**ONTARIO POWER AUTHORITY**

**2009 REVENUE REQUIREMENT SUBMISSION**

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**EB-2008-0312**

**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 2009.

## SUBMISSION FOR REVIEW

1. Pursuant to section 25.22 of the *Electricity Act, 1998* (the "Act"), by letter dated October 2, 2008 the OPA submitted its Business Plan to the Minister of Energy and Infrastructure (the "Minister"). In the Business Plan the OPA set its operating budget for 2009 at $65.073 million. A number of adjustments result in a requested revenue requirement of $70.206 million. The Minister granted approval of the Business Plan on November 3, 2008.

2. The OPA hereby submits to the Ontario Energy Board ("OEB") its proposed 2009 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 $0.485/MWh. The OPA is seeking interim approval of this usage fee effective January 1, 2009, if a final Board Order in this proceeding has not yet been issued by that date.

4. The OPA proposes to charge registration fees paid by proponents in certain competitive procurement processes. Specifically, the registration fees are $10,000 per proposal for electricity supply and capacity competitive procurements. The forecast revenues associated with collection of these registration fees in 2009 is $220,000.

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

- approval of the usage fee and the registration fees described above, or such further or other fees as the OEB may deem appropriate;
- if necessary, interim approval of the usage fee described above, or such further or other interim order as the OEB may deem appropriate;
- approval of a net revenue requirement of $70.206 million, comprised of the proposed 2009 operating budget of $65.073 million and a number of adjustments that result in a net amount of $70.206 million;
- approval of proposed 2009 capital expenditures of $2.9 million;
- approval of its proposal to recover through fees the balances of the Government Procurement Costs Deferral Account and the 2008 Forecast Variance Deferral Account;
- approval to recover the balance of Retailer Settlement Deferral Accounts over three years;
- approval of establishment of the 2009 Retailer Contract Settlement Deferral Account, of the 2009 Retailer Discount Settlement Deferral Account, of the 2009 Government Procurement Costs Deferral Account and of the 2009 Forecast Variance Deferral Account, and approval or continuation of such further or other deferral accounts as the OEB may deem appropriate; and
- all necessary orders and directions, pursuant to the *Ontario Energy Board Act, 1998* and the OEB'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 2009 Expenditure and Revenue Requirement Submission for Review ("2009 Revenue Requirement Submission" or "Submission").

7. The OPA proposes that the OEB 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 OEB 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 OEB 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 3rd day of November, 2008.

ONTARIO POWER AUTHORITY

by its counsel in this proceeding
Fred D. Cass

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# 2009 – 2011 Business Plan

## September 2008


ONTARIO POWER AUTHORITY

OPA

Ontario Power Authority

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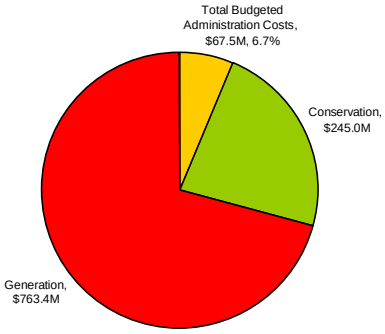
## Highlights of the 2009-2011 Business Plan

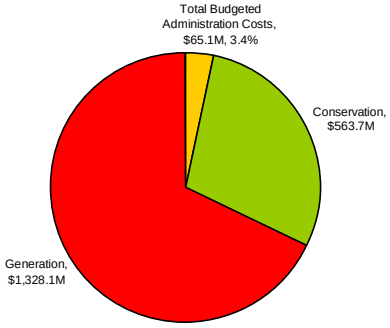
In the 2009-2011 business planning period, the Ontario Power Authority (OPA) will continue its efforts to ensure the reliability and sustainability of the province's electricity system for the benefit of Ontario's consumers.

**2008**




Total spending = $1,075.9M

**2009**




Total spending = $1,956.9M

OPA administration costs as a percentage of total spending are expected to drop by approximately 50 percent.

The most significant initiatives planned for the 2009-2011 period are:

- developing revisions to the first Integrated Power System Plan (IPSP1), based on the September 2008 directive from the Minister of Energy and Infrastructure, and filing the revised plan with the Ontario Energy Board

- undertaking consultation with First Nations and Métis communities, and considering opportunities for partnership with Aboriginal Peoples on generation and transmission development in accordance with the September 2008 directive from the Minister of Energy and Infrastructure

- supporting the implementation of specific projects identified in IPSP1 and by directive, including continuously looking for ways to accelerate the implementation of cost-effective conservation and renewable resources and undertaking development work on key transmission projects designed to enable new renewable sources of energy to come into service

- developing regional electricity plans, particularly in areas of the province with urgent and emerging electricity reliability issues, and coordinating and supporting the implementation of integrated electricity solutions that always include consideration of comprehensive conservation, renewable and distributed generation solutions before considering other resource options

- managing and settling an increasing volume and value of contracts for conservation and generation resources

- verifying the results from an extensive portfolio of conservation programs to help meet the targets for reductions in peak electricity demand, including the 2010 target of 1,350 megawatts

- championing a culture of conservation by coordinating and funding conservation activities, identifying barriers to conservation and ways to overcome them, and reporting on conservation progress and opportunities in Ontario

- procuring cleaner electricity generation resources to be in service by 2015

- developing ways to address barriers to the development of economically sustainable conservation, supply and transmission

- continuing to update planning models and assumptions, based upon the OPA's most current understanding of Ontario's economic and energy outlook, customer and stakeholder expectations, technology innovation and opportunity, regulatory requirements, reliability standards and other updated knowledge, including costs and operating performance of current electricity system assets

- implementing internal strategies and tools critical to achieving the organization's goals and deliverables, including a strategic communications approach in communities where vital electricity infrastructure is to be sited, a holistic talent management system, and information management tools and capacity.

## Message from the Chief Executive Officer

As new chief executive officer of the Ontario Power Authority (OPA), I am pleased to present the organization's business plan for 2009 to 2011.

This is the first time the OPA has developed a three-year business plan toward its mandate of ensuring a reliable, long-term supply of electricity for Ontarians. The three-year plan reflects the growth and maturity of the organization, as well as the experience of its staff with both the challenges facing Ontario's electricity sector and the success of initiatives and programs undertaken over the past three-and-a-half years. It also enables the OPA to identify immediate priority activities in the context of its three-year goals toward the longer-term mandate.

Considerable progress has been made in stabilizing the province's electricity supply situation since the OPA began operations in early 2005. On September 23, 2008, the Independent Electricity System Operator (IESO) released its most positive 18-month outlook report on the reliability of Ontario's electricity system since 2002. In its report, the IESO noted that more than 5,000 megawatts of new and refurbished supply is scheduled to come into service in the next year and a half and that this new generation means that "Ontario will have sufficient supply to meet demand under normal weather conditions over the forecast period."

Looking out beyond 2010, however, there is still much more to be done to ensure the long-term reliability of the electricity system. Ontario's coal-fired generation plants, which currently provide about 20 percent of electricity supply, will be phased out of service by 2014, and the nuclear generating stations, which provide another 50 percent of Ontario's generating capacity, will reach the end of their service lives over the next 20 years. In addition, Ontario's energy demand is forecast to grow at an average rate of 1.1 percent per year.

The strategic objectives outlined in the business plan support the four areas of the OPA's mandate – planning, conservation, supply and sector evolution. Largely, this work continues what is already implemented, underway or expected, but extra focus is planned in particular areas.

Conservation will continue to be a key area of focus. The OPA's efforts to support and accelerate the adoption and implementation of conservation measures will include increased community outreach and improved conservation results reporting. This will enhance our collective understanding of how changing the way electricity is used can enhance system reliability. In addition, the OPA will continue its support for the development and expansion of the conservation services industry.

There will also be an ongoing emphasis on promoting the development of renewable energy resources, including distributed generation. This effort will include identifying impediments to these developments and seeking ways to remove them.

Program spending on conservation initiatives is expected to once again double in 2009, compared with 2008. The contract spending for cleaner sources of generation will almost double over the same period. At the same time, the OPA's 2009 administration costs are expected to

decline as a percentage of total spending, as the OPA gains experience and realizes efficiency improvements in managing an increased number of contracts. Administration costs associated with conservation are expected to represent only six percent of the total program spending, down from 14 percent. Administration costs associated with generation will represent only one percent of the total contract spending, down from two percent. In addition to enhancing the reliability of Ontario's electricity system, another benefit to OPA program spending is the creation of new opportunities for Ontario, including the development of "green-collar" jobs in the electricity sector.

The OPA's planning approach at both the provincial and local levels will continue to be to seek electricity reliability solutions that maximize the use of cost-effective conservation and renewable resources before considering more conventional resource options, such as natural gas-fired generation and nuclear power. The OPA plans to increase its community outreach activities – both directly, and in conjunction with project proponents – as these solutions are implemented across the province. In addition, efforts to consult and communicate with First Nations and Métis communities and engage them in opportunities for partnership in transmission and generation projects will receive a renewed focus.

This expanded effort will be achieved with an overall 2009 budget of $65.1 million, which represents a reduction of 3.6 percent from the 2008 budget. The number of megawatts and dollars under management for both conservation and generation resources increases in 2009 as the organization becomes more efficient. The number of megawatts under management in 2009 will increase by about 4,000 or 37 percent; the dollars under management will increase by about $7 billion or 59 percent from 2008. Further information related to the OPA's increased efficiency is set out in the performance metric charts following this message.

The 2009-2011 business plan is the blueprint for our efforts to build on the solid progress made to date toward ensuring a reliable and sustainable electricity supply for Ontario.

The OPA will continue to be guided by the principle of ensuring that Ontario's electricity consumers benefit by its activities – this is the OPA's fundamental reason for being. The province's economic well-being depends on a reliable, sustainable electricity system. The OPA remains committed to deliver on its mandate.

Colin Andersen
September 2008

## Effectiveness Metrics

| | 2008 Budget | 2009 Budget |
|---|---|---|
| Total OPA Budget ($M) * | $67.5 | $65.1 |
| Total Program Spending on Conservation and Generation ($M) | $1,008 | $1,892 |
| Total OPA Budget/Total Program Spending on Conservation and Generation | 6.7% | 3.4% |
| Full Time Equivalent (FTE) | 184.4 | 193.7 |
| | | |
| MW under management = Generation | 9,739 MW | 13,000 MW |
| MW under management = Conservation | 741 MW | 1,324 MW |
| $M under management = Generation | $11,900 M | $18,900 M |
| $M under management = Conservation | $333 M | $552 M |
| | | |
| MW under management (Generation) / FTE | 53 MW/FTE | 67 MW/FTE |
| MW under management (Conservation) / FTE | 4 MW/FTE | 7 MW/FTE |
| $M under management (Generation) / FTE | $65M/FTE | $98M/FTE |
| $M under management (Conservation) / FTE | $2M/FTE | $3M/FTE |
| | | |
| Budget $/kWh * | $0.000346/kWh | $0.000485/kWh |

*includes contingency

### Contract Management 2009

| Contract Management[1] | Year end 2008 | 2009 |
|---|---|---|
| Number of contracts | 38 | 53 |
| Number of contracts per employee | 6 | 7 |
| Capacity (MW) | 9,739 | 13,000 |
| Number of employees[3] | 6 | 8 |
| Capacity (MW) per employee | 1,625 | 1,625 |
| Pre-commercial operation date $B under management | $11.9 | $18.9 |

| Contracts Being Settled (Post-Commercial Operation Date) | Year end 2008 | 2009 |
|---|---|---|
| Number of contracts[2] | 49 | 57 |
| Number of contracts per employee[2] | 25 | 19 |
| Capacity (MW)[1] | 6,135 | 8,060 |
| Number of employees[3] | 2 | 3 |
| Capacity (MW) per employee[1] | 3,070 | 2,690 |

1. Demand response and standard offer program not included
2. Includes both generation and demand response program management/settlement
3. Number of staff does not include director of contract management and administrative assistant

# The Ontario Power Authority

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

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 an independent Board of Directors and reports to the Ontario Legislative Assembly through the Minister of Energy and Infrastructure. The OPA is licensed and regulated by the Ontario Energy Board.

## Vision

A sustainable, competitive and reliable electricity system for the benefit of Ontario consumers.

## Mission

The Ontario Power Authority contributes to the development of a reliable and sustainable electricity system for the benefit of Ontario customers. In doing so, we plan for the long term and procure and coordinate conservation and electricity supply from diverse sources.

## Guiding Principle

The Ontario Power Authority will balance the short-term and long-term needs of electricity users while developing a reliable and sustainable electricity system for their benefit.

## Mandate

The Ontario Power Authority's mandate is determined by the provincial government and is embodied in legislation and regulation.

## 2009-2011 Strategic Objectives

The Ontario Power Authority's 2009-2011 Business Plan is based on four key focus areas: integrated planning, conservation, electricity resources and sector development. These are addressed by the following five strategic objectives:

1. Plan for an adequate, reliable and sustainable system that integrates conservation, generation and transmission and to implement the Minister's directives.

2. Plan, procure and manage conservation resources to meet the requirements identified in the IPSP and promote sustainable conservation practices that contribute to a culture of conservation.

3. Plan and design procurement processes and enter into procurement contracts for generation resources to meet the requirements identified in the IPSP and to embed "best-in-class" contracting practices that support investment in necessary infrastructure and contribute to a sustainable electricity system.

4. Identify and assess barriers to the development of economically sustainable conservation and supply resources and develop solutions to address these barriers in cooperation with stakeholders.

5. Maintain and develop organizational capacity to achieve all other strategic objectives.

# Strategic Objective 1

*Plan for an adequate, reliable and sustainable system that integrates conservation, generation and transmission and to implement the Minister's directives.*

## Strategic Context

The OPA submitted its first Integrated Power System Plan (IPSP1) to the Ontario Energy Board (OEB) in August 2007. The IPSP is a comprehensive, long-term plan for the development of conservation and generation infrastructure to support a reliable and sustainable electricity system in Ontario.

Looking ahead, planning activities during the first part of this business plan period will be focused on revising the plan to reflect direction issued by the Minister of Energy and Infrastructure on September 17, 2008. The OPA was directed to consider specific generation and transmission options, as well as the viability of accelerated conservation targets, particularly in light of the deployment of smart meter technologies. In addition, the OPA was asked to undertake enhanced consultation on the IPSP with First Nations and Métis communities and consider Aboriginal partnership opportunities in generation and transmission matters. The OPA will file its revised IPSP in early 2009.

Supporting the development and implementation of the conservation, generation and transmission options identified in the IPSP will continue as a priority for the period 2009-2011. There will be specific focus on areas of the province with urgent and emerging reliability issues.

Future electricity planning processes, timing and content will continue to incorporate Ontario's electricity system performance overall as well as the OPA's experience with specific resource options.

*Supporting IPSP1 implementation*

A key focus for 2009-2011 will be to continue planning, analysis and regulatory support where necessary for projects identified in IPSP1. While the OPA does not build, own or operate the facilities identified in the IPSP, there are several important roles that the OPA can play to help ensure that the plan can become a reality. These activities include participating in regulatory proceedings for transmission projects, evaluating conservation and generation initiatives and consulting with communities where facilities are required.

In specific communities where system constraints may exist in the future, the OPA will explore conservation and distributed generation solutions that can contribute to addressing the system constraint issues. Detailed studies will be conducted to determine the potential of the various options.

The goal of consultation and communication in communities is to seek a common understanding of the specific electricity service situation and possible solutions.

*Developing IPSP2*

During this period, the OPA will also begin to develop the second integrated plan (IPSP2). The OEB's decision on the first IPSP will influence the process of development and the scope of this second plan. IPSP2 will reflect changes in the outlook for energy, the economy and policies in Ontario, customer and stakeholder expectations, reliability standards, emerging technologies, planning methodologies, evolving policy direction and regulatory requirements.

Planning tools, assumptions and analyses will continue to be informed by the costs and operating results from Ontario's experience with conservation and generation procurements and transmission.

The organization will work to improve its analytical capability by acquiring or developing models, tools and data for use in developing future plans and to provide advice on various policy options as they relate to the electricity system. These include models to forecast electricity needs, conservation potential, supply options and opportunities, and transmission needs, as well as models to assess and evaluate risk and environmental performance. The OPA will consider how the costs related to the system plans and procurements are expected to change over time. It will also be increasingly important to monitor and incorporate where appropriate legislative and regulatory developments in other jurisdictions to reflect relevant trends in sustainability, industry structure, emerging technology and planning methodologies.

*Identifying and helping to resolve barriers to power system infrastructure development*

The evolution of the power system will require that barriers to the development of transmission, the adoption of conservation, the enhancement of distributed generation and the incorporation of renewable energy supply be addressed. The OPA will actively identify and help resolve the potential policy and project-specific barriers to transmission, conservation and renewable generation supply.

To identify and address barriers to infrastructure development and the incorporation of distributed generation, the OPA will work with approval authorities to streamline processes. The OPA will also support the evolution of changes to the Transmission System Code and the Distribution System Code to encourage enabler lines and distributed generation.

At a local level, the OPA will work with municipal planners and local distribution companies (LDCs) to facilitate inclusion of electricity infrastructure and conservation into their planning processes.

*Fulfilling reliability standards obligations*

The OPA will continue to contribute to fulfilling Ontario's obligations to electricity planning standards authorities (such as the North American Electric Reliability Corporation), which are shared with transmitters and the Independent Electricity System Operator (IESO). These duties include reporting to and participating in periodic reviews and audits of Ontario's electricity system plans.[1]

**We will achieve Strategic Objective 1 by:**

- revising IPSP1 according to the directive issued by the Minister on September 17, 2008, and obtaining its regulatory approval
- supporting the implementation of specific projects identified in IPSP1 including, in cooperation with transmitters, undertaking development work on key transmission projects designed to enable the development of new renewable sources of energy
- contributing to removing barriers to better enable conservation measures to be delivered and adopted by customers, as well as to enable renewable and other system infrastructure development in Ontario
- completing a study with the relevant LDCs on the potential for and feasibility of conservation and distributed generation for supply-constrained areas
- continuing to work to promote enabler lines to encourage renewable generation and innovative approaches to expanding distribution capacity to incorporate distributed generation
- developing IPSP2, reflecting changes in Ontario's energy, economy and policy environment; customer and regulatory expectations; reliability standards; emerging technologies, including sources of clean, renewable power; opportunities for First Nations and Métis peoples; and planning methodologies
- enhancing the OPA's analytic and planning capability
- fulfilling the OPA's assigned obligations to electricity planning standards authorities.

**By 2011, you will see that we have achieved this objective when:**

- Projects approved in IPSP1 are being developed to provide options that meet Ontario's electricity needs.
- Barriers to IPSP implementation are being identified and addressed.
- IPSP2 is developed, incorporating policy and regulatory direction, stakeholder expectations, the outlook for the Ontario economy and lessons learned from IPSP1.
- The outlook for electricity demand is updated and incorporates the anticipated adoption of codes and standards and the acceleration of conservation.
- Assumptions and plans for nuclear capability are updated and aligned with government objectives.

- Enhanced planning capability is in place, ensuring that the necessary people, analytic models, tools and data are available.

- The OPA's obligations to electricity planning standards authorities are being met.

## Strategic Objective 2

*Plan, procure and manage conservation resources to meet the requirements identified in the IPSP and promote sustainable conservation practices that contribute to a culture of conservation.*

### Strategic Context

Ontario's long-term conservation targets were established by the government in 2006 and include reducing peak electricity demand by 6,300 megawatts (MW). Interim targets included a reduction in peak demand of 1,350 MW by 2007 and a further reduction of 1,350 MW by 2010. The long-term goal is to create a culture of conservation in Ontario.

The OPA has a leadership role in coordinating the province's electricity conservation efforts and working in partnership with local distribution companies (LDCs) and other delivery agents to ensure Ontario's conservation targets are met. Progress to date has been encouraging. Ontario's Chief Energy Conservation Officer reported in June 2008 that the province had met the 2007 peak demand reduction target. This conclusion was based upon available reported results from the Independent Electricity System Operator (IESO), OPA conservation programs, provincial and federal governments, LDCs, natural gas companies, non-governmental organizations and other participants in the conservation marketplace.

Building upon this success and based on specific direction issued by the Minister of Energy and Infrastructure on September 17, 2008, the OPA is reviewing aspects of the IPSP, including the viability of accelerating the achievement of stated conservation targets.

The OPA strategy is to use three complementary but distinct types of conservation initiatives to achieve the targets, namely resource acquisition, capability building and conservation market transformation. LDCs will play a key role in meeting the target, and the OPA will work to strengthen its partnership with them. The IPSP conservation potential study identifies end-uses that offer high potential electricity consumption savings for Ontario and thus guides the development of OPA-funded programs and awareness initiatives. It also informs opportunities where changes to codes and standards could be useful. While all three types of initiatives will be used in the planning period, resource acquisition will make the most significant contribution to meeting the 2010 target.

The OPA anticipates that conservation program spending will double in 2009, compared with 2008. At the same time, OPA administration costs related to these programs are expected to decrease from 14 to six percent, as the conservation service industry develops. More "performance-based" business arrangements will replace "activity-based" business arrangements. In "performance-based" business arrangements, the OPA will contract with delivery agents such as LDCs to deliver verified savings. The OPA will act as a bank to fund conservation savings. These arrangements leave more of the design and delivery details of programs to delivery agents.

OPA efforts in each of the three types of conservation activities are further discussed below.

**Resource acquisition**

*Procuring conservation resources through OPA-funded conservation programs*

The first generation of the OPA program portfolio is expected to be in the market by 2009. These programs are intended to reach customers in every sector of the economy – residential, commercial, institutional and industrial.

In the 2009-2011 planning period, the OPA will enhance its conservation efforts in a variety of ways. It will review and refine its portfolio of conservation programs for 2009 and 2010 to simplify access for users and help ensure the 2010 peak demand reduction target is met. It will also fully develop a portfolio of programs for the period up to 2013.

During this planning period, additional emphasis will be paid to those areas of the province that are facing electricity supply constraints in the immediate and near future. A key priority will be to continue to procure conservation resources at a benefit-cost ratio of greater than one.[2] In this work, the OPA expects to work particularly closely with municipalities and LDCs to identify and support local conservation initiatives that ease supply constraint pressures.

The OPA will work with stakeholders including LDCs in the development of this portfolio, which will be informed by several processes and sources, including:

- results and lessons learned to date from the evaluation, measurement and verification (EM&V) process of OPA-funded programs
- results and lessons learned from pilot programs and other activities funded through the Conservation Fund and Technology Development Fund activities
- a market characterization study to be completed in 2009 and other available market research and technical data
- the long-term sector plans and codes and standards analysis described below
- collaborating with major Canadian utilities that also deliver conservation programs (e.g., BC Hydro, Hydro-Québec and Manitoba Hydro) on program design, delivery strategies, codes and standards, emerging technologies and EM&V.

The market characterization study will be a broad-based, end-use study providing Ontario data on key electricity use and peak-demand applications to inform the OPA's load forecasting and EM&V base-case estimates and to identify opportunities for portfolio planning. It will bring together existing data that is relevant and reliable and collect data where necessary to supplement existing sources.

In addition, the OPA will examine how to consolidate and refocus the portfolio with the objective of simplifying access to programs and accelerating energy savings and demand reduction. This may require leveraging third-party conservation programs, considering higher

incentive levels and working to address some of the barriers identified in the Chief Energy Conservation Officer's recommendations. It is expected that the consolidation, refocusing and leveraging will provide administrative efficiencies and increase consumer understanding, which may lead to higher program participation and more energy and demand savings.

*Evaluating conservation programs*

The OPA continuously enhances its conservation programs with the objective of achieving maximum energy savings and demand reduction. This is achieved by carrying out rigorous EM&V and market research.

Over the last three years, the OPA has become a leader in developing an EM&V framework that will continue to provide better assessments of conservation program energy savings and demand reduction results for OPA-funded programs. The use of the EM&V framework will generate an enhanced quality of data for both forecasting and verifying conservation potential. EM&V assessment and results, combined with market research on program impact and lessons from other utilities, will also inform program design and development. These are all used to adjust OPA programs. Over the last several months, this data has led to the enhancement of several programs.[2] This evaluation process will be applied to all current in-market programs to enable programs to perform better than before.

The EM&V framework will be further refined during the planning period. For example, a new, significantly enhanced conservation measures and assumptions list was developed by the OPA and has replaced the prior list issued by the Ontario Energy Board. A process has also been put in place to ensure that this list remains current and new measures are added to the list as they become available or suggested by manufacturers, utilities and others. This list will assist program delivery agents funded by the OPA to enhance program design and results. In addition, the framework will be enhanced through development of a specific technique for conducting EM&V on demand response programs.

While the EM&V framework applies to OPA-funded programs, the Chief Energy Conservation Officer, in his June 2008 report, recommended that third parties that are delivering non-OPA-funded conservation programs also adopt a similar enhanced approach to verifying energy and demand savings. This will ensure that the reporting of results is consistent and more transparent. The Chief Energy Conservation Officer will continue his efforts to encourage third parties to adopt a similar enhanced approach to EM&V that will increase overall confidence in the energy savings and demand reduction results of non-OPA-funded conservation programs.

**Capability building**

While the emphasis of the current plan cycle will be on resource acquisition, the OPA recognizes the importance of building market capability for the delivery and uptake of conservation. To that end, the OPA is continuing and undertaking several capability building initiatives in the 2009-2011 planning period.

The OPA will develop an overarching capability building plan in 2009 for incorporation into conservation programs and for the creation of stand-alone capability building initiatives that support accelerated resource acquisition. Areas of focus for capability building under the plan are likely to include conservation program administrators, including LDCs, the supply chain and other influencers, and customers. Types of activities envisaged under the plan include training, certification, the development and dissemination of educational materials and tools, and the direct engagement of under-exploited supply chain players.

*Supporting conservation delivery channels*

The OPA will work in partnership with LDCs to deal with an increasing number of conservation vendors. The organization has developed positive working relationships with LDCs and many third-party delivery agents for conservation programs, in the belief that many distribution channels, close to customers, will support the establishment of a sustainable conservation marketplace.

One of the benefits of these initiatives is the creation of new "green-collar" jobs in Ontario. For example, the Great Refrigerator Roundup, which removes old, inefficient secondary fridges and freezers from people's homes and disposes of them in an environmentally responsible manner, has resulted in the creation of about 100 new jobs in Ontario. Another example of this new green industry is the growth of a sector to support the increasingly important EM&V function. The OPA is encouraging the use of Certified Measurement and Verification Professionals (CMVP) for larger-scale efficiency projects. The CMVP program is a joint responsibility of the international Efficiency Valuation Organization and the Association of Energy Engineers. As part of the promotional effort to ensure that more CMVPs are available in Ontario, the OPA will sponsor several CMVP training and examination sessions for conservation industry people. The Ontario conservation services industry will become more attractive for investment as program activity grows, and employment opportunities are expected to increase as a result.

*Building capability through the Conservation Fund*

The Conservation Fund provides funding for pilot projects that inform the development of future conservation programs and build marketplace capability. In the 2009-2011 period, the fund will focus on program approaches that target manufacturers and distributors as well as education and training initiatives.

The Conservation Fund will develop market tests focused upstream of the consumer, with the belief that in many instances, market transformation can more easily be achieved by working with the distributors and manufacturers of goods and services. One such initiative in development for 2009 includes a national set-top box initiative. Set-top boxes consume a significant amount of energy and are typically leased to the consumer by the cable company. This national initiative, in collaboration with BC Hydro, Manitoba Hydro and Hydro-Québec, will focus on working with cable companies and manufacturers to encourage the specification of ENERGY STAR certified set-top boxes as the device of choice for cable service providers.

*Increasing customer awareness*

In moving from a planning phase to an implementation stage, it is important for the OPA and its partners to build and maintain public awareness of the importance of electricity conservation. Consistent messaging will support all conservation programs as well as the development of a conservation culture. OPA and LDC efforts here will be guided by research into the conservation awareness and behaviours of Ontarians, to track trends and inform program design. The OPA believes that awareness is enhanced by both program availability and marketing efforts, by the work of the Chief Energy Conservation Officer and through the work of many interested parties including the LDCs in "spreading the word" about the importance of the wise use of electricity. Reporting on progress, barriers to conservation and recommended solutions can also help to increase consumers' collective understanding of conservation opportunities.

Conservation programs designed by the OPA and delivered by LDCs and other delivery agents will be supported by OPA-developed marketing initiatives, materials, advertising campaigns and events where appropriate.

Initiatives to increase conservation awareness will focus particularly on areas of the province that are facing local system reliability issues. In these areas, the OPA will continue to encourage and recognize action on conservation when speaking to local government and business leaders, addressing the public at events and while engaging the media. Opportunities for the Chief Energy Conservation Officer to publicly recognize local conservation champions will be sought.

Municipalities and LDCs have a large role to play in delivering conservation programs, in identifying opportunities for reduced electricity use and in raising awareness. Some municipalities have already developed community energy plans and are working to reduce their electricity consumption. A number of municipalities (15 to date) have appointed Municipal Energy Conservation Officers as a means of helping to build a conservation culture at the municipal and community level.

Public reports on OPA conservation programs and activities will be produced quarterly, and an annual report will communicate the progress being made on the portfolio of OPA programs. Results from 2008 verified programs will be available in 2009. In addition, the Chief Energy Conservation Officer's annual report will be published each year to identify progress on conservation in Ontario from both OPA- and non-OPA-funded initiatives, as well as to identify barriers to conservation and make recommendations to enhance progress on conservation.

**Conservation market transformation**

*Transforming the way electricity is used*

In the effort to cultivate a culture of conservation, an important element is transforming the conservation marketplace – how electricity is understood and used by customers and how conservation services are provided to customers. Market transformation refers to the longer-term objective to achieve a substantial and sustainable increase in the market share of energy-efficient technologies, buildings and production processes. As with its resource acquisition and capability

building programs, the OPA will monitor and evaluate the impact and effectiveness of its market transformation efforts over time.

*Planning for changes to codes and standards*

The IPSP projects that as much as 40 percent of conservation savings will come from changes to building codes and performance standards for appliances and equipment. Responsibility for these changes lies with both the federal and provincial governments. The OPA will identify potential opportunities for minimum energy performance standards during the planning period. The goal is to build the penetration of more efficient buildings and equipment, and provide the analysis necessary for governments to consider new codes and standards.

*Supporting the development of emerging technologies*

Supporting the development of emerging technologies helps accelerate market penetration of more energy-efficient technologies. The Technology Development Fund provides funding to support the development and commercialization of technologies or applications that have the potential to improve electricity supply or conservation. During the planning period, it will focus on funding projects that align with the OPA's market transformation plan, as well as those that have the potential to result in innovations that maximize impacts on conservation and supply. As a reflection of the IPSP and recent OPA-funded research, the OPA has formulated three top-emerging conservation technologies for this business plan cycle:

- high-efficiency lighting
- next-generation cooling and refrigeration
- advanced building controls.

*Smart Grid Forum*

In addition, the OPA will be an active participant in Ontario's Smart Grid Forum to help evaluate the opportunities for enhancing distributed generation, energy efficiency and demand management initiatives offered by the future development of a smart grid.

**We will achieve Strategic Objective 2 by:**

- managing a comprehensive portfolio of conservation programs to help meet Ontario's targets for reduced peak electricity demand and communicating consistently with electricity users in every sector about how to access program benefits applicable to them

- planning, coordinating and implementing conservation solutions, with a particular emphasis on key areas of the province with urgent and emerging reliability issues

- providing verified results from the OPA's conservation programs

- continuously improving the EM&V framework and measures list

- championing a culture of conservation in Ontario, building capability, coordinating conservation activities and identifying barriers to energy efficiency

- reporting publicly on conservation progress in Ontario for programs and activities undertaken by both the OPA and others

- recommending action on new minimum energy performance standards to government.

**By 2011, you will see that we have achieved this objective when:**

- The 2010 conservation target of 1,350 MW of reduced peak electricity demand is met, with OPA conservation programs making a significant, cost-effective contribution; and a portfolio of conservation programs is planned for the 2011-2013 period.

- Integrated solutions that include comprehensive conservation components are implemented in areas of the province with urgent and emerging reliability issues and result in reliable, secure electricity service.

- Research shows that there is public awareness of conservation, people are taking action to conserve electricity, market capability has grown and conservation leadership in Ontario's business community is being appropriately recognized and encouraged.

- Quarterly reports on interim OPA conservation progress and annual reports on a portfolio-wide basis are being produced; and the Chief Energy Conservation Officer is reporting annually on conservation progress in the province and making recommendations to enhance conservation progress.

- Minimum energy performance standards have been identified for some end-uses, and a plan has been developed to support their implementation.

## Strategic Objective 3

*Plan and design procurement processes and enter into procurement contracts for generation resources to meet the requirements identified in the IPSP and to embed "best-in-class" contracting practices that support investment in necessary infrastructure and contribute to a sustainable electricity system.*

### Strategic Context

The province's population and economy continue to grow. Ontario's nuclear generating units are nearing the end of their useful lives, and environmental policy will result in all of the province's coal-fired generating plants being shut down by 2014. Conservation alone will not meet the resulting electricity challenge. To fulfill its mandate to ensure a sustainable, competitive and reliable electricity system for Ontario, the OPA procures electricity from diverse generating sources. The OPA's role is to ensure that needed generation gets developed by acting as a creditworthy financial counterparty to encourage investment in Ontario's electricity system.

Much progress has already been made to address this electricity challenge. As of October 2008, the OPA had 9,739 megawatts (MW) of new electricity supply under 38 contracts, ranging from renewable energy projects to natural gas-fired generating facilities and including contracts with Bruce Power to refurbish four of its nuclear units. In addition, the Renewable Energy Standard Offer Program (RESOP) has been extremely successful, surpassing its 10-year goal in the first 18 months of operation. As of September 2008, 378 contracts had been executed under this program for a total of 1,392 MW.

*Designing procurement processes*

Procurements during the planning period will take place within an increasingly competitive global market for new investment. Pricing for new infrastructure development is rising around the world due to the increasing scarcity of key resources such as labour, materials, turbines and construction components. Costs over this period, particularly for urgently needed capacity, will likely reflect these global trends.

The OPA conducts procurements in a way that strives to provide the best value and risk allocation possible for the ratepayer and in accordance with the IPSP1 and directive-identified needs for new generation (including the necessary timing, volume, location and type of generation facility). During this planning period, the OPA will continue to design procurement processes and contracts that efficiently procure small and large generation. It is expected that the value of procurement contracts under OPA management for natural gas, nuclear and renewable generation will increase by about 50 percent (measured in megawatt capacity) in 2009, compared with 2008. At the same time, OPA administration costs are expected to continue to drop as a percentage of procurement spending to one percent from two percent.

In conjunction with its review of IPSP1, the OEB is also reviewing procurement processes that the OPA has proposed.[3] Over the next three years, a key OPA priority will be to use the IPSP1-recommended procurement processes to ensure that new electricity generating resources are in

service by 2015. This includes renewable and gas-fired generation facilities. For renewable energy supply, the OPA will explore new and improved mechanisms for the procurement of these resources. The OPA will also continue to procure and manage contracts under its standard offer programs. The organization will play a major role in the analysis and discussions on potential interprovincial procurement agreements during the planning period. It will also play a technical and commercial advisory role in the government's nuclear procurement process through continuing involvement on the steering committee and technical panels.

Because the OPA does not build, own or operate electricity infrastructure, it is totally dependent on others (proponents, communities and regulators) to ensure that cost-effective generation capacity is successfully sited and built in a timely manner to meet Ontario's needs. The success of these efforts will affect the investment community's views of Ontario as an attractive place for long-term investment. During the planning period, the OPA will work to support greater common understanding of the generation procurement process to facilitate project implementation. This will involve enhanced communication with industry stakeholders and the public at large, particularly in areas of the province where critical electricity infrastructure is urgently required, such as in the southwest Greater Toronto Area (GTA). Appropriate data relevant to various audiences will be made available to support greater understanding, while at the same time the OPA will maintain process integrity and counterparty confidentiality. Procurement processes will be modified as necessary over the planning period, among other things, to continue to provide value while meeting local community needs. Best-practice guidelines for outreach will be developed and embedded as part of the OPA's procurement processes.

*Managing procurement contracts*

OPA contracts must be designed to provide the best possible value to Ontario electricity ratepayers while ensuring infrastructure is contracted and built when it is needed. The OPA believes that its contracts should not be overly complex in a way that hinders developers' ability to secure financing or results in making Ontario a less attractive place for new investment. At the same time, competitive pressure and strict contractual terms help to protect ratepayers' interests. The OPA must constantly assess the state of the investment market and Ontario's electricity system needs – including the urgency of the need – and then balance ratepayer and investor interests and allocate risk within procurement contract terms.

The OPA will manage a growing number of contracts for new electricity generation, as well as the financial settlement of these contracts. Management of these contracts will become increasingly challenging as the volume and value of contracts increase over time. The capital value of the projects under contract is expected to more than double to $27 billion by the end of the planning period (from almost $12 billion in 2008). In addition, the RESOP resulted in an unexpectedly high number of applications to process and, ultimately, contracts to manage (currently more than 375), representing almost 1,400 MW of generation. The OPA will manage this significant growth in volume of contracts with a small incremental increase in staff.

The enormous success of the OPA's small renewable and other clean energy supply procurements will result in a doubling of the amount of cleaner energy under management in

2009. As in the conservation procurement activities, a spin-off benefit is the creation of new jobs to build and operate these new generation facilities under contract with the OPA.

**We will achieve Strategic Objective 3 by:**

- using the IPSP-defined procurement processes to complete procurements for an additional generation resources to be in service by 2015, including a minimum of 2,000 MW of new renewable energy supply
- implementing outreach efforts to ensure IPSP solutions and procurement processes are accurately communicated and understood by affected communities
- completing contracts for small-scale renewable and clean energy projects
- managing the growing volume and value of contracts, including the financial settlements involved
- continuing to design contracts that are efficient vehicles for procuring large and small generation and that efficiently allocate risk between customers and developers.
- working with other Ontario electricity agencies and key stakeholders to identify new and improved mechanisms to procure renewable energy supply resources and to support distributed generation.

**By 2011, you will see that we have achieved this objective when:**

- Competitive procurements have been completed for additional generation resources in Ontario to be in service by 2015.
- Outreach and public education efforts result in greater understanding of IPSP solutions and procurement processes by residents in communities with electricity supply challenges.
- The OPA routinely provides to all proponents communication material that speaks to the need for specific projects within the local and system context, and best-practice community engagement guidelines have been developed for proponents in collaboration with interested stakeholders.
- Supply contracts are effectively managed and settled accurately and on time each month.
- Supply contracts have been signed with both small and large generation developers, and they compare favourably to those of other jurisdictions in economically allocating risk between customers and developers.
- Renewable energy supply resources are procured using new and improved mechanisms, and these contracts are executed, effectively managed and settled accurately and in a timely manner each month.

# Strategic Objective 4

*Identify and assess barriers to the development of economically sustainable conservation and supply resources and develop solutions to address these barriers in cooperation with stakeholders.*

## Strategic Context

Over the 2009-2011 planning period, the OPA will work to identify ways to enhance the development of economically sustainable conservation and generation resources within Ontario's electricity sector.

Ontario's electricity sector continues to mature as a hybrid structure with regulated and competitive components. Ongoing work is required to enhance these components to help ensure new investments are made in Ontario's electricity system.

During the planning period, the OPA will continue to work with the Ministry of Energy and Infrastructure, the Independent Electricity System Operator (IESO), the Ontario Energy Board, Ontario Power Generation and other stakeholders to enhance the components discussed below and identify any other required components.

This work will involve researching and developing position papers and scenarios, analyzing data and potentially conducting pilot projects to gain further insights into sector development options and to better understand the implications of potential changes to the sector.

*Addressing barriers to distributed generation*

During the planning period, the OPA will work with stakeholders to identify and address barriers to the development of distributed generation facilities, including small renewable energy supply resources. This will involve examining ways to streamline the regulatory framework to enable distributed generation, as well as participating in Ontario smart grid initiatives to determine their implications for distributed generation development, contracting and pricing.

*Supporting a forward market for electricity*

The OPA will continue to support the development of a forward market for electricity, which can help facilitate new conservation and generation investment by providing forward price signals to facilitate long-term contracting.

In part based on the OPA's support, forward Ontario electricity contracts began trading on the Natural Gas Exchange (NGX) in 2007. In 2008, these contracts began to be listed on the world's largest electronic commodity exchange, the Intercontinental Exchange® (ICE).[4]

During the 2009-2011 period, the OPA will maintain this forward market development initiative by facilitating the listing of forward Ontario power and heat-rate contracts[5] and other electricity

products on exchanges such as ICE and by promoting the value of trading these products with potential participants.

*Developing solutions to the expected growth of the GAM*

Another area of focus during the planning period will be the expected growth of the Global Adjustment Mechanism (GAM) resulting from new conservation and supply resources coming into service. The GAM, also called the "Provincial Benefit," is a component contained as a specific line item on the electricity bills of all ratepayers. The GAM is the difference between the total payments due to certain contracted or regulated generators and any offsetting revenues they receive from selling in the market. Many factors affect the GAM, including Ontario electricity demand levels, the wholesale price of electricity (as cleared by the IESO), fuel prices and conservation program costs.

As the GAM increases, there will be a greater need for ratepayers of all types – residential, commercial, institutional and industrial – to have useful tools to manage their electricity costs. These tools will assist ratepayers in responding to projected increases in the GAM by, for instance, participating in conservation programs to help manage their energy consumption.

The OPA expects to work with stakeholders to develop a greater common understanding of the drivers of GAM and potential ways to address its impacts.

*Examining the role of customer entitlement agents*

The OPA will also continue to work with stakeholders to examine the potential role of customer entitlement agents (CEAs). These entities would have the ability to represent consumers in the purchase of electricity in the wholesale market and help them more effectively manage their electricity costs. As seen in other jurisdictions, CEAs provide conservation programs for consumers and secure electricity supply either through bilateral arrangements with generators or by developing their own generation.

To date, the OPA has been the facilitator, researcher, developer and manager of CEA pilot studies and has conducted a dialogue with stakeholders to determine if CEAs could provide benefits to consumers. During the planning period, the OPA will continue to consult with policy-makers and stakeholders on the concept of CEAs and the benefits of conservation procurement and management.

*Standardizing conservation products*

The OPA will examine ways to develop current conservation programs into standard products that can be efficiently coordinated with programs offered by other Ontario electricity agencies and entities. This initiative will concentrate primarily on demand response programs but will also evaluate the potential for including energy-efficiency products.

The suite of demand response products will continue to be developed. The OPA will engage market participants, including industrial customers and aggregators, in the development and use of demand response products and how they can be standardized.

**We will achieve Strategic Objective 4 by:**

- identifying and addressing barriers to the development of distributed generation projects.
- continuing to support the development of a forward electricity market
- supporting the development of options for the management of the expected growth of the GAM component of ratepayers' electricity costs
- continuing to evaluate the potential role of CEAs for purchasing forward to fulfill consumers' electricity requirements

**By 2011, you will see that we have achieved this objective when:**

- Progress has been made toward a sustainable framework that facilitates the development of distributed generation facilities.
- The volume of Ontario electricity products traded on the forward market has substantially increased.
- The projected GAM component of ratepayers' electricity cost is better understood by key stakeholders, including consumers, and an approach for more equitably allocating and addressing the size of the GAM is agreed upon.
- Consensus has been reached on the use of CEAs for actively managing forward purchases of electricity to meet consumers' requirements.

# Strategic Objective 5

*Maintain and develop organizational capacity to achieve all other strategic objectives.*

## Strategic Context

Internal service groups provide the OPA with support and guidance to fulfill the many facets of its mandate. These include legal and regulatory services, corporate communications, finance and business services, human resources and information systems.

*Legal and regulatory services*

The legal and regulatory services group will continue to support the OPA in its participation in regulatory proceedings. In 2009, this group will continue to oversee the regulatory approval process for IPSP1. It will provide guidance on evidence preparation and filing of the revised IPSP1, IPSP2 and their regulatory review. The legal and regulatory services group will also support activities for other OPA regulatory proceedings, such as the annual revenue requirement case, as well as proceedings in which the OPA is not the applicant, such as the Transmission System Code review.

This group will continue to provide corporate secretarial support to the OPA's Board of Directors and legal counsel to the organization on a variety of matters, including contract development, procurement processes for the broad range of conservation programs and supply procurements, and contract management.

*Corporate communications*

A focus for the corporate communications group during the planning period will be to enhance the OPA's reputation as a trusted source of information about Ontario electricity matters. This group will support all of the OPA's outreach activities over the period. A priority will be to foster interactive communications with communities affected by electricity infrastructure projects to create a common understanding of local electricity issues and the recommended solutions. By building relationships with leaders at the regional and local levels, the OPA anticipates advancing a common understanding of the need for projects, assisting key intermediaries (e.g., municipal leaders, developers, LDCs) in their implementation efforts to achieve better alignment with stakeholder interests and coordinating communications to ensure clarity and consistency. The group will also continue to provide communications support related to all of the organization's major initiatives.

Maintaining and enhancing positive relationships with First Nations and Métis communities will remain a priority for the OPA, including undertaking an enhanced process of consultation on the IPSP and considering partnership opportunities in generation and transmission matters. On procurements, the OPA will continue to work with the Ministry of Energy and Infrastructure to develop processes that clarify the roles of the Ministry, the OPA and project proponents in consultation with First Nations and Métis communities.

*Finance and business services*

A key focus for the finance and business services groups during the planning period will be to improve business processes, develop staff and enhance the OPA's ability to handle the expected growth in the volume and value of conservation and generation contracts. As the value and number of contracts under OPA management increase, the efficiency and effectiveness of financial, information management and internal control systems will need to be maintained at a high level to ensure that the OPA continues to be a responsible steward of ratepayer money.

This group will also continue to develop comprehensive, timely and accurate financial and business plans, reports and client-driven administrative services. New internal control procedures being implemented in 2008 will continue to be refined during the planning period by incorporating leading practices.

*Human resources*

The OPA's human resources group will maintain its pivotal role of providing the leadership, systems, policies and processes for attracting, engaging and retaining the skilled staff required to achieve organizational goals. In particular, the group will create and implement a multi-year workforce plan and supporting strategies; enhance the organization's capability to attract and select talent through employment branding, strategic relationships and improved selection methods; and build and implement processes to better align and focus performance at the individual, group and organizational levels. In the area of reward and recognition, the group will ensure that total compensation programs are internally equitable and externally competitive.

The human resources group also plans to invest in competency-based development and job-related professional and technical skills training, as well as ensure that development planning and coaching are embedded management practices. It will foster career progression in the organization by providing assessment, facilitated feedback, tools and processes for career development planning and management. It will refresh the organization's succession and talent review processes and plans, and initiate programs to build management and leadership capability.

In 2009, the OPA is planning an increase in staff of about nine employees. The increase is primarily to manage the rising value, volume and complexity of OPA generation contracts and other activities, as well as to meet the growing need for community outreach and consultation. About two-thirds of the new staff will be dedicated to the OPA's planning, generation procurement and community outreach activities, including supporting the implementation of Ontario's new electricity system needs. About four new employees will be supporting these core operations in the areas of talent, information and financial management. Over time, the organization expects continued operational efficiency gains from increased use of performance-based contracting for conservation services. The staffing strategy is to hire regular employees for core, longer-term requirements and retain temporary and consulting resources for non-core, short-term assignments. In this way, the OPA will achieve the longer-term goals of both building sustainable competency and ensuring continued cost-effective operations.

*Information systems*

As the organization matures, it is amassing a growing wealth of information and data related to Ontario's electricity system and its sector participants. The information systems group will focus on maintaining information management systems, tools, electronic-communication vehicles and storage capacity relevant to this data. This group will also work with others in the organization to define what information should be accessible externally, through the OPA family of websites. The goal will be to leverage the information gained from OPA activities as much as possible, to continuously improve the identification of solutions for a sustainable, reliable electricity system.

**We will achieve Strategic Objective 5 by:**

- supporting regulatory activities associated with the IPSP and other regulatory proceedings, including the annual revenue requirement case
- proactively engaging with communities where vital electricity infrastructure is to be sited
- working with First Nations and Métis communities as the OPA undertakes a process of enhanced consultation on the IPSP and considers partnership opportunities in generation and transmission matters
- continuing to provide comprehensive, timely and accurate financial and business plans, reports and client-driven administrative services
- providing the leadership, systems, policies and processes for attracting, engaging and retaining the skilled staff required to achieve organizational goals
- maintaining the OPA's information management systems, tools, electronic communication vehicles and storage capacity to protect data related to its activities, and making energy sector data more accessible.

**By 2011, you will see that we have achieved this objective when:**

- OPA applications to the OEB, including the IPSP and the OPA's annual revenue requirement case, are successfully guided through their regulatory processes, and other OEB proceedings in which the OPA has an interest, such as the Transmission System Code review, are supported.
- Leaders and key stakeholders in communities where major electricity infrastructure projects are to be sited are provided with comprehensive information on electricity-related issues and recommended solutions that affect their communities.
- First Nations and Métis communities are poised to play an active role in Ontario's electricity sector.

- The OPA's needs for comprehensive, timely and accurate financial and business plans, reports and other services are being met, and leading practices in internal controls are adopted.

- The human resources infrastructure required to meet both the strategic and day-to-day needs of the organization has been built, including a robust talent management system.

- The OPA's information management needs are being met, data are appropriately gathered and protected, and staff and stakeholders have better access to OPA-held energy sector information.

## 2009 Milestones

This three-year business plan sets out how the OPA will continue its efforts to ensure the reliability and sustainability of the province's electricity system for the benefit of Ontario's consumers during the period 2009-2011.

To put the 2009 financial information presented in the following section in context, included here are the milestones the OPA expects to achieve by year-end 2009 under each strategic objective.

### By year-end 2009, we will have achieved these milestones:

***Strategic Objective 1: Plan for an adequate, reliable and sustainable system that integrates conservation, generation and transmission and to implement the Minister's directives.***

- IPSP1 has been revised and submitted to the Ontario Energy Board.
- Development work is underway on key transmission projects identified in IPSP1 designed to enable the development of new renewable sources of energy.
- Changes are made to the Transmission System Code related to enabler lines to allow access to renewable resources where required.
- Studies are completed with the relevant LDCs on the potential for and feasibility of conservation and distributed generation in the City of Toronto and Kitchener-Waterloo-Cambridge-Guelph.
- Future supply-constrained areas are identified and local area studies are commissioned.
- Plans for stakeholder consultation on IPSP2 are being developed.
- The outlook for electricity demand is updated and incorporates the anticipated adoption of codes and standards and the acceleration of conservation.
- Models and tools have been sourced to improve the OPA's analytical and planning capability.
- Obligations for 2009 to electricity planning standards authorities have been met.

***Strategic Objective 2: Plan, procure and manage conservation resources to meet the requirements identified in the IPSP and promote sustainable conservation practices that contribute to a culture of conservation.***

- A robust portfolio of OPA conservation programs continues to be available in the Ontario marketplace and is delivering electricity savings, contributing to reduced peak demand and raising awareness of the value of conservation to all Ontarians.

- Reports on conservation programs progress, including EM&V results for 2008, and the 2009 Chief Energy Conservation Officer's annual report have been produced.

- OPA activities to identify and support conservation opportunities in areas of the province with urgent and emerging reliability issues, such as northern York Region, southwest GTA and Kitchener-Waterloo-Cambridge-Guelph, are underway.

- An overarching capability building plan has been developed that focuses on conservation program administrators including LDCs, the supply chain and other influencers, and customers.

- The OPA will have sponsored a minimum of three Certified Measurement and Verification Professional training sessions.

- Awareness of conservation has increased, and the OPA has launched an award program to recognize conservation leadership in Ontario's business community.

- Progress is being made on identifying and implementing appropriate minimum energy performance standards and on removing barriers to conservation.

- An EM&V framework for demand response has been developed.

***Strategic Objective 3: Plan and design procurement processes and enter into procurement contracts for generation resources to meet the requirements identified in the IPSP and to embed "best-in-class" contracting practices that support investment in necessary infrastructure and contribute to a sustainable electricity system.***

- Progress is being made on the competitive procurements to acquire additional electricity generating resources.

- Contract negotiations, where necessary, have been completed to the overall benefit of the ratepayer, and all financial settlements for 2009 have been completed accurately and on time.

- Outreach and public education efforts are underway in southwest GTA.

- Effective communication material has been made available to proponents in southwest GTA, and best-practice community engagement guidelines have been developed.

- A number of new procurement contracts have been signed with both small and large developers.

- New and improved mechanisms to procure different types of renewable energy resources have been developed.

***Strategic Objective 4: Identify and assess barriers to the development of economically sustainable conservation and supply resources and develop solutions to address these barriers in cooperation with stakeholders.***

- A comprehensive assessment of barriers to distributed generation has been developed.

- The total-year volume of Ontario electricity products traded on the forward market in 2009 exceeds the volume traded in 2008.

- A clear path has been identified to mitigate the effects on electricity customers of a rising Global Adjustment Mechanism.

- Progress has been made in reaching consensus on the use of customer entitlement agents in Ontario's electricity sector.

***Strategic Objective 5: Maintain and develop organizational capacity to achieve all other strategic objectives.***

- IPSP1 has been revised and submitted to the Ontario Energy Board, and the OPA's 2010 revenue requirement case has been submitted and approved.

- The OPA has met extensively with leaders and key stakeholders in relevant areas to improve understanding of electricity-related issues in their communities.

- More clarity has been achieved on the roles of the Ministry of Energy and Infrastructure, the OPA and project proponents on consultations with First Nations and Métis communities; capability-building agreements with First Nations and Métis groups are in place; and partnership opportunities with First Nations and Métis communities in generation and transmission matters have been identified.

- The OPA has contracted for renewable generation from projects in which Aboriginal Peoples have an interest.

- The OPA's 2009 internal service, human resources and information management needs have been met efficiently and cost-effectively, and leading practices in internal controls have been implemented.

## 2009 Financial Outlook

**Ontario Power Authority**
**Pro-forma Statement of Financial Position**
**(in thousands of dollars)**

**December 31, 2009, with comparative figures for the 2008 Budget and the 2007 Actual**

| | 2007 Actual | 2008 Budget | 2009 Budget |
|---|---|---|---|
| **Assets** | | | |
| Current assets: | | | |
| Cash and cash equivalents | $ 161,128 | $ 34,705 | $ 18,217 |
| Accounts receivable | 52,675 | - | 5,446 |
| Other current assets | 60 | 120 | 63 |
| | 213,863 | 34,825 | 23,726 |
| Capital assets | 5,036 | 6,224 | 7,877 |
| Regulatory assets | 43,329 | 48,000 | 14,923 |
| | **$ 262,228** | **$ 89,049** | **$ 46,526** |
| **Liabilities and Net Assets** | | | |
| Current liabilities: | | | |
| Accounts payable and accrued liabilities | $ 98,068 | $ 4,060 | $ 18,795 |
| Contract deposits | 1,296 | 1,536 | 282 |
| | 99,364 | 5,596 | 19,077 |
| Loan from Ontario Financing Authority | - | - | 26,613 |
| Deferred rent inducement, net | 1,122 | 923 | 836 |
| Regulatory liabilities | 145,546 | 81,987 | - |
| Net assets: | | | |
| Internally restricted Conservation and Technology Development Funds | 4,282 | 4,748 | 5,186 |
| Investment in capital assets | 5,036 | 6,224 | 7,632 |
| Accumulated operating surplus (deficit) | 6,878 | (10,428) | (12,818) |
| | 16,196 | 543 | 0 |
| | **$ 262,228** | **$ 89,049** | **$ 46,526** |

**Ontario Power Authority**
**Pro-forma Statement of Operations**
**(in thousands of dollars)**

**Year ending December 31, 2009, with comparative figures for the 2008 Budget and the 2007 Actual**

| | 2007 Actual | 2008 Budget | 2009 Budget |
|---|---|---|---|
| **Revenue:** | | | |
| Fees | $ 55,470 | $ 51,468 | $ 64,310 |
| Other income | 1,180 | - | - |
| Registration fees | - | 400 | 220 |
| | 56,650 | 51,868 | 64,530 |
| **Expenses:** | | | |
| Compensation and benefits | 19,192 | 23,763 | 25,529 |
| Professional and consulting fees | 14,331 | 28,261 | 24,260 |
| General operating costs | 5,530 | 9,598 | 9,734 |
| Conservation and Technology Development Fund expenses | 2,187 | 4,034 | 4,061 |
| Amortization of capital assets | 1,070 | 1,365 | 1,489 |
| Operating interest expense (income) | 961 | 500 | - |
| | 43,270 | 67,521 | 65,073 |
| **Excess of revenues over expenses** | **13,379** | **(15,653)** | **(543)** |
| **Surplus, beginning of the year** | **2,817** | **16,196** | **543** |
| **Surplus, end of the year** | **$ 16,196** | **$ 543** | **$ 0** |

## References and Notes

1. Under the North American Electric Reliability Corporation (NERC) Functional Model for the development and enforcement of mandatory reliability standards for North America, the OPA has responsibility in Ontario for ensuring compliance with a number of the standards designated under the Planning Coordinator and Resource Planner functional categories. These standards include:
   - providing power system data of existing and future facilities necessary for the modeling and simulation of the regional and interregional power system
   - providing forecast data including energy, demand and demand-side management forecasts
   - conducting annual area transmission reviews and documenting system performance and reliability assessments over the planning horizon
   - reporting on the plans to achieve the required system performance and reviewing the continuing need of identified system facilities over the planning horizon
   - providing similar data and reviews to regional reliability organizations such as the Northeast Power Coordinating Council (NPCC).

   These planning standards cover a time horizon of one to five years or up to 10 years. The OPA collaborates with the IESO on many of these standards. Generally, the IESO provides input for near-term (up to five years) reporting and review requirements, and the OPA provides input for longer-term (up to 10 years) requirements.

   The OPA also participates in the review and drafting of new NERC planning standards and in the review and development of NPCC planning criteria and guidelines. By participating in such forums, the OPA has the opportunity to influence planning and design standards that may affect the Ontario power system as well as to gather further insights into best-in-class and innovative practices of other jurisdictions.

2. The total resource cost (TRC) test is a benefit-cost analysis used to measure cost effectiveness. If the TRC test shows a ratio of benefits to costs greater than one, the program is considered cost effective.

3. The following programs have been enhanced based on data obtained through EM&V and market research:
   Great Refrigerator Roundup program
   - Small fridges and freezers are no longer eligible for the program as it was determined that it is not cost-effective to collect them.
   - Improvements were made to program marketing and delivery, including collaborative advertising with the Ministry of Energy and Infrastructure as well as improvements to the dynamic pick-up/appointment system.

   Every Kilowatt Counts Power Savings Event (coupon program)
   - The suite of products included in the program and the associated rebates are refined between every campaign. Incentives on products with significant savings opportunities

and low market penetration have increased over time (e.g., ENERGY STAR light fixtures, CFL flood lights), while more mature energy savings products with relatively higher market penetration (e.g., CFLs) have decreased over time as the market transforms.

- A market test was undertaken to assess the potential savings from dehumidifier take-back/exchange events at retail locations. While analysis is still underway, preliminary findings suggest an untapped opportunity in the residential conservation market.

Institutional/commercial/industrial

- Requirements for upfront project measurement and verification help to ensure good value for program spending and reliability of verified savings for all programs in these sectors.

4. For a full discussion of the OPA's procurement processes – competitive, sole-source and standard offer – see IPSP evidence available on the OPA website, www.powerauthority.on.ca.

5. ICE operates global commodity and financial products marketplaces. From February 2008, when Ontario electricity products were first listed, to August 2008, more than one million megawatt-hours (MWh) were traded, of which about 640,000 MWh were over-the-counter (trades made between two parties and moved to the exchange for clearing). As trading of the ICE/NGX Ontario power contracts becomes more liquid, more participants will be encouraged to trade these contracts.

6. Heat-rate contracts are essentially a traded ratio of electricity price to natural gas price. Heat-rate trading is a mechanism that helps to transfer liquidity from the natural gas market to the electricity market.

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This exhibit will be filed at a later date.


# SUPPLEMENT: Conservation Results 2005-2007

June 2008

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# 2007 Conservation Highlights

- Current reported results indicate that, as of the end of 2007, Ontario electricity consumers had met Ontario's peak demand reduction target of 1,350 megawatts.

- The period 2005 to 2007 has seen unprecedented capability building in Ontario's conservation marketplace – for both conservation suppliers and consumers. Programs, outreach and awareness activities have helped to kick-start the conservation industry and consumer participation.

- Many parties are now involved in the delivery of conservation in Ontario, including the Ontario Power Authority, local distribution companies, natural gas companies, the Independent Electricity System Operator, federal and provincial governments, Enwave with its deep lake water cooling, energy management companies and non-governmental organizations. This level of activity is a good start in creating a diverse and active conservation supply industry for Ontarians.

- By the end of 2007, about 1,125,000 smart meters had been installed by local distribution companies across the province. This surpasses the goal set by the provincial government to have 800,000 installed by 2007. About 1.4 million were installed by April 2008.

- Polling results indicate that Ontarians are taking action to conserve, and that awareness of the importance of electricity, and energy generally, is increasing among Ontario consumers in all market segments.

- Sixty-two individuals and organizations were recognized in 2007 with Certificates of Recognition for taking a leadership role in building a long-term commitment to electricity conservation. Since 2005, 171 certificates have been awarded.

# A Message from the Chief Energy Conservation Officer

Ontarians are taking action on electricity conservation. As Chief Energy Conservation Officer, one of my duties is to report on the progress being made toward meeting Ontario's conservation goals. To ensure that timely information is available on the province's conservation efforts, I am supplementing my 2007 Annual Report with this spring summary of programs results and activities. This supplement reports on results from 2005 to the end of 2007.

I am pleased to report that the actions of Ontario's electricity consumers have contributed to meeting the target for reducing the provincial peak electricity demand by 1,350 megawatts by the end of 2007. This is based on currently available reported results from the many participants in the conservation market, including the Ontario Power Authority, local distribution companies, governments, natural gas companies, not-for-profit organizations and energy management companies.

All those who took action to contribute to these results can take pride in this achievement – this has been and will continue to be the most aggressive conservation effort in Ontario's history. However, I must caution that more work needs to be done on several fronts. First, the methodologies used to determine the results of conservation programs and activities are evolving, and they currently include a mix of forecasted and reported results. Methods of measuring actual conservation results should be consistent among the various participants and practitioners of conservation, and these results should be independently verified where appropriate. Second, meeting the next target – reducing peak demand by a further 1,350 megawatts by 2010 – will present an ongoing challenge. Meeting it will require continued cooperation and action by all Ontarians and all sectors.

Conservation is a cornerstone of the Ontario Power Authority's 20-year plan to ensure a reliable and sustainable electricity system for the province. Unlike other commodities we use such as water, electricity is invisible. One of my goals is to make conservation visible – a necessary step toward achieving a permanent culture of conservation. We are all learning along the way, and there is now evidence that people are willing to ***think*** about electricity and how they use it. When people are aware of it, they can begin to ***believe*** that electricity must be used more responsibly and ***act*** to conserve. We need to continue to step up these efforts.

Peter Love
Chief Energy Conservation Officer
June 2008

# 1. Introduction

### Purpose of this Report

The purpose of this supplement to the Chief Energy Conservation Officer's 2007 Annual Report is to provide a summary of available information on Ontario's electricity conservation progress to the end of 2007. It reports on progress toward meeting Ontario's conservation goals and includes results of the Ontario Power Authority's conservation activities as well as those of local distribution companies,[1] governments and others across the province. The report is being released as soon as possible after the previous year's results are available to provide transparency in reporting the results of conservation activities that are funded by Ontario electricity ratepayers and others.

Conservation has a critical role to play in meeting Ontario's need for a reliable and sustainable electricity system. In fact, the Ontario Power Authority's 20-year Integrated Power System Plan places a priority on conservation over new generation. This priority reflects Ontario's electricity conservation targets and the long-term goal of creating a permanent culture of conservation in Ontario.

The results presented in this report are based on the best information currently available. More information on reporting methodologies is in Chapter 2 of this report.

### Demand versus Consumption

Electricity **demand** is the rate at which electricity is being used at a given point in time and is expressed in megawatts (MW). One kilowatt (kW) is the rate of electricity use by a typical two-slice toaster, and one thousand kilowatts equals one megawatt (MW). Peak demand is the greatest amount of demand during a specific period of time, such as that which occurs when industries and businesses are active on weekdays and people at home are using air conditioning.

The peak demand period varies according to the day and season, but typically occurs between 11 a.m. and 5 p.m. on summer weekdays and from 7 a.m. to 11 a.m. and 5 p.m. to 8 p.m. on winter weekdays. Ontario is a "summer peaking" jurisdiction – meaning that its electricity system experiences the highest annual peak demand on a hot summer day, resulting mainly from air conditioning load.

Demand is sometimes equated with capacity – representing the total installed electricity generating capacity required to meet the demand. Conservation and demand management can reduce demand so that electricity does not need to be generated or, ultimately, fewer power plants need to be built.

**Consumption** is the amount of electricity used over time and is expressed in kilowatt-hours (kWh). For example, if an air conditioning unit has a power requirement of 1,500

watts to operate, the unit will consume 1.5 kilowatt-hours if run for one hour or 15 kilowatt-hours if run for 10 hours. Consumption is sometimes referred to as "energy." One kilowatt-hour will make some 40 pieces of toast.

Power plants are classified as either baseload, peaking or intermediate resources, according to their operational characteristics, flexibility and capability to be dispatched on or off. Conservation resources fall under similar categories. Some conservation measures, such as those that increase energy efficiency, save energy throughout the day – much like a baseload power plant – and have little impact on demand. Other conservation measures, such as demand response programs, primarily affect the system peak and are called upon when needed. Ontario needs both kinds of generation and conservation resources in a portfolio of resource options, to make sure that the electricity system has the flexibility to meet power needs at all times.

# 2. Reporting Methodologies

Measuring conservation is challenging. Not only are we measuring the absence of consumption, but we are measuring against "what might have been." That is, demand reduction needs to be measured against a forecast of what the demand would have been without conservation interventions – given the time of year, weather and a host of assumptions regarding business activity, trade, population and other factors.[2]

Various approaches have been used to report on the progress of conservation activities in previous reports of the Chief Energy Conservation Officer. These include "top-down" and "bottom-up" analyses. Each method has its advantages and disadvantages. The 2006 top-down approach suggested that the provincial peak demand in summer 2006 was 950 megawatts less than the forecasted peak for 2006, after adjusting for economic growth and weather conditions.[3] In May 2007, the Chief Energy Conservation Officer's bottom-up approach was based on reported results from conservation program activities undertaken by the Ontario Power Authority, local distribution companies, governments, energy management companies and others. This approach showed that the province achieved a total of 1,080 megawatts of demand reduction in 2006.[4]

These results are encouraging, but it is recognized that more work is required to develop measurement and verification methodologies to better assess the impact of conservation programs. The Ontario Power Authority's portfolio of programs is being assessed using a measurement and verification standard to increase the certainty of energy and demand savings. The current mix of results from the various parties involved in delivering conservation in Ontario is derived from program forecasts or reported results. These results are based on assumptions regarding the activities undertaken and, while they provide an indication of the success at reducing Ontarians' need for electricity, they are not as reliable as verified results based on a comprehensive, independent measurement process.

This report relies on a combination of results, based on currently available information, to assess Ontario's conservation performance from 2005 to the end of 2007.

Given the importance of the conservation contribution in ensuring the reliability of Ontario's electricity system over the next 20 years, the Chief Energy Conservation Officer encourages all delivery agents in the conservation marketplace to adopt more rigorous and consistent methods of measuring and verifying results.

**Recommendation**

To enhance public understanding of the progress of conservation, those delivering conservation should place more emphasis and resources on evaluating, measuring and verifying results using standardized and transparent methods.

## Ontario Power Authority's Conservation Reporting Methodology

The Ontario Power Authority uses three different reporting "tracks" to report on its funded conservation programs -- forecasted, reported and verified savings. Each of these tracks provides estimates of energy and peak demand savings resulting from conservation programs, and each track has a different level of certainty associated with the results.

### Forecasted Savings

Planning, designing and developing a conservation program involves developing predictions of the potential energy and demand reductions that could result from it. These forecasted savings are based on a set of input assumptions, including estimated participation rates, energy and demand reductions resulting from program measures, the effective useful life of measures and other factors. The forecasted savings can be used as targets for the program, against which actual performance can be measured.

Forecasted savings tend to have the largest bands of uncertainty associated with them.

### Reported Savings

Reported savings reflect the preliminary results of conservation programs using the same input assumptions that were used to develop the program. Program activity is tracked using units specific to the program, such as coupons redeemed, appliances retired or control devices installed. These activity units are used to estimate energy and demand savings with the same assumptions used to create the program – allowing for straight comparisons to the forecasted savings.

Reported savings reflect the success of program efforts in driving participation and can be used to gain early insights into a program's effectiveness. These results are more certain than forecasted savings and can help to improve the assumptions used for the further development or refinement of conservation programs.

### Verified Savings

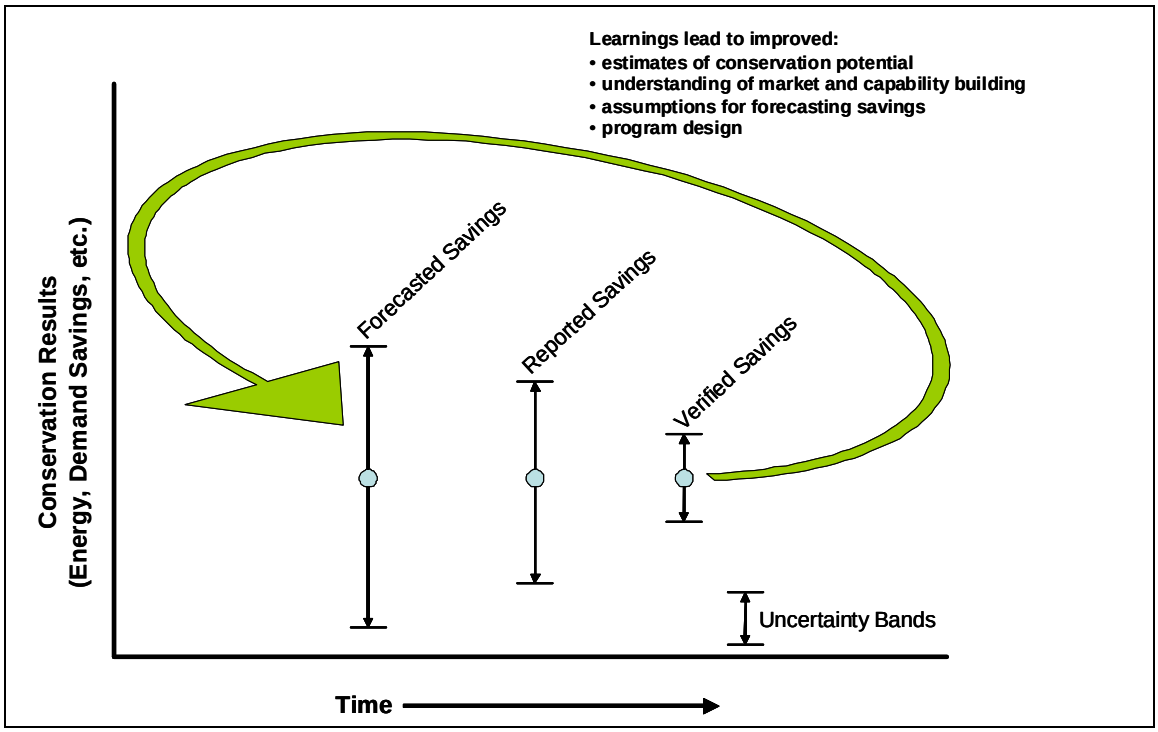
Measurement and verification studies are conducted to confirm that reported claims of energy and peak demand reductions have actually occurred. The measurement component involves collecting data from various sources, including site visits, surveys, utility bills, equipment invoices, sensors, occupancy records and/or production reports. The verification component involves using the measured data to verify that anticipated energy and peak demand savings occurred. This means verifying that conservation measures have been implemented to a reasonable standard of quality, are operating as intended and are capable of generating energy and peak demand savings. Telephone,

web-based and mail surveys may be used for simple measures, such as light bulb replacements, but on-site inspection would be preferred.

Verified results represent the best estimate of a conservation program's actual savings and greatly reduce the level of uncertainty surrounding program results. Verified results can be greater or less than forecasted and reported results, depending on factors beyond the program administrator's control. Although verified savings represent the results with the highest degree of certainty, these factors mean that some level of uncertainty will always be associated with reporting on conservation program results.[5] The credibility of verified results will be improved by separating the responsibility for program design and implementation from the responsibility for verification.

Figure 2.1 illustrates the uncertainty surrounding the results of the three reporting tracks. The decreasing uncertainty as results move from forecasted and reported to verified indicate that measurement and verification can provide results that are more reliable, predictable and transparent. The verification process can provide regular feedback about program performance, leading to the development of more effective programs and activities. The assessments also assist in refining estimates of conservation potential, improving understanding of market and capability building requirements, and generating better assumptions for forecasting savings. Verified savings, in terms of megawatts or megawatt-hours, can be less than reported savings – but the verified results are more valuable to system planners because the capacity they represent (e.g., demand reduction) can be more consistently equated with capacity of supply resources.[6]

Figure 2.1: Ontario Power Authority conservation reporting tracks



# 3. 2005 – 2007 Conservation Performance in Ontario

Ontario's conservation goals are among the most ambitious in North America. In the long term, these goals include creating a culture of conservation and reducing peak demand by 6,300 megawatts by 2025, which is reflected in the Integrated Power System Plan. Interim targets include reducing peak demand by 1,350 megawatts by 2007 and another 1,350 megawatts by 2010.

This chapter summarizes the results of conservation programs and activities by the Ontario Power Authority and other market players that contributed to meeting the 2007 demand reduction target.

## Progress Toward Meeting Ontario's Peak-Demand Reduction Target

In 2004, the Ontario government set a target for 2007 to reduce Ontario's peak electricity demand by five percent from the Independent Electricity System Operator's 2007 forecast peak electricity demand of 27,000 megawatts. This meant a reduction of 1,350 megawatts. Since 2004, the 2007 peak demand forecast was revised downward to 26,282 megawatts (reference forecast) as a result of various factors,[7] including some naturally occurring conservation.[8]

A comparison of forecast and actual peak demand provides a macro-level perspective of the electricity system. Caution needs to be used in gaining insights from this top-down view because of the multiple factors influencing system peak demand, including changes in rates and types of economic activity, naturally occurring conservation and other factors beyond the control of power system planners. Factors such as weather variations can be accounted for by weather normalizing actual system peak demand.[9]

Table 3.1 shows the weather-adjusted 2007 system peak demand compared to the reference demand forecast for 2007. The 1,350 megawatt target is to be assessed against Ontario's weather-adjusted peak demand for 2007, since the forecast itself is weather-adjusted.[10] This comparison shows that the peak system demand in 2007 was 1,462 megawatts less than forecast.

Table 3.1: Comparison of 2007 peak demand to forecast (megawatts)

| Forecasted 2007 peak demand | Weather-adjusted 2007 peak demand | Demand reduction including conservation and other factors | Percent below forecast |
|---|---|---|---|
| **26,282** | **24,820**[11] | **1,462** | **5.6** |

Sources: Independent Electricity System Operator, Ontario Power Authority

Simple comparisons of the system peak to the forecast indicate conservation progress, but other factors, such as changes in economic activity, will also affect the demand placed on the electricity system. Decreases in economic activity will affect electricity use and thus,

the difference between the 2007 peak demand and the forecast must, in part, be attributed to a decrease in energy-intensive industrial activity. Between 2005 and 2007, large end-use customers that purchase electricity directly from Ontario's wholesale electricity markets experienced, on average, an 11-percent decrease in electricity consumption.

Since the demand reduction is measured against a forecast, a note regarding forecast uncertainty is warranted. In general terms, a forecast is an estimate of what is likely to happen in the future. Forecasting energy demand is challenging because it involves extending past and present trends as well as making predictions about many indirect but influencing factors. Similar to a meteorological forecast, when a forecast is made about a period a long time into the future, there is more uncertainty associated with it. In contrast to the weather, which is typically forecast a week in advance, energy demand must be forecast years in advance to accommodate the long lead-times needed for development of the infrastructure and programs needed to balance supply and demand.

## Ontario's Reported Conservation Results

An analysis of conservation performance from the "bottom-up" includes reported results in assessing the potential for peak demand savings. Once individual program results are available, they are combined to establish the projected electricity savings attributable to conservation initiatives delivered in Ontario. Many conservation programs administered and funded by organizations other than the Ontario Power Authority have provided forecasted results because the programs are too new to have reported results.

Table 3.2 on page 10 shows reported results that are currently available for the various conservation programs and activities in Ontario. Reported results are an indication of program participation and activity levels and have been counted toward the 2007 demand reduction target. However, they may be subject to adjustment for system planning purposes upon detailed measurement and verification. Because forecasted results are indicative only and not counted toward the target, they are not included in Table 3.2. Results in Table 3.2 are cumulative for the 2005-2007 period.

All results in Table 3.2 are as reported by the appropriate agency or delivery agent. Programs and reported results not funded by the Ontario Power Authority are summarized in the report, *Summary of Electricity Conservation Programs and Initiatives in Ontario from 2005-2007, Excluding OPA Funded Programs and Ontario Government Buildings,* available at www.conservationbureau.on.ca.

Table 3.2: Ontario conservation reported results

| **Conservation Activities** | **Estimated Demand Reduction 2005-2007 (megawatts)** |
|---|---|
| Ontario Power Authority's portfolio of programs: | |
| Mass market | 130 |
| Commercial/institutional | 150 |
| Industrial (demand response)[12] | 317 |
| Customer-based generation[13] | 1 |
| LDC programs (not OPA-funded) | 257 |
| Natural gas companies | 38 |
| Non-governmental and other organizations | 30 |
| IESO demand response/dispatchable load program | 273 |
| Provincial regulations | 1 |
| Federal buildings/programs | 117 |
| Enwave deep lake water cooling | 56 |
| Energy management companies | 21 |
| **Total** | **1,391** |

Note: All results are rounded down to the nearest megawatt

## Ontario Power Authority Programs

More details on the Ontario Power Authority's 2007 portfolio of programs are summarized in *A Progress Report on Electricity Conservation*, available at www.powerauthority.on.ca.

## Local Distribution Companies (LDCs)

The "LDC programs" result in Table 3.2 is based on reports submitted to and compiled by the Ontario Energy Board. Local distribution companies reported that their conservation programs reduced peak demand by 257 megawatts and consumption by 1,045 gigawatt-hours.[14]

These programs were funded by $163 million that was approved by the Ontario Energy Board in 2005 for conservation and demand management initiatives by local distribution companies.[15] Eighty-five individual plans were submitted to the board for approval and included initiatives such as conservation, demand management, demand response, power factor correction, line loss reduction and distributed generation. These initiatives began in 2005, and the funds were to have been spent by September 2007. More details on these results are available at www.oeb.gov.on.ca.

Natural Gas Companies

Conservation and demand management initiatives run by Ontario's two largest natural gas distributors, Enbridge Gas Distribution and Union Gas, have been responsible for 38 megawatts of peak electricity demand reduction by 2007. Many of these programs are aimed at conserving natural gas but also result in some electricity savings. Other initiatives save electricity by encouraging fuel switching.[14]

Non-Governmental and Other Organizations

Conservation activities of non-governmental organizations and others contributed approximately 30 megawatts of peak demand reduction since 2005. Seven megawatts of this total demand reduction have been reported by the Conservation Council of Ontario for the Doors Closed program.[16]

Many diverse conservation programs and initiatives have been undertaken by this sector. Demand reductions are attributed to programs administered by the Clean Air Foundation, various non-governmental agents delivering Energuide for Houses/EcoEnergy Retrofit programs, EcoSchools, Green Roofs for Healthy Cities and the Conservation Council of Ontario. Other programs have not reported results or are aimed primarily at raising conservation awareness. A number of non-governmental programs are also funded by various levels of government. Highlights of some of the activities of this sector are presented in Chapter 4.[14]

Independent Electricity System Operator

The Independent Electricity System Operator operates a dispatchable load program and, until 2007, a transitional demand response program. The maximum load that was dispatched "off" in 2007 from the dispatchable load program was 259 megawatts. The transitional demand response program contributed another 14 megawatts of demand reduction.[17]

Provincial Government

Provincial government results in Table 3.2 include the impact of the net metering regulation, which has reduced peak demand by a reported 1.59 megawatts. Other provincial initiatives, such as the Ontario Refrigerants Regulation and revisions to the Ontario Building Code, have not generated reported results as of the end of 2007. Some provincial programs, such as the Home Energy Audit and Home Energy Retrofit Programs, are new and have not generated reported results even though much activity has taken place. For example, since Ontario's Home Energy Audit and Home Energy Retrofit Programs started in mid-2007, more than 43,000 audits have been completed and more than 9,500 retrofits have been undertaken. Changes to the Ontario Building Code are

expected to generate significant peak demand savings and are discussed under the subsection entitled Building Codes and Equipment Standards in this chapter.

The provincial government also supports a number of conservation programs delivered by third-parties, and some of these activities have generated results shown in Table 3.2 under non-governmental organizations. The activities of these participants are discussed in Chapter 4.[14]

Federal Government

Reported results from federal government conservation activities contributed 117 megawatts of peak demand reduction from 2005 to 2007. Federal initiatives include the Commercial Building Incentive Program and ecoENERGY for Buildings and Houses. Other federal programs that do not have reported or verified results at this time have generated forecasted results, which are not included in Table 3.2.[14]

Enwave Deep Lake Water Cooling

Enwave's deep lake water cooling is a lake-water source cooling system that reduces electric air conditioning use in commercial and government buildings in downtown Toronto. The Enwave system expanded in 2007 to yield a total reported peak demand reduction of 56 megawatts.[14]

Energy Management Companies

Energy management companies (also known as energy service companies) are important private-sector delivery agents of conservation audits, projects and associated expertise. Since their activities are often supported by other conservation initiatives, the impacts of energy management company activities are, to a large extent, assumed to be accounted for in the reported results of other conservation programs. The 21 megawatts from energy management companies included in Table 3.2 is the reported result that is not accounted for within the results of other programs.[14]

## Other Conservation Results

The other conservation activities summarized in this section are in addition to the programs summarized in Table 3.2. Some of these activities have been forecasted to result in peak demand reductions; however, reported results are not currently available.

Building Codes and Equipment Standards

Revisions to the Ontario Building Code and federal and provincial equipment standards are important contributors to energy and peak demand reductions. These demand reductions are not shown in Table 3.2 because estimates of energy and/or demand savings from these initiatives have not yet been received. Although it is estimated that the 2006/2007 revisions to the Ontario Building Code have made a minimal direct contribution to summer peak demand reduction in 2007, new commercial equipment standards referenced in the code are likely to be included in the energy savings estimates provided by the provincial and federal governments.[14] In years to come, these and subsequent changes to codes and standards will likely contribute several hundred megawatts of demand reduction.

Conservation Behaviour

Conservation behaviour includes those changes in behaviour specifically aimed at using less energy (conservation) or changing the times in which energy is used (demand management). Changes in behaviour result from awareness and education of consumers as well as responses to price signals such as time-of-use rates. It is assumed that some permanent behavioural change has occurred in Ontario as a result of awareness activities. Participation levels in the March 29, 2008, Earth Hour event demonstrated the growing environmental awareness of Ontarians. Of the about 300 cities and municipalities that officially participated worldwide, 85 were in Ontario.

Naturally Occurring Conservation

In addition to conservation programs and activities that provide incentives to conserve, there are many examples of natural conservation occurring across Ontario. The average energy efficiency of appliances and equipment is increasing over time due to incremental technology improvements. This means that just about anytime that an appliance or piece of equipment is replaced, some natural conservation occurs. In fact, many people go beyond the average and choose the highest level of efficiency when replacing equipment. There are other examples of businesses and households going beyond compliance with the Ontario Building Code and building to a higher energy performance standard, such as the Leadership in Energy and Environmental Design (LEED) silver or equivalent. Maintaining the conservation awareness effort will help to keep energy use and efficiency a priority for Ontarians – and increase the impact of naturally occurring conservation over time.

Ontario Power Generation

Since 1994, Ontario Power Generation has run an energy-efficiency program.[18] Many projects have been implemented under the program, including upgrades to hydroelectric

stations and turbines, and efficiency improvements at fossil-fueled plants. Even small efficiency improvements at large generators can yield large energy gains. Ontario Power Generation reports that energy-efficiency improvements at its facilities resulted in energy savings of 57.5 gigawatt-hours in 2005, 109.7 gigawatt-hours in 2006 and 151.7 gigawatt-hours in 2007.

It is important to note that energy-efficiency upgrades at the generator are not considered to be part of Ontario's conservation targets. However, these types of initiatives result in more efficient supply of electricity and reduce the amount of fuel required by the generating plant to produce each kilowatt-hour of electricity – resulting in fewer environmental emissions per unit of energy.

Smart Meters

The Ontario government set a target to install 800,000 smart meters in Ontario homes and small businesses by 2007. Traditional electricity meters measure only the total amount of electricity used over the entire billing period. Smart meters measure when electricity is used in addition to how much is used. Together with time-of-use rates, smart meters will be an important conservation tool for Ontarians by providing a financial incentive to encourage shifting of electricity use to lower-demand periods.

By the end of 2007, about 1,125,000 smart meters had been installed by local distribution companies across the province. As of April 2008, that number had grown to approximately 1.4 million. The province intends to have essentially all homes and small businesses equipped with smart meters by 2010.

## Progress Toward Meeting the 10-Percent Consumption Challenge

In 2005, the Chief Energy Conservation Officer challenged everyone in Ontario to reduce their electricity consumption by 10 percent. By the end of 2007, Ontario's per-capita electricity consumption was approximately four percent lower than consumption in 2005, after adjusting for weather and population growth.[19]

While the 10-percent consumption challenge was not met, the Chief Energy Conservation Officer continues to encourage Ontario residents, institutions and businesses to reduce their electricity consumption in every way they can, and in particular, by taking advantage of the numerous programs available to assist in this effort.

# 4. Other 2007 Conservation Activities

## Ontario Power Authority Activities

### Conservation Awareness and Polling Results

In 2007, the Ontario Power Authority conducted market research to analyze existing consumer attitudes, behaviours and barriers to energy conservation. The research established baseline data that will be used in subsequent years to track changes in consumer attitudes and behaviours.

This polling research indicates that while most Ontarians are aware of energy issues and conservation programs, conservation has yet to become a priority for many. Most Ontarians are familiar with or have participated in conservation programs and over the past year, two-thirds of Ontarians have taken steps to learn more about conservation. Yet, the results suggest that less than half of the province feels that changes to consumer behaviour and lifestyles are needed to reduce overall demand. The primary motivator for pursuing conservation initiatives at the individual level is cost savings associated with reducing electricity use, rather than the goals of conserving energy, reducing peak demand and ensuring future adequate supplies of electricity. Because economic issues continue to dominate the benefits that Ontarians associate with conserving electricity in the home, there appears to a low sense of urgency in permanently changing electricity use behaviour and establishing an enduring culture of conservation.

Knowledge gained from delivering conservation programs indicates that consumers who are engaged can make a difference. For example, since mid-2007, the 43,000 audits and 9,500 retrofits that have been completed under Ontario's Home Energy Audit and Home Energy Retrofit Programs will result in an average of 24 percent energy savings per retrofitted home, up to 34 percent savings for houses built before 1945. Based on this activity to date, it is apparent that more savings are possible if the Ontario Power Authority, governments, utilities, and others continue to expand education, awareness and outreach efforts to drive participation in conservation.

### Chief Energy Conservation Officer's 2007 Awareness and Leadership Activities

Media coverage and public appearances raise awareness and encourage conservation action. The Chief Energy Conservation Officer uses a variety of media, such as radio, television and newspaper, to reach a wide variety of people across Ontario in all sectors. Given the unseen nature of electricity and conservation, public appearances and media coverage are important to promote the long-term goal of building a culture of conservation.

The Chief Energy Conservation Officer made 173 public appearances in 2007, raising the total number of public appearances made since 2005 to 425. A total of 450 million media impressions were made by the Ontario Power Authority, Conservation Bureau and the Chief Energy Conservation Officer in 2007.[20]

The Chief Energy Conservation Officer awarded 62 Certificates of Recognition in 2007, raising the number of certificates awarded to a total of 171 since 2005. Certificates are awarded to recognize the leadership role taken by individuals and organizations that have made long-term commitments to conserve electricity in Ontario. A list of the 2007 recipients is available at www.conservationbureau.on.ca.

## PowerLines Radio Program

PowerLines is a radio broadcast hosted by the Chief Energy Conservation Officer and a co-host in which they talk about energy conservation with interesting people across Ontario, Canada and around the world. In 2007, the series explored how everyone, from homeowners to industry, can conserve electricity to help save money and reduce impact on the environment.

All five episodes broadcast in 2007 are available to download as podcasts on the Conservation Bureau's website at www.conservationbureau.on.ca. Thirteen more episodes are planned throughout the 2008 summer peak season.

## Municipal Energy Conservation Officers

In 2007, the Chief Energy Conservation Officer recommended that the province's municipalities appoint Municipal Energy Conservation Officers to engage communities at the local level in creating a culture of conservation. Having a strong local champion will be pivotal in engaging communities and individuals in Ontario's conservation efforts. These municipal energy champions will encourage their respective communities to take advantage of existing conservation programs and initiatives and build their own capacity to create a culture of conservation.

## Think. Believe. Act. – A Video on Energy Conservation

The Chief Energy Conservation Officer produced a video entitled "Think. Believe. Act." to highlight the energy crunch facing the province and to emphasize the importance of conservation for closing the gap between supply and demand. The film's title and message are intended to inspire all Ontarians to think about their use of electricity, believe in the need to conserve and take action to conserve. Conservation is the most environmentally friendly way to contribute to meeting the need for a reliable supply of electricity for today and future generations. Many thousands of Ontarians have seen this video to date.

Ontario Power Authority's Conservation Awareness Events

The Ontario Power Authority undertook a broad range of conservation awareness activities in 2007. These include a launch of summer conservation programs, Electricity Conservation Awareness Day at Rogers Centre, a Use Electricity Wisely Wheel and a seasonal greeting card contest. The Ontario Power Authority also operates two funds: the Conservation Fund to provide funding for action-oriented, sector-specific electricity conservation pilot projects, and the Technology Development Fund to provide funding for projects that promote the development and commercialization of technologies or applications that have the potential to improve electricity supply, conservation or demand management. Information on these initiatives is available in *A Progress Report on Electricity Conservation 2007*, available at www.powerauthority.on.ca.

**Activities of Other Conservation Participants**

Following are some examples of conservation programs run by organizations other than the Ontario Power Authority. Many of these activities are supported by others, including governments. For example, in support of the province's Go Green climate change initiative, the Ontario government contributes funding to some of them.

Clean Air Foundation

The Clean Air Foundation is a not-for-profit organization dedicated to developing, implementing and managing public engagement programs and other strategic approaches that lead to measurable emission reductions, to improve air quality and reduce the impact on climate. The Foundation delivers two key programs aimed at energy efficiency and conservation. The Keep Cool program offers financial incentives for residents to replace their old, inefficient room air conditioners with new ENERGY STAR™ qualified units. The Go Solar program provides Ontario residents with information and contacts to facilitate the installation of solar energy systems to heat water or generate electricity. For more information, visit www.cleanairfoundation.org/programs.asp.

EcoSchools

Ontario EcoSchools is an environmental education program designed collaboratively by school boards to incorporate environmental education and action into the school setting. The purpose of this project is to provide teachers with environmental education resource units for elementary and secondary grades, to save money and reduce impact on the environment at both the board and individual school levels, and to provide related opportunities for learning and action outside the classroom. There are now approximately 27 school boards participating in the program, which represents more than 60 percent of

all Ontario school buildings. A total of 359 schools in the province have significantly reduced energy demand and have been designated as EcoSchools. For more information, visit www.yorku.ca/ecoschl.

## Eneract Smart Living Programs

Eneract is a registered charity that delivers innovative solutions to environmental problems and builds capability in communities to work toward a sustainable future. Eneract launched a series of four "smart living" programs targeted at promoting a culture of conservation by changing behavior and implementing technological innovations at the local neighbourhood level. These programs cover four main areas, including environmental education for Toronto's ethnic communities, residential workshops on energy efficiency, a practical guide on energy-efficient products and services, and designing grassroots conservation programs at the community level. For more information, visit www.eneract.org/our-projects/default.php.

## FLICK OFF Campaign

This social-marketing campaign, launched in 2007, is designed to encourage Canadian youth to conserve energy by making simple changes in their everyday lives, such as switching to energy-efficient lighting and turning off lights when leaving the house. The campaign maintains a website and markets apparel, videos and music concerts to promote energy conservation. For more information, visit www.flickoff.org.

## Green Communities Canada

Green Communities Canada is one of the not-for-profit organizations that deliver three government energy-efficiency incentive programs: the federal ecoENERGY Retrofit and the provincial Home Energy Audit and Retrofit Programs. These programs are also delivered in association with other not-for-profit member organizations. They provide customized audit reports and ratings that identify upgrade opportunities with quantified savings estimates and include federal government grants that are available for residential energy-efficiency retrofits. Green Communities Canada reported that in 2007, 2,133 houses were retrofitted, contributing approximately 2,040 megawatt-hours of electricity savings. For more information, visit egh.gca.ca.

## Green Roofs for Healthy Cities

The mission of Green Roofs for Healthy Cities is to increase awareness of the economic, social and environmental benefits of green roof infrastructure and to advance the development of the market for green roof products and services. The program is targeted

at the commercial and institutional sector. It is estimated that 2,000 megawatt-hours of electricity has been saved by green roof installations in Ontario between 2005 and 2007.

green Tbiz (Toronto Association of Business Improvement Areas)

green Tbiz delivers a series of programs designed to encourage businesses and properties within the business improvement areas to improve their environmental record through energy efficiency and conservation. Its programs include promoting the use of LED pedestrian and decorative lighting, organizing seminars to discuss relevant energy and environmental conservation opportunities, encouraging schools to fundraise through the sale of compact fluorescent and LED lights, and two programs focused on facilitating the sharing of best practices among business improvement area members. For more information, visit greentbiz.org.

Northern Energy Program (Northern Ontario Heritage Funds Corporation)

This program, run by the Ministry of Northern Development and Mines, is designed to help northern organizations capitalize on energy opportunities, including the creation of sustainable jobs, pursue clean alternatives and reduce their demand on external energy sources. The program focuses on providing funding for the planning and installation of renewable energy and energy conservation projects. For more information, visit www.mndm.gov.on.ca/nohfc/program_nep_e.asp.

Wattwize (Citizens' Environment Watch)

The Citizens' Environment Watch is a not-for-profit charitable organization that provides education, equipment and support for community-based environmental monitoring projects. The Wattwize Teacher and Student Guide is designed to contribute to increasing energy conservation education and awareness among teachers and students. The package focuses on three main project areas: performing a school energy audit, developing a school-wide energy conservation plan, and measuring success and sharing results with other schools across the province on a program website.

# 5. Next Steps

### Examining Barriers to and Opportunities for Conservation

In fulfilling the mandate described in the *Electricity Act, 1998* (amended 2004), the Chief Energy Conservation Officer has been asking representatives from all sectors to describe what they perceive as barriers to conservation. Responses indicate that many barriers result from policies or legislation as well as a host of subjective factors that require further investigation and analysis. Identifying the root causes of these barriers is an important step toward understanding the range of possible solutions and will help inform the development of the Chief Energy Conservation Officer's recommendations to break down barriers to conservation action.

Research and discussion on the barriers to conservation are ongoing, but some issues have been identified that require further analysis and input from conservation stakeholders and policymakers. Examples of these issues include the following:

Bulk-metering

Bulk-metering in multi-unit residential and commercial buildings can create a disincentive for either the landlord or the tenant to take actions to conserve. The costs and benefits of conservation apply to either the landlord or the tenant, depending on the situation. The underlying issues and potential solutions differ between the residential and commercial sectors, but the resulting barrier is similar. Removing this barrier will require equitable conditions where both landlords and tenants can benefit from conservation.

Customer-based Generation

There are impediments to customer-based generation and conservation technologies, such as solar photovoltaic collectors and small-scale renewable and clean power. Many stakeholders have cited municipal zoning by-laws as the root cause of this barrier, but the issues are complex. Municipal zoning regulates the use of property and restricts areas to residential, commercial, industrial or other uses. Although customer-based generation projects have historically been viewed as industrial uses, many newer, smaller-scale technologies may be appropriately designated under other land uses. In addition, customer-based generation projects are not easily classified, and the range of technologies is rapidly changing. Fully defining this issue and identifying the range of options for resolving it will take time and coordination with stakeholders and experts.

Smart Meters and Price Signals

Smart meters are being steadily rolled out across Ontario. To capture the full potential for demand reduction from smart meters, customers need to be equipped with information and price incentives that will enable them to make the best choices. This could include

timely feedback of electricity consumption information, which would make the cost implications of electricity use more easily available and transparent. Time-of-use rate structures and the possible use of critical peak pricing to encourage load shifting will affect Ontario's conservation results. The Ontario Energy Board is currently reviewing time-of-use pricing in Ontario. In addition, with recent policy development toward pricing carbon emissions, it will be important to further explore the implications of carbon pricing on electricity rates – and how this could help promote a culture of conservation.

The Conservation Bureau will continue to coordinate with a wide range of stakeholders to appropriately define these issues and barriers, explore options for resolving them and develop recommendations for moving forward. The Chief Energy Conservation Officer will also be coordinating with those that deliver conservation programs and projects throughout 2008, encouraging them to adopt a more rigorous standard for measuring and verifying the impacts of their conservation activities. It is up to everyone to make conservation more visible and the impacts more certain and reliable.

# References

[1] The local distribution company (LDC) conservation results included in this report were from programs not funded by the Ontario Power Authority. These LDC programs have been funded by ratepayers through their LDCs, which used the Ontario Energy Board's third-tranche funding mechanism.

[2] For power system planning purposes, demand forecasts need to be made far in advance. All forecasts have some degree of uncertainty because many unpredictable factors influence energy demand. Forecast uncertainty is addressed further on page 9.

[3] *Ontario – A New Era in Electricity Conservation*, 2006 Annual Report of the Chief Energy Conservation Officer, November 2006, available at www.conservationbureau.on.ca.

[4] *May 2007 Supplement to Ontario – A New Era in Electricity Conservation*, available at www.conservationbureau.on.ca.

[5] These factors can vary by the type of program. For savings that rely primarily on voluntary behaviours, such as coupon redemptions, verified results can be less than forecasted or reported results, given that a certain number of participants will receive a rebate but may not install the efficient product (e.g., a compact fluorescent lamp). Some programs also have high free-ridership rates. A free rider is a program participant who would have undertaken the promoted conservation activity on his or her own initiative even in the absence of the program incentive. Measurement and verification studies also assess the impact of "free drivers" or "spillover," which are people who undertake the conservation activity but do not claim the program incentive and are thus not on the record as a participant.

[6] The Ontario Power Authority's evaluation, measurement and verification framework is available at www.powerauthority.on.ca.

[7] Factors that have contributed to this decrease from 27,000 megawatts include: impacts of previous conservation promotion and incentive efforts; changes to the gross domestic product; variances in the economic factors intrinsic to the overall demand calculation (e.g., housing starts and industrial production); and variations in the amount of savings attributed to stock turnover and purchase of energy-efficient goods.

[8] Naturally occurring conservation accounts for changes in end-use efficiency (e.g., machines, motors or appliances) that occur in the absence of any new market interventions, incentives or rebates. Changes in behaviour resulting from electricity pricing are not naturally occurring. When equipment needs to be replaced, newer models are generally more efficient than older models. Also, some people simply choose more efficient models when buying new equipment. The Ontario Power Authority's long-term

conservation goal is to enable the market so that everyone makes efficient choices – effectively making all conservation naturally occurring.

[9] Weather has an impact on electricity use. On hot, humid summer days, keeping cool uses more energy than normal, driving up electricity consumption. Weather normalization adjusts peak load data to take into account normal weather conditions over multiple years. The Independent Electricity System Operator uses 31 years of data. For example, if the conditions on the peak day of 2007 were 10 percent hotter than the average normal weather conditions, then the weather-sensitive portion of peak demand is lowered by 10 percent. This allows comparisons of peak demand from one year to the next to see if changes in usage are due primarily to differences in weather or other differences, such as conservation efforts.

[10] Similar to the weather normalization of peak load data, forecasts are also adjusted to account for variations in weather.

[11] The actual peak demand occurred on the 16th hour of June 26, 2007, and was 25,737 megawatts, before weather normalization.

[12] Contracted demand response is used for reporting on 2007 targets, whether or not the capacity was called upon during the 2007 peak demand day.

[13] Renewable energy standard offer projects equal to 500 kilowatts or less that have reached commercial operation and clean energy projects equal to 10 megawatts or less that have reached commercial operation are considered toward the conservation target.

[14] Additional information on these activities is included in *Summary of Electricity Conservation Programs and Initiatives in Ontario from 2005-2007, Excluding OPA Funded Programs and Ontario Government Buildings, Final Report*, dated May 23, 2008, available at www.conservationbureau.on.ca.

[15] In 2004, all local electricity distribution companies in Ontario were granted approval from the Minister of Energy to apply to the Ontario Energy Board for an increase in their 2005 rates by way of the third installment or "tranche" of their incremental market-adjusted revenue requirement. This funding approval was conditional upon reinvestment in conservation and demand management.

[16] Non-governmental organizations contributed 23 megawatts of demand reduction, which are as reported by the responsible agency or delivery agent and are included in the *Summary of Electricity Conservation Programs and Initiatives in Ontario from 2005-2007, Excluding OPA Funded Programs and Ontario Government Buildings, Final Report*. Information on the Doors Closed program can be accessed at weconserve.ca/doorsclosed.

[17] Results from the Transitional Demand Response Program are included in the *Summary of Electricity Conservation Programs and Initiatives in Ontario from 2005-2007,*

*Excluding OPA Funded Programs and Ontario Government Buildings, Final Report*, dated May 23, 2008, available at www.conservationbureau.on.ca. Results from the Dispatchable Loads Program have been provided to the Conservation Bureau by the Independent Electricity System Operator.

[18] The energy-efficiency program was started by Ontario Power Generation's predecessor company, Ontario Hydro.

[19] Based on data from the Independent Electricity System Operator and *Ontario Demographic Quarterly*, the per-capita energy consumption in 2007 was 11,834 kilowatt-hours, compared with 2005 per-capita energy consumption of 12,458 kilowatt-hours, a difference of five percent. The per-capita weather-adjusted energy consumption in 2007 was 11,725 kilowatt-hours, compared with 2005 per-capita weather-adjusted energy consumption of 12,293 kilowatt-hours, a difference of 4.6 percent.

[20] Media impressions are tracked for the Conservation Bureau by Environmental Communications Options.

Ontario Power Authority


# 2007 Annual Report

## Progress Toward Our Electricity Future

# Introduction

The Ontario Power Authority (OPA) is responsible for ensuring a reliable, sustainable supply of electricity for Ontario. Its four key areas of focus are: planning the power system for the long term, leading and coordinating conservation initiatives, ensuring development of needed generation resources and supporting the continued evolution of the electricity sector.

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 an independent 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.

Some of the OPA's staff, August 2007

## 2007 Highlights

- Completed and submitted to the Ontario Energy Board the Integrated Power System Plan—a 20-year plan to ensure the long-term reliability and sustainability of Ontario's electricity system.
- Launched 16 conservation programs for all types of electricity customers: residential, commercial, institutional, industrial and agricultural.
- Worked with 77 local distribution companies for the delivery of province-wide conservation programs, which reached 99 percent of Ontarians.
- Surpassed the milestone of 10,000 megawatts of new electricity supply under contract.
- Executed 241 contracts for small-scale distributed renewable energy projects under the new Renewable Energy Standard Offer Program. These projects have the potential to contribute more than 915 megawatts of electricity from wind, solar, hydro and biomass sources to Ontario's supply.
- Facilitated the first exchange trading of Ontario electricity forward contracts.

Ontario Power Authority

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March 31, 2008

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

Dear Minister:

I am pleased to submit the Ontario Power Authority's 2007 annual report. The report provides an overview of the OPA's activities and accomplishments during the fiscal year ended December 31, 2007, and includes the audited financial statements.

Respectfully submitted,

John M. Beck
Chair

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# Message from the Chair and the CEO

We are pleased to report that significant progress was made in 2007 toward ensuring the reliability and sustainability of Ontario's electricity system. In all four areas of the Ontario Power Authority's (OPA's) mandate, successful initiatives were launched and milestones were achieved that have moved Ontario closer to this critical goal.

John M. Beck
Chair

Jan Carr
Chief Executive Officer

In August, after more than a year of research, planning and consultations with stakeholders, the OPA completed work on the Integrated Power System Plan (IPSP) and submitted it to the Ontario Energy Board (OEB) for approval. The IPSP is a blueprint for the development of conservation, supply and transmission to secure Ontario's electricity supply for the next 20 years. It is the first long-term power system plan for the province in more than a decade.

Also in 2007, the OPA launched a portfolio of 16 conservation programs covering every sector of the electricity market, up from 10 programs launched in 2006. Three of these programs were delivered province-wide by 77 local distribution companies under contract with the OPA. These programs reached 99 percent of the population and not only helped Ontarians achieve significant savings through conservation but also raised their awareness of both the need for electricity conservation and how they can contribute. Market research in 2007 indicated that consumers are increasingly aware of the OPA's programs and support them. The OPA also researched and developed a new evaluation, measurement and verification system to better assess the results of conservation programs and contribute to the design of future programs.

Another milestone was reached in August when the OPA surpassed the 10,000-megawatt mark for new electricity supply under contract. This included the implementation of the Renewable Energy Standard Offer Program, which resulted in the signing of 241 contracts for small-scale renewable energy projects that have the potential to contribute more than 915 megawatts of electricity.

We have also seen progress in our efforts to develop a commercial marketplace for Ontario electricity. Early in 2007, Natural Gas Exchange Inc. (NGX) began continuous trading of Ontario electricity contracts, a development that will help to establish a forward price curve for electricity. This will contribute to greater stability, predictability and transparency of pricing for Ontario's electricity consumers.

These achievements represent encouraging steps toward Ontario's goal of securing a reliable, long-term supply of electricity, but there are many major challenges ahead. Accordingly, our work in 2008 will focus on the necessary next steps in the four areas of our mandate: supporting the IPSP through the regulatory hearings, stepping up our conservation efforts toward achieving the 2010 target of 1,350 megawatts in peak electricity savings, continuing to improve supply reliability and helping to move the electricity sector forward for the benefit of consumers.

# Message from the Chair and the CEO continued

As the OEB undertakes the regulatory review of the IPSP, which could take approximately a year to complete, a major priority for the OPA in 2008 will be to support this review as the proponent. This will include providing legal representation and expert witness testimony at public hearings, responding to information requests from stakeholders participating in the proceedings, and managing the payment of cost awards to some of the participating stakeholders.

While the approval of the IPSP will mark the start of a major challenge in implementing the various projects identified in the plan, in effect, the activities involved are a continuation of work already underway on the many pre-IPSP projects that the OPA has been involved in carrying out. This work entails obtaining timely approvals of the individual projects, as well as developing the extensive resources—such as capital investment and skilled personnel—required to achieve this challenging undertaking. The OPA will also be active in 2008 in promoting the streamlining of project approval processes in Ontario and helping to develop a commercial marketplace that will encourage investment in the province's electricity infrastructure.

More than half of the OPA's 2008 budget is dedicated to our conservation initiatives, reflecting the major effort planned toward achieving the 2010 target of an additional 1,350 megawatts of savings in peak demand.

The OPA's strategy to help achieve the province's conservation targets is detailed in the IPSP. The portfolio of conservation initiatives will expand in 2008 with the launch of an additional 10 programs, resulting in a total of 26 active conservation programs by year end. Another key undertaking in 2008 will be an increased effort to coordinate the work of all organizations engaged in conservation activities across the province to maximize the effectiveness and impact of these efforts and eliminate any duplication or overlap. New and continuing education and awareness efforts will also be undertaken to foster the development of the conservation marketplace, which includes organizations that deliver conservation and consumers that need to conserve electricity. In addition, we will begin to report the results of OPA programs using the new evaluation, measurement and verification system that was developed in 2007.

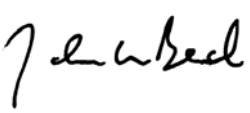
Procurement of new electricity generation will also be a major focus in 2008. The OPA will be seeking an additional 500 megawatts of combined heat and power projects and another 500 megawatts of large-scale renewable energy projects. As well as developing these new sources of electricity supply, we will continue to develop new supply through the highly successful Renewable Energy Standard Offer Program and the new Clean Energy Standard Offer Program.

***These achievements represent encouraging steps toward Ontario's goal of securing a reliable, long-term supply of electricity, but there are many major challenges ahead.***

Also in 2008, the OPA will continue to develop and facilitate the implementation of solutions for areas of the province that are facing urgent supply constraints, such as northern York Region. Engagement with stakeholders on these and other issues will remain a priority in 2008.

Another major initiative during the year will be to develop a long-term plan to continue engaging First Nations and Métis communities in OPA initiatives such as the development of renewable energy supply. The engagement plan will be developed in consultation with these communities.

In conclusion, the path for 2008 and beyond promises to be both exciting and challenging. Ontario is seeing tangible results in the effort to ensure a reliable and sustainable electricity system, and we are pleased to have made a contribution to that success. In 2008 and beyond, the OPA will remain committed to delivering on our mandate in ways that best serve the interests of Ontario's electricity consumers.



John M. Beck,
Chair

Jan Carr,
Chief Executive
Officer

**Vision**

A sustainable, competitive and reliable electricity system for the benefit of Ontario consumers.

**Mission**

The Ontario Power Authority contributes to the development of a reliable and sustainable electricity system for the benefit of Ontario customers. In doing so, we plan for the long term and procure and coordinate conservation and electricity supply from diverse resources.

**Mandate**

The Ontario Power Authority's mandate is determined by the provincial government and is embodied in legislation and regulation.

**Guiding Principle**

The Ontario Power Authority will balance the short-term and long-term needs of electricity users while developing a reliable and sustainable electricity system for their benefit.

**2008 Strategic Objectives**

The Ontario Power Authority's 2008 business plan is based on four key areas: integrated planning, conservation, electricity resources and sector development. These four key directions are addressed by the following five strategic objectives:

1) Plan for an adequate, reliable and sustainable system that integrates conservation, generation and transmission.

2) Contribute to the achievement of Ontario's conservation resource targets and to fostering a culture of conservation using market-based approaches.

3) Consistent with the Integrated Power System Plan, ensure that the Province of Ontario has diverse electricity generation resources.

4) Define sector development goals and facilitate the efficient allocation of risk between customers and investors in conservation and generation.

5) Maintain and develop organizational capacity to achieve the strategic objectives.

# 2007 in Review

## Integrated Power System Plan for Ontario filed with OEB

August 2007 marked a significant development for the province's electricity system when the Ontario Power Authority (OPA) completed and filed the Integrated Power System Plan (IPSP) with the Ontario Energy Board (OEB).

The IPSP is an action plan with a 20-year perspective that will ensure a reliable, adequate and sustainable electricity system for the province. The plan, which will be updated every three years, recommends specific actions for the near term, identifies options for the medium term, and explores opportunities for the long term. The capital cost of the planned infrastructure is $10 billion for conservation, $46 billion for generation and $4 billion for transmission, for a total of $60 billion to be invested in the province's electricity system over the next 20 years.

**The plan envisions four major outcomes:**

- Conservation will reduce growth in demand by 75 percent.
- Coal will be replaced in Ontario's electricity supply mix by conservation, renewable energy and natural gas-powered generation.
- Nuclear generation will be restored to its historic level through a combination of refurbishment of some existing nuclear plants and the construction of new nuclear facilities.

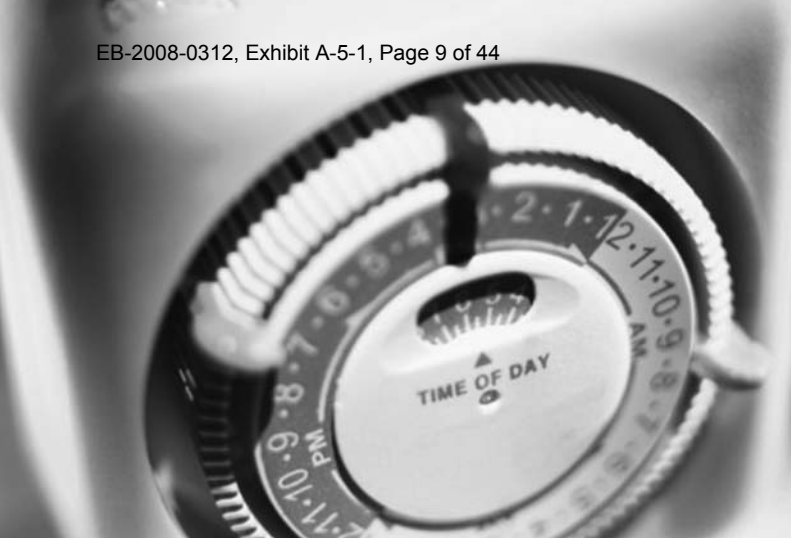
Claire Willison coordinates projects for the OPA's communications department.

- Transmission will be reinforced to ensure service reliability and to connect renewable energy—much of which is located in remote areas of the province—to regions where there is high demand.

In January 2008, the OEB started the first phase of reviewing the plan in a public hearing process. Its role is to ensure that the IPSP complies with government policy and is economically prudent and cost-effective.

While the IPSP is moving through the approval process, some areas of the province have electricity supply constraints so critical that they require immediate solutions. In 2007, the OPA undertook initiatives to develop appropriate supply solutions in southern Georgian Bay, Woodstock and the western Greater Toronto Area (GTA). Other activities included planning as well as support of Hydro One's application to the OEB for a 500-kilovolt transmission line from the Bruce nuclear generating station to the Milton station in the western GTA.

***The IPSP is an action plan with a 20-year perspective that will ensure a reliable, adequate and sustainable electricity system for the province.***





John Beck, OPA Chair; Paul Godfrey, President and CEO of the Toronto Blue Jays and Rogers Centre; and Jan Carr, OPA CEO, on "Extending Electricity Conservation Awareness Day" at the July 22, 2007 Blue Jays game in Toronto.

## Long-Term Conservation Strategy

Ontario's conservation goals are among the most ambitious in North America. The province has set a target to reduce peak demand by 6,300 megawatts by 2025. This long-term target includes more immediate targets for demand reductions of 1,350 megawatts by the end of 2007 and another 1,350 megawatts by 2010.

The long-term strategy to achieve Ontario's conservation goals is set out in the IPSP. Many of the same tools that are used to procure electricity supply are used to procure conservation, including contracting with consumers to reduce their electricity use during times of peak demand and contracting with agents such as local distribution companies to deliver conservation programs.

There are three main elements to the long-term conservation strategy: procuring conservation resources to meet the 2007 and 2010 megawatt savings targets, building and enhancing capabilities in the conservation services sector and encouraging a culture of conservation among electricity consumers.

The OPA procures conservation resources through programs that deliver energy savings and demand reduction using tools as diverse as product rebates, building retrofits and appliance-recycling initiatives.

Building the capabilities of the conservation services sector involves developing the skills and experience of companies and organizations to design and deliver conservation programs as well as informing consumers about ways to manage their electricity use.

Part of the long-term objective is to effect a substantial and sustainable increase in the market share enjoyed by energy-efficient products, technologies and processes. Structural changes in the market, such as improvements in relevant codes and standards and the introduction of price-based incentives, will contribute to this market transformation. In the medium to long term, the OPA expects there will be less need for its direct involvement in delivering conservation programs as the marketplace transforms and a culture of conservation develops.

### 2007 Conservation Activities

In 2007, the OPA built on the progress that began in 2006. A total of 16 conservation programs were launched, and three additional programs were in the final development stages at the end of the year. These programs touched all types of consumers. Three of these were province-wide programs—Summer Savings, the Great Refrigerator Roundup and ***peaksaver***®—delivered by 77 local distribution companies to 99 percent of Ontarians. The OPA also began to research, plan and develop new programs for launch in 2008, which will bring the total number of active programs in the conservation portfolio to 26 by the end of 2008.

*® Registered trademark of Toronto Hydro Corporation. Used under license.*

# 2007 in Review continued

Also during the year, an evaluation, measurement and verification (EM&V) system was developed to provide more accurate assessments of conservation program results. Best-practice experience in other jurisdictions was researched to help develop a system that will better track the OPA's progress in meeting Ontario's conservation targets, enhance the quality of data for forecasting and verifying conservation potential, and inform new and existing program design and development. The goal is to provide program and policy designers and analysts, as well as the electricity customers of Ontario, with meaningful information on conservation program performance. The first results from the new EM&V system will be available in the spring of 2008.


The fall 2007 Every Kilowatt Counts coupon booklet.

The year 2007 also marked the launch of the Every Kilowatt Counts brand and website, designed to promote participation in conservation programs, raise awareness of the importance of conserving electricity within both consumer and business markets, and influence consumer behaviour toward the wiser use of electricity. Visit www.everykilowattcounts.com for more detailed information on all of the OPA's conservation programs.

Market research conducted during the year indicated that the OPA's conservation programs have been effective in raising awareness and engaging consumer participation. Results of this research showed that more than 80 percent of Ontarians said they were aware of the OPA's conservation programs and over 50 percent said they had participated in at least one program. More than 2.5 million coupons were redeemed for residential electricity-saving products through the Every Kilowatt Counts retail campaign that ran in the spring and fall.

The OPA also undertook market research to analyze existing consumer attitudes, behaviours and barriers to energy conservation. The research established baseline data that will be used in subsequent years to track changes in consumer attitudes and behaviours. The OPA will build on existing research to ensure that the programs delivered to Ontarians are appropriately targeted and use optimal messaging to influence behaviour.

While there is a need to aggressively implement conservation to achieve immediate results, sustained success in the longer term requires that there be investment today in developing the capability of a commercial conservation services sector. The OPA continued to work in 2007 toward building the capability of the energy-efficiency supply chain, which includes contractors, associations and a range of organizations and businesses that can deliver verifiable conservation.


Peter Love, Chief Energy Conservation Officer, presents a certificate of recognition to Mark Henderson, president and CEO of Barrie Hydro, for the utility's partnership with local merchants to promote energy efficiency through the ENERGY STAR® Awareness Program.

It was the first year that the OPA contracted with local distribution companies province-wide, providing them with funding to deliver conservation programs across Ontario. Extensive consultations and negotiations led to contractual relationships with 77 local distribution companies in time to launch the three province-wide summer campaigns. Some local distribution companies also continued to design and deliver their own OEB-approved conservation programs in 2007.

Other conservation partnerships established by the OPA in 2007 include those with Enbridge Gas Distribution Inc., the City of Toronto and ARCA Canada Inc., an organization that specializes in the pick-up and decommissioning of appliances in an environmentally responsible way.

In its efforts to help transform the market, in 2007 the OPA continued to work closely with colleagues in the Ministry of Energy to develop a plan for more aggressive codes and standards that establish the minimum acceptable level of efficiency for buildings, machinery, appliances and electronics. The IPSP projects that 40 percent of the 2025 reduction target of 6,300 megawatts will come from changes to codes and standards. To that end, OPA programs worked to increase the adoption rates of more energy-efficient equipment. The OPA also collaborated with trade associations, such as the Canadian Standards Association, provincial and federal governments and other industry organizations, including the Canadian Appliance Manufacturers' Association and the Consortium for Energy Efficiency, to develop new standards for energy-using equipment.

## Building Momentum in Conservation

Ontario's conservation progress to date is encouraging. In the May 2007 supplement to his 2006 annual report to the Minister of Energy, the province's Chief Energy Conservation Officer reported that Ontario was well on its way to meeting the 2007 target of a 1,350 megawatt reduction in peak demand, having achieved estimated peak electricity savings of 1,080 megawatts by the end of 2006. In his 2007 annual report delivered in November, the Chief Energy Conservation Officer expressed confidence that Ontario would meet its 2007 conservation target but emphasized that there is much work yet to be accomplished. Final 2007 results will be included in a report to be issued by the Chief Energy Conservation Officer in May 2008.

The methodologies used by the Chief Energy Conservation Officer to report on Ontario's conservation results have been evolving. In his 2006 report, a "top-down" analysis was used to arrive at an estimate of peak-demand reduction. A year later, with specific conservation program results available for the first time, a "bottom-up" analysis was used, in which the results of each initiative were first established and then aggregated into an overall estimate of electricity

***Market research conducted during the year indicated that the OPA's conservation programs have been effective in raising awareness and engaging consumer participation.***

# 2007 in Review continued

savings. The OPA took this process of refinement one step further in 2007 and, as described on page 8, developed an EM&V system to provide more accurate assessments of conservation program results beginning in 2008.

In addition to his role of reporting on Ontario's conservation progress, the Chief Energy Conservation Officer is responsible for leadership in promoting a culture of conservation across Ontario. In 2007, he continued to engage in province-wide activities to raise awareness, educate, foster local leadership and publicly recognize those already taking action to conserve electricity.

The Chief Energy Conservation Officer met with community leaders, groups and individuals across Ontario throughout the year to inform them about the benefits of conservation and encourage them to take action. Additional awareness activities included a summer message radio program, a conservation leadership workshop and a monthly conservation radio show than ran for five months. A common theme in all his messages is to encourage people to think about electricity as a limited resource, believe they can make a difference and act to use less electricity at home, at work and at play.

## Supporting Conservation and Technology Development

To help promote innovative technologies and approaches to electricity supply and demand across Ontario, the OPA has established two funds. The Conservation Fund supports the development of promising conservation pilot projects. In 2007, it provided $3.14 million in funding for 15 projects, valued at $8.2 million, targeting the forestry products, residential, healthcare and education sectors, to name a few. Every dollar of funding provided by the OPA leveraged an additional $1.92 in partner support. Further information on projects funded to date and selected case studies are detailed at www.powerauthority.on.ca/cfund.

The Technology Development Fund supports the development of pre-commercial technologies that have the potential to improve electricity supply or demand management options. In 2007, it supported 10 projects for a total of $650,789, which leveraged $4.8 million in external contributions. The range of technologies that were supported includes nano-technology-based solar photovoltaic applications, load management equipment, industrial process re-design for energy efficiency and a residential-scale combined heat and power system. Since it began in 2006, the fund has supported 20 projects, for a total of $1.2 million, leveraging $11.4 million in external

Ripley Wind Power Project

The OPA's Conservation Fund provided support to the Ontario Forestry Industries Association in 2006 and 2007 to help Ontario mills become more competitive through increased energy efficiency.

Left: Construction of the 577-megawatt St. Clair Energy Centre near Sarnia.

Right: The Umbata Falls hydroelectric project near Marathon in northern Ontario.

contributions. Further information on projects funded to date and selected case studies are detailed at www.powerauthority.on.ca/tdfund.

## Milestone Reached in Electricity Supply

To meet projected electricity demand growth, replace coal-fired generation by 2014 and replace or refurbish nuclear facilities that will reach the end of their service lives over the next 20 years, Ontario needs not only to conserve at least 6,300 megawatts but also to develop about 24,000 megawatts of new generating capacity. This is equivalent to about 80 percent of the existing installed capacity in the province.

In pursuit of this objective, the OPA is responsible for facilitating necessary investment in the development of conservation and new generation where that investment might not otherwise occur.

### Contract Management

In August, the OPA surpassed the 10,000-megawatt mark for new electricity supply under contract. These contracts are for all types of generation, including renewable energy, natural gas-fired generation, cogeneration and nuclear refurbishment, and represent more than $11 billion in new investment in Ontario's electricity system.

Included in the 10,000-megawatt milestone are 241 contracts for renewable energy projects of 10 megawatts or less that were signed in 2007 under the Renewable Energy Standard Offer Program (RESOP). These distributed generation projects have the potential to contribute more than 915 megawatts of electricity from wind, solar, biomass and hydro sources to Ontario's supply. Another 87 applications for contracts were being processed at year end.

The first program of its kind in North America, the RESOP encourages the development of electricity from small-scale generation by offering 20-year contracts with standardized pricing and simplified eligibility rules.

The OPA began developing a Clean Energy Standard Offer Program (CESOP) in 2007 to support clean energy generation projects of 10 megawatts or less. Development of the program included research into similar programs in other jurisdictions as well as extensive consultation with relevant stakeholders. Once implemented, the program is expected to contribute approximately 140 megawatts of generation capacity to Ontario's electricity system by the end of 2010. The CESOP program will be launched in 2008.

In 2007, the OPA amended its 2005 agreement with Bruce Power, increasing its contracted nuclear generation capacity to 3,000 megawatts. The $4.25-billion 2005 agreement was for the restart of units 1 and 2, complete refurbishment of unit 3 (reactor, steam generators and turbine-generator) and replacement of steam generators at unit 4 at Bruce A. The agreement was expanded in 2007 to include the full refurbishment of unit 4, extending its life to 2036 and bringing the total capital cost for all four units up to $5.25 billion.

The OPA also negotiated a revised scope for the contract with Rodan Energy Solutions to implement demand reduction projects in the Region of York. The expanded scope allows for a tenfold increase in demand reduction from three megawatts to 30 megawatts.

A number of the projects under contract made important progress during the year. Two facilities under the Renewable Energy Supply (RES) II contracts—Trail Road Landfill Generating Facility and Ripley Wind Power Project, totalling 81 megawatts—went into service in 2007. Construction began on four wind projects with a total capacity of 433 megawatts, the 570-megawatt natural gas-fired St. Clair Energy Centre, the 600-megawatt natural gas-fired Halton Hills facility and seven combined heat and power facilities across the province. Some of these facilities will be in service as early as 2008.

Left: Margaret Waldon, of the OPA's finance department, is responsible for banking and payroll.

Right: 500 megawatt steam turbine being installed at Greenfield Energy Centre, near Sarnia.

Contract management activities in 2007 also included administering payments aggregating to about $300 million required for 18 generation and demand reduction facilities that are now operational. These contracted facilities account for over 3,000 megawatts of capacity and 30 terawatt-hours of energy—which represents 20 percent of provincial demand.

### Procurement of New Supply

Procurement activities for new electricity supply were also a key focus in 2007. In August, the OPA received spending authority from the government to procure up to 2,000 megawatts of additional renewable energy supply. To meet this target within the constraints of a tight global supply chain for generating equipment as well as a tight market for skilled trades and construction contractors, the OPA is planning a multi-phase procurement that will extend over the next several years. Implementation of the first 500-megawatt phase began with the November issue of a Request for Expressions of Interest, which will result in the first Request for Proposals being issued in the first half of 2008.

The initial procurement initiative for combined heat and power projects across Ontario, undertaken in 2006, resulted in contracts for 414 megawatts. The OPA issued a Request for Expressions of Interest in June 2007 for the balance of the 1,000 megawatts of combined heat and power projects that had been authorized. The objective was to determine interest in additional potential projects that may be viable or in active development. Based on the information received, the decision was made to proceed with a second combined heat and power procurement process. A draft Request for Proposals was released in late 2007. Execution of contracts is expected by late 2008.

The OPA also took steps to address the need for 350 megawatts of peaking natural gas-fired generation in northern York Region to be in service by late 2011. A communication and consultation process with local municipal stakeholders began in late 2007. A Request for Qualifications is expected to be released early in 2008, and a Request for Proposals should follow in mid-2008. As well, consultations were undertaken with stakeholders on the development of a contract for natural gas-fired peaking generation, resulting in a draft generic contract that was published in late 2007.

***In August, the OPA received spending authority from the government to procure up to 2,000 megawatts of additional renewable energy supply.***

## Developing the Sector to Benefit Consumers

During 2007, the OPA continued to explore options for improving the commercial structure of the electricity sector to better serve Ontario's electricity consumers.

The purpose of these initiatives is to foster a commercial marketplace that will attract voluntary investment in Ontario's electricity system without requiring the assurance of an OPA contract. With more such commercial investment in the electricity system, the major part of the financial risk that electricity consumers currently bear for investment in new electricity conservation and supply sources will, over time, transfer to private developers, which are better equipped to manage risk.

A commercial marketplace will feature all of the major attributes that characterize other energy commodity markets: transparent pricing mechanisms, a robust forward price curve and opportunities to mitigate risk through the availability of a variety of hedging mechanisms.

A significant milestone in moving the sector forward was reached in 2007 with the first exchange-based trading of electricity forward contracts. In 2006, with the assistance of the Natural Gas Exchange Inc. (NGX), the OPA facilitated a series of forward auctions involving about $1 billion worth of future electricity products. The auctions allowed industrial and other large consumers in the wholesale electricity market to lock in their long-term costs, fostering market liquidity and forward price discovery. In 2007, Ontario electricity contracts moved onto the NGX trading screen and became available for continuous trading, rather than being tied to a schedule of periodic auctions. The NGX traded some $5.3 million in Ontario electricity contracts by the end of the year. As the traded volume of Ontario contracts increases, a more robust forward price curve will develop for Ontario electricity, which will eventually supplant OPA contracts in providing long-term pricing assurance to investors.

Directives issued by the Minister of Energy under section 25.32 of the *Electricity Act, 1998*, give the OPA legal authority to pass through to consumers the costs of contracts entered into under the directive.

### Directives issued in 2007

**June 14, 2007:**

Clean Energy and Waterpower in Northern Ontario Standard Offer—to expand the Standard Offer Program initiative in the areas of clean energy supply and small, transmission-connected waterpower projects in northern Ontario; and to have these parts of the Standard Offer Program in place by the fall of 2007.

**August 27, 2007:**

To procure up to 2,000 megawatts of renewable energy supply from projects that are greater than 10 megawatts in size and to develop guidelines and processes to ensure that appropriate consultation with First Nations and Métis peoples takes place.

**December 20, 2007:**

Hydroelectric Energy Supply Agreements with Ontario Power Generation Inc. (OPG)—to assume the responsibility of negotiating with OPG a number of contracts respecting hydroelectric projects located at the following OPG hydroelectric station sites: Lac Seul, Upper Mattagami, Healey Falls, Lower Mattagami and Hound Chute.

The OPA also worked with NGX to develop Ontario electricity product specifications as part of a new listing of the full range of NGX's North American natural gas and electricity contracts on the Intercontinental Exchange in January 2008. This listing will make Ontario electricity contracts accessible to a wider range of potential buyers and sellers.

# 2007 in Review continued

In addition, the OPA explored interest in the development of a new heat-rate contract for natural gas-based generation that could be traded on NGX. The contract would allow the two contracting parties to agree to a fixed price for converting natural gas into electricity. A pilot auction was undertaken in late 2007, in which two bilateral transactions took place. The OPA will meet with the pilot participants early in 2008 to discuss the results and next steps.

Another sector development activity in 2007 involved research and proof-of-concept analyses on the development of a customer entitlement agent (CEA) concept for Ontario. CEAs are independent entities that purchase electricity in the forward market on behalf of default electricity supply consumers and provide the benefit of fixed prices to them through their local distribution companies. Activities in 2007 that led to the development of the CEA initiative included: detailed analysis of the cost implications for Regulated Price Plan consumers through two proof-of-concept projects based on various implementation models and rate determination mechanisms; a comprehensive review of the roles, successes and problems with CEAs in nine North American jurisdictions where electricity is deregulated; and extensive consultations with the broad range of market participants that would be affected by a CEA implementation, including wholesale market participants, local distribution companies, consumer groups, retailers and government agencies. Discussion papers on CEAs were in development toward the end of 2007 and will be issued in early 2008 for industry feedback and further dialogue.

The OPA continued to work cooperatively with the Independent Electricity System Operator (IESO) by meeting regularly to discuss sector development initiatives. The main topic of these meetings was the potential development by the IESO of a day-ahead market, which would bring together two entities: the commercial electricity market that is based solely on bilateral contracts similar to those traded on NGX and that are financial in nature, and the operational system managed by the IESO, which is based on supply and demand. The OPA also participated in and provided information to the IESO's consultation sessions with stakeholders on a day-ahead market and its Market Pricing Working Group.


Top: Installation of lattice steel structures for interconnection of the Port Alma Wind Project, near Leamington, to the transmission system.

Bottom: Generator step up transformers at Goreway Station in Brampton.

Guy Raffaele leads the OPA's contract management group.

## Consultation with Stakeholders a Major Priority

Consultation and communications with stakeholders and communities are key activities at the OPA. The goal is to enable all those who have a stake or interest in the OPA's initiatives to share information, experience and advice at an early stage. All of the feedback received is highly valued and given due consideration in the planning and design of the many initiatives and programs the OPA undertakes.

In 2007, the OPA conducted consultation and outreach activities across all areas of its mandate. Stakeholder engagement on the IPSP continued throughout the year. These activities included meetings with municipalities, transmission and distribution companies and regular, open webcasts and teleconferences. In addition, individual companies and organizations provided their data, knowledge and experience to the OPA toward its research in preparing the IPSP. For example, the Canadian Wind Energy Association facilitated the collection of operational data from existing wind farms for use in the evaluation of wind generation.

In the area of conservation, the OPA engaged stakeholders such as local distribution companies, industry and trade organizations, environmental groups and other industry players in consultations on the development of its conservation program portfolio, as well as on the design of specific programs and the development of a process to evaluate, measure and verify the results of conservation programs. Formal advisory groups were also established and met to provide feedback and counsel. These included the Conservation Business Stakeholder Advisory Group, which provided input on the design of the OPA's program portfolio, and the CEO's Conservation and Demand Management Advisory Committee, which shared its views on the OPA's conservation initiatives.

In the mandate area of supply, the OPA consulted with relevant stakeholders on its procurement activities, such as the 350-megawatt peaking natural gas-fired plant needed in northern York Region and the procurement of large renewable energy projects. Stakeholders were also consulted on the development of a contract for natural gas-fired peaking projects, as well as on the design of the CESOP.

As part of its sector development initiatives, the OPA consulted with market participants, government and government agencies through working groups and meetings to explore the concept of CEAs as a means of providing price stability for residential and other small-volume consumers.

Many available communication channels were used to build awareness of the OPA's purpose, activities, proposed plans and programs, including webcasts and teleconferences, website postings, workshops, traditional print and electronic media, advertising, OPA publications, face-to-face meetings with individual groups, the formation of special advisory groups such as the CEO's Customer Advisory Committee, and speeches by OPA executives. OPA executives made about 40 major speeches throughout the year to audiences that ranged from business leaders and government representatives to community, consumer and environmental organizations.

In all of its consultation and engagement activities throughout the year, the OPA worked to adhere to the guiding principles of relevance, inclusiveness, accessibility, transparency, meaningful contribution, and disciplined and fair management.

# 2007 in Review continued


Students from Kipling Collegiate Institute in Toronto ride pedal power bikes to illuminate light bulbs at the 2007 launch of the OPA's summer conservation programs.

## Engagement with First Nations

A major focus of the OPA that continued throughout 2007 was outreach to First Nations and Métis communities across Ontario.

After initial meetings with senior First Nations and Métis leaders, the OPA invited 134 First Nations and 32 Métis community leaders to participate in two teleconferences, at which it presented an overview of the IPSP and outlined the communities' potential role in it. These were followed up with seven regional forums with First Nations and Métis communities. In 2008, the OPA will develop, with the participation of these communities, a long-term plan of engagement.

This engagement program was separate from but coordinated with the parallel activities of promoting conservation awareness and supporting conservation initiatives.

## A Continued Focus on Progress Toward Ontario's Electricity Future

The third year of the OPA's operation has been the most significant in terms of making progress for Ontario's electricity future.

In 2007, the OPA delivered the IPSP to the OEB; launched 16 conservation programs and fostered important collaborative partnerships, including new agreements with 77 local distribution companies; exceeded the 10,000-megawatt mark for contracts for new electricity supply; and saw its forward auctions of 2006 result in the successful launch of continuous trading of electricity contracts on the NGX.

The OPA's progress to date is encouraging, but much more must still be accomplished. In 2008, the OPA will focus on the following major activities:

- stepping up conservation-related activities toward meeting the 2010 target reduction of 1,350 megawatts in peak electricity demand. A portfolio of 26 conservation and demand management programs will be implemented (up from 16 programs in 2007), with expected savings of 410 megawatts in electricity demand by the end of the year.
- increasing efforts to coordinate the work of all organizations engaged in conservation activities across the province to maximize the effectiveness and impact of these efforts and eliminate any duplication or overlap.
- introducing and implementing a system to accurately evaluate, measure and verify conservation program data and results.
- becoming a proponent in the regulatory review of the IPSP, which includes dedicating OPA resources for legal representation and as expert witnesses, responding to information requests and paying cost awards to some of the stakeholders participating in the proceedings.
- procuring new electricity supply for high priority areas of the province where there is a critical need to ensure reliability, particularly in northern York region, the Greater Toronto Area and southern Ontario.
- procuring additional large-scale renewable energy resources toward meeting the target of another 2,000 megawatts.
- improving the RESOP as experience builds from its ongoing operation and launching the CESOP. Options for the long-term management and administration of the standard offer programs will also be explored with the participation of relevant stakeholders.
- continuing to promote the development of a forward market for Ontario electricity products and working closely with the Independent Electricity System Operator in considering the development of a day-ahead market.

As in 2007 and each of the years before that, all activities in 2008 will continue to have at their core a focus on serving the interests of the electricity consumers of Ontario.

***All activities in 2008 will continue to have at their core a focus on serving the interests of the electricity consumers of Ontario.***

# Management's Discussion & Analysis

The management's discussion and analysis reports on the results of operations and financial position of the Ontario Power Authority (OPA). The financial statements are prepared in Canadian dollars in accordance with accounting principles generally accepted in Canada. The following discussion is based upon the OPA's audited financial statements for the year ended December 31, 2007, and should be read in conjunction with these statements and the accompanying notes.

## Results of Operations

### Revenues

The OPA has three sources of revenues. Fees based on an approved Ontario Energy Board (OEB) rate for electrical energy withdrawn from the Independent Electricity System Operator (IESO)-controlled grid by Ontario electricity consumers, registration fees for OPA generation and conservation procurements, and interest earned on cash balances. The main revenue source is the rate derived from budgetary expectations approved by the OEB through regulatory proceedings. The revenues support the services and programs delivered by the OPA for the benefit of Ontario ratepayers.

The OPA's earned fees for 2007 were $55.5 million, slightly below the forecast of $57.2 million, due to lower domestic electricity consumption than forecast. Revenues increased in 2007 from 2006 levels by $24.8 million, climbing from $31.8 million to $56.6 million. The years 2006 and 2007 have both been years of high growth and development for the organization. The OPA earned no registration fees in 2007—postponed generation procurements and a waiver on conservation registration fees eliminated this revenue stream in 2007.

Interest income is realized from short-term investments, bank interest and other interest earned from operations. In 2007, interest earnings increased as higher cash balances were required to manage the volatility in operations funding. As operations mature and stabilize, the predictability of cash requirements is expected to improve, and interest income from cash balances will decline going forward. Interest earned from cash balances in 2007 amounted to $789,000. The OPA also received one-time interest income of $365,000 from the resolution of an outstanding claim for GST during 2007.

## Cost of Operations

| | 2007 | 2006 | Change | % Change |
|---|---|---|---|---|
| Compensation and benefits | $19,193 | $13,678 | $5,515 | 40.32 |
| Professional and consulting fees | 14,331 | 11,249 | 3,082 | 27.40 |
| Conservation/Technology Development Funds (note 12) | 2,187 | 1,053 | 1,134 | 107.74 |
| General operating costs (note 7) | 5,530 | 3,341 | 2,188 | 65.49 |
| Amortization of capital assets | 1,070 | 662 | 408 | 61.63 |
| **Total Expenses** | **$42,310** | **$29,983** | **$12,327** | |

### Compensation and Benefits

The OPA is predominantly a knowledge-based organization. As a result, the primary cost of operations is driven by knowledge creation and employment of highly qualified professionals. The year-over-year increase of $5.5 million in compensation and benefits reflects the significant buildup of the organization throughout the year and its response to the urgent nature of the conservation mandate. Compensation and benefits costs include staff salaries, pensions and benefits, training and development, recruitment expenses, professional membership fees, and indemnification and liability costs.

### Professional and Consulting Fees

Professional and consulting fees include costs related to audit, legal support, stakeholder consultation, external professional services and conservation awareness programs. The increase of $3.1 million over 2006 reflects the increase in the number and scale of programs.

Auditing support increased in 2007 to assess internal controls, policies and procedures installed during 2006. Going forward, the OPA has retained the Ontario Ministry of Finance's internal audit team to carry out its internal auditing, and program verification and compliance, in addition to its auditing of the Regulated Price Plan (RPP). The increase in the level of auditing activity and audit sophistication provides additional oversight for an ever-increasing level of program activity.

Conservation program launches, program development, generation contract management and procurement activities all employ specific external legal expertise. The Integrated Power System Plan (IPSP), released during 2007, is currently the subject of an OEB regulatory review and proceeding. This proceeding carries with it significant incremental legal costs.

Other professional expertise is required in a variety of applications supporting OPA operations, such as information support to the IPSP; marketing support in conservation program design, launch and communication; evaluation, measurement and verification of conservation programs; in human resources, performance enhancement and recruiting information; and in contract management, verification of construction progress. Increases in the number of conservation programs raise the requirements for specific external expertise. They also increase the costs associated with their evaluation, measurement and verification.

### Conservation and Technology Development Funds

The Conservation and Technology Development Funds assist the OPA in raising awareness of conservation and help to nurture and develop innovative ideas that can be replicated and deliver real reductions in electricity consumption or demand. Funds have been created for each year starting in 2005. Grant awards are made throughout each year, and the projects are funded as progress is made against the project plan. The duration of some of the projects results in expenses incurred several years after the grant award. In 2007, the OPA incurred expenditures against the grant awards of $2.1 million for projects in operation, some of which began in 2005.

Since the inception of the Conservation Fund, 52 projects have been awarded a total of $5.6 million. The 52 projects have leveraged over $10 million in external contributions. The sector split of projects to date is: residential – 17 percent, agricultural – five percent, institutional – 40 percent, industrial – 20 percent and commercial – 18 percent. The Technology Development Fund has provided $1.2 million to 20 projects since its inception. These projects have leveraged $11.4 million in external contributions. The project funds are relatively evenly split by technology type: self-generation/co-generation – 21 percent, generation – 36 percent, energy efficiency – 21 percent and conservation – 21 percent.

### General Operating Costs

General operating costs are the indirect costs associated with delivering on the OPA mandate. They include such items as conference fees, meeting costs, travel, communications, publications, office facilities and information systems costs. The increase of $2.2 million over 2006 spending is directly correlated to the increases in program activity. Communications, marketing and media costs in support of OPA conservation and other programs accounted for much of the increase, and the increase in office space and associated costs to house the additional staff make up the balance.

# Management's Discussion & Analysis continued

### Amortization of Capital Assets

Assets are primarily comprised of furniture and fixtures, computers, related hardware and software, telephones and audio-visual equipment. Increases in amortization costs are directly related to the increases in personnel and the required increase in space and equipment. The assets are amortized on a straight-line basis over their expected useful life.

### Regulatory Assets and Liabilities

A change in accounting classification was implemented for 2007 that is designed to simplify and separately identify operating expenses from the regulated deferral and holding accounts maintained and reported on by the OPA. The activities and balances contained in the RPP accounts, the retailer settlement deferral accounts and the government procurement accounts were combined on the OPA balance sheet as "regulatory assets and regulatory liabilities." Aggregating these accounts assists readers of the financial statements to separate OPA costs related to its ongoing operation and its responsibilities related to the RPP, retailer settlement accounts and the government procurement deferral account. The 2006 comparative figures have been reclassified to conform with the presentation adopted in the current year.

### Regulated Price Plan

The responsibility to manage and record the changes in the RPP variance is a legislated requirement of the OPA. The OPA maintains a line of credit with the Ontario Financing Authority to fund these obligations as they arise. Due to price changes for the RPP and electricity market conditions, the $77 million regulatory asset in 2006 has become a $146 million regulatory liability at December 31, 2007.

### Retailer Settlement Deferral Accounts

The OPA has a legislated responsibility to fund and track the assets and liabilities that arise due to retailer contractual obligations that existed prior to electricity prices being frozen effective November 11, 2002. The balances are recorded on an annual basis; therefore, the OPA has 2005, 2006 and 2007 retailer contract settlement deferral accounts. Additionally, the retailer contract discount settlement deferral account holds and tracks the balance associated with the customer discounts invalidated when electricity prices were frozen. The 2005 and 2006 account principal does not change except for interest earned or expensed in relation to the balance. The OPA will open a 2008 retailer settlement deferral account to hold and track any balances created in 2008. Consequently, the 2007 deferral account balance will adjust only for interest in 2008 and beyond. The 2007 deferral accounts increased the balance receivable from the electricity market by $29.9 million plus interest on outstanding 2005 and 2006 balances of $714,000. This increased the amount to be settled to the electricity market by the OPA from $11.5 million in 2006 to $42.1 million at the end of 2007.

Further increases or decreases in the balance are dependent on the relationship between the hourly Ontario energy price (HOEP) and the retailer contract prices. When the HOEP is higher than the retailer contract prices, the amount to be settled to the electricity market by the OPA will reduce. When the HOEP is lower than the retailer contract prices, the amount to be settled to the electricity market by the OPA will increase.

### Government Deferral Account

Expenses incurred by the provincial government related to electricity generation procurements are transferred to the OPA. In its 2007 revenue requirement submission to the OEB, the OPA asked for and received a government procurement deferral account to accumulate the balance of the expenses related to

government procurements. The balances in the deferral account will be held and a settlement of these balances will be proposed at a future time. In 2006, the balance in the account was $1.034 million. In 2007, the OPA received net transfers of $241,000, bringing the balance to $1.276 million.

### Global Adjustment Account

The global adjustment account records the cash flows related to procurement contracts held, managed or under the responsibility of the OPA. This includes the contracts associated with the standard offer program, generation procurement contracts and conservation. The account is settled monthly; however, the settlement process for the OPA contracts requires an estimate of the balance owing. The variance between the actual estimates is adjusted in the following month's settlement. A variance existed at December 31, 2007 of $1.1 million and was re-classified as a receivable for reporting purposes. As a result, at December 31, 2007, the global adjustment account had a zero balance.

### Excess of Revenues over Expenses

Excess revenues over expenses forecasted for 2007 were $13.4 million. This excess resulted mainly from lower than forecasted expenditures due to changes in operating expectations and deferred activity.

The change in accounting treatment for the expenditures related to the Conservation and Technology Development Funds lowered current year expenses by $1.8 million from forecast.

The lag in developing conservation programs resulted in lower legal and consulting expenses of $5.1 million versus forecast, and deferred conservation awareness programs lowered expenses by a further $2.0 million. These were offset by slightly higher expenses in program and office communications, resulting in a net reduction of $6.6 million in conservation effort expenditures against the forecast.

The delay in the IPSP hearing process lowered related legal and administrative expenditures by $2.0 million versus forecast. Postponements in electricity resource procurements due to transmission and other negotiations reduced related procurement expenditures by $1.8 million versus forecast.

The OPA usage rate included $3.2 million in contingency expense that was not required, which resulted in an additional favourable expenditure variance against forecast. The total expenditure variance of $15.1 million was offset by lower revenue of $1.730 million. Lower than expected electricity volumes to Ontario customers contributed $1.552 million, loss of registration fees from postponed and waived procurements contributed $400,000, unbudgeted operating interest was $961,000, offset by bank interest earnings of $818,000 and GST refund interest of $365,000.

### Net Assets

The OPA capital asset base is employee related. Growth in the organization results in office space, furniture and equipment-related expenses. Expenditures related to growth were $2.6 million net in 2007. The year 2008 will have expansion similar to 2007. Excess revenues over expenses increased net assets by $13.5 million, offset slightly by Conservation and Technology Development Fund spending of $2.2 million.

### Liquidity and Cash Flows

| Rating Agency | Rating | Rating Action | Trend |
|---|---|---|---|
| Dominion Bond Rating Service Inc. (DBRS) | AA (low) | Confirmed | Stable |
| Moody's Investors Service Inc. (Moody's) | Aa1 | Confirmed | Stable |

# Management's Discussion & Analysis continued

The OPA's financing requirements are mainly short term and are primarily used to fund the RPP and retailer settlement deferral account balances. The aggregate of the account balances fluctuates monthly and can move to either a credit or a debit position. The OPA has a $975 million line of credit with the Province of Ontario to fund the fluctuations. As at December 31, 2007, the line of credit is unused. The line of credit was renewed in 2006 for a three-year period from January 1, 2007 to December 31, 2010.

To support this line of credit and provide a measure of our credit worthiness to counterparties, the OPA engages the rating services of DBRS and Moody's. In 2007, both DBRS and Moody's confirmed their ratings on OPA's credit line. The DBRS confirmation was issued November 28, 2007 and Moody's confirmed its rating on December 14, 2007.

## Cash Flow

Cash provided by operating activities for the year ended December 31, 2007 was $37.9 million, compared with negative $45.3 million for the prior year. The increase is primarily due to decreases in working capital, end of year accrual of the receivables from the electricity market and a small increase in revenues over expenses. Significant changes in the OPA's cash position resulted from the increase in regulatory liabilities and specifically the RPP variance account. The RPP variance account started the year as a $77.3 million use of cash and ended the year as a $145.5 million source of cash.

## Related Party Transactions

Related party transactions consist primarily of revenues received from the IESO and payments to use the research, planning and information capabilities of the IESO, Ontario Power Generation and Hydro One. The primary counterparty for cash management is the Ontario Financing Authority.

In 2007, the OPA received operating fees based on the OEB-approved usage rate of $55 million versus $37.8 million in 2006. The increase reflects the budgeted increase in OPA activities for 2007. The OPA also procured planning services supporting the IPSP from the IESO for $580,000 in 2007 versus $439,000 in 2006. In 2006, the RPP variance account required OPA funding and interest paid to the Ontario Financing Authority of $16.8 million. In 2007, the RPP variance shifted from an OPA-funded balance to an electricity market-funded balance. As a result, the OPA paid $1.6 million of interest in the first half of 2007 and received interest earnings of $1.8 million in the second half of 2007. The OPA also funds the procurement activities of the Ministry of Energy (MOE), and in 2007 received expenses of $311,000 from the MOE.

## Risk Management

Annually, the OPA reviews its enterprise-wide risk to identify the internal and external risks to the successful achievement of its mandate. This assessment is vital to ensure the OPA develops mitigating strategies and incorporates the required responses into daily operations. The annual plan is reviewed and approved by the Board of Directors and becomes input to the development of the annual business plan. Each key area of focus builds annual business objectives that incorporate mitigating responses to the risks affecting its function that are identified in the risk management plan. The business plan development results in performance objectives and activities being tied to strategic objectives and the mitigation of risk.

The OPA has engaged an outside service provider for internal audit services over the next three years. This program is designed to provide an independent review of risk management policies and the effectiveness of internal systems and procedures. The program will further enhance risk management while informing future policy development and programs to mitigate financial and operational risks inherent in the enterprise.

### Legislative Entity

The OPA is a corporate entity established through legislative statute. Accordingly, the Ontario Legislative Assembly has the power to affect the activities of the OPA through passage of legislation. As a result, there is potential for inconsistencies to occur between planned and actual activities engaged in by the OPA.

### Regulatory Risk

The OPA is subject to regulatory risks, including a review of its revenue requirement by the OEB. Revenues are required to execute the OPA business plan, and denial of portions of the service levels underpinning the revenue base could affect the OPA's ability to deliver on its mandate as prescribed by legislation and developed further in the IPSP, filed with the Ontario Energy Board on August 29, 2007.

The IPSP is the basis for future operating plans. The implementation of these plans is dependent on the timely regulatory review and approval of the IPSP. It is possible the regulatory review process could affect the timeliness of the plan, which could adversely affect delivery on the legislated mandate of the OPA.

### Emerging Accounting Pronouncements

The OPA anticipates transitioning to International Financial Reporting Standards (IFRS). The Canadian Accounting Standards Board implementation plan for convergence calls for the first year of reporting under IFRS to be 2011. To ensure the deadline is met, the OPA will be developing plans in 2008-2009 for execution starting in 2010.

### Financial Instruments

Effective January 1, 2007, the OPA adopted the Canadian Institute of Chartered Accountants' Handbook Section 3855, *Financial Instruments – Recognition and Measurement*; Section 3865, *Hedges*; and Section 1530, *Comprehensive Income*. Adoption of these standards has not had a material impact on the financial statements of the OPA. Financial market requirements continually increase in complexity, and future business arrangements will be monitored to ensure compliance with the above accounting pronouncements.

### Disclosure Controls and Internal Controls over Financial Reporting

Management has created a system of internal controls designed to provide reasonable assurance that assets are safeguarded and reliable information is available on a timely basis. In 2007, the OPA initiated formal reviews of its procurement policy, internal controls over contract management and a risk-based internal control review of the organization. The results of the reviews will inform the development of an internal control framework.

Implementation of the framework will commence in 2008 and conclude in 2009. The OPA will also require management certifications of internal controls and letters of representation on the reasonableness of financial information and compliance with the OPA code of conduct.

### Forward-looking Statements and Information

This discussion and analysis contains forward-looking statements, including statements regarding the business and anticipated financial performance of the OPA. These statements are subject to a number of risks and uncertainties that may cause actual results to differ from those contemplated in the forward-looking statements.

# Management's Discussion & Analysis continued

## Executive Compensation Plan

### Program Objectives

The OPA compensation program is an integrated program for all executive staff, designed to attract, retain and motivate the calibre of executives required to support the achievement of the OPA's statutory mandate, business objectives and corporate vision. Accordingly, the compensation philosophy and programs have been built on 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 be able to retain valued executive staff
- to have the flexibility to reward results and demonstrated competencies
- to have compensation levels that are responsible and defensible to stakeholders.

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

### Program Governance

The OPA Board of Directors (the Board) establishes the compensation objectives for these programs. It delegates to the Human Resources Committee of the Board the responsibility to thoroughly review the compensation objectives, policies and programs and to make recommendations concerning them to the full Board for approval. The Board is composed of nine independent, external directors, appointed by the Minister of Energy, with broad experience in both industry and public sector organizations, plus the Chief Executive Officer (CEO). In carrying out their mandate, the Board members have access to management's perspectives as well as those of expert consultants in the compensation field, including experts at The Hay Group. These programs are 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 the public sector salary disclosure. For the OPA, a further level of public review and assurance is provided through a statutorily required annual fee review. Compensation matters, including management compensation and market relativities, are addressed during the OEB review. A broad range of small and large stakeholder groups, assisted by their legal and professional advisors, are represented in these public proceedings. The OPA is also responsive to various requests by the Ministry of Energy in relation to compensation enquiries, including the Agency Review Panel in 2007, which conducted an exhaustive review of senior management compensation for the various agencies in the Ontario electricity sector.

### Program Description

The program includes fixed and variable compensation, core benefit plans and pension provisions.

For the fixed compensation plan, the Board establishes broad salary ranges for each level of executive, taking into account comparable market relativities. Within these bands, individuals are assessed as developmental, mature or expert in their position, relative to an established competency model. This model consists of behavioural competencies, such as planning, deciding, influencing/advising, motivating, implementing/controlling, public relations/developing relationships, appraising people, evaluating issues/ideas, working

with others and disciplining/handling disputes. The assessment is based on demonstrated competency. Each individual is assessed a corresponding fixed compensation level within the band.

To promote a results orientation in the executive team, the variable pay plan is significant within the total compensation of executives. The CEO's target for variable compensation for 2007 was at 15 percent of fixed compensation, and the target for vice-presidents was 15 percent of fixed compensation. The OPA Board annually establishes a robust set of performance objectives and expectations, which are evaluated at the end of each year. Decisions regarding the actual variable compensation amount awarded to each eligible individual are based upon individual performance against these criteria.

The group benefit plan provides a core level of health and dental benefits, life insurance, disability coverage and vacation.

A defined benefit pension plan provides two percent of earnings per year to a maximum of 35 years of service, or a maximum benefit of 70 percent of earnings. After age 65, this pension is reduced to reflect provisions from the Canada Pension Plan. Retirement income is provided through a registered pension plan and a supplemental employee retirement plan. Both the OPA and plan members contribute to the plan.

### Performance Measures and Impact on Compensation

The OPA annually establishes corporate performance measures relating to its strategic priorities. As outlined above, the results achieved each year have an impact on each executive's variable pay. The following chart highlights each of the business priorities where objectives are established and provides a brief description of the OPA's strategies and goals.

| Business Priority | Strategies and Goals |
|---|---|
| Planning | Plan for an adequate, reliable and sustainable system that addresses conservation, generation and transmission (IPSP). |
| Conservation | Contribute to the achievement of Ontario's conservation resource targets and to fostering a culture of conservation using market-based approaches. |
| Electricity Resources | Consistent with the IPSP, ensure that the province of Ontario has diverse electricity generation resources. |
| Sector Development | Define sector development goals and facilitate the efficient allocation of risk between customers and investors in conservation and generation. |
| Corporate Support | Maintain and develop organizational capacity to achieve the strategic objectives. |

A five-point rating scale ranging from "achieved few, if any, objectives" to "consistently exceeds all objectives" is used to determine the results for both corporate and individual performance objectives and is used to calculate the associated variable pay amount.

# Management's Discussion & Analysis continued

### Other Considerations

Benchmark compensation data for similar positions in several jurisdictions across Canada are used when establishing the compensation program for the following year. In accordance with the Agency Review Panel's recommendations, the comparator organizations are a combination of private and public sector, the comparator data are weighted on a 50/50 private/public sector basis, and the mid-points of OPA salary ranges align to the 50th percentile of the comparator data.

Compensation decisions may at times be affected by market factors, such as the recruitment of an executive with specialized skills and competencies or addressing unique talents within the industry.

### Executive Compensation Statement

The table below sets forth the annual compensation for the year ended December 31, 2007, and will eventually report compensation over a rolling three-year period, for the executive officers listed. The total cash compensation information provided in the Summary Executive Compensation Table differs from the information published under the *Public Sector Salary Disclosure Act (Ontario)* for the indicated period due to the inclusion of employer pension contributions and employer-paid benefits in the Public Sector Salary Disclosure information. Disclosures under the *Public Sector Salary Disclosure Act* are the amounts listed on T4 taxation forms for each year.

## Summary Executive Compensation Table[1]

| | Year | Salary | Performance Incentive | Total Cash Compensation | Amounts Reported Under Public Sector Salary Disclosure[2] |
|---|---|---|---|---|---|
| Jan Carr<br>Chief Executive Officer | 2007 | $550,000 | $74,250 | $624,250 | $653,158 |
| Amir Shalaby<br>Vice President,<br>Power System Planning | 2007 | $350,000 | $45,500 | $395,500 | $444,742[3] |
| Paul Shervill<br>Vice President,<br>Conservation and<br>Sector Development | 2007 | $289,424 | $38,981 | $328,405 | $345,731 |
| Peter Love<br>Chief Energy<br>Conservation Officer | 2007 | $280,000 | $25,200 | $305,200 | $321,939 |
| Mary Ellen Richardson<br>Vice President,<br>Conservation Programs<br>and External Relations | 2007 | $239,539 | $23,400 | $262,939 | $276,951 |

## Annual Lifetime Pension Benefits[4]

| Highest Average Earnings[5] | 10 years of Service | 15 years of Service | 20 years of Service | 25 years of Service | 30 years of Service | 35 years of Service |
|---|---|---|---|---|---|---|
| $200,000 | $37,194 | $55,791 | $74,388 | $92,984 | $111,581 | $129,178 |
| $300,000 | $57,194 | $85,791 | $114,388 | $142,984 | $171,581 | $199,178 |
| $400,000 | $77,194 | $115,791 | $154,388 | $192,984 | $231,581 | $269,178 |
| $500,000 | $97,194 | $145,791 | $194,388 | $242,984 | $291,581 | $339,178 |

***1*** *For 2007, total pension contributions and taxable benefits were less than $50,000 for each of the above named executives.*

***2*** *Total T4 income, including taxable benefits.*

***3*** *Includes a payment in lieu of 2006 pension contribution.*

***4*** *a) Although the Ontario Power Authority has existed for less than three years, some of the above-named executives may have more than three years of accredited service due to reciprocal pension agreements with other organizations in the electricity sector.*

*b) Assumes a normal retirement age of 65 (including a reduction in benefits to account for receipt of Canada Pension Plan provisions).*

***5*** *Best 60 consecutive months of pensionable earnings.*

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# AUDITORS' REPORT

To the Board of Directors

We have audited the statement of financial position of the Ontario Power Authority as at December 31, 2007, and the statements of operations, cash flows and changes in net assets for the year then ended. These financial statements are the responsibility of the Authority's management. 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 plan and perform an audit to obtain reasonable assurance whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation.

In our opinion, these financial statements present fairly, in all material respects, the financial position of the Authority as at December 31, 2007 and the results of its 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

Toronto, Canada

February 1, 2008

# Statement of Financial Position

December 31, 2007, with comparative figures for 2006

| | 2007 | 2006 |
|---|---|---|
| **ASSETS** | | |
| **Current Assets** | | |
| Cash and cash equivalents (note 3) | $ 161,127,950 | $ 40,289,599 |
| Accounts receivable | 52,675,531 | 102,725,702 |
| Other current assets (note 4) | 59,925 | $ 1,225,120 |
| **Total Current Assets** | **$ 213,863,406** | **$ 144,240,421** |
| **Capital Assets** (note 5) | 5,035,626 | $ 3,515,970 |
| | **$ 218,899,032** | **$ 147,756,391** |
| **Regulatory Assets** (note 6) | 43,328,960 | $ 89,859,473 |
| TOTAL ASSETS | **$ 262,227,992** | **$ 237,615,864** |
| **LIABILITIES** | | |
| **Current Liabilities** | | |
| Accounts payable and accrued liabilities | $ 98,068,012 | $ 91,974,748 |
| Contract deposits (note 16) | 1,295,511 | 1,306,800 |
| Deferred rent inducement, net (note 8) | 1,121,698 | 1,195,080 |
| Revolving line of credit (note 11) | – | 140,321,780 |
| **Total Current Liabilities** | **$ 100,485,221** | **$ 234,798,408** |
| **Regulatory Liabilities** (note 6) | 145,546,311 | – |
| **NET ASSETS** | | |
| Internally restricted Conservation and Technology Development Funds (note 12) | $ 4,282,080 | $ 2,468,675 |
| Invested in capital assets | 5,035,626 | 3,515,970 |
| Accumulated operating surplus | 6,878,754 | (3,167,189) |
| **Total Net Assets** | **$ 16,196,460** | **$ 2,817,456** |
| Commitments (note 8) | | |
| TOTAL LIABILITIES & NET ASSETS | **$ 262,227,992** | **$ 237,615,864** |

See accompanying notes to financial statements.

On behalf of the Board:

Chair

CEO

# Statement of Operations

Year ended December 31, 2007, with comparative figures for 2006

| | 2007 | 2006 |
|---|---|---|
| **REVENUES** | | |
| Fees | $ 55,469,805 | $ 30,944,308 |
| Registration fees | – | 395,889 |
| Interest income | 1,179,923 | 475,627 |
| **Total revenue** | **$ 56,649,728** | **$ 31,815,824** |
| **EXPENSES** | | |
| Compensation and benefits | $ 19,192,841 | $ 13,677,813 |
| Professional and consulting fees | 14,331,479 | 11,249,413 |
| Conservation/Technology Development Fund expenses (note 12) | 2,186,595 | 1,052,575 |
| General operating costs (note 7) | 5,529,621 | 3,341,331 |
| Amortization of capital assets | 1,069,555 | 661,736 |
| **Total expenses** | **$ 42,310,091** | **$ 29,982,868** |
| **Income before interest, other (income) and expense** | **$ 14,339,637** | **$ 1,832,956** |
| **OTHER (INCOME) AND EXPENSE** | | |
| Loss on asset disposal | $ – | $ 40,895 |
| Ministry of Energy (note 14) | – | (6,816,692) |
| Operating interest | 960,633 | – |
| **Total other (income) and expense** | **$ 960,633** | **$ (6,775,797)** |
| **Excess revenues over expenses** | **$ 13,379,004** | **$ 8,608,753** |

See accompanying notes to financial statements.

# Statement of Cash Flows

Year ended December 31, 2007, with comparative figures for 2006

| | 2007 | 2006 |
|---|---|---|
| **Cash Flows from Operating Activities** | | |
| Excess revenues over expenses | $ 13,379,004 | $ 8,608,753 |
| Adjustments for: | | |
| Loss on asset disposal | – | 40,895 |
| Amortization of capital assets | 1,069,555 | 661,736 |
| Change in non-cash operating items (note 15) | 23,435,189 | (54,633,454) |
| | **$ 37,883,748** | **$ (45,322,070)** |
| **Cash Inflows from Financing and Investing Activities** | | |
| (Repayments)/advances from Ontario Financing Authority | $ (106,533,010) | $ (497,252,946) |
| (Repayments)/advances from the Ministry of Energy | – | (6,816,692) |
| (Increase)/decrease in regulatory assets | 46,530,513 | 654,421,389 |
| Increase/(decrease) in regulatory liabilities | 145,546,311 | (72,827,345) |
| Purchase of capital assets | (2,589,211) | (823,836) |
| | **$ 82,954,603** | **$ 76,700,570** |
| **Net Increase in cash and cash equivalents** | **$ 120,838,351** | **$ 31,378,500** |
| **Cash and cash equivalents, beginning of year** | 40,289,599 | 8,911,099 |
| **Cash and cash equivalents, end of year** | **$ 161,127,950** | **$ 40,289,599** |

See accompanying notes to financial statements.

# Statement of Changes in Net Assets

Year ended December 31, 2007, with comparative figures for 2006

| | Net Assets Invested in Capital Assets | Internally Restricted (see note 12) | Accumulated Operating Surplus | Total Net Assets 2007 | Net Assets 2006 |
|---|---|---|---|---|---|
| **Balance, beginning of year** | $ 3,515,970 | $ 2,468,675 | $ (3,167,189) | $ 2,817,456 | $ (5,791,297) |
| Excess of revenues over expenses | (1,069,555) | – | 14,448,559 | 13,379,004 | 8,608,753 |
| Establishment of Fund | | | | | |
| Conservation Fund | – | 3,000,000 | (3,000,000) | – | – |
| Technology Development Fund | – | 1,000,000 | (1,000,000) | – | – |
| Conservation Fund expenditures | – | (1,946,302) | 1,946,302 | – | – |
| Technology Development Fund expenditures | – | (240,293) | 240,293 | – | – |
| Investment in Capital Assets (net) | 2,589,211 | – | (2,589,211) | – | – |
| **Balance, end of year** | **$ 5,035,626** | **$ 4,282,080** | **$ 6,878,754** | **$ 16,196,460** | **$ 2,817,456** |

See accompanying notes to financial statements.

# Notes to Financial Statements

Year ended December 31, 2007, with comparative figures for 2006

## 1) Nature of Operations

The *Electricity Restructuring Act, 2004* (the Act), established the Ontario Power Authority (the OPA or the Authority) as a non-share corporation on December 9, 2004. In accordance with the Act, the OPA's main objectives are:

1) to forecast electricity demand and the adequacy and reliability of electricity resources for Ontario for the medium and long term
2) to conduct independent planning for electricity generation, demand management, conservation and transmission, and develop integrated power system plans for Ontario
3) to engage in activities in support of the goal of ensuring adequate, reliable and secure electricity supply and resources in Ontario
4) 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
5) to establish system-wide goals for electricity to be produced from alternative energy sources and renewable energy sources
6) to engage in activities that facilitate load management
7) to engage in activities that promote electricity conservation and the efficient use of electricity
8) to assist the Ontario Energy Board by facilitating stability in rates for certain types of customers
9) to collect and provide to the public and the Ontario Energy Board 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 Authority's ability to continue as a going concern is dependent upon its ability to obtain financing to support operations. The OPA's credit worthiness is provided by the following:

1) The ability of the OPA to meet its obligations is provided for in legislation.
2) 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.

## Definitions:

| | | | |
|---|---|---|---|
| **OPA** | Ontario Power Authority | **RFP** | Request for Proposal |
| **RPP** | Regulated Price Plan | **OEB** | Ontario Energy Board |
| **IESO** | Independent Electricity System Operator | **OPG** | Ontario Power Generation |
| **NUG** | Non Utility Generator | **LDC** | Local Distribution Company |
| **OFA** | Ontario Financing Authority | **HOEP** | Hourly Ontario Electricity Price |

# Notes to Financial Statements continued

## 2) Summary of Significant Accounting Policies

### Basis of accounting:

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

### Revenue recognition:

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 period in which it is collected.

### Cash and cash equivalents:

Cash and cash equivalents is comprised of bank deposit balances, term deposits and other short-term investments with original maturity dates of up to 120 days.

### Capital assets:

Capital assets are recorded at cost. The capital cost of property and equipment is amortized on a straight-line basis over their estimated service lives, as follows:

| **Class of Asset:** | **Estimated Service Life** |
|---|---|
| Furniture and equipment | 10 years |
| Leasehold improvements | length of lease |
| Computer hardware and software | 2.5 years |
| Audio-visual equipment | 10 years |
| Telephone system | 5 years |

### Change in accounting policy:

Effective January 1, 2007, the OPA adopted the Canadian Institute of Chartered Accountants' Handbook Section 3855, *Financial Instruments – Recognition and Measurement.* The Corporation has designated all of its instruments as held for trading, and carries them at fair value.

The impact of adopting this change is not material to these financial statements.

### 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.

## 3) Cash and Cash Equivalents

| | **2007** | **2006** |
|---|---|---|
| Bank Accounts | $ (2,231,674) | $ 40,289,599 |
| Short-term investments | 163,359,624 | – |
| **Total** | **$ 161,127,950** | **$ 40,289,599** |

## 4) Other Current Assets

| | 2007 | 2006 |
|---|---|---|
| Global adjustment recoverable | $ – | $ 1,086,978 |
| Prepaids | 59,925 | 138,142 |
| **Total** | **$ 59,925** | **$ 1,225,120** |
| **Government procurement costs** | **1,275,959** | **1,034,970** |

The OPA applied for and received approval to establish a deferral account for the government procurement costs in its 2007 Revenue Requirement Submission to the OEB. The OPA will propose a settlement of these costs with the settlement of the retailer contract settlement accounts. The use of the deferral account re-classifies the government procurement costs from expense to the balance sheet pending resolution of the method of disposition. In 2006, the government procurement cost was $1,034,970 and in 2007, the balance was $1,275,959. Refer to note 6 for more information on government procurement costs and to note 14 for information on the legislative authority related to the government procurement costs.

## 5) Capital Assets

| | Cost | Accumulated Amortization | Net Book Value 2007 | Net Book Value 2006 |
|---|---|---|---|---|
| Furniture and equipment | $ 2,188,944 | $ (331,775) | $ 1,857,169 | $ 1,274,121 |
| Leasehold improvements | 2,789,752 | (431,472) | 2,358,280 | 1,393,411 |
| Computer hardware and software | 1,516,721 | (987,261) | 529,460 | 610,572 |
| Audio-visual equipment | 227,150 | (37,095) | 190,055 | 124,876 |
| Telephone system | 146,367 | (45,705) | 100,662 | 112,991 |
| | **$ 6,868,934** | **$ (1,833,308)** | **$ 5,035,626** | **$ 3,515,970** |

## 6) Regulatory Assets and Regulatory Liabilities

Regulatory assets, liabilities and deferrals arise as a result of the *Electricity Act, 1998* and the regulations there under and are reflected by the balances in the RPP, Retailer Contract Settlement deferral accounts, government 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.

| | 2007 | 2006 |
|---|---|---|
| Total Regulatory Assets | $ 43,328,960 | $ 89,859,472 |
| **Total Regulatory Liabilities** | **(145,546,311)** | **–** |

### RPP

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 HOEP is greater than the RPP, the OPA pays the excess amount and records a regulatory asset as the electricity market funds paid are receivable from the market. When HOEP is less than the RPP, the OPA receives the difference and records a regulatory 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 any 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.

# Notes to Financial Statements continued

| RPP Variance Accounts | 2007 | 2006 |
|---|---|---|
| Ontario Power Generation rebate contribution | $ (66,666,789) | $ 7,215,194 |
| Total RPP variance before interest | (99,324,179) | 47,385,584 |
| Interest earned | 20,444,657 | 22,740,560 |
| **Sub-total** | **$ (145,546,311)** | **$ 77,341,338** |

## 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 achieve these provisions. When HOEP is greater than the contract price, the OPA receives payments from the retailers and records a regulatory liability. When HOEP is less than the contract price, the OPA pays the retailer and records a regulatory asset. The OPA tracks these variances in the Retail Contract Settlement Deferral accounts.

Many of the retailer contracts that were in effect on November 11, 2002 had terms of three to five years. As a result, the number of contracts and associated volumes will decline as these contracts expire.

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.

| Deferral Accounts | 2007 | 2006 |
|---|---|---|
| 2005 retailer contract settlement account | $ (37,976,331) | $ (36,548,684) |
| 2006 retailer contract settlement account | 50,173,145 | 48,031,849 |
| 2007 retailer contract settlement account | 34,548,026 | – |
| Retailer contract discount settlement account | (4,691,839) | – |
| **Sub-total** | **$ 42,053,001** | **$ 11,483,164** |

## Government Procurement Deferral Account

The OPA reimburses the government for costs incurred for electricity procurement and records the costs as a regulatory asset. The OPA will propose settlement of the government procurement costs along with the retail contract settlement deferral accounts. Refer to note 14 for information on the legislative authority related to the government procurement costs.

| | 2007 | 2006 |
|---|---|---|
| Government procurement costs | 1,275,959 | 1,034,970 |

## Global Adjustment Account

Global adjustments and settlements are charges that flow monthly through the OPA from the IESO. The global adjustment account balance is composed of the amounts paid and received for: Non-Utility Generation Contract Adjustment Balancing Amount (NUG), Regulated Nuclear Generation Balancing Amount (Nuclear), Regulated Hydro Electric Generation Balancing Amount (Hydro), Global Adjustment Balancing Amount (GA), OPA generation procurement contracts and Conservation Demand Management (CDM) contracts. These accounts settle simultaneously.

The NUG, Nuclear and Hydro balances are offset in the Global Adjustment account eliminating the necessity for a flow of funds between the IESO and the OPA. The OPA records the effect of the transactions to provide transparency.

The OPA estimates the payment for the generation procurement contracts, submits the estimate to the IESO and receives the funds creating a regulatory liability. Generally, in the same month, the OPA settles with the counter-party and records an offsetting regulatory asset. Differences that exist between the estimate and actual settlement amounts carry forward for inclusion in the following month's estimate provided to the IESO.

The OPA enters into conservation procurement contracts to reduce electricity consumption or improve the efficiency of electricity consumption. The payments made for contract execution accumulate as regulatory assets (receivable from the market). The OPA submits a request for payment from the electricity market (through the IESO) in the following month. Market payments received offset the accumulated regulatory assets.

Non-Utility Generation account is the Ontario Electricity Financial Corporation's claim for the difference between market payments for NUGs and NUG contract costs.

The Regulated Nuclear Generation account is the difference between the market payments for OPG's nuclear generation and the payments at the prescribed nuclear rate.

The Regulated Hydro Electric Generation account is the difference between the market payments for OPG's base-load hydroelectric generation (up to 1,900 MW) and the payments at the prescribed hydroelectric rate.

The Renewable Generation account is the value of the energy sold to the IESO-controlled grid by the OPA. In October 2006, the OPA became a Metered Market Participant (MMP) for the supply of renewable energy to Ontario. Renewable energy is defined by legislation as an energy source that is renewed by natural processes and includes wind, water, biomass, solar energy, geothermal or tidal force.

The Global Adjustment account is the total of the NUG, nuclear and hydro accounts above and settlement amounts for OPA procurement contracts.

| Global Adjustment Accounts | 2007 | 2006 |
|---|---|---|
| Non-Utility Generation | $ 410,696,783 | $ 400,150,050 |
| Regulated Nuclear Generation | 74,304,123 | 150,059,205 |
| Regulated Hydro-Electric Generation | (250,222,119) | (225,963,441) |
| Renewable Generation | – | (10,739,939) |
| Global Adjustment | (234,778,787) | (313,505,875) |
| **Sub-total** | **$ –** | **$ –** |

## 7) General Operating Costs

| | 2007 | 2006 |
|---|---|---|
| General program costs | $ 2,708,886 | $ 1,200,807 |
| Information technology | 207,694 | 159,152 |
| Premise | 1,954,172 | 1,274,575 |
| Office and administration | 658,869 | 706,797 |
| **Total** | **$ 5,529,621** | **$ 3,341,331** |

## 8) 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 initially obtained an allowance for leasehold improvements of $1,359,332. As at December 31, 2007, the deferred rent inducement, net of amortization, was $1,121,698.

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, 2007, the accrued rent liability was $278,937.

# Notes to Financial Statements continued

The minimum annual payments under the operating lease are approximately as follows:

| Commitments | |
|---|---|
| 2008 | $ 956,000 |
| 2009 | 1,001,000 |
| 2010 | 1,012,000 |
| 2011 | 1,078,000 |
| 2012 | 1,079,000 |
| 2013 and thereafter | 3,015,000 |
| **Total** | **$ 8,141,000** |

All lease commitments are set to terminate coincidentally on October 14, 2015.

## 9) Related Party Transactions

The OPA considers the Government of the Province of Ontario, its Agencies and its Crown Corporations to be related parties. In the normal course of operations, the OPA has transactions with the following related parties:

a) Ontario Energy Board
b) Hydro One
c) Ontario Power Generation
d) Independent Electricity System Operator
e) Ontario Financing Authority
f) Ministry of Energy

| | 2007 | | 2006 | |
|---|---|---|---|---|
| | Revenues | Expenses | Revenues | Expenses |
| Ontario Energy Board | $ – | $ 8,593 | $ – | $ 800 |
| Hydro One | – | – | – | – |
| Ontario Power Generation | – | 42,114 | – | 30,795 |
| Independent Electricity System Operator | 55,469,805 | 580,359 | 37,761,000 | 439,000 |
| Ontario Financing Authority | 1,840,408 | 1,627,927 | – | 16,771,487 |
| Ministry of Energy | – | 310,989 | – | 1,034,970 |
| | **$ 57,310,213** | **$ 2,569,981** | **$ 37,761,000** | **$ 18,277,052** |

In the 2007 revenue requirement submission to the OEB, the OPA requested and received an OEB decision to carry the costs related to the government procurements ($1,034,970) in a deferral account to settle coincidentally with the retail contract settlement deferral accounts.

The revenues and expenses with the Ontario Financing Authority relate to interest earnings and expenses allocated to the RPP, retail contract settlement deferral accounts and OPA operations.

## 10) Pension Plan

The OPA makes contributions to Ontario Pension Board, a multi-employer plan, on behalf of all staff. The plan is a contributory defined benefit 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 a result, the OPA paid or accrued contributions totaling $945,782 during the year.

## 11) Revolving Line of Credit, Outstanding Promissory Notes

The OPA has available a revolving operating facility in the amount of $975 million, provided to it by the Ontario Financing Authority.

| | 2007 | 2006 |
|---|---|---|
| Operating loan | $ – | $ 33,788,770 |
| RPP and Retailer loan | – | 106,533,010 |
| **Revolving line of credit** | **$ –** | **$ 140,321,780** |

## 12) Internally Restricted Funds

The Ontario Power Authority established the Conservation Fund to assist electricity conservation projects. To date, five funds have been set up as depicted in the table below. The 2005 Conservation Fund is fully awarded and payments will be made as the projects meet their milestones. As at December 31, 2007, $1,332,270 has been granted for the 2006 Conservation Fund, $3,146,681 for the 2007 Conservation Fund and $584,562 and $650,789 for the 2006 and 2007 Technology Development Funds respectively.

| | Restricted Fund | Expensed 2007 | Expensed Prior Year | Balance 2007 |
|---|---|---|---|---|
| 2005 Conservation Fund | $ 1,100,000 | $ 46,356 | $ 800,346 | $ 253,298 |
| 2006 Conservation Fund | 1,500,000 | 1,083,164 | 329,979 | 86,857 |
| 2007 Conservation Fund | 3,000,000 | 816,782 | – | 2,183,218 |
| 2006 Technology Development Fund | 1,000,000 | 216,293 | 1,000 | 782,707 |
| 2007 Technology Development Fund | 1,000,000 | 24,000 | – | 976,000 |
| | **$ 7,600,000** | **$ 2,186,595** | **$ 1,131,325** | **$ 4,282,080** |

# Notes to Financial Statements continued

## 13) Fair Value of Financial Assets and Financial Liabilities

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

The fair values of the Regulated Price Plan variance, operating loan, revolving loan—Regulated Price Plan and retailer settlement balance are not provided because it would not provide additional useful information as they would be offset and/or would not be practical to determine.

## 14) RFP Costs Transferred to the OPA

Under section 25.18 of the *Electricity Act, 1998*, the OPA is required to reimburse the Crown or, if so directed by the Minister of Finance, an agency of the Crown for certain costs incurred by the Crown or an agency of the Crown after January 20, 2004, and before the Ontario Energy Board's first approval of the OPA's procurement process under subsection 25.31(4) of the *Electricity Act, 1998*. These costs include costs incurred related to the OPA, a contract to procure supply, capacity or conservation, an initiative that was commenced by the Crown that the OPA has been required to assume under a Minister's directive or a matter within the objects of the OPA.

For additional information, please refer to note 4 and note 6.

## 15) Change in Non-Cash Operating Items

| | 2007 | 2006 |
|---|---|---|
| (Increase)/decrease in accounts receivable | $ 50,050,171 | $ (102,495,301) |
| (Increase)/decrease in other current assets | 1,165,195 | 646,854 |
| Increase/(decrease) in accounts payable | 6,093,264 | 20,602,247 |
| Increase/(decrease) in deferred rent inducement | (73,382) | (135,933) |
| Increase/(decrease) in operating loan | (33,788,770) | 26,780,768 |
| Increase/(decrease) in contract deposits | (11,289) | (32,089) |
| | **$ 23,435,189** | **$ (54,633,454)** |

## 16) Contract Deposits

Deposit amounts received from Renewable Energy Supply (RES) contractors. The deposit amounts are larger during the construction phase and are reduced once the project commences commercial operations. The deposits are classified as current liabilities as the projects are expected to enter commercial operations in 2007.

## 17) Contingent Liabilities and Guarantees

**Contingent liabilities:** 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, 2007 in the opinion of management, no such liabilities exist.

**Guarantees:** The OPA is contingently liable under a loan guarantee provision in a contract with a maximum potential exposure of $8.6 million. The outstanding loan balance under this contract which the OPA has guaranteed is $371,126 as at December 31, 2007 and is not presently in default. The contract related to this guarantee expires in May 2012.

## 18) Comparative Figures

Certain comparative figures have been reclassified to conform with the basis of presentation adopted in the current year.

# Corporate Information

## Board of Directors

**John M. Beck, Chair**
*Chairman and Chief Executive Officer, Aecon Group Inc.*

**Charles Bayless, Director**
*Provost, West Virginia University Institute of Technology*

**Michael Costello, Director and Chair, Audit Committee**
*Retired from BC Hydro and BC Transmission Corporation (President and CEO); Director, InTransit BC and Vancouver Island Health Authority; and Lecturer, University of Victoria School of Public Administration*

**Frank J. Ewasyshyn, Director**
*Executive Vice President – Manufacturing, Chrysler LLC*

**Richard P. Fitzgerald, Director**
*Chairman, Diageo Canada Inc.*

**Adèle M. Hurley, Director**
*President, Hurley & Associates Inc.*

**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*

**Lyn McLeod, Director and Vice Chair**
*Chancellor of the University of Ontario Institute of Technology, Ontario representative on the Health Council of Canada and serves on the Ontario Health Quality Council*

**Tim O'Neill, Director***
*President, O'Neill Strategic Economics and Partner in TNET Management Consultants*

**Jan Carr, Director**
*Chief Executive Officer, Ontario Power Authority*

## Corporate Officers

**John M. Beck, Chair**

**Jan Carr, Chief Executive Officer**

**JoAnne Butler, Vice President, Electricity Resources**

**Peter Love, Chief Energy Conservation Officer**

**Michael Lyle, General Counsel and Vice President, Legal and External Affairs**

**Kimberly Marshall, Vice President, Finance and Administration**

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

**Paul Shervill, Vice President, Conservation and Sector Development**

**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 OPA; Management, Mandate and Organization; Board of Directors.

* *Resigned from Board effective March 6, 2008*

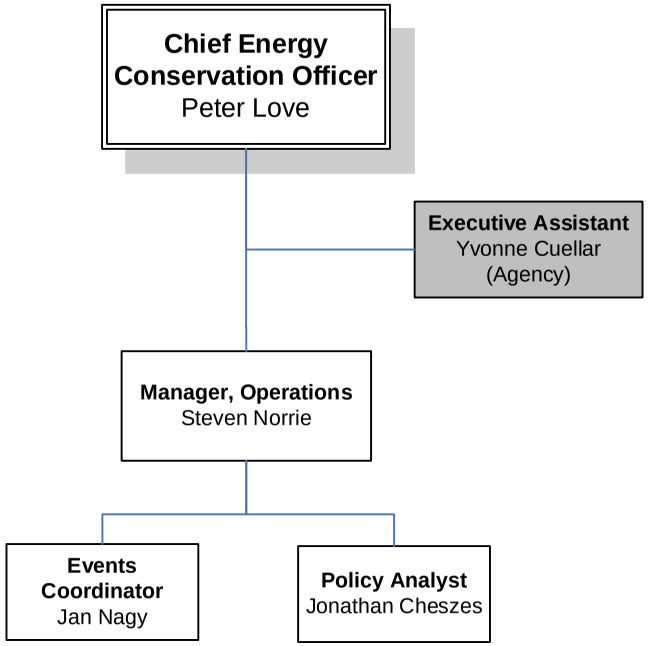
## Corporate Contact Information

**Ontario Power Authority**
120 Adelaide Street West
Suite 1600
Toronto, Ontario M5H 1T1
**Phone:** (416) 967-7474
**Fax:** (416) 967-1947
**Web:** www.powerauthority.on.ca

*La version française de ce rapport est affichée sur le site de l'OPA: www.powerauthority.on.ca*

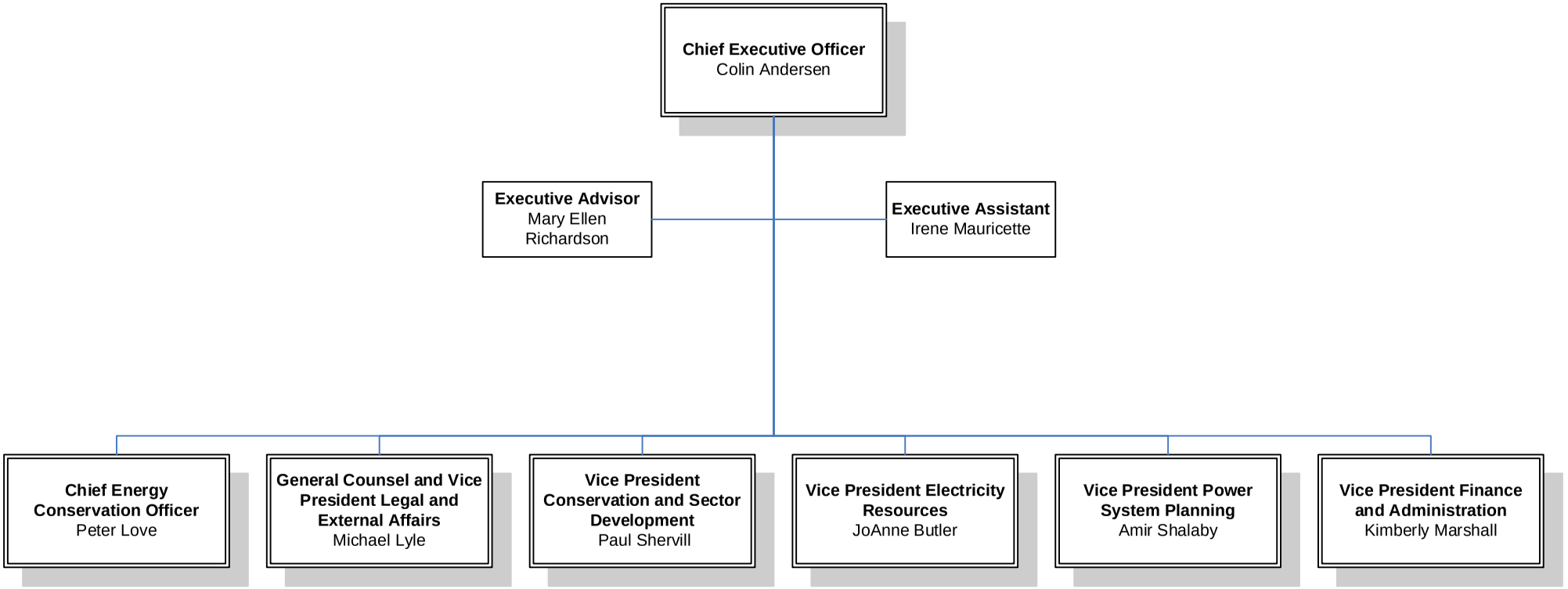
# Ontario Power Authority

Chief Energy Conservation Officer
October 1, 2008



# Ontario Power Authority

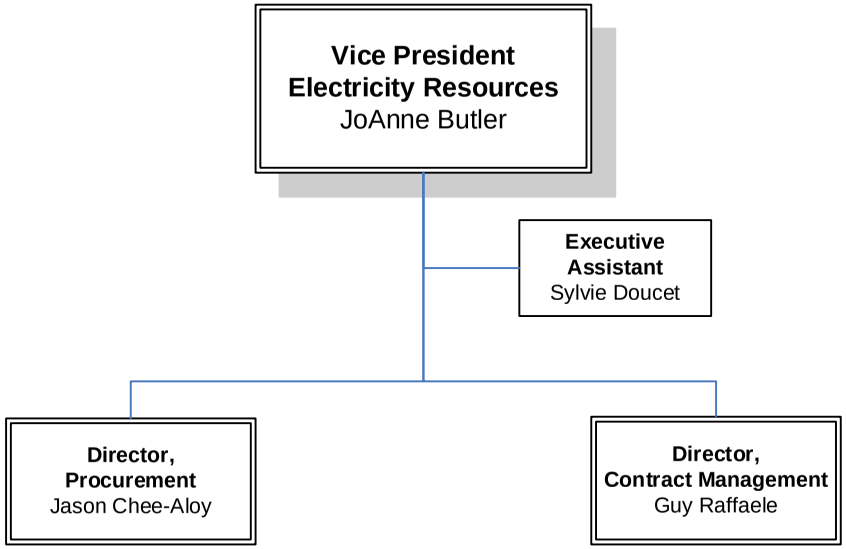
Chief Executive Officer
October 1, 2008



# Ontario Power Authority

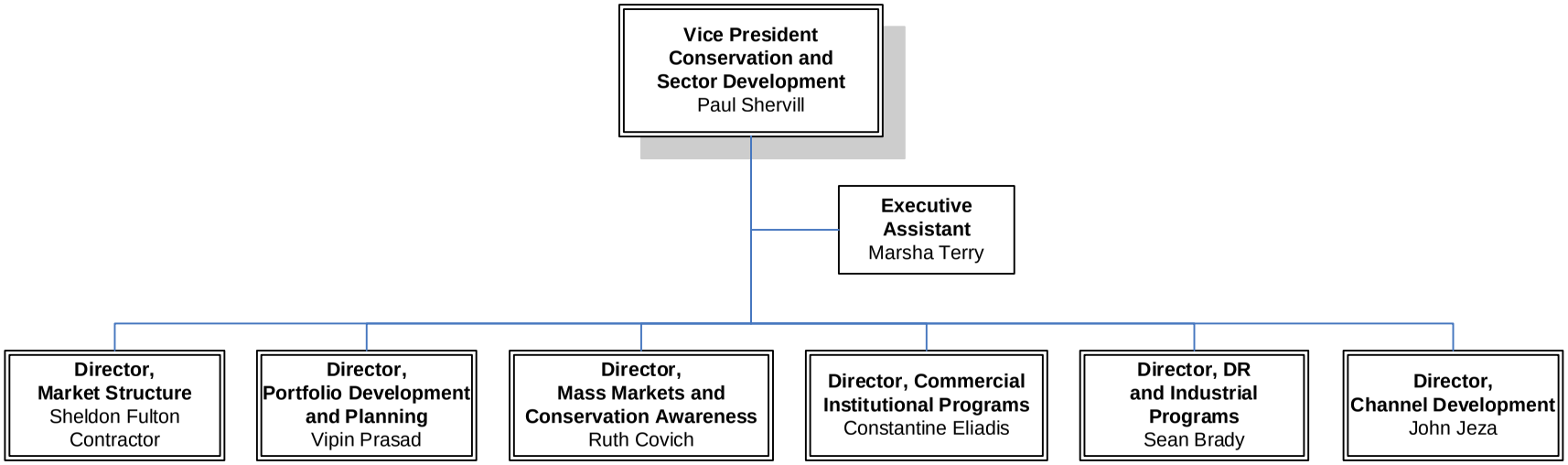
Electricity Resources Direct Reports
October 1, 2008





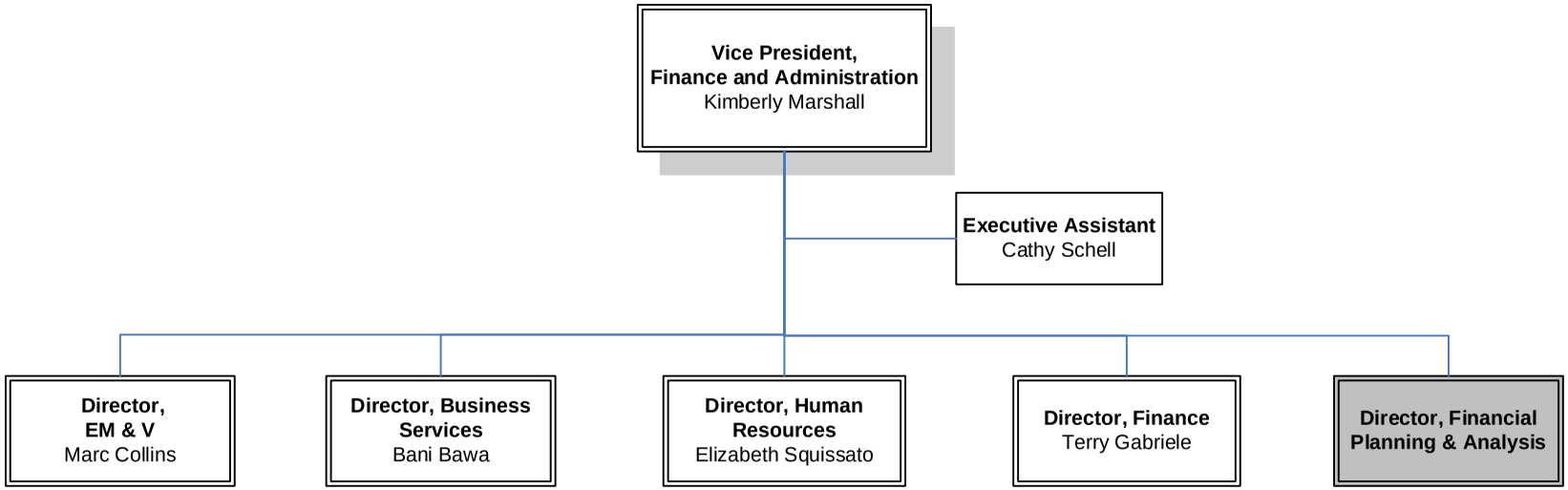
# Ontario Power Authority

Conservation and Sector Development
Direct Reports
October 1, 2008



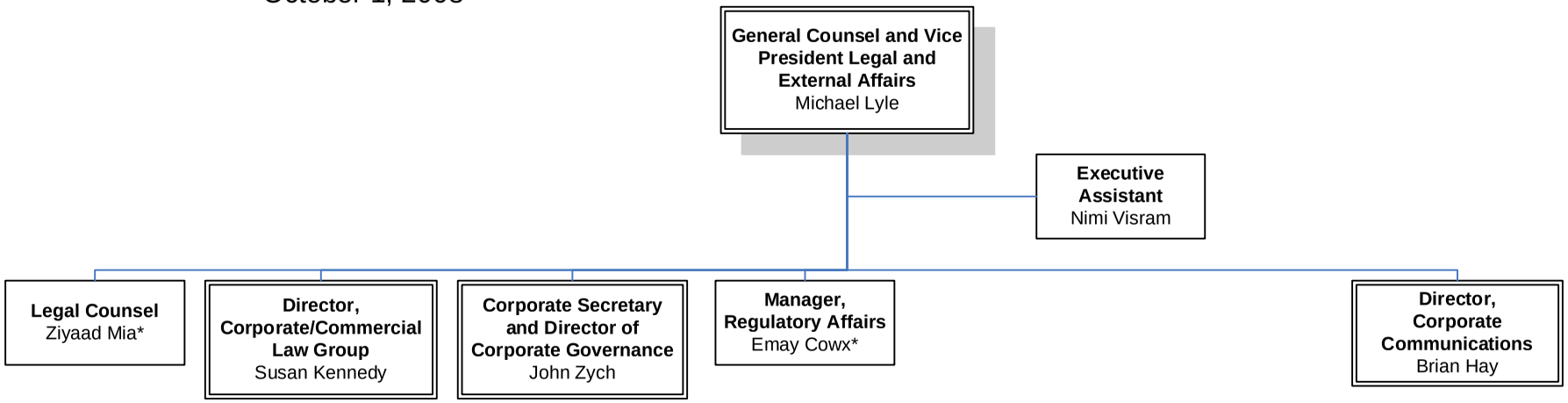
# Ontario Power Authority

Finance and Administration
Direct Reports
October 1, 2008



# Ontario Power Authority

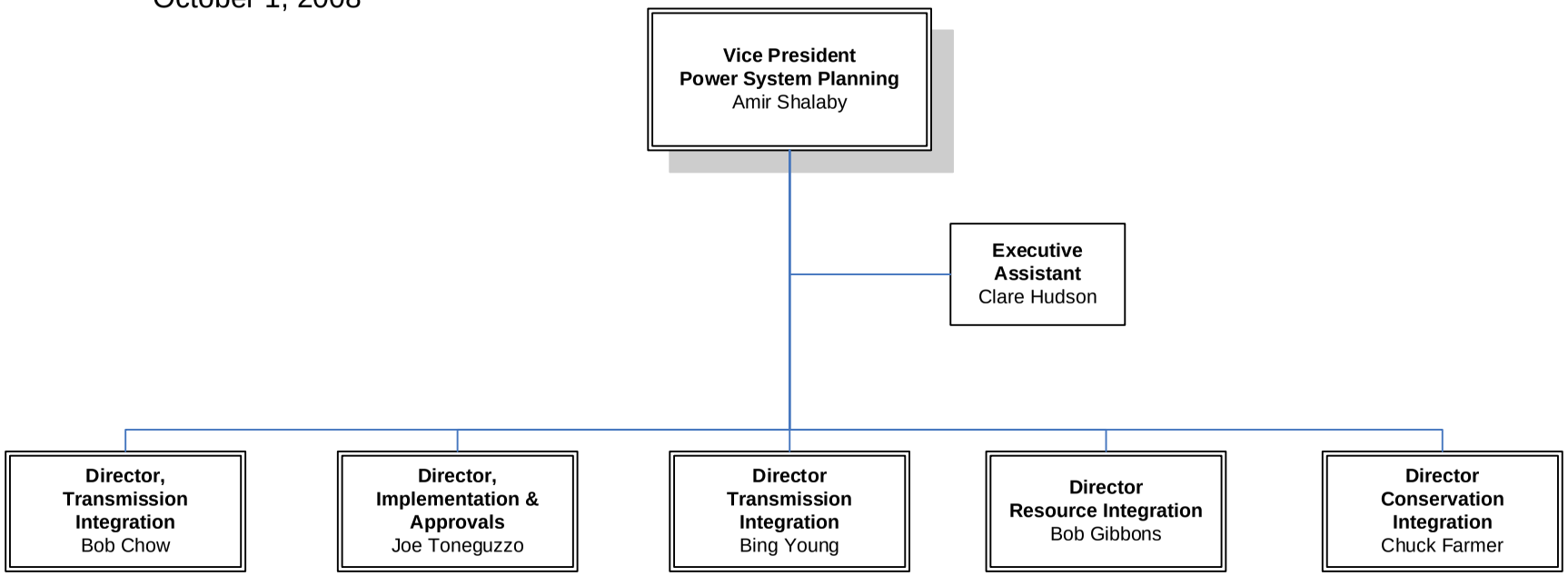
Legal and External Affairs
October 1, 2008




*8 month assignment

# Ontario Power Authority

Power System Planning
October 1, 2008



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# About OPA

## Directives to OPA from Minister of Energy and Infrastructure

### List of Minister's Directives to OPA

**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.

**June 15, 2005**
"Early Movers" - Negotiate and Conclude Contracts with Certain Generation Facilities.

**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.

**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.

**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 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 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.

**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.

**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.

**December 14, 2005**
Early Movers - Negotiate and Conclude Contracts with Certain Generation Facilities - replaces June 15, 2005 directive - "Early Movers".

**February 9, 2006**

Procurement Processes - Addendum #1 to Procurement Processes Directive of June 15, 2005 (to be consolidated as part of the original directive).

**February 9, 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.

**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.

**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 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.

**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.

**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 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.

**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.

**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

**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.

**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.

**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.

**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.

**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.

**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.

**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.

## Other Letters to OPA from Minister - Not Considered Directives

**March 1, 2005**

York Region - request to help identify and assess possible solutions to address local reliability issues.

**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.

**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.

**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 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.

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**Minister of Energy**

Hearst Block, 4th Floor
900 Bay Street
Toronto ON M7A 2E1
Tel.: 416-327-6715
Fax: 416-327-6754

**Ministre de l'Énergie**

Édifice Hearst, 4e étage
900, rue Bay
Toronto ON M7A 2E1
Tél.: 416-327-6715
Téléc.: 416-327-6754

Ontario

February 25, 2008

Dr. Jan Carr, Chief Executive Officer
Ontario Power Authority
1600–120 Adelaide Street West
Toronto ON M5H 1T1

Dear Dr. Carr:

**Re: Procuring Electricity From Energy From Waste ("EFW") Pilot or Demonstration Projects ("PDPs")**

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 of the *Electricity Act, 1998*.

Background

The Ministry of the Environment has developed a new initiative (the "Initiative") to facilitate the testing and evaluation of EFW technologies, in order to obtain information about the environmental impacts associated with these technologies. In furtherance of the Initiative, the Ontario government has streamlined the environmental approvals process for PDPs involving EFW technologies as a means of evaluating the potential and appropriateness of these technologies. In some cases, PDPs may also be eligible for provincial funding support from the Ministry of Research and Innovation.

The goal of the Initiative is to encourage the development of new or improved EFW technologies with improved environmental performance. The government believes that development of new or improved EFW technologies can also reduce the amount of residual waste (e.g. the waste which remains after recycling or composting) that would otherwise need to be placed in landfills across the province and beyond.

.../cont'd

The Ministry of the Environment has developed the following requirements for participation in the Initiative:

(1) The project or facility must be a pilot or demonstration EFW project or facility where municipal waste is processed or disposed of primarily to assist in the design of the EFW technology or to assess or demonstrate the merits of the EFW technology; and

(2) The project or facility must be approved under Part V of the *Environmental Protection Act* (EPA) and in compliance with:

1. section 5.0.1 of Regulation 347 made under the EPA, or
2. O. Reg. 253/06 made under the *Environmental Assessment Act* (EAA) and O. Reg. 254/06 made under the EPA.

Direction

Therefore, pursuant to my statutory authority under subsection 25.32(4) of the *Electricity Act, 1998,* I hereby direct the OPA to enter into negotiations with the proponents of any pilot or demonstration EFW project or facility participating in the Initiative, for the procurement of any net electricity produced and offered from such project or facility solely during the time that it is participating in the Initiative. For the purposes of these pilot projects, it is our belief that such procurement should be at a price of 10 cents per kilowatt-hour and upon such other terms and conditions as the OPA may determine.

This direction shall be effective and binding as of the date hereof.

Sincerely,

Gerry Phillips
Minister

**Minister of Energy**

Hearst Block, 4th Floor
900 Bay Street
Toronto ON M7A 2E1
Tel.: 416-327-6715
Fax: 416-327-6754

**Ministre de l'Énergie**

Édifice Hearst, 4e étage
900, rue Bay
Toronto ON M7A 2E1
Tél.: 416-327-6715
Téléc.: 416-327-6754

Ontario

MAR 13 2008

March 12, 2008

Dr. Jan Carr, Chief Executive Officer
Ontario Power Authority
1600-120 Adelaide Street West
Toronto ON M5H 1T1

Dear Dr. Carr:

**Re: Broadcasting Initiative – Procurement for Energy Conservation Advertisements**

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").

Background

As part of the Government's ongoing commitment to building an energy conservation culture in Ontario, the Ministry has developed a number of initiatives aimed at encouraging Ontarians to conserve energy and reduce the demand for electricity. In furtherance of these initiatives, the Ministry has launched a major consumer education campaign with a strong focus on conservation and demand-side management, particularly targeting the residential sector.

This campaign is aimed at advancing energy conservation, by helping to increase public awareness of the importance of energy conservation, thereby reducing activities that contribute to global warming. To date, the campaign has been successful in advancing public awareness towards conservation; the ads have also won a BESSIE award and achieved a very high public recognition in Ontario. The Government of Ontario is committed to building on the momentum of the achievements to date, given the importance of energy conservation.

Therefore, as part of this education campaign, the Ministry developed a series of winter energy conservation advertisements (Winter Ads) as described in Schedule 1, for broadcasting/publishing in or on media ("Media") that include television, radio, billboards, posters, newspapers and the internet.

.../cont'd

The Ministry is now embarking on initiatives relating to broadcasting/publishing and/or licensing the broadcasting/publishing of the Ads and other advertisements for later this year. One of these initiatives ("Initiative") involves the procurement of advertising space in or on Media for the broadcasting/publishing of the Ads in Ontario, with the running of the Ads to be completed by the end of the first week of May, 2008.

Direction

Therefore, pursuant to subsection 25.32(4) of the *Electricity Act, 1998,* I hereby direct the OPA to assume responsibility for the Initiative. For greater clarity, this direction shall not entail the assumption by the OPA of any rights (including, but not limited to, copyright) or powers of the Crown in or in respect of the Winter Ads in Ontario other than the right and authority to procure advertising space for the broadcasting/publishing of the Winter Ads strictly under the terms of the Initiative, as prescribed under license with the Crown and the OPA. Legal staff of the Crown will work cooperatively with the OPA to document all license terms necessary for the Initiative, with the view that the license would be executed as soon as possible.

The Winter Ads will be provided to the OPA by the Ministry as soon as practicable. It is expected that approximately $4 million would be spent under the Initiative, for the broadcasting/publishing of the Winter Ads.

This direction shall be effective and binding as of the date hereof.

Sincerely,

Gerry Phillips
Minister

Enclosure

Schedule 1 – Winter Ads

**TV:** Three 30 second television commercials: 'Kid Group' 'Basketball' and "Basement"

**Exterior Bus ads:** King posters (side of bus): caulking message

**Subway platform posters:** caulking message

**Ethnic Publications:** 1/3 or 1/2 page ads: caulking message

**Internet:** Big box, Leaderboard, and Banner ads: caulking message

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**Minister of Energy**

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Ontario

April 10, 2008

Dr. Jan Carr
Chief Executive Officer
Ontario Power Authority
1600–120 Adelaide Street West
Toronto ON M5H 1T1

Dear Dr. Carr:

**Re: Procurement for Electricity From Combined Heat and Power (CHP) Renewable Co-generation Projects**

I write in connection with my statutory power of Ministerial direction pursuant to Section 25.32 of the *Electricity Act, 1998* (the "Act") in order to address the ongoing need to procure electricity from renewable co-generation, specifically from projects which are involved with high-efficiency combined heat and power (CHP) renewable co-generation.

As you know, I had previously issued a Ministerial direction to the OPA on June 15, 2005, wherein I directed the OPA to commence several procurement processes and to execute and deliver definitive contracts for the selected projects to address the need for up to 1,000 MW of high-efficiency combined heat and power projects across Ontario. That direction also specified that "preference should be given, through a separate procurement process, for projects fuelled by renewable energy sources."

In relation to that direction, the OPA's RFP for up to 1,000 MW of Combined Heat and Power projects (CHP I) closed on August 17, 2006. The OPA signed contracts with seven projects, representing a total of 414 MW of capacity. The OPA did not receive any responses to the separate procurement process for renewable co-generation projects within that RFP.

Since it is desirable that renewable energy projects continue to be fostered, the Crown has been working directly with proponents of renewable co-generation projects, the OPA and other Crown Ministries, including the Ministry of Natural Resources and the Ministry of Finance, to understand the specific challenges facing such projects that led to no proposals being submitted to the OPA.

.../cont'd

The Crown's initiative identified the need for flexible procurement processes to address operational, technical, legal and financial challenges and for consultations with stakeholders to inform the initiative on those issues. The Crown's objective is to have the procurement process launched no later than June 30th, 2008 with contracts executed for approximately 100 MW of high efficiency renewable fuelled CHP energy no later than December 31, 2008 with individual projects to have a capacity greater than ten (10) MW. The process would be open to both new proponents as well as proponents participating in other competitive procurement processes with compatible requirements.

Therefore, I hereby exercise my statutory authority pursuant to section 25.32 of the Act in order to direct that the OPA develop a procurement process with the goal of executing and delivering definitive contracts for approximately 100 MW of power with proponents of renewable energy projects which derive their energy from combined heat and power, and which are greater than 10 MW in size.

In the development of this procurement process, the OPA shall first perform such consultations as are necessary to design a procurement that is responsive to the specific technical, financial and operational considerations of these projects. The OPA shall develop and launch this procurement no later than June 30, 2008, so that the OPA may enter into definitive contracts no later than December 31, 2008.

The OPA must also be mindful of the Crown's constitutional duty to consult First Nations and Métis peoples. In the event that the duty is triggered by any of the projects under this direction, the OPA should ensure that appropriate consultation with First Nations and Métis peoples takes place through the application of the guidelines and processes developed in accordance with my direction of August 27, 2007, amended appropriately for the circumstances.

This direction is in effect as of the date hereof.

Sincerely,

Gerry Phillips
Minister

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Ontario

May 1, 2008

Dr. Jan Carr, Chief Executive Officer
Ontario Power Authority
1600-120 Adelaide Street West
Toronto ON M5H 1T1

Dear Dr. Carr:

**Re: Broadcasting Initiative – Procurement for Energy Conservation Advertisements**

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").

Background

As part of the Government's ongoing commitment to building an energy conservation culture in Ontario, the Ministry has developed a number of initiatives aimed at encouraging Ontarians to conserve energy and reduce the demand for electricity. In furtherance of these initiatives, the Ministry has launched a major consumer education campaign with a strong focus on conservation and demand-side management, particularly targeting the residential sector.

This campaign is aimed at advancing energy conservation, by helping to increase public awareness of the importance of energy conservation, thereby reducing activities that contribute to global warming. To date, the campaign has been successful in advancing public awareness towards conservation; the ads have also won a BESSIE award and achieved a very high public recognition in Ontario. The Government of Ontario is committed to building on the momentum of the achievements to date, given the importance of energy conservation.

.../cont'd

Therefore, as part of this education campaign, the Ministry developed a series of summer energy conservation advertisements (Summer Ads) as described in Schedule 1, for broadcasting/publishing in or on media ("Media") that include television, radio, billboards, posters, newspapers and the Internet.

The Ministry is now embarking on initiatives relating to broadcasting/publishing and/or licensing the broadcasting/publishing of the Ads and other advertisements for later this year. One of these initiatives ("Initiative") involves the procurement of advertising space in or on Media for the broadcasting/publishing of the Ads in Ontario, with the running of the Ads to be completed by the second week of August, 2008.

Direction

Therefore, pursuant to subsection 25.32(4) of the *Electricity Act, 1998*, I hereby direct the OPA to assume responsibility for the Initiative. For greater clarity, this direction shall not entail the assumption by the OPA of any rights (including, but not limited to, copyright) or powers of the Crown in or in respect of the Summer Ads in Ontario other than the right and authority to procure advertising space for the broadcasting/publishing of the Summer Ads strictly under the terms of the Initiative, as prescribed under license with the Crown and the OPA. Legal staff of the Crown will work cooperatively with the OPA to document all license terms necessary for the Initiative, with the view that the license would be executed as soon as possible.

The Summer Ads will be provided to the OPA by the Ministry as soon as practicable. It is expected that approximately $4 million would be spent under the Initiative, for the broadcasting/publishing of the Summer Ads.

This direction shall be effective and binding as of the date hereof.

Sincerely,

Gerry Phillips
Minister

Enclosure

# Schedule 1 – Summer Ads

**TV:** Three 30 second television commercials: "Penguins", "Clotheslines" and "Basement"

**Billboard ads:** AC Message

**Ethnic Publications:** 1/3 or 1/2 page ads: AC Message

**Internet:** Big box, Leaderboard, and Banner ads: AC Message

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Ontario

AUG 18 2008

AUG 20 2008

Dr. Jan Carr
Chief Executive Officer
Ontario Power Authority
1600–120 Adelaide Street West
Toronto ON M5H 1T1

Dear Dr. Carr:

**Re: Southwest Greater Toronto Area (GTA) Supply**

I write pursuant to my authority as the Minister of Energy and Infrastructure 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*.

**Background**

As noted in the proposed Integrated Power System Plan (IPSP), submitted to the Ontario Energy Board (the "OEB") by the Ontario Power Authority (the "OPA") in August 2007, there are challenges facing the ability of the current electricity system to support coal-fired generation replacement, address system supply adequacy and meet increasing demands in the GTA.

The GTA has experienced robust growth in the past few years, particularly in the west and north regions. In addition, generation in the GTA continues to be significantly less than the GTA load, which has placed a heavy reliance on the transmission system. The ability of existing infrastructure to service this area is expected to fall short by 2015 or sooner.

To respond to these pressures, the IPSP planned aggressive conservation savings for this area. The IPSP calls for some 500 MW of conservation to be in place in the West GTA region by 2014, which is part of a broader 1,100 MW amount that is planned for the GTA.

In addition to these conservation initiatives, the OPA has also advised the Ministry of Energy and Infrastructure that new electricity generation in the southwest Greater Toronto Area ("Southwest GTA") is needed not only to support coal-fired generation replacement by 2014 and meet system supply adequacy, but also to address reliability

.../cont'd

issues in the area, including local supply and voltage support. Generation in this area will also defer transmission needs in the western GTA. The electrical boundary of the Southwest GTA is approximately defined by the areas of southern Mississauga, southeast Oakville and southwest Toronto in the vicinity of the transmission corridor from the Oakville to Manby transformer stations.

The Ministry has determined that it is prudent and necessary to initiate a competitive procurement process for a combined-cycle natural gas-fired electricity generation facility with a rated capacity of up to approximately 850 MW for deployment in the Southwest GTA and that this process should be concluded by the end of June 2009 (the "initiative"). This timing is necessary in light of the significant lead time required to procure, site, permit and construct a new gas-fired generating facility of adequate size and type in respect of the initiative.

**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 Crown, including the Ministry, for the initiative. It is expected that the OPA will procure this generation facility through a competitive procurement process, and that the facility will have an in-service date of not later than December 31, 2013. In addition to relieving local supply inadequacy, it is also expected that the new facility be capable of contributing to the Province's overall need for increased gas-fired generation capacity in an efficient, cost-effective and environmentally sound manner.

As with all electricity generation projects procured by the OPA, the facility selected under this process shall be required to undergo all local, municipal and environmental approvals to ensure it meets or exceeds regulated standards, including those for air quality, noise, odour and vibration.

Quite in keeping with its past practice, it is expected that the OPA would move expeditiously and responsibly in order to fulfil its accountabilities under this direction. It would be prudent to finish this procurement process by the end of June 2009.

Finally, please arrange a transparent public forum to provide information to local officials and residents regarding the need for a new gas-fired generation facility in the Southwest GTA. I will participate in this forum, as the Government of Ontario has an obligation to explain to the public the need for this facility and how it fits into the government's overall electricity supply plan.

This direction shall be effective and binding as of the date hereof.

Sincerely,

George Smitherman

George Smitherman
Deputy Premier, Minister

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Ontario

September 17, 2008

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

Dear Mr. Andersen: Colin

**Re: Amendments to Supply Mix Directive Issued June 13, 2006**

I write in my capacity as the Minister of Energy and Infrastructure pursuant to the authority granted to me under subsection 25.30(2) of the *Electricity Act, 1998*, in order to address more fully certain aspects of the Ontario Power Authority (OPA)'s Integrated Power System Plan (IPSP), which has been under development for several years, and which was submitted to the Ontario Energy Board (OEB) on August 29, 2007.

The Plan itself represents a considerable effort by the OPA to meet the province's demand and supply requirements for the next 20 years and we are grateful for the leadership efforts of the OPA. However, there are various aspects of the plan that have proven to be worthy of further consideration, given the change in circumstances since the development of the IPSP.

Therefore, I require that the OPA revisit its IPSP with a view to establishing new targets in the following areas, and in a manner consistent with further enhancing its current emphasis in these areas:

- The amount and diversity of renewable energy sources in the supply mix;
- The improvement of transmission capacity in the 'orange zones' in northern Ontario and other parts of the province that is limiting the development of new renewable energy supply;
- The potential of existing coal-fired assets to be converted to biomass;
- The availability of distributed generation;
- The potential for pumped storage to contribute to the energy supply during peak times; and
- The viability of accelerating the achievement of stated conservation targets, including a review of the deployment and utilization of Smart Meters.

.../cont'd

Additionally, we would ask that the OPA undertake an enhanced process of consultation with First Nations and Métis communities in light of potential duty to consult obligations. Furthermore, we would ask that the principle of Aboriginal partnership opportunities be considered in matters of both generation and transmission.

The Supply Mix Directive, dated June 13, 2006, and approved of by the Lieutenant-Governor in Council, shall in all other respects remain in full force and effect. In furtherance of this Directive, the OPA shall provide an amended and revised IPSP. It is expected that the revised IPSP would be provided to the OEB by the OPA no later than six (6) months from the date hereof. All other elements of the IPSP outside the specific issues noted above could continue during the six-month review period.

Sincerely,

George Smitherman

George Smitherman
Deputy Premier, Minister

# STRATEGIC OBJECTIVE 1

## Plan for an adequate, reliable and sustainable system that integrates conservation, generation and transmission and to implement the Minister's directives

The OPA's first strategic objective is to plan for an adequate, reliable and sustainable system that integrates conservation, generation and transmission and to implement the Minister's Directives. The lead business unit for this strategic objective is the Power System Planning ("PSP") division within the OPA.

The specific strategic initiatives which the Power System Planning division will pursue to meet this strategic objective in 2009 are as follows:

- Supporting IPSP 1 implementation
- Developing IPSP 2
- Identifying and helping to resolve barriers to power system infrastructure development
- Fulfilling reliability standards obligations

## 1.0 ACTIONS TO ACHIEVE STRATEGIC OBJECTIVE 1

### Initiative 1 – Supporting IPSP 1 implementation

On August 29, 2007 the OPA submitted the first Integrated Power System Plan ("IPSP 1") to the OEB for review and approval. This IPSP is a comprehensive, integrated, long-term plan for the development of conservation and electricity infrastructure for a reliable and sustainable electricity system in Ontario. For the majority of 2008, the OPA actively participated in the regulatory proceeding which included establishing an OEB approved Issues List in Phase I of the proceeding, responding to over 1,400 interrogatories, filing interrogatories on intervenor evidence, and participating in the evidentiary phase of the oral hearing that commenced on September 8, 2008.

On September 17, 2008, the Minister of Energy and Infrastructure issued a Directive to the OPA to revisit this IPSP with a view to establishing new targets and enhancing the plan in the following areas:

- The amount and diversity of renewable energy sources in the supply mix;
- The improvement of transmission capacity in the 'orange zones' in northern Ontario and other parts of the province that is limiting the development of new renewable energy supply;
- The potential of existing coal-fired assets to be converted to biomass;
- The availability of distributed generation;
- The potential for pumped storage to contribute to the energy supply during peak times; and
- The viability of accelerating the achievement of stated conservation targets, including a review of the deployment and utilization of Smart Meters.

In addition, the OPA was requested to undertake an enhanced process of consultation with First Nations and Métis communities and to consider Aboriginal partnership opportunities in generation and transmission matters.

On October 2, 2008, the IPSP regulatory proceeding was suspended to accommodate this Directive. The proceeding will re-commence upon the receipt of the OPA's updated evidence in March 2009.

The OPA will be undertaking the additional analysis required to comply with the September 17, 2008 Directive, and will participate in consultations with First Nations and Métis peoples as requested by the Minister. The Planning division will further its analysis of renewable energy supply options for the Province of Ontario; which include solar, wind, hydro via pumped storage, and the conversion of coal to biomass. In 2009, the OPA will also complete studies with the relevant LDCs on the potential for and feasibility of conservation and distributed generation in the City of Toronto and Kitchener-Waterloo-Cambridge-Guelph. Finally, the OPA will identify local areas with future supply constraints, and will actively explore the feasibility of accelerating conservation and distributed

generation as possible solutions to address or supplement the supply solutions for the area through commissioned studies.

The results from the analysis will contribute to the drafting of revised evidence to be filed for the IPSP proceeding, at which time the OPA will actively continue its participation in the regulatory process to complete the first IPSP regulatory proceeding before the OEB.

The Planning division within the OPA will also continue to support the implementation of projects identified in IPSP 1 that are the subject of a Minister's Directive. While it is not the OPA's role to build, own or operate the facilities and infrastructure identified in the IPSP, there are several important functions for the organization to help ensure that the plan can become a reality. The OPA's work will include supporting the transmission projects in IPSP 1 that require additional scoping for the near-term development work and support in relevant regulatory proceedings of the proponents regarding the need for development work. Planning staff will also provide support to the Electricity Resource and Conservation and Sector Development divisions in their procurement activities for both supply and conservation. Specifically, planning will support the RFP developments, and public engagement processes associated with the generation procurements. With respect to conservation procurement, the Planning division will support the development of conservation potential estimates for specific regions and assist in the refinement of conservation programs.

Planning staff will also participate in public engagements to ensure open and transparent communication in local areas with supply, conservation, and transmission constraints. In 2009, some of the potential local areas for consultations could include Northern York Region, Windsor-Essex, Kitchener-Waterloo-Cambridge-Guelph ("KWCG") area, Thunder Bay area, Southwest GTA ("SWGTA"), and Leaside to Birch. The goal of the consultation and communication in communities, will be to seek a common understanding of the specific electricity service situation and possible solutions.

**Initiative 2 – Developing IPSP 2**

The OPA is required by regulation to develop an IPSP every three years. This will ensure that a regularly updated plan is in place that incorporates changing circumstances in the economy, new information, technological innovations and other developments that can impact the overall plan. The OPA is commencing the research and analysis required for IPSP 2 in 2009.

During 2009, the OPA will work on the development of the subsequent IPSP by improving its analytical capabilities by acquiring or developing models, tools and data for use in developing future plans. On June 30, 2008, the OPA released a Request for Proposal ("RFP") for "Consulting Services to Develop a 20-Year Energy and Demand Forecast and a Consistent Conservation Potential Assessment or to Develop a Model to Produce Such Forecasts and Assessment". The response to this RFP is expected during Q4 2008, thus allowing the OPA to conduct a consultant selection process by the end of 2008 or early 2009. This consulting work, to commence within the 2009 fiscal year will result in a new outlook for electricity demand that incorporates the anticipated adoption of codes and standards and the acceleration of conservation. A further modeling initiative for 2009 will be a System Production and Costing Forecasting Model, which was the subject of a Request for Expression of Interest ("RFEI") released on March 28, 2008 and an RFP on September 30, 2008.

In 2009, the OPA will be conducting studies, research, and analysis pertaining to technology and regulatory developments in other jurisdictions that can be incorporated into the next IPSP. In addition, the Power System Planning division will continue to research alternative options to transmission; such as, distributed generation and enabler lines. The OPA will also commence the development of a stakeholder consultation plan for IPSP 2, to ensure an open and transparent communication process will be available to inform the process and the plan.

**Initiative 3 – Identify and help resolve barriers to power system infrastructure development**

The evolution of power system infrastructure will require the barriers to the development of transmission, the adoption of conservation, the enhancement of distributed generation and the incorporation of renewable energy supply to be addressed. The OPA will actively identify and help resolve these potential policy and project-specific barriers.

Therefore, the OPA will support the evolution of the Transmission System Code and Distribution System Code through its participation in OEB-led regulatory initiatives, such as the Transmission Connection Cost Responsibility Review, which addresses policy barriers to renewable resources associated with enabler lines, and the Smart GRID Forum[1] launched by the IESO.

Further efforts in this regard will involve work with approval authorities to streamline the approval processes for electricity infrastructure projects. This work may include developing proposals to promote efficient implementation and approvals, and conducting meetings with Provincial approval authorities to identify methods to streamline approvals.

With respect to project specific barriers, the OPA will actively work with Local Distribution Companies, municipal planners and infrastructure proponents to facilitate the inclusion of electricity infrastructure into municipal planning processes. The Planning division will initiate meetings with municipal planners and infrastructure proponents to promote efficient implementation and local approvals of projects identified in IPSP 1.

**Initiative 4 – Fulfilling reliability standards obligations**

The OPA will continue to fulfill Ontario's obligations to electricity reliability authorities, such as the North American Electricity Reliability Corporation ("NERC") and the Northeast Power Coordinating Council ("NPCC"). This mandatory regulatory obligation is shared with transmitters and the Independent Electricity System Operator ("IESO"). In 2009, the OPA

[1] A smart grid refers to a two-way system that monitors and automatically optimizes the operation of the interconnected elements of the power system – from the generator through the high-voltage network and distribution system, to end-use consumers and their thermostats, appliances and other household devices.

will comply with NERC and NPCC requirements by participating in periodic reviews and audits and reporting on Ontario's electricity system plans.

2009 Milestones

- IPSP 1 has been revised and submitted to the Ontario Energy Board.
- Development work is underway on key transmission projects identified in IPSP 1 designed to enable the development of new renewable sources of energy.
- Changes are made to the Transmission System Code related to enabler lines to allow access to renewable resources where required.
- Studies are completed with the relevant LDCs on the potential for and feasibility of conservation and distributed generation in the City of Toronto and Kitchener-Waterloo-Cambridge-Guelph.
- Future supply-constrained areas are identified and local area studies are commissioned.
- Plans for stakeholder consultation on IPSP 2 are being developed.
- The outlook for electricity demand is updated and incorporates the anticipated adoption of codes and standards and the acceleration of conservation.
- Models and tools have been sourced to improve the OPA's analytical and planning capability.
- Obligations for 2009 to electricity planning standards authorities have been met.

## 2.0 2009 BUDGET

The 2009 Budget for Strategic Objective 1 by major cost category, as well as a summary of the variance between the 2008 and 2009 Budgets can be found in Table 1, including the overhead allocation for Strategic Objective 1.

## Table 1

Strategic Objective #1
Operating Costs
Variance Between 2009 Budget and 2008 Budget
($'000s)

| Major Cost Category | 2009 Budget | 2008 Budget | Variance | 2008 Forecast |
|---|---|---|---|---|
| Compensation & Benefits | 4,060 | 3,468 | 592 | 3,579 |
| Professional & Consulting Costs | 1,458 | 1,994 | (536) | 1,694 |
| Operating & Administration Expenses | 272 | 169 | 103 | 123 |
| Total Costs | 5,790 | 5,631 | 159 | 5,396 |

The 2009 Budget for the Power System Planning division of $5.790 million is $159,000 higher than the 2008 Budget. The increase is predominantly due to higher compensation and benefit costs arising from an increase of 5.5 FTEs over the 2008 complement of 28.7 in the 2008 Budget. This staff increase is associated with a need for additional resources to support the initiatives of updating the first IPSP, reducing barriers for advancing conservation and infrastructure development associated with distributed generation and new renewables, and developing in-house capability for the models and analysis for the subsequent IPSP 2.

The increased compensation and benefit cost in 2009 is partially off-set by a reduction to professional and consulting requirements, as the OPA will rely more upon in-house resources for its planned 2009 activities. Overall, the 2009 professional and consulting budget will be utilized for research analysis, analytical modeling, data and technology monitoring, external trend awareness, and third party assessments.

The operating and administration expense of $272,000 is attributed to a higher FTE complement in 2009 and reflective of the actual expenditure levels experienced in 2008.

For the 2008 fiscal year the Planning division is forecast to be below 2008 Budget by $235,000 predominantly due to lower professional and consulting costs partially offset by increases in Compensation and Benefits. In the 2007 fiscal year, when the 2008 Revenue Requirement Submission was produced, it was projected that the oral proceeding and final

argument phase of the IPSP 1 proceeding would have been completed by the second quarter of 2008. The delay in the IPSP proceeding, relative to the 2008 Budget expectation, resulted in a delay in the release of the modeling enhancement RFPs and research studies. As a result, lower costs were incurred with respect to this work than had been anticipated.

## 3.0 2008 RESULTS

(Responses to Measures of Success as defined in EB-2007-0791)

**1. The IPSP has been reviewed and accepted by the OEB as a sound basis for planning.**

In the 2007 fiscal year, when the 2008 Revenue Requirement Submission was produced, it was projected that the oral proceeding and final argument phase of the proceeding would have been completed by Q2 of 2008. Given the actual time frame of the IPSP proceeding and the September 17, 2008 Directive, the key measure of success for the Integrated System Plan, of "an OEB review and acceptance" is still outstanding.

**2. Required models, data, and their capabilities have been identified for the next IPSP.**

Despite the delay in the IPSP 1 proceeding, the OPA has commenced the enhancement of the required models, data, and their capabilities for the next IPSP by releasing an RFP for consulting services on June 30, 2008, "To Develop A 20-Year Energy And Demand Forecast And A Consistent Conservation Potential Assessment Or To Develop A Model To Produce Such Forecasts and Assessment". In addition, on March 28, 2008 a RFEI was released for a system production and cost forecasting model(s) followed by a RFP released on September 30, 2008.

**3. Monitoring of current developments is underway.**

The OPA continues to monitor the activities that are being carried out by other electricity sector entities. On August 29, 2008, the OPA updated its IPSP evidence, identifying additional resources that were deemed to be committed. The term "committed" is

defined as resources that are either under contract to the OPA, subject to a procurement directive or being pursued by the Government directly.

4. **Near-term local area supply concerns have been resolved or solutions have been developed in consultation with local communities, the IESO, transmitters, distributors, developers and other stakeholders; and**
5. **Implementation of these plans advances in a timely manner.**

In responding to local area supply concerns, the OPA continues to actively develop and implement solutions in conjunction with external organizations, such as Hydro One, IESO, and local communities and stakeholders. In 2008 the OPA has developed and refined solutions for the following local communities: Windsor-Essex, Northern York Region, Kitchener-Waterloo-Cambridge-Guelph ("KWCG"), and Southwest Greater Toronto Area ("SWGTA"), which are discussed in detail in the IPSP filing.

With regards to the implementation of these plans, the OPA is active in implementing conservation, procurement, and transmission solutions. In the Windsor-Essex region, for example, the OPA developed an integrated solution incorporating the province-wide conservation programs, generation procurements and transmission. In 2008, these areas were given a higher priority and focus in the rollout of province-wide conservation programs. In addition the OPA, in conjunction with Hydro One, presented two alternative transmission options and obtained feedback from stakeholders. OPA is now currently working on the implementation of the preferred transmission option.

6. **Steps are taken toward streamlining approval processes.**

The OPA has actively participated in the OEB Transmission Connection Cost Responsibility Review consultation process by providing a submission to treat enabler transmission lines and related facilities as a distinct category under the Transmission System Code. This submission supports reducing a barrier for renewable resources in remote locations.

The OPA has also been an active participant in OEB processes related to distributed generation. The OPA's submissions were in support of simplifications to remove barriers and facilitate connection of distributed generation.

**7. Electricity infrastructure has begun to be integrated into municipal planning.**

The OPA commenced meetings in 2008 with municipalities such as Peel and Northern York Region on this issue. Further, the OPA has met with other Government agencies, such as Metrolinx, that carry out transportation or service corridor planning in an effort to identify synergies.

# STRATEGIC OBJECTIVE 2

## Plan and procure conservation resources to meet the requirements identified in the IPSP and promote sustainable conservation practices that contribute to a culture of conservation

Ontario's long-term conservation[1] targets, established by the government in 2006, include reducing peak electricity demand by 6,300 MW with an interim target of 1,350 MW peak demand reduction between 2008 and 2010. On September 17, 2008 the Minister of Energy and Infrastructure directed the OPA to review aspects of the IPSP including the viability of accelerating the achievement of stated conservation targets. The long-term goal is to create a culture of conservation in Ontario.

The OPA has a leadership role in coordinating the province's electricity conservation efforts and working in partnership with local distribution companies ("LDCs") and other delivery agents to ensure Ontario's conservation targets are met. In 2009, the OPA will build on the program experience gained in 2006-2008 as it continues with a comprehensive portfolio of programs. LDCs will play a key role in meeting the conservation targets and the OPA will work to strengthen its partnership with them.

Achieving Strategic Objective 2 is primarily the responsibility of the Conservation and Sector Development ("CSD") division and the Conservation Bureau led by the Chief Energy Conservation Officer ("CECO"). The work of the Evaluation, Measurement and Verification ("EM&V") group, which is part of the Finance and Administration group, is vital to ensuring the cost-effective achievement of this objective. Customer-based generation programs, as defined in the footnote below, contribute to the conservation target and are managed by the Electricity Resources division. These programs are facilitated through the Renewable Energy Standard Offer Program ("RESOP") and the Clean Energy Standard Offer Program ("CESOP") which are described at Exhibit B-3-1. Strategic Objective 2 is also supported by

[1] For the purposes of this evidence, and consistent with the OPA's Integrated Power System Plan (IPSP), "Conservation" refers collectively to electricity efficiency, demand response/conservation behaviour, fuel switching, renewable customer-based generation projects less than or equal to 500kW and clean energy customer-based generation projects less than or equal to 10MW.

the OPA's internal service groups, and details about their work can be found in Exhibit B-5-1. Activities to achieve Strategic Objective 2, the 2009 Budget and a summary of 2008 results are set out below.

### Conservation Organization at the OPA

The planning and procurement of conservation resources, excluding customer-based generation projects, is consolidated in the CSD division reporting to a single vice-president, as illustrated in Exhibit A-6-1. CSD is divided into 6 groups: (1) Portfolio Development and Planning, (2) Mass Market and Conservation Awareness, (3) Commercial and Institutional Markets, (4) Industrial Market and Demand Response, (5) Channel Development, and (6) Sector Development. Sector Development activities and budget are addressed in Exhibit B-4-1, as they support Strategic Objective 4. The Conservation Bureau continues under the leadership of the CECO and will focus on public leadership and coordination, conservation awareness and conservation reporting. The EM&V group continues as part of the Finance and Administration group.

## 1.0 ACTIONS TO ACHIEVE STRATEGIC OBJECTIVE 2

The OPA's approach in achieving conservation targets is to use three complementary but distinct approaches: resource acquisition, capability building and market transformation. Specifically, the OPA has identified the following strategic initiatives that will be undertaken in 2009:

- Procuring conservation resources through OPA-funded programs;
- Supporting conservation delivery channels;
- Increasing conservation awareness;
- Transforming the way electricity is used; planning for changes to codes and standards; and
- Supporting the development of emerging technologies.

Initiative 1 primarily supports the resource acquisition approach, while Initiatives 2 and 3 relate primarily to capability building and initiatives 4 and 5 support market transformation efforts. While all three approaches will be used in 2009, resource acquisition activities will make the most significant contribution to meeting the 2010 target.

**Initiative 1 – Procuring conservation resources through OPA-funded programs**

Program and portfolio planning

In 2009, the OPA will work with stakeholders including LDCs in the development of a revised conservation programs portfolio, covering 2008-2013. The OPA will review conservation programs for 2009 and 2010 and refine its portfolio as required, to ensure the 2010 peak demand reduction target is met. The OPA will examine how to consolidate and refocus the portfolio with the objective of simplifying and accelerating energy savings and demand reduction. This may require leveraging third party conservation programs, considering higher incentive levels and working to address some of the barriers identified in the Chief Energy Conservation Officer's recommendations. It is expected that these actions will provide administrative efficiencies and increase consumer understanding, which will lead to higher program participation and increased savings.

Portfolio planning and refinement will be informed by several processes and sources, including:

- Results and lessons learned to date from the EM&V process of OPA-funded programs;
- Results and lessons learned from pilot programs and other activities funded through the Conservation Fund ("CF") and Technology Development Fund ("TDF");
- A market characterization study to be completed in 2009 and other available market research and technical data;
- The long-term sector plans and codes and standards analysis described under Initiative 4 below; and
- Collaboration with major Canadian utilities that also deliver conservation programs on program design, delivery strategies, codes and standards, emerging technologies and EM&V. To this end, the OPA will host BC Hydro, Hydro-Quebec and Manitoba Hydro at the third annual DSM Alliance Conference in Q2 2009. The purpose of this

meeting is to leverage the collective market impact and wealth of experience delivering conservation programs to achieve efficiencies and promote national standards.

The market characterization study will be a broad-based end-use study providing Ontario data on key electricity use and peak-demand applications to inform our load forecasting and EM&V base case estimates and to identify opportunities for portfolio planning. It will bring together existing data that is relevant and reliable and collect data where necessary to supplement existing sources.

Program and portfolio management

The first generation OPA Conservation Program Portfolio is expected to be in the market by 2009. The portfolio will include programs which are intended to reach customers in every sector (residential, commercial, institutional and industrial).

As programs roll into market, the focus will shift from program design and planning towards portfolio management. Portfolio management includes contract management, driving results through activities to increase program participation and monitoring program and portfolio performance. Additional emphasis will be paid to those areas of the province that are facing electricity supply constraints in the immediate and near future. In this work, the OPA expects to work particularly closely with municipal and LDC delivery partners to identify and support local conservation initiatives that ease supply constraint pressures.

Program implementation processes will be guided by a Portfolio Management Framework, the development of which was initiated in 2008 and is expected to be completed in 2009. The Framework will:

- guide optimization of the portfolio of programs to yield the greatest conservation result;
- establish consistent criteria for adding, deleting and modifying programs and incorporating EM&V results; and
- guide the determination of cost-effectiveness of the portfolio and individual programs.

In 2009, the OPA will continue to develop and enhance its abilities to track and report on the performance of its conservation programs. A key activity is the development of a centralized program tracking platform which will be used to capture and track activity and results data for all programs in the current portfolio. The development of the program tracking platform was started in 2008 and is expected to be completed in 2009.

Public progress reports on 2009 program activities will be produced quarterly and an annual report, communicating the EM&V results from 2008 programs, will also be produced.

Evaluating conservation programs

Evaluation, Measurement and Verification is an integral part of the OPA's conservation activities. EM&V is used for three primary purposes:

- Verify and ensure the reliability of demand reduction and energy savings achieved from OPA funded programs;
- Enhancing the quality of the data used for forecasting and to verify the feasibility of conservation potential for planning purposes; and
- Informing new and existing program design and development.

The OPA is committed to internationally-credible energy program evaluation and has developed an EM&V Framework to guide its evaluation efforts. Every 2008 in-market conservation program has an evaluation plan and will undergo evaluation. This is continuing for 2009 programs. The OPA attempts to evaluate all first-year programs thoroughly, with some follow-up in each program, every year. This approach will yield verifiable results on every program, every year, and is more cost-effective than repeated full evaluations that may not reveal new evidence or information. In 2009, the EM&V Framework will also be enhanced through development of a specific technique for conducting EM&V on demand response programs.

In order to provide transparency and information to the market and key stakeholders, the OPA will:

- Verify program savings results in a manner that can be used for system planning purposes;
- Compare forecast, reported and verified results and identify and define the variances;
- Provide reasonable assurances to interested parties that energy and demand savings are being attained and program spending is cost-effective;
- Provide feedback on program design and delivery to facilitate continuous improvement of the ongoing OPA conservation program portfolio; and
- Publish quarterly progress reports on 2009 activities and an annual report on 2008 program EM&V results.

The Chief Energy Conservation Officer reports on the activities of non-OPA funded conservation (also referred to as "other influenced conservation") and in doing so, has been encouraging these third parties to adopt more rigorous approaches to verify the energy savings and demand impacts of their activities. The Conservation Bureau will continue to encourage enhanced approaches to reporting among third parties in 2009 and will be working to identify and recognize organizations that are leading in this area.

**Initiative 2 – Supporting conservation delivery channels**

Capability building is one of three approaches being adopted by the OPA, along with market transformation and resource acquisition, for achieving the target of 6,300 MW of peak demand reduction. As presented in the IPSP, the OPA has identified three priority areas with respect to capability building:

- The development and skill enhancement of a variety of program design and delivery agents;
- The support of M&V professionals; and
- The development of the electricity customer's ability to understand and incorporate Conservation in their daily lives and businesses.

Initiative 2 focuses on the first two priority areas, while the third priority area is supported by Conservation Awareness activities (Initiative 3).

Capability Building Plan and Initiatives

In 2009, the OPA will develop a Capability Building plan that will assist in meeting the 6,300 MW target through initiatives which support accelerated resource acquisition. The objectives of the plan will be to help the conservation service industry and other market players develop the skills and knowledge necessary to deliver effective conservation programs. Capability building initiatives will likely be targeted at LDCs, program administrators, the supply chain and other influences, and customers. Types of activities envisaged include training, certification, the development and dissemination of education materials and tools, and the direct engagement of under-exploited supply chain players. The capability building initiatives may be stand alone programs or incorporated into existing conservation program activities.

In 2009, capability building initiatives will be implemented through existing conservation programs and through Conservation Fund pilots. The objectives of the CF are to develop innovative approaches to conservation that inform the development of OPA programs, and build market capability through pilot projects solicited through calls for proposals. The total funding available for commitment to new pilots in 2009 is the same as it was in 2008, at $3 million. New, stand alone programs for implementing capability building may also be developed.

In 2009, areas of focus for capability building initiatives will include:

- upstream program approaches (i.e. targeting manufacturers/ distributors rather than end-use consumer);
- education initiatives;
- supporting program design and delivery agents; and
- M&V Professionals certification.

Upstream approaches

The OPA will develop market tests focused upstream of the consumer, with the belief that in many instances, market transformation can more easily be achieved by working with the distributors and manufacturers of goods and services. One such initiative in development for 2009 is a national set-top box initiative. Set-top boxes consume a significant amount of energy and are typically leased to the consumer by the cable company. This national initiative, in collaboration with BC Hydro, Manitoba Hydro and Hydro Quebec will focus on working with cable companies and manufacturers to encourage the specification of Energy Star certified set-top boxes as the device of choice for cable service providers.

Education Initiatives

The OPA will develop initiatives based on green collar job focused requests for proposals issued in late 2008:

- Training Tomorrow's Energy Managers*:* focuses on providing engineering post-secondary student or graduates with work experience in industrial energy management, similar to the US Department of Energy's Industrial Assessment Centers.
- Building Workforce Capability for Energy Efficiency*:* is aimed at providing current members of the workforce with additional training and work experience to increase their ability to address energy efficiency.
- Secondary School Co-op in Energy Efficiency*:* helps expose high school students to the energy efficiency services sector through co-op work experience.
- Municipal Capability Building*:* recognizes the important role that municipal officials and staff can play by incorporating energy efficiency as a consideration into Council decisions, permitting and approvals, bylaws or municipal programs.

Supporting Program Design and Delivery Agents

The OPA will work in partnership with LDCs to deal with an increasing number of conservation vendors (see table below). The organization has developed positive working relationships with LDCs and many third-party delivery agents for conservation programs in the belief that having many distribution channels close to customers will support the establishment of a sustainable conservation marketplace. A significant portion of the

OPA's conservation program staff time will be devoted to managing relationships with vendors and providing support for their delivery of conservation programs. Contracts with agents that are new to the conservation industry tend to involve a high degree of OPA oversight. However, as capability develops, the oversight can be reduced.

**Table 1: Estimated number of OPA contracts for 2009 OPA conservation programs**

| | **2008** | **2009** |
|---|---|---|
| Mass Market | 320 | 340 |
| Commercial/Institutional | 93 | 171 |
| Industrial | 70 | 170 |
| Demand Response | 85 | 91 |
| Total | 568 | 772 |

Source: OPA

Efforts to build the capability of delivery channels and develop a conservation service industry will continue in 2009 with the view to progressively evolving the existing approach (procuring for delivery of OPA-designed programs) towards full-service procurements (i.e. procuring for MWs).

M&V Professionals

As part of the development of an internationally-credible energy program evaluation framework at the OPA, the OPA supports the Certified Measurement and Verification Professionals ("CMVP") program, which is a designation governed by the Association of Energy Engineers in conjunction with the Efficiency Valuation Organization. The CMVP program is critical to ensuring that up-front, project-level M&V is undertaken to a high professional standard in the OPA conservation programs that include larger-scale projects. Where large energy and demand savings and commensurate incentive spending are involved the use of CMVP's to review retrofit and/or construction plans helps in several ways:

- More accurate up-front estimations of the energy and demand savings from the project;

- More assurance that the savings are achievable;
- More accurate and reliable before-the-fact and after-the-fact metering and measurement, revealing the actual energy and demand savings; and
- Where the CMVP has an ongoing association with the project proponent (is an employee or longer-term consultant), future capability to work with energy managers to design and monitor other efficiency initiatives outside of OPA programming.

To support the certification of additional CMVP professionals, the OPA will sponsor several training sessions in 2009.

**Initiative 3 – Increasing customer awareness**

The OPA will continue to undertake initiatives to build and maintain public awareness of the importance of electricity conservation, to drive participation in conservation programs, and to influence behaviour towards wiser use of electricity. In addition to supporting all conservation programs, awareness-raising activities advance the longer-term objective of the development of a conservation culture.

Activities of the CECO and Conservation Bureau staff to increase customer awareness will continue through 2009. These activities include fostering leadership through the Municipal Energy Conservation Officer ("MECO") initiative, where municipal councils are encouraged to appoint a local champion for electricity conservation within the community. The Conservation Bureau began to develop a strategy for MECO development and support in 2008, which will influence the focus of 2009 efforts. In the near-term, the Conservation Bureau will focus on seeing MECOs appointed in areas facing electricity supply issues. Dialogue is planned to continue with existing and prospective MECOs in order to better understand their objectives for championing conservation in their communities and to identify barriers that are impacting the uptake of conservation at the local level.

Other initiatives of the CECO to raise awareness are planned to continue in 2009. These include the Powerlines radio program, issuing Certificates of Recognition, and speaking to a wide variety of audiences about the importance and the benefits of conservation.

The CECO will issue an annual report in November 2009 to the Minister of Energy and Infrastructure, the OPA's Board of Directors and to the public. As prescribed under the *Electricity Act, 1998*, the report will include details on conservation program and awareness activities of the OPA and others in Ontario, including municipal, provincial and federal governments and non-governmental organizations. The CECO annual report also identifies barriers to the implementation of electricity conservation measures and makes recommendations to the government to resolve or overcome them.

Independent research into the awareness, attitudes and behaviours of Ontarians toward electricity and conservation will continue and will build upon the results of previous years. The results of this research will be used to track trends, to inform the refinement of existing programs, where required and where possible, as well as to inform the design and development of future program proposals.

A summary of conservation awareness activities planned for 2009 can be found in Table 2 below.

**Table 2: 2009 Conservation Awareness Programs**

| Program | Description |
|---|---|
| Chief Energy Conservation Officer Public Leadership | Public speaking to raise awareness<br>CECO website<br>Summer messages program<br>Powerlines radio show<br>Certificates of Recognition<br>Annual Report |
| Conservation Awareness | Market research (Consumers and Business markets)<br>Website development and maintenance<br>Brand management<br>Call centre management<br>Advertising, marketing and social marketing activities |
| Education Awareness | School Energy Conservation program |
| Business Leadership | Business leadership awards program |

Source: OPA

**Initiative 4 – Transforming the way electricity is used; planning for changes to codes and standards**

As previously discussed, market transformation is one of three key approaches being adopted by the OPA for achieving the 6,300 MW peak demand reduction target. Market transformation refers to the long-term objective of achieving a substantial and sustainable increase in the market share of energy-efficient technologies, buildings and production processes. Transforming the conservation marketplace cannot be achieved by the OPA alone, however the OPA has an important role to play, both as a planner and as a program implementer to support and accelerate the transformation process.

In 2009, the OPA will continue the long-term sector-based conservation planning commenced in 2008. Long-term plans, covering the 2011-2025 timeframe, will be developed for each major sector: residential, commercial/institutional and industrial. Each plan will include a vision of what the sector could look like by 2025, quantifiable market transformation metrics, and an implementation plan to achieve the objective. These long-term plans will guide the development and refinement of the conservation programs portfolio, as well as inform some short-term activities, especially for the CF and Technology Development Fund. In 2009, the OPA will complete plans for each sector, and consider the development of a plan that integrates the sectors.

The OPA will continue to work with the federal and provincial governments and be active in national and international market transformation efforts. The OPA will also continue to monitor national and international developments and best practices that support market transformation to inform and improve its ongoing work.

In addition, the OPA will be an active participant in Ontario's Smart Grid Forum to help evaluate the opportunities for enhancing distributed generation, energy efficiency and demand management initiatives offered by the future development of a smart grid.

A variety of tools and programs are used to transform the market where the supply chain and influencers are encouraged to sell conservation products and services to "push" the market, and/or consumers are encouraged to buy these products or services to "pull" the

market. Typically, these market interventions aim to increase the market penetration of conservation products or services commonly referred to as the diffusion "S" curve. The "S curve shows that when market acceptance reaches sufficient levels for a specific measure, codes, standards or other regulation can be introduced to lock in the savings without ratepayer subsidy.

While the OPA does not have the authority to change codes and standards, it has an active role in planning for changes to codes and standards. As outlined in the IPSP, as much as 40% of conservation savings will come from changes to building codes and performance standards for appliances and equipment.

In 2009, the OPA will estimate the impact of establishing and/or accelerating changes to codes and standards on electricity consumption to 2025. The OPA will continue as a member of the Canadian Standards Association Steering Committee on Performance, Energy Efficiency and Renewable Standards.

**Initiative 5 – Supporting the development of emerging technologies**

Supporting the development of emerging technologies helps accelerate market penetration of more energy efficient technologies. The Technology Development Fund provides funding to support the development and commercialization of technologies or applications that have the potential to improve electricity supply or conservation. Note that the TDF does not apply solely to end use technologies, focusing exclusively on technologies or applications that are pre-commercial, or are facing barriers to commercialization. The program provides funding for further study, development and demonstration or performance verification.

Since its inception in 2006, the TDF has provided funding to 27 projects, with a cumulative expenditure of $2.7 million, leveraging an additional $35 million in contributions from the Ontario Centres of Excellence, Natural Resources Canada and from utilities and other partners from across North America

As a reflection of the IPSP and recent OPA-funded research, the OPA has formulated three top emerging technologies on the conservation side for the 2009-2011 business plan cycle:

- High efficiency lighting
- Next generation cooling and refrigeration
- Advanced building controls

The OPA has partnered with BC Hydro, Manitoba Hydro and Hydro Quebec to leverage each organization's respective emerging technology funding to develop a portfolio of projects in 2009 in each of the three priority end use areas outlined above. The OPA will also continue to partner with the Centre of Energy Advancement through Technology Innovation, the Ontario Centres of Excellence - Centre for Energy, and will explore further collaborative opportunities with the Ministry of Research and Innovation through, for example, its Next Generation of Jobs Fund.

The total funding available for commitment to new projects in 2009 remains unchanged from 2008 at $1.5 million. Actual and proposed disbursements are shown in Exhibit D-2-1.

2009 Milestones

- A robust portfolio of OPA conservation programs continues to be available in the Ontario marketplace and is delivering electricity savings, contributing to reduced peak demand and raising awareness of the value of conservation to all Ontarians.
- Reports on conservation programs progress, including EM&V results for 2008, and the 2009 Chief Energy Conservation Officer's annual report have been produced.
- OPA activities to identify and support conservation opportunities in areas of the province with urgent and emerging reliability issues, such as northern York Region, southwest GTA and Kitchener-Waterloo-Cambridge-Guelph, are underway.
- An overarching capability building plan has been developed that focuses on conservation program administrators including LDCs, the supply chain and other influencers, and customers.
- The OPA will have sponsored a minimum of three Certified Measurement and Verification Professional training sessions.
- Awareness of conservation has increased, and the OPA has launched an award program to recognize conservation leadership in Ontario's business community.

- Progress is being made on identifying and implementing appropriate minimum energy performance standards and on removing barriers to conservation.
- An EM&V framework for demand response has been developed.

## 2.0 2009 BUDGET

The 2009 Budget for Strategic Objective 2 by major cost category, as well as a summary of the variance between the 2008 and 2009 Budgets can be found in Table 3, including a break-down of the operating costs by division for Strategic Objective 2.

**Table 3**

Strategic Objective #2
Operating Costs
Variance Between 2009 Budget and 2008 Budget
($'000s)

| Major Cost Category | 2009 Budget | 2008 Budget | Variance | 2008 Forecast |
|---|---|---|---|---|
| Compensation & Benefits | 7,642 | 8,199 | (557) | 7,638 |
| Professional & Consulting Costs | 7,533 | 9,931 | (2,398) | 8,349 |
| Conservation / Technology Initiatives | 4,061 | 4,034 | 27 | 2,775 |
| Operating & Administration Expenses | 836 | 1,022 | (186) | 913 |
| Total Costs | 20,072 | 23,186 | (3,114) | 19,675 |

Variance Explanations

### 2009 vs. 2008 Budget Comparisons

The 2009 Conservation operating Budget is $3.1 million less than the 2008 Budget. The difference is primarily driven by reduced professional and consulting costs, as the portfolio of programs will be in-market in 2009 and therefore less consulting assistance will be required. At the same time as the operating budget related to conservation spending is declining, program spending on conservation will increase by approximately 100% in 2009. Increased consulting budgets have been allocated to channel development programs and a market characterization research study; however the overall consulting budget has decreased, as existing programs will continue to run throughout 2009 and will require less

marketing and design support. Consulting fees for the EM&V group have also been reduced as many of the costs incurred in the first two years of the group's operation were start-up costs and the ownership of a data warehousing project has been moved to the Information Systems ("IS") department.

**2008 Budget vs. Forecast Variance**

In 2008, the OPA planned to deliver 26[2] resource acquisition programs, the CF, the TDF, several conservation awareness initiatives plus supporting activities. Currently, the OPA forecast is to have 20 resource acquisition programs in market with three additional programs in the design or procurement stages, with all other activities proceeding as planned. The variance of ($3,114) million is primarily driven by less than anticipated expenditures on consulting and professional fees and on delayed milestone payments in the case of the CF, as described below.

The forecast Consulting and Professional Fees for 2008 is $8.3 million compared to a budget of $9.9 million. In developing the 2008 Budget, each program was allocated a consulting budget for program design or delivery support, however the full amount was not required for several programs that were launched in 2006 or 2007 and did not yet require redesign or additional delivery support. The EM&V consulting forecast is also significantly lower than budget, as several programs were launched later than scheduled in 2008, delaying the evaluation expenditures to 2009. In addition, ownership of a program data warehouse project was reallocated to the IS department, reducing EM&V's expenditures.

The forecast CF spending for 2008 is $1.97 million compared to a budget of $2.9 million. This variance evolved due to delays in the commencement of several pilots that were awarded positive decisions in the last call for applications in 2007 and the first call in 2008. Additionally, the number of submissions to the Fund decreased in the first quarter of 2008, as staff resources were reallocated from project recruitment activities to the development of a new process for topic-specific calls for proposals. With the development of this new

[2] Standard offer renewable and clean energy programs (customer based generation) are also resource acquisition programs, but were not included in the 26 programs as they are managed by the Electricity Resources division and are discussed in Exhibit B-3-1.

process complete, four topic-specific calls for proposals had been issued by Q3 2008, and the number of submissions to the Fund has increased significantly.

## 3.0 2008 RESULTS

(Responses to Measures of Success as defined in EB-2007-0791)

Activities related to 2008 success metrics

In 2008, the OPA's Strategic Objective 2 relating to Conservation was to "contribute to the achievement of Ontario's conservation resource targets and to fostering a culture of conservation using market-based approaches". The success metrics set for 2008 and the status of their achievement are described below. As outlined in the evidence below, the OPA was substantially successful in fulfilling these broad objectives.

**1. Twenty-six (26) resource acquisition programs have been implemented by the end of 2008 and are delivering electricity savings.**

In EB-2007-0791, the OPA stated that it would deliver 26 resource acquisition programs in 2008. The OPA is currently projecting that 20 programs will be in market by the end of the year, with three more in the procurement or design stages, for a total of 23 resource acquisition programs. In addition to these programs are the customer-based generation programs managed by the Electricity Resources division. The two programs that have been removed from the portfolio of resource acquisition programs are the Agricultural Energy Efficiency Program and the New Appliance Program. The Agricultural Program has been reclassified as a conservation awareness initiative, without a direct energy or demand savings target, as it is a marketing program that aims to increase awareness and participation of farmers in other OPA conservation programs. After a detailed technology and market analysis, the OPA concluded that there is very limited opportunity for a cost-effective standalone program to encourage consumers to purchase high efficiency major appliances and therefore removed the New Appliance Program from the portfolio. The OPA will continue to support the market transformation of the appliance sector through its Appliance Retirement Program (the Great Refrigerator Roundup) as well as through its emerging technology and codes and standards activities.

**2. The Conservation Fund has informed the development of the Conservation portfolio.**

Several CF pilot projects have had direct impacts on the composition of OPA programs launched in 2008, including:

- The Power Savings Blitz (small commercial direct install program) evolved directly from pilots conducted with the Ontario Convenience Stores Association and Green$aver/Energyshop.
- The New Home Construction Program scheduled for launch in 2008 was significantly informed by a two-stage pilot conducted by EnerQuality Corporation on their ENERGY STAR for New Homes initiative.
- The Industrial Energy Efficiency Program integrates elements from pilots with the Ontario Forest Industries Association, the Ontario Mining Association and the Alliance of Ontario Food Processors.

Other achievements in 2008 include the harmonization of the CF's proposal and reporting processes with the OPA's EM&V process, and the development of an option to fund pilots which are in a position to deliver verifiable resources. Under this option, one pilot led by the Clean Air Foundation, was completed in conjunction with the Every Kilowatt Counts Power Savings Event. The pilot involved the exchange of working but inefficient room air conditioners and dehumidifiers for efficient replacement units.

**3. The Technology Development Fund has leveraged funding from other partners to help developing technologies that are consistent with the IPSP and the OPA's mandate.**

In 2008, the TDF has provided over $1.5 million to fund eight new projects, leveraging over $22 million in external contributions. Notable projects in the TDF portfolio in 2008 included:

- Regen Energy's REGEN Demand Management and Demand Response controller which helps small and medium sized customers level loads and reduce demand-related charges. This device is now proceeding to commercialization and has attracted significant venture capital.
- Hydro Quebec's Variable Frequency Drive Performance Testing initiative led to the development of international standards for these energy-efficient drives. This

process will lead to greater market confidence in this superior technology and drive market transformation.

- Ivaco Rolling Mills' trial and test of an electric arc furnace innovation could lead to a highly replicable application that is anticipated to save 20% of electricity used in arc furnaces.

Other achievements in 2008 included the development of a consensus (initiated by the OPA) between BC Hydro, Manitoba Hydro and Hydro Quebec on the three emerging technology priorities outlined in Initiative 5 below.

**4. Public opinion research shows that awareness of electricity Conservation is rising.**

Independent market research undertaken on behalf of the OPA by Ipsos Public Affairs reports that since the beginning of 2007 "Ontarians are increasingly aware of and talking about electricity use. The vast majority of Ontarians say they have made using electricity wisely in their home more of a priority over the past year".

**5. New and emerging technologies and evolving codes and standards have been evaluated and assessed for their relevance, both to the Conservation portfolio and the future needs of the system.**

In 2008 the OPA commissioned an Emerging Energy Conservation Technologies scan in collaboration with gas distributors Union and Enbridge, BC Hydro and the Ontario Ministry of Energy and Infrastructure. The findings, which were informed by the IPSP and external research, resulted in a priority ranking of end use emerging technologies that is now driving the TDF's investment strategy on the demand side. This study resulted in an agreement between BC Hydro, Manitoba Hydro and Hydro Quebec to collectively focus on the development of RD&D projects in high efficiency lighting, advanced building controls and next generation cooling/refrigeration technologies.

As part of the long-term conservation planning process discussed earlier, the OPA is estimating the savings impact from planned, expected and accelerated changes to codes and standards in the residential and commercial sectors.

The OPA has identified key accounts and groups with which to work to support codes and standards regulation, and support market transformation. In particular, the OPA has worked closely with the Canadian Appliance Manufacturers Association and individual appliance manufactures to identify opportunities to work together to achieve market transformation of the appliance market.

The OPA has been actively involved with the Forum for Leadership in Energy Efficiency, chaired by the Office of Energy Efficiency, NRCan. The role of the Forum is to support Federal and Provincial minimum energy performance regulation and coordinate market transformation efforts across Canada. The OPA is actively participating in five Forum sub-committees: residential space conditioning, commercial space conditioning, appliances, strategic lighting initiative and stand-by power advisory committee.

The OPA has also been active with: The Demand-side management working group of NRCan which reports to the Assistant Deputy Ministers' Steering Committee on Energy Efficiency; The Consortium for Energy Efficiency ("CEE"); and the Canadian DSM Alliance planning and evaluation committee.

The OPA is a member of the Canadian Standards Association Steering Committee on Performance, Energy Efficiency and Renewable Standards.

**6. A situational analysis of the Conservation marketplace has been completed and the portfolio of programs has been planned for 2009.**

A situational analysis of the Conservation marketplace was completed during the development of the current 2008-2010 portfolio, which includes 2009 programs. As described above, the OPA will be reviewing its portfolio and expanding its scope to include 2011 through 2013, as a result of the September 17, 2008 Directive.

**7. Requests for proposals have been issued for the design and delivery of some of the 2009 Conservation programs.**

In 2008, the OPA issued Request for Proposals for design and/or delivery services for the following Conservation Programs scheduled to be in market in 2009:

- Community Engagement Program (program planning consultation services);
- Every Kilowatt Counts Power Savings Event (2009-10 program manager);
- Cool Savings Rebate Program (program fulfillment services, communications development market research);
- Single Family Low Income Program (2008-10 program manager);
- Multi-Family Buildings Program (2008-10 program manager - private housing sector; 2008-10 program manager - assisted and social housing sector);
- Chiller Water Plant Continuous Commissioning Program (phase 1 participants);
- Residential New Construction Program (program design consultation/research);
- Home Energy Efficiency Program (program design consultation services);
- Industrial Energy Efficiency Program (2008-10 program manager);
- Summer Sweepstakes Program (fulfillment services); and
- Electricity Retrofit Incentive Program (lighting review).

**8. The CECO has issued his 2008 Annual Report.**

In 2008, the CECO issued a supplement to his 2007 Annual Report. The supplement included detailed results achieved through conservation programs and activities beginning in 2005 up to the end of 2007. The CECO will also issue his 2008 Annual Report in November 2008.

In 2008, Conservation Bureau staff commissioned a review of the CECO annual reports to find ways to improve the reports for Ontario audiences. The results of the study will be incorporated into the 2009 CECO report.

**9. Program results are being evaluated, measured and verified on an annual basis and quarterly portfolio reports are being produced to track program results against planned targets.**

In 2008, the OPA began publishing quarterly progress reports on the current year's program activities. These reports provide 'reported results', which are estimated based on actual program activities for the quarter (e.g., how many fridges were picked up) and the program design input assumptions (e.g., how much energy will be saved per fridge that is picked up). The quarterly progress reports track progress of the portfolio towards the 2010 demand reduction target. The reports are available on the OPA website.

Also in 2008, the OPA completed the EM&V process on six programs that were delivered in 2007.

**10. Mid-year progress reports on the programs delivered in 2007 by local distribution companies have been produced.**

A Progress Report for all programs delivered in 2007, including four programs delivered by local distribution companies was published in April 2008. The report provided reported results (as described above) for program activity levels and energy and demand savings. Two of the programs delivered by LDCs (Great Refrigerator Roundup and Summer Savings) were among the six evaluated programs. Verified savings for these programs will be published on the OPA website when available.

# STRATEGIC OBJECTIVE 3

**Plan and design procurement processes and enter into procurement contracts for generation resources to meet the requirements identified in the IPSP and to embed "best-in-class" contracting practices that support investment in necessary infrastructure and contribute to a sustainable electricity system**

The Electricity Resources division comprises the Procurement and Contract Management groups. Until such time as the IPSP and the OPA's procurement processes have been approved by the OEB, the Procurement group shall launch procurements for generation resources solely through Government Directives ("Directive(s)") received from the Minister of Energy and Infrastructure ("the Minister").

To meet this strategic objective, the Procurement and Contract Management groups will undertake the following strategic initiatives in 2009:

- Procure identified generation resources using OPA procurement processes and contracts that facilitate procurement of generation resources and effectively allocate risks between electricity users and generation developers, including standard offer programs;
- Manage contracts with successful proponents from the procurement process through permitting and construction phases, and financially settle with counterparties that have achieved commercial operation.

## 1.0 ACTIONS TO ACHIEVE STRATEGIC OBJECTIVE 3

### Initiative 1 – Procurement

The OPA facilitates new investment in generation resources when such investments do not arise within the electricity market itself. These new resources are facilitated via OPA contracts with generation developers.

The generation procurement contracts effectively allocate risks between electricity users and generators by ensuring efficient participation in the electricity markets. For example, generators under contract with the OPA that can be dispatched in accordance with the

IESO's Market Rules are contractually incented to operate in accordance with market signals through the 'deemed dispatch' model. Upon specific pricing conditions in the energy markets, the generator is 'deemed' to have been dispatched to generate electricity. The net revenues calculated based on this imputed production are deducted from the contracted monthly Net Revenue Requirement (or Fixed Capacity Payment) to determine either a support payment to the generator, or a revenue sharing payment from the generator. These incentives ensure that the generators are operating efficiently to meet market needs, more effectively balancing electricity supply with demand.

On August 29, 2007, in conjunction with the IPSP, the OPA submitted a Procurement Process for OEB approval. This Procurement Process outlines the steps the OPA will take to procure identified conservation and generation resources in the IPSP. The Procurement Process identifies three main procurement types to be used to procure conservation and generation resources: competitive procurement; standard offer procurement; and non-competitive procurement. A full description of the Procurement Process is provided in the IPSP evidence.

The following describes the generation resources which will be procured, or for which procurement work will have begun, in 2009.

A significant portion of the projects to be procured in 2009 will be renewable energy projects. In 2008, the OPA launched the RES III procurement for 500 MW, which is scheduled to be complete by the end of 2008.

On December 20, 2007, the OPA was directed to conclude Hydroelectric Supply Agreements ("HESAs") with Ontario Power Generation for several of their existing facilities and the expanded capacity at these facilities. Several of these were concluded in 2008, as discussed in 2008 Results, below. In 2009, the OPA is scheduled to execute a HESA with OPG for their Lower Mattagami facility (approximately 450 MW). Execution of the Lower Mattagami HESA will conclude the Ministerial Directive.

Under the Renewable Energy Standard Offer Program (the "RESOP") and the Clean Energy Standard Offer Program (the "CESOP"), standardized procurement processes provide the opportunity for smaller scale generators to contribute to the electricity supply for the province.

The OPA launched the RESOP in 2007 in response to the March 21, 2006 Directive. The RESOP facilitates development of small renewable energy generation projects (e.g., wind, hydroelectric, biomass and photovoltaic) under 10 MW that are connected to distribution systems. RESOP projects that are less than or equal to 500 kW completed as a result of this program contribute to conservation savings targets, as discussed in greater detail in Exhibit B-2-1. RESOP projects greater than 500 kW contribute to renewable energy procurement targets. As of August 31, 2008, over 360 contracts have been executed for a total RESOP capacity of approximately 1,500 MW. In 2009, the OPA will continue to facilitate the procurement of small renewable energy projects and will undertake appropriate changes as necessary to improve how these resources are procured.

The OPA is scheduled to launch the CESOP in the fourth quarter of 2008. In response to the June 14, 2007 Directive, the CESOP will facilitate development of small clean energy generation projects (e.g., natural-gas, by-products, district energy). All projects less than or equal to 10 MW under the CESOP contribute to conservation, within the category of "customer-based generation". Throughout 2009, the OPA will facilitate the program by reviewing the CESOP applications and signing contracts using a similar process to the RESOP.

In addition to RESOP and CESOP, the OPA has been developing additional standard offer programs. The Northern Hydroelectric Initiative ("NHI"), for small, transmission-connected waterpower projects in Northern Ontario, is expected to launch in the fourth quarter of 2008. The OPA will also be participating in the Energy from Waste ("EFW") Pilot or Demonstration Project ("PDP") through procurement of the project's net electricity output. This initiative, driven by the Ministry of Environment, will assess the merit of EFW technologies and assist in the development of improved technologies, as well as facilitate

the testing and evaluation of EFW technologies to obtain necessary information on environmental impacts.

The OPA will also work closely in 2009 with other Ontario electricity agencies and key stakeholders in developing new and improved mechanisms to procure renewable energy supply.

On August 18, 2008, a Directive was issued to procure Southwest Greater Toronto Area ("SWGTA") supply resources. This procurement is for a generating facility with an approximate capacity of 850 MW, and is expected to be complete in June, 2009.

In 2008, the second procurement for Combined Heat and Power ("CHP") supply resources was launched. The second phase was launched to provide additional capacity in response to the June 15, 2005 Directive. In addition, on April 10, 2008, a Directive was received to procure up to 100 MW of CHP Renewable Cogeneration projects greater than 10 MW in size. Both of these procurements are expected to be completed in the first quarter of 2009.

In order to execute and complete procurement processes, the Generation Procurement group will form project teams (consisting of OPA staff and external consultants as appropriate) to: develop applicable procurement documents, such as Requests-for-Proposals ("RFPs"), program rules, contracts, etc.; define procurement schedules; and manage all procurement obligations. A key component of this process is stakeholder consultation, as discussed in Exhibit B-5-1. Stakeholders will be consulted prior to finalization of procurement documents.

**Initiative 2 – Procurement contract management**

The OPA is the counterparty to a series of conservation and generation resource contracts and will soon be the counterparty to additional generation resource contracts, which arise from:

- Ministry of Energy and Infrastructure ("Ministry") -initiated RFPs for new conservation and generation resources (e.g., RES I, RES II, Clean Energy Supply RFP);

- Negotiation between the Ministry and certain counterparties (e.g., Bruce Power Refurbishment Implementation Agreement);
- OPA-initiated RFPs in response to Directives for new conservation or generation resources (e.g., CHP, GTA West, Northern York Region demand-response, RES III, Northern York Region, and SWGTA);
- Sole-source negotiations between the OPA and counterparties in response to Directives , such as Goreway Generating Station ("GS"), Portlands Energy Centre GS, and the HESAs (Lac Seul, Upper Mattagami/Hound Chute, Healy Falls, and Lower Mattagami), the Energy from Waste ("EFW") Pilot or Demonstration Project ("PDP"); and
- Standard Offer Programs (RESOP, CESOP, NHI and EFW).

A list of the conservation and generation resource contracts that are managed and administered by the Contract Management group as of September 2008 is found in Appendix A to this exhibit. These 40 contracts have a total average contract capacity of slightly below 10,000 MW and include renewable generation (wind, hydroelectric, and landfill/biomass), demand-response, natural-gas fired generation (including CHP generation) and refurbishment of nuclear generation.

The portfolio of contracts listed in Appendix A represents approximately $12.0 billion of new investment in Ontario's electricity sector.

By the end of 2008, Electricity Resources expects that the following procurements will result in one or more executed contracts, which will be managed and administered by the Contract Management group: RES III, Northern York Region, and certain HESA's. These contracts are expected to have a total contract capacity of approximately 850 MW, bringing the total contract capacity being managed by the Contract Management group to approximately 10,500 MW by the start of 2009.

Furthermore, as discussed under Initiative 1, the Procurement group will be procuring additional capacity in 2009, which will also be managed and administered by the Contract Management group once the contracts have been signed. This will bring the contract capacity being managed by the Contract Management group to an estimated 13,500 MW by the end of 2009.

For contracts that are not part of a Standard Offer Program, Contract Management's work involves managing and facilitating the development of these projects from the contract execution stage, through permitting, construction and start-up, to commercial operation. Technical, operational, managerial, regulatory and economic issues are addressed as they arise. This involves ongoing communication with counterparties, including site investigations, to monitor the progress of permitting, approvals and construction of the projects and undertaking all necessary actions to ensure that contractual milestones are met, up to and including amending contracts, where appropriate.

For facilities that hold standard offer contracts, Contract Management work involves maintaining up-to-date information on proponent progress, responding to requests for amendments (such as reductions in contract capacity, or changes to wind project siting due to local zoning requirements), assignments and consideration of relief under Force Majeure provisions. OPA staff also report to the relevant LDCs when projects reach commercial operation, allowing the LDC to commence contract payments consistent with the OEB's Retail Settlement Code.

As counterparty to the contracts listed in Appendix A, the OPA is responsible for the financial settlement of each facility that reaches its Commercial Operation Date ("COD"), as well as meeting any other financial obligations of the contracts. This involves producing timely and accurate settlement statements listing all relevant information, which includes calculating monthly settlement values; researching contracts to clarify interpretation; and resolving issues and concerns with suppliers in a professional and timely manner. It also involves adapting existing processes and systems to accommodate new contracts.

The OPA's financial settlement system is automated; however, further enhancements will be implemented in 2009, largely reflecting new contract structures. Currently, the OPA financially settles 21 of the 40 contracts listed in Appendix A. However, by the end of 2009 several contracted facilities are expected to achieve commercial operation and the OPA is expected to settle an additional 14 contracts. The remaining contracts will be financially settled by the OPA once they reach commercial operation in 2010 or later.

RESOP contracts are settled by the Local Distribution Companies on behalf of the OPA. As of August 31, 2008, approximately 144 such contracts were in-service and being settled.

2009 Milestones

The OPA's 2009-2011 Business Plan, filed at Exhibit A-2-1, identifies the following Milestones for achievement by year-end 2009:

- Progress is being made on the competitive procurements to acquire additional electricity generating resources.
- Contract negotiations, where necessary, have been completed to the overall benefit of the ratepayer, and all financial settlements for 2009 have been completed accurately and on time.
- Outreach and public education efforts are underway in southwest GTA.
- Effective communication material has been made available to proponents in southwest GTA, and best-practice community engagement guidelines have been developed.
- A number of new procurement contracts have been signed with both small and large developers.
- New and improved mechanisms to procure different types of renewable energy resources have been developed.

## 2.0 2009 BUDGET

The 2009 Budget for Strategic Objective 3 by major cost category, as well as a summary of the variance between the 2008 and 2009 Budgets can be found in Table 1, below.

**Table 1**

Strategic Objective #3
Operating Costs
Variance Between 2009 Budget and 2008 Budget
($'000s)

| Major Cost Category | 2009 Budget | 2008 Budget | Variance | 2008 Forecast |
|---|---|---|---|---|
| Compensation & Benefits | 3,334 | 3,089 | 245 | 2,880 |
| Professional & Consulting Costs | 4,205 | 4,717 | (512) | 4,254 |
| Operating & Administration Expenses | 193 | 314 | (121) | 245 |
| Total Costs | 7,732 | 8,120 | (388) | 7,379 |

The 2009 Budget will incorporate the following activities:

- development, stakeholder consultation and management of all procurements;
- drafting all procurement documents;
- negotiation of contracts, where appropriate;
- finalization of contracts;
- management of all finalized contracts, including the ones procured pre-2008;
- preparation/negotiation of amendments to finalized contracts when and if required;
- site visits to generation facilities under construction; and
- financial settlement of contracts for in-service facilities.

The total 2009 Budget of $7,732 million represents a decrease from the total 2008 Budget of $8,120 million. This decrease is driven in part by a decrease in Professional and Consulting costs for the Procurement group, which is partially offset by an increase in this category for Contract Management.

In 2009, two generation procurements are expected to be completed in the first quarter; one is expected to be completed in the third quarter; and one in the fourth quarter. With the completion of these procurements, legal costs for the Procurement group will decrease.

Professional and consulting costs associated with managing contracts are expected to partially offset the above noted decreases in 2009 due to an increase in the number of

contracts under management. More specifically, these new contracts relate to the completion of the following procurements: CHP II and CHP III, SWGTA, RES III, Northern York Region, and certain HESA's.

The 2008 Forecast of $7.379 million represents a decrease of $742 thousand from the 2008 Budget. The 2008 Forecast decrease results from a combination of the decrease in procurement legal fees and the timing of expenditures for 2008. Certain procurements commenced later in 2008 than originally anticipated, resulting in lower than expected legal and consulting fees. Some of the required activities for Electricity Resources are scheduled to take place later than planned, in the fourth quarter of 2008.

2009 Budget – Income from Registration Fees

In accordance with the Procurement Process filed with the OEB, the OPA charges a registration fee to prospective participants in its competitive procurement processes. The registration fee is $10,000 per proposal for electricity supply and capacity procurement.

The amount of registration fees collected in a given year varies depending on the number of procurement processes, as well as the number of participants in each procurement. Based on planned procurements and past experience, the OPA has budgeted to collect approximately $220,000 in registration fees in 2009. These are discussed further in Exhibit D-2-1.

## 3.0 2008 RESULTS

(Responses to Measures of Success as defined in EB-2007-0791)

**1. Procurements have commenced and/or executed: procurements are launched in a timely manner following receipt of Government Directives. Schedules, timelines and procurement rules are made clear in order to best ensure an efficient procurement process and potential participants have sufficient information.**

In 2008, the OPA received three Directives for new electricity generation from the Minister. In response, the OPA has initiated the procurement process for two of the three Directives: Northern York Region and CHP III. The third Directive, SWGTA, was issued on August 18, 2008 and the Procurement group is currently conducting stakeholder consultation. This procurement is expected to be launched in Q4 2008.

**2. Activities to engage relevant stakeholders have been undertaken: for procurements involving multiple participants (e.g., competitive and standard offer procurements), potential participants have been consulted regarding the scope of the procurement, and have been provided sufficient opportunity to comment on draft procurement documents.**

Stakeholder consultation occurs on both broad-based levels, through the annual general procurement meeting, bi-weekly procurement conference calls, and technical information sessions; and on target-based levels, such as one-on-one bidder sessions with proponents. The first general procurement meeting was held in 2008, and it was well attended by all resource groups. As a result of its success, the OPA plans to continue the event annually.

Q&A sessions are held throughout the procurement processes at various stages to ensure proponents have equal access and opportunity to comment on draft procurement documents.

**3. Comparison of generation procurement contracts: the OPA will have compared similar contracts and/or mechanisms from other jurisdictions and will have documented its findings.**

The OPA has reviewed procurement processes in a variety of jurisdictions to understand how each manage their processes and how evaluations are considered. Of

particular interest, the OPA has reviewed the following three jurisdictions: Puget Sound Energy ("PSE"), New York Power Authority ("NYPA") and BC Hydro, to study the manner in which the following four issues were handled:

- Environmental factors considered in evaluation
- Transparency – Disclosure of final price
- Third party opinion on price – Value for money?
- Fairness advisors/monitors – Are they utilized in other jurisdictions?

These findings have been considered and adopted where applicable, when drafting OPA generation procurement documents and in drafting the IPSP.

**4. Contracts have been signed for new generation resources: procurements result in contracts signed within the timelines set out for the applicable procurements.**

In 2008, Lac Seul and the Upper Mattagami/Hound Chute HESA's were signed. By the end of 2008, the Procurement group expects to have signed contracts for one or more of the following procurements: Northern York Region, RES III, and the Healy Falls and Lower Mattagami HESAs. By the first quarter of 2009, contracts are expected to be signed, within the established timelines, for CHP II and CHP III.

**5. Procurement contracts are being effectively managed: counterparty issues are being efficiently addressed as they arise; specifically, contracted facilities achieve their COD meeting all contract requirements.**

As of August 31, 2008, three generation resources under contract reached COD, and progress was made on other contracted facilities. Annual administration of contracts included over 40 site investigations, receipt and examination of over 85 reports from counterparties, and work to resolve, among other things, 13 outstanding claims of force majeure.

Most contracted facilities experienced issues at some point in their permitting, approvals and construction phases. Contract Management has addressed and continues to address all such issues as they arise.

**6. For post-COD facilities, accurate settlements are being calculated: settlement statements are being issued to generators in a timely manner. Payment is being paid or received by the due date. Responses to counterparty requests are informative and accurate and disputes are being resolved in a timely and fair manner.**

As of August 31, 2008, over 220 invoices were sent in 2008 to in-service facilities under contract. No invoices were issued late, and all payments were made or received by the specified due date. No interest calculations for late payment were required over this period. Adjustments to settlement calculations amounted to approximately $400 for the period between January 1, 2008 and August 31, 2008, which represents 0.0001% of annual settlement payments. These adjustments were the result of a CPI adjustment error.

## Appendix A

## OPA Electricity Resources Managed Contracts

| Technology | Project Name | Capacity (MW) | Location | Settlement |
|---|---|---|---|---|
| Renewable | Melancthon I | 67.5 | Shelburne | √ |
| | Melancthon II | 132 | Melancthon and Amaranth counties | √√ |
| | Kingsbridge I | 39.6 | Goderich | √ |
| | Erie Shores | 99 | Port Burwell | √ |
| | Prince I | 99 | Sault Ste Marie | √ |
| | Prince II | 90 | Sault Ste Marie | √ |
| | Enbridge Ontario Wind Power | 181.5 | Kincardine | √√ |
| | Ripley | 76 | Ripley | √ |
| | Kruger Energy Port Alma | 101.2 | Port Alma | √√ |
| | Wolfe Island Wind Farm | 197.8 | Wolfe Island | √√ |
| | Glen Miller | 8 | Trenton | √ |
| | Umbata Falls | 23 | White River, near Marathon | √√ |
| | Island Falls | 20 | Bradbum Township | |
| | Eastview Landfill Gas | 2.5 | Guelph | √ |
| | Hamilton Community Energy Digester | 1.6 | Hamilton | √ |
| | Trail Road Landfill Gas | 5 | Ottawa | √ |
| | Lac Seul | 29.3 | Ear Falls | √√ |

| Technology | Project Name | Capacity (MW) | Location | Settlement |
|---|---|---|---|---|
| | - Lac Seul GS<br>- Ear Falls GS | | | |
| | Upper Mattagami/Hound Chute<br>- Wawaitin GS<br>- Sandy Falls GS<br>- Lower Sturgeon GS<br>- Hound Chute GS | 44 | Timmins/District of Timiskaming | |
| Natural Gas | Brighton Beach | 550 | Windsor | √ |
| | Sarnia District Energy | 565 | Sarnia | √ |
| | Sudbury District Energy | 5 | Sudbury | √ |
| | Sudbury Hospital Cogeneration | 6.7 | Sudbury | √ |
| | Trent Valley Cogeneration | 8.3 | Trenton | √ |
| | GTAA | 90 | Mississauga | √ |
| | St. Clair Energy Centre | 577 | near Sarnia | √√ |
| | Greenfield Energy Centre | 1,005 | near Sarnia | √√ |
| | Greenfield South Power | 280 | Mississauga | |
| | Goreway | 839.1 | Brampton | √√ |
| | Portlands Energy Centre | 550 | Toronto | √√ |
| | Halton Hills Generating Station | 631.5 | Halton Hills | |
| Combined Heat and Power | Algoma Energy | 63 | Sault Ste Marie | √√ |
| | Great Northern Tri-Gen | 11.5 | Kingsville | √√ |
| | East Windsor | 84 | Windsor | √√ |
| | Durham College | 2.3 | Oshawa | √ |
| | Thorold CHP | 236.4 | Thorold | |
| | Countryside London | 12 | London | √√ |
| | Warden Energy Centre | 5 | Markham | √ |
| Nuclear | Bruce Power Refurbishment Implementation Agreement | 3,000 | Kincardine | √ |
| Demand Reduction | Loblaw | 10 | Province-wide | √ |
| | York Region | 18.4 | York Region | √ |

1 √ - Currently settled by the OPA

2 √√ - Expected for settlement by the OPA by the end of 2009

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# STRATEGIC OBJECTIVE 4

**Identify and assess barriers to the development of economically sustainable conservation and supply resources and develop solutions to address these barriers in cooperation with stakeholders.**

Over the 2009-2011 planning period, the OPA will work to identify barriers to developing economically sustainable conservation and electricity supply and develop solutions to address these barriers. The purpose of these initiatives is to foster an electricity sector that will attract new investment in needed conservation and supply resources.

Ontario's electricity sector continues to mature as a hybrid structure with both regulated and competitive components. During 2009, the OPA will continue to work with the Ministry of Energy and Infrastructure, the Independent Electricity System Operator ("IESO"), the Ontario Energy Board ("OEB"), and other stakeholders to enhance these components.

This work will involve researching and developing position papers and scenarios, analyzing data and potentially conducting pilot projects to gain further insights into sector development options and issues and to better understand the implications of potential changes to the sector.

As per Ontario Regulation 424/04 the OPA is obligated to identify and develop innovative strategies to encourage and facilitate competitive market-based responses and options for meeting overall system needs, and to identify measures that will reduce reliance on procurement under section 25.32 of the *Electricity Act*, *1998.*

## 1.0 ACTIONS TO ACHIEVE STRATEGIC OBJECTIVE 4

### Initiative 1 – Addressing barriers to distributed generation

Distributed Generation ("DG") has the potential to provide peak load energy during periods of high demand and high prices in much the same manner as load shedding demand-response programs. Currently there are institutional and fuel-based obstacles to efficiently accessing the DG resources that potentially exist in Ontario. Examples include lack of

streamlining between regulatory processes and prices for methane destruction facilities that do not facilitate effective project financing.

In 2009, the OPA will work towards developing an inventory of these resources and determining the obstacles and remedies to make these resources available to the market consistent with the principles of efficient delivery of clean energy. This will include the pricing dynamics necessary to enable these resources.

Much of this work is currently being done through OEB stakeholder consultation processes. The OPA will continue to study these issues in order to be able to effectively design DG offerings that encourage investment and contribute to targets.

**Initiative 2 – Supporting a forward market for electricity**

Development of an electricity forward market is a key component for long-term electricity decision-making by buyers and sellers of electricity. From a supplier's perspective, a forward price curve provides a signal for new investment and an opportunity for generators to lock-in a guaranteed revenue stream to support their investment. From a buyer's perspective, a forward price curve provides opportunities to budget for future electricity costs, and make business decisions based on the implications of these costs.

The forward market can protect electricity consumers by providing rate stability and price transparency. With the forward market providing price signals for various electricity products, market participants will have necessary information readily accessible to make sound business decisions regarding electricity consumption and supply. For example, industrial loads can examine the peak-to-base electricity price differentials to decide how to optimize their future production schedule, and whether or not they should consider peak load shedding or load shifting programs.

In 2007, the Natural Gas Exchange ("NGX") launched screen-trading for standardized Ontario electricity products. In February of 2008, these contracts were moved to the InterContinental Exchange ("ICE"), resulting in a significant jump in volumes transacted. By

the end of September 2008, NGX had cleared nearly 2,500,000 MWhs of transacted volumes.

In 2009, the OPA will continue to facilitate the trading of market heat rate contracts which effectively transfer liquidity from the natural gas markets into the Ontario electricity market. A heat rate is an energy ratio of natural gas to electricity, and is expressed in GJ/MWh. Trading a heat rate contract is extremely useful as it allows the buyer to protect itself against price volatility and/or price spikes, while allowing the seller to manage its generation facility more productively and/or transact power while managing risks in the natural gas market.

In 2009, the OPA will continue to research and examine the use of forward markets in other jurisdictions, as well as continue to monitor progress in the development of a forward market for Ontario electricity products.

**Initiative 3 – Developing solutions to the expected growth of the GAM**

Ontario's electricity sector has advanced significantly on several critical short-term requirements in the past few years. Concerns with respect to short-term supply adequacy have been addressed, as has the need for intermediate term capacity to preserve reserve margins needed to maintain system reliability. New conservation programs have been developed and additional supply capacity has been procured while electricity ratepayers have benefited from rate stability through the OEB's Regulated Price Plan.

Although these achievements have addressed the immediate conservation and supply resource needs of the sector, they raise new concerns regarding the rising costs to ratepayers and in turn, the ability of ratepayers to manage these costs.

The Global Adjustment Mechanism ("GAM") is the difference between the total payments due to certain contracted or regulated generators and any offsetting revenues they receive from the wholesale market. Many factors affect the GAM, including Ontario electricity demand levels, the wholesale price of electricity (as cleared by the IESO), fuel prices and conservation program costs.

With the execution of additional conservation and supply contracts by the OPA, the GAM is expected to increase, as payments to these contracted conservation and supply resources are expected to increase. Therefore, as the GAM increases, there will be a greater need for ratepayers of all types – residential, commercial, institutional and industrial – to have useful tools to manage their electricity costs. These tools will help electricity ratepayers more effectively respond to projected increases in the GAM, by directly responding to changes in electricity prices through such actions as participating in conservation programs to help manage their energy consumption.

The OPA expects to work with stakeholders to develop a greater common understanding of the drivers of GAM and potential ways to address its impacts.

**Initiative 4 – Examining the role of Customer Entitlement Agents**

Customer Entitlement Agents ("CEAs"), formerly known as Load Serving Entities ("LSEs"), are entities that contract on behalf of electricity consumers to ensure the conservation and supply needs of these consumers are met. As seen in other jurisdictions, CEAs typically manage a portfolio of conservation and supply resources to ensure the resource needs of their consumers are met. As described in prior years' evidence, the conservation and supply procurement responsibilities of the CEAs will increase market liquidity and transfer risk away from electricity consumers to the private sector.

The OPA produced three technical documents in the fall of 2008, outlining the discussions with stakeholders regarding CEAs and proof of concept initiatives for CEAs. These documents provide the basis for a potential CEA development. After further consultation with stakeholders, the OPA may take the following steps to promote further development of CEAs:

- Explore design options for electricity rates consistent with a workable CEA design, default supply arrangements and the retail market;
- Work with Local Distribution Companies ("LDCs") on a CEA design;
- Identify conservation programs, including demand management and demand-response, that could be developed and administered by CEAs;

- Identify how CEAs might secure electricity supply through bilateral contracts and/or developing generation, including distributed generation; AND
- Identify and design how CEAs will participate within the IESO-administered markets.

**Initiative 5 – Standardizing conservation products**

In 2009 the OPA will undertake a review of the demand-response products to determine the key requirements to move these to standard "tradeable" contracts that could be accessed by interested market participants such as CEAs looking to manage peak-load price exposure, as discussed above.

This assessment would include the ability to contract for specific quantities of demand-response including trigger mechanisms, pricing and performance assurances.

2009 Milestones

- A comprehensive assessment of barriers to distributed generation has been developed.
- The total-year volume of Ontario electricity products traded on the forward market in 2009 exceeds the volume traded in 2008.
- A clear path has been identified to mitigate the effects on electricity customers of a rising Global Adjustment Mechanism.
- Progress has been made in reaching consensus on the use of customer entitlement agents in Ontario's electricity sector.

## 2.0 2009 BUDGET

The 2009 Budget for Strategic Objective 4 by major cost category, as well as a summary of the variance between the 2008 and 2009 Budgets can be found in Table 1, below.

**Table 1**

Strategic Objective #4
Operating Costs
Variance Between 2009 Budget and 2008 Budget
($'000s)

| Major Cost Category | 2009 Budget | 2008 Budget | Variance | 2008 Forecast |
|---|---|---|---|---|
| Compensation & Benefits | 635 | 448 | 187 | 488 |
| Professional & Consulting Costs | 360 | 159 | 201 | 159 |
| Operating & Administration Expenses | 36 | 60 | (24) | 49 |
| Total Costs | 1,031 | 667 | 364 | 696 |

The $187,000 variance in Compensation and Benefits reflects the annualization of expenses for two FTEs hired during 2008. Professional and Consulting costs have been increased to provide access to external consultants to complete a DG barriers study and a DR standardization study.

## 3.0 2008 RESULTS

(Responses to Measures of Success as defined in EB-2007-0791)

**1. There is a steady increase in the volume of Ontario electricity products that are exchange-traded, and heat-rate contracts for natural gas-based generation units begin trading.**

Ontario traded volumes are nearly 2.5 TWhs to September 2008, compared to less than 0.5 TWhs in 2007.

**2. The cooperative work between the OPA and the IESO has resulted in further development and potential implementation of a day-ahead market for electricity in Ontario, along with progress being made on reliability contracts.**

IESO and OPA have jointly developed an Energy Forward Market ("EFM") model that may be implemented in 2009.

**3. A technical report has been released that outlines the results of the LSE consultation process, including recommendations on how to effectively implement an LSE program in Ontario, and next steps in the implementation of an LSE have been taken.**

As discussed above, a CEA report was issued in September 2008.

**4. A consultation with selected OPA counterparties on the treatment of environmental attributes has been completed and an inventory of OPA-contracted environmental attributes has been compiled and registered with an accredited registry.**

The OPA conducted on-going dialogue on this subject with wind-developers, land-fill gas developers, Green energy marketers and renewable NGOs during 2008. Further work in this area was temporarily suspended by the Ministry by letter dated February 14, 2008.

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# STRATEGIC OBJECTIVE 5

## Maintain and develop organizational capacity to achieve all other strategic objectives

OPA's fifth strategic objective is to maintain and develop organizational capacity to achieve the strategic objectives associated with long-term planning, conservation, electricity resources and sector development. To help achieve its strategic objectives, the OPA depends on the contributions of a number of internal service groups. These groups provide support and guidance to the organization through technical expertise, information infrastructure and management capabilities needed to help deliver on the OPA's important mandate.

Finance, Business Services and Human Resources all report to the Vice President, Finance and Administration. EM&V also reports to the Vice President, Finance and Administration. The budget and planned activities for EM&V are described in Exhibit B-2-1. Corporate Communications and Legal and Regulatory Services report to the General Counsel and Vice President, Legal and External Affairs.

As the OPA has progressed along the business maturity curve, there has been a substantial increase in the value, volume and complexity of conservation and generation contracts, as well as other programs and activities. Significant effort will be required to complete the IPSP 1 cycle and commence planning and analysis for IPSP 2. This growth in primary activity necessitates significantly greater support in terms of management and dissemination of data, community outreach and consultation, and other supporting functions. Consequently, the 2009 Budget reflects an increase in corporate and administrative costs, most notably in Communications due to the increased need and identified opportunity to inform further key stakeholders with respect to the IPSP, enhanced conservation initiatives, local area supply projects and the re-launch of renewable energy programs. The groups and their respective budgets that perform this strategic function are provided in Table 1, below.

**Table 1**

| Strategic Objective 5 | | | | |
|---|---|---|---|---|
| Operating Costs | | | | |
| Variance Between 2009 Budget and 2008 Budget | | | | |
| ($'000s) | | | | |
| Division | 2009 Budget | 2008 Budget | Variance | 2008 Forecast |
| Chief Executive Office | 1,235 | 1,210 | 25 | 1,510 |
| Finance | 3,511 | 3,938 | (427) | 3,293 |
| Human Resources | 1,487 | 1,380 | 107 | 1,337 |
| Business Services | 6,452 | 6,107 | 345 | 5,860 |
| Legal & Regulatory | 9,497 | 10,025 | (528) | 9,394 |
| Communications | 6,766 | 4,042 | 2,724 | 4,971 |
| Contingency Fund | 1,500 | 3,215 | (1,715) | 0 |
| Total Costs | 30,448 | 29,917 | 531 | 26,365 |

The Contingency Fund, which has been included in the above table, is discussed in Exhibit D-2-1. The purpose of the following evidence is to provide a discussion of each of the functions identified in Table 1 with their initiatives being undertaken in 2009. Milestones for achievement in 2009 for all Strategic Objective 5 groups will appear at the end of this evidence, in section 6.0.

## 1.0 ACTIONS TO ACHIEVE STRATEGIC OBJECTIVE 5 - Chief Executive Office, and Finance

Chief Executive Office

The office of the CEO provides the leadership and guidance to the organization to formulate and accomplish its Strategic Objectives. In this capacity, the CEO is responsible to represent the OPA's position to the Ministry, the Board of Directors, industry participants and other stakeholders through speaking engagements and active participation in meetings and public forums.

**Table 2**

CEO
Operating Costs
Variance Between 2009 Budget and 2008 Budget
($'000s)

| Major Cost Category | 2009 Budget | 2008 Budget | Variance | 2008 Forecast |
|---|---|---|---|---|
| Compensation & Benefits | 985 | 920 | 65 | 1,018 |
| Professional & Consulting Costs | 157 | 200 | (43) | 200 |
| Operating & Administration Expenses | 93 | 90 | 3 | 292 |
| Total Costs | 1,235 | 1,210 | 25 | 1,510 |

The 2009 Budget for the Chief Executive Office reflects an addition to Compensation and Benefits for the conversion of the Executive Advisor to a full time position, offset by a small decrease in Professional and Consulting costs.

Finance

Assurance that the OPA's financial resources are being effectively managed continues to be provided by the organization's Finance group. Proper financial management is essential for the success, credibility, and viability of the OPA. The initiatives carried out by Finance relate to the prudent expenditure and management of public funds. The list of major responsibilities for Finance is as follows:

- strategic planning;
- risk management;
- monitoring and review of internal controls;
- business planning and budgeting;
- financial reporting;
- accounting;
- transaction processing;
- payroll; and
- treasury management.

In 2009, the Finance group will focus on improving systems and processes to inform decision-making and solidifying the control framework, as described in detail below.

**Initiative 1 – Improve business processes**

Finance will continue to improve the foundational processes and infrastructure to handle the increased volume, value and complexity of the OPA's activities. Planned activities to support this initiative include:

- Reduce the accounts payable and invoice processing effort and increase the transaction capacity through:
  a) Increasing efficiency of processes to improve cycle times
  b) taking advantage of greater segregation of duties in a more mature organization
  c) Implementing system improvements to reduce document handling and manual data input
- Enhance the skill level of all financial staff

**Initiative 2 – Enhance management and financial reporting**

In 2009, the OPA will expand management reporting, particularly for conservation program operations. OPA financial information is processed by project. Conservation programs and generation procurement are project based and require budget versus actual and progress reports to support good decision making. Other areas of the OPA have similar information requirements.

- Newly developed processes will allow for examination of more detailed and consistent information for a variety of business decisions.
- Cash management will forecast operating needs and develop reporting and controls to ensure stability as transactions grow in volume, value and complexity
- Provide greater transparency to financial results
  a) The OPA plans to make quarterly and annual financial results available on our website.

**Initiative 3 – International Financial Reporting Standards ("IFRS")**

IFRS is on the horizon for public sector and not-for-profit enterprises. For-profit and Government business enterprises will require financial reports in the current IFRS standards beginning in 2011. The OPA is aware of the impending issue as a not-for-profit public sector entity and will be collaborating with industry partners to identify concerns and prepare appropriate responses to ensure readiness for the eventual implementation of IFRS standards.

Not for profit and public sector IFRS discussions have begun and exposure drafts of the standards are expected before the end of 2008. In readiness, the OPA will be attending seminars, training courses and reviewing the exposure drafts when available.

The OPA is preparing for IFRS with the assumption that the new reporting standard will impact its financial transactions in the same timeframe as the provincial Government.

**Initiative 4 – Enhancing internal controls**

Internal controls are an integral component of providing assurance over financial reporting. It is management's responsibility to maintain a sound control environment which facilitates accurate and timely financial reporting. In 2008, the OPA reviewed its internal controls and has taken actions as a result of the review to examine the control environment at the OPA. As a result, the Finance group is working on strengthening controls across a broad range of processes.

- The Finance group will implement expanded controls monitoring and reporting by:
  a) Expanding the risk based internal audits and reporting
  b) Examining the global adjustment transaction process in industry
  c) Instituting quarterly publishing of financial statements
- The Finance group will measure effectiveness through:
  a) Auditing the conservation procurement process
  b) Performing value for money audits where appropriate

- The Finance group will undertake risk monitoring and measurement by:
  a) Regular reporting on risk management and internal controls
  b) Installation of a Committee of Sponsoring Organizations ("COSO") or similar risk management framework

## 1.1 2009 Budget - Finance

The 2009 Budget for Finance by major cost category, as well as a summary of the variance between the 2008 and 2009 Budgets can be found in Table 3, below.

**Table 3**

Finance
Operating Costs
Variance Between 2009 Budget and 2008 Budget
($'000s)

| Major Cost Category | 2009 Budget | 2008 Budget | Variance | 2008 Forecast |
|---|---|---|---|---|
| Compensation & Benefits | 1,540 | 1,423 | 117 | 1,405 |
| Professional & Consulting Costs | 309 | 503 | (194) | 392 |
| Operating & Administration Expenses | 173 | 147 | 26 | (176) |
| Amortization | 1,489 | 1,365 | 124 | 1,319 |
| Interest | 0 | 500 | (500) | 353 |
| Total Costs | 3,511 | 3,938 | (427) | 3,293 |

The compensation and benefits increase is due to two additional regular staff to support improvements in financial and management reporting and further improve internal controls.

Consulting costs decrease due to the addition of internal staff to manage improvements to the internal control framework and risk management inherent in the OPA business processes.

## 1.2 2008 Results - Finance

(Responses to Measures of Success as defined in EB-2007-0791)

**1. Implementation of a new financial reporting system that will provide the OPA management, Board of Directors, and stakeholders with required financial information in a timely and efficient manner.**

The OPA successfully configured the financial reporting system in the beginning of 2008 to provide the OPA management, Board of Directors, and stakeholders with required financial information in a timely and efficient manner. This involved:

- Streamlining the chart of accounts and changes to cost centre reporting to improve the effectiveness of reporting divisional operating results.
- Developing an approach to cost analysis and forecasting that will provide ongoing information on the cost of electricity service in the future.
- Providing monthly budget versus actual reports for discussion with operating personnel. The addition of these reports has resulted in consistent observation of the progress of results.
- Introduced ad hoc reporting on projects and expenditures to operating personnel. The addition of these reports has allowed for faster examination of issues and improvements in processes within finance and across the organization.

**2. Development of an approach to cost analysis and forecasting that will provide ongoing information on the cost of electricity service in the future.**

As part of the IPSP, a cost-to-customer methodology was developed to determine the cost of electricity to the end-use customer. The methodology for producing this cost forecast is filed as part of the IPSP evidence.

To improve the transparency of the cost of electricity, the OPA has posted various products on its website. These products provide customers with additional information related to the cost of electricity service. The type of information posted at this site includes: Conservation Procurement Cost Transparency; Delivered Electricity Price Comparison; Generation Procurement Price Transparency; OPA Cash Flows from the Global Adjustment Mechanism and Regulated Price Plan.

**3. Implementation of new internal control procedures in 2008.**

Improvements have been made to internal controls in the areas of payroll, accounts payable, cash management and procurement.

- In payroll, the addition of a treasury manager has allowed for improved segregation of duties.
- In accounts payable, compensating controls were implemented to offset system issues between the accounting and payment systems.
- In cash management, a process was implemented to produce quarterly reports on treasury transactions to ensure compliance with policy, further enhancing controls.
- Procurement process discipline has improved accuracy and data integrity while supporting a growth in transactions with existing staff.

**4. Documentation mapping of key corporate processes available to all staff.**

This initiative was undertaken by the Business Services group as Initiatives 1 and 3, which evidence appears in this document, below.

**5. A multi-year strategic plan has been developed.**

The OPA has prepared a three year business plan, outlining planned activities and programs to achieve its five strategic objectives over the period from 2009 to 2011. The business plan has been included in this evidence at Exhibit A-2-1.

## 2.0 ACTIONS TO ACHIEVE STRATEGIC OBJECTIVE 5 - Human Resources

Human Resources will continue its pivotal role of providing leadership, systems, policies, processes and programs for attracting, engaging and retaining the skilled staff required to achieve organizational goals.

Specifically in 2009, Human Resources will begin to implement a multi-year strategy to develop and maintain organizational capacity, including starting to:

- Implement a robust talent management system, including building-out, and creating mutually reinforcing connections between, the following talent management sub-systems:
  a) Strategic Human Resources Planning,

b) Recruitment and Selection,
c) Performance Management,
d) Reward and Recognition,
e) Training and Development,
f) Career Planning and Management,
g) Organizational Development, and
h) Succession Planning and Management.

- Create and implement programs that promote and support the organizational culture and values required for success;
- Develop a comprehensive policies and procedures framework; and
- Support on-going organizational operations through the provision of core Human Resources deliverables, including:
  a) Hiring / orientation, terminations, transfers, promotions, secondments, leaves of absence,
  b) HRIS administration & employee records management,
  c) Salary, pension and benefits administration,
  d) Acting as a coach/advisor to managers on people management practices,
  e) Acting as an advisor/facilitator to managers & employees on employee relations, conflict management, performance management, change / transition management, regulatory compliance and employee communication,
  f) Administration of the annual performance management & merit pay processes, and
  g) Reporting and analysis of key Human Resources activities, initiatives and metrics.

The specific initiatives to achieve these goals are described in detail below.

**Initiative 1 - Create and implement a multi-year workforce plan and supporting strategies**

Human Resources will forecast future workforce requirements, including roles, capabilities, structure and headcount to ensure that the OPA has the right people with the right skills at the right time. Human Resources will assess the OPA's current workforce, turnover rates

and projected retirements against future requirements, and develop comprehensive recruitment, development, knowledge transfer and succession plans to address the gaps.

**Initiative 2 – Enhance the organization's ability to attract and select employees through employment branding, strategic relationships and improved selection methods**

Overall societal demographics, exacerbated by skills shortages peculiar to the electricity sector, have created highly competitive labour market conditions within the sector. To ensure that the OPA is well positioned to compete successfully in the competition for talent, Human Resources will develop an OPA employment brand and build related content for the corporate career site. By developing strategic relationships with educational institutions, the OPA will enhance its ability to attract internships and co-op and summer student placements. Improved selection methods will support these efforts by ensuring a good employment "fit" between employees and positions. Human Resources will provide training and support to hiring managers in behavioral interviewing, and legal compliance relating to the selection process; and implement pre-employment assessment tools for all management level roles.

**Initiative 3 – Build and implement processes to better align and focus performance at the individual, group and organizational levels**

Processes developed through this initiative will aid in translating organizational goals to individual objectives, through training in SMART (i.e. **S**pecific, **M**easureable, **A**chievable, **R**ealistic and **T**ime-Bound) objective setting. Improvements to feedback processes to support these goals include: instituting semi-annual performance reviews; providing managers with training and development on coaching skills; and developing a policy and procedure for performance improvement planning.

**Initiative 4 – Invest in competency-based training and development programs and initiatives**

Human Resources will continue to identify training needs for all levels of employees, and meet those needs through a combination of externally sourced programs and programs

that are developed and delivered internally. At management level, training and development will focus on self-awareness as a leader; understanding the business and management's role within the business; understanding and working within the culture; and managing and leading people, and relationships, to deliver business results.

**Initiative 5 – Foster career progression within the organization, and thereby increase the potential for employee retention, by providing assessment, facilitated feedback, tools and processes for career development planning and management**

Human Resources will provide tools and support for self-managed career planning and development. Direct support for career planning and management will be provided through the use of assessment instruments and facilitated feedback. Human Resources may also map out progressive career paths within, and across, job families and functional areas, where applicable.

**Initiative 6 – Support sustained organizational success through organizational development, and succession planning and management initiatives**

Human Resources will design and implement programs to support sustained organizational success, including: building management and leadership capability; facilitating team and group cohesion and performance; enabling effective change and transition management; developing a culture that drives organizational success; identifying succession candidates for key roles and a pool of high potentials; and having development plans in place for all identified successor and high potential individuals.

**Response to Comments from Board Findings, 2008 Decision**

> "… in light of the uncertainties for future workforce requirements acknowledged by the OPA, the Board expects the OPA to review its hiring practices for 2008 and to fully justify increases to its permanent full-time workforce in its 2009 fees application."

In 2008, the OPA completed a three-year business plan which details the planning, procurement, contract management, conservation and sector development activities and initiatives of the OPA through 2011.

As part of this process, the OPA has identified the resourcing requirements, including staffing, to support the achievement of its Strategic Objectives over the planning period. Planned FTE's for 2009 will grow at a rate of 5%, which is a significant decrease from the 2008 year-over-year growth of 34%. As discussed in the OPA's business plan, at Exhibit A-2-1, following this slight initial growth in 2009 it is anticipated that the workforce will remain relatively stable over the three year planning period. At the same time, the value and volume under OPA management are expected to increase substantially, resulting in greater efficiency per FTE. Planned FTEs for 2009 are discussed in detail in Exhibit D-2-1.

Future workforce requirements are more certain in the fall of 2008 than they were in late 2007. The Report of The Agency Review Panel on Phase II of its Review of Ontario's Provincially-Owned Electricity Agencies was clear that the core work of the OPA would continue indefinitely:

- Planning: "The approved 20-year IPSP must be updated for OEB approval every three years";
- Generation Procurement: "About 20,000 MW of additional supply, including new projects and improvements to existing facilities, will be needed"; "these projects take years to plan and build and involve complex review and regulatory processes"; and
- Conservation Demand Management: "CDM will take on an increasingly important role".

In summary: "the OPA's functions remain necessary".

Consistent with the Board's Decision in EB-2007-0791, the OPA has aligned its staffing plan with business needs, hiring regular employees for core, longer-term requirements, and retaining temporary and consulting resources wherever possible for non-core, short-term assignments. The 2009 planned FTE's are as follows:

- Regular employees: 182.4 FTE's; and
- Temporary employees: 11.3 FTE's.

The total salary budget for both regular and temporary employees is $24.7 million. Further short-term workload for the OPA is met through the consulting services budget of $24.3 million.

While the OPA makes every effort to maximize the use of temporary staffing wherever possible, as described above in Human Resources Initiative 2, the electricity labour market is very tight. The OPA must present a very attractive employee value proposition to compete in this market for educated, highly skilled people with electricity sector experience. Temporary and contract employment arrangements (which do not include pension and other benefits) are not perceived by labour market participants as attractive propositions.

In 2009, the OPA will continue to address current and future skills shortages in the electricity sector through a student employment and development strategy. Ten student positions, representing 6.7 FTE's, are planned in 2009. This strategy has been very successful in the past, resulting in the hiring of 9 former students as regular OPA employees.

In 2009, the OPA plans to leverage acceleration in work volume and institutional learning to be more productive, efficient and cost effective in the utilization of staff. Table 4, below illustrates the growth in volume, value and complexity of work through increases in both dollars and megawatts under OPA management. As measured in this way, it is shown that the amount of work performed per FTE is increasing in 2009 from 2008.

**Table 4**

| | 2008 Budget | 2009 Budget |
|---|---|---|
| Total OPA Budget ($M) | $67.5 M | $65.1 M |
| Full Time Equivalent ("FTE") | 184.4 FTE | 193.7 FTE |
| OPA Budget ($M) / FTE | $.366/FTE | $.336/FTE |
| | | |
| MW under management - Generation | 9,739 MW | 13,000 MW |
| MW under management - Conservation | 741 MW | 1,324 MW |
| ($M) under management - Generation | $11,900 M | $18,900 M |
| ($M) under management - Conservation | $333 M | $552 M |
| | | |
| MW under management (Generation) / FTE | 53 MW/FTE | 67 MW/FTE |
| MW under management (Conservation) / FTE | 4 MW/FTE | 7 MW/FTE |
| ($M) under management (Generation) / FTE | $65M/FTE | $98M/FTE |
| ($M) under management (DR + Conservation) / FTE | $2M/FTE | $3M/FTE |
| | | |

## 2.1 2009 Budget - Human Resources

The 2009 Budget for Human Resources by major cost category, as well as a summary of the variance between the 2008 and 2009 Budgets can be found in Table 5, below.

**Table 5**

Human Resources
Operating Costs
Variance Between 2009 Budget and 2008 Budget
($'000s)

| Major Cost Category | 2009 Budget | 2008 Budget | Variance | 2008 Forecast |
|---|---|---|---|---|
| Compensation & Benefits | 766 | 452 | 314 | 575 |
| Professional & Consulting Costs | 317 | 350 | (33) | 300 |
| Operating & Administration Expenses | 404 | 578 | (174) | 462 |
| Total Costs | 1,487 | 1,380 | 107 | 1,337 |

The $314,000 variance in Compensation and Benefits expense is due to the following:

- 1% of overall OPA salaries budgeted for annual organizational salary adjustments have been added to the HR budget. In prior years, these funds were allocated to individual costs centres, and will be reallocated to these cost centres, as needed, to support merit increase decisions;
- An increase in budgeted Human Resources staff from 3.6 FTE's in 2008 to 4.6 FTE's in 2009; and
- A planned annual escalation rate in overall Compensation and Benefits expense.

The ($174,000) variance in Operating and Administrative expense is primarily due to the following:

- Reduced recruitment costs for the organization and professional development for HR employees
- Planned reduction in some Operating and Administrative expenses, including Fees & Licenses, Technical & Research Publications, Mileage, Parking and Taxi expenses.

The ($33,000) variance in Professional and Consulting expense is due to some anticipated reduction due to administrative efficiencies.

## 2.2 2008 Results – Human Resources
(Responses to Measures of Success as defined in EB-2007-0791)

**1. The OPA will measure success in the HR goals and objectives by establishing a target turnover rate of less than 5%.**

Voluntary turnover in 2007 was 9.5%. The OPA has not made significant progress in 2008 in reducing the rate of turnover. As at September 30, 2008, the annualized rate of turnover is 9.4%.

**2. The OPA will continue to survey employee attitudes and establish a goal of having employees identify the OPA as their employer of choice.**

The OPA conducted an employee engagement survey in September, 2008. The results of this survey will be considered in the development of future programs, policies and procedures.

## 3.0 ACTIONS TO ACHIEVE STRATEGIC OBJECTIVE 5 - Business Services

The Business Services group is a support function within the Finance & Administration Division. The four support areas of Business Services are:

- Procurement Services – this group provides internal and external support during the procurement process for all goods and services with the exclusion of electricity;
- Office & Facilities Services ("OFS") – this group provides internal and external support for all facility and office issues;
- Information Systems ("IS") – this group is an internal support function, including system infrastructure, web management and application development; and
- Process Management – this role provides internal support for process improvements, as well as documenting current and future process.

Business Services will continue to provide the internal day-to-day support services that assist OPA divisions in meeting their mandates and will continue working with staff to improve the efficiency of service delivery and ensure the provision of services in a timely and needed basis.

**Initiative 1 – Enhance the OPA's ability to handle the expected growth in the volume, value and complexity of conservation and generation contracts**

In 2008, the role of Procurement Manager was added in the Business Services Department. This role is expected to be the liaison between the procurement unit and the groups that procure conservation and non-generation goods and services. One aspect of this new role is to ensure compliance with the procurement policies in the OPA Procurement Policy Manual and the IPSP Procurement Process. As well in 2008, Finance and Administration commissioned a review of the procurement process (report expected with recommendations in November 2008) and in 2009, the OPA will begin implementation of recommendations. As a result, improvements to controls and efficiency are expected.

**Initiative 2 - Improve information management systems, tools, electronic communication vehicles and storage capacity**

There are a number of initiatives being undertaken in 2008 to review and improve core business processes, including an IT Assessment and an Information Management Assessment and Strategy. In 2009, the recommendations from these reviews will be implemented.

The IT Assessment will review computer and system controls including security practices, the governance structure to prioritize IT projects including the introduction of more formal project management tools and rigor in practices and organization structure of the IS group. The quality of the services provided will also be reviewed in order to assess and improve the ability of this group to meet the growing demand for technology services that correspond with past growth of the organization including assessing where expanded service demands can be met by outsourcing services. It is expected that more focused compliance on controls, skills management, process and governance will result from the implementation of the recommendations of this review.

The Information Management Assessment and Strategy was initiated in recognition of the importance of data that resides in the OPA in order to establish itself as a credible, authoritative voice with stakeholders. Therefore the Information Management Assessment

and Strategy initiative will inventory and protect this key asset. This review will identify the current and future states of the OPA's information management system, the future state and provide a gap analysis which will identify areas that need improvement. The resultant Information Management Assessment and Strategy will identify the information that is used and for what purpose, and the input and output streams, and will ensure data integrity, ease of use for analysis and reporting, access to information and data. The recommendations may include new systems and processes around information management. Implementation will begin in 2009.

Other reviews beginning in 2008 and continuing into 2009 include working with other departments in the OPA to ensure information on the family of OPA websites is accessible and to develop a governance structure for website development and content. The three websites that are being reviewed are the Chief Energy Conservation Office ("CECO"), Intranet and the Corporate Site.

**Initiative 3 – Improve Risk Management Business Processes**

The Risk Management process in the OPA is being reviewed with a view to implementing an improved process that is more systematic and rigorous, consistent with leading practices. In 2009 the OPA will document the risk management processes and implement a formalized risk management governance structure with accountabilities for defining and reporting risk mitigation strategies.

## 3.1 2009 Budget - Business Services

The 2009 Budget for Business Services by major cost category, as well as a summary of the variance between the 2008 and 2009 Budgets can be found in Table 6, below.

**Table 6**

Business Services
Operating Costs
Variance Between 2009 Budget and 2008 Budget
($'000s)

| Major Cost Category | 2009 Budget | 2008 Budget | Variance | 2008 Forecast |
|---|---|---|---|---|
| Compensation & Benefits | 1,935 | 1,565 | 370 | 1,775 |
| Professional & Consulting Costs | 521 | 1,060 | (539) | 763 |
| Operating & Administration Expenses | 1,014 | 862 | 152 | 851 |
| Premises | 2,982 | 2,620 | 362 | 2,471 |
| Total Costs | 6,452 | 6,107 | 345 | 5,860 |

The $370,000 variance in Compensation and Benefits expense is due to the following:

There is a net increase of 2.4 FTEs in the 2009 Budget over the 2008 Budget. This is a result of the addition of the annualized budget for the new IS Manager position, a Finance System Specialist position and a Systems Specialist position, which were all filled during the course of 2008. The budget for these positions was therefore not annualized in 2008. In addition, the 2009 Budget includes an additional OFS position and an additional IS position to meet the growing demand for services that correspond with the past growth of the OPA organization. For example, the IT Assessment review identified a growth in demand for Help Desk services (due to the increase in the overall OPA staff). This growth in demand will be met by either extending the Help Desk hours of operation or by expanding the coverage of this support service. Similarly, the volume of reception desk visitors and activity that the OFS unit must resource has increased by 230% over the past two years.

The ($539,000) variance decrease in Professional & Consulting Costs expense is primarily due to the reviews on: Information Management Assessment and Strategy; Process Definition and Controls Implementation on Procurement; Process Definition and Controls Implementation on Risk Management being substantially complete by 2008 year end and moving into implementation of recommendations in 2009.

The $152,000 variance in Operating and Administration expense is due to an increase in the data communication budget to accommodate internet and storage usage for an increased volume of users and data; a reallocation of amortization of computer equipment that was previously held in the Finance budget; and a reallocation of Officers & Directors liability insurance of $33.5 thousand from the Legal budget.

The $362,000 variance in expenses for Premises is the result of office expansion projects to support past increases in headcount, including expansion of access card system; furnishings; telephone system additions; as well as implementation of recommendations from a lighting audit conducted in 2008.

## 3.2 2008 Results – Business Services

(Responses to Measures of Success as defined in EB-2007-0791)

**1. Systems and information storage capacity are reliably meeting the organization's needs.**

In 2008, there were no unplanned technology infrastructure system down time events or system failures. As discussed above, detailed reviews were conducted of IT organization and service provision including IT Governance structures and processes, as well as IT security and control practices. These reviews identified potential areas of improved efficiency, which will be implemented in 2009.

**2. The whole organization is working effectively through the provision of client-driven administrative support service.**

The Business Services division has successfully met the needs of the organization as they have increased over the past year, particularly through the provision of:

- Internal support for IPSP preparation activities and the resultant increased stakeholder consultation;
- Successful management of employee office moves and lease negotiations in order to achieve consolidated office space to accommodate OPA staff growth;
- Identification of priority areas in need of improvement to achieve internal organizational efficiency in operational practices and internal controls;
- The addition of a Procurement Manager to facilitate a more collaborative procurement process, and the development a procurement strategy; and
- The addition of an Information Systems Manager to implement seamless, appropriate, reliable, low maintenance and cost-effective information systems.

## 4.0 ACTIONS TO ACHIEVE STRATEGIC OBJECTIVE 5 - Legal and Regulatory Services

Legal and Regulatory Services ("LRS") provides support to the OPA in three primary areas. Legal services are provided on a broad range of matters, such as procurement processes, contracts and other commercial matters. Regulatory Affairs is responsible for overseeing OPA applications to the OEB, such as IPSP and Revenue Requirement applications, as well as to coordinate OPA participation in other processes before the Board. These include proceedings of other parties to obtain necessary approvals for projects identified in the IPSP and consultations and other OEB-initiated proceedings related to the OPA's mandate. This division is also responsible for providing corporate secretarial support to the OPA's Board of Directors to ensure its effective and timely decision-making, and manage requests of the organization under the *Freedom of Information and Protection of Privacy Act*.

Initiatives established for 2009 reflect a continuation of services provided to the organization in 2008 and prior years.

**Initiative 1 – Oversee the final stages of the regulatory approval process for IPSP 1, provide guidance as required in the preparation of IPSP 2**

In accordance with O.Reg. 424/04, the OPA shall "…develop and submit an update of the plan every three years, which updated plan shall cover a period of 20 years from the date of its submission" (O.Reg. 424/04, s. 1). The OPA submitted its first IPSP in August of 2007. In the subsequent period, LRS has been actively involved in supporting the regulatory proceedings, through the issue development phase, the discovery phase and the ultimate commencement of the hearing. On September 17, the Minister of Energy and Infrastructure issued a Directive requiring the OPA to revisit certain areas in its IPSP and requesting that it conduct an enhanced process of consultation with First Nations and Métis communities. The hearing has been adjourned until March, 2009.

In 2009, LRS will continue to oversee and provide support for the IPSP 1 proceeding, which is anticipated to require the preparation of updated evidence and discovery processes as appropriate, as well as the resumption of the hearing, and preparation of argument. As in all proceedings, LRS is responsible to retain and manage the relationship with external counsel required to represent the OPA. Following the hearing, LRS will conduct work required to complete the "regulatory cycle", including reviewing and processing intervenor cost awards, reviewing the Board's Final Decision and advising internal staff on further actions required and lessons learned.

Regulatory staff may also be required to provide research, advice or guidance to OPA staff on other regulatory matters as necessary with respect to development work related to IPSP 2.

**Initiative 2 – Provide support and guidance for OPA participation in other regulatory proceedings**

With the approval of IPSP 1, the OPA's participation in the regulatory proceedings of other parties may be necessary to support regulatory approval of projects identified in the IPSP to facilitate its implementation. LRS efforts in this regard may also be required to support approval processes for projects that are identified in the IPSP. Such support could involve

evidence preparation or witness testimony for these regulatory proceedings. LRS staff would be responsible to review and edit written evidence and ensure OPA witnesses are sufficiently prepared to participate in an effective manner. Some legal representation may also be required to support OPA's positions in these proceedings.

LRS will continue to participate in OEB-initiated consultation processes where it is determined that the OPA perspective can provide value to the consideration of particular issues. Certain processes, such as those for Transmission or Distribution Connection Cost Responsibility, and other proceedings related to Distributed Generation will have particular relevance for the implementation of the IPSP. Other processes may require OPA participation to ensure that the information regarding OPA programs or policies is accurate and complete, such as the Consultation on Energy Issues Relating to Low Income Consumers. Still others require participation to ensure that the OPA mandate is considered in the development of regulatory policies or procedures. OPA participation in these proceedings would typically involve the efforts of internal resources to coordinate multi-functional specialist teams to participate in discussions, make presentations, or prepare position papers as required.

**Initiative 3 – Provide legal counsel to the organization in the areas of contract development, procurement processes and contract management**

Legal counsel is provided to the OPA through a combination of internal and external resources. General services required include advice on specific corporate and commercial legal issues; contract drafting, interpretation, negotiation; and support for contract management. Services are provided by internal counsel to OPA client groups when feasible.

External resources are utilized as required to manage overflow workload requirements arising due to: timing of client demands; or to make use of specialist expertise as required, such as intellectual property, securities or climate law; privacy law; and for regulatory representation. Based on anticipated activity levels in the Procurement Division arising from local area supply issues, it is expected that external counsel will assume greater

responsibility to meet the peak requirements for delivering legal services for major generation supply procurements. Internal counsel will participate in the procurements as part of the internal team, but will focus efforts on supply contract management.

It is expected that the historical volume of contract development work related to Conservation programs will remain the same. This work will be assigned as required to external counsel, while internal legal resources will be focused on contract management.

## 4.1 2009 Budget - Legal and Regulatory Services

The 2009 Budget for Legal and Regulatory Services represents a slight reduction from the 2008 Budget as a result of decreased spending in Professional and Consulting costs, partially offset by increases in Compensation and Benefits and Operating and Administration expenses. The 2009 Budget by major cost category, as well as a summary of the variance between the 2008 and 2009 Budgets can be found in Table 7, below.

**Table 7**

Legal & Regulatory
Operating Costs
Variance Between 2009 Budget and 2008 Budget
($'000s)

| Major Cost Category | 2009 Budget | 2008 Budget | Variance | 2008 Forecast |
|---|---|---|---|---|
| Compensation & Benefits | 2,357 | 2,059 | 298 | 2,051 |
| Professional & Consulting Costs | 5,657 | 7,236 | (1,579) | 5,961 |
| Operating & Administration Expenses | 1,483 | 730 | 753 | 1,382 |
| Total Costs | 9,497 | 10,025 | (528) | 9,394 |

The reduction in Professional and Consulting costs reflects lower legal fees and intervenor funding for the remainder of the IPSP 1 proceedings. Much of this spending will have occurred in 2008. Compensation and Benefits costs will increase due to the addition of 1.2 FTEs to provide increased legal support for procurement activities and First Nations and Métis issues, and support for IPSP implementation and regulatory consultation

proceedings, as well as the annualization of expenses for staff hired in 2008. Increased Operating and Administrative expenses are required to support transcripts, printing and administrative expenses for the remaining IPSP 1 proceedings.

### 4.2 2008 Results - Legal and Regulatory Services
(Responses to Measures of Success as defined in EB-2007-0791)

**1. LRS will have achieved its 2008 objective when the OPA's regulatory applications to the OEB continue to be well received and decisions are expeditiously rendered.**

LRS continues to provide support to the IPSP 1 hearing, which was originally submitted in 2007. In 2008, the OPA responded to over 1,400 interrogatories from intervenors; reviewed and analyzed evidence received from 23 parties; and submitted interrogatories on the evidence of 16 parties. Timelines as established by the OEB have been successfully met. Also in 2008, LRS oversaw successful completion of its 2008 revenue requirement submission, which was filed in 2007.

## 5.0 ACTIONS TO ACHIEVE STRATEGIC OBJECTIVE 5 - Communications

The Corporate Communications group in 2009 is focused on clearly communicating with key stakeholders, leaders at the regional and local levels, First Nations and Métis communities and the broad public what the OPA is doing to carry out its mandate. This work builds on communications programs and initiatives implemented throughout 2008; the mechanisms being information resources, stakeholder relationships and strategic analytical frameworks.

Improved communication by the OPA will encourage participation, involvement in, and support of, OPA's various corporate conservation, procurement, and planning initiatives.

The four communications-specific initiatives underpinning this goal are more fully outlined below.

**Initiative 1 – Enhance the OPA's reputation as an authoritative and trusted source of information about Ontario electricity matters**

Transparency with stakeholders and the public is a foundational element to building trust. Authority is imbued through the consistent delivery of professionally presented and understandable OPA-authored material for the review and critique by stakeholders. In communication terms, the avenues through which the OPA shares information are based in the corporate website, published reports, brochures, newsletters, interactive web-enabled teleconferences and speeches. In 2008 the OPA published some first edition products such as the Electricity Conservation Progress Report and gathered experience and feedback on what actions may be necessary to upgrade and enhance the content, delivery and presentation of other communications products.

Based on internal and external opinion research carried out in 2008, the OPA's family of websites will undergo a comprehensive structural and governance upgrade in 2009.

As part of the website upgrades, ELECTRON - the web-based public engagement tool focusing on power system planning - will be linked closely to information highlighting specific local projects. Work will continue in 2009 to make the data contained in the program responsive to web users' information needs in the context of provincial electricity system planning.

With the development of new IPSP evidence designed to meet the conditions requested in the September 17 Directive, there are two courses of action that will be undertaken within Corporate Communications.

The first and primary course of action impacting on 2009 activities involves the request "that the OPA undertake an enhanced process of consultations with First Nations and Métis communities in light of potential duty to consult obligations." Some of the anticipated costs underpinning this initiative will include increased financial support to enable First Nations and Métis representatives to attend and participate in regional meetings, the expense of sponsoring/hosting the meetings, preparation and production of relevant communication material and related mailing charges.

The second course of action relates to public communications to provide the context for the advancement of various infrastructure projects that are identified within the IPSP and are moving forward in light of Government Directives.

Activities geared to support this broad outreach may include developing key messages to address identified issues, and preparing a number of speeches and presentations for various audiences.

On a more specific basis for local area reliability projects there will be the additional production of detailed fact sheets, information brochures and development of speeches and presentations providing the context and role of the OPA in this required infrastructure work being undertaken by project developers.

Written products are a vital piece of the communications effort. Other OPA initiatives requiring ongoing communications materials include:

- Standard Offer Programs;
- Conservation Performance (including EM&V);
- Reporting requirements (both OPA and Chief Energy Conservation Officer); and
- Conservation and Technology Funds.

**Initiative 2 – Foster interactive communications with communities affected by electricity infrastructure projects to create a common understanding of local electricity issues and the recommended solutions**

In 2009 the OPA will continue developing and maintaining relationships with key municipal leadership, influential community members and the broader public in municipalities and regions where local reliability projects are identified.

Regular meetings are anticipated with municipal leadership through the Association of Municipalities of Ontario, the Association of Municipal Managers, Clerks and Treasurers Ontario (“AMCTO”), and the Ontario Professional Planners Institute (“OPPI”).

The OPA's approach to interactive municipal engagement is one of relationship building and collaboratively working to determine the areas of support that municipalities may require in carrying out their responsibilities related to OPA programs or local infrastructure projects.

**Initiative 3 – Maintain and enhance positive relationships with First Nations and Métis communities**

Maintaining and enhancing positive relationships with First Nations and Métis communities will remain a priority for the OPA. This will include further work on developing a process for engagement and consultation for future long term planning and to support the consultation process contemplated in the Minister's Directive issued on September 17, 2008. As part of responding to this Directive, the OPA will consult with First Nations and Métis communities on partnership opportunities in generation and transmission matters.

With respect to the procurement of generation resources, the OPA will assess the experience from the RES III procurement process and work with First Nations and Métis communities, the Ministry of Energy and Infrastructure and developers to make appropriate changes to how future procurements address consultation and opportunities for First Nations or Métis projects.

**Initiative 4 – Continue to work with the Ministry of Energy and Infrastructure to develop processes for stakeholder communication regarding conservation and generation procurements that clarify the roles of the Ministry, the OPA and project proponents**

Initiatives 2 and 3 involve a higher level of engagement with municipalities, First Nations and Métis peoples. The feedback and insight learned from these interactions need to be considered in how the OPA's communications with respect to procurement processes might be refined. In collaboration with the Ministry of Energy and Infrastructure and project proponents, this information will be utilized to develop more efficient and effective processes moving forward.

The Communications stakeholder initiatives specifically planned for 2009 include hosting of the second annual procurement general meeting. The first meeting held in March 2008 was an event during which the OPA broadly shared developments and an outlook in the procurement arena. The intent of the session is to provide developers, consultants and industry participants with a forum within which to obtain more information and insights into current and upcoming generation procurements managed by the OPA.

With respect to local area supply, refinements of local area supply communications and community consultations based on earlier experiences will be undertaken. This work will be specifically related to projects occurring in 2009 such as the local area supply in the SWGTA region, and more broadly in terms of issues related to regional perspectives to be defined in future Plans.

## 5.1 2009 Budget - Communications

The major expenditures in 2009 are precipitated by the anticipated increase in public communications related to specific projects that respond to OPA procurement initiatives and ongoing engagement and consultation with First Nations and Métis people. Communications efforts mainly revolve around supporting specific outreach and capability building initiatives with municipal stakeholders, and First Nations and Métis organizations and communities. These events will take the form of formal conferences to be hosted, or funding of initiatives as proposed to the OPA by municipalities, First Nations or Métis communities.

This outreach is further supported by augmented communication mechanisms in the form of the OPA website, Executive speech program and the production of a wide range of written materials (newsletters, brochures, reports, etc.).

The 2009 Budget for Corporate Communications by major cost category, as well as a summary of the variance between the 2008 and 2009 Budgets can be found in Table 8, below.

**Table 8**

Communications
Operating Costs
Variance Between 2009 Budget and 2008 Budget
($'000s)

| Major Cost Category | 2009 Budget | 2008 Budget | Variance | 2008 Forecast |
|---|---|---|---|---|
| Compensation & Benefits | 1,410 | 995 | 415 | 1,428 |
| Professional & Consulting Costs | 3,743 | 2,112 | 1,631 | 2,612 |
| Operating & Administration Expenses | 1,613 | 935 | 678 | 931 |
| Total Costs | 6,766 | 4,042 | 2,724 | 4,971 |

FTEs in the Communications department are anticipated to be increased by 3.2 over 2008. These positions have been identified to provide support for increased activities in Government relations, as well as increased activities related to First Nations and Métis consultation.

Increased Professional and Consulting costs of $2.6 million are largely attributable to greater activity surrounding local area supply initiatives, resulting in increased costs for staffing of public open houses and design, creation and production of related advertising and communications material. Other incremental initiatives in 2009 include development and support of Energy Conservation Week and the creation of related advertising and promotional materials; designing and hosting conferences/meetings in support of municipal outreach activities; and a CECO web redesign.

The increase in operating and administration costs is due to:

- Printing and publishing costs associated with the production of communications material supporting OPA initiatives in local reliability projects, conservation programs, standard offer and the IPSP. Printing costs are incremental to professional and consulting services incurred in product development;
- Local municipal outreach combined with increased First Nations and Métis communities consultation activities resulting in additional conference/meeting costs; and
- Increased use of broad web/teleconferencing technology to support consultation and

communication with regard to Ministerial Directives, and continuing dialogue on conservation programs.

A significant portion of the variance between the 2008 Budget and 2008 Forecast is due to the following events:

- Hosting the first Procurement Annual General Meeting;
- Greater than expected expenditures in response to a higher level of public engagement in Northern York Region related to the generation facility procurement;
- Unexpected expenditures in relation to receipt of the Directive to procure generation facilities in southwest GTA; and
- Development and implementation of the Chief Energy Conservation Officer's Powerlines radio program and publication of Conservation Zone articles.

## 5.2 2008 Results - COMMUNICATIONS

(Responses to Measures of Success as defined in EB-2007-0791)

**1. Opinion polls indicate that the OPA is widely viewed as an authoritative source of information on electricity.**

During 2008 opinion research was refocused on specific public information needs and perceptions of OPA initiatives (e.g. local area supply, conservation programs) as well as the OPA itself as a source of information, rather than province wide assessment of OPA communications in general. The opinion research indicated a high level of public interest in continued communications on conservation and renewable energy issues. The OPA was seen as a useful source of information.

Less than 60% of Ontarians say they know where to find electricity information, either generally or through the OPA. A large "opportunity" for future communications activities is evident. Research confirms web-based information sources provide over 70% of the desired information on the sector, providing clear direction for future efforts.

With respect to OPA programs directly, in research undertaken to understand public perceptions of a proposed gas-plant in South West GTA, two-thirds of those aware of the OPA rated its performance favourably.

**2. News stories on identified issues consistently reflect key OPA information.**

Comparative year-to-date information is not available. However, the June Report of OPA media coverage is indicative of the media's attention to OPA-mandated matters:

- A total number of 257 media clips were collected for June 2008, representing an increase of 5.8% from May's total. The total number of impressions generated by June media coverage is approximately 89,475,201
- In June, community newspapers generated the greatest number of clips, 80, compared with other media types, however, daily newspapers generated the greatest number of impressions (48,629,180)
- By region, GTA media produced the most coverage for the OPA compared with other regions.
- Clips that mention the Conservation Bureau, Chief Energy Conservation Officer, Peter Love and OPA conservation initiatives accounted for 154 clips

**3. Website hits related to the web-based IPSP information product grow by more than 10% within six months of its launch in 2008.**

Since the launch of ElectrON, the web-based IPSP information product, there have been over 7,000 visitors to the site as of October 2008. Growth in visits has been demonstrably increasing over time.

**4. Stakeholders continue to participate in monthly open web conferences.**

Participation has been relatively consistent throughout 2008 in the executive monthly open stakeholder teleconferences, although there has been a recent decline in the volume of participants due to the multitude of consultation sessions being conducted on specific OPA initiatives in Conservation (e.g., Energy Efficiency Assistance Program for Houses, Industrial Energy Efficiency Program), Procurement (e.g., RESOP, CESOP, Annual Meeting), and Planning (IPSP Primer, IPSP Modeling).

**5. Public survey, focus groups and interviews with key stakeholders indicate majority approval of OPA activities and accomplishments.**

The majority of stakeholders surveyed respond that they use OPA sources to keep up-to-date on broad industry developments.

No public surveys (quantitative research) of stakeholder opinions were undertaken in 2008. However qualitative data in the form of webinar feedback, advisory council meetings and one-on-one conversations has provided valuable information on identified areas where OPA communications could be improved (frequency, simplicity, and breadth), which will be incorporated into 2009 initiatives.

**6. Annual Reports, Business Plan, quarterly conservation and electricity supply reports and other reports and information resources continue to be produced accurately and on time.**

During 2008, the OPA developed and delivered the following scheduled reports:

- Comprehensive 2007 annual report submitted to the Minister by the legislated deadline;
- First and second quarter progress reports on Electricity Conservation and Electricity Supply have been produced and posted on the OPA website;
- Business plan submitted to the Minister of Energy and Infrastructure on October 1, 2008 and approved on November 3, 2008;
- 2008 CECO Annual Report submitted to the Minister of Energy and Infrastructure by November 1, 2008;
- Monthly e-newsletter launched in April 2008 and distributed and posted to the OPA website monthly;
- Newsletter on conservation for the agricultural sector was distributed and posted for three quarters in 2008 to date; and
- Newsletters launched in 2008 and published at least twice/year to provide updates on the Conservation Fund and Technology Development Fund.

Further materials produced by the OPA in 2008 in a timely fashion to support various initiatives and/or events include:

- Information brochures and fact sheets to support communications in local areas where new supply resources are proposed were produced and distributed at the South West GTA Town Hall, public information centres, and meetings with community leaders and municipal representatives during 2008;
- Information brochures on status of RESOP and on clean and renewable energy procurement were produced and distributed and posted to website in June 2008; and

- Guidelines have been published and posted on the website providing updated information on the Technology Development Fund and Conservation Fund.

## 6.0 STRATEGIC OBJECTIVE 5: 2009 MILESTONES

- IPSP 1 has been revised and submitted to the Ontario Energy Board, and the OPA's 2010 revenue requirement case has been submitted and approved.
- The OPA has met extensively with leaders and key stakeholders in relevant areas to improve understanding of electricity-related issues in their communities.
- More clarity has been achieved on the roles of the Ministry of Energy and Infrastructure, the OPA and project proponents on consultations with First Nations and Métis communities; capability-building agreements with First Nations and Métis groups are in place; and partnership opportunities with First Nations and Métis communities in generation and transmission matters have been identified.
- The OPA has contracted for renewable generation from projects in which Aboriginal Peoples have an interest.
- The OPA's 2009 internal service, human resources and information management needs have been met efficiently and cost-effectively, and leading practices in internal controls have been implemented.

EB-2008-0312
Exhibit C is reserved for later use if required

# 2009 REVENUE REQUIREMENT

The 2009 revenue requirement has two components. Consistent with prior years, the OPA is requesting operating costs less registration fees. In addition, the OPA proposes to recover the balances in its Forecast Variance Deferral Account ("FVDA") and non-controllable deferral accounts. The details of the requests are described below.

The 2009 OPA operating cost budget is $65.1 million, down from the OEB-approved budget of $67.5 million in 2008, and is offset by estimated income from registration fees of $220 thousand for a gross revenue requirement from operations of $64.9 million.

The OPA's total revenue request also includes the recovery of the balances in the Retailer Contract Settlement Deferral Accounts ("RCSDA") and the Government Procurement Cost Deferral Account ("GPCDA"). The retailer contracts underlying the RCSDA are nearing completion, therefore the OPA is proposing to commence disposition of the balances over a three-year period from 2009 to 2011. The portion proposed for recovery in 2009 is $14.3 million. In addition, the OPA proposes to recover the full balance in the GPCDA of $1.3 million. These account balances are partially offset by the FVDA balance of ($10.3 million).

The proposed adjustments result in a total revenue requirement after deferral account recovery of $70.2 million, as shown in Table 1 below.

| Table 1 | |
|---|---|
| OPA 2009 Revenue Requirement | |
| ($'000s) | |
| Operating Cost Budget | 65,073 |
| Registration Fees | (220) |
| Revenue Requirement | $64,853 |
| | |
| FVDA | (10,312) |
| 2008 RCSDA | 14,324 |
| GPCDA | 1,341 |
| | |
| 2009 Net Revenue Requirement | $70,206 |

The OPA proposes to recover the 2009 revenue requirement by establishing a $0.485/MWh usage fee to Ontario electricity customers to be effective January 1, 2009. The fee components are as follows:

| | |
|---|---|
| o 2009 Revenue Requirement: | $0.448 |
| o Forecast Variance Deferral Account: | ($0.071) |
| o Government Procurement Costs Deferral Account: | $0.009 |
| o Retailer Contract Settlement Deferral Account Recovery: | $0.099 |
| o 2009 Revenue Requirement after Deferral Account Recovery | $0.485 |

The OPA is also seeking approval of its 2009 capital expenditures of $2.9 million, although, as in past submissions, these expenditures will be recovered through amortization expense included in the operating cost budget. The OPA is not seeking recovery of these capital expenditures separately through the revenue requirement.

Exhibit D-2-1 provides a detailed explanation of the registration fees, the OPA's operating and capital expenditures, as well as the derivation of the proposed usage fee to recover the revenue requirement.

Exhibit D-3-1 describes the GPCDA and the RCSDA deferral accounts and their balances, as well as describing the OPA's proposal to recover these balances through fees.

The derivation of the FVDA is described in Exhibit D-3-3.

# 2009 FEES, OPERATING COSTS AND CAPITAL EXPENDITURES

The 2009 Budget was developed to support the strategic objectives detailed in the OPA's 2009 to 2011 Business Plan. This budget results in a proposed usage fee for recovery of its revenue requirement of $0.448/MWh from Ontario electricity customers in 2009. The total revenue request, which includes recovery of the balances in the OPA's deferral accounts results in a total requested usage fee of $0.485/MWh. The evidence provided in this exhibit is a detailed explanation of the operating costs by major cost item, the 2009 capital expenditures and the derivation of the proposed usage fee.

## Registration Fees

In 2009, the OPA proposes to continue its practice of charging a non-refundable registration fee for participants in OPA competitive procurement processes for electricity supply and capacity, consistent with the practice in many other jurisdictions. The registration fees serve as a valuable tool to focus OPA resources on participants who are committed to the competitive procurement process.

The OPA proposes no change to its current registration fees of $10,000 per proposal for electricity supply and capacity competitive procurements. The OPA will not charge registration fees for any other competitive procurement processes. Due to the current position of the conservation industry on the maturity curve, any such charges may represent a barrier to entry for OPA's Conservation RFPs.

In 2009, total registration fees are budgeted at $0.220 million based on potential procurement projects to be undertaken in 2009. As in its past submissions, the OPA proposes to utilize the revenue received to reduce operating costs and consequently, the OPA's required usage fee.

## Operating Costs

The operating costs are comprised of an aggregation of the costs of each strategic objective as described in Exhibit B, Tabs 1 to 5. A summary of the costs by the five strategic objectives is provided in Table 1, below.

Table 1
Operating Costs by Strategic Objective
2009
($'000)

| | 2009 Budget | 2008 Budget | Variance |
|---|---|---|---|
| Strategic Objective 1 | 5,790 | 5,631 | 159 |
| Strategic Objective 2 | 20,072 | 23,186 | (3,114) |
| Strategic Objective 3 | 7,732 | 8,120 | (388) |
| Strategic Objective 4 | 1,031 | 667 | 364 |
| Strategic Objective 5 | 28,948 | 26,702 | 2,246 |
| Contingency Fund | 1,500 | 3,215 | (1,715) |
| Total | 65,073 | 67,521 | (2,448) |

In 2009 the OPA has re-classified the operating costs by Strategic Objective, to simplify presentation on an ongoing basis. Overhead costs directly consumed and allocated to the strategic objectives in the 2008 Revenue Requirement Submission are now included in Strategic Objective 5. The 2008 Budget and Forecast amounts contained in the evidence for all strategic objectives presented in Exhibit B have been restated to reflect this change in allocation methodology. Table 2, following, illustrates the difference between the reporting methods.

Table 2
Operating Costs by Strategic Objective
2008
($'000)

| | | 2008 Budget as filed in EB-2007-0791 | 2008 Budget as filed in EB-2008-0312 | Variance |
|---|---|---|---|---|
| | Strategic Objective 1 | 10,445 | 5,631 | 4,814 |
| | Strategic Objective 2 | 26,445 | 23,186 | 3,259 |
| | Strategic Objective 3 | 8,364 | 8,120 | 244 |
| | Strategic Objective 4 | 1,252 | 667 | 585 |
| | Strategic Objective 5 | 17,800 | 26,702 | (8,902) |
| | Contingency Fund | 3,215 | 3,215 | 0 |
| Total | | 67,521 | 67,521 | 0 |

The variance column represents the amount of overhead costs initially allocated to the strategic objectives. The full amount of overhead allocation of ($8,902) is now included in Strategic Objective 5.

The OPA's operating expenses for 2008 and 2009 are provided in Table 3, below, by major expense category.

| Table 3 | | | | |
|---|---|---|---|---|
| Operating Costs by Major Expense Category | | | | |
| 2009 vs. 2008 | | | | |
| ($'000s) | | | | |
| | 2009 Budget | 2008 Budget | Variance | 2008 Forecast |
| Compensation & Benefits | 24,664 | 22,619 | 2,045 | 22,837 |
| Professional & Consulting Costs | 24,260 | 28,261 | (4,001) | 24,684 |
| Conservation / Technology Initiatives | 4,061 | 4,034 | 27 | 2,775 |
| Operating & Administration Expenses | 10,588 | 9,392 | 1,196 | 9,215 |
| Contingency Fund | 1,500 | 3,215 | (1,715) | 0 |
| Total Operating Costs | 65,073 | 67,521 | (2,448) | 59,511 |

The total operating costs budgeted for 2009 are reduced from 2008 to $65.1 million. Variances within major expense categories are driven by the expanded scope and resultant delay in the IPSP 1 hearing; expanded First Nations and Métis peoples consultation; support for implementation of IPSP 1; the implementation of community outreach programs; the commencement of analysis for IPSP 2; and increased generation and conservation procurements. These increased costs are offset by reductions in the use of temporary workforce and efficiencies gained by experience in design and management of conservation programs. The major variances are detailed below.

Compensation and Benefits

The 2009 Compensation and Benefits budget of $24.7 million is 37.9% of the total 2009 Budget. The OPA's staffing strategy is discussed in greater detail in Exhibit B-5-1.

A breakdown of this expense item by sub-category is as follows in Table 4.

| Table 4 | | | | |
|---|---|---|---|---|
| Compensation and Benefits | | | | |
| 2009 vs. 2008 | | | | |
| ($'000s) | | | | |
| | 2009 Budget | 2008 Budget | Variance | 2008 Forecast |
| Salaries | 20,999 | 19,078 | 1,921 | 19,502 |
| Pension and Benefits | 3,165 | 3,041 | 124 | 2,802 |
| Board of Directors Remuneration | 500 | 500 | 0 | 533 |
| Total | 24,664 | 22,619 | 2,045 | 22,837 |

Of the total $24.7 million Compensation and Benefits costs, $21.0 million (85.0%) is associated directly with salaries. Pension and Benefits of $3.2 million includes $1.4 million related to pension expenses; the remainder is payroll taxes and benefit costs.

Staffing

The OPA takes into consideration the cost effectiveness and efficiency of various staffing arrangements, as discussed in Exhibit B-5-1. The Compensation and Benefits budget includes amounts budgeted for permanent employees, as well as consultants/contractors, temporary and part time employees.

The staffing level is measured using Full Time Equivalents ("FTE(s)"). This is to clearly demonstrate the employee support that is budgeted for the entire year. It is calculated per person by dividing the total number of budgeted person-work months by the 12 months in the year. The resource requirements have been established based on the past three-years' experience and preliminary work programs.

The FTE levels that underpin the 2009 Compensation and Benefit expenses by strategic objective are as follows in Table 5.

| Table 5 | | | | | | | |
|---|---|---|---|---|---|---|---|
| OPA Full Time Equivalent by Strategic Objective | | | | | | | |
| 2009 vs. 2008 | | | | | | | |
| | 2009 Budget | | | 2008 Budget | | | |
| | Regular | Temporary | Total FTE | Regular | Temporary | Total FTE | Variance |
| Strategic Objective 1 | 29.5 | 4.7 | 34.2 | 21.4 | 7.3 | 28.7 | 5.5 |
| Strategic Objective 2 | 62.5 | 0.6 | 63.1 | 64.2 | 6.0 | 70.2 | -7.1 |
| Strategic Objective 3 | 25.0 | 2.0 | 27.0 | 22.0 | 2.7 | 24.7 | 2.3 |
| Strategic Objective 4 | 4.2 | 0.0 | 4.2 | 3.0 | 1.0 | 4.0 | 0.2 |
| Strategic Objective 5 | 61.2 | 4.0 | 65.2 | 50.8 | 6.0 | 56.8 | 8.4 |
| - CEO Office | 3.0 | 0.0 | 3.0 | 2.7 | 0.0 | 2.7 | 0.3 |
| - Legal & Regulatory Services | 11.0 | 1.0 | 12.0 | 10.0 | 0.8 | 10.8 | 1.2 |
| - Communications | 8.9 | 3.0 | 11.9 | 6.5 | 2.2 | 8.7 | 3.2 |
| - Finance | 13.7 | 0.0 | 13.7 | 12.0 | 1.3 | 13.3 | 0.4 |
| - Human Resources | 4.6 | 0.0 | 4.6 | 3.6 | 0.0 | 3.6 | 1.0 |
| - Business Services | 20.0 | 0.0 | 20.0 | 16.0 | 1.7 | 17.7 | 2.3 |
| | | | | | | | |
| Total OPA Headcount | 182.4 | 11.3 | 193.7 | 161.4 | 23.0 | 184.4 | 9.3 |

The total 9.3 FTE variance between the 2008 and 2009 Budgets is driven by an increase in regular FTEs (+21.0) offset by a decrease in temporary FTEs (-11.7). As part of the talent management process described in Exhibit B-5-1, the OPA selectively hires regular staff in order to attract and retain valuable resources. The increase in FTEs is primarily due to strengthening the administrative support for the OPA and expanding community engagement. Further increases stem from the expansion of IPSP-related activities and increased generation procurement. Detailed analysis of the total FTE increase by strategic objective is provided in Table 6, below.

1

| Table 6<br>Staff Change<br>2009 vs. 2008 | | |
|---|---|---|
| Strategic Objective | Staff Change (FTE) | Explanation |
| Planning | +5.5 | • Increase driven by regional and constrained areas planning, commence analysis required for IPSP2 |
| Conservation | -7.1 | • Coordinator (+0.3) added in CECO to support MECO (Municipal Energy Conservation Officer) and to co-ordinate measures for electricity conservation and load management in Ontario<br>• Efficiencies gained in program management and EMV process, planned reduction in student hires (-7.4) |
| Electricity Resources | +2.3 | • Planned additional 371+ standard offer contracts plus additional generation procurement contracts driven by the IPSP and ministerial directives (+1.0).<br>• In Contract Management (+1.3) to support larger number of contracts |
| Sector Development | +0.2 | • Added resources to manage communications and coordination with other stakeholders, market participants and other opinion leaders to create a common understanding of sector needs |
| Corporate Support | +8.4 | • Increased legal support for procurement activities; support for IPSP implementation and regulatory consultation proceedings (+1.2)<br>• Communications will target regional and constrained areas, First Nations and Métis peoples (+3.2)<br>• +4.0 to enhance business process and internal control in Finance, Human Resources, Business Services and CEO |
| Total | +9.3 | |

2

## Professional and Consulting Costs

A breakdown of Professional and Consulting costs is provided in Table 7.

Table 7
Professional and Consulting Costs
2009 vs. 2008
($'000s)

| | 2009 Budget | 2008 Budget | Variance |
|---|---|---|---|
| Audit | 644 | 1,199 | (555) |
| Legal | 4,524 | 7,430 | (2,906) |
| Stakeholder Consultation | 4,152 | 2,881 | 1,271 |
| Other Professional Consulting | 14,940 | 16,751 | (1,811) |
| Total | 24,260 | 28,261 | (4,001) |

The OPA is required under accounting standards and the Electricity Act to conduct audits of its financial statements, retailer settlements and the Regulated Price Plan ("RPP") account, as well as other internal control audits. The variance from 2008 results from a change in practice of budgeting for internal audits for Conservation programs. With increased experience, the OPA is able to target two specific programs for independent audits, rather than assigning a general budget amount

The Legal costs include specialized external legal support required for conservation initiatives, corporate and commercial matters, regulatory proceedings, electricity generation procurements and contract management. The decrease from the 2008 Budget is driven by a decrease for IPSP 1 to reflect the fact that much of this spending will have occurred in 2008, and reduced reliance on external legal support for Conservation and electricity resource contract management activities.

Intervenor funding of $3.0 million for the IPSP 1 hearing represents 71.4% of the total 2009 stakeholder consultation cost. The remaining increase in stakeholder costs is for expanded municipal and community outreach, engagement with key community leaders

and First Nations and Métis peoples, and for coordinating and reporting on conservation initiatives.

Other Professional Consulting shows an overall decrease from the 2008 Budget. Increases from the need to complete studies to eliminate barriers to DG; enhanced First Nations and Métis peoples consultation; and building systems and implementing policies for attracting, retaining and engaging skilled staff are offset by a reduction in conservation consulting as a result of efficiencies gained in design and delivery of conservation programs.

A summary of the Professional and Consulting costs by strategic objective is shown in Table 8, below.

Table 8
Professional and Consulting Costs by Strategic Objective
2009 vs. 2008
($'000s)

| | 2009 Budget | 2008 Budget | Variance | 2008 Forecast |
|---|---|---|---|---|
| Strategic Objective 1 | 1,458 | 1,994 | (536) | 1,694 |
| Strategic Objective 2 | 7,533 | 9,931 | (2,398) | 8,348 |
| Strategic Objective 3 | 4,205 | 4,717 | (512) | 4,254 |
| Strategic Objective 4 | 360 | 159 | 201 | 159 |
| Strategic Objective 5 | 10,704 | 11,460 | (756) | 10,229 |
| Total | 24,260 | 28,261 | (4,001) | 24,684 |

## Conservation and Technology Development Funds

Consistent with the Board's Decision in EB-2006-0233, the OPA budgets for and seeks recovery through fees of the forecast spending in these two funds in a given year, rather than the fund amounts approved by the OPA Board of Directors, which are established by internally restricting the amounts in net assets.

The budget for spending is $2.8 million in 2009 for the Conservation Fund and $1.3 million for the Technology Development Fund. The total spending budgeted for 2009 equals

$4.1 million and represents the sum of the 2009 spending estimates for milestone payments related to grants awarded in 2006, 2007, 2008 and anticipated 2009 grants, as illustrated in Table 9, below.

Table 9
Conservation / Technology Initiatives
Spending in 2009
($'000)

| Year Grant Awarded | 2006 | 2007 | 2008 | 2009 | Total |
|---|---|---|---|---|---|
| | | | | | |
| Conservation Fund | | 848 | 1414 | 519 | 2,781 |
| Technology Fund | 83 | 175 | 1022 | | 1,280 |
| Total | 83 | 1,023 | 2,436 | 519 | 4,061 |

The Conservation Fund and the Technology Development Fund are described in detail in Exhibit B-2-1.

Operating & Administration Expenses

Operating & Administration Expenses represent all other costs related to operations support, i.e., premise costs, amortization and other costs (e.g., professional development, recruitment costs, travel costs and information system support costs for licenses, data communication and computer maintenance, etc.). The 2009 Budget for Operating & Administration Expenses is $10.6 million as shown in Table 10, below.

| Table 10 | | | |
|---|---|---|---|
| Operating & Administration Expense Category | | | |
| 2009 vs. 2008 | | | |
| ($'000s) | | | |
| | 2009 Budget | 2008 Budget | Variance |
| Premises | 2,982 | 2,620 | 362 |
| Amortization | 1,489 | 1,365 | 124 |
| Other Costs | 6,117 | 5,407 | 710 |
| Total Operating & Administration Expenses | 10,588 | 9,392 | 1,196 |

Premise costs capture the office rent, premise repairs and maintenance, housekeeping services, and security. Premises costs are higher in 2009 by $362,000 which is related to an increase in office rental costs due to the requirement for additional office space.

Amortization in 2009 reflects the increased asset levels that are required to support the increased scope of responsibilities and the higher level of activities handled by the OPA. Capital expenditures for 2009 are $2.9 million, about $300,000 more than 2008. This increase is a result of the ongoing 2008 expansion project described at Exhibit B-5-1, which includes leasehold improvements, additional furnishings, and adding or upgrading computer hardware and software. Amortization expenses represent 2.3% of the total 2009 Budget. Table 11 shows the depreciation rates utilized to develop the amortization expense.

| Table 11 | |
|---|---|
| Depreciation Rates | |
| | |
| Furniture and Equipment | 10 years |
| Leasehold Improvements | Over the length of lease |
| Computer Hardware and Software | 2.5 years |
| Audio Visual Equipment | 10 years |
| Telephone System | 5 years |

The category "Other Costs" include information technology expenses, which represent all operating costs related to maintaining and supporting OPA needs with regard to software and licenses, data communications, computer maintenance and computer supplies. It also includes office and administration costs, such as: OPA fees & licenses, meetings & events, office expenses, payroll services, equipment repairs, travel expenses for employees and board members, professional membership fees, professional development, recruitment costs and miscellaneous interest. The cost of these services, $6.1 million, is 9.4% of the total operating budget in 2009 and reflects a 13.1% increase from 2008. This is a result of increases in OEB assessment fees; meeting and event support to First Nations, Métis peoples and municipal outreach; and a lighting audit to be conducted within the premises.

Interest

Interest expense and income occurs due to the nature of the OPA's operations. Revenues are received over the course of the year through the usage fee, and are not directly tied to the timing or amount of the OPA's capital or operating expenditures. Operational financing is required to address the timing differences between the receipt of revenues and the need to meet spending obligations. In 2009, it is projected that interest revenue from the cumulative surplus of ($10.3) million at the end of 2008 will be sufficient to offset the interest expense arising from operational financing.

## Contingency Fund

Consistent with past practice, the OPA is proposing a $1.5 million contingency fund in 2009 to address unexpected operating costs, and additional work associated with new Directives or letters of request from the Minister or the OEB. This represents 2.3% of the operating budget, which is a decrease of 53.3% from the 2008 OEB-approved contingency.

The OPA must be able to respond to unforeseen issues which may arise during the year, such as Government Directives. The contingency fund provides the flexibility to handle these unforeseen and unbudgeted events.

## Capital Expenditures

As in prior years, the OPA will utilize cash flow from amortization expenses included in the usage fee to fund the 2009 capital expenditures of $2.9 million. As a result, the revenue requirement does not propose additional funding requirements for the 2009 capital expenditures.

The budget for 2009 capital expenditures is $2.9 million, as provided in Table 12.

Table 12
Capital Expenditures
2007 to 2009
($'000)

| | 2009 Budget | 2008 Budget | 2007 Actual |
|---|---|---|---|
| Furniture & Equipment | 799 | 627 | 708 |
| Leasehold Improvements | 1,736 | 1,401 | 1,215 |
| Computers & Operating Software | 300 | 497 | 494 |
| Telephone/Audio Visual Equipment | 62 | 28 | 106 |
| Total | 2,897 | 2,553 | 2,523 |

The spending is required to accommodate the functional needs of the recent and forecast increase in staff complement. Leasehold improvements are affected by the requirement to refurbish additional space to accommodate the staff increase. Prior leaseholds were

developed on open space at a lower cost. Computer cost increases are to purchase and also upgrade personal computer hardware and software.

The 2009 capital expenditures will result in a slight increase in the amortization expense for 2009 in accordance with the depreciation rates set out above.

## Usage Fee

The revenue required from the 2009 usage fee is derived from the 2009 operating costs, reduced by the forecast registration fees to be collected in 2009. The revenue requirement of $64.9 million is then adjusted by the balances of the FVDA, the RCSDA and the GPCDA proposed for recovery. This results in a revenue requirement after deferral account recovery of $70.2 million as described in Exhibit D-3-3. Table 13, below, shows the derivation of the usage fee.

Table 13
Ontario Power Authority
2009 Usage Fee Request
($'000)

| | Budget Amount |
|---|---|
| Operating Costs | 65,073 |
| Registration Income | (220) |
| 2009 Revenue Requirement | 64,853 |
| | |
| FVDA | (10,312) |
| 2008 RCSDA | 14,324 |
| GPCDA | 1,341 |
| 2009 Revenue Requirement after Deferral Account Recovery | 70,206 |
| | |
| IESO Energy Forecast (TWh) | 144.7 |
| | |
| Usage Fee requested ($/MWh) | $0.485 |

The usage fee is derived by dividing the net operating costs (revenue requirement adjusted for deferral accounts) of $70.206 million by the Ontario electricity forecast[1] of 148.0 TWh, adjusted for line losses of 3.3 TWh for a net forecast of 144.7 TWh.

The OPA is proposing to continue to charge a volumetric usage fee to recover the OPA's operating costs and deferral account balances from Ontario electricity consumers, effective January 1, 2009. Like the IESO usage fee, the OPA proposes a wholesale market service charge to customers.

[1] . The energy forecast utilized is from the IESO's 18-month Outlook: An Assessment of the Reliability of the Ontario Electricity System, issued September 23, 2008.

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# DEFERRAL AND VARIANCE ACCOUNTS

The 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;
- 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 of each of these non-controllable transactions regarding the deferral accounts and balances recorded to date. The evidence will also outline the OPA's proposal for disposition of the balances of these accounts.

## Government Procurement Costs

Pursuant to the Board's Order in EB-2005-0489, the Government Procurement Costs Deferral Account ("GPCDA") was established to record Government transfer costs associated with section 25.18 of the Act. The accumulated balance in the GPCDA as of September 30, 2008 is $1.34 million from the Ministry of Energy and Infrastructure ("the Ministry") for procurement-related activities, as follows in Table 1.

| Table 1<br>Invoices from the Ministry<br>($000's) | |
|---|---|
| Invoice Date | Amount |
| Mar 20, 2006 | 644.3 |
| Dec 6, 2006 | 320.7 |
| April 16, 2007 | 270.3 |
| Dec 12, 2007 | 40.7 |
| Aug 13, 2008 | 64.7 |
| Total: | $1,340.7 |

Copies of the Ministry's invoices are filed in Exhibit D-3-2.

Retailer Settlements

The Act has two types of retailer payments that relate to the OPA:

(a) Retailer Contract Settlements – the payments/receipts related to the settlement of certain retailer contracts that were in effect on November 11, 2002; and

(b) 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 require the OPA to make payments to retailers with respect to certain contracts with low-volume and designated consumers.

These legislative provisions ensure that retailers will be held whole by the OPA for contracts with low-volume and designated consumers, entered into before administered prices were put in place 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.

In EB-2005-0489, EB-2006-0233, and EB-2007-0791, Retailer Contract Settlement Deferral Accounts (RCSDA) for 2005, 2006, and 2007 were established, respectively, to record the balances related to settlement of the retailer contracts resulting from sections 25.34 (1) and (2) of the Act. The balances in these accounts as at September 30, 2008 are shown in Table 2, below.

In accordance with Board Order EB-2007-02791, a 2008 RCSDA was established to record the retailer contract settlement amounts for the 2008 fiscal year. The principal balance for this account as of September 30, 2008 is a ($0.4) million payment amount from retailers.

The cumulative Retailer Contract Settlement balance as of September 30, 2008 (inclusive of 2005, 2006, 2007 and 2008 RCSDA balances) reflects $47.3 million in payments to retailers, as shown in Table 2.

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. The amounts related to these payments received are maintained in the Retailer Discount Settlements Deferral Account ("RDSDA").

In May 2007, the OPA received final discount payments from one retailer. Further amounts may arise on final account balance reconciliations. Such amounts are anticipated to be small in nature. The cumulative RDSDA balance as of September 30, 2008 is $(4.8) million.

Table 2, below outlines all outstanding balances in the Retailer Settlement Accounts, as at September 30, 2008.

| Table 2<br>Retailer Settlement Accounts<br>($'000) | |
|---|---|
| Retailer Settlement Accounts (Other Transactions) | |
| 2005 Retailer Contract Settlement | (38,749) |
| 2006 Retailer Contract Settlement | 51,194 |
| 2007 Retailer Contract Settlement | 35,260 |
| 2008 Retailer Contract Settlement (as of Sept 30) | (410) |
| | 47,295 |
| Retailer Discount Settlement | (4,811) |
| Total Retailer Settlement | 42,484 |

Disposition of Non-Controllable Balances

The total cumulative balance of all non-controllable deferral accounts is $43.8 million, as shown in Table 3, below.

| Table 3<br>Non-controllable deferral accounts<br>($'000) | |
|---|---|
| Total Retailer Settlement | 42,484 |
| Total Government Procurement Costs | 1,341 |
| Total non-controllable deferral accounts | 43,825 |

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. In order to mitigate ratepayer impact, the OPA is proposing to recover the accumulated balance of total retailer settlements over a three-year period from 2009 to 2011. This balance, as well as the total balance of the GPCDA will be recovered through an addition to the usage fee in 2009.

The total amount proposed for recovery of the balances in these non-controllable deferral accounts in 2009 is $15.7 million, illustrated in Table 4, below.

Table 4
Non-controllable deferral accounts to be recovered in 2009
($'000)

| | Total Balance | Amount to be Recovered in 2009 | Usage Fee Impact |
|---|---|---|---|
| Total Retailer Settlement | 42,484 | 14,324 | 0.099 |
| Total Government Procurement Costs | 1,341 | 1,341 | 0.009 |
| Total non-controllable deferral accounts | 43,825 | 15,665 | 0.108 |

## 1.2 Establishment of 2009 Deferral Accounts

The OPA is requesting to maintain the 2005, 2006, 2007, and 2008 retailer settlement accounts until the balances are fully recovered. Although the contracts underlying these accounts have largely expired, the OPA continues to process final transactions, which, depending on contract provisions, could continue into 2009. The OPA therefore requests the establishment of a 2009 RCSDA and 2009 RDSDA to record any final transactions related to the retailer contracts that may arise. The balances of these accounts will be brought forward for disposition in the OPA's 2010 revenue requirement submission.

The OPA further requests the establishment of a 2009 GPCDA to record Government transfer costs that may occur during 2009. This balance will also be brought forward for disposition in the OPA's 2010 revenue requirement submission.

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**Ontario Shared Services**
Revenue Management
40 Elm Street, Suite 41A
Sudbury, Ontario
P3C 1S8

For Questions Call: (705) 564-8973
Facsimile: (705) 564-7062

Ontario

# INVOICE

**Ministry of Energy**

**Ontario Power Authority**
**175 Bloor St E, North Tower, Suite 606**
**Toronto, ON M4W 3R6**

**Attn: Lee Bennet, Controller**

| | | | | | | |
|---|---|---|---|---|---|---|
| **Invoice Number:** | **S-0248** | | | | **Due Date:** | |
| **Invoice Date:** | **20-Mar-06** | | | | **19-Apr-06** | |
| **Description of Service(s)** | | **Price** | **Quantity** | **Amount** | **GST** | **PST** |
| **Recovery of costs from OPA** | | **644,275.61** | **1** | **644,275.61** | **0.00** | **0.00** |
| **Please refer to attached for more information** | | | | | | |
| **029-290201-0000-978601-479090 = $95,855.84**<br>**029-290201-0000-978602-479090 = $84,886.55**<br>**029-290201-0000-978685-479090 = $463,533.22** | | | | | | |
| **IFIS Coding:** | **see above** | **Please pay this amount:** | | | **$644,275.61** | |

**Remittance Advice**
**Please Detach and Return this Portion with Your Payment**

**Source:** **Ministry of Energy**

**Interest will be charged on all past due accounts**

**Remit to:**
**Ontario Shared Services**
**Revenue Management**
**40 Elm Street, Suite 41A**
**Sudbury, ON P3C 1S8**

**Certified Cheque or money order payable to the Minister of Finance**

**Invoice #** **S-0248**

**Date** **20-Mar-06**

**Amount Due** **$644,275.61**

**Ministry of Energy and Ministry of Finance Expenditures**
**(To be recovered from the OPA - Fiscal 2005-06)**

| | April - Feb charges Incurred by Ministry | Recovered Inv # S0186 (Oct 05) | Current Invoice S-0248 | Potential Accrual (March 31, 2006) | Comments |
|---|---|---|---|---|---|
| ***Support to Supply 2004-05 RFPs*** | | | | | |
| Osler, Hoskin & Harcourt (2500/300) | 171,017.57 | 171,017.57 | - | | |
| NERA | 84,639.66 | 84,639.66 | - | | |
| | 255,657.23 | 255,657.23 | - | - | |
| ***Support to Supply 2005-06 RFPs*** | | | | | |
| Osler, Hoskin & Harcourt (LLP Renwables) | 497,089.68 | 455,323.78 | 41,765.90 | 62,050.74 | |
| Knowles (RFP II) | 24,900.00 | 22,553.06 | 2,346.94 | | |
| Knowles (RFP III) | 13,697.06 | 3,444.00 | 10,253.06 | | |
| Technical Session | 28,498.36 | 28,498.36 | - | | |
| Consultant - B. Purchase | 30,000.00 | - | 30,000.00 | | |
| Blake Cassels | 83,217.30 | - | 83,217.30 | 56,782.70 | |
| Other - incidentals | 13,159.19 | - | 13,159.19 | | Hospitality, Reception, Seminar & Conferences |
| | 690,561.59 | 509,819.20 | 180,742.39 | 118,833.44 | |
| ***Bruce Negotiations*** | | | | | |
| Negotiator - Santangeli | 62,500.00 | 62,500.00 | - | | |
| Consultant - Walker | 33,333.00 | 33,333.00 | - | | |
| Consultant - Karry | 33,333.00 | 33,333.00 | - | | |
| PJB Energy Solutions Inc | 21,475.70 | 17,475.70 | 4,000.00 | | |
| Strickert & Associates | 24,464.00 | 24,464.00 | - | | |
| Strickert Travel Costs | 1,569.09 | 1,569.09 | - | | |
| Brian Mark Consulting | 14,905.00 | 13,695.00 | 1,210.00 | | |
| Mark Travel Costs | 372.12 | 372.12 | - | | |
| CIBC World Markets & travel | 1,919,991.08 | 1,711,278.96 | 208,712.12 | | |
| Blake, Cassels & Graydon | 456,391.10 | 211,280.00 | 245,111.10 | | |
| Allan Brown & Associates | 4,500.00 | - | 4,500.00 | | |
| | 2,572,834.09 | 2,109,300.87 | 463,533.22 | - | |
| ***Manitoba Clean Energy / Churhill Falls*** | | | | | |
| Blake, Cassels & Graydon, Churchill | - | - | - | | |
| SNC Lavalan | - | - | - | 60,000.00 | |
| Other - incidentals | - | - | - | | |
| | - | - | - | 60,000.00 | |
| **Ministry of Energy Invoices** | **3,519,052.91** | **2,874,777.30** | **644,275.61** | **178,833.44** | |

**Ontario Shared Services**
Revenue Management
40 Elm Street, Suite 41A
Sudbury, Ontario
P3C 1S8

For Questions Call: (705) 564-8973
Facsimile: (705) 564-7062

Ontario

# INVOICE

**Ministry of Energy**

**Ontario Power Authority**
**120 Adelaide St W**
**Toronto, ON M4W 3R6**

**Attn: Terry Gabriele, Finance Manager**

| | | | | | | |
|---|---|---|---|---|---|---|
| **Invoice Number:** | **S-0346** | | | | **Due Date:** | |
| **Invoice Date:** | **06-Dec-06** | | | | **05-Jan-07** | |
| **Description of Service(s)** | | **Price** | **Quantity** | **Amount** | **GST** | **PST** |
| **Recovery of costs from OPA for 2006/07 Fiscal Year**<br>**FOR THE PERIOD APRIL 2006 TO OCTOBER 2006**<br>**Please refer to attached for more information**<br><br>**029-290201-0000-978601-479090 = $28,974.64**<br>**029-290201-0000-978602-479090 = $291,719.69** | | **320,694.33** | **1** | **320,694.33** | **0.00** | **0.00** |
| **IFIS Coding:** | **see coding above** | **Please pay this amount:** | | | **$320,694.33** | |

**Remittance Advice**
**Please Detach and Return this Portion with Your Payment**

**Source:** **Ministry of Energy**

**Interest will be charged on all past due accounts**

**Remit to:**
**Ontario Shared Services**
**Revenue Management**
**40 Elm Street, Suite 41A**
**Sudbury, ON P3C 1S8**

**Certified Cheque or money order payable to the Minister of Finance**

**Invoice #** **S-0346**

**Date** **06-Dec-06**

**Amount Due** **$320,694.33**

**Ministry of Energy and Ministry of Finance Expenditures**
**(To be recovered from the OPA - Fiscal 2006-07)**

| | PO # | Expiry Date | Total Budget Fiscal 06-07 | April 06 - Oct 06 payments by Ministry | Current Invoice | Balance to recover by March 31, 2007) | Comments |
|---|---|---|---|---|---|---|---|
| ***RFP Projects (cc 978601)*** | | | | | | | |
| Knowles 111 | 29243 | Apr 31 06 | 10,134.94 | | - | 10,134.94 | |
| Consultant - B. Purchase | 33050 | May 31, 06 | 60,000.00 | | - | 60,000.00 | |
| Osler, Hoskin & Harcourt (LLP Renwables) | N/A | Mar 31, 06 | 110,667.43 | 28,974.64 | 28,974.64 | 81,692.79 | |
| | | | 180,802.37 | 28,974.64 | 28,974.64 | 151,827.73 | |
| ***Support to Supply 2005-06 RFPs (cc978602)*** | | | | | | | |
| Nishnawabe Aski Development Fund | 49127 | March 31, 07 | 137,540.00 | 29,434.45 | 29,434.45 | 108,105.55 | |
| Nishnawabe Aski Development Fund | 49415 | July 14, 06 | 12,800.00 | 12,800.00 | 12,800.00 | - | |
| SNC Lavalin | 44936 | August 31, 06 | 235,000.00 | 143,278.33 | 143,278.33 | 91,721.67 | |
| Blake Cassels & Graydon LLP, Manitoba Clean Energy | N/A | Mar 31, 06 | 49,271.58 | 25,050.72 | 25,050.72 | 24,220.86 | |
| TORYS, LLP - Ontario Quebec Intertie | | Feb 28, 07 | 350,000.00 | | - | 350,000.00 | |
| Incidental Expenses | | | 200,000.00 | 81,156.19 | 81,156.19 | 118,843.81 | Note 1 |
| | | | 984,611.58 | 291,719.69 | 291,719.69 | 692,891.89 | |
| | | | 1,165,413.95 | 320,694.33 | | 844,719.62 | |
| **Total of Ministry of Energy Invoices** | | | | | **$ 320,694.33** | | |
| | | | | | | 844,719.62 | verification |

| **Note 1** | |
|---|---|
| **Nishnawbe Aski Dev Fund** | |
| Travel, meetings and accomodation | 43,743.93 |
| | 6,266.02 |
| | 10,021.07 |
| | 8,553.45 |
| | 7,387.72 |
| | 75,972.19 |
| Printing | 5,184.00 |
| | 81,156.19 |

**Ontario Shared Services**
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Ontario

# INVOICE

**Ministry of Energy**

**Ontario Power Authority**
**120 Adelaide St W**
**Toronto, ON M4W 3R6**

**Attn: Terry Gabriele, Finance Manager**

| | | | | | | |
|---|---|---|---|---|---|---|
| **Invoice Number:** | **S-0360** | | | | **Due Date:** | |
| **Invoice Date:** | **16-Apr-07** | | | | **16-May-07** | |
| **Description of Service(s)** | | **Price** | **Quantity** | **Amount** | **GST** | **PST** |
| **Recovery of costs from OPA for 2006/07 Fiscal Year**<br>**FOR THE PERIOD NOVEMBER 2006 TO MARCH 2007**<br>**Please refer to attached for more information** | | **270,311.56** | **1** | **270,311.56** | **0.00** | **0.00** |
| **IFIS Coding:** | **029-290201-0000-978602-123510** | **Please pay this amount:** | | | **$270,311.56** | |

**Remittance Advice**
**Please Detach and Return this Portion with Your Payment**

**Source:** **Ministry of Energy**

**Interest will be charged on all past due accounts**

**Remit to:**
**Ontario Shared Services**
**Revenue Management**
**40 Elm Street, Suite 41A**
**Sudbury, ON P3C 1S8**

**Certified Cheque or money order payable to the Minister of Finance**

**Invoice #** **S-0360**

**Date** **16-Apr-07**

**Amount Due** **$270,311.56**

**Ministry of Energy Expenditures**
**To be recovered from the OPA - Fiscal 2006-07**

| | PO # | Expiry Date | Total Budget Fiscal 06-07 | Invoice # #S0346 - Jan 07 | Invoice March 2007 | Comments |
|---|---|---|---|---|---|---|
| ***RFP Projects (cc 978601)*** | | | | | | |
| Knowles 111 | 29243 | Apr 31 06 | 10,134.94 | | | PO closed |
| Consultant - B. Purchase | 33050 | May 31, 06 | 60,000.00 | | | PO closed |
| Osler, Hoskin & Harcourt (LLP Renwables) | N/A | Mar 31, 06 | 110,667.43 | 28,974.64 | | PO closed |
| | | | 180,802.37 | 28,974.64 | - | |
| ***Support to Supply 2005-06 RFPs (cc978602)*** | | | | | | |
| Nishnawabe Aski Development Fund | 49127 | March 31, 07 | 137,540.00 | 29,434.45 | 90,526.90 | |
| Nishnawabe Aski Development Fund | 49415 | July 14, 06 | 12,800.00 | 12,800.00 | | |
| Nishnawabe Aski Development Fund | 56141 | March 31, 07 | 24,350.00 | - | 24,350.00 | |
| SNC Lavalin | | August 31, 06 | 235,000.00 | 143,278.33 | 91,721.67 | |
| Blake Cassels & Graydon LLP, Manitoba Clean Energy | N/A | Mar 31, 06 | 49,271.58 | 25,050.72 | 1,812.00 | |
| TORYS, LLP - Ontario Quebec Intertie | 50522 | Feb 28, 07 | 350,000.00 | | 20,158.00 | |
| Incidental Expenses | | | | 81,156.19 | 41,742.99 | |
| | | | 808,961.58 | 291,719.69 | 270,311.56 | |

**Ontario Shared Services**
Revenue Management
40 Elm Street, Suite 41A
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P3C 1S8

For Questions Call: (705) 564-8973
Facsimile: (705) 564-7062

Ontario

# INVOICE

**Ministry of Energy**

**Ontario Power Authority**
**120 Adelaide St W**
**Toronto, ON M4W 3R6**
**Attn: Terry Gabriele, Controller**

| Invoice Number: | S-0369 |
|---|---|
| Invoice Date: | 12-Dec-07 |

| Due Date: |
|---|
| 11-Jan-08 |

| Description of Service(s) | Price | Quantity | Amount | GST | PST |
|---|---|---|---|---|---|
| Expenditures for the period APRIL 2007 TO SEPTEMBER 2007<br>Please refer to attached for more information | 40,677.19 | 1 | 40,677.19 | 0.00 | 0.00 |

BACK UP DOCUMENTATION ATTACHED

| IFIS Coding: | 029-290201-0000-978602-479090 | Please pay this amount: | $40,677.19 |
|---|---|---|---|

**Ministry of Energy and Ministry of Finance Expenditures**
**(To be recovered from the OPA - Fiscal 2007-08)**

| | PO # | Expiry Date | Total Budget Fiscal 06-07 | April 07 - Sept 07 payments by Ministry | Invoice # | Notes |
|---|---|---|---|---|---|---|
| ***Manitoba Project (cc978602)*** | | | | | | |
| Matawa First Nations | 61029 | Nov 30, 07 | 24,900.00 | 15,051.49 | 15,051.49 | |
| TORYS | 57308 | Dec 31, 07 | 300,000.00 | | | |
| McCarthy Tetrault (legal) | | | 24,047.62 | 24,047.62 | 24,047.62 | |
| Incidental Expenses | | | 5,000.00 | 2,300.49 | 2,300.49 | Note 1 |
| Adjustment to 2006-07 accrual | | | (722.41) | (722.41) | (722.41) | Note 2 |
| **Total of Ministry of Energy Invoices** | | | **353,225.21** | **40,677.19** | **40,677.19** | |

| Note 1 Incidental Expenses | |
|---|---|
| Rick Jennings | 504.39 |
| Doug McCallum | 552.69 |
| Carlton Mathias | 491.13 |
| Linda Poirier | 345.64 |
| Jil Pritchard | 217.86 |
| Ed Sweet | 188.78 |
| | 2,300.49 |

| Note 2 - Accrual Adj (06-07) | |
|---|---|
| Nishnawabe | 682.5 |
| Nishnawabe | 39.91 |
| *2006-07 over accrual* | 722.41 |

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**Ontario Shared Services**
**Revenue Management**
**40 Elm Street**, Suite 41A
**Sudbury**, Ontario
**P3C 1S8**

For Questions Call: (705) 564-8973
Facsimile: (705) 564-7062

Ontario

government deferral account.

# INVOICE

**Ministry of Energy**

**Ontario Power Authority**
**120 Adelaide St W**
**Toronto, ON M4W 3R6**

**Attn: Terry Gabriele, Controller**

| Invoice Number: | S-0386 |
|---|---|
| Invoice Date: | 13-Aug-08 |

| Due Date: |
|---|
| 12-Sep-08 |

| Description of Service(s) | Price | Quantity | Amount | GST | PST |
|---|---|---|---|---|---|
| OPA FINAL COST RECOVERY<br>4TH QUARTER 2007-08<br>Pursuant to Section 25.18 of the Electricity Act 1998 | 64,741.07 | 1 | 64,741.07 | 0.00 | 0.00 |

| IFIS Coding: | 029-290201-0000-978602-479090 | Please pay this amount: | $64,741.07 |
|---|---|---|---|

**Remittance Advice**
**Please Detach and Return this Portion with Your Payment**

**Source:** **Ministry of Energy**

**Interest will be charged on all past due accounts**

**Remit to:**
**Ontario Shared Services**
**Revenue Management**
**40 Elm Street, Suite 41A**
**Sudbury, ON P3C 1S8**

**Certified Cheque or money order payable to the Minister of Finance**

**Invoice #** S-0386

**Date** 13-Aug-08

**Amount Due** $64,741.07

## Ministry of Energy and Ministry of Finance Expenditures
## (To be recovered from the OPA - Fiscal 2007-08)

| | PO # | Expiry Date | Total Budget Fiscal 07-08 | April 07 - Sept 07 payments by Ministry | Invoice # S-0369 | Notes | Paid by Ministry Oct - Mar 08 | Notes | o/s pmts Accrual 31-Mar-08 | Notes | Revenue Accrual to OPA | Bal c/f to next fiscal | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ***Manitoba Project (cc978602)*** | | | | | | | | | | | | | |
| Matawa First Nations | 61029 | Nov 30, 07 | 24,900.00 | 15,051.49 | 15,051.49 | | 2,107.62 | | | | 2,107.62 | - | |
| TORYS | 57308 | Dec 31, 07 | 300,000.00 | | | | | | | | - | - | |
| McCarthy Tetrault (legal) | | | 24,047.62 | 24,047.62 | 24,047.62 | | | | | | - | - | |
| Incidental Expenses | | | 5,000.00 | 2,300.49 | 2,300.49 | *Note 1* | 1,345.47 | *Note 4* | | | 1,345.47 | - | |
| Adjustment to 2006-07 accrual | | | (722.41) | (722.41) | (722.41) | *Note 2* | | | | | - | - | |
| Nishnawabe Aski Development Fund | | | 131,185.00 | - | - | *Note 3* | 18,054.09 | | 70,000.00 | | 88,054.09 | 70,000.00 | |
| **Ministry of Energy Invoices before adj.** | | | **484,410.21** | **40,677.19** | **40,677.19** | | 21,507.18 | | 70,000.00 | | 91,507.18 | 70,000.00 | |
| Adjustment to 07-08 Accrual based on actual invoice receipt in 1st qtr | | | | | | | | | (26,766.11) | | (26,766.11) | (26,766.11) | |
| **Ministry of Energy Invoices -adjusted** | | | 484,410.21 | 40,677.19 | 40,677.19 | *Note 5* | 21,507.18 | | 43,233.89 | *Note 6* | 64,741.07 | 43,233.89 | |

| Note 1 Incidental Expenses | |
|---|---|
| Rick Jennings | 504.39 |
| Doug McCallum | 552.69 |
| Carlton Mathias | 491.13 |
| Linda Poirier | 345.64 |
| Jil Pritchard | 217.86 |
| Ed Sweet | 188.78 |
| | 2,300.49 |

| Note 2 - Accrual Adj (06-07) | |
|---|---|
| Nishnawabe | 682.5 |
| Nishnawabe | 39.91 |
| *2006-07 over accrual* | 722.41 |

**Note 3**
No payments to Sept 07

**Note 5**
Payment received Dec 07

| Note 4 Incidental Expenses | |
|---|---|
| Rick Jennings | 596.30 |
| Doug McCallum | 147.07 |
| Bonnie Hiltz | 602.10 |
| Jonathan Norman | 2,685.84 |
| | 1,345.47 |

| Note 6 | |
|---|---|
| March 2008 invoice | 10,836.00 |
| April 2008 invoice | 32,398.00 |
| | 43,234.00 |

# 2008 FORECAST VARIANCE DEFERRAL ACCOUNT

The 2008 Forecast Variance Deferral Account ("FVDA") was established to record 2008 revenue variances and any cost variances not otherwise incorporated into the revenue requirement submission of the prior year. In 2008, the OPA is forecasting a 2008 FVDA balance of ($10.3) million, as illustrated in Table 1, below.

**Table 1**
**OPA 2008 FVDA**
**($'000s)**

| | |
|---|---|
| 2008 Forecast revenue variance | $ (1,599) |
| 2008 Forecast expense variance | (8,170) |
| 2008 projected excess revenues over expenses | (9,769) |
| 2007 actual FVDA vs. EB-2007-0791 approved | (543) |
| Total 2008 FVDA | $ (10,312) |

## 2008 Forecast Revenue Variance

In its EB-2007-0791 Decision, the Board approved a revenue requirement of $51.9 million as filed in the OPA's Amended Submission of May 15, 2008 for the year 2008. The current 2008 projected revenue of $53.5 million compared to the approved revenue requirement results in a forecast revenue variance of $1.6 million. This forecast revenue variance is the result of the collection of an approved interim rate higher than the rate ultimately approved by the Board, partially offset by reduced volumes.

## 2008 Forecast Expense Variance

The 2008 projected expenses of $59.3 million are less than those contained in the 2008 revenue requirement submission of $67.5 million, resulting in an expense variance of ($8.2) million. These expense variances are described in Exhibit D-2-1.

## 2007 Actual FVDA vs. EB-2007-0791 Approved FVDA

In EB-2007-0791, the OEB-approved revenue requirement incorporated a revenue reduction of ($15.7) including the forecast 2007 FVDA, registration fees and changes in

accounting for the Conservation and Technology Development funds. The actual 2007 FVDA balance as at March 2008 was ($16.2) million, resulting in an excess of ($0.5) million.

Disposition of the 2008 FVDA

The OPA is proposing to reduce its 2009 revenue requirement by the projected 2008 FVDA balance of ($10.3) million, as shown in Table 12 of Exhibit D-2-1.

Proposed 2009 FVDA

The OPA's financial results are available at the end of March of each year for the preceding year. This limits the ability of the OPA to have actual variances available for the revenue requirement submission in any given year.

Therefore, the OPA is requesting the establishment of a 2009 FVDA to include:

- The difference between the actual and forecast costs in 2009;
- The difference between the actual and forecast revenues for 2009; and
- The difference between the actual and forecast balance of the 2008 FVDA.