparation and review of evidence. In April 2012, Bill 75 proposed changes to the long-term planning process in Ontario and activities associated with IPSP II filing were suspended.

In 2013, Regulatory Affairs worked with all OPA divisions to support the preparation and internal approval of evidence for the OPA's 2014 revenue requirement submission. This evidence supports the OPA's 2014-2016 Business Plan initiatives and outlines the OPA's activities and resource requirements for 2014.

*OPA Support for Other Entities Applications to the Ontario Energy Board*

From 2011-2013, the OPA remained active in proceedings before the Board. For example, the Regulatory Affairs group coordinated the OPA's participation with respect to applications for Board-Approved CDM Programs by Hydro One Networks Inc. ("Hydro One"; EB-2010-0331 and 0332), Toronto Hydro-Electric System Ltd. ("Toronto Hydro"; EB-2011-0011) and PowerStream Inc. (EB-2013-0070).

Regulatory Affairs also coordinated the OPA's review and comments on 50 Green Energy Act Plans/Distribution System Plans for LDCs according to the Board's Chapter 5 Filing Requirements for Electricity Transmission and Distribution applications. According to these filing requirements the OPA is required to comment in the following areas:

- the applications it has received from renewable generators through the FIT program for connection in the distributor's service area;
- whether the distributor has consulted with the OPA, or participated in planning meetings with the OPA;
- the potential need for coordination with other distributors and/or transmitters or others on implementing elements of investments to accommodate and connect renewable energy generation (i.e. REG investments); and

- whether the REG investments proposed in the DS Plan are consistent with any Regional Infrastructure Plan.

In 2012, the Regulatory Affairs group coordinated the preparation of the OPA's evidence on the need for, and alternatives to, the Lambton to Longwood Transmission Upgrade Project as part of Hydro One's leave to construct application (EB-2012-0082). The group also provided support by coordinating and preparing interrogatory responses and input to reply argument. In 2012, the Board approved the Lambton to Longwood Transmission Upgrade Project.

In 2012 and 2013, Regulatory Affairs coordinated the preparation of evidence on the need for, and alternatives to, the Guelph Area Transmission Refurbishment ("GATR") project as part of Hydro One's leave to construct application (EB-2013-0053). The group also provided support by coordinating and preparing interrogatory responses, and input to reply argument and motion hearing materials. In 2013, the Board approved the GATR project.

Additionally, Regulatory Affairs coordinated the preparation of the OPA's supporting evidence for various facilities in Hydro One's 2013-2014 transmission rates application (EB-2012-0031), namely the Oshawa transformer station ("TS") and Milton SVC. The group also managed the OPA's responses to interrogatories in this proceeding. In 2012, the Board approved capital expenditures for the construction of the Oshawa TS.

In 2013, the OPA was requested to provide oral testimony in Toronto Hydro's 2012-2014 rates proceeding (EB-2012-0064) with respect to the need for the new Bremner TS. Regulatory Affairs supported the preparation of OPA evidence and coordinated OPA participation throughout this proceeding. In 2013, the Board approved capital expenditures for the construction of the Bremner TS.

*OPA Participation in Other Regulatory Processes and Consultations*

Throughout 2010 the OPA was active in the Board's Transmission Project Development Planning consultation process (EB-2010-0059: Framework for Transmission Project Development Plans issued August 2010), providing comments on the Board's proposed framework.

Additionally, by letter dated March 29, 2011, the Minister of Energy expressed interest that the Board undertake a designation process to select the most qualified and cost-effective transmission company to develop a new East-West Tie transmission line. On April 25, 2011, in response to a request from the Board, the OPA provided a preliminary assessment on the need to proceed with development work for the East-West Tie. Regulatory Affairs coordinated the production and submission of this report.

On February 2, 2012 the Board issued a Notice of Application for this proceeding to designate an electricity transmitter to undertake development work for a new transmission line between Northeast and Northwest Ontario: the East-West Tie line (EB-2011-0140). The OPA was an active participant in this proceeding, and provided the Board with a number of reports and submissions. In May 2012 and May 2013, the OPA provided submissions to the Board with respect to Phases 1 and 2 of the proceeding, and in October 2013, the OPA filed with the Board an updated assessment of the rationale for the East-West Tie project. Regulatory Affairs managed the OPA's participation throughout this process.

Throughout 2012 and 2013 the OPA participated in the Board's Renewed Regulatory Framework for Electricity ("RRFE"), particularly with regard to its regional planning initiative. Regulatory Affairs staff worked with the Power System Planning division to file with the Board a number of submissions related to regional planning, and participated in regional planning stakeholder sessions and consultations. Regulatory Affairs staff also actively participated in coordinating the OPA's submissions in the resulting code amendment proceedings (TSC and DSC) related to regional planning, as well as the proceeding to amend the OPA's licence (EB-2013-0192). The Board issued its decision in this proceeding on October 21, 2013.

Throughout 2013, the Regulatory Affairs group also supported the Power System Planning and Conservation divisions in the preparation and publication of draft Integrated Regional Resource Plans, consistent with the regional planning process established by the Board under the RRFE.

The Regulatory Affairs group also managed the participation of the OPA in various other consultations before the Board in 2011, 2012 and 2013, such as the Board's policy review of micro-embedded generation connection issues (EB-2012-0246), and the OPA's participation in the load displacement generation working group (EB-2013-0004).

**First Nations and Métis Relations**

From 2011-2013, FNMR undertook capacity building activities, supported the delivery of the AEPP and ACP, supported the re-launch of ACEP, and helped to develop a business case for connecting remote First Nations communities to the provincial transmission grid. FNMR also supported the development of IPSP II and the 2013 LTEP. Further information on each of these 2011-2013 results is provided below.

*Capacity Building*

From 2011-2013, FNMR carried out capacity building initiatives with First Nations and Métis. In 2012, FNMR entered into an agreement with the Ontario Waterpower Association to hold two workshops in Thunder Bay for First Nation participants on waterpower development. Workshop 1 covered project engineering and environmental assessments while Workshop 2 covered project development and business planning. The two workshops were attended by participants from 24 First Nation communities.

From 2010-2013, FNMR provided capacity funding to Grand Council Treaty 3 to enhance the ability of the First Nation participants to become meaningfully engaged in opportunities relating to the *Green Energy and Green Economy Act, 2009,* the FIT program, and the AEPP; to seek input from the First Nation participants on Aboriginal participation in the electricity sector; to develop community capacity; and to establish ongoing positive relationships between the parties. The contract included five participant sessions that enabled information-sharing through presentations, facilitated discussion and the provision of feedback from the participants.

In 2011 FNMR managed the Interim Research Worker ("IRW") agreements entered into with First Nation tribal councils and communities. Relating to the connection of remote

communities, the IRW agreements saw the OPA provide funding for each contracting party to hire a staff member to research and document community electricity use. Once completed, the research was shared with the OPA in its development of a business case for connecting the remote, off-grid, communities in Northwest Ontario.

To assist the Métis Nation of Ontario ("MNO") which represents the majority of Ontario Métis communities, and Chiefs of Ontario ("COO"), an organization that represents 133 First Nation communities located within Ontario, to engage more effectively on upcoming electricity sector engagements as well as electricity sector issues generally, the OPA identified a need to support these organizations through individual funding agreements. The OPA concluded an agreement with MNO in late 2013 to create an Energy Policy Analyst staff position to provide in-house analysis on electricity issues. With some discussion occurring in 2013, the OPA is seeking to conclude a similar agreement with COO in 2014.

*OPA Programs*

FNMR supported the OPA's initiatives to encourage First Nation and Métis community participation in renewable energy generation and other energy related projects through ongoing development and implementation of the Aboriginal Renewable Energy Fund, the Aboriginal Renewable Energy Network, the Aboriginal Conservation Program and the Aboriginal Transmission Fund. FNMR also assisted with the refinement and re-launch of the Aboriginal Community Energy Plans program in 2013.

- *Aboriginal Renewable Energy Fund and Aboriginal Renewable Energy Network:* Since AREF launched in 2010, the OPA received 90 applications in total and approved 59 projects from 41 different communities. AREN continued to be updated with more information as it became available and a social media component was added. ACEP was re-launched in the summer of 2013. Further details about AEPP and its program components is provided at Exhibit B-3-1.

- *Aboriginal Conservation Program:* With respect to the Aboriginal Conservation Program, a directive was issued to the OPA on April 23, 2010 to design and coordinate the delivery of energy efficiency and demand response programs for First Nation and Métis communities. The OPA requested the advice and considered the recommendations of First Nation and Métis communities and organizations relating to program delivery. As part of the suite of **save**ON**energy** programs offered from 2011 to 2014, the Aboriginal Conservation Program is available to First Nations, Métis communities and urban Aboriginal peoples. Launched in August of 2013, the program is built upon some of the initiatives from the OPA-Contracted Province-Wide CDM Programs. The program was modified to address unique geographic, economic and social conditions that can affect the delivery of conservation initiatives. For Métis and urban Aboriginal persons, CDM workshops were organized in urban centres to assist them with learning about conservation and how they could participate in LDC-delivered programs. The OPA selected an external program manager owned and staffed by First Nation individuals to carry out program delivery and post-launch marketing, including local/Aboriginal community public relations.

- *Aboriginal Transmission Fund:* Since the inception of the AEPP, FNMR has supported the OPA's efforts to refine its component programs to better meet the needs of Ontario First Nations and Métis communities. On August 25, 2011, the OPA was directed to adjust AEPP to include the ATF in order to provide funding support to Aboriginal communities that are exploring equity positions in future, planned, major transmission lines in Ontario where the OPA has identified a need for transmission capacity. The OPA developed the program rules for the transmission aspect of the program, which is expected to be launched in early 2014. FNMR also supported the re-launch of ACEP to a proposal-based program.

*Remote Transmission Connection*

The OPA supported the work of the NWOFNTPC in its ongoing efforts to develop a plan containing a business case for connecting remote First Nations communities to the provincial transmission grid. FNMR accompanied other OPA staff on visits to the majority of the 21 remote First Nation communities identified in the Remotes Report in order to finalize the plan. The OPA expects to meet with the remaining communities and finalize the report by early 2014. For the four communities not identified as economic to connect, the 2013 LTEP contained a commitment to explore other opportunities to reduce diesel use in the North for these communities.

*2011 Integrated Power System Plan (IPSP II)*

In 2011 the OPA was directed to complete and submit to the Board an updated Integrated Power System Plan. The OPA, including FNMR, worked with the Ministry of Energy to arrange and deliver First Nation consultation sessions in Sudbury, Thunder Bay and Toronto. Topics included: conservation, electricity supply mix, transmission, and connection of remote First Nation communities in Northwest Ontario to the provincial transmission system. A total of 91 First Nations communities participated in the IPSP II consultation either through attendance at a regional session or by hosting one of 67 community meetings. The OPA and the Ministry of Energy met with two Métis

communities but were unable to arrange a regional meeting with the Métis Nation of Ontario.

*2013 Long-Term Energy Plan*

On April 16, 2013, the Minister of Energy announced the government's intention to review and update the 2010 LTEP. The OPA played a key role in the development of the 2013 LTEP. As part of this review the OPA partnered with the Ministry of Energy to deliver a series of Aboriginal engagement sessions across the province. The OPA and the Ministry sought input on topics such as: conservation, electricity supply mix, transmission, and First Nation and Métis participation in the energy sector. Ten sessions were held in 2013 including a "wrap up" session that confirmed what was heard in previous sessions and to collect any new input. Approximately 250 Aboriginal participants representing close to 100 First Nation and Métis communities and organization participated in the sessions.

# GOAL 5

## Engage with stakeholders, ratepayers, government and business partners to shape and support the activities that help the OPA to fulfill its mandate.

The Communications division of the OPA supports the organization's other divisions in delivering on strategic initiatives and meeting goals and objectives. This is done in three ways: 1) by raising awareness of, and seeking input from, stakeholders and ratepayers to improve OPA decision-making and programs; 2) by encouraging participation in conservation and demand management ("conservation") initiatives; and 3) by supporting enhancement of employee engagement.

The Communications division, responsible for carrying out Goal 5, consists of three groups: Corporate Communications; Marketing; and Stakeholder Relations.

The Corporate Communications group is responsible for internal and external communications. This includes employee communications through such vehicles as the internal website (LiveWIRE), an internal newsletter (Insider) and staff meetings. Externally, Corporate Communications oversees media relations, issues management, the executive speech program, and various external publications such as the annual report.

The Marketing group oversees corporate marketing with a focus on supporting the initiatives of the Conservation division. Marketing is also responsible for promoting the OPA's programs and activities using social media platforms.

The Stakeholder Relations group oversees engagement with stakeholders, First Nation and Métis communities, and others with an interest in the electricity sector.

In order to achieve Goal 5, the Communications division is pursuing the following three strategic initiatives in 2014:

1. *Strengthen community and stakeholder relations*
2. *Promote broad-based conservation awareness to help customers manage their electricity use and costs and to help local distribution companies engage their customers in conservation programs*
3. *Leverage technology and social media to reach external and internal audiences more effectively.*

## Strategic Initiatives

### Initiative 1 - Strengthen community and stakeholder relations

The OPA's success depends on positive, productive relationships with stakeholders. In 2013, the OPA renewed its focus on stakeholder relations and will continue this in 2014 with efforts to implement recommendations from the joint OPA and Independent Electricity System Operator ("IESO") planning and siting recommendations, with outreach related to procurement programs and regional planning, as well as other stakeholder engagement activities.

On May 6, 2013, the Minister of Energy asked the OPA and the IESO to work together to develop recommendations to improve how large energy infrastructure projects are sited and to include local voices in the planning and siting process. The OPA and IESO released their report entitled: "Engaging Local Communities in Ontario's Electricity Planning Continuum - Enhancing Regional Planning and Siting" (referred to as the "Planning and Siting Report") on August 1, 2013. The report included 18 recommendations that reflected feedback from more than 1,250 Ontarians, which were accepted by the government and announced by the Premier of Ontario and the Minister of Energy. The Communications division will work with the government specifically in implementing four of these 18 recommendations (recommendations 5,6,7, and 17).[1] During the 2013 consultations, local communities and stakeholders stated that they wanted a formal seat at the table. The inclusion of local communities in decision making around planning and siting large infrastructure projects will be accomplished by meeting with communities and local representatives to establish Local Advisory Committees ("LACs") in the active regional plan areas. The LACs will be asked for their input on community engagement activities to ensure they are comprehensive and tailored to the needs of the area. Additionally, web pages will continue to evolve for each of the regional plan areas and these pages will include planning reports, engagement plans, and other relevant materials as deemed necessary. The web pages will also provide links to relevant information on the OPA and IESO websites in an effort to increase awareness of the electricity sector. Further details on these 2014 activities are provided in the "Regional Planning" section below.

As well, outreach related to regional planning initiatives and procurements such as the Feed-In Tariff ("FIT") program and the Large Renewables Procurement ("LRP") will be undertaken in 2014.

[1] http://www.onregional-planning-and-siting-dialogue.ca/

Stakeholder Relations will continue to work closely with each of the OPA divisions as they develop strategic initiatives and programs to provide advice on the approach, format, audience and timing of engagements to ensure the OPA's objectives are met. Examples of these program-level engagement activities include the continued development of the FIT program and the development of the LRP process. Regular outreach activities will also continue such as the bi-monthly OPA management teleconference and webcasts.

*Stakeholder Advisory Committee*

The newly formed OPA Stakeholder Advisory Committee ("SAC") met for the first time in 2014, and will have six meetings throughout the year, beginning on January 7, 2014. The purpose of the 17-member SAC is to advise the OPA Board of Directors and Management on policy issues related to the OPA's mandate. By providing a forum to receive advice and recommendations from a diverse range of interests, the committee builds on existing OPA consultation and engagement initiatives, including the Advisory Council on Conservation and the Aboriginal Energy Working Group. To increase transparency and accessibility, all SAC meetings are open to the public, and materials and agendas are posted on the OPA website in advance. Meetings are also broadcast through a live webinar to allow individuals from across the province to participate.

*Regional Planning*

As previously discussed, the OPA will continue to implement the recommendations from the Planning and Siting Report. For the active regional plans, this means engaging with municipalities early and often, and establishing LACs to engage local representatives on the regional plans. Based on the recommendations in the Planning and Siting Report, in 2014 it is anticipated that LACs will be formed for the North of Dryden, York Region and Kitchener-Waterloo-Cambridge-Guelph regional plans. Engagement will also take place on the Central Toronto plan, and initial municipal outreach will take place on a number of additional regional plans. The OPA provides updates on all of its regional planning activities through the new regional planning web pages and e-mail subscription service launched in late 2013.

*Bulk System Planning*

In 2014, the OPA will continue to support the development work on the East-West Tie transmission line by the designated proponent, NextBridge Infrastructure. This will include participating in public

information sessions, reviewing materials to ensure need and scope of the project are accurately communicated, and developing an OPA web page on the project.

The Communications division will also support other bulk system planning engagement activities that may arise throughout the year.

*Procurement*

Stakeholders will remain engaged in 2014 in the development of the FIT program, including the 2015 price review, which will take place in the fall of 2014. Stakeholders will also be engaged in 2014 on the development of the LRP process. In January and February of 2014, the OPA engaged with municipalities and First Nation and Métis leaders, and held four open houses across the province where residents and businesses learned more about the interim recommendations provided to the Minister of Energy on August 30, 2013, and provided their feedback on the design and implementation of the Request for Qualification. In the second half of 2014, stakeholders will be engaged in the design of the Request for Proposal.

*Additional Engagement*

In 2014, the OPA will offer six management teleconferences to allow stakeholders to speak directly with the OPA's management team. In 2014, the OPA will also be undertaking survey research to learn more about the views and expectations of our stakeholders, and these results will be posted on the OPA website. Enhanced web information and feedback forms will also be implemented in 2014 to strengthen the dialogue with stakeholders.

A Stakeholder Strategy approved by the OPA Board in April 2013 focuses on engaging stakeholders with a more deliberate and strategic approach based on the best practices of consulting early, consulting often, and reporting back. Key activities to engage stakeholders in 2014 will include:

- Holding regular meetings of the Stakeholder Advisory Committee established in 2013 to provide policy level advice to the OPA Board of Directors;
- Holding an annual event for a wide variety of stakeholders;
- Expanding outreach to municipalities and the Association of Municipalities of Ontario ("AMO") to include regional planning and generation issues;
- Developing a common framework to improve and standardize stakeholder engagement across the OPA;

- Undertaking regular stakeholder surveys and posting the results;
- Enhancing stakeholder information on the OPA corporate website; and
- Maximizing the use of social media to communicate with stakeholders.

The Stakeholder Strategy referred to above included a recommendation to develop an internal stakeholder practices manual. This manual will document the OPA's stakeholder processes and outline the best practices in engaging stakeholders in the development and implementation of OPA programs and initiatives. The manual is meant for internal OPA staff use to further explore integrating stakeholdering and outreach into the OPA's work. It will incorporate the addition of a feedback loop when undertaking stakeholder activities to report back what the OPA heard from stakeholders. This will ensure feedback was captured accurately and provide an opportunity for additional insight prior to completing the engagement. The manual will be developed in Q2 2014 and will be shared with staff through an OPA-wide Learn@Lunch session scheduled for April 25, 2014, and through presentations to the individual divisions.

**Initiative 2 – Promote broad-based conservation awareness to help customers manage their electricity use and costs and to help local distribution companies engage their customers in conservation programs**

The success of the OPA also depends on its ability to promote its initiatives to Ontarians. In 2013, a consolidation of all of the OPA's marketing efforts under the Communications division took place. In 2014, this consolidated Marketing group will be spearheading new initiatives in support of all divisions of the OPA, with a significant focus on supporting Conservation programs. The Marketing group is also working with an external consultant to complete a Value of Advertising Audit that will review past advertising efforts and support the development of benchmarks and best practices for future advertising and marketing campaigns. The results of this audit will be presented to the OPA's Board in Q2 2014.

In 2014, the newly integrated Communications Marketing group will, in partnership with the Conservation division, place a significant emphasis on supporting local distribution companies ("LDCs") in their pursuit of their 2014 conservation and demand management targets. It will do this by focusing on consumer and business **save**ON**energy** initiatives deemed most effective in meeting conservation targets. On the business side, advertising and marketing initiatives resources will support the Retrofit Program, small business programs, and peak demand technologies such as DR3 and ***peaksaver* PLUS** for business, Multi-unit residential buildings and small businesses with demand under 250 kW. The focus of residential efforts will be TV, radio and online advertising to

support the **HEATING & COOLING INCENTIVE**, as well as ***peaksaver* PLUS**. Retailer events such as the annual, bi-annual and appliance exchange programs will also be held.

The use of AIR MILES reward miles to support Conservation programs has been successful. In 2014 the Marketing group will continue to promote the reward miles campaign to encourage participation in one of the three eligible conservation initiatives – ***peaksaver* PLUS, HEATING & COOLING INCENTIV**E and **FRIDGE & FREEZER PICKUP**.

The OPA's marketing strategy will focus on a series of targeted direct e-mail and social media campaigns that leverage both the OPA's permission-based customer database and various AIR MILES marketing vehicles. The Marketing group will also work closely with LDCs in the development of advertisements involving the AIR MILES reward miles offer.

The OPA's contract with AIR MILES expires at the end of 2014. Future use of the AIR MILES reward miles program will be determined once the marketing requirements for the OPA's role in conservation initiatives becomes clearer under the new conservation framework being developed for the period after 2014. Should the new framework include the AIR MILES reward program, the Marketing group will undertake contract negotiations with AIR MILES.

In 2014, the Marketing group is also leveraging the OPA's permission-based customer database to deliver a monthly conservation eNewsletter (Conserve and Connect) that enables ongoing interaction with Ontarians regarding the promotion of conservation programs, tips and/or events.

The OPA's newly revamped newsletter for an external audience, Arc, is part of a concerted new focus on social marketing and mobile digital technologies, which have become the preferred customer communication vehicles. The OPA plans to leverage these technologies in order to interact with and grow its customer database. Today, customers choose to subscribe to newsletters/digital services that are personalized and contain headlines on various topics that link to more in-depth online information. The latest industry best practices, also used by the OPA, focus on using a "content marketing" approach to develop compelling content that is then made available through traditional and social media, the various OPA websites, as well as search engines.

This content marketing approach will allow Ontarians to obtain ready access to more in-depth information on conservation and electricity issues as part of driving behavioural change initiatives to further reinforce the OPA brand as the valued source for information on electricity.

The OPA will continue to reach consumers, business and other stakeholders through a number of digital applications. This includes educational videos on electricity issues/savings opportunities; feature articles on energy-saving activities; guest blogs; updates on relevant energy-sector news; topical online panels; mobile application capability; consumer contests and opportunities for rewards through loyalty programs for participating in conservation.

In 2014, the OPA will continue to partner with industry and non-governmental organizations to interact with Ontarians to encourage them to embrace a culture of conservation at home, at work and in their communities. The OPA will continue to foster dialogue on conservation and electricity policy with the public and industry stakeholders by leveraging opportunities through participation in conferences, public forums and summits. These opportunities will be explored in a wide range of sectors, such as finance, business, academic, municipal, provincial and federal governments, and First Nations and Métis communities.

### Initiative 3 – Leverage technology and social media to reach external and internal audiences more effectively

The OPA continues to build out its social media capabilities to enable it to provide information to Ontarians on the digital platform of their choice.

Significant efforts to bolster the OPA's social media presence in 2013 will begin to pay dividends in 2014 as social media is incorporated in all marketing efforts. Social media channels such as Facebook, Twitter, LinkedIn and Youtube will allow the OPA to continue to connect with Ontarians in a fresher, more relevant way. As well, a broader social media presence provides an opportunity to gain insight into what Ontarians are saying, doing and sharing and, therefore, obtain valuable customer information. Finally, our social efforts will also be valuable in driving customers to the province-wide **save**ON**energy** conservation site and to the customized LDC conservation sites.

As part of its commitment to enhance stakeholder engagement at all levels, the OPA will continue to strengthen communications channels to external and employee audiences. This includes work to update the OPA's website to increase its functionality, and to enable it to be accessible on a range of devices.

Social media will play an increasingly larger role in community engagements as new communication vehicles are used to connect and receive feedback from stakeholders.

In 2014, the OPA will continue to consolidate comprehensive stakeholder information in one dedicated area of the OPA website, and will devote space on the OPA home page to stakeholder-related information. The OPA will review and adopt internet best practices of other stakeholder-focused organizations to ensure that its stakeholders have access to optimal information, navigation and media aids.

In addition, the OPA will evaluate best practices in stakeholder engagement technology and channels that offer the opportunity to ensure transparency, and to broaden participation among OPA's diverse population of stakeholders.

The OPA will revamp its e-mail subscription service to highlight the new stakeholder section of the website on a regular basis for the 16,000 people who currently subscribe.

In late 2011, the OPA launched a new intranet site (LiveWIRE) to strengthen communications and interactions with employees. The site will be refined and enhanced in 2014 through the use of social media and other tools designed to facilitate sharing of information and to deepen OPA staff knowledge of Ontario's electricity system. An external adviser will be retained to examine the structure of LiveWIRE to upgrade its navigability to ensure that information required by OPA employees is easily obtained.

## 2014 Milestones

By the end of 2014, the OPA will have reached the following milestones:

- Enhanced communication with stakeholders
- In conjunction with Power System Planning and Electricity Resources, implemented the accepted recommendations from the joint OPA-IESO report submitted to the Minister of Energy on regional energy planning and siting of large energy infrastructure
- In conjunction with the Conservation division, increased awareness of and expanded participation in **save**ON**energy** programs
- Optimized the use of communications technology, social media and other tools to communicate more effectively with external and internal audiences.

## 2014 Budget

The table below shows the 2014 budget for the Communications division by major cost category, the 2011 Board-approved budget and the 2013 actuals, and the variances to the 2014 budget. Analysis of variances is presented in Exhibit D-2-2.

**Goal 5 (Communications)**
**Variance between 2014 Budget and 2011 Board-approved Budget and variance between 2014 Budget and 2013 Actual**
**($'000)**

| Major Cost Category | 2011 Budget Board-approved | 2014 Budget | 2011-2014 Variance | 2013 Actual | 2013-2014 Variance |
|---|---|---|---|---|---|
| Compensation & Benefits | 2,781 | 2,655 | (126) | 2,742 | (87) |
| Professional & Consulting Fees | 2,155 | 1,193 | (962) | 507 | 686 |
| Operating & Administration Expenses | 855 | 550 | (305) | 437 | 113 |
| **Total Operating Costs** | **5,791** | **4,398** | **(1,393)** | **3,686** | **712** |

## 2011-2013 Results

## Stakeholder Relations

In 2011, 33 sessions were held with more than 3,000 participants. In 2012, 58 stakeholder events were held with approximately 6,000 participants. In 2013, 93 stakeholder events were held with approximately 5,900 participants. In total, from January 2011 to December 2013, 184 stakeholder consultation sessions were held with close to 14,900 participants. A complete list of 2011-2013 events can be found in Appendix A to this exhibit. The list below highlights the stakeholder sessions held in 2013.

- 15 Regional Planning and Siting sessions, including four webinars and eight in-person sessions held across the province in a three-week timeframe;
- 13 Large Renewables Procurement sessions, including two webinars and ten individual and group meetings;
- 13 FIT and microFIT program webinars, including consultations on the development of FIT 3.0 program and information sessions for constrained microFIT applicants;
- 20 **save**ON**energy** program updates for LDCs;
- 6 OPA management teleconferences;
- 3 LDC workshops and events for business and retail support training;
- 5 meetings of the Advisory Council on Conservation, including two in-person meetings, one in-person meeting with the Ministry of Energy, and two Council conference calls;
- 6 energy efficiency training sessions for LDCs;
- 8 Integrated Regional Resource Plan meetings, including seven in-person meetings and one webinar;
- 1 Hydroelectric Standard Offer Program municipal webinar;

- 2 Industrial Electricity Incentive Program sessions; and
- 1 Aboriginal Conservation Program launch.

## Marketing

Prior to May 2013, the marketing function of the Communications division was focused on the promotion and delivery of the AIR MILES reward miles campaigns to support conservation programs and OPA sponsorship activities.

The OPA's AIR MILES partnership began in 2010 with the development of the Power Pledge campaign. In 2011, the campaign name changed to support the new **save**ON**energy** brand and there were two pledges. One for the summer season (July 29 – October 11) and the other for fall and winter (October 11 – December 31). A key addition to the 2011 campaign was the market trial, designed to test the impact of awarding 100 bonus AIR MILES reward miles to Ontarians who acted on their pledge to have their eligible fridge and/or freezer picked up through the **save**ON**energy FRIDGE & FREEZER PICKUP** initiative. The AIR MILES bonus offer was available from October 11 to November 30. Building on 2010 pledge lessons learned, marketing strategies were shifted from a mass media approach (utilizing radio, print, online) to targeted marketing utilizing direct e-mails and social media. Following the completion of the campaign a total of over 113,000 individuals were included in the OPA's permission-based customer database.

In 2012, the campaign's focus was on the promotion of ***peaksaver* PLUS** enrollment and helping Ontarians manage the cost of their electricity bill. It ran from June 27 to December 14 and in addition to the basic pledge AIR MILES reward miles offer, the OPA awarded bonus reward miles to Ontarians who completed enrollment in ***peaksaver* PLUS**. A key addition to the 2012 campaign was the development of a ***peaksaver* PLUS** customer-led generation tool for LDCs to contact their customer's bi-weekly to arrange an installation. Advertising comprised of digital target marketing through AIR MILES' collector database.

During this same time period, the Marketing group supported a number of sponsorship activities, for example: funding support for the 2010-2013 WWF- Canada Earth Hour; 2010-2013 Habitat for Humanity Toronto program; 2010-2012 professional sports advertising and promotions sponsorship through Toronto FC; Toronto Forum for Global Cities - The International Economic Forum of the Americas; and annual conferences held by organizations such as APPrO, OSEA, CanWIA, OEA, CME, and AMO.

Additionally, the Marketing group also supported the development of advertising and other creative elements for various OPA divisions such as Aboriginal communications packaging, Aboriginal Community Energy Partnership program and the Aboriginal Renewable Energy Fund contract templates, and informative videos on the microFIT application process which were posted on the OPA's website.

## Corporate Communications

The OPA's media response protocol, which ensures a timely and suitable response to media inquiries, was further refined in 2013. Media requests are triaged for urgency. For complex, sensitive issues, the OPA now provides media access to appropriate spokespeople in a timely manner rather than providing written responses. Media requests continued to be tracked to monitor the volume of calls against coverage. In 2011, OPA media relations staff responded to 447 media requests, by e-mail or through interviews. In 2012, that number was 387. From January, 2013 to December 31, 2013, OPA media relations staff responded to 247 media requests. Responses were coordinated with the Ministry of Energy, and other relevant agencies where appropriate.

In its issues management work, the OPA continued to identify and develop responses to issues, where appropriate using a process-oriented approach. Required reviews are documented and key messages are more easily retrievable. This has enhanced the OPA's ability to respond to media and others in a timely manner.

In 2011, the Communications division participated in the development of 47 executive or director presentations as part of the OPA's speech program, which is designed to engage key sector and stakeholder audiences. This included 20 presentations by the CEO. In 2012, that number was 50, including 13 for the CEO and in 2013, that number was 54, including 20 for the CEO. Key speeches were posted on the OPA website and the LiveWIRE intranet.

Technical direction and oversight were provided for the development or evolution of website elements of a number of projects, including: FIT 2.0 revisions; the mysaveONenergypledge.ca site; merger communications; power system planning; contract management, and aboriginal relations.

Four issues of OPA News Online, a quarterly web-based newsletter of topical OPA matters of interest, were distributed to 16,000 subscribers. In October, 2013, this publication was overhauled under a new name, Arc, to present news of OPA activities and accomplishments, but also features

about OPA staff. Ten issues of The Insider, a monthly newsletter for internal distribution to OPA staff, were also distributed in 2013.

# APPENDIX A – INVENTORY OF STAKEHOLDER CONSULTATIONS

From January 2011 to December 2013, 184 stakeholder consultation sessions were held with close to 14,900 participants. Table 1 lists the stakeholder sessions held during this timeframe by year.

**Table 1: Number of Stakeholder Consultation Sessions to December 2013**

| Year | Number of Sessions (cumulative) | Number of Participants (cumulative) | Consultations |
|---|---|---|---|
| 2013 | 93 | 5,867 | 13 FIT and microFIT sessions<br>20 **save**ON**energy** program updates for LDCs<br>15 Regional Energy Planning and Siting sessions<br>13 Large Renewables Procurement sessions<br>6 Energy efficiency training sessions for LDCs<br>3 LDC workshops and events for business and retail support training<br>5 Advisory Council on Conservation meetings<br>8 Integrated Regional Resource Planning sessions<br>6 OPA management teleconferences<br>2 Industrial Electricity Incentive Program sessions<br>1 Aboriginal Conservation Program launch<br>1 Hydroelectric Standard Offer Program webinar |
| 2012 | 58 | 5,980 | 6 FIT and microFIT programs<br>26 **save**ON**energy** program updates for LDCs<br>4 ***peaksaver*PLUS** LDC training sessions<br>3 CRM regional training sessions for LDCs<br>4 Energy efficiency training sessions for LDCs<br>5 LDC workshops and events for business and retail support training<br>5 Advisory Council on Conservation meetings<br>2 OPA management teleconferences<br>2 Industrial Electricity Incentive Program introduction sessions<br>1 Staff merger survey results |
| 2011 | 33 | 3,073 | 14 FIT and microFIT programs<br>5 Procurements (CHPSOP, CHP IV, NUGs, ERSOP) |

| Year | Number of Sessions (cumulative) | Number of Participants (cumulative) | Consultations |
|---|---|---|---|
| | | | 4 IPSP II<br>3 Municipal Energy Conservation Officer initiative<br>2 OPA quarterly management teleconference<br>2 Home Assistance Program<br>1 OPA Board of Directors stakeholder day (participant numbers not included)<br>1 Environmental attributes<br>1 2011–2014 Conservation Program Symposium |

1

# OPA EFFICIENCY METRICS

## 1.0 INTRODUCTION

The Ontario Energy Board's ("Board") Decision and Order in the OPA's 2011 revenue requirement submission (EB-2010-0279) directed the OPA:

> …to develop a more complete and informative set of performance and efficiency metrics, cost benchmarking and program milestone tools in order to assist the Board with its determination that the applied-for Net Revenue Requirement is appropriate.

As part of preparation for its 2012 revenue requirement submission ("RRS"), the OPA undertook to engage with intervenors on the subject of metrics or other methods of assessing the OPA's performance and efficiency over time. The efforts the OPA undertook in 2011 to develop these proposed metrics, as well as the steps taken in 2013 to assess the continued relevance of these measures, are described below. Results for the proposed metrics for the 2011 to 2013 period, as well as targets for the 2014 fiscal year, follow, along with a discussion of the key performance trends illustrated by some of these metrics, and recommendations for how the OPA might continue to improve upon these measures.

## 2.0 DEVELOPMENT OF METRICS

One of the OPA's first steps to address the Board's concerns with respect to efficiency metrics was to conduct a review of its operations, facilitated by Concentric Energy Advisors, Inc. ("Concentric") in the second half of 2011. This involved working with a number of staff in each of the functional areas across the OPA to develop a set of proposed metrics. The OPA also commissioned Concentric to undertake a review of efficiency metrics used by other North American energy entities that carry out at least one of the mandates of the OPA. This review provided a summary of metrics used by other entities that might be applicable to the OPA's operations. Together this information was used to prepare a draft list of metrics for consultation with the intervenors that had participated in the OPA's 2011 RRS. These intervenors provided their feedback during a stakeholder session held on October 20, 2011. Following this stakeholder session a list of proposed

metrics was established; this list is included at Exhibit C-1-3. A summary of the stakeholder session held in October 2011 is provided in Exhibit C-1-2.

In 2013, the OPA commissioned Concentric to conduct an updated review of all data sources, as well as a jurisdictional review, to confirm that no new metrics had been proposed or utilized by the entities reviewed, and that the recommended metrics developed in 2011 are still applicable. The report prepared by Concentric can be found at Exhibit C-1-4.

Developing efficiency metrics for an organization such as the OPA is an inherently challenging exercise. This observation was supported both during the stakeholder consultation and in the Concentric report. The OPA has a unique mandate that cannot be easily benchmarked against other organizations, and much of the work of the OPA does not lend itself to easily quantifiable measures. Internal benchmarking is also challenging due to the changes that occur to the OPA's mandate as directives are issued to it through the course of any particular year, resulting in changes in priorities and related internal resource allocation. As stated in the Concentric report:

> It is important to emphasize that the research conducted by Concentric did not reveal a single organization that was directly comparable to the OPA in terms of all of its functions and strategic objectives. The metrics that Concentric is recommending are based on organizations that provide a subset of services that are provided by the OPA. In doing so, organizational efficiencies that may be gained through operations as a single entity may be difficult to discern. Likewise, performance of organizations that perform a subset of the OPA's functions may realize efficiencies as a single-purpose entity. Therefore, Concentric is not suggesting that direct comparisons be made to the organizations listed, but instead provides a framework of metrics that are recognized within the industry and are applicable to the OPA.

While Concentric's 2013 update did not identify any additional metrics relevant to the OPA, Concentric did suggest that:

> Because the OPA's responsibilities, in total, are not comparable to any other single organization, it is reasonable to take a broader approach to developing measures of

organizational effectiveness. Key initiatives for the OPA with measureable targets can be developed for the forecast period and can be combined with the list of recommended metrics for each of the OPA's key areas of responsibility. The resulting hybrid list of metrics and performance targets for the OPA should be considered further as a measure of the organization's efficiency and effectiveness.

In Exhibit C-1-3, and in the results discussion below, the OPA has tried to be as transparent as possible in discussing the strengths and weaknesses of each proposed metric. Each metric has deficiencies and each has the potential to be misleading or not informative in the context of performance trends. The OPA will be greatly assisted by Board's guidance regarding efficiency metrics that would better assist the Board in reviewing the OPA's application, including the potential use of performance targets as recommended by Concentric.

Additionally, while acknowledging the concerns expressed by the Board in EB-2010-0279 regarding cumulative metrics, the OPA has continued to provide some cumulative metrics in this exhibit. The OPA believes that in addition to incremental measures, cumulative metrics remain relevant and important measures of the OPA's efficiency. A significant portion of the OPA's activities are dedicated to the ongoing and active management of generation and conservation and demand management ("conservation" or "CDM") contracts and initiatives. For example, while the level of incremental contracts offered in a particular year may fluctuate, in some cases showing a net decline in incremental megawatts or dollars as the result of procurement program cycles, the level of resources required to effectively manage the OPA's existing base of contracts remains significant. Cumulative metrics provide a reasonable measure of the OPA's efficiency at managing both the additional contracts that may be awarded in a given year, as well as those that have been previously awarded.

## 3.0 2011-2013 EFFICIENCY METRICS RESULTS

This section describes the findings shown by the metrics as a whole, and furthermore assesses the relative effectiveness of the metrics in measuring the OPA's performance. Specific metrics for each of the relevant divisions are discussed in more detail in the

sections that follow. The OPA has provided data for all proposed metrics that were developed in 2011, and in addition to evaluating the relative effectiveness of the initial list of metrics, has proposed newly developed alternate measures for the Board's consideration. While no specific metrics are presented for the OPA's internal services groups (CEO Office; Business Strategies and Solutions; and Legal, Aboriginal, and Regulatory Affairs), it should be noted that allocated headcount and budget values for the shared services divisions have been included in the metrics for the OPA's operating divisions as appropriate.

**Key Themes**

The divisional metrics show an overall favourable trend over the 2011-2013 period, with increased efficiencies in contract management and in the procurement of energy savings and generation. In the Conservation division, efficiencies in procurement and program administration are also clearly evident.

In the Conservation division, the cumulative $ Value of Invoices ($M) per Full Time Equivalent ("FTE") (*refer to Conservation metric 1.2.2*) and the cumulative Number of Invoices per FTE (*refer to Conservation metric 1.4.2*) metrics show increased efficiencies. Key efficiency improvement drivers are program participation growth and implementation of improvements to the settlement system. There is also a positive trend in energy savings annually both per FTE and per budgeted expenses. This was achieved through the development of enabling measures, tools and enhancements to conservation programs to support the local distribution companies' ("LDCs") pursuit of their 2011-2014 CDM targets.

In the Electricity Resources division, by the end of 2014, the OPA expects to be managing approximately 28,000 contracts representing nearly 27,000 MW of supply (more than two thirds of the installed capacity in Ontario). While the megawatts contracted by the OPA are targeted to increase by nearly 30 percent between 2011 and 2014, the number of contracts the OPA manages is expected to increase by more than 130 percent for the same period. This results in nearly double the number of contracts managed per FTE within the Contract Management group, including shared services support (*refer to Electricity Resources metric*

*1.3*). This increase in the number of contracts managed per FTE is an ongoing trend over the reporting period.

In the Power System Planning and Communications divisions, metrics are more qualitative in focus. The Power System Planning division has provided value to ratepayers through the development of annual system updates (*refer to Power System Planning metric 1.2*). Metrics for the Communications division show a strong focus on increasing transparency and inclusivity in the OPA's stakeholder practices, with high targets for stakeholder survey results having been established for 2014 in the areas of favourability, transparency, and communication effectiveness, compared to results achieved over the reporting period.

**Relative Merits of Various Metrics**

In reviewing the proposed metrics in the context of available results for the 2011 to 2013 period, the OPA found that a number of metrics did not provide an informative assessment of organizational efficiency. In some cases, a component of the metric was not meaningful, or was influenced by timing or other external factors in a manner that obscured any consistent and material trend, or made interpretation of the metric challenging. During 2013, OPA's staff proposed additional metrics that more directly reflected relevant trends in the OPA's operations, milestones achieved and scope of work relative to resource utilization. The metrics that did not show material trends or resulted in inconclusive data over the 2011 to 2013 period are listed below:

- Conservation – Contract Management: Incremental $ Value of Invoices ($M) per FTE and Incremental Number of Invoices per FTE (r*efer to Conservation metric 1.2.1 and 1.4.1*). Incremental values are calculated based on the change in the cumulative dollar value and number of invoices between years. These metrics do not provide an informative measure of the OPA's efficiency in managing conservation activities, as expiry of contracts over the contract life-cycle and associated changes in invoicing levels make incremental values challenging to interpret.
- Conservation – Operations: Culture of Conservation (*refer to Conservation metric 3.3*). The Culture of Conservation metric represents the collective results of the entire sector's efforts to engage people with energy conservation, and is not an informative measure of the OPA's efficiency in delivering conservation initiatives.

- Electricity Resources – Procurement: Incremental Supply Procured by Resource Type (*refer to Electricity Resources metrics 2.1 and 2.2*). The resource mix procured in a given year is primarily the result of procurement program cycles and government direction on procurement amounts. Additionally, the attrition of projects under development over the contract life-cycle makes incremental megawatt procured values challenging to interpret. As a result, this metric does not provide an informative measure of the OPA's efficiency in procuring electricity generation facilities.
- Electricity Resources – Procurement: Generation Procurement Cost Disclosure (*refer to Electricity Resources metric 2.4*). The costs associated with generation production from facilities settled by the OPA are the result of a number of factors beyond the control of the OPA, including electricity demand, and generator and transmission availability. Additionally, in some cases the OPA is directed to procure resources at a certain price. As a result, this metric does not provide an informative measure of the OPA's efficiency in procuring electricity generation facilities.
- Electricity Resources – Operation: Program Budget as a percentage of program charge (*refer to Electricity Resources metric 3.1*). Program budget amounts for electricity generation procurements are a very small portion of the cost of electricity generation (approximately 0%), and as a result do not provide an informative measure of the OPA's efficiency in procuring electricity generation facilities.

It is recommended that the Board consider other potential metrics for tracking the OPA's performance on a going forward basis. Proposed metrics include:

- Conservation – Operations: Residential customers satisfaction (*refer to Conservation metric 3.4.1 and 3.4.2*)
- Conservation – Operations: Business customers satisfaction (*refer to Conservation metric 3.5.1 and 3.5.2*)
- Conservation – Operations: LDC satisfaction (*refer to Conservation metric 3.6.1 and 3.6.2*)

The OPA intends to continue to refine and expand its performance metrics based on Board, stakeholder, and staff input throughout the 2014 fiscal year and beyond.

## 4.0 CONSERVATION METRICS 2011-2014

The list of proposed efficiency metrics for the Conservation division is shown below. It contains 26 metrics which measure the Conservation division's efficiencies and effectiveness in contract management, energy savings and its efforts to increase awareness in conservation activities across the province.

Table 1

| Reference | Department | Metric | 2011 Actual | 2012 Actual | 2013 Actual or Estimate * | 2014 Target | Assumptions |
|---|---|---|---|---|---|---|---|
| 1 | **Contract Management** | | | | | | |
| 1.1 | | Number of Contracts / Program / FTE | | | | | FTE = # of staff in Conservation Operation department + legal counsel support |
| 1.1.1 | | Incremental | 3 | 3 | 2 | 1 | **Number of Contracts:** |
| 1.1.2 | | Cumulative | 5 | 8 | 7 | 7 | Incremental = total number of new master agreements |
| 1.2 | | $ Value of Invoices ($M) / FTE | | | | | + total number of new SOW/Schedules/PPO |
| 1.2.1 | | Incremental | $1.1 | $2.3 | $0.9* | $0.3 | Cumulative = prior year Cumulative + current year New - Terminated on Dec 31 of prior year |
| 1.2.2 | | Cumulative | $14.0 | $17.1 | $18.8 | $19.8 | - Terminated to Dec 30 in current year |
| 1.3 | | Number of Contracts / FTE | | | | | **$ Value of Invoices ($M):** |
| 1.3.1 | | Incremental | 17 | 17 | 8 | 4 | Incremental = cumulative of current year - cumulative of prior year |
| 1.3.2 | | Cumulative | 26 | 39 | 37 | 36 | Cumulative = total $ value of invoices paid in a given year |
| 1.4 | | Number of Invoices / FTE | | | | | **Number of Invoices:** |
| 1.4.1 | | Incremental | (117) | 31 | 161 * | 13 | Incremental = cumulative of current year - cumulative of prior year |
| 1.4.2 | | Cumulative | 161 | 202 | 372 | 400 | Cumulative = total number of invoices processed in a given year |
| | | | | | | | |
| 2 | **Procurement** | | | | | | |
| 2.1 | | Net incremental energy reduction (MWh) on an annual basis | 716,726 | 671,022 | 868,542 * | 1,385,583 | FTE = # of staff in Conservation division + shared service allocated staff |
| 2.1.1 | | Per FTE (MWh/FTE) | 6,863 | 6,699 | 8,969 * | 14,708 | Conservation fees budget = Conservation division operating expenses budget |
| 2.1.2 | | per Conservation fees actual or budget (MWh/$M) | 27,212 | 26,910 | 36,557 * | 61,930 | + shared service allocated expense budget |
| 2.1.3 | | per Conservation charges / program spending (MWh/$M) | 2,255 | 2,229 | 2,591 * | 2,866 | |
| 2.2 | | Net incremental peak demand reduction (MW) on an annual basis | 645 | 643 | 862 * | 810 | |
| 2.2.1 | | Per FTE (MW/FTE) | 6 | 6 | 9 * | 9 | |
| 2.2.2 | | per Conservation fees actual or budget (MW/$M) | 24 | 26 | 36 * | 36 | |
| 2.2.3 | | per Conservation charges / program spending (MW/$M) | 2 | 2 | 3 * | 2 | |
| | | | | | | | |
| 3 | **Operations** | | | | | | |
| 3.1 | | OPA Program Costs as a percentage of Total Delivery Costs | 41% | 40% | 28% | 23% | |
| 3.2 | | Delivery cost of conservation programs per kWh saved (Cents in kWh) | 3.07 | 3.96 | 4.94 | 4.23 | |
| 3.3 | | Culture of conservation | 103 | 101 | 97 | N/A | Replaced by new satisfaction metrics in 2014 |
| 3.4 | **New metric** | Residential customers satisfaction | | | | | |
| 3.4.1 | | Met or exceeded expectations | | | 90% | 90% | |
| 3.4.2 | | Exceeded expectations | | | 13% | 16% | Increase 'exceeded expectations' from 13% to 16% |
| 3.5 | | Business customers satisfaction | | | | | |
| 3.5.1 | | Met or exceeded expectations | | | 91% | 91% | |
| 3.5.2 | | Exceeded expectations | | | 14% | 17% | Increase 'exceeded expectations' from 14% to 17% |
| 3.6 | | LDCs satisfaction | | | | | |
| 3.6.1 | | Report that relationship with OPA Conservation is good or very good | | | 83% | 83% | |
| 3.6.2 | | Report that relationship with OPA Conservation is very good | | | 19% | 23% | Increase 'very good' from 19% to 23% |

***Notes:***

All Energy and Demand numbers are reported at the generator level.

2011 and 2012 savings data comes from the energy savings data submitted to ECO in 2011 and 2012.

2013 and 2014 target data for OPA-Contracted CDM Programs is forecasted.

2013 and 2014 target data for OPA-Delivered CDM Programs is forecasted.

Actual average cost savings are based on data submitted to ECO in 2012.

Target average cost savings for 2013 and 2014 are forecasted.

The OPA-Delivered CDM Programs consist of the Industrial Accelerator Program, Aboriginal Conservation Program and Non-Tier 1 Demand Response; the Demand Response conversion from ex-ante MW to ex-post GWh is based on the 2012 final results.

## 4.1 Conservation Contract Management

With increasing business programs participation over the 2011 to 2013 period, the OPA has maintained effective operational processes in terms of contract and invoices management.

*Number of Contracts per Program per FTE, and Number of Contracts per FTE (refer to Conservation metric 1.1 and 1.3)*: These metrics measure the efficiency of contract management on a per FTE basis. While a significant number of contracts are managed by the Conservation division, evidenced through the relatively constant cumulative metric presented above, operational efficiencies have been implemented to reduce the number of incremental contracts to be administered by the OPA. For example, the OPA now procures EM&V services at the program level (residential, business and industrial) rather than at the initiative level, which has resulted in a lower incremental contract per FTE level over the 2013 and 2014 period compared to prior years. Additionally, in 2013 and 2014, the number of new conservation contracts the OPA has or plans to procure is decreasing as there are fewer new services required to support the current conservation program framework. During this time, activity has focused on managing existing contracts and amendments. The OPA anticipates the number of contracts per program per FTE will increase going forward, as the new conservation framework is established.

*Number of Invoices per FTE and $ Value of Invoices ($M) per FTE (refer to Conservation metric 1.2 and 1.4)*: These metrics show increased efficiencies in invoice management year-over-year. The increase in number and value of invoices per FTE from 2011 to 2014 (as shown in the respective cumulative metrics) is indicative of growing program participation which led to an increase in the number of conservation invoices processed, as well as year-over-year improvements to the OPA's settlement system. In 2013, the LDC billing frequency changed from monthly to bi-weekly, which also resulted in an increased number of invoices processed.

## 4.2 Conservation Procurement

The Conservation metrics table presents final verified savings for the years 2011 and 2012. 2013 and 2014 figures are based on forecasted data (2013 final verified results will be available in Q3 2014 as per annual evaluation calendar).

*Net incremental energy reduction (MWh) on an annual basis per FTE, per Conservation Expenditure (Actual or Budget), and per Conservation charges (refer to Conservation metric 2.1)*: This metric measures the energy savings as a result of the OPA's Conservation programs. The first two years program performance and the projections for 2013 and 2014 indicate that the OPA and its LDC partners are well on their way to meeting the energy targets established by the Board for the program period 2011-2014. 2011 established a good foundation for the 2011-2014 program framework, with a portion of the reported savings being generated from pre-2011 program participation, with savings that materialized in 2011 (installed project date). 2012 and 2013 continued to build on the momentum of 2011 with significant results in program participation, and energy savings. The focus in 2014 is on accelerating savings through enabling measures, tools and enhancements to support LDCs in the pursuit of their 2014 targets. The results of this metric show a favourable trend in the achievement of energy savings over the 2011-2014 period, with energy savings per FTE, expenditure, and charges increasing over the four-year period.

*Net incremental peak demand reduction (MW) on an annual basis per FTE, per Conservation Fees Expenditures (Actual or Budget), and per Conservation charges (refer to Conservation metric 2.2)*: This metric measures the peak demand reduction as a result of the OPA's Conservation programs. The results of this metric show a favourable trend in the efficiency of the achievement of peak demand savings over the 2011-2014 period, with peak demand savings per FTE, fees expenditures, and charges increasing or remaining constant over the four-year period. Peak demand savings over the 2011-2014 period have been impacted by the OPA's ability to procure demand response resources. With the availability of behind-the-meter generation options for Industrial customers through the

Process and Systems Upgrade initiatives, it is expected that behind-the-meter generation will contribute to additional demand savings in 2014.

## 4.3 Conservation Operations

*OPA Program Costs as a percentage of Total Delivery Costs (refer to Conservation metric 3.1)*: The OPA program costs as a percentage of total delivery costs reflects contractual obligations between the OPA and LDCs. The higher percentage in earlier years reflects front-end loaded LDC administrative funding to ensure financial sustainability on a year-over-year basis to administer the province-wide programs.

*Delivery cost of conservation programs per kWh saved (Cents in kWh) (refer to Conservation metric 3.2)*: The levelized delivery cost is used to represent the delivery cost of Conservation programs per kWh saved. It is a metric that expresses delivery costs per unit of energy saved on an annualized basis in terms of $/MWh (or cents/kWh). It accounts for the energy savings that persist over the effective useful life of measures associated with the implementation of a CDM program. This metric provides a basis for comparing conservation programs with each other and with supply-side resources. The OPA has been reporting a levelized cost of delivering conservation within the 3-4 cents per kilowatt hour range in the 2011-2014 period (actual or estimated).

*Culture of Conservation (refer to Conservation metric 3.3)*: This metric is a measure of public awareness of energy conservation over time. The metric shows a decline in public awareness of energy conservation over the reporting period. The Culture of Conservation metric represents the collective results of the entire sector's efforts to engage people with energy conservation. In 2014 the Culture of Conservation metric is proposed to be replaced by a **save**ON**energy** program Customer Experience score. This metric is more directly aligned with 2014 Conservation division strategic initiatives and province-wide conservation savings targets. Additionally, the experience of participating in a program is directly impacted by the OPA, LDCs and the OPA's other channel partners.

The Customer Experience score is comprised of Residential Customer, Business Customer and LDC satisfaction metrics (refer to Conservation metric 3.4.1, 3.4.2, 3.5.1, 3.5.2, 3.6.1

and 3.6.2) which more directly capture the experience of residential and business customers participating in programs, as well as the OPA's relationship with major channel partners. Also, the experience of participating in a program and the support provided to LDCs is directly or indirectly influenced by OPA's Conservation division, whereas the Culture of Conservation metric represents the collective results of the entire sector's efforts to engage people with energy conservation, with OPA's impact being more indirect.

The OPA began tracking results for these proposed metrics in 2013. For 2014, the Conservation division aims to increase or maintain satisfaction scores compared to 2013 levels, focusing on increasing the number of program participants whose expectations were exceeded, and the number of LDCs that report a "very good" relationship with the OPA. Improvements in these areas are expected to drive additional conservation savings through repeat business and word-of-mouth recommendations, as well as increased alignment between OPA and LDC channel engagement strategies and efforts.

## 5.0 ELECTRICITY RESOURCES METRICS 2011-2014

The list of efficiency metrics as developed for the Electricity Resources division is shown below. It contains nine metrics that were designed to reflect efficiency and effectiveness in contract management and in procurement, as well as transparency around uncured events of default.

Table 2

| Reference | Metric | 2011 Actual | 2012 Actual | 2013 Actual | 2014 Target |
|---|---|---|---|---|---|
| 1 | **Contract Management** | | | | |
| | | | | | |
| 1.1 | **Generation under Contract - Including Shared Services (MW/FTE)** | | | | |
| 1.1.1 | Bioenergy | 4 | 7 | 7 | 10 |
| 1.1.2 | Solar | 43 | 38 | 39 | 46 |
| 1.1.3 | Wind | 123 | 111 | 105 | 107 |
| 1.1.4 | Total Non- Hydro renewable | 170 | 156 | 151 | 163 |
| 1.1.5 | Hydro | 50 | 47 | 44 | 45 |
| 1.1.6 | Total Renewable | 220 | 203 | 194 | 208 |
| 1.1.7 | Gas/CHP/EFW | 162 | 170 | 161 | 163 |
| 1.1.8 | Nuclear | 64 | 57 | 55 | 115 |
| 1.1.9 | ***Total*** | ***446*** | ***430*** | ***410*** | ***487*** |
| | | | | | |
| 1.2 | **Generation under Contract - Including Shared Services (Actual & Forecast $ /MW)** | | | | |
| 1.2.1 | Bioenergy | $ 58,460 | $ 26,793 | $ 36,798 | $ 25,715 |
| 1.2.2 | Solar | $ 6,184 | $ 5,024 | $ 6,332 | $ 5,266 |
| 1.2.3 | Wind | $ 2,136 | $ 1,731 | $ 2,362 | $ 2,289 |
| 1.2.4 | Total Non- Hydro renewable | $ 1,545 | $ 1,229 | $ 1,643 | $ 1,502 |
| 1.2.5 | Hydro | $ 5,283 | $ 4,118 | $ 5,665 | $ 5,442 |
| 1.2.6 | Total Renewable | $ 1,196 | $ 946 | $ 1,274 | $ 1,177 |
| 1.2.7 | Gas/CHP/EFW | $ 1,620 | $ 1,131 | $ 1,535 | $ 1,500 |
| 1.2.8 | Nuclear | $ 4,137 | $ 3,342 | $ 4,513 | $ 2,122 |
| 1.2.9 | ***Total*** | ***$ 590*** | ***$ 446*** | ***$ 603*** | ***$ 503*** |
| | | | | | |
| 1.3 | **Number of contracts (cumulative)/Contract Management FTE** | 256 | 321 | 386 | 507 |
| 1.4 | **Number of contracts (incremental)/Contract Management FTE** | 231.6 | 89.8 | 79.1 | 126.2 |
| | | | | | |
| 1.5 | **Communication:** Measures timeliness of communicating uncured events of default to contract holders as a result of: | | | | |
| 1.5.1 | OPA's failure to perform any material covenant or obligation as set in the contracts. | 0 | 0 | 0 | 0 |
| 1.5.2 | Inaccurate or untimely financial settlement by OPA with contract counterparties. | 0 | 0 | 0 | 0 |

Table 3

| Reference | Metric | 2011 Actual | 2012 Actual | 2013 Actual | 2014 Target | Assumptions |
|---|---|---|---|---|---|---|
| 2 | **Procurement** | | | | | |
| | **Incremental Supply Procured (MW) - Required by Resource Type - Including Shared Services (MW/FTE)** | | | | | |
| 2.1 | ***Incremental is the net difference between years*** | | | | | |
| 2.1.1 | Bioenergy | 0.96 | 4.24 | -0.12 | 3.80 | |
| 2.1.2 | Solar | 20.35 | -0.30 | 2.85 | 10.43 | |
| 2.1.3 | Wind | 73.38 | -0.52 | -1.16 | 4.75 | |
| 2.1.4 | Total Non- Hydro renewable | 94.68 | 3.42 | 1.57 | 18.98 | |
| 2.1.5 | Hydro | 0.60 | 2.24 | -0.89 | 2.50 | |
| 2.1.6 | Total Renewable | 95.28 | 5.65 | 0.67 | 21.48 | |
| 2.1.7 | Gas/CHP/EFW | -8.27 | 31.64 | -1.00 | 5.57 | |
| 2.1.8 | Nuclear | 0.00 | 0.00 | 0.00 | 80.58 | |
| 2.1.9 | ***Total*** | 87.01 | 37.30 | -0.32 | 107.62 | |
| | | | | | | |
| 2.2 | **Cost per Incremental Supply Procured - Including Shared Services (Actual & Forecast $/MW)** | | | | | |
| 2.2.1 | Bioenergy | $ 206,583.07 | $ 55,342.80 | $ (1,291,660.00) | $ 44,102.54 | |
| 2.2.2 | Solar | $ 9,709.74 | $ (790,820.83) | $ 56,469.64 | $ 16,047.99 | |
| 2.2.3 | Wind | $ 2,692.98 | $ (447,552.45) | $ (138,506.01) | $ 35,233.75 | |
| 2.2.4 | Total Non- Hydro renewable | $ 2,086.96 | $ 68,632.71 | $ 102,938.59 | $ 8,820.72 | |
| 2.2.5 | Hydro | $ 331,155.78 | $ 104,832.10 | $ (180,651.95) | $ 66,876.78 | |
| 2.2.6 | Total Renewable | $ 2,073.89 | $ 41,477.64 | $ 239,290.34 | $ 7,792.88 | |
| 2.2.7 | Gas/CHP/EFW | $ (23,902.79) | $ 7,411.70 | $ (161,865.60) | $ 30,055.32 | |
| 2.2.8 | Nuclear | NA | NA | NA | $ 2,077.35 | |
| 2.2.9 | ***Total*** | $ 2,270.93 | $ 6,288.07 | $ (500,264.81) | $ 1,555.27 | |
| | | | | | | |
| 2.3 | **microFIT application times:** | | | | | |
| 2.3.1 | Average application review time in days | | | 11 | 14 | Data reflects applications received from August 2013 to present. Data for prior years was not tracked due to IT system limitations. |
| 2.4 | **Generation Procurement Cost Disclosure ($/MW):** | | | | | |
| 2.4.1 | *Measures the cost of new generation supply contracts that are managed and financially settled by the OPA ($/MWh)* | 2009-2012 average | | | | |
| 2.4.2 | *Bioenergy* | 84 | | N/A | N/A | Figures are for 2009 to 2012 and reflect the unit cost of electricity production ($/MWh). 2013 data is not yet available |
| 2.4.3 | *Wind* | 90 | | N/A | N/A | |
| 2.4.4 | *Hydro* | 81 | | N/A | N/A | |
| 2.4.5 | *Gas* | 86 | | N/A | N/A | |
| 2.4.6 | *CHP* | 111 | | N/A | N/A | |
| 2.4.7 | *Nuclear* | 58 | | N/A | N/A | |
| | ***Figures are reflective of 2009-2012, 2013 data is not available*** | | | | | |
| 3 | **Operations** | **2011 Actual** | **2012 Actual** | **2013 Actual** | **2014 Target** | |
| 3.1 | **Program Budget as a percentage of program charges** | 0.00% | 0.00% | 0.00% | 0.00% | |

## 5.1 Contract Management in Electricity Resources

*Generation under contract per contract management FTE including shared services* (*refer to Electricity Resources metric 1.1)*: This metric reflects the amount of generation in megawatts that is managed per staff person in the Contract Management group (including shared services). This group is responsible for current contracts, for facilities that are both under development and those that have achieved their commercial in-service dates. As seen in the total, a nine percent increase in the number of megawatts under contract per FTE is expected between 2011 and 2014, reflecting the increase in the overall number of contracts held by the OPA (*refer to Electricity Resources metric 1.1.9*). The Cumulative Number of Contracts Managed per Contract Management FTE including shared services (*refer to Electricity Resources metric 1.3*) shows a significant increase, nearly 100 percent, over the 2011-2014 period. The larger increase in the number of contracts held per FTE compared to the megawatts managed per FTE reflects the large increase in the number of solar facilities contracted through the microFIT program.

*Generation under contract per Contract Management expenditures (actual or budget) (refer to Electricity Resources metric 1.2)* reflects expenditures per megawatt managed. This metric is broken out by technology type, with no discernible pattern over the reporting period.

The OPA has been consistent across the reporting period in not having any uncured events of default to contract holders, or inaccurate or untimely financial settlement with counterparties as reported in metric 1.5.

## 5.2 Procurement in Electricity Resources

The procurement metrics reflect FTEs and budget expenditures by the Procurement groups in Electricity Resources (Clean Energy Procurement and Renewables Procurement). The megawatts used is the incremental supply (*refer to Electricity Resources metric 2.2*), defined as the difference in megawatts under contract from the prior year. In some cases, the difference between the years is negative, reflecting a decline in the number of megawatts procured. Declines on a year-to-year basis are primarily the result of changes

in procurement program cycles. For example, no FIT contracts were awarded during the government's two-year review of the FIT program, however significant staff effort was required during this period to execute the program review; including updates to program rules and eligibility, price schedules, etc. Some procurement processes may also take longer than one year to complete before contracts are awarded. Additionally, some attrition exists in the development of generation assets. Differences in the resource mix procured in a given year are primarily the result of procurement program cycles and government direction on procurement amounts.

Since August 2013, the *average time to review microFIT applications (refer to Electricity Resources metric 2.3.1*) was 11 days from time of submission to the OPA to the completion of the OPA's eligibility review. Data prior to this date are not available due to limitations of the IT system in use at the time. For 2014, the OPA is targeting an average time to review microFIT applications of 14 days. This is based on expected application volumes, staffing levels, and the nature of the review process that has been established between the OPA and LDCs. It should also be noted, that as part of the government's two-year review of the FIT program, a target of 60 calendar days for application review following the close of an application period was established. The OPA plans to meet this target in 2014.

*Generation Cost Disclosure metric (refer to Electricity Resources metric 2.4)* provides cost information on the mix of generation resources procured by the OPA to meet Ontario's electricity needs, as well as the costs associated with these resources. It includes only those costs paid by the ratepayer, and does not include any additional non-ratepayer costs or benefits. The figures provided include costs covering the 2009-2012 period.

## 6.0 POWER SYSTEM PLANNING METRICS 2011-2014

The list of proposed efficiency metrics for the PSP division is shown below. It contains two metrics related to planning operations.

Table 4

| Reference | | 2011 Actual | 2012 Actual | 2013 Actual | 2014 Target |
|---|---|---|---|---|---|
| 1 | **Operations** | | | | |
| 1.1 | **Communication:**<br>Completion of the IPSP within three years of the approval of the previous IPSP or as directed by Ministerial directive: | | | | |
| 1.1.1 | Measure the OPA's ability to complete the IPSP in a timely manner based on Ministerial directive. | Yes - IPSP 2 completed and submitted to government | No | No | No |
| | | | | | |
| 1.2 | **Completion of Annual System update:** | | | | |
| | Measure of OPA's value provided to electricity sector (agencies, LDCs, generators, sector stakeholders, including special interest, public) | | | | |
| 1.2.1 | *Updates on status and outlook for supply, transmission and conservation* | Complete | Complete | Complete | To be completed |
| 1.2.2 | *Review of demand and update of demand forecast if necessary* | Complete | Complete | Complete | To be completed |
| 1.2.3 | *Review and outlook of performance of system (cost and environmental indicators)* | Complete | Complete | Complete | To be completed |
| | | | | | |

The Power System Planning division develops plans for Ontario, an ongoing process that supports the implementation of government policies, directives and goals, and provides advice to government on the status and outlook for electricity service. The nature of this process results in mainly milestone-based or activity-based metrics, and as priorities are revised, the projects measured for milestones require revision accordingly. Below is a brief commentary for each metric to provide further context for the metrics table above.

Since 2011, the focus of provincial electricity system planning has shifted from the development of an Integrated Power System Plan ("IPSP") to OPA support for the development of the government's Long-Term Energy Plan ("LTEP") (*refer to Power System Planning metric 1.1*). As discussed in Exhibit B-2-1, the 2013 LTEP identifies the requirement for an annual Ontario Energy Report to update the sector on changing supply and demand conditions and to outline the progress to date on the implementation of the plan. The OPA will work together with the Independent Electricity System Operator ("IESO"), the Board, and the Ministry of Energy to meet this requirement. The importance of regional planning activities across the province has also increased. Under the Board's Renewed Regulatory Framework for Electricity (RRFE), and the OPA's recently amended licence (EB-2013-0192), the OPA leads the development of integrated regional resource plans (IRRPs). Integrated regional resource planning is the process that identifies options to meet regional electricity needs, and recommends the preferred mix of conservation, local

generation, transmission and distribution resources to meet the needs of regions across the province. Regional planning activities will be initiated, at a minimum, at least once every five years for each region.

Status and outlook reports are provided to the sector through presentations, such as the Annual APPrO conference (*refer to Power System Planning metric 1.2.1*). Data underpinning planning outlooks, such as the 2013 LTEP modules, has also been published on the OPA website.

Over the reporting period, demand forecast updates have been completed as indicated in the 2011-2013 results (*refer to Power System Planning metric 1.2.2*). In support of maintaining a current assessment of the status and outlook for electricity service in Ontario, the Power System Planning division maintains an updated demand forecast, and analyzes electricity-use patterns and conservation progress to update the provincial mid- and long-term forecasts. The OPA maintains a proprietary demand forecasting model that forecasts energy and peak demand on an hourly basis at a provincial and regional level for this purpose.

Finally, cost and environmental indicators work is completed annually by the Power System Planning division (*refer to Power System Planning metric 1.2.3*). The Power System Planning division assesses the impacts of electricity sector initiatives on sustainability and the environment, customer costs and total capital investments by maintaining detailed data and specialized analytical tools.

## 7.0 COMMUNICATIONS METRICS 2011-2014

The list of proposed efficiency metrics for the Communications division is shown below. It contains 12 metrics which measure the efficiencies and effectiveness of the Communications division in conducting stakeholder engagement activities and call center management.

Table 5

| Reference | Metric | 2011 Actual | 2012 Actual | 2013 Actual | 2014 Target |
|---|---|---|---|---|---|
| 1 | **Stakeholder survey** | | | | |
| | **Key measures on surveys:** | | | | |
| 1.1 | • **favourability** | 68% | 49% | N/A | 80% |
| 1.2 | • **transparency** | 46% | 33% | N/A | 80% |
| 1.3 | • **communication effectiveness** | 67% | 43% | N/A | 80% |
| 1.4 | • **stakeholder participation** | 84% | 89% | N/A | 95% |
| 2 | **Stakeholder consultation and engagement initiatives** | | | | |
| | **Key measures on stakeholder consultation and engagement initiatives:** | | | | |
| 2.1 | • **overall satisfaction with the session including satisfaction with the amount and level of dialogue** | N/A | N/A | N/A | 80% |
| 2.2 | • **management and logistics related to the session** | N/A | N/A | N/A | 80% |
| 2.3 | • **suggestions for improvement** | N/A | N/A | N/A | qualitative |
| 2.4 | • **number of sessions, including number of sessions for each topic** | 33 | 58 | 93 | 100 |
| 2.5 | • **number of participants** | 3,073 | 5,980 | 5,867 | 6,000 |
| 3 | **Corporate Call Centre** | | | | |
| | **Key measures from call centre:** | | | | |
| 3.1 | • **number of OPA programs supported by the call centre** | 11 | 10 | 15 | 14 |
| 3.2 | • **efficiency and responsiveness of call handling** | | | | |
| 3.2.1 | • **service level target: calls answered in 30 seconds or less** | 79% | 82% | 74% | 75% |
| 3.2.2 | • **% of call answered to call offered** | 95% | 96% | 95% | 95% |

*Stakeholder Survey (refer to Communications metric 1)*: The OPA undertook two stakeholder surveys in 2011 and one in 2012. The OPA stopped undertaking survey work in mid-2012 following the announcement of the OPA's merger with the IESO as it was deemed no longer relevant to solicit stakeholders' feedback about the OPA as an organization as it was being merged. In 2013, the OPA reinitiated the survey work by hiring a survey research firm to conduct stakeholder surveys starting in 2014. The OPA has resumed stakeholder survey work in 2014 with the first results expected in May 2014. Moving forward, the survey results will be posted on the OPA's website.

The results of the stakeholder surveys from 2011 and 2012 show a decline in all three of the four key survey measures. In 2011, the OPA was not undertaking a large number of stakeholder engagements, with a total of 33 stakeholder sessions undertaken. This was improved in 2012 with 58 sessions undertaken, and into 2013 with 93 sessions undertaken. The OPA has become much more transparent and inclusive in its stakeholder practices since the surveys were undertaken and as a result, high targets have been established for 2014 -

80% for the measures of favourability, transparency and communication effectiveness and 95% for stakeholder participation.

*Stakeholder Consultation and Engagement Initiatives (refer to Communications metric 2)*: In mid-2011, the OPA discontinued surveying participants at in-person sessions, as at the time, the OPA was having more webinar based stakeholder engagements, or in-person sessions with a web component. Because surveys were not conducted, there is insufficient data to report on the measures. In 2014, the OPA will be launching a new electronic feedback form featuring the same measures as noted above, and will be able to report on feedback for the 2014 fiscal year in future revenue requirement submissions. Based on the survey targets set in section one above, similar targets of 80% satisfaction rates for the session, and for session management will be set for the feedback forms. Suggestions for improvement are qualitative in nature, therefore it is not appropriate to set a target for this measure. A target of 100 sessions has been set for 2014, with 6,000 participants.

*Corporate Call Centre (refer to Communications metric 3)*: This metric provides a measure of the OPA's efficiency in managing its call centre. As indicated by Communications metric 3.1, the number of programs supported by the call centre changes slightly on a year-to-year basis to reflect the evolution of the OPA's programs over the reporting period.

Communications metric 3.2.1 provides a measure of the number of calls answered in 30 seconds or less (the OPA's service level target). Service levels increased in 2012 as a result of additional representatives being hired to accommodate the volume of calls coming in for the Feed-in Tariff program. This allowed for an increase in dedicated OPA call representatives to support all of OPA's programs. Service levels decreased in 2013 and 2014 to account for a lower volume of calls coming in, resulting in fewer representatives being needed.

Finally, the *percent of calls answered to calls offered (refer to Communications metric 3.2.2)* has remained consistent over the reporting period as the number of call centre representatives was determined both by the number of programs to support and by the volume of calls coming in. Call centre resourcing levels were adjusted over time to ensure productivity levels remained consistent.

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# *Regulatory Affairs Consultation on OPA Efficiency Metrics*

## *Summary Report*

## *Ontario Power Authority*

*Toronto, Ontario*
*October 20, 2011*

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## Participant List

**MODERATOR**

Ms. Jennifer Tidmarsh, Acting Manager, Revenue Requirement Filing, Ontario Power Authority

**SPEAKER**

Mr. Michael Lyle, Vice President, Legal, Aboriginal and Regulatory Affairs, Ontario Power Authority

**STAKEHOLDER PARTICIPANTS**

Ms. Julie Girvan (teleconference), Consultant, Consumers Council of Canada (CCC)

Ms. Marion Fraser, President, Fraser & Company, Canadian Energy Efficiency Alliance (CEEA)

Mr. Vincent DeRose (teleconference), Borden Ladner Gervais LLP; Canadian Manufacturers & Exporters (CME)

Mr. David MacIntosh, Case Manager, Energy Probe Research Foundation (Energy Probe)

Mr. David Poch (teleconference), Barrister, Green Energy Coalition (GEC)

Ms. Jessica Savage, Senior Regulatory Analyst, Regulatory Affairs and Sector Policy Analysis, Independent Electricity System Operator (IESO)

Ms. Susan Harrison, Senior Regulatory Analyst, Regulatory Affairs and Sector Policy Analysis, Independent Electricity System Operator (IESO)

Mr. Roy Hrab, Policy Advisor, Conservation & Policy Evaluation, Ontario Energy Board (OEB)

Mr. Michael Bell - Project Advisor, Conservation & Reporting, Ontario Energy Board (OEB)

Mr. Jack Gibbons, Consultant, Ontario Clean Air Alliance, Pollution Probe Foundation (Pollution Probe)

Mr. James Wightman, Consultant, Econalysis Consulting Services Inc.; Vulnerable Energy Consumers Coalition (VECC)

**OPA PARTICIPANTS**

Mr. Chuck Farmer, Director, Planning Policy & Approvals, Power System Planning

Mr. Darryl Yahoda, Acting Director, Policy & Analysis, Electricity Resources

Mr. Fred Cass, Partner, Aird & Berlis LLP (External Counsel)

Ms. Glenna Ford, Regulatory Affairs

Ms. Julia McNally, Director, Market Transformation, Conservation

Ms. Lia Kosic, Director, Financial Planning & Analysis, Business Strategies & Solutions

Ms. Patricia Phillips, Director, Stakeholder Relations, Communications

## Introduction

After welcoming participants, **Michael Lyle** outlined the 2011 Decision and Order to the Ontario Power Authority (OPA) from the Ontario Energy Board (OEB) to identify appropriate metrics to evaluate reasonable standards of efficiency. The OPA retained an expert consultant and met with staff from all OPA divisions—all of which are represented at the meeting—to identify appropriate metrics. Since much of the OPA's work is difficult to quantify, all divisions have struggled to identify methods of measurement, Lyle said. Furthermore, each of the proposed methods contains a flaw or weakness that could lead to erroneous conclusions or assumptions. The purpose of the meeting is to gather feedback and to generate new ideas.

**Julie Girvan, Consultant, Consumers Council of Canada**, asked for the name of the expert consultant, which Lyle identified as Concentric Energy Advisors.

## OPA Proposed Efficiency Metrics

**Jennifer Tidmarsh** presented draft metrics for discussion.

**James Wightman, Consultant, Econalysis Consulting Services Inc.**, asked for the names of the organizations evaluated during research. Tidmarsh said the scans included jurisdictional scans that showed the OPA has a unique function. A list of organizations researched will be included with the revenue requirement submission, although availability of the information will be dependent upon the minister's approval of the business plan, Lyle said.

### Conservation, Contract Management

Tidmarsh said both cumulative and incremental metrics are necessary and should measure both effectiveness and efficiency.

**Julia McNally, Director, Market Transformation, Ontario Power Authority**, said the OPA's program delivery contracts (referred to in the contract management metrics) are with local distribution companies (LDCs). Whether other kinds of supporting contracts (e.g. with Evaluation Measurement and Verification contractors) are to be included in this metric has yet to be fully defined.

**David Poch, Barrister, Green Energy Coalition**, said when several contracts are under way, measures will be less valuable. He does not want to see a mix of contracts considered together and said there is a problem splitting up contracts because they are assigned by task or by geographic region. In addition, contracts can be given out as one major contract or split up, which makes a comparison of full-time equivalent (FTE) per contract challenging. Some contracts are expensive and easy to administer, while others are less expensive but difficult to administer.

Lyle said a metric for dollar value of FTE could be considered, or the OPA could tie conservation charges to FTEs, if participants are interested.

Poch asked whether any thought has been given to breaking out projects that are simple to manage versus those that are more difficult to manage. Lyle said he does not think projects could be broken out this way, and he suggested a focus on the number of master agreements with LDCs, which would essentially represent all LDCs.

Fraser said effectiveness must be dealt with, and since conservation culture is measured regularly by the OPA, she asked whether it could be included in the metrics. Although there may be some difficulty differentiating between milestones and efficiency, milestones are included in the business plan and are reported to the OEB, Lyle said. McNally said the OPA is planning to report on results and to provide information on the results. The intention is to return to reporting annual results—similar to what was done in 2007/2008.

McNally asked for input into what to include in this reporting. **Jack Gibbons, Ontario Clean Air Alliance, Pollution Probe Foundation**, said evaluating the number of contracts per FTE is irrelevant. Stakeholders care about how much they pay compared to the energy procured.

Lyle said reporting must address the information the OEB mandates, which includes the operating budget. Real accountability is needed around procuring savings, efficiency, and supply, Gibbons said. Fraser said the focus should be the degree of effectiveness and efficiency in doing the required job. Last year, the scope of evaluation changed from a focus on how money is spent to whether services are delivered in a cost-effective manner. Gibbons agreed, adding that comparing the cost-effectiveness of supply and comparing conservation efforts with the budget is necessary, assuming that procurement is carried out in a cost-effective manner.

Metrics are based upon directives received, Lyle said. The OPA plays a role in the price of procurement, but the government sets the policy around the type of energy.

Poch agreed that the OPA is constrained by procurement directives; however, he suggested that measures of both how well the budget is administered and how well the job is performed are necessary and must be selected carefully. For example, inexpensive conservation that looks good can be implemented, but it may not persist. Poch accepted that the revenue requirement proceeding is not an opportunity to question the mandate of the OPA and to cross-examine the Minister of Energy; the Integrated Power System Plan (IPSP) is the long-term planning process that allows for this. Poch said more information is needed on how the budget is administered in pursuit of the mandate, but it is senseless to question the level of expenditure if the job is not being done correctly.

**Fred Cass, Partner (External Counsel) Aird & Berlis LLP**, said that even if the OPA is doing a great job delivering on program objectives, the OEB can still ask whether objectives are met in the most cost-effective way. Yet, said Poch, selecting the wrong financial measures could lead to erroneous conclusions. Megawatt-hours (MWh) in each of these metrics represent a four-year

period. Lifetime MWh should also be included. Some metrics give an accurate estimate of cost, while others do not and may need adjusting.

Lyle described an opinion raised previously: Fraser is of the view that the OPA is required to attempt to procure all MWh in the directives, while the OPA is of the opinion that directives provide procurement authority up to the amount set in the directive. Fraser added that there is a requirement to report on the directives and said no attempt has been made to report on conservation objectives. Lyle said targets would be provided for all existing Conservation programs for 2012.

The preference is to report verified results, obtained as a result of evaluation, said McNally. Program reporting from LDCs closes at the end of the calendar year, and it takes about six months to obtain verified results. Most of the 2010 results have already been collected and should be reported in December 2011 in the report to the Environmental Commissioner. McNally said that the OPA is striving to refine its net-to-gross ratios and as a result narrowing of the difference between unverified and verified results is expected.

**Vincent DeRose, Borden Ladner Gervais LLP, Canadian Manufacturers & Exporters**, said results could be reported both ways, interim and final. Poch and Gibbons agreed.

## Conservation, Procurement

Lyle asked for input around what stakeholders would like to see included in the revenue requirement filing related to procurement activities. Gibbons submitted a written list prior to the meeting.

Poch said a definition of "annualized basis" is needed for CDM procurement, and he assumes that it means MWh delivered in a particular year, as opposed to in prior years, and that it is expressed as a full-year service equivalent. McNally confirmed this definition as correct. Poch also suggested that a parallel metric that reports MW years on the life of the measure[1] is required in each case; otherwise, the administrative expense cannot be calculated.

DeRose asked whether savings for each program are included. **David MacIntosh, Case Manager, Energy Probe Research Foundation**, said the forecast for the current year is included. He said having cumulative information on all conservation implemented from the start date would show the trend in metrics, the average, and the current expected effort for any given metric. Reporting should take place both on an annualized basis—what is a one-year conservation equivalent—and on life measure. Persistent CDM should be reported, not only by program or by measure, to understand what the portfolio is doing in given years. The OPA should also consider whether money is directed to resources that will continue to exist in future years and in critical periods, such as 2015 when coal is gone or 2020 when the Pickering phase-

[1] A measure is defined in this case as an action undertaken by a Conservation program which involves the application of a technology, type of equipment, or procedure used to replace another technology or type of equipment

out is complete. Poch said this is not something that is undertaken in the IPSP, which is forward planning, and not an assessment of past work. Within an approved plan there is discretion around CDM acquisition, and recommendations regarding where emphasis should be placed could be made to the OEB.

Posh stated that reported MW should be peak MW in all cases. MW per FTE is redundant, and the same concerns exist for FTE per contract. Comparing MW to FTE does not explain the trade-offs that exist between people and money. Some situations will require more staffing but may be more cost-effective, raising a note of caution that these metrics may tend to push management to constrain FTEs when this is not the most appropriate approach.

## Conservation, Operations

Poch distinguished between the Conservation division's operating budget and the budget that goes to funding the programs, and he defined the latter as money that does not go through the OPA budget but is recovered through rates. Lyle called this the Global Adjustment Mechanism.

McNally said the OPA is trying to use levelized unit energy cost (LUEC) more frequently. LUEC would have inflation built in where other metrics do not, Poch said. Gibbons agreed that LUEC is an appropriate metric for conservation.

**Chuck Farmer, Director, Planning Policy & Approvals, Ontario Power Authority**, interpreted the metric as LUECs for past costs, not those used for planning; thus the metric assesses the efficiency of what has been done so far. Farmer said that LUECs used for the IPSP should be tested in an IPSP. The inclusion of LUECs will be considered, and if they are not selected, an explanation will be provided, Lyle said.

DeRose asked whether the effectiveness of efficiency incentives in the LDC master agreements could be applied here. McNally said efficiency incentives are dealt with at the end of four year contract period of the OPA-Contracted CDM Programs. She asked for stakeholder input around a metric to express this. Acknowledging that there may not be an applicable metric, DeRose asked whether an evaluation was completed on how to track efficiency incentives to determine what was commercially reasonable and whether the intended behaviour was produced.

Poch asked to include how LDCs under contract with the OPA are meeting their contracts. He also asked whether questions related to the OPA's role in assessing LDC programs that duplicate province-wide programs were considered. Lyle said that new applications for Tier 2 and Tier 3 programs are not anticipated; therefore, a metric is not being established. Fraser suggested including a metric to help Tier 2 and Tier 3 programs to be put in place, perhaps by measuring the number of programs approved. Meetings have taken place between the OPA and five LDCs to explore options for Tier 2 and Tier 3 programs, unrelated to determining metrics.

DeRose asked whether metrics relate to audits of operations and value-for-money. Lyle called these metrics milestones and said he is unsure how to apply this to the conservation side.

McNally said it depends on the evaluation, measurement, and verification developed and implemented, and on how "audit" is defined. Fraser said she thought this had to do with internal audit effectiveness. DeRose said it was an audit on efficiency metrics and on performance. Lyle said the most appropriate individual to speak directly to this question was not present at the meeting, but the question would be considered.

Fraser said she would like to see a metric that measures conservation culture using a survey the OPA already produces.

In response to a concern regarding budgeting and accounting measures and the ability to monitor budgets by initiative, Lyle said that although that does not fall under metrics, it would be addressed.

Poch described the metric of program budget as a percentage of program charges and said that if it can be assessed by individual program, clarity should improve. The value of the metric develops over time as the OPA gains experience using it. It is calculated by taking the number of dollars spent on conservation and finding the ratio between charges and operations budget. Metrics to measure the time to publish evaluations or the time to provide updates on program change progress may apply to increase transparency, said Fraser.

## Electricity Resources, Procurement

Fraser asked if the intent is to provide a time series or a snapshot in time for metrics. **Lia Kosic, Director, Financial Planning & Analysis, Ontario Power Authority**, said a recent time frame would be provided, but some historic data may not be available. **Darryl Yahoda, Acting Director, Policy & Analysis, Ontario Power Authority**, said the OPA has updated its generation cost disclosure from the one posted on the OPA website. The revised approach uses actual payments to generators, and the gas price is embedded in market revenue.

Gibbons said the use of outdated gas costs on the website is misleading. Yahoda said website information used to be based upon old gas costs, but that updated information will use actual payments and a cost comparison for each technology option will be included. A weighted average cost will be provided for each technology. Although currently weighted average costs are not included in the cost disclosure, it is possible to include them.

Gibbons said he would like to see Lennox GS split out. The challenge is that this is a single resource and the OPA is not allowed to disclose the information on an individual plant level, Lyle said. Yahoda said this could be taken into consideration and that he will look further to determine whether Lennox is included in the calculation.

A sensitivity analysis showing combined heat and power (CHP) costs by MWh can be done, but Yahoda expressed uncertainty around how it fits with cost disclosure. The OPA's generation cost disclosure is meant to show the actual cost of different resources to ratepayers. Using assumptions for different types of operations (such as a sensitivity analysis for just CHP) will

give different outcomes but they won't be reflective of actual cost. Gibbons questioned whether contracts are structured to determine if a move to baseload will be cost-effective and whether contracts will allow that move. Yahoda confirmed that if the market dictated, all contracts could run baseload. This may be an area of debate for another discussion, not for revenue requirements. Although certain assumptions must be made—and opinions on those assumptions may vary—the request will be considered. Generation cost disclosure was raised last year by OEB staff, Lyle said.

**Roy Hrab, Policy Advisor, Conservation & Policy Evaluation, Ontario Energy Board**, said the OEB is asking for metrics that go beyond the operational level and provide clarity. Fraser suggested that metrics should measure against the values and principles of the OPA. She commented that anecdotal feedback has indicated that OPA representatives do not return telephone calls.

## Power System Planning

Fraser said no information has been captured on the quality of IPSP consultations and on satisfaction among the stakeholders. Lyle said there has been some difficulty quantifying what is measured. The business plan includes a requirement to deliver a planning update, although the release of information is dependent upon government direction. Procurement reporting is completed quarterly, and an effort is made to tie the information into the status of and the outlook for the system in a clean way, Farmer said. How this information will be shared has not been addressed, but the work will be done as needed, or on an annual basis.

## Communications and Stakeholder Engagement Activities

**Patricia Phillips, Director, Stakeholder Relations, Ontario Power Authority**, said the stakeholder survey will be expanded to include larger groups and made public, and the website is being changed to include a stakeholder centre. The survey was completed for the last few years with a relatively small cohort to determine, for example, stakeholders' preferred communications channels with the OPA.

Phillips said that if reports of low telephone response times were true, they would represent a corporate issue, not related to the call centre, which has good response times. Fraser suggested posting the OPA telephone directory. Lyle acknowledged the suggestion.

Phillips said that a new Conservation Stakeholder Advisory Committee is in the process of being established and Conservation will be able to speak to that. McNally spoke about how the committee is being set up.

Fraser expressed concern that including these metrics under communication implies that no other groups have responsibility for them. Lyle replied that these metrics are found under Communications because this group takes the lead on them. Fraser said the title "efficiency metrics" limits what can be included in the list. Effectiveness metrics should also be included.

## Closing

Additional ideas should be sent directly to Tidmarsh. Lyle confirmed that the target date for submissions remains November 2. Although attempts to address all issues raised at today's meeting will be made, some evidence may need to be filed later to ensure proposed metrics are thoroughly explored. This year's submission is complicated since there is a new minister who must approve the business plan and the revenue requirement submission cannot be filed with the OEB until it is approved. The topics of today's meeting represent an ongoing dialogue, and the OPA continues to look for assistance in this area.

**PROPOSED METRICS BY DIVISION – DECEMBER 2011**

| CONSERVATION | | | | |
|---|---|---|---|---|
| **Division** | **Metric** | **Pros** | **Cons** | **Origin** |
| **Contract Management** | **Number of contracts/program/FTE (regular + contract + % allocated)**<br>• **incremental**<br>• **cumulative**<br><br>**$ value of contracts/FTE**<br>• **incremental**<br>• **cumulative**<br><br>**Contracts/FTE**<br>• **incremental**<br>• **cumulative**<br><br>**Invoices/FTE**<br>• **incremental**<br>• **cumulative**<br><br>*Measures to reflect the organizational effectiveness and efficiency of the OPA as reflected in the contractual activity per program and per employee involved in the management of conservation contracts, as well as the value and number of contracts and the number of invoices.* | • These metrics will provide information on the volume of contractual activity and the number of contracts that are being administered per staff resource. | • These metrics and the other metrics do not provide any measure of the efficiency of the OPA's non-contract based conservation work on capability building, awareness raising and codes and standards.<br>• Given the fairly unique conservation framework in Ontario and the unique role that the OPA plays within this framework, there is no comparable entity against which this metric can be compared. | Concentric/OPA Staff |

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| CONSERVATION | | | | |
|---|---|---|---|---|
| **Division** | **Metric** | **Pros** | **Cons** | **Origin** |
| **Procurement** | **Net incremental energy reduction (MWh) on an annual basis:**<br>• **per FTE (direct and allocated [regular + contract])**<br>• **per conservation fees budget (+ % of shared services)**<br>• **per conservation charges/program budget**<br><br>*Measure to evaluate, on an annual basis:*<br>• *organizational effectiveness and efficiency of OPA, as reflected in use of staff*<br>• *organizational effectiveness and efficiency of OPA, as reflected in efficient use of funds, cost management*<br>• *cost efficiency of resources/programs* | • This will provide information on the amount of energy savings that has been achieved in a given year as measured against the resources allocated to achieve this outcome. | • This metric and the other metrics do not provide any measure of the efficiency of the OPA's non-contract based conservation work on capability building, awareness raising and codes and standards.<br>• Given the fairly unique conservation framework in Ontario and the unique role that the OPA plays within this framework, there is no comparable entity against which this metric can be compared. | Concentric/OPA Staff |
| | **Net incremental peak demand reduction (MW) on an annual basis:**<br>• **per FTE (direct and allocated [regular + contract])**<br>• **per conservation fees budget (+ % of shared services)**<br>• **per conservation charges/program budget**<br><br>*Measure to evaluate, on an annual* | • This will provide information on the peak demand reduction that has been achieved in a given year as measured against the OPA resources allocated to achieving this outcome. | • This metric and the other metrics do not provide any measure of the efficiency of the OPA's non-contract based conservation work on capability building, awareness raising and codes and standards. | Concentric/OPA Staff |

| CONSERVATION | | | | |
|---|---|---|---|---|
| **Division** | **Metric** | **Pros** | **Cons** | **Origin** |
| | *basis:*<br>• *organizational effectiveness and efficiency of OPA, as reflected in utilization of staff*<br>• *organizational effectiveness and efficiency of OPA, as reflected in efficient use of funds, cost management*<br>*cost efficiency of resources/programs*<br><br>*Note: MW are coincident with peak.* | | • Given the fairly unique conservation framework in Ontario and the unique role that the OPA plays within that framework, there is no comparable entity against which this metric can be compared. | |
| | **Forecasted savings by:**<br>• **OPA-Contracted Province-Wide CDM Programs**<br>• **OPA-Delivered CDM Programs** | • This is a measure of the new energy savings from conservation programs in a given year | • Program savings are dependent on LDC program participation and their ability to meet their targets. | Stakeholder Session |
| **Operations** | **Program budget as a percentage of program charges**<br><br>*Measures organizational effectiveness of the OPA by measuring its administration budget against actual program dollars.* | • This is a high-level indicator of OPA administrative efficiency | • This metric and the other metrics do not provide any measure of the efficiency of the OPA's non-contract based conservation work on capability building, awareness raising and codes and standards.<br>• Given the fairly unique conservation framework in Ontario and the unique role that the OPA plays within this framework, there is no comparable entity | Concentric/OPA Staff |

| CONSERVATION | | | | |
|---|---|---|---|---|
| **Division** | **Metric** | **Pros** | **Cons** | **Origin** |
| | | | against which this metric can be compared. | |
| | **Delivery cost of conservation programs per kWh saved**<br><br>*Measures cost of delivering conservation programs in the province compared to conservation savings achieved* | • This is a high level indicator of the cost effectiveness of the province's conservation programs | • This metric and the other metrics do not provide any measure of the efficiency of the OPA's non-contract based conservation work on capability building, awareness raising and codes and standards.<br>• This metric does not account for program start up costs associated with capacity building in the provinces LDCs | Concentric |
| | **Culture of conservation**<br><br>*Measures effectiveness of all OPA efforts to entrench conservation through an indicator developed by the OPA and surveyed each year* | • This measures the effectiveness of promotion of conservation initiatives in the province | • This measure is Ontario specific and does not provide insight into how Ontarians compare to other jurisdictions | Stakeholder Session |

| ELECTRICITY RESOURCES | | | | |
|---|---|---|---|---|
| **Division** | **Metric** | **Pros** | **Cons** | **Origin** |
| **Contract Management** | **Amount of generation under contract (in MW) by type (CHP, renewable, gas, etc.)**<br>• **per FTE (direct and allocated [regular + contract])**<br>• **per contract management budget (program budget + % shared services)** | • Provides a measure of how many MW of generation are being managed as against the OPA resources that are dedicated to this activity. This is a relevant measure as a significant portion of the OPA's work relates to the ongoing and active management of the portfolio of generation contracts to which the OPA is a party. | • The portfolio of contracts that the OPA manages ranges from very small microFIT contracts to the contract with Bruce Power. Very small contracts require significantly greater administrative effort per MW than do very large contracts and so a change in this metric over time could relate to a shift in the makeup of the portfolio between large and small contracts. The makeup of the portfolio is primarily driven by ministerial directives.<br>• Given the fairly unique role of the OPA, it is difficult to compare this metric against any other entity. | Concentric/OPA Staff |

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| ELECTRICITY RESOURCES | | | | |
|---|---|---|---|---|
| **Division** | **Metric** | **Pros** | **Cons** | **Origin** |
| | **Number of contracts/per program/FTE (regular + contract + % allocated)**<br>• **incremental**<br>• **cumulative** | • Provides a measure of contract activity based on the number of contracts that are being managed as against the OPA resources dedicated to this activity. This is a relevant measure as a significant portion of the OPA's work relates to the ongoing and active management of the portfolio of generation contracts to which the OPA is a party. | • Very small contracts do not require as much effort to administer as very large contracts on a per contract basis. A change in this metric over time could relate to a shift in the makeup of the portfolio between large and small contracts. The makeup of the portfolio is primarily driven by Minister's directives.<br>• Given the fairly unique role of the OPA, it is difficult to compare this metric against the performance of any other entity. | Concentric/OPA Staff |
| | **Communication on issues related to delivery of contract**<br><br>*Measures timeliness of communicating uncured events of default* to contract holders *as a result of:*<br>• *OPA's failure to perform any material covenant or obligation as set in the contracts.*<br>• *inaccurate or untimely financial settlement by OPA with contract counterparties.* | • The efficiency and performance of the contract management functions are dictated by the terms of the contract and failure to perform, uncured, would lead to the OPA defaulting on a contract. | | Concentric/OPA Staff |

| ELECTRICITY RESOURCES | | | | |
|---|---|---|---|---|
| **Division** | **Metric** | **Pros** | **Cons** | **Origin** |
| **Procurement** | **Incremental supply procured (in MW) by resource type**<br>• **per FTE (direct and allocated [regular and contract])**<br>• **per procurement budget (program budget + % shared services)** | • Provides a measure of how many MW of generation are procured annually against the OPA resources dedicated to this activity. | • Procurements are driven by ministerial directive which may include many other objectives outside MW<br>• While very small contracts do not on a per contract basis require as much effort to administer as very large contracts; they do require significantly greater administrative effort per MW than do very large contracts. A change in this metric over time could relate to a shift in the makeup of the portfolio between large and small contracts. The makeup of the portfolio is primarily driven by Minister's directives.<br>• Allocation of efforts – procurement cycles vary. The most significant effort is in the pre-launch period when design, legal and stakeholdering activities must be completed before supply is contracted. This could lead to the most effort | Concentric/OPA Staff |

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| ELECTRICITY RESOURCES | | | | |
|---|---|---|---|---|
| **Division** | **Metric** | **Pros** | **Cons** | **Origin** |
| | | | being expended in a year when little supply is contracted, with subsequent years showing more MW contracted but less effort expended.<br>• Does not demonstrate performance or efficiency. Given the fairly unique role of the OPA, it is difficult to compare this metric against the performance of any other entity. | |
| | **microFIT application processing times**<br><br>*The OPA's target for processing applications is 60 days following the submission of a complete application. As part of this timeline there are:*<br>• *20 days for the customer to provide a response to the OPA if clarifications are needed*<br>• *20 days for LDCs to process the application*<br>• *5-10 days for the OPA to issue a conditional offer* | • This is an indicator of the OPA's efficiency in administering the microFIT Program. | • The majority of the processing time is dependent on external parties, which is beyond the control of the OPA. | Ontario Energy Board Staff in 2010 Decision and Order |

| ELECTRICITY RESOURCES | | | | |
|---|---|---|---|---|
| **Division** | **Metric** | **Pros** | **Cons** | **Origin** |
| | **Generation procurement cost disclosure**<br><br>*Measures the cost of new generation supply contracts that are managed and financially settled by the OPA* | • Provides a measure of the cost of various generation types | • The OPA procures generation using many different factors, not only the cost of production. In some cases, the OPA is directed to procure resources at a certain price (e.g., microFIT and FIT programs). | Ontario Energy Board Staff in 2010 Decision and Order<br><br>Stakeholder Session |
| **Operations** | **Program budget as a percentage of program charges** | • This is a high-level indicator of OPA administrative efficiency.<br>• This is an indication of program participation | • There is significant lag time between much of what the OPA does to procure generation resources and contract management, and new generation resources coming into service and starting to receive payments under their contract with the OPA. | Concentric/OPA Staff |

| POWER SYSTEM PLANNING | | | | |
|---|---|---|---|---|
| **DIVISION** | **METRIC** | **PROS** | **CONS** | |
| **Operation** | **Completion of the IPSP within three years of the approval of the previous IPSP or as directed by ministerial directive**<br><br>*Measure of the OPA's ability to complete the IPSP in a timely manner based on ministerial directive* | | • Certain elements of this metric are outside the OPA's control, in particular, the issuance by the Minister of an IPSP directive to guide the development of an IPSP.<br>• This is an activity-based measure and does not measure whether this activity was achieved efficiently. | Concentric/OPA Staff |
| | **Completion of annual system update**<br><br>*Measure of OPA's value provided to electricity sector (agencies, LDCs, generators, sector stakeholders, including special interest, public)*<br>• *Updates on status and outlook for supply, transmission, conservation*<br>• *Review of demand and update of demand forecast if necessary*<br>• *Review and outlook of performance of system (cost and environmental indicators)* | • Good indicator of work delivered to the stakeholders in the sector. | • This is an activity-based measure and does not measure whether this activity was achieved in an efficient manner. | Concentric/OPA Staff |

| COMMUNICATIONS | | | | |
|---|---|---|---|---|
| **Division** | **Metric** | **Pros** | **Cons** | **Origin** |
| **Operations** | **<u>Stakeholder survey</u>**<br>**Key measures on surveys:**<br>• **favourability**<br>• **transparency**<br>• **communication effectiveness**<br>• **stakeholder participation**<br><br>*The OPA conducts regular stakeholder surveys twice a year to track performance and identify issues and opportunities for improved communications. The survey is undertaken among a cross-section of stakeholders in industry, local distribution companies and government who have familiarity with the OPA through the course of their work.* | | • This is a measure of the level of satisfaction with the OPA and is not directly a measure of the efficiency with which the OPA carries out its activities. | Concentric/OPA Staff |
| | **<u>Stakeholder consultation and engagement initiatives</u>**<br>**Key measures on stakeholder consultation and engagement initiatives:**<br>• **overall satisfaction with the session including satisfaction with the amount and level of dialogue**<br>• **management and logistics related to the session**<br>• **suggestions for improvement**<br>• **number of sessions, including number of sessions for each topic**<br>• **number of participants** | | • This is a measure of the level of satisfaction with the OPA and is not directly a measure of the efficiency with which the OPA carries out its activities | Concentric/OPA Staff |

| COMMUNICATIONS | | | | |
|---|---|---|---|---|
| **Division** | **Metric** | **Pros** | **Cons** | **Origin** |
| | *OPA's stakeholder consultations encourage the participation of OPA's diverse group of stakeholders. These are carried out either through standing advisory committees or through stakeholder engagement on specific programs or issues. Stakeholder engagement and consultations help program design, to seek feedback on changes to existing programs, and to provide an opportunity for communications on a broad range of issues. Sessions are offered in a number of formats, including in-person, webinars and teleconferences. The OPA solicits feedback on stakeholder engagement following each session.* | | | |
| | **<u>Corporate Call Centre</u>**<br>**Key measures from call centre:**<br>• **number of OPA programs supported by the call centre**<br>• **efficiency and responsiveness of call handling**<br><br>*The call centre is responsible for responding to stakeholders on program specific inquiries, such as the FIT Program, the Fridge program and the saveONenergy campaign.* | | | Concentric/OPA Staff |

# A SUMMARY OF RESEARCH ON EFFICIENCY METRICS

CONFIDENTIAL

PREPARED FOR
ONTARIO POWER AUTHORITY

DECEMBER 10, 2013




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# SECTION 1:
# EXECUTIVE SUMMARY

## PURPOSE OF THE ASSIGNMENT

Concentric Energy Advisors, Inc. ("Concentric") was retained in 2011 by the Ontario Power Authority ("OPA") to advise the OPA on appropriate efficiency metrics to utilize in measuring the effectiveness of the organization in response to a directive by the Ontario Energy Board ("OEB" or "Board") issued in Decision and Order EB-2010-0279 dated July 8, 2011.

As background, the Board directed the OPA in its Decision and Order EB-2009-0347 dated April 27, 2010 in response to the OPA's filing of its proposed 2010 expenditures as follows:

> *"…to include more precise and informative documentation of its performance metrics for review through the fees case process. Such an enhancement, comparable to the evidence provided with respect to the OPA's compensation payments, would enable parties to assess the extent to which the OPA has achieved its stated goals. In future applications the Board directs the OPA to report on its achievement of its metrics, sorted by Strategic Objective."*[i]

Following this directive, the OPA filed its proposed 2011 expenditure and revenue requirement and fees for review by the OEB. In its Decision and Order issued in the 2011 fees proceeding, the OEB found that the metrics presented by the OPA in response to the directive contained in EB-2009-0347 were not sufficient. Specifically, the OEB stated that:

> *"….The Board is of the view that the performance and efficiency metrics and milestones filed in conjunction with this application were of little or no assistance to the Board in its determination of whether the applied-for Net Revenue Requirement, as adjusted, was appropriate, nor whether the OPA is achieving a reasonable standard of effectiveness and efficiency in performing the functions it is mandated to undertake. Put simply, the metrics proposed by the OPA and presented, presumably in response to the panel's direction in EB–2009–0347 do not measure productivity or efficiency. They record performance, but do not provide any insight with respect to the efficiency or effectiveness with which the OPA is completing its work."*

To support the OPA in responding to the Board in its next revenue requirement proceeding, Concentric conducted research and analysis to examine efficiency metrics used in the industry to measure the effectiveness of organizations with similar responsibilities to those of the OPA. This analysis was designed to help facilitate the OPA's recommended metrics to the OEB in a future revenue requirement filing.

Initially, the OPA had anticipated filing the metrics research undertaken by Concentric in the revenue requirement filing for the fiscal year 2012. However, the OPA was not able to submit a revenue requirement filing for the years 2012 and 2013. Consequently, Concentric was retained in September of 2013 to update the report for inclusion in the 2014 revenue requirement submission. The purpose of the update was to refresh the list of recommended metrics or otherwise confirm that the list of recommended metrics developed in 2011 is still applicable.

## PROCESS AND APPROACH

The OPA, licensed and regulated by the OEB, has responsibility for the strategic coordination of conservation efforts across the province, planning the power system for the long term and ensuring the development of needed generation resources.[ii] Concentric began this assignment in 2011 by conducting interviews with appropriate OPA department personnel to fully understand the OPA's responsibilities in the areas of system planning, resource procurement and energy efficiency. Concentric augmented these interviews with research into the most commonly used efficiency metrics and performance metrics by organizations in the industry with responsibilities similar to those of the OPA. This research included investigation of investor-owned utilities, independent system operators, public power agencies, and state agencies. Concentric relied on publicly available information to develop a "long-list" of metrics used by these entities to measure their effectiveness, performance, and efficiency. These long-lists of metrics were then discussed and reviewed with OPA personnel to develop a "short-list" of efficiency metrics that were considered to be responsive to the OEB's directive for recommendation to stakeholders and the OEB.[iii] The update conducted by Concentric in 2013 involved a review of all data sources, as well as a jurisdictional review, to confirm that no new metrics have been proposed or utilized by the entities reviewed and that the recommended metrics still apply.

## KEY FINDINGS

The challenge in developing a list of relevant efficiency metrics for the OPA is that the OPA is a unique organization which has been tasked with some very specialized responsibilities, including, but not limited to, power system planning, conservation and demand-side management and resource procurement. While these functions exist in other jurisdictions, there is no comparable entity to the OPA in terms of all of these functions existing within one organization. For example, Independent System Operators ("ISOs") are largely responsible for system planning. Importantly, they are also responsible for operating the bulk power system, creating a direct cause and effect relationship between the planning function and the successful execution of this function on the daily operation of the system. In addition, while the OPA is responsible for the planning, implementation and support of conservation and energy efficiency programs, this responsibly more typically rests with the electricity utility, or a separate organization in other jurisdictions. Furthermore, centralized resource procurement is unusual in other jurisdictions since many regions have deregulated their electricity markets and rely on market signals or capacity auctions to encourage new resource entry. Consequently, while many entities provide a subset of services that are similar to many of those provided by the OPA, there is no single comparable organization to the OPA that has a similar set of responsibilities for such a broad range of initiatives. Each of the organizations on which we focused our research provide one or more of the services similar to many of those provided by the OPA and provide a basis for comparison for operational metrics.

Another approach to using metrics to measure the efficiency of an organization is to adopt the approach used by the OEB to measure the efficiency and effectiveness of their own organization. The OEB develops key initiatives for each of their key stakeholder groups and identifies measureable performance targets to achieve these key initiatives. This approach could be

combined with the recommended efficiency metrics contained in this report, which are a combination of a relatively small subset of metrics used for organizations that provide services typically in one, but not all, of the OPA's functional areas. The resulting hybrid list of metrics and performance targets for the OPA should be considered further as a measure of the organization's efficiency and effectiveness.

In the remainder of the report, the Description of Research and Findings is organized into the following sections: Resource Procurement; Energy Efficiency; Power System Planning; and Performance Metrics of other Canadian organizations. Based on this assessment, we offer our Conclusions and Recommendations.

# SECTION 2:
# DESCRIPTION OF RESEARCH AND FINDINGS

## RESOURCE PROCUREMENT

The complex nature of modern resource procurement, which must satisfy multiple economic, social, and environmental objectives, can vary greatly by organization. However, at a high level, a resource procurement process seeks to acquire output from generating resources to meet projected system needs while satisfying regulatory mandates such as energy efficiency, renewable portfolio requirements, and minimizing cost and risk to ratepayers.

Table 1: Resource Procurement Metrics

| RESOURCE PROCUREMENT METRICS |
|---|
| **Cost Under Contract:**<br>• $/MWh by technology for energy<br>• $/MW by technology for capacity<br>• $/MWh by technology for ancillary services |
| **Diversity of portfolio:**<br>• Contract lengths<br>• Contract staggering index<br>• Renewable penetration index<br>• Resource types by percentage |

While the OPA has developed and launched several centralized procurements as a result of government directives, centralized resource procurement is unusual in many jurisdictions since many regions have deregulated their electricity markets and rely on market signals or capacity auctions to encourage new resource entry. In regulated jurisdictions, vertically integrated utilities are individually responsible for their own resource procurement activities to satisfy reliability and supply needs, as well as to fulfill Renewable Portfolio Standards ("RPS") for the procurement of qualifying renewable resources. However, in a handful of jurisdictions, state agencies and public power authorities have been formed and given responsibility for resource procurement for reliability as well as public policy mandates.

In our research of appropriate metrics intended to measure the efficiency and effectiveness of the OPA in the area of resource procurement, we examined the following entities:

- New York State Energy Research and Development Authority ("NYSERDA")
- Illinois Power Agency
- State of Maine
- State of Connecticut
- State of New Jersey
- Tennessee Valley Authority

Our research showed that many of these organizations use a standard set of efficiency metrics to measure their organizational efficiency and performance related to procurement process efficiency,

procurement cost, and effectiveness of contract management processes and procedures. The metrics listed above show those metrics used to measure the effectiveness and efficiency of resource procurement programs, and reflect the short-list of metrics provided to the OPA.

## ENERGY EFFICIENCY

Concentric reviewed numerous energy efficiency agencies to determine which programs were most similar to the OPA, and what metrics these agencies use to measure program effectiveness and efficiency. While specific energy efficiency policies vary by jurisdiction, the objectives of these directives are often similar. In our research of appropriate metrics used to measure the efficiency and effectiveness of the OPA in the area of energy efficiency and conservation, we examined the following entities:

**Table 2: Energy Efficiency and Conservation Metrics**

| ENERGY EFFICIENCY AND CONSERVATION METRICS |
|---|
| • Energy, capacity, peak demand savings per budget dollar and per FTE (MWh, MW)[iv] |
| • Average cost of savings per kWh |
| • Actual administrative cost vs. budgeted program and OPA cost ($) |
| • Participants, enrollments, approved applications, completed jobs, projects, appliances rebated, and appliances recycled per year |
| • Administrative cost per kWh saved |
| • LDC partner relationship satisfaction (measured by survey) |

- Efficiency Maine Trust
- Efficiency Vermont
- Energy Trust Oregon
- Massachusetts Energy Efficiency Advisory Council
- New Jersey's Clean Energy Program

Our research showed that many of these organizations use similar metrics to measure their organizational efficiency as well as organizational performance. The metrics listed above show those metrics used to measure the effectiveness and efficiency of energy efficiency and conservation programs, and reflect the short-list of metrics provided to the OPA.

Descriptions of each energy efficiency program examined can be found in Attachments 1 through 5. In addition, Attachment 6 contains a review of the demand side management ("DSM") framework for natural gas distributors prepared by Concentric for the Ontario Energy Board, in March 2010. This review also helped inform the short-list of metrics provided to the OPA.

## POWER SYSTEM PLANNING

Table 3: Power System Planning Metrics

| POWER SYSTEM PLANNING METRICS |
|---|
| **Administrative Costs** |
| • OPA budget targets[v] |
| • Annual administrative charges per MWh of Load Served |
| **Customer Satisfaction** [vi] |
| • Transactional surveys - gauge stakeholder satisfaction with specific projects or stakeholder processes |
| • Corporate surveys - annually sample senior-level stakeholders across multiple business areas |
| • Touch point mapping exercises - organization drills deeply to better understand business interactions with its customers through a mapping of its processes and points of interaction to customer experience and satisfaction |
| • Responsiveness to customer inquiries |
| • Administration of stakeholder processes to allow for input on matters that have an impact on the reliability of the bulk power system |

Power system planning generally involves ensuring the ability of the bulk power system to serve system load while meeting adequacy and reliability requirements over a long-term planning horizon. In most regions of the United States, the entity charged with responsibility for system planning is also responsible for the day-to-day operation of the bulk power system. As a result, the metrics used by these entities to measure the effectiveness of the system planning function are designed to measure the impact of long-term system planning on day-to-day system operations. Because the OPA has no responsibility for day-to-day bulk power system operation, the industry metrics we reviewed were generally not applicable to the OPA. Nonetheless, Concentric researched other organizations with power system planning responsibilities to identify the metrics used to measure organizational effectiveness. In our research, we investigated the following entities to develop appropriate metrics for the purpose of evaluating the OPA in the area of power system planning:

- ISO New England
- New York ISO
- California ISO
- Midwest ISO
- Pennsylvania-New Jersey-Maryland Interconnection
- Southwest Power Pool
- ISO/RTO Council

Concentric found that many Regional Transmission Organizations ("RTOs") and Independent System Operators ("ISOs") have common performance evaluation metrics, as dictated by the Federal Energy Regulatory Commission requirements. However, these metrics were generally related to the day-to-day operation of the bulk power system and are not measures of organizational effectiveness or efficiency. The metrics listed above show those metrics used to

measure the effectiveness and efficiency of power system planning activities, and reflect the short-list of metrics provided to the OPA.

## PERFORMANCE METRICS OF OTHER CANADIAN ORGANIZATIONS

In order to account for potential differences between Canadian and U.S. organizations, Concentric also researched Canadian organizations that perform similar functions to those performed by the OPA, as well as the OEB. In our research, we investigated the following Canadian organizations to develop a short-list of metrics that may also be useful in evaluating some of the OPA's Strategic Initiatives:

- British Columbia Hydro and Power Authority ("BC Hydro")
- Hydro-Québec
- Hydro One Networks, Inc. ("Hydro One")
- Toronto Hydro-Electric System ("Toronto Hydro")
- Ontario Power Generation ("OPG")
- Ontario Energy Board ("OEB")

While the functions of these entities do not necessarily align within specific Strategic Initiatives of the OPA, our research showed that many of these organizations use similar metrics to measure their efficiency and effectiveness. A summary of our research findings are shown in Attachments 7 through 12.

### *BC HYDRO*

BC Hydro serves approximately 1.9 million customers (95 per cent of B.C.'s population) and operates 31 hydroelectric facilities and three thermal generating plants, totaling 12,000 megawatts (MW) of installed generating capacity.[xiii] BC Hydro is a crown corporation and reports to the B.C. Ministry of Energy and Mines. BC Hydro's 2013 Annual Report includes a 'Report on Performance' from which the metrics shown in Table 4 were drawn.

**Table 4: BC Hydro Metrics**

| KEY RESPONSIBILITY | BC HYDRO GUIDING PRINCIPLE | BC HYDRO METRIC |
|---|---|---|
| **Power Supply Planning** | "Safely Keep the Lights On" | CAIDI (hours)[vii]<br>SAIFI (frequency)[viii]<br>CEMI-4 (%)[ix]<br>Winter Generation Availability Factor (%)[x]<br>Forecast Supply-Demand Balance (MW)[xi] |
| **Resource Procurement** | "Mind Our Footprint" | Clean energy (%)<br>Electricity Production GHG Emissions (kilotonnes $CO_2e$) |
| | "Maintain Competitive Rates" | Competitive Rates (quartile) |
| **Conservation** | "Mind Our Footprint" | Demand Side Management (GWh/yr, cumulative since F2008)[xii] |

### *HYDRO-QUÉBEC*

Hydro-Québec generates, transmits, and distributes electricity to roughly 4 million customers in Québec. Its sole shareholder is the Québec government. Its distribution and transmission rates are regulated by the Régie de l'énergie.

Hydro Québec's Strategic Plan 2009-2013 includes metrics used by Hydro Québec to evaluate its progress toward meeting its objectives. Hydro Québec uses a variety of relevant performance metrics as shown in Table 5.

Other organization performance metrics tracked by Hydro Québec include:

1. Employee motivation, employee satisfaction (scales of 10)
2. Work-related accident frequency rate (per 200,000 hours worked)
3. Impact of technological innovation on company's net income ($M)
4. Overall satisfaction with Hydro-Québec (scale of 10)

**Table 5: Hydro Québec Metrics**

| KEY RESPONSIBILITY | HYDRO QUÉBEC OBJECTIVE | HYDRO QUÉBEC INDICATOR |
|---|---|---|
| **Power Supply Planning** | Ensure the quality of power transmission service.<br>Increase transmission system capacity to meet customers' needs. | Investments planned and carried out ($B)<br>New generating capacity brought onto the grid (MW relative to list of projects)<br>Additional transmission capacity (MW)<br>Continuity of transmission service—normalized system average interruption duration per customer per year (minutes) |
| **Resource Procurement** | Increase hydroelectric generating capacity | Additional generating capacity brought on stream (MW)<br>Gross hydroelectric output (TWh)<br>Average cost of generation (¢/kWh) |
| **Conservation** | Step up energy efficiency efforts | Energy savings achieved since implementation of Energy Efficiency Plan, with a target of 11 TWh by 2015 (TWh) |

### *HYDRO ONE*

Hydro One owns and operates nearly the entire Ontario transmission network. In addition, Hydro One's electricity distribution system is the largest in Ontario, serving approximately 1.3 million customers including local distribution companies. Hydro One is wholly owned by the Province of Ontario, and is regulated by the OEB.

Hydro One reports that it uses a balanced scorecard approach to measure and target its performance, which includes the setting and monitoring of progress toward 18 stretch targets. Hydro One's annual report lays out many of the company's goals and performance measures (drivers). Hydro One uses a variety of relevant performance metrics as shown in Table 6.

**Table 6: Hydro One Metrics**

| KEY RESPONSIBILITY | HYDRO ONE GOAL | HYDRO ONE KEY PERFORMANCE DRIVER |
|---|---|---|
| **Power Supply Planning** | Building and maintaining reliable, cost-effective transmission and distribution systems<br>Achieving productivity improvements and cost-effectiveness | Duration of unplanned customer interruptions for transmission and distribution customers (measured in terms of minutes per delivery point and hours per customer, respectively)<br>Transmission and distribution unit cost targets |
| **Resource Procurement** | N/A | N/A |
| **Conservation** | N/A | N/A |

### *TORONTO HYDRO*

Toronto Hydro delivers electricity to approximately 700,000 customers located in the City of Toronto and is the largest municipal electricity distribution company in Canada. The metrics used by Toronto Hydro are shown in Table 7.

**Table 7: Toronto Hydro Metrics**

| KEY RESPONSIBILITY | TORONTO HYDRO FOCUS AREA | TORONTO HYDRO MEASURE |
|---|---|---|
| **Power Supply Planning** | Infrastructure Reliability | System Average Interruption Frequency Index ("SAIFI")<br>System Average Interruption Duration Index ("SAIDI")<br>Worst Performing Feeders[xiv] |
| **Resource Procurement** | N/A | N/A |
| **Conservation** | Conservation Demand Management | Annual summer peak demand savings through year over year MW reduction. |

### *ONTARIO POWER GENERATION*

Ontario Power Generation ("OPG") is an electricity generation company whose principal business is the generation and sale of electricity in Ontario. OPG's generating portfolio has a total capacity of over 19,000 megawatts ("MW"). OPG is wholly owned by the Province of Ontario. Prices for most of OPG's baseload hydroelectric and all of its nuclear generation are regulated by the Ontario Energy Board.

OPG uses a variety of relevant performance metrics as shown in Table 8.

**Table 8: Ontario Power Generation Metrics**

| KEY RESPONSIBILITY | OPG FOCUS AREA | OPG MEASURE |
|---|---|---|
| **Power Supply Planning** | Fleet Operating Performance | Nuclear unit output<br>Hydroelectric unit availability<br>Thermal unit forced outages |
| **Resource Procurement** | Project Performance<br>Fleet Cost-Effectiveness | Major capital projects meeting milestones<br>Nuclear Production Unit Energy Cost<br>Hydroelectric OM&A Expense per Megawatt Hours<br>Thermal OM&A Expense per MW |
| **Conservation** | Energy Efficiency[xv] | Energy savings from OPG's own operations (e.g., efficiency improvements at hydroelectric units) |

### *OEB*

As part of the 2013 update to this report, Concentric also researched the OEB's performance measurement methodology as an alternative method to measure the OPA's performance. Relevant details of the OEB's methodology are presented below.

**Table 9: OEB Performance Assessment (Consumers)**

| INITIATIVE | TARGET |
|---|---|
| **Review and enhance the ways in which the OEB engages with consumers** | Review and identify opportunities to enhance consumer education and engagement activities. Implement based on recommendations from review |
| **Adopt a risk - based approach to the compliance by retailers, marketers, sub-meter providers and distributors with their regulatory obligations to Consumers** | Develop and implement a risk based approach to compliance in the retail sector |
| **Continue to address the needs of low -income energy consumers.** | Monitor and assess the effectiveness of the Emergency Financial Assistance program |

The OEB's stated mission is to promote a viable, sustainable and efficient energy sector that serves the public interest and assists consumers to obtain reliable energy services that are cost effective. The OEB measures its organizational effectiveness and efficiency by identifying the initiatives that it will undertake over the specific planning period. Key initiatives are developed for each of the OEB's key focus areas with measureable performance targets to achieve these key initiatives.

These key focus areas are:

1. Consumer
2. Industry
3. Public Policy
4. Organization
5. Process Metrics

An independent audit firm then assesses the OEB's performance in achieving the initiatives and performance targets over the planning period. Each initiative within each focus area is weighted, and has individual milestones and targets against which performance is measured. The scoring for each initiative is based on the achievement of each target. If an initiative does not achieve 100 per cent, then a partial score for the initiative is applied. The scores for the initiatives are added together and the focus area weighting is applied to calculate the percentage score for a particular focus area. All focus area scores are then added together combined for the overall achievement score.

For example, the Public Policy focus area had four initiatives for 2012-2013 with targets for each initiative. Based on the audit, the OEB achieved a score of 100% completion for two of the initiatives and 75% completion for the remaining two initiatives for a Public Policy total of 85.7% based on the weighting of each initiative.

An example of OEB's key initiatives and targets for the Consumers stakeholder group is shown in Table 9.

# SECTION 3:
# CONCLUSIONS AND RECOMMENDATIONS

Based on its review of the OPA's responsibilities, and of other organizations with similar functional responsibilities, Concentric was able to recommend a short-list of metrics to the OPA that would be most relevant in evaluating the OPA's performance and efficiency. This short-list is shown in Table 10.

It is important to emphasize that the research conducted by Concentric did not reveal a single organization that was directly comparable to the OPA in terms of all of its functions and strategic objectives. Because of this, Concentric focused its research by operational function (resource procurement, energy efficiency, and power system planning). The metrics that Concentric is recommending are based on organizations that provide a subset of services that are provided by the OPA. In doing so, organizational efficiencies that may be gained through operations as a single entity may be difficult to discern. Likewise, performance of organizations that perform a subset of the OPA's functions may realize efficiencies as a single-purpose entity. Therefore, Concentric is not suggesting that direct comparisons be made to the organizations listed, but instead provides a framework of metrics that are recognized within the industry and are applicable to the OPA. This framework, along with specific metrics listed in the report, can be used to develop meaningful performance assessments, distinguished by Strategic Initiative.

Furthermore, this short-list of recommended metrics can be combined with an OEB-like approach of developing initiatives and measurable performance targets to enhance the measurement of the OPA's organizational efficiency and effectiveness. Because the OPA's responsibilities, in total, are not comparable to any other single organization, it is reasonable to take a broader approach to developing measures of organizational effectiveness. Key initiatives for the OPA with measureable targets can be developed for the forecast period and can be combined with the list of recommended metrics for each of the OPA's key areas of responsibility. The resulting hybrid list of metrics and performance targets for the OPA should be considered further as a measure of the organization's efficiency and effectiveness.

Table 10: Recommended List of Metrics

| RESOURCE PROCUREMENT METRICS |
|---|
| **Cost Under Contract:**<br>• $/MWh by technology for energy<br>• $/MW by technology for capacity<br>• $/MWh by technology for ancillary services |
| **Diversity of Portfolio:**<br>• Contract lengths<br>• Contract staggering index<br>• Renewable penetration index<br>• Resource types by percentage |
| **ENERGY EFFICIENCY AND CONSERVATION METRICS** |
| • Energy, capacity, peak demand savings per budget dollar and FTE (MWh, MW)[xvi]<br>• Average cost of savings per kWh<br>• Actual administrative cost vs. budgeted program and OPA cost ($)<br>• Participants, enrollments, approved applications, completed jobs, projects, appliances rebated, and appliances recycled per year<br>• Administrative cost per kWh saved<br>• LDC partner relationship satisfaction (measured by survey) |
| **POWER SYSTEM PLANNING METRICS** |
| **Administrative Costs:**<br>• OPA budget targets[xvii]<br>• Annual administrative charges per MWh of Load Served |
| **Customer Satisfaction[xviii]**<br>• Transactional surveys - gauge stakeholder satisfaction with specific projects or stakeholder processes<br>• Corporate surveys - annually sample senior-level stakeholders across multiple business areas<br>• Touch point mapping exercises - organization drills deeply to better understand business interactions with its customers through a mapping of its processes and points of interaction to customer experience and satisfaction<br>• Responsiveness to customer inquiries<br>• Administration of stakeholder processes to allow for input on matters that have an impact on the reliability of the bulk power system |

### *ATTACHMENT 1: EFFICIENCY MAINE TRUST*

http://www.efficiencymaine.com

1. Funded through the system benefit charge included in electricity rates, the Regional Greenhouse Gas Initiative ("RGGI"), and federal grants
2. Carefully evaluates the cost-effectiveness of its programs individually and as a whole each year
3. Cumulative ratio of benefits to costs from 2004 through 2009 was 3:1[xix]
4. From 2004-2010, programs produced the following benefits:[xx,xxi]
    a. Total lifetime economic benefits of approximately $490 million
    b. Savings of approximately 4.6 million megawatt hours of electricity (Enough to power all Maine homes for a year)
    c. Avoided emissions of 2.4 million metric tons of carbon dioxide
5. Five primary objectives are to:
    a. Increase consumer awareness of cost-effective options for conserving energy
    b. Create more favorable market conditions for the increased use of efficient products and services
    c. Promote sustainable economic development and reduced environmental damage
    d. Reduce the price of electricity over time for all consumers by reducing demand for electricity during peak use periods
    e. Reduce total energy costs for Maine electricity customers by increasing the efficiency with which electricity is consumed *(Source: Frequently Asked Questions)*
6. Participates in efforts such as the Northeast Energy Efficiency Partnership's Evaluation, Measurement and Verification forum to keep up with the latest ways to measure energy savings *(Source: Frequently Asked Questions)*
7. Programs are subject to independent, outside review every five years
    a. Last review of Business Incentive Program was in 2011
    b. Evaluation criteria include costs per kilowatt-hour of electricity saved, lifetime economic benefits to the state, and benefit-to-cost ratios *(Source: Frequently Asked Questions)*
8. By law, all Maine programs are subject to one of two cost-effectiveness tests *(Source: Frequently Asked Questions)*
9. Study conducted for the Connecticut Energy Advisory Board by GDS Associates found that of the 15 efficiency programs analyzed in the Northeast, Efficiency Maine had the lowest program administrator cost per lifetime kWh saved *(Source: Frequently Asked Questions)*
10. Evaluation of programs includes the following metrics:[xxii]
    a. Number of participants
    b. Number of projects

c. Lifetime energy savings (kWh or MMBtu)
d. Annual Energy Savings (kWh or MMBtu)
e. Lifetime energy benefit ($)—i.e., lifetime energy cost savings
f. Efficiency Maine Costs (e.g., incentive amount, administration, training)($)
g. Participant costs ($)
h. Benefit-to-cost ratio

11. Other reported statistics:
    a. Btu's of energy saved
    b. Energy savings to consumers ($)
    c. Increase in Gross State Product ($)
    d. Job creation
    e. Reduction of $CO_2$ emissions *(Source: Triennial Plan of the Efficiency Maine Trust 2011-2013)*

12. Cost-Effectiveness Analysis
    a. Costs of efficiency determined relative to a "baseline" of standard equipment and practices
    b. Benefits are based primarily on value of energy savings (electricity, natural gas, oil, propane, and kerosene)
    c. Analysis is performed to compare costs and benefits over the measure's expected lifetime
    d. Costs include the increased cost of efficient equipment relative to baseline costs, as well as administrative and marketing costs for carrying out the efficiency programs
    e. Incentives paid to participants are not specifically counted as costs, because they are effectively a transfer of funds from one group of people to another, but are typically included in the overall cost
    f. Benefits of saved energy are determined by the amount of energy saved on an annual basis, the number of years for which savings are expected to occur, and the "avoided cost" of supplying that energy. Measure-related savings are based on the difference in energy consumption between the new efficient "measure" (e.g., a compact fluorescent bulb) and the technology or practice that is assumed to be the baseline (e.g., an incandescent bulb). The baseline is adjusted to account for the share of program participants that might have chosen the efficient measure in the absence of the program. Avoided costs of energy specific to Maine provided by Synapse Energy Economics (*Avoided Energy Supply Costs in New England: 2009 Report*).
    g. No monetary value attributed to the reduction in carbon emissions or to other environmental benefits
    h. Discount rate equals 2.22 percent *(Source: Triennial Plan of the Efficiency Maine Trust 2011-2013)*

13. Most recent program evaluation: Residential Lighting Program Evaluation (11/1/2012)[xxiii]
    a. The program evaluation estimated verified energy savings attributable to the program and completed a process evaluation that examined and offered recommendations on: program delivery and design; consumer awareness, use, and satisfactions; and emerging issues (e.g., lighting technology, trends, and policy issues).
    b. Evaluation activities
        i. Telephone surveys with residents and program participants
        ii. On-site surveys using lighting loggers at 41 homes
        iii. Interviews with retailers, manufacturers, and stakeholders
        iv. Review of program data

## *ATTACHMENT 2: EFFICIENCY VERMONT*

http://www.efficiencyvermont.com

1. Provides technical assistance, rebates, and other financial incentives to help Vermont households and businesses reduce their energy costs with energy efficient equipment, lighting, and approaches to construction and major renovation *(Source: About Us)*
2. Operated by private nonprofit organization under appointment issued by Vermont Public Service Board (Vermont Energy Investment Corporation) *(Source: About Us)*

| Key Quantifiable Performance Indicators (QPIs) | Funding Pool | 2012 Results | 3-year Goal | % of 3-year Goal Achieved |
|---|---|---|---|---|
| Electric savings in megawatt-hours | Electric Efficiency Charge | 113,385 | 274,000 | 41% |
| Total Resource Benefits | Electric Efficiency Charge | $120,727,454 | $315,710,000 | 38% |
| Summer peak kilowatt (kW) demand reduction | Electric Efficiency Charge | 15,419 | 41,920 | 37% |
| Summer peak kW demand reduction in Geographic Targeting areas— Susie Wilson Road | Electric Efficiency Charge | 804 | 1,570 | 51% |
| Summer peak kW demand reduction in Geographic Targeting areas— Saint Albans | Electric Efficiency Charge | 584 | 1,800 | 32% |
| Ratio of gross electric benefits to spending | Electric Efficiency Charge | 3.3 | 1.2 | N / A |
| MMBtu savings | Heating & Process Fuels Revenues | 91,842 | 126,000 | 41% |

3. Nation's first ratepayer-funded energy efficiency utility *(Source: How Efficiency Vermont Works)*
4. Energy efficiency charge on ratepayers' electric bills provides the funds for delivery of electric efficiency services. Funding for services that reduce heating and process fuel use comes from two sources: 1) Vermont revenues from the Regional Greenhouse Gas Initiative and revenues Efficiency Vermont receives from selling energy efficiency savings to the New England Independent System Operator's Forward Capacity Market *(Source: How Efficiency Vermont Works)*
5. Efficiency Vermont operates under a performance-based model, which ties specific goals to a formula for receiving compensation. This model places significant emphasis on meeting aggressive goals, in order to encourage high levels of performance, innovation, quality, and operational efficiency. These goals—for specified energy savings acquisitions, administrative performance elements, and other areas—are established with the Vermont Public Service Board as Quantifiable Performance Indicators ("QPIs") for a three-year performance period. 2012 was the first year of Efficiency Vermont's 2012-2014 performance period.[xxiv] Key QPIs are summarized in the table below. Efficiency Vermont also manages its performance against minimum performance requirements ("MPRs"), such as minimum benefit-to-cost ratios for investments (see below for list).
6. Efficiency Vermont reports net lifetime economic value of energy efficiency investments, taking into account:[xxv]
    a. Total resource benefits (i.e., the present value of lifetime economic benefits resulting from resource saving measures, including avoided costs of electricity, fossil fuels, and water)
    b. Operations and maintenance savings

c. Efficiency Vermont resource acquisition costs

d. Participant and third-party costs

7. Efficiency Vermont measures its performance in terms of environmental benefits—namely, avoided $CO_2$ and other air emissions[xxvi]

8. The complete set of QPI's and MPRs are shown below, as well Efficiency Vermont's service quality and reliability performance metrics.[xxvii]

**2.3 Electric Performance Indicators & Minimum Requirements**

| QPI# | Title | Performance Indicator / Milestone | Target[1] | Actual | % |
|---|---|---|---|---|---|
| 1 | Electricity Savings | Annual incremental net MWh savings | 274,000 | 113,385 | 41% |
| 2 | Total Resource Benefits | Present worth of lifetime electric, fossil, and water benefits | $315,710,000 | $120,727,454 | 38% |
| 3 | Statewide Summer Peak Demand Savings | Cumulative net summer peak demand (kW) savings | 41,920 | 15,419 | 37% |
| 4.a. | Summer Peak Demand Savings in Geographic Areas | Cumulative net summer net peak demand savings in the St Albans area | 1,800 | 584 | 32% |
| 4.b. | | Cumulative net summer net peak demand savings in the Susie Wilson area | 1,570 | 804 | 51% |
| 5 | Business Comprehensiveness | Custom, business retrofit or equipment replacement projects with multiple end-uses | 378 | 59 | 16% |
| 6 | Market Transformation Residential | Vermont 1-4 unit residential new construction program participation in 2014 as % of total 1-4 unit building permits in 2013 | 40% | 0% | 0% |
| 7 | Market Transformation Business | Instances where an energy efficiency measure supply chain partner is attached to completed business project | 7,360 | 2,634 | 36% |

| MPR# | Title | Minimum Requirement | Minimum | Actual | % |
|---|---|---|---|---|---|
| 8 | Minimum Electric Benefits | Total electric benefits divided by total costs | 1.2 | 3.3 | 277% |
| 9 | Threshold (or minimum acceptable) Level of Participation by Residential Customers | Total residential sector spending | $22,000,000 | $13,885,853 | 63% |
| 10 | Threshold (or minimum acceptable) Level of Participation by Low-Income Households | Total low-income single and multifamily services spending | $7,500,000 | $4,467,259 | 60% |
| 11 | Threshold (or minimum acceptable) Level of Participation by Small Business Customers | Number of total non-residential premises with annual electric use of 40,000 kWh/yr or less that acquire kwh savings | 1,950 | 1,892 | 97% |
| 12 | Geographic Equity | TRB for each geographic area is greater than values shown on Geo-Equity Table | 14 | 4 | 29% |
| 13 | Administrative Efficiency - Management Span of Control | Staff-to-Supervisor FTE ratio > 8.5:1 | 8.5 | 9.8 | 115% |
| 14 | Administrative Efficiency - Key Process Improvements | Meet all pre-determined milestones on schedule | 5 | 2 | 40% |
| 15 | Service Quality | Achieve 92 or more metric points | 92 | 28 | 30% |

## 2.5 Heating and Process Fuels Funds
## Performance Indicators & Minimum Requirements

| QPI# | Title | Performance Indicator / Milestone | Target | Actual | % |
|---|---|---|---|---|---|
| 1 | Thermal & Mechanical Energy Efficiency Savings | Annual incremental net MMBtu savings | 126,000 | 91,842 | 73% |
| 2 | Residential Single Family Comprehensiveness | a. Average air leakage reduction per project | 34% | 32% | 94% |
| | | b. Percent of projects with square feet of insulation added equivalent to at least 50% of the home's finished square feet of floor area | 44% | 87% | 197% |
| | | c. Percent of projects with both shell measures and heating system measures installed | 16% | 14% | 88% |

| MPR# | Title | Minimum Requirement | Minimum | Actual | % |
|---|---|---|---|---|---|
| 3 | Threshold (or minimum acceptable) Level of Participation by Residential Customers | Residential sector spending as % of total spending | 62.5% | 85.2% | 136% |
| 4 | Threshold (or minimum acceptable) Level of Participation by Low-Income Households | Low-income single- and multi-family spending as % of total spending | 17.0% | 43.6% | 257% |

## 2.6 Service Quality and Reliability Summary Report

| Metric # | Metric Description | Reporting Frequency | Actual Performance this Period | Points Earned this Period | Cumulative 2012-14 Points Earned | Total Possible 2012-14 Points | % |
|---|---|---|---|---|---|---|---|
| 1A | Residential Customer Service Satisfaction: Percentage of service categories with average respondent rating better than benchmark shall be ≥ 50% | performance period | NA | NA | 0 | 6 | 0% |
| 1B | Residential Customer Service Satisfaction: Percentage of service categories with average respondent rating worse than benchmark shall be ≤ 20% | performance period | NA | NA | 0 | 6 | 0% |
| 2A | Business Customer Service Satisfaction: Percentage of service categories with average respondent rating better than benchmark shall be ≥ 50% | performance period | NA | NA | 0 | 6 | 0% |
| 2B | Business Customer Services Satisfaction: Percentage of service categories with average respondent rating worse than benchmark shall be ≤ 20% | performance period | NA | NA | 0 | 6 | 0% |
| 3 | Customer Satisfaction upon Project Completion: Per each market segment, annual percentage of survey respondents with average service ratings of 3 (or better) shall be ≥ 90% | annually | 98% | 4 | 4 | 12 | 33% |
| 4 | Average answer time shall be ≤ 15 seconds per call | quarterly | 7 | 1 | 4 | 12 | 33% |
| 5 | Average percentage of calls answered shall be ≥ 92% | quarterly | 96% | 1 | 4 | 12 | 33% |
| 6 | Average percentage of abandoned calls shall be ≤ 3% | quarterly | 1% | 1 | 4 | 12 | 33% |
| 7 | Percentage of complaint follow-up call attempted by end of next business day shall be ≥ 95% | quarterly | 100% | 1 | 4 | 12 | 33% |
| 8 | Percentage of complaints closed within 12 business days of initial complaint call shall be ≥ 95% | quarterly | 100% | 1 | 4 | 12 | 33% |
| 9 | For each reporting year, the ratio of total complaints received per total number of Efficiency Vermont participants shall be ≤ 0.5% (one-half of one percent) | annually | 0.1% | 4 | 4 | 12 | 33% |
| | **Totals** | | | **13** | **28** | **108** | **26%** |

## *ATTACHMENT 3: ENERGY TRUST OREGON*

http://www.energytrust.org

1. Independent non-profit organization dedicated to helping utility customers benefit from saving energy and generating renewable energy *(Source: About Us)*
2. Since 2002, services, cash incentives, and solutions have helped customers save more than $1.3 billion on energy bills *(Source: About Us and Who We are)*
3. Energy efficiency will save customers nearly $1.58 billion investments that utilities do not have to make for fuel, storage, transport-ation, and generation *(Source: Who We Are)*
4. Cost of energy efficiency programs is less than ¼ the cost for electricity and less than ½ the cost for natural gas *(Source: Who We Are)*
5. Since 2002, energy efficiency investments have helped create 2,200 full-time jobs lasting a decade, stimulated $793 million in wages and $155 million in small business income *(Source: Who We Are)*
6. Since 2002, energy efficiency has helped avoid emitting nearly 8.4 million tons of carbon dioxide emissions *(Source: Who We Are)*

| OPUC PERFORMANCE MEASURES | ENERGY TRUST PERFORMANCE RESULTS IN 2012 |
|---|---|
| **Electric Efficiency** | |
| Electricity efficiency savings of at least 41 aMW in 2012 | Exceeded, with 52.9 aMW saved in 2012 |
| Levelized life-cycle cost should not exceed 4.4 cents per kWh | Well within requirement, with 2012 average levelized life-cycle cost = 2.7 cents per kWh |
| **Natural Gas Efficiency** | |
| Natural gas efficiency savings of at least 4.5 million annual therms in 2012 | Exceeded, with 5.9 million annual therms saved in 2012 |
| Average levelized life-cycle cost should not exceed 52 cents per therm | Well within requirement, with 2012 average levelized life-cycle cost = 37 cents per therm |
| **Financial Integrity** | |
| Unqualified financial audit opinion | Unqualified financial audit opinion |
| **Administrative/Program Support Costs** | |
| Administrative and program support costs below 9 percent of annual revenues | Well within requirement, with 2012 administrative and program support costs at 5.4 percent of annual revenues |
| **Customer Satisfaction** | |
| Demonstrate greater than 85 percent satisfaction rates for:<br>- Interaction with program representatives<br>- Overall satisfaction | Energy Trust calculated customer satisfaction from telephone surveys of participants soon after project completion. Results for major programs are averaged to determine satisfaction rates. This analysis determined a 94 percent satisfaction rate for interaction with program representatives and a 91 percent overall satisfaction rate. |
| **Benefit/Cost Ratios** | |
| By law, Oregon public purpose funds may be invested only in cost-effective energy efficiency measures—i.e., those with a ratio greater than 1.0. | Energy Trust reported both "Combined Utility System" and "Combined Societal" Benefit/Cost Ratios by program. |

*7.* Energy Trust's 2010-2014 Strategic Plan calls for helping utilities and their ratepayers acquire all cost-effective energy efficiency by saving 256 average megawatts of electricity and 22.5 million annual therms of natural gas. *(Source: Plans)*

8. Funded exclusively by customers of Portland General Electric, Pacific Power, NW Natural and Cascade Natural Gas; customers pay a dedicated percentage of their utility bills to support a variety of energy efficiency and renewable energy services and programs
    a. Oregon's two largest electric IOU's (PGE and Pacific Power) are required to collect a three percent public purpose charge from customers
    b. Energy Trust is the independent, third party approved by the OPUC in 2001 to provide energy efficiency and renewable energy programs (Source: Who We Are)
9. The Oregon Public Utility Commission ("OPUC") establishes minimum performance measures for Energy Trust in a variety of categories. Minimum savings and generation figures for energy-efficiency programs and renewable energy programs are set at an aggregated level rather than at an individual program or sector level. This allows Energy Trust to pursue different program strategies in the residential, commercial and industrial sectors as market forces and technological advances change.[xxviii]
    a. Energy Trust is accountable to the OPUC and the Energy Trust's volunteer board of directors
    b. Energy Trust provides the OPUC with quarterly and annual reports measuring actual performance against target metrics set by the OPUC
    c. Third party completes independent reports on Energy Trust and all public purpose spending, which the OPUC submits to the Oregon Legislature every other year
10. The table above summarizes the OPUC minimum standards that applied to the Energy Trust in 2012 and actual performance.[xxix]

## *ATTACHMENT 4: MASSACHUSETTS ENERGY EFFICIENCY ADVISORY COUNCIL*

http://www.ma-eeac.org

1. Legislative mandate requires that "electric and natural gas resource needs shall first be met through all available energy efficiency and demand reduction resources that are cost effective or less expensive than supply."
2. Program Administrators report to the Council quarterly and the Council submits an annual report to the legislature
3. DPU approved the use of the total resource cost test as the means to demonstrate the cost effectiveness of planned efficiency programs and reported savings
    a. Benefits exceed costs
    b. Benefits include avoided energy use, avoided need for new generation sources and new transmission and distribution, and avoided environmental impacts
    c. Costs and benefits measured against a baseline equivalent to costs and benefits realized without investment in energy efficiency
4. Website includes several evaluation, measurement, and verification studies of individual programs
5. *The 2011 Report of the Massachusetts Energy Efficiency Advisory Council*
    a. By the end of 2012, the three-year plan is projected to produce:
        i. $6 billion in total lifetime benefits ($3.8 billion in net benefits, after a projected $2.1 billion in total investments by programs and participants)
        ii. Electric savings of over 2,600 GWh, with 2012 savings representing 2.4 percent of annual retail energy sales. Lifetime electric savings are projected to exceed 30,000 GWh
        iii. Natural gas savings of nearly 60 million therms, with 2012 savings representing 1.15 percent of annual retail gas sales. Lifetime gas savings are projected to reach nearly 900 million therms
        iv. Greenhouse gas reduction of nearly 1.6 million metric tons. Lifetime greenhouse gas reductions are nearly 20 million metric tons
    b. 2011 Progress Goals for All Programs (reported as annual and lifetime figures)
        i. Participants (thousands)
        ii. Total Benefits (million $)
        iii. Electricity Savings (GWh)
        iv. Gas Savings (million therms)
        v. Oil Savings (million gallons)
        vi. GHG Reductions (metric tons)
        vii. $NO_X$ Reductions (metric tons)
        viii. $SO_2$ Reductions (metric tons)

ix. Program Spending (million $)

c. Evaluation, Measurement and Verification (EM&V)
   i. Systematic collection and analysis of information to document the impacts of energy efficiency programs and improve their effectiveness
   ii. EM&V studies performed at the statewide level
   iii. Individual Program Administrators administer the studies
   iv. EM&V program funded by 4 percent of the three-year plan budget
   v. 45 studies were completed in 2011

### *ATTACHMENT 5: NEW JERSEY'S CLEAN ENERGY PROGRAM*

http://www.njcleanenergy.com

1. Promotes increased energy efficiency and the use of clean, renewable sources of energy including solar, wind, geothermal, and sustainable biomass *(About NJCEP)*
2. Program Savings and Benefits: For 2001 through 2012, program activities have resulted in lifetime energy savings of over 39.6 million MWh of electricity and 123 million dekatherms of natural gas; production of 27.5 million MWh of renewable generation and 2.6 million MWh of distributed generation from combined heat and power systems[xxx]
3. *Protocols to Measure Resource Savings*
    a. Contains protocols developed for the purpose of determining energy and resource savings, including electric energy capacity, natural gas, and other resource savings, and to measure electric energy and capacity from renewable energy and distributed generation systems
    b. Protocols will be used consistently statewide to assess program impacts and calculate energy and resource savings to:
        i. Report to the Board on program performance
        ii. Provide inputs for planning and cost-effectiveness calculations
        iii. Calculate lost margin revenue recovery (as approved by the BPU)
        iv. Provide information to regulators and program administrators for determining eligibility for administrative performance incentives (to the extent that such incentives are approved by the BPU)
        v. Assess the environmental benefits of program implementation
    c. Resource savings to be measured include electric energy (kWh) and capacity (kW) savings, natural gas savings (therms), and savings of other resources (oil, propane, water, and maintenance); resource savings used to determine avoided environmental emissions
    d. Utilized to support preliminary estimates of the electric energy and capacity from renewable energy and distributed generation systems and the associated environmental benefits
    e. Focus on the determination of the per unit savings for the energy efficiency measures, and the per unit generation for the renewable energy or distributed generation measures included in the current program
    f. For most efficiency programs and measures, the Δ kW, Δ kWh, and gas energy savings values are based on the energy use of standard new products vs. the high efficiency products promoted through the programs
    g. For the direct install and low income programs, some Δ kW, Δ kWh, and gas energy savings values are based on high efficiency equipment versus existing equipment, where the programs specifically target early retirement or upgrades that would not otherwise occur

h. Renewable energy and distributed generation program protocols assume that any electric energy or capacity produced by a renewable energy or distributed generation system displaces electric energy and capacity from the PJM grid

i. Time periods for energy savings and coincident peak demand savings were chosen to best fit the seasonal avoided cost patterns for electric energy and capacity that were used for the energy efficiency program cost effectiveness purposes

4. NJCEP reports monthly progress on achievement of program-specific goals (e.g., enrollments, approved applications, completed jobs, appliances rebated, appliances recycled, etc.)

5. 2011 Annual Report (most recent)
    a. Reported statistics include:
        i. Annual spending ($)
        ii. Annual energy saved (MWh, Dth)
        iii. Annual renewable and combined heat and power energy generated (MWh)
        iv. Annual $CO_2$ emissions avoided (tons)
        v. Lifetime energy saved (MWh, Dth)
        vi. Lifetime renewable and combined heat and power energy generated (MWh)

### *ATTACHMENT 6: REVIEW OF DEMAND SIDE MANAGEMENT FRAMEWORK FOR NATURAL GAS DISTRIBUTORS (PREPARED FOR THE ONTARIO ENERGY BOARD, MARCH 19, 2010)*

Concentric reviewed this program for completeness since the organization is located in Ontario and provides similar conservation services for natural gas.

1. Cost effectiveness test
    a. Traditional: ratepayer impact, utility cost
    b. Progressive: total resource cost test
    c. Aggressive: societal, modified total resource cost test
2. Avoided costs
    a. Traditional: commodity
    b. Progressive: commodity, capacity
    c. Aggressive: commodity, capacity, externalities, carbon reduction
3. Input assumptions
    a. Traditional: utility costs
    b. Progressive: utility costs, participant costs
    c. Aggressive: utility costs, participant costs, externalities
4. Metrics/Targets
    a. Traditional: energy saved per DSM $
    b. Progressive: short-term and long-term energy savings
    c. Aggressive: long-term energy savings, market transformation, DSM penetration, carbon reduction
5. Conservation impact evaluation
    a. Traditional: utility report, prudence review
    b. Progressive: independent review and verification
    c. Aggressive: evaluate whether DSM results achieve program objectives
6. Recommendations
    a. Adopt straight forward and verifiable metrics
    b. Adopt societal cost test to measure cost effectiveness and overall program benefits, including environmental and social externalities; Use a lower threshold (i.e. 0.60 – 0.75) for low-income customers
    c. Use program administrator cost test to prioritize DSM programs
    d. Apply cost effectiveness test on program basis, rather than portfolio basis
    e. Spend between 3% and 5% of total budget evaluating and monitoring DSM programs
    f. Adopt market penetration of best available technologies as primary metric to measure success of individual DSM programs

i. Adopt percentage reduction in gas consumption per customer as secondary metric when market penetration is not available

## *ATTACHMENT 7: BC HYDRO*

Each of BC Hydro's Strategic Objectives is supported by corresponding performance measures and targets. These measures are shown below (from BC Hydro's 2013 Annual Report).[xxxi]

| GUIDING PRINCIPLES | PERFORMANCE MEASURE | F2011 Actual | F2012 Actual | F2013 Target | F2013 Actual | Status | F2014 Target[1] | F2015 Target[1] | F2016 Target[1] |
|---|---|---|---|---|---|---|---|---|---|
| SAFELY KEEP THE LIGHTS ON | Zero Fatality & Serious Injury (Loss of life or the injury has resulted in a permanent disability) | 3 | 0 | 0 | 1 | ● | 0 | 0 | 0 |
| | Severity (Number of calendar days lost due to injury per 200,000 hours worked) | 22.2 | 27.4 | 18.0 | 45.1 | ● | 27.0[2] | 26.0[2] | 25.0[2] |
| | All Injury Frequency (Number of employee injury incidents per 200,000 hours worked) | 1.7 | 1.7 | 1.4 | 2.1 | ● | 1.7[3] | 1.6[3] | 1.5[3] |
| | CAIDI[4] (hours) – Average Interruption in hours per interrupted customer | 2.20 | 2.27 | 2.35 | 2.12 | ● | 2.30 | 2.25 | 2.20 |
| | SAIFI[4] (frequency) – Number of sustained disruptions per year | 1.49 | 1.58 | 1.50 | 1.29 | ● | 1.45 | 1.40 | 1.40 |
| | CEMI-4[4] (%) – Customers experiencing four or more outages | 13.56 | 12.50 | 12.00 | 9.10 | ● | 11.00 | 11.00 | 11.00 |
| | Winter Generation Availability Factor (%) | 94.4 | 96.8 | 96.4 | 98.1 | ● | 96.4 | 96.4 | 96.4 |
| SUCCEED THROUGH RELATIONSHIPS | CSAT Index (% of customers satisfied or very satisfied)—Customer Satisfaction Index | 89 | 87 | 85 | 86 | ● | 85 | 86 | 87 |
| | Billing Accuracy (% of accurate bills) | 98.5 | 98.4 | 98.2 | 98.5 | ● | 98.4 | 98.4 | 98.4 |
| | First Call Resolution (% of customer calls resolved first time) | 73.0 | 74.2 | 72.0 | 68.0 | ● | 72.0 | 73.0 | 74.0 |
| | Progressive Aboriginal Relations Designation | Silver | Silver | Gold | Gold | ● | Gold | Gold | Gold |
| MIND OUR FOOTPRINT | Demand Side Management[5] (GWh/year) | 2,322 | 3,424 | 4,400 | 4,460 | ● | 5,100 | 7,100 | 8,300 |
| | | | | | | | SUBJECT TO CHANGE | | |
| | Electricity Production GHG Emissions (kilotonnes $CO_2e$) | 1,074 | 560[6] | 930[6] | 631[6] | ● | 710[6,7] | 710[6,7] | 710[6,7] |
| | Carbon Neutral Program Emissions (kilotonnes $CO_2e$) | 29.5 | 30.0[6] | 30.0[6] | 28.8[6] | ● | 30.0[6] | 29.0[6] | 29.0[6] |
| | Clean Energy (%) | 95.0 | 98.1 | 93.0 | 98.2 | ● | 93.0 | 93.0 | 93.0 |
| FOSTER ECONOMIC DEVELOPMENT | BC Hydro Capital Spend[8] ($ millions within B.C.) | 1,468 | 1,853 | 2,082[9] | 1,865 | ● | 1,963 | 2,364 | 2,375 |

● *Target met* ● *Target not met*

| GUIDING PRINCIPLES | PERFORMANCE MEASURE | F2011 Actual | F2012 Actual | F2013 Target | F2013 Actual | Status | F2014 Target | F2015 Target | F2016 Target |
|---|---|---|---|---|---|---|---|---|---|
| MAINTAIN COMPETITIVE RATES | Competitive Rates | 1st Quartile | 1st Quartile | 1st Quartile | 1st Quartile | ● | 1st Quartile | 1st Quartile | 1st Quartile |
| | Net Income ($ million) | 589 | 558 | 514[10] | 509 | ● | 545 | 611 | 684 |
| | Operating Costs[11] ($ million) | 695 | 665 | 705 | 705 | ● | 699 | 706 | 713 |
| | Debt to Equity (%) | 80/20 | 80/20 | 80/20 | 80/20 | ● | 80/20 | 80/20 | 80/20 |
| ENGAGE A SAFE & EMPOWERED TEAM | Employee Engagement[12] (%) | — | — | — | 78 | ● | 80 | 80 | 80 |

## *ATTACHMENT 8: HYDRO QUÉBEC*

Hydro Québec measures its performance based on stated business objectives with each major business line. In its 2009 – 2013 Business Plan, Hydro Québec included the following objectives:

| **HQ PRODUCTION** |
|---|
| **Objectives** |
| • Increase hydroelectric generating capacity |
| • Step up exports |
| • Further enhance the division's performance |
| **Indicators** |
| • Additional generating capacity brought on stream between 2008 and 2013 (MW) |
| o Hydro-Québec Production evaluates its projects on the basis of three criteria: they must be profitable, environmentally acceptable and favorably received by local communities |
| • Gentilly-2 generating station – refurbishment completed between 2009 and 2013 |
| • Investments in long-term operability ($M) |
| • Gross hydroelectric output (TWh) |
| • Average cost of generation (¢/kWh) |
| **HQ TRANSENERGIE** |
| **Objectives** |
| • Ensure the quality of power transmission service |
| • Increase transmission system capacity to meet customers' needs |
| • Further enhance the division's performance Indicators |
| **Indicators** |
| • Investments planned and carried out ($B) |
| • New generating capacity brought onto the grid (MW relative to list of projects) |
| • Additional transmission capacity (MW) |
| • Continuity of transmission service—normalized system average interruption duration per customer per year (minutes) |

| HQ DISTRIBUTION |
| --- |
| **Objectives** |
| • Ensure the quality of customer services |
| • Step up energy efficiency efforts |
| • Meet electricity needs in a flexible manner |
| • Further enhance the division's performance |
| **Indicators** |
| • Satisfaction index for residential, commercial and business customers (scale of 10) |
| • Average telephone response time (minutes) |
| • Energy savings achieved since implementation of Energy Efficiency Plan, with a target of 11 TWh by 2015 (TWh) |
| • Net operating expenses (distribution system and customer services) per service contract—average annual growth over a five-year period (%) |
| • Continuity of distribution service—normalized system average interruption duration per customer per year (minutes) |
| **CORPORATE ACTIVITIES** |
| **Indicators** |
| • Employee motivation, employee satisfaction (scales of 10) |
| • Work-related accident frequency rate (per 200,000 hours worked) |
| • Impact of technological innovation on company's net income ($M) |
| • Overall satisfaction with Hydro-Québec (scale of 10) |
| • Atmospheric emissions from the vehicle fleet (tonnes) |

### *ATTACHMENT 9: HYDRO ONE*

Hydro One measures its performance and sets targets using a balanced scorecard approach. The following is a list of performance measures employed by the company in 2012:[xxxii]

1. Achieving productivity improvements and cost-effectiveness
    a. For 2012, Hydro One measured for transmission unit cost the capital expenditures and operation, maintenance and administration costs per dollar of gross in-service assets (expressed as a percentage), with a target of 10.1 percent.
    b. For distribution unit cost, the measure is capital expenditures and operation, maintenance and administration costs per kilometre of line ($,000/km) due to the length of line required to connect rural customers. The distribution unit cost target was set at $11,000 per kilometre of line.
2. Building and maintaining reliable, cost-effective transmission and distribution systems
    a. For the duration of unplanned customer interruptions within the Transmission Business, the target for 2012 was 10 minutes per delivery point.
    b. For the Hydro One Networks distribution business, the target for 2012 for the duration of customer interruptions was set at 6.7 hours per customer.
3. Satisfying our customers
    a. Customer satisfaction is based on the results of customer surveys conducted on our behalf by independent third parties.
    b. In 2012, for transmission customers the company targeted a customer satisfaction rate of 90 percent.
    c. For distribution customers, the company targeted a satisfaction rate of 86 percent.
4. Employee engagement
    a. Annual employee engagement survey, with a goal of improving year-over-year performance in terms of the grand mean score (on a five-point scale).
5. Maintaining a commercial culture that increases value for our shareholder
    a. Performance measure is a targeted level of net income after tax
6. Creating an injury-free workplace and maintaining public safety
    a. Medical attentions (i.e., injuries that require treatment by a medical practitioner (beyond first aid)

## *ATTACHMENT 10: TORONTO HYDRO*

Toronto Hydro measures overall corporate performance against a scorecard of key performance indicators (KPIs) for the purposes of incentive-based compensation. The performance objectives of the corporation for 2012 were as follows:[xxxiii]

## *ATTACHMENT 11: ONTARIO POWER GENERATION*

In its 2012 Annual Report, OPG outlined the following performance indicators:[xxxiv]

| CATEGORY | METRIC |
|---|---|
| Fleet Operating Performance | Nuclear Unit Capability Factor<br>Hydroelectric Availability<br>Thermal Start Guarantee Rate<br>Thermal and Hydroelectric Equivalent Forced Outage Rate |
| Fleet Cost-Effectiveness | Nuclear Production Unit Energy Cost<br>Hydroelectric OM&A Expense per Megawatt Hours<br>Thermal OM&A Expense per MW |
| Financial Performance | Return on Equity<br>Funds from Operations Interest Coverage |
| Environmental Performance | OPG sets targets, for spills, infractions, energy efficiency, production of radiological waste, and dioxins/furans emissions.[xxxv] |
| Safety | Accident Severity Rate<br>All Injury Rate |

The Corporate Scorecard used as input to establishing executive compensation is shown below.[xxxvi]

| Weight | Key Performance Indicators | Threshold | Target | Maximum | Results | Score | Weighted Score |
|---|---|---|---|---|---|---|---|
| 10% | **Safety, Environment and Reliability**[1] Deliver front-line/core services | | | | | | |
| | **AIR:** All Injury Rate (Target = Canadian Electric Association Top Quartile "CEA") | 1.63 | 0.92 | 0.42 | **0.63** | | |
| 10% | **Safety focus areas:**<br>• Improvement in the area of Work Protection Code<br>• Increased focus on situational awareness<br>• No significant events that impact OPG's reputation | As determined by CEO | | | | 1.0 | 0.10 |
| 30% | **Financial Performance** - Reduce costs & improve OPG financial health | | | | | | |
| 7% | EBITDA [2] ( $M) | $1,204 | $1,337 | $1,605 | **$1,330** | 0.974 | 0.068 |
| 3% | Operating Return on Equity (ROE) [3] | 4.2% | 5.3% | 7.5% | **4.8%** | 0.773 | 0.023 |
| 20% | Operating OM&A [4] expenditures – ($M) | $2,576 | $2,453 | $2,085 | **$2,360** | 1.13 | 0.225 |
| 35% | **Fleet Operating Performance** - Control costs while delivering front-line/core services | | | | | | |
| 20% | Nuclear: Terawatt hour (TW.h ) | 47.6 | 49.6 | 50.6 | **49.00** | 0.85 | 0.17 |
| 7.50% | Thermal: Start Guarantee Rate | 85.0% | 94.0% | 97.0% | **97.5%** | 1.5 | 0.11 |
| 7.50% | Hydro: Availability (%) These targets are dependent on completion of 2012 planned outage work | 89.5% | 91.2% | 93.5% | **91.2%** | 1.0 | 0.075 |
| 25% | **Project Performance**[5] **-** Support Ontario's Long Term Energy plan and deliver front-line/core services | | | | | | |
| 8% | OPG Business Transformation Strategy | Project milestones specific to each project | | | **Above Target** | 1.3 | 0.10 |
| 6% | Niagara Tunnel | | | | **Target** | 1.0 | 0.06 |
| 4% | Lower Mattagami | | | | **Target** | 1.0 | 0.04 |
| 4% | Pickering/Darlington Fuel Channel Life Management | | | | **Target** | 1.0 | 0.04 |
| 3% | Darlington Refurbishment | | | | **Target** | 1.0 | 0.03 |
| 100% | **Score** | | | | | | **1.05** |

1. OPG measures its safety performance through two primary indicators:[xxxvii]
    a. Accident Severity Rate (ASR): number of days lost due to injuries
    b. All-Injury Rate (AIR): frequency of injuries resulting in lost time or requiring medical treatment
2. OPG establishes performance metrics for many environmental indicators—including: spills, air and water emissions, energy efficiency improvements, and reduction in waste generated.[xxxviii]
3. OPG's hydroelectric and nuclear business plans include performance targets. For OPG's hydroelectric business plan, performance targets include:[xxxix]

a. Availability
b. Equivalent Forced Outage Rate (EFOR)
c. Operations, Maintenance, and Administration (OM&A) Unit Energy Cost
d. Safety – Accident Severity Rate
e. Environmental Performance
    i. Spills
    ii. Regulatory compliance (e.g., regulatory infractions)
    iii. Energy efficiency

4. OPG's nuclear business planning process includes the use of performance targeting and benchmarking. The tables below shows the performance metrics benchmarked by OPG and for which OPG sets performance targets.[xl]

| Metric | Best Quartile | Median |
|---|---|---|
| **Safety** | | |
| All Injury Rate | | |
| 2-Year Industrial Safety Accident Rate | 0.05 | 0.09 |
| 2-Year Collective Radiation Exposure (man-rem per unit) | 62.15 | 81.84 |
| Airborne Tritium (TBq) Emissions per Unit | 48.0 | 101.0 |
| Fuel Reliability (microcuries per gram) | 0.000001 | 0.000165 |
| 2-Year Reactor Trip Rate (# per 7,000 hrs) | 0.00 | 0.33 |
| 3-Year Auxiliary Feedwater System Unavailability | 0.0014 | 0.0020 |
| 3-Year Emergency AC Power Unavailability | 0.0024 | 0.0076 |
| 3-Year High Pressure Safety Injection Unavailability | 0.0001 | 0.0037 |

| Metric | Best Quartile | Median |
|---|---|---|
| **Reliability** | | |
| WANO NPI (Index) | 96.19 | 62.46 |
| 2-Year Forced Loss Rate (%) | 0.68 | 3.79 |
| 2-Year Unit Capability Factor (%) | 90.97 | 84.31 |
| 2-Year Chemistry Performance Indicator (Index) | 1.00 | 1.01 |
| 1-Year Online Elective Maintenance (work orders/unit) | 218 | 278 |
| 1-Year Online Corrective Maintenance (work orders/unit) | 4 | 7 |
| **Value for Money** | | |
| 3-Year Total Generating Costs per MWh ($/Net MWh) | 28.66 | 32.31 |
| 3-Year Non-Fuel Operating Costs per MWh ($/Net MWh) | 18.06 | 21.28 |
| 3-Year Fuel Costs per MWh ($/Net MWh) | 5.02 | 5.37 |
| 3-Year Capital Costs per MW DER | 32.79 | 46.22 |

### *ATTACHMENT 12: ONTARIO ENERGY BOARD*

In its 2013-2016 Business Plan, the OEB outlined the following targets, by stakeholder group, in a balanced scorecard to identify the work or activities to be completed by the end of the 2013-2014 fiscal year.

**Consumer**
**25%**

| Initiative | 2013-14 Target |
|---|---|
| Promote "energy literacy". | Implement priority recommendations arising from the Board's review of consumer communications. |
| Adopt a risk-based approach to the assessment of compliance. | Implement a risk-based approach to the assessment of compliance by retailers and marketers.<br><br>Develop a risk-based approach to the assessment of compliance by distributors and sub-meter providers. |
| Continue to address the needs of low-income energy consumers. | Report on the results of the Emergency Financial Assistance program for 2012. |

**Industry**
**35%**

| Initiative | 2013-14 Target |
|---|---|
| Implement the renewed regulatory framework for electricity distributors and transmitters. | Complete the development of policies, guidelines, code and reporting requirements in support of the Renewed Regulatory Framework for Electricity.<br><br>Implement for 2014 rate applications. |

| | |
|---|---|
| Develop an approach to decouple revenues from costs. | Develop policy regarding revenue decoupling. |
| Assess how the Board's approach to the regulation of electricity distributors may affect the ability of distributors to realize operational or organizational efficiencies. | Complete the assessment of ways to encourage distributors to realize efficiencies. |
| Review the regulatory approach to setting payments for Ontario Power Generation. | Complete the Board Policy Report. |
| Review the Ontario natural gas market conditions and regulatory guidelines. | Complete guidelines regarding the evaluation transmission pipeline expansion. |

**Public Policy**
**15%**

| Initiative | 2013-14 Target |
|---|---|
| Ensure that the rules governing the connection of renewable generation to the grid are effective and are aligned with the government's public policy objectives. | Complete amendments to the DSC in respect of the connection process for micro-embedded generators.<br><br>Monitor implementation of the revised connection rules. |
| Review and evaluate the Regulated Price Plan (including Time of Use | Complete review and assessment of TOU pricing. |

| | |
|---|---|
| prices). | |
| Review and report on conservation and energy efficiency programs for consumers in the electricity and natural gas sectors. | Report on the results of the natural gas DSM programs and the progress of the electricity distributors towards their conservation targets. |
| Complete the designation process in respect of the East-West tie. | Complete the decision phase in respect of the designation process. |

**Organization**
**15%**

| Initiative | 2013-14 Target |
|---|---|
| Enhance the efficiency and effectiveness of the applications and hearing process. | Implement improvements to the applications and hearing process. |
| Review and enhance the Board's policy consultation process. | Evaluate the effectiveness of the Board's policy consultation process. |
| Review and enhance the Board's process and performance metrics. | Review key Board performance and process metrics. |

**Process Metrics**
**10%**

| Process | 2013-14 Target Metrics |
|---|---|
| Market Operations Hotline response | 90% of responses within 10 days. |

| | |
|---|---|
| within metrics. | Establish new benchmark for service. |
| Consumer calls metric for the Consumer Relations Centre. | 80% of calls answered within 20 seconds, voice mail the next day and consumer correspondence in 10 days.<br><br>Establish new benchmarks for service. |
| Board & delegated review of applications by staff within established metrics. | 75% for Board decisions, 80% for delegated staff decisions, and 90% within 60 days for cot award decisions.<br><br>Establish new benchmarks for service. |

An independent audit firm assesses the OEB's performance in achieving the Business Plan initiatives for the year. Each initiative is weighted, and the scoring for each initiative is based on achievement of each milestone. If an initiative does not achieve 100 percent, then a partial score for the initiative is applied. The scores for the initiatives are added together and the focus area weighting is applied to calculate the percentage score for a particular focus area. All focus area scores are then added together for the overall achievement score.

## *NOTES*

[i] See: Decision and Order, EB-2009-0347, April 27, 2010, p. 6.

[ii] See: Ontario Power Authority, 2010 Annual Report, and *Electricity Act, 1998*, and *Electricity Restructuring Act, 2004*, and OPA 2011-2013 Business Plan EB-2010-0279, Exhibit A-2-1 p. 8.

[iii] While many of the organizations researched report metrics such as job creation and greenhouse gas emissions, these metrics are not measures of organizational efficiency, per se but are reported in recognition broader of public policy objectives.

[iv] Budget should be measured on the basis of functional area and organization.

[v] Budgets should be measured on the basis of functional area and the organization as a whole.

[vi] Surveys should be conducted for each functional area and the organization as a whole.

[vii] Customer Average Interruption Duration Index (average interruption in hours per interrupted customer).

[viii] System Average Interruption Frequency Index (number of interruptions per customer per year).

[ix] Customers Experiencing Multiple Interruptions (percentage of customers experiencing 4 or more outages).

[x] The Winter Generation Availability Factor (WGAF) is a percentage of Heritage Asset units in the system greater than 20 megawatts (MW) and available to generate electricity (total hours available for service/total hours) during the critical peak-load period of November 15 to February 15. BC Hydro focuses on WGAF to manage the availability of generation during the critical winter period when customer loads are most likely to reach their annual peaks and all BC Hydro generating units will remain in-service barring a forced outage or urgent maintenance.

[xi] The forecast supply-demand balance metric measures the net system capacity surplus or deficit under annual peak loads for the upcoming winter at the 90th percentile. This metric is calculated using the load forecast and conditions just prior to the winter period. Note that BC Hydro reported this metric in its 2011 Annual Report, but subsequently did not include it as part of its report on performance in its 2013 Annual Report.

[xii] Demand-side management (DSM) reflects the cumulative rate of annual electricity savings resulting from DSM activities including programs, codes and standards, and rate structures. The new programs and reported savings began in fiscal 2008, following the 2007 BC Energy Plan.

[xiii] BC Hydro 2013 Annual Report, at 4.

[xiv] Total number of feeders experiencing more than seven sustained outages in a year, with outages defined as interruptions greater than one minute.

[xv] The energy efficiency metric for OPG is from OPG's 2009 Sustainable Development Report.

[xvi] Budget should be measured on the basis of functional area and organization.

[xvii] Budgets should be measured on the basis of functional area and the organization as a whole.

[xviii] Surveys should be conducted for each functional area and the organization as a whole.

[xix] Efficiency Maine 2009 Annual Report, at 4.

[xx] Efficiency Maine 2009 Annual Report, at 4.

[xxi] Efficiency Maine 2010 Annual Report, at 4-5.

[xxii] Efficiency Maine, 2012 Annual Report.

[xxiii] The Cadmus Group, *Efficiency Maine Trust Residential Lighting Program Evaluation: Final Report*, November 1, 2012.

[xxiv] Efficiency Vermont, *Savings Claim Summary 2012*, April 1, 2013, at 1.

[xxv] Efficiency Vermont, *Savings Claim Summary 2012*, April 1, 2013, at 3.

[xxvi] Efficiency Vermont, *Savings Claim Summary 2012*, April 1, 2013, at 8.

[xxvii] Efficiency Vermont, *Savings Claim Summary 2012*, April 1, 2013, at 21-24.

[xxviii] Energy Trust of Oregon, *2012 Annual Report to the Oregon Public Utility Commission*, April 15, 2013, at 25.

[xxix] Energy Trust of Oregon, *2012 Annual Report to the Oregon Public Utility Commission*, April 15, 2013, at 25-26.

[xxx] NJCEP Cumulative Results 2001-2012.

[xxxi] The *Revised BC Hydro Service Plan 2013/14-2015/16* (Appendix A) provides rationales and benchmarking activities.

[xxxii] Hydro One 2012 Annual Report, at 16-17.

[xxxiii] Toronto Hydro, 2012 Annual Information Form, at 50.

[xxxiv] Ontario Power Generation, 2012 Annual Report, at 18-19 and 28-29.

[xxxv] Environmental performance indicators are detailed in OPG's 2011 Sustainable Development Report and include: number of spills (by severity); regulatory compliance (number of infractions); hydroelectric efficiency; radiation emissions; radioactive waste management; and air emissions (thermal), including $CO_2$, $NO_x$, and $SO_2$.

[xxxvi] Ontario Power Generation Inc., Form 51-102F6 Statement of Executive Compensation (with respect to financial year ended on December 31, 2012).

[xxxvii] Tremblay, Pierre, "Ontario Power Generation Overview," presentation.

[xxxviii] Ibid.

[xxxix] Ontario Power Generation, "Business Planning and Benchmarking – Regulated Hydroelectric."

[xl] Ontario Power Generation, "Business Planning and Benchmarking – Nuclear."

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# WORKFORCE HIRING PRACTICES

## 1.0 INTRODUCTION

In the OPA's 2010 and 2011 revenue requirement submissions (EB-2009-0347 and EB-2010-0279 respectively) the Board directed the OPA with respect to its workforce hiring practices. Specifically, the Board's Decision and Order in the OPA's 2010 revenue requirement submission (EB-2009-0347) states:

> The Board considers that the OPA needs to have a measure of freedom to manage its staffing levels, and the proportion of permanent staff to temporary or contract staff as it feels is appropriate. The Board is not inclined to attempt to micromanage the OPA's staffing resources at this time. It is the Board's expectation that in future fees submissions the OPA will make appropriate adjustments to its staffing practices, including its overall staffing levels in light of the organization's mandate.
>
> It is important that OPA be prepared to demonstrate that it has done so in future revenue requirement filings.
>
> The Board also notes that although not witnessed in this fees submission, future fees submissions from the OPA should not build in staffing levels in anticipation of unknown workload. The Board expects to see sufficient explanation and justification included in the OPA's evidence if further increases to staffing levels are seen in future revenue requirement review applications.

Since the Board's Order in 2010, the OPA has undertaken planning processes to identify expected workloads and consequent resource requirements. This planning process sought to balance the sometimes competing objectives of headcount restraint and cost effectiveness. As an ongoing practice, the OPA aligns staff requirements with business needs, hiring regular employees for core, long-term requirements, and temporary and consulting resources for non-core, and/or short-term assignments.

The OPA remains committed to complying with the government's goal of staffing restraint across its various agencies. While the OPA is operating with an expanded mandate and an increased volume and complexity of work, as described in Exhibit B, Tabs 1-5, the OPA's 2014 budget remains essentially flat relative to staffing levels in 2011 and 2012. The OPA is committed to delivering this budgeted staffing level while working within the context of the recent union certification process that is under way.

In 2014 OPA headcount will be reduced from 2013 levels, declining from a total of 267 to 260 Full Time Equivalents ("FTEs"). This reduction will be achieved through a combination of headcount decreases, and administrative and process efficiencies, including effective management of vacancies and redeployment of existing staff. Nevertheless, reducing headcount while implementing program priorities and an expanding mandate and volume and complexity of work is challenging, and may result in impacts to the OPA's service and delivery levels.

The OPA has been successfully delivering work on 15 government directives issued since November 2012. Our stakeholder base is also becoming broader and more complex, driving more interactions with the public and sector participants. For example, in 2014, the OPA expects increased stakeholder engagement and regional planning activities as it implements the 18 regional planning and siting recommendations accepted by the government of Ontario, designs a large renewable procurement process, and supports the implementation of the 2013 Long-Term Energy Plan recommendations. The OPA will deliver on this growing mandate while continuing to manage its resources in a prudent manner.

A summary of the regular and temporary FTEs budget for 2014 compared to the OPA's 2011 Board-approved budget and 2013 actuals is provided in Table 1 below.

**Table 1**

| | Regular FTE | 2011 Budget Board-approved | 2014 Budget | 2014 vs 2011 | 2013 Actual | 2014 vs 2013 |
|---|---|---|---|---|---|---|
| GOAL 1 | CONSERVATION | 68 | 59 | (9) | 56 | 3 |
| GOAL 2 | POWER SYSTEM PLANNING | 39 | 35 | (4) | 34 | 1 |
| GOAL 3 | ELECTRICITY RESOURCES | 47 | 61 | 14 | 53 | 8 |
| GOAL 4 | CEO, BUSINESS STRATEGIES & SOLUTIONS, LEGAL ABORIGINAL & REGULATORY AFFAIRS | 61 | 60 | (1) | 58 | 2 |
| GOAL 5 | COMMUNICATIONS | 21 | 21 | 0 | 19 | 2 |
| | Total OPA - Regular | 235 | 236 | 1 | 219 | 17 |

| | Temporary FTE | 2011 Budget Board-approved | 2014 Budget | 2014 vs 2011 | 2013 Actual | 2014 vs 2013 |
|---|---|---|---|---|---|---|
| GOAL 1 | CONSERVATION | 1 | - | (1) | 2 | (2) |
| GOAL 2 | POWER SYSTEM PLANNING | 3 | 1 | (2) | 1 | 0 |
| GOAL 3 | ELECTRICITY RESOURCES | 8 | 20 | 12 | 36 | (16) |
| GOAL 4 | CEO, BUSINESS STRATEGIES & SOLUTIONS, LEGAL ABORIGINAL & REGULATORY AFFAIRS | 4 | 3 | (1) | 9 | (6) |
| GOAL 5 | COMMUNICATIONS | 2 | - | (2) | 0 | (0) |
| | Total OPA - Temp | 18 | 24 | 6 | 48 | (24) |

| | | | | | | |
|---|---|---|---|---|---|---|
| | Total OPA - All FTE | 253 | 260 | 7 | 267 | (7) |

Note: all staff levels represent average annual Full Time Equivalents, totals may not add due to rounding

As shown in Table 1, the OPA's 2014 employee staff level of 260 regular and temporary employees is an increase of 7 FTEs from the 2011 Board-approved budgeted staff level of 253. This increase is primarily required to support the long-term sustainability of the OPA's generation procurement and contract management functions, following a ministerial directive setting annual procurement targets for the FIT and microFIT programs for each of the next four years. These pressures have been addressed by prioritizing staff resources and shifting staff away from other parts of the organization. By the end of 2014, the OPA is expecting to manage contracts for nearly 27,000 MW of electricity in the Ontario system, or over two-thirds of the total installed generation capacity.

In the face of increased activity in business operations, staffing in the support divisions – Communications, Legal Aboriginal and Regulatory Affairs, and Business Strategies and Solutions – as well as the Power System Planning and Conservation divisions, remains slightly below 2011 levels. Efficiency in the support functions has been, and will continue to

be, achieved through the redeployment of resources, use of third-party support, and other internal efficiencies.

During 2013, the OPA undertook a planning process to identify the resources required to meet its 2014 objectives. Each division's goals, emerging priorities, and ongoing work were reviewed, focusing on prioritization, interdependencies and risk management.

For example, the Electricity Resources division conducted an activity analysis in its key areas of FIT and microFIT application processing, and Contract Management. Data such as the number of current and projected applications per program per procurement window were combined with current processing rates per staff member to determine resource requirements in 2014. As part of the government's two-year review of the FIT program, a target of 60 calendar days for application review following the close of an application period was established. The OPA estimated resource requirements based upon the number of expected applications and this processing timeline.

Similarly, Contract Management staffing is primarily a function of the total number of contracts that must be managed. By the end of 2013, Electricity Resources staff was managing over 2,500 active FIT contracts, and approximately 17,000 active microFIT contracts. The OPA forecasts the total number of contracts it manages to increase to approximately 28,000 contracts (with a combined capacity of nearly 27,000 MW) by the end of 2014. While the megawatts contracted by the OPA will increase by nearly 30 percent between 2011 and 2014, the number of contracts the OPA manages is expected to increase by more than 130 percent for the same period. This results in nearly double the number of contracts to be managed per full-time employee within Contract Management, including shared services support. This high number of contracts, combined with complex program requirements, is a key resource requirement driver for the Electricity Resources division.

Details on the variance in staffing levels between the OPA's 2014 budget and the OPA's 2011 Board-approved budget for each of the OPA's divisions are provided below.

## 2.0 ANALYSIS AT A DIVISION LEVEL

### Conservation

The Conservation division has a 2014 budget of 59 regular employees. This represents a reduction of 9 regular positions and 1 temporary position compared to the OPA's 2011 Board-approved budget. Key drivers associated with this reduction include the transfer of the Marketing function to the Communications division as part of a centralization and consolidation process, and the achievement of operational efficiencies in contract management and settlement processes through the use of automated tools, such as a milestone tracker and corporate settlement system.

### Power System Planning

The Power System Planning division has a 2014 budget of 35 regular and 1 temporary employee. This is a decrease of 4 regular and 2 temporary positions compared to the OPA's 2011 Board-approved budget. Key drivers associated with this reduction are resource efficiencies, and a prioritization of the work activities undertaken by the division. Resource efficiencies have been achieved by streamlining planning and administrative efforts within the division. With regards to prioritization, as discussed in Exhibit B-2-1, while the expectations around provincial and regional planning activities to be undertaken by the division are increasing significantly, the work will be managed commensurate with budgeted staffing levels.

### CEO Office, Business Strategies and Solutions, and Legal, Aboriginal and Regulatory Affairs

The CEO office has a 2014 budget of 3 regular employees. This represents an increase of 1 regular position from OPA's 2011 Board-approved budget, the result of the addition of a Senior Advisor position in 2012. This position was established to support the CEO on matters related to the day-to-day management of the OPA, including the coordination and prioritization of issues as they arise, and the management of relationships inside and outside of the organization.

The Business Strategies and Solutions division has a 2014 budget of 37 regular and 2 temporary employees. This is a decrease of 3 positions compared to the OPA's 2011 Board-approved budget. This decrease is the result of operating and process efficiencies in the Finance, Human Resources, and Office and Facilities Services groups, which have been partially offset by the addition of two positions in the IT group to address increased requirements for systems and application support.

The Legal, Aboriginal and Regulatory Affairs division has a 2014 budget of 20 regular and 1 temporary employee. This is the same staffing level as the OPA's 2011 Board-approved budget. These numbers reflect an increase of 2 legal counsel, with significant cost savings, to provide increased internal legal support for the Conservation and Electricity Resources divisions, and 2 positions to manage an increasing volume of requests under the *Freedom of Information and Protection of Privacy Act*. These additions have been offset by a reduction of 4 positions in the Corporate Secretary, First Nations & Métis Relations, and Regulatory Affairs groups achieved through operational and administrative efficiencies.

**Communications**

The Communications division has a 2014 budget of 21 regular employees. This represents a reduction of 2 temporary positions compared to the OPA's 2011 Board-approved budget. Operational efficiencies in administrative support, stakeholder relations, and corporate communications are offset by the transfer of the Marketing function to the Communications division.

**Electricity Resources**

The Electricity Resources division has a 2014 budget of 61 regular and 20 temporary employees. This represents an increase of 14 regular and 12 temporary positions compared to the OPA's 2011 Board-approved approved budget. The increase in regular positions reflects a one-time, mid-2013 conversion of some long-term temporary roles to regular positions, as well as the re-classification of certain roles to support the long-term sustainability of the FIT and microFIT programs. This transition was made to help minimize

the risk of high staff turnover, to maintain organizational knowledge, and to support increased efficiency in the division. This transition was made after it became clear that there would be an ongoing schedule of procurement of renewable generation over the next few years. While the timing of this conversion at the mid-point of 2013 gives the appearance of an increase in regular positions in the Electricity Resources division between 2013 and 2014, no further conversions are considered in the 2014 budget.

For all the standard offer generation procurement programs administered by the OPA, the OPA reviews and assesses applications to facilitate the development of projects to ensure that Ontario reaches the government's renewable energy objectives as determined in the 2013 Long-Term Energy Plan. FIT applications are subject to multiple stages of review, including separate stages for completeness, eligibility, qualification as a set-aside project if applicable, priority points assessment and ranking, and connection availability testing. MicroFIT projects are reviewed for completeness, eligibility, and connection availability. The Unbuilt Rooftop Solar Program and Hydroelectric Standard Offer Program follow processes similar to FIT.

While these activities are common to all standard offer generation procurement programs, they are most significant for the FIT and microFIT programs given the large volume of applications received under each. Since the launch of these programs in October 2009, the Renewables Procurement group in Electricity Resources has focused its resources on designing, managing and reviewing the standard offer programs, and reviewing and processing the corresponding applications. The application review and subsequent contracting processes requires staff interaction with the application material and the program applicants. Interest in the FIT and microFIT programs continues to remain high and is expected to continue, as evidenced by the volume of applications continuing to exceed the available annual capacity levels. The most recent FIT 2.0 contracting process saw interest in the program exceed available capacity by four times.

The effort required to administer the FIT and microFIT programs is expected to continue throughout the next four years that the program is offered. Once contracts are awarded,

significant effort is required by the Electricity Resources Contract Management group. As counterparty to these contracts, Contract Management is responsible for managing these contracts with the developers to ensure that all contractual obligations are fulfilled.

The OPA has undertaken activities to increase the efficiency of its FIT and microFIT procurement and contract management processes, including re-designing online application tools to enable easier application completion and streamlined review, increased use and re-design of application forms to further standardize the process, online videos to assist applicants in completing application materials, posting of guides on how to complete Notice to Proceed and Commercial Operation packages for submission to the OPA after contracts are offered, and the development of standardized form agreements for, among others, Contract Facility Amendments and Assignments to Affiliates. However significant staff support is still required. To support these requirements, the Electricity Resources division utilizes a complement of both regular and temporary staff dedicated to the design, implementation, operation and lifecycle management of the standard offer programs.

In 2014, the Electricity Resources division will manage the sustained interest in current programs, both standard offer and non-standard offer, as well as other ongoing activity on existing initiatives such as:

- MicroFIT
- FIT 3
- Un-built Rooftop Solar Pilot (“URSP”)
- Hydroelectric Contract Initiative (“HCI”)
- Hydroelectric Standard Offer Program (“HESOP”) – Municipal Stream
- Korean Consortium contract negotiation
- Non Utility Generators (“NUG”) contract negotiations
- The Community Energy Partnerships Program (“CEPP”) and the Aboriginal Energy Partnerships Program (“AEPP”)

as well as new procurement initiatives directed by government launching in 2014, such as:

- FIT 4
- Hydroelectric Standard Offer Program ("HESOP") – Expansion Stream
- Large Renewable Procurement processes
- New Post Creek contract negotiation
- Thunder Bay conversion to advanced biomass contract negotiation
- Renewable energy projects in remote First Nation Communities
- Combined Heat and Power initiative
- Opportunities to continue Industrial Electricity Incentive ("IEI") program

and other non-procurement related directed government initiatives launching in 2014, such as:

- The development of a report to the Minister of Energy on a procurement framework that addresses the regulatory barriers preventing energy storage technologies from competing in the energy market

The Electricity Resources division will successfully deliver these programs and initiatives while reducing overall staff numbers in 2014 from 2013 levels.

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# STAKEHOLDER ENGAGEMENT PROCESS

## 1.0 INTRODUCTION

The Board's Decision and Order in the OPA's 2011 revenue requirement submission (EB-2010-0279) stated:

> The Board is of the view that the OPA would be well-served by refining its stakeholder consultation processes to increase transparency and inclusiveness at all stages of program design. The Board is of the view that the OPA should provide evidence of how its processes have evolved in conjunction with its 2012 expenditure and revenue requirements and fees application.

The Ontario Power Authority's stakeholders are integral participants in the development and implementation of the OPA's programs and initiatives. In order to enhance transparency and inclusive stakeholdering, the OPA is building on the strengths of traditional stakeholder practices by using multi-channel engagement plans that will capture a breadth of views and opinions from both electricity and non-electricity industry parties, including the consumer.

## 1.1 Stakeholder Engagement Principles

The OPA's stakeholdering engagement processes are based on the foundational principles of:

- relevance
- inclusiveness
- accessibility
- transparency
- contribution

Supplementing this, additional stakeholdering principles have been added based on the joint recommendations report produced by the OPA and Independent Electricity System Operator ("IESO") in August 2013, and subsequently adopted by the province, entitled: "Engaging Local Communities in Ontario's Electricity Planning Continuum". While these principles relate directly to the planning and siting of large energy infrastructure, they can

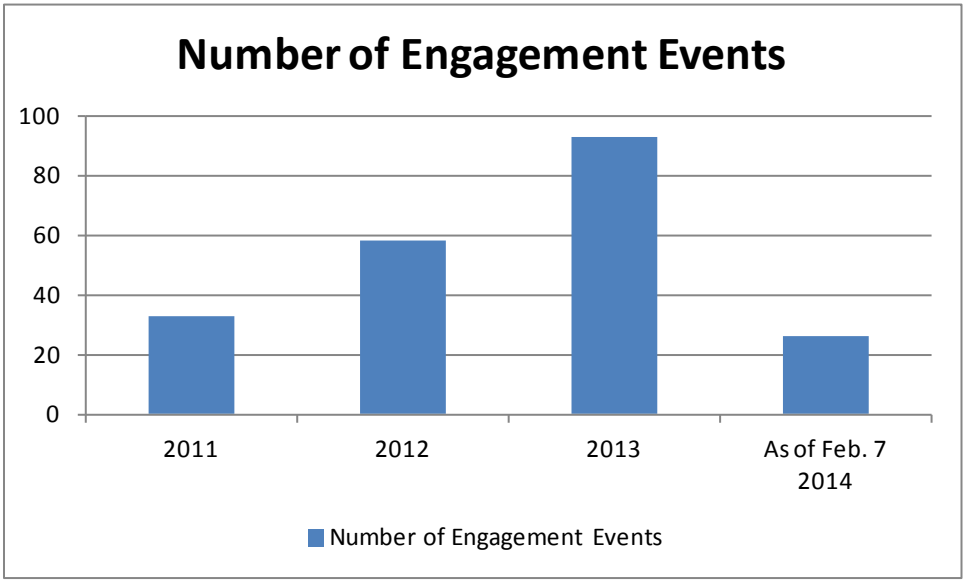
also be seen as foundational principles to be applied to the OPA's engagement activities. These additional principles include:

- strengthening the process for early and sustained engagement with local government and the public;
- providing local governments and communities with a greater voice and responsibility in planning and siting; and
- supporting inter-ministerial coordination.

## 1.2 Stakeholder Engagement Activities

The effort to increase transparency and inclusiveness has led to a significant increase in the number of engagement events held by the OPA. Since 2011, the OPA has increased the number of engagement activities from 33 in 2011, to 93 in 2013, and 26 in the first six weeks of 2014. Figure 1 below, presents the number of outreach events from January 1, 2011 to February 7, 2014. Outreach events are sessions where the OPA is engaging with stakeholders to provide information and obtain input on OPA programs and initiatives. A wide variety of event styles are utilized and can include webinars, group meetings, one-on-one meetings, public meetings and committee meetings.

**Figure 1 – Number of Stakeholder Consultations (January 1, 2011 – February 7, 2014)**



Additional information on these stakeholder events, including a breakdown of the individual engagements and participation numbers for 2011 to 2013 can found in Exhibit B-5-1.

## 1.3 Stakeholder Engagement Audiences

The OPA's traditional practice of stakeholder engagement involves engaging with industry participants that typically follow regulatory proceedings as intervenors. These parties are generally other energy companies, energy-related associations, various other industry and consumer associations, and other groups such as environmental and social advocacy alliances. Such stakeholders are highly knowledgeable about industry issues and participate actively in regulatory and other industry initiatives. In 2011, the OPA's stakeholder engagement practices generally focused on these groups. However some sessions were targeted at the general public, such as engagement related to electricity procurement in Southwest GTA.

Over the last few years, the OPA's stakeholder base has become much broader and more complex than in the past. For example, the OPA has widened the list of stakeholders to be engaged, including municipalities, communities and the general public. The OPA's stakeholder engagement activities have evolved to accommodate this change, both in terms of the number of events and in the type of interaction with stakeholders. An example of how this is being undertaken is provided in section 1.5 below.

## 1.4 Stakeholder Engagement Approaches

The OPA utilizes a variety of approaches to engage stakeholders. The most commonly used approaches include:

- E-blast notifications – sending notifications at the beginning and during an engagement to the targeted stakeholder groups;
- Subscription service – establishing a dedicated e-mail subscription service where interested stakeholders can choose to receive notification about an engagement;
- Webinars – a real-time presentation and discussion session. Archives of the sessions are made available on the OPA's website afterwards;
- Advisory committees – establishing advisory committees to provide strategic advice to the OPA on its activities (e.g. Advisory Council on Conservation and Aboriginal Energy Working Group);

- Working groups – establishing and/or participating in tactical working groups of subject matter experts both internal and external to the OPA to help guide the development of programs (e.g. LDC conservation working groups and time-of-use evaluation working group);
- Meetings – in-person one-on-one or group meetings to discuss the engagement topic; and
- Written feedback – submission of written comments.

Over the last few years, and based on the work undertaken with the IESO in the summer of 2013 to develop recommendations to improve how large energy infrastructure projects are sited and to include local voices in the planning and siting process, the OPA has expanded the list of approaches used to engage stakeholders to more consistently include:

- Municipal outreach – meetings and/or webinars targeted at involving municipal governments in early and ongoing discussions related to electricity infrastructure and linking electricity planning and local municipal planning;
- Community meetings – in-person sessions with the general public to engage in a dialogue on electricity planning and programs;
- New communication tools – advertising stakeholdering engagement activities where appropriate and utilizing the OPA's Twitter account to promote the OPA's activities;
- Increased access to information – posting additional information on the OPA's website to increase the information available to the public, inform decision making, and encourage buy-in to programs and initiatives; and
- Closing the loop - prior to finalizing reports, summarizing what the OPA heard from stakeholders to ensure recommendations and implementation approach have considered their input. Reporting back to stakeholders once reports are finalized and made public.

Another way the OPA is increasing transparency and inclusiveness is through the establishment of a number of committees. In January 2014, the OPA held the first meeting of its newly formed Stakeholder Advisory Committee ("SAC" or "Committee"). The purpose of the Committee is to advise the OPA Board and management on policy issues related to the OPA's mandate. The Committee represents a diverse range of interests and builds on existing OPA consultation and engagement initiatives, including the Advisory Council on Conservation and the Aboriginal Energy Working Group. The SAC will have six meetings throughout the year, and meetings are open to the public either in-person or via webinar.

The SAC's role is advisory to the OPA's Board of Directors and senior management. Members of the Board and management attend SAC meetings. The SAC Chair also provides a report at OPA Board Meetings. Committee meeting notices, agendas, materials and minutes are available on the OPA website. An Open Meeting Policy has been established to document how the public can participate in the meetings and provide submissions to the Committee.

As part of the newly established regional planning process, the OPA will also start to form Local Advisory Committees ("LAC") for each of the regional plans or planning areas across the province. The LACs will be comprised of local individuals and will be tasked with providing advice and recommendations on planning and procurement in that area. Information on the LACs will be posted on the OPA's website on the new regional planning web pages which were established in 2013 to increase transparency on regional planning activities. Stakeholders can subscribe to receive updates on regional planning in each of the 21 regional planning areas, including the activities of the LACs, through a new subscription service.

### 1.5 Example of the OPA's Enhanced Stakeholder Engagement Approach in Practice

On June 12, 2013, the Minister of Energy directed the OPA to make changes to the Feed-in Tariff program, including removing large projects (larger than 500 kW) from the program and developing a new competitive procurement process – the Large Renewable Procurement ("LRP") process (see Exhibit A-5-2). In response to this direction, the OPA hosted a webinar, in-person meetings, and requested written submissions from stakeholders to develop an interim report which was provided to the Minister of Energy on August 30, 2013 and posted on the OPA's website. Ontario's 2013 Long-Term Energy Plan ("2013 LTEP") was released on December 2, 2013 providing additional guidance on the LRP program.

Building on the interim report recommendations, stakeholdering for the development of the competitive procurement process began in December 2013 and will proceed until the

finalization of the Request of Qualification and the Request for Proposal anticipated in Q1 2015. The engagement has been a combination of approaches traditionally used by the OPA as well as new approaches designed to provide increased transparency and inclusiveness with a broadened audience of stakeholders.

The stakeholder engagement techniques used for the LRP are illustrated in Figure 2. The approaches presented in the clear circles on the right-hand side of the diagram present the traditional core stakeholder engagement approaches – notification e-blast, providing a subscription service to receive updates, dedicated program web pages, webinars, First Nation and Métis outreach, submission of written feedback and hosting of one-on-one meetings. The solid circles on the left represent the new approaches used to enhance transparency and inclusiveness. Additional information on these approaches is presented following the diagram.

**Figure 2 - Stakeholder Engagement Techniques Implemented for the Large Renewable Procurement December 2013 – February 2014**




Note: Engagement techniques in clear circles represent traditional OPA engagement techniques; solid circles represent new, enhanced engagement techniques

The OPA's enhanced stakeholder engagement process focused on increasing transparency and inclusiveness in the process, including the following expanded outreach activities:

- Enhanced e-blast list – At the start of most engagements, the OPA sends a notification e-mail to interested parties to inform them of the start of the engagement. For the LRP engagement, the notification e-mails were broadened significantly. The

main e-blast notification list for the LRP included 13,000 e-mail addresses across the following groups:

  - FIT subscribers (those who have self-subscribed to receive FIT updates)
  - LRP subscribers (those who have self-subscribed to receive LRP updates)
  - First Nation and Métis communities
  - FIT project developers
  - Wind groups
  - Renewable sector stakeholders and interested parties
  - Municipal contacts – all Mayors, CAOs, and heads of planning
  - Participants from the OPA/IESO Planning and Siting engagement activity in the summer of 2013.

- Municipal/Local Distribution Company ("LDC") Outreach – Meetings were held with municipal and LDC representatives in four areas of the province to discuss the development of the LRP. These meetings were held in Chatham-Kent, Sudbury, Orillia and Napanee and invitations were sent to municipalities in a very broad geographic area for each of these meetings. At the beginning of the municipal outreach, calls were placed to 314 municipal Chief Administrative Officers and City Managers to coincide with the e-mailing of the meeting invitations to highlight the purpose of the sessions.
- Evening Community Meetings – On the same day as the municipal/LDC meetings, an evening community meeting was also held in the same municipalities. Advertisements were placed in local newspapers to promote the meetings, and the OPA also tweeted before each meeting.
- First Nations and Métis – Three regional meetings were held in Chatham-Kent, Sudbury and Toronto, as well as several one-on-one meetings with Métis representatives to discuss the development of the LRP.
- Engagement materials – A Discussion Guide, and Preliminary Request for Qualification Evaluation Summary Criteria were prepared in advance of the engagement to provide context for the discussion and to allow the opportunity for more thorough input.
- Inter-ministerial coordination – Meetings were held with various Ministries that are, or will be involved in the LRP, to allow for early discussions of the draft materials.
- SAC – A presentation on the LRP was made at the January 7, 2014 SAC. All materials were posted to the OPA website.
- Tweets – Social media was used to promote the LRP webinars and each of the community meetings.

## 1.6 Continuing to Enhance the OPA's Stakeholder Engagement Practices

In April 2013, the OPA Board of Directors approved a new Stakeholder Engagement Strategy as is discussed more fully in Exhibit B-5-1. The strategy incorporates industry best practices and introduces new outreach approaches and tools for the OPA. One of these tools is the development of an internal stakeholder manual which will be developed in conjunction with OPA staff to further explore integrating stakeholdering into the OPA's work further increasing transparency and inclusiveness in outreach activities. The manual will be completed in early 2014.

The OPA is also enhancing the information and data available to stakeholders through the Ontario Energy Reporting initiative. The Ministry of Energy, working together with the OPA and other electricity sector agencies, is developing a central website to provide easier access to electricity system information, as well as a number of new reports that will be made available over the next year. As an example of information being made available to stakeholders, in February 2014, the OPA posted to its website a series of modules to provide a detailed breakdown of the facts and figures underpinning Ontario's 2013 LTEP. The OPA hosted a webinar with 359 participants to provide an overview of the 2013 LTEP module data, and to answer stakeholder questions.

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# 2014 REVENUE REQUIREMENT AND USAGE FEE

## 1.0 REVENUE REQUIREMENT

The OPA is seeking approval of its fiscal year 2014 revenue requirement as required by sections 25.20 and 25.21 of the *Electricity Act, 1998*. Specifically, the OPA is requesting approval of its 2014 operating costs, and to return to ratepayers approximately $28.8 million of the balance of its Forecast Variance Deferral Account ("FVDA") through a one-time rebate. The details of this request are described below.

The 2014 OPA operations revenue requirement is $60.3 million, the same as its 2014 operating expense budget. The 2014 revenue requirement is forecast to be $19.5 million lower than the total 2011 revenue requirement of $79.9 million. In 2014, the OPA proposes to not include the registration fees and other income in the usage fee calculation due to the uncertainty associated with registration income experienced in the past few years, as evidenced by the reimbursement of Feed-in Tariff ("FIT") registration fees in 2012 and 2013.

The proposed revenue requirement of $60.3 million is shown in Table 1 below.

**Table 1**
**OPA Revenue Requirement**
**($ 000)**

| | **2011** | **2014** |
|---|---|---|
| Operating Expense Budget | $64.1 | $60.3 |
| Registration Fee Income | ($1.4) | N/A |
| Interest Income | ($0.6) | N/A |
| **Revenue Requirement** | **$62.1** | **$60.3** |
| | | |
| FVDA | $2.1 | N/A |
| RCSDA (Retailer Contract Settlement) | $15.6 | N/A |
| **Net Revenue Requirement** | **$79.9** | **$60.3** |

As of the end of 2013, the FVDA had a balance of $33.8 million. This is largely the result of a higher than budget interim usage fee accumulated during the 2011 to 2013 fiscal years. In 2014, the OPA seeks to return $28.8 million of its cumulative FVDA surplus to ratepayers rather than using it to off-set its operating expenses. This approach is consistent with the methodology used by the Independent Electricity System Operator ("IESO") and approved by the Ontario Energy Board ("Board"). The most recent Board approval for this was given in the IESO's 2011 Fees Submission for Review (EB-2010-0046).

The OPA recommends, and seeks Board approval for the retention of a portion of this accumulated surplus, not to exceed $5 million, in an approved regulatory deferral account (2014 FVDA). The evidence at Exhibit D-3-2 provides further detail on the cumulative surplus and how the disposition of amounts in excess of $5 million would be returned to ratepayers. By letter dated January 29, 2014 to the OPA approving the 2014-2016 Business Plan (Exhibit A-2-2), the Minister of Energy indicates that he is encouraged that the OPA intends to rebate approximately $25 million of its cumulative surplus to ratepayers.

On December 16, 2013 the OPA wrote to the Board requesting approval for the continuation of an interim fee for 2014, given the delay to the revenue requirement submission. Specifically, an interim fee of $0.438/MWh was requested based on the OPA's expected revenue requirement for 2014 and the IESO's 2014 net energy forecast of 138 TWh. The 2014 interim fee represents a 20.5 percent decrease from the 2010-2013 usage fee of $0.551/MWh, and would result in annual savings of $1.09 for the average residential ratepayer in 2014. In its Decision and Order of December 19, 2013, the Board approved the requested fee of $0.438/MWh on an interim basis, effective January 1, 2014.

In February 2014, the OPA obtained an updated demand forecast from the IESO of 137.4 TWh from 138 TWh, resulting in a slight increase in the OPA's requested usage fee to $0.439/MWh for 2014, a difference of $0.001/MWh. This proposed usage fee represents a savings of $0.112/MWh or a 20.3 percent decrease from the OPA's 2010-2013 Board-approved fee. The usage fee is derived by dividing the net revenue requirement of $60.3 million by the IESO's net Ontario electricity forecast of 137.4 TWh (the IESO's

Ontario forecast of 140.5 TWh less line losses of 3.1 TWh). Assuming average consumption of approximately 800 kWh per month, the total monthly bill impact of the OPA's fee on a residential consumer is approximately $0.35.

Exhibit D-2-1 provides a detailed explanation of the registration fees, the OPA's operating expenses and variance analysis on an organizational basis.

Exhibit D-2-2 provides year-over-year variance analyses of operating costs by goal.

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# FINANCIAL REPORTING METHODOLOGY

## 1.0 INTRODUCTION

The Ontario Energy Board's ("Board") Decision and Order in the OPA's 2011 Revenue Requirement Submission (EB-2010-0279) stated:

> …the Board expects the OPA to develop the capability of assessing with a reasonable degree of confidence the actual costs associated with the execution of individual initiatives.

In response to the Board's direction, the OPA has developed a methodology for allocating shared services expenses to each of the OPA's three operating divisions (Goals 1 through 3). This exhibit describes the methodology.

## 2.0 OVERVIEW

The OPA developed the methodology to allocate its shared services expenses by initiative in response to the Board's direction in its July 8, 2011 Decision and Order with respect to the OPA's 2011 Revenue Requirement Submission.

The OPA held in-person meetings with the directors in its shared services divisions (Business Strategies and Solutions; Communications; and Legal, Aboriginal and Regulatory Affairs) to determine the most efficient and effective allocation basis for its operating expenses in each division. For example, in some cases, allocations were based on the estimated time spent by divisional staff on projects in the three operating divisions. In other cases, the volume of transactions processed was tracked among the three operating divisions. For example, if 60% of a division`s staff time was spent on Conservation work, 20% on Electricity Resources work, and 20% on Power System Planning work, the expenses were allocated accordingly. Similarly, if 60% of the transactions within a division were in support of Conservation work, 20% for Electricity Resources work, and 20% for Power System Planning work, the expenses were allocated accordingly. Based on the outcomes of these interviews, the OPA determined each of the

shared services division's operating expenses percentage allocation to the three operating divisions of Power System Planning, Electricity Resources and Conservation.

This methodology was reviewed, and the allocation updated for the 2014 Revenue Requirement Submission to reflect the changes in the OPA's business processes and structure, and to provide a current representation of the OPA shared services expenses. For example, this review resulted in a change in the allocation percentage for the Corporate Marketing group and the Finance and Procurement groups from the 2011 allocation. The OPA then reallocated the shared services of the 2014 budget operating expenses to the three operating divisions based on the percentage calculated.

The shared services allocation percentages are set out in Table 1 below.

**Table 1: 2011 and 2014 OPA Shared Services Allocations by Operating Division**

| Division | Initiative | 2011 Allocation % | | | 2014 Allocation % | | |
|---|---|---|---|---|---|---|---|
| | | ER | PSP | CONS | ER | PSP | CONS |
| **Communications:** | | | | | | | |
| | Corporate Marketing | 45% | 45% | 10% | 15% | 15% | 70% |
| | Community & Stakeholder Relations | 45% | 45% | 10% | 5% | 80% | 15% |
| | Corporate Communications | 45% | 45% | 10% | 33% | 33% | 33% |
| | VP Office | 45% | 45% | 10% | 33% | 33% | 33% |
| **Legal, Aboriginal and Regulatory Affairs:** | | | | | | | |
| | Corporate/Commercial Law | 15% | 1% | 84% | 36% | 5% | 59% |
| | Regulatory Affairs | 18% | 40% | 41% | 20% | 50% | 30% |
| | First Nations and Metis Relations | 33% | 33% | 33% | 50% | 40% | 10% |
| | Corporate Governance/Secretary | 33% | 33% | 33% | 33% | 33% | 33% |
| | VP Office | 33% | 33% | 33% | 33% | 33% | 33% |
| **Business Strategies & Solutions:** | | | | | | | |
| | Information Technology | 32% | 19% | 48% | 40% | 20% | 40% |
| | Human Resources | 32% | 25% | 43% | 41% | 21% | 38% |
| | Accounting | 23% | 12% | 65% | 31% | 5% | 64% |
| | Procurement | 23% | 12% | 65% | 10% | 1% | 89% |
| | Planning and Reporting | 30% | 29% | 42% | 34% | 25% | 41% |
| | Office & Facility Services | 32% | 25% | 43% | 41% | 21% | 38% |
| **CEO Office:** | | | | | | | |
| | CEO Office | 33% | 33% | 33% | 33% | 33% | 33% |

# 2014 REGISTRATION FEES AND OPERATING EXPENSE: DISCUSSION OF VARIANCES ON AN ORGANIZATIONAL LEVEL

The OPA's 2014 operating budget is developed taking into consideration continued progress of 2013 activities, in combination with a prioritized list of new initiatives planned for 2014. The combined funding and resource requirements resulted in a $60.3 million operating budget for 2014. The evidence provided in this exhibit is a detailed explanation of the variances between the 2014 budget and the 2011 Board-approved budget, as well as the variances between the 2014 budget and 2013 actual spending in operating expenses at an organization level. An explanation of variances by goal is provided in Exhibit D-2-2.

## 1.0 REGISTRATION FEES

The 2014 revenue requirement is forecast to be $60.3 million, or $19.5 million lower than the total 2011 revenue requirement of $79.9 million. In 2014, the OPA proposes to not include the registration fees and other income in the usage fee calculation due to the uncertainty associated with registration income experienced in the past few years, as evidenced by the reimbursement of Feed-in Tariff ("FIT") registration fees in 2012 and 2013. Registration fees will not be recognized as income for accounting purposes until the associated projects have reached commercial operation and, accordingly, the income from such fees will be reflected in future revenue requirement submissions by the OPA. The OPA is seeking approval from the Board to record balances associated with registration fees throughout 2014 in a deferral account, as discussed at Exhibit D-3-1.

## 2.0 OPERATING EXPENSES

The OPA's 2014 operating budget is $3,767 thousand lower than the 2011 budget. The 2014 operating budget is $176 thousand higher than the 2013 actual spending.

Presented below is a variance analysis by expense category that highlights the OPA`s activities that have contributed to the decrease in the operating budget.

## Variances by Expense Category

Table 1 compares the 2014 budget to the 2011 budget and to the 2013 actual spending by major expense category:

**Table 1**
**Operating Expense by Major Category**
**2014 vs. 2011 and 2014 vs. 2013**
**($'000)**

| | 2011 Budget Board-approved | 2014 Budget | 2011 - 2014 Variance | 2013 Actual | 2013 - 2014 Variance |
|---|---|---|---|---|---|
| Compensation & Benefits | 30,964 | 30,967 | 3 | 33,545 | (2,578) |
| Professional & Consulting Fees | 16,369 | 16,959 | 590 | 12,453 | 4,506 |
| Conservation/Technology Funds | 3,866 | 311 | (3,555) | 405 | (94) |
| Operating & Administration Expenses | 12,908 | 12,103 | (805) | 13,761 | (1,658) |
| **Total Operating Costs** | **64,107** | **60,340** | **(3,767)** | **60,164** | **176** |

## Compensation and Benefits

Table 2 shows the details of the OPA's Compensation and Benefits expenses.

**Table 2**
**Compensation and Benefits**
**2014 vs. 2011 and 2014 vs. 2013**
**($'000)**

| | 2011 Budget Board-approved | 2014 Budget | 2011 - 2014 Variance | 2013 Actual | 2013 - 2014 Variance |
|---|---|---|---|---|---|
| Salaries | 26,081 | 25,693 | (388) | 28,400 | (2,291) |
| Pension and Benefits | 4,463 | 4,724 | 261 | 4,803 | (79) |
| Board of Directors Remuneration | 420 | 550 | 130 | 342 | (208) |
| **Total** | **30,964** | **30,967** | **3** | **33,545** | **(2,578)** |

## 2014 Budget vs. 2011 Board-Approved Budget

The 2014 Compensation and Benefits budget, as shown in Table 2, is essentially flat compared to the 2011 budget.

## 2014 Budget vs. 2013 Actual

The 2014 Compensation and Benefits budget, as shown in Table 2, is $2,578 thousand lower as compared to the 2013 actual spending. This reflects the OPA`s continued commitment to comply with the government's goal to restrain staffing levels while the OPA

is cost effectively operating with an expanded mandate and an increased volume and complexity of work.

- OPA headcount in 2014 will be reduced from 2013 levels, declining from a total of 267 to 260 Full Time Equivalents ("FTEs"). This reduction will be achieved through a combination of headcount decreases, and administrative and process efficiencies. Nevertheless, reducing headcount while implementing program priorities and an expanding mandate and volume and complexity of work is challenging, and may result in impacts to the OPA's service and delivery levels.

- The OPA has been successfully delivering work on 15 government directives issued since November 2012 while continuing to manage its resources in a prudent manner.

## Staffing

As shown in Table 3, the OPA's 2014 employee staff level of 260 regular and temporary employees is an increase of 7 FTEs from the 2011 Board-approved budgeted staff level of 253. This is a reduction of 7 FTEs compared to the OPA's 2013 actual staffing level. A detailed description of the OPA's workforce hiring practices, and variances in headcount between the OPA's 2011 Board-approved budget and 2013 actuals is presented in Exhibit C-2-1.

**Table 3**

| | Regular FTE | 2011 Budget Board-approved | 2014 Budget | 2014 vs 2011 | 2013 Actual | 2014 vs 2013 |
|---|---|---|---|---|---|---|
| GOAL 1 | CONSERVATION | 68 | 59 | (9) | 56 | 3 |
| GOAL 2 | POWER SYSTEM PLANNING | 39 | 35 | (4) | 34 | 1 |
| GOAL 3 | ELECTRICITY RESOURCES | 47 | 61 | 14 | 53 | 8 |
| GOAL 4 | CEO, BUSINESS STRATEGIES & SOLUTIONS, LEGAL ABORIGINAL & REGULATORY AFFAIRS | 61 | 60 | (1) | 58 | 2 |
| GOAL 5 | COMMUNICATIONS | 21 | 21 | 0 | 19 | 2 |
| | Total OPA - Regular | 235 | 236 | 1 | 219 | 17 |

| | Temporary FTE | 2011 Budget Board-approved | 2014 Budget | 2014 vs 2011 | 2013 Actual | 2014 vs 2013 |
|---|---|---|---|---|---|---|
| GOAL 1 | CONSERVATION | 1 | - | (1) | 2 | (2) |
| GOAL 2 | POWER SYSTEM PLANNING | 3 | 1 | (2) | 1 | 0 |
| GOAL 3 | ELECTRICITY RESOURCES | 8 | 20 | 12 | 36 | (16) |
| GOAL 4 | CEO, BUSINESS STRATEGIES & SOLUTIONS, LEGAL ABORIGINAL & REGULATORY AFFAIRS | 4 | 3 | (1) | 9 | (6) |
| GOAL 5 | COMMUNICATIONS | 2 | - | (2) | 0 | (0) |
| | Total OPA - Temp | 18 | 24 | 6 | 48 | (24) |

| | | | | | | |
|---|---|---|---|---|---|---|
| | Total OPA - All FTE | 253 | 260 | 7 | 267 | (7) |

*Note: all staff levels represent average annual Full Time Equivalents, totals may not add due to rounding*

## Professional and Consulting Expenses

Table 4 shows the details of Professional and Consulting Expenses by type.

**Table 4**
**Professional and Consulting Expenses**
**2014 vs. 2011 and 2014 vs. 2013**
**($'000)**

| | 2011 Budget Board-approved | 2014 Budget | 2011 - 2014 Variance | 2013 Actual | 2013 - 2014 Variance |
|---|---|---|---|---|---|
| Audit | 405 | 567 | 162 | 398 | 169 |
| Legal | 4,451 | 4,732 | 281 | 5,163 | (431) |
| Stakeholder | 2,612 | 607 | (2,005) | 131 | 366 |
| Other | 8,901 | 11,053 | 2,152 | 6,761 | 4,402 |
| **Total** | **16,369** | **16,959** | **590** | **12,453** | **4,506** |

## 2014 Budget vs. 2011 Board-Approved Budget

The Professional and Consulting budget is $590 thousand higher in 2014 than the 2011 budget.

- Audit expenses are $162 thousand higher in 2014 primarily due to the addition of a third-party audit management function to support the internal audit management program.

- Legal expenses are $281 thousand higher primarily due to increased legal support for Electricity Resources matters such as increased volume of contract negotiations, and an increasing volume of requests under the Freedom of Information and Protection of Privacy Act.

- Stakeholder engagement expenses are $2,005 thousand lower. This variance primarily relates to the amounts that were included in the 2011 budget for IPSP II. These savings are partially offset by the establishment of the Stakeholder Advisory Committee in late 2013.

- Other Professional and Consulting expenses are $2,152 thousand higher in 2014 mainly due to increased technical consulting expenses in the Electricity Resources and Business Strategies and Solutions budgets. The increase in the Electricity Resources division is due to an increase in activities related to contract negotiations, program design, program launch, program review and technical advisory services in the following projects, among others:

    - Bruce Power Nuclear Generating Station
    - Large Renewable Procurement Program
    - Community Energy Partnerships Program
    - Hydroelectric Standard Offer Program

The increase in the Business Strategies and Solutions division is primarily due to the maintenance of business applications that support Conservation and Electricity Resources programs such as FIT and microFIT, Contract Life-cycle Management system, Customer Relationship Management system for industrial and business sectors, and the Conservation Data Management system, as well as database and infrastructure support required for these applications. This increase is also due to the reclassification of 2014 budgeted spending amounts on employee engagement and professional development from Operating & Administration to Professional & Consulting which more accurately reflects the nature of these costs.

## 2014 Budget vs. 2013 Actual

The Professional & Consulting budget is $4,506 thousand higher in 2014 than the 2013 actual spending. This is primarily due to the variance in the Other Professional and Consulting expenses related to:

- Increase in the Electricity Resources activities related to contract negotiations, program design, program launch, program review and technical advisory services.
- Increase in Power System Planning expenses related to an increase in planning initiatives such as: integrated regional resource planning, the planning/siting continuum to enhance community and public engagement, and increased electricity awareness and reporting on LTEP progress and transmission planning.
- Increase in Conservation expenses to support the development of the next generation of conservation programs.
- Increase in support function (Communications; Business Strategies & Solutions; and Legal, Aboriginal, and Regulatory Affairs) expenses due to an increase in services required to support Conservation and Electricity Resources programs, and corporate communication in regional planning and social media activities.

### Conservation Funds

The 2014 Conservation Funds budget represents the sum of estimated payments for grants awarded in 2010 and prior, as illustrated in Table 5.

**Table 5**
**Conservation Funds**
**2014 vs. 2011 and 2014 vs. 2013**
**($'000)**

| | 2011 Budget Board-approved | 2014 Budget | 2011 - 2014 Variance | 2013 Actual | 2013 - 2014 Variance |
|---|---|---|---|---|---|
| Conservation Funds | 3,866 | 311 | (3,555) | 405 | (94) |

The decrease in Conservation Funds is due to a change in recovery of these expenses. While the OPA will continue to provide financial support to LDCs and other entities in support of innovative conservation and demand management programs and pre-commercial energy efficiency technologies, pursuant to the April 23, 2010 directive, new grants under the Conservation Fund are being recovered through the OPA's program spending.

Operating and Administration Expenses

Operating and Administration expenses represent all other costs related to operations support. The 2014 budget is $12,103 thousand, as shown in Table 6:

**Table 6**
**Operating and Administration Expense Category**
**2014 vs. 2011 and 2014 vs. 2013**
**($'000)**

| | 2011 Budget Board-approved | 2014 Budget | 2011 - 2014 Variance | 2013 Actual | 2013 - 2014 Variance |
|---|---|---|---|---|---|
| Operating and Administration Expense | 12,908 | 12,103 | (805) | 13,761 | (1,658) |

## 2014 Budget vs. 2011 Board-Approved Budget

The decrease of $805 thousand in the 2014 budget from the 2011 budget in Operating & Administration expenses is due to the following:

- Amounts included in 2011 for IPSP II related activities, not included in 2014.
- Reclassification of 2014 budgeted spending amounts on employee engagement and professional development from Operating & Administration, to Professional & Consulting which more accurately reflects the nature of these costs.
- Reduced corporate partnerships related to corporate marketing.
- Reduced travel expenses related to conservation business development and First Nations and Métis engagement activities.

These decreases are offset by an increase in amortization expenses as a result of prior years' increased capital investment in information technology software and hardware for the Conservation data management system and the FIT and microFIT program systems;

increased regional planning meeting and event expenses; and increased business application hosting services.

**2014 Budget vs. 2013 Actual**

The Operating and Administration expense budget is $1,658 thousand lower in 2014 as compared to 2013 actual spending primarily due to reduced corporate partnerships and reduced amortization expenses due to some assets reaching the end of useful life.

Interest

The OPA receives and incurs interest revenue and expense through the course of carrying out its operations. In 2014, the OPA is projecting net zero impact in interest.

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# VARIANCE ANALYSIS BY GOAL

Exhibit D-2-2, discusses the variances between the 2014 budget and 2011 budget by goal, and major variances between the 2014 budget and 2013 actual spending.

## 1.0 GOAL 1

**Goal 1 (Conservation)**
**Variance between 2014 Budget and 2011 Board-approved Budget and variance between 2014 Budget and 2013 Actual ($'000)**

| Major Cost Category | 2011 Budget Board-approved | 2014 Budget | 2011-2014 Variance | 2013 Actual | 2013-2014 Variance |
|---|---|---|---|---|---|
| Compensation & Benefits | 8,182 | 6,700 | (1,482) | 7,285 | (585) |
| Professional & Consulting Fees | 3,602 | 3,046 | (556) | 2,616 | 430 |
| Conservation/Technology Funds | 3,866 | 311 | (3,555) | 405 | (94) |
| Operating & Administration Expenses | 771 | 531 | (240) | 1,216 | (685) |
| **Total Operating Costs Before Allocation** | **16,421** | **10,588** | **(5,833)** | **11,522** | **(934)** |
| Shared Services Allocated Expenses | 11,728 | 11,810 | 82 | 12,236 | (426) |
| **Total Operating Costs After Allocation** | **28,149** | **22,398** | **(5,751)** | **23,758** | **(1,360)** |

### 2014 Budget vs. 2011 Board-Approved Budget

The 2014 total operating expenses before allocation of support services expenses for the Conservation division is $5,833 thousand lower than the 2011 Board-approved budget.

- Compensation & Benefits expenses are lower by $1,482 thousand primarily related to the transfer of the Marketing function to the Communications division as part of the consolidation of the function within the OPA, efficiencies realized as the focus of program marketing shifts from residential towards industrial programs, and operational efficiencies in contract management and settlement achieved through increased process automation.

- Professional & Consulting expenses are lower by $556 thousand primarily due to the consolidation of the Marketing function within the Communications division as discussed above.

- Conservation Fund expenses are lower by $3,555 thousand. While the OPA will continue to provide financial support to LDCs and other entities to support innovative conservation and demand management ("conservation") programs and pre-commercial energy efficiency technologies, pursuant to the April 23, 2010 directive, new grants under the Conservation Fund are being recovered through the OPA's program spending.

- Operating & Administration expenses are lower by $240 thousand primarily due to savings in business development travel expenses.

## 2014 Budget vs. 2013 Actual

The 2014 Conservation division budget is $934 thousand lower than the 2013 actual spending primarily due to:

- Decrease in Compensation & Benefits expenses related to the transfer of the Marketing function to the Communications division during 2013.
- Increase in Professional & Consulting expenses to support the development of the next generation of Conservation programs.
- Decrease in Operating & Administration expenses as a result of increased operational efficiencies.

# 2.0 GOAL 2

**Goal 2 (Power System Planning)**
**Variance between 2014 Budget and 2011 Board-approved Budget and variance between 2014 Budget and 2013 Actual ($'000)**

| Major Cost Category | 2011 Budget Board-approved | 2014 Budget | 2011-2014 Variance | 2013 Actual | 2013-2014 Variance |
|---|---|---|---|---|---|
| Compensation & Benefits | 4,876 | 4,971 | 95 | 4,961 | 10 |
| Professional & Consulting Fees | 874 | 385 | (489) | 14 | 371 |
| Operating & Administration Expenses | 320 | 393 | 73 | 267 | 126 |
| **Total Operating Costs Before Allocation** | **6,070** | **5,749** | **(321)** | **5,242** | **507** |
| Shared Services Allocated Expenses | 9,327 | 7,531 | (1,795) | 7,518 | 13 |
| **Total Operating Costs After Allocation** | **15,397** | **13,280** | **(2,116)** | **12,760** | **520** |

## 2014 Budget vs. 2011 Board-Approved Budget

The 2014 total operating expenses before allocation of support services expenses for the Power System Planning division is $321 thousand lower than the 2011 Board-approved budget.

- Compensation & Benefits expenses are higher by $95 thousand primarily due to a change in salary mix.
- Professional & Consulting expenses are lower by $489 thousand. This variance primarily relates to amounts that were included in the 2011 budget for IPSP II but not included in the 2014 budget.

## 2014 Budget vs. 2013 Actual

The 2014 budget for the Power System Planning division is $507 thousand higher than the 2013 actual spending.

- Increase in Professional & Consulting expenses is primarily due to an increase in planning initiatives such as: integrated regional resource planning, the planning/siting continuum to enhance community and public engagement, and increased electricity awareness and reporting on LTEP progress and transmission planning.

# 3.0 GOAL 3

**Goal 3 (Electricity Resources)**
**Variance between 2014 Budget and 2011 Board-approved Budget and variance between 2014 Budget and 2013 Actual ($'000)**

| Major Cost Category | 2011 Budget Board-approved | 2014 Budget | 2011-2014 Variance | 2013 Actual | 2013-2014 Variance |
|---|---|---|---|---|---|
| Compensation & Benefits | 5,937 | 7,911 | 1,974 | 8,784 | (873) |
| Professional & Consulting Fees | 4,970 | 6,849 | 1,879 | 4,138 | 2,711 |
| Operating & Administration Expenses | 265 | 268 | 3 | 263 | 5 |
| **Total Operating Costs Before Allocation** | **11,172** | **15,028** | **3,856** | **13,185** | **1,843** |
| Shared Services Allocated Expenses | 9,389 | 9,634 | 244 | 10,460 | (826) |
| **Total Operating Costs After Allocation** | **20,561** | **24,662** | **4,100** | **23,645** | **1,017** |

## 2014 Budget vs. 2011 Board-Approved Budget

The 2014 total operating expenses before allocation of support services expenses for the Electricity Resources division is $3,856 thousand higher than the 2011 Board-approved budget.

- Compensation & Benefit expenses are higher by $1,974 thousand primarily related to an increase in resources required to support FIT and microFit program application processing and contract management activities.

- Professional & Consulting expenses are higher by $1,879 thousand primarily related to increased contract negotiations, program design, program launch, program review and technical advisory services in the following projects, among others:

    - Bruce Power Nuclear Generating Station
    - Large Renewable Procurement Program
    - Community Energy Partnerships Program
    - Hydroelectric Standard Offer Program

## 2014 Budget vs. 2013 Actual

The 2014 budget for the Electricity Resources division is $1,843 thousand higher than the 2013 actual spending.

- Increase in Professional & Consulting expenses is related to increased contract negotiations, Large Renewables Procurement, and the Hydroelectric Standard Offer program, program design & launch, program review and technical advisory services.

- The increase is offset by lower Compensation & Benefit expenses related to a decrease in resources to support the FIT and microFit programs due to increased efficiencies in application processing and contract management.

## 4.0 GOAL 4

**Goal 4 (CEO Office, BS&S and LARA)**
**Variance between 2014 Budget and 2011 Board-approved Budget and variance between 2014 Budget and 2013 Actual ($'000)**

| Division | 2011 Budget Board-approved | 2014 Budget | 2011-2014 Variance | 2013 Actual | 2013-2014 Variance |
|---|---|---|---|---|---|
| CEO Office | 811 | 852 | 41 | 872 | (20) |
| Business Strategies and Solutions | 13,669 | 16,807 | 3,138 | 18,434 | (1,627) |
| Legal, Aboriginal and Regulatory Affairs | 10,173 | 6,918 | (3,255) | 7,223 | (305) |
| **Total Operating Costs** | **24,653** | **24,577** | **(76)** | **26,529** | **(1,952)** |

## CEO OFFICE

**CEO Office**
**Variance between 2014 Budget and 2011 Board-approved Budget and variance between 2014 Budget and 2013 Actual ($'000)**

| Major Cost Category | 2011 Budget Board-approved | 2014 Budget | 2011-2014 Variance | 2013 Actual | 2013-2014 Variance |
|---|---|---|---|---|---|
| Compensation & Benefits | 778 | 826 | 48 | 835 | (9) |
| Professional & Consulting Fees | | | | | |
| Operating & Administration Expenses | 33 | 26 | (7) | 37 | (11) |
| **Total Operating Costs** | **811** | **852** | **41** | **872** | **(20)** |

- The 2014 budget for the CEO office is $41 thousand higher than the 2011 budget primarily due to the addition of the Senior Advisor role to provide ongoing administrative and analytical support to the CEO.

# BUSINESS STRATEGIES AND SOLUTIONS

| Business Strategies and Solutions<br>Variance between 2014 Budget and 2011 Board-approved Budget and variance between 2014 Budget and 2013 Actual<br>($'000) | | | | | |
|---|---|---|---|---|---|
| Major Cost Category | 2011 Budget Board-approved | 2014 Budget | 2011-2014 Variance | 2013 Actual | 2013-2014 Variance |
| Compensation & Benefits | 4,843 | 4,549 | (294) | 5,391 | (842) |
| Professional & Consulting Fees | 755 | 3,504 | 2,749 | 2,761 | 743 |
| Operating & Administration Expenses | 8,071 | 8,754 | 683 | 10,282 | (1,528) |
| **Total Operating Costs** | **13,669** | **16,807** | **3,138** | **18,434** | **(1,627)** |

## 2014 Budget vs. 2011 Board-Approved Budget

The 2014 budget for the Business Strategies and Solutions division is $3,138 thousand higher than the 2011 Board-approved budget.

- Compensation & Benefits is lower by $294 thousand as a result of operating and process efficiencies realized across the division.
- Professional & Consulting expenses are higher by $2,749 thousand primarily due to the following:
    - $1,874 thousand is related to the maintenance of business applications that support Conservation and Electricity Resources programs such as FIT and microFIT, Contract Life-cycle Management system, Customer Relationship Management system for industrial and business sectors, and the Conservation Data Management system, as well as database and infrastructure support required for these applications. In addition, this increase is also due to external resources required to support information and data security initiatives.
    - $605 thousand is related to the combined effect of a reclassification of budgeted spending amounts on employee engagement and professional development from the Operating & Administration to the Professional & Consulting expense category which more accurately reflects the nature of these costs, and an increase in scope of these programs to provide increased professional development opportunities for staff.
    - $270 thousand is related to the addition of a third-party audit management function to support the internal audit management program, as well as increased consulting to support the evolution and enhancement of the OPA's records management system.
- Operating & Administration expenses are higher by $683 thousand primarily due to higher amortization as a result of prior years' increased capital investment in information technology software and hardware for the Conservation data

management system and the FIT and microFIT program systems; increased information technology operating costs in software licences and hosting services; offset by the $605 thousand reclassification related to professional development, as described above.

## 2014 Budget vs. 2013 Actual

The 2014 budget for the Business Strategies and Solutions division is $1,627 thousand lower than the 2013 actual spending mainly due to:

- Decrease in compensation & benefits expenses as a result of operating and process efficiencies realized across the division.
- Increase in professional & consulting expenses as a result of a reclassification of budgeted spending amounts on employee engagement and professional development from the Operating & Administration to the Professional & Consulting expense category which more accurately reflects the nature of these costs.
- Decrease in operating & administration expenses primarily due to a reclassification of budgeted spending amounts on employee engagement and professional development from the Operating & Administration to the Professional & Consulting expense category as described above, as well as a reduction in amortization expenses due to some assets reaching the end of useful life.

# LEGAL, ABORIGINAL AND REGULATORY AFFAIRS

**Legal, Aboriginal and Regulatory Affairs**
**Variance between 2014 Budget and 2011 Board-approved Budget and variance between 2014 Budget and 2013 Actual**
**($'000)**

| Major Cost Category | 2011 Budget Board-approved | 2014 Budget | 2011-2014 Variance | 2013 Actual | 2013-2014 Variance |
|---|---|---|---|---|---|
| Compensation & Benefits | 3,566 | 3,354 | (212) | 3,547 | (193) |
| Professional & Consulting Fees | 4,014 | 1,983 | (2,031) | 2,416 | (433) |
| Operating & Administration Expenses | 2,593 | 1,581 | (1,012) | 1,260 | 321 |
| **Total Operating Costs** | **10,173** | **6,918** | **(3,255)** | **7,223** | **(305)** |

## 2014 Budget vs. 2011 Board-Approved Budget

The 2014 budget for the Legal, Aboriginal and Regulatory Affairs division is $3,255 thousand lower than the 2011 Board-approved budget.

- Compensation & Benefits expenses are lower by $212 thousand due to a change in the salary mix.

- Professional & Consulting expenses are lower by $2,031 thousand. This variance primarily relates to amounts that were included in the 2011 budget for IPSP II but not in the 2014 budget, partially offset by higher external legal counsel costs relating to Conservation and Electricity Resources programs.

- Operating & Administration expenses are lower by $1,012 thousand. This variance primarily relates to amounts that were included in the 2011 budget for IPSP II but not in the 2014 budget.

**2014 Budget vs. 2013 Actual**

The 2014 budget for the Legal, Aboriginal and Regulatory Affairs division is $305 thousand lower than the 2013 actual spending.

- Decrease in Compensation & Benefits expenses are primarily due to a change in salary mix.

- Decrease in Professional & Consulting expenses are primarily due to reduced legal spending to support Electricity Resources matters, document and committee support, offset by increased legal services to support Conservation programs.

- Increase in Operating & Administration expenses are primarily due to increased Aboriginal engagement activities and regulatory support in 2014.

## 5.0 GOAL 5

**Goal 5 (Communications)**
**Variance between 2014 Budget and 2011 Board-approved Budget and variance between 2014 Budget and 2013 Actual ($'000)**

| Major Cost Category | 2011 Budget Board-approved | 2014 Budget | 2011-2014 Variance | 2013 Actual | 2013-2014 Variance |
|---|---|---|---|---|---|
| Compensation & Benefits | 2,781 | 2,655 | (126) | 2,742 | (87) |
| Professional & Consulting Fees | 2,155 | 1,193 | (962) | 507 | 686 |
| Operating & Administration Expenses | 855 | 550 | (305) | 437 | 113 |
| **Total Operating Costs** | **5,791** | **4,398** | **(1,393)** | **3,686** | **712** |

**2014 Budget vs. 2011 Board-Approved Budget**

The 2014 budget for the Communications division is $1,393 thousand lower than the 2011 Board-approved budget.

- Compensation & Benefits expenses are lower by $126 thousand primarily related to savings in temporary resources not required in 2014.

- Professional & Consulting expenses are lower by $962 thousand primarily due to reduced expenditures on the saveONenergy program, offset by Stakeholder Advisory Committee and regional planning costs.

- Operating & Administration expenses are lower by $305 thousand primarily due to savings in corporate partnership spending.

**2014 Budget vs. 2013 Actual**

The 2014 budget for the Communications division is $712 thousand higher than the 2013 actual spending primarily due to:

- Increase in Professional & Consulting expenses as a result of the transfer of the Marketing function to the Communications division as part of the consolidation of the function within the OPA, as well as increased consulting support for Stakeholder Advisory Committee and regional planning initiatives.

# DEFERRAL AND VARIANCE ACCOUNTS

The *Electricity Act, 1998* ("Act") and O. Reg. 431/04, amended by O. Reg. 475/05, place specific financial obligations on the OPA for non-controllable items that must be dealt with through the revenue requirement submission, which are as follows:

Government Procurement Costs – reimbursing the government for services provided or costs related to procurement activities; and

Retailer Settlements – making or receiving payments to or from retailers for contracts with low-volume and designated customers; and receiving payments related to retailer discounts.

The evidence in this exhibit will provide a detailed discussion on each of these non-controllable transactions regarding the deferral accounts and balances recorded to date. Also discussed is the OPA's proposed disposition of the balances of these accounts, and a request for the establishment of a new deferral account to track balances associated with registration fees collected throughout fiscal year 2014.

## Government Procurement Costs

Pursuant to the Ontario Energy Board's ("Board") Order in EB-2009-0346, the Board approved the OPA's continuation of its Government Procurement Costs Deferral Account ("GPCDA") to record government transfer costs associated with section 25.18 of the Act. There have been no invoices issued by the Ministry to the OPA from 2011 to 2013; therefore, the OPA is not proposing to recover any balance from this account in 2014. While the OPA does not currently anticipate that invoices will be issued by the Ministry in 2014, the OPA requests the establishment of a 2014 GPCDA in order to be able to record any unanticipated amounts that may arise during the course of the year.

## Retailer Settlements

The Act has two types of retailer payments that relate to the OPA, specifically:

- Retailer Contract Settlements – the payments/receipts related to the settlement of certain retailer contracts that were in effect on November 11, 2002; and
- Retailer Discount Settlements – the payments of discounts, rebates and allowances that relate to a period commencing after December 31, 2004.

Retailer Contract Settlements

Sections 25.34 (1) and (2) of the Act required the OPA to make payments to retailers with respect to certain contracts with low-volume and designated consumers.

These legislative provisions ensured that retailers would be held whole by the OPA for contracts with low-volume and designated consumers, entered into before prices were frozen by legislation in 2002. To ensure that the retailers receive the same amounts that they would have received under those contracts, the OPA and the retailer settle any differences between the Hourly Ontario Electricity Prices (HOEP) and the contract price. The settlement of these retail contracts is carried out on a monthly basis.

The Board has approved Retail Contract Settlement Deferral Accounts ("RCSDA") for 2005, 2006, 2007, 2008, 2009, 2010 and 2011 through its decisions in EB-2005-0489, EB-2006-233, EB-2007-0791, EB-2008-0321, EB-2009-0347 and EB-2010-0279. In EB-2008-0321, the Board approved the OPA's proposal to begin amortizing the outstanding cumulative balance in these accounts over three years, starting in 2009.

The OPA completed its amortization of the RCSDA during 2011 in accordance with the ruling in EB-2009-0347. As a result, the December 31, 2013 balance is nil.

Retailer Discount Settlements

On August 18, 2005, O. Reg. 431/04 was amended by O. Reg. 475/05 to provide for the payment from retailers to the OPA of any discounts or allowances required to be paid to regulated consumers under certain circumstances. These amounts are contained in the Retail Discount Settlement Deferral Account ("RDSDA"), as approved by the Board in EB-2005-0489, EB-2006-233, EB-2007-0791, EB-2008-0321, EB-2009-0347 and EB-2010-0279. These balances were also approved for recovery in EB-2008-0321. The OPA

completed its amortization of the RDSDA during 2011 in accordance with the ruling in EB-2009-0347. As a result, the December 31, 2013 balance is nil.

As the OPA completed its recovery of the retailer settlement and retailer discount balances in 2011, the amount requested for disposition in 2014 is nil. The ending balances for the retailer settlement and retailer discount balances reflect this recovery and are shown in Table 1. The OPA does not expect any amounts to flow into either of these accounts on a go-forward basis, and therefore is not requesting a 2014 RCSDA or 2014 RDSDA.

**Table 1**
**Retailer Contract Settlement Deferral Accounts 'RCSDA'**
**($ 000)**

| | Principle & Interest | Principle | Interest | Principle & Interest | Principle & Interest |
|---|---|---|---|---|---|
| | Balance | Retailer Settlement (IESO Invoice) | Allocation | Amortization | Balance |
| | 30-Sep-08 | Oct/08 - Dec/11 | Oct/08 - Dec/11 | Oct/08 - Dec/11 | 31-Dec-13 |
| | | | | | |
| 2005 Retailer Contract Settlement | (38,943) | 0 | 472 | 38,471 | 0 |
| 2006 Retailer Contract Settlement | 51,450 | 0 | (406) | (51,044) | 0 |
| 2007 Retailer Contract Settlement | 35,436 | 0 | 7 | (35,443) | 0 |
| 2008 Retailer Contract Settlement | (1,082) | 807 | (3) | 278 | 0 |
| 2009 Retailer Contract Settlement | 0 | 374 | 12 | (386) | 0 |
| 2010 Retailer Contract Settlement | 0 | 358 | 3 | (361) | 0 |
| 2011 Retailer Contract Settlement | 0 | (1,515) | (11) | 1,526 | 0 |
| | **46,861** | **24** | **74** | **(46,959)** | **0** |
| Retailer Discount Settlement | (4,811) | 0 | (22) | 4,833 | 0 |
| **Total Retailer Settlement** | **42,050** | **24** | **52** | **(42,126)** | **0** |

## 2014 Registration Fees Deferral Account

In 2014, the OPA proposes to not include registration fees and other income in the usage fee calculation due to the uncertainty associated with registration income experienced in the past few years, as evidenced by the reimbursement of Feed-in Tariff ("FIT") registration fees in 2012 and 2013. In order to record balances associated with registration fees paid to the OPA throughout 2014, the OPA requests the establishment of a 2014 Registration Fees Deferral Account ("RFDA").

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# 2013 FORECAST VARIANCE DEFERRAL ACCOUNT

The 2013 Forecast Variance Deferral Account ("FVDA") was established to record 2013 revenue variances and cost variances not otherwise incorporated into the revenue requirement submission of the prior year. At the end of December 2013, the OPA has a FVDA balance of $33.8 million, as illustrated in Table 1, below.

| Table 1 | |
|---|---|
| **OPA 2013 FVDA** | |
| **($'000s)** | |
| 2013 revenue variance | $ 17,366 |
| 2013 expense variance | 898 |
| | |
| FVDA from prior years | 15,524 |
| | |
| Total 2013 FVDA | $ 33,788 |

## 2013 Revenue Variance

In its EB-2010-0279 decision, the Board approved a usage fee of $0.551/MWh for the OPA for fiscal year 2011. This fee has remained in place on an interim basis for the fiscal years 2012 and 2013. As a result of the interim fee being higher than the 2013 budget usage fee, and a higher usage volume than forecast, for 2013 there is a $17.4 million revenue surplus.

## 2013 Expense Variance

The 2013 expenses of $60.2 million are lower than the 2013 budgeted expenses of $61.1 million, resulting in an expense variance of $0.9 million.

## FVDA from Prior Years

The OPA cumulative surplus/(deficit) from 2005 to 2012 is a surplus of $15.5 million.

## FVDA Balance as of 2013 and Proposed Return of 2013 Cumulative Surplus to Ratepayers

In total, as of the end of 2013, the FVDA had a balance of $33.8 million. The OPA requests approval to mirror the Independent Electricity System Operator's ("IESO") process in returning the surplus to ratepayers as stated in the Board's decision EB-2004-0477 (IESO 2005 fiscal fees submission). The OPA notes that in its 2014 Fees Submission for Review

(EB-2013-0381), the IESO is again requesting approval to refund accumulated surplus in this manner, specifically the IESO states that it will *"rebate the balance of the accumulated surplus, based on the IESO's audited 2013 financial statements as approved by the IESO Board, to market participants based on each market participant's proportionate quantity of energy withdrawn from the IESO controlled grid (including scheduled exports) for 2013."*

The OPA will rely on the IESO to rebate ratepayers and therefore the method of payment to ratepayers would be in a manner that the IESO has identified above, and at the time of IESO's next billing cycle after the Board's determination on this matter for the OPA.

The OPA's position is that the ultimate beneficiaries of the cumulative surplus should be ratepayers, as it is ratepayers that contributed these funds initially. In his letter to the OPA approving its 2014-2016 Business Plan (Exhibit A-2-3) the Minister of Energy said that he is encouraged that the OPA intends to rebate approximately $25 million of its cumulative surplus to ratepayers.

As the scope and complexity of the OPA's mandate continues to expand, the OPA recognize the potential for additional unplanned work activities that may be material in scope and are beyond the control of management. In response to this potential volatility in spending driven by changes in the volume of activities and the external environment, the OPA seeks approval to retaining a portion of the accumulated operating surplus, not to exceed $5 million, in an approved regulatory deferral account ("2014 FVDA"). Any excess over $5 million would be returned to ratepayers in the form of a rebate in the following year, based on the ratepayers' allocated quantity of energy withdrawn during the prior year as described above. The retained funds will be used to address unexpected operating costs such as potential costs associated with a merger between the OPA and the IESO, and/or material additional work associated with new directives or letters of request from the Minister of Energy beyond what has been planned for in the development of the OPA's 2014 budget, and would limit the potential for year-over-year volatility in the OPA's fee. The OPA will revisit the need, and quantity of, this retention in future revenue requirement submissions should, over time, the retained funds be found not to be necessary.