

ONTARIO ENERGY BOARD

IN THE MATTER OF the *Ontario Energy Board Act, 1998*,
S.O. 1998, c.15 (Schedule B) s. 78;

AND IN THE MATTER OF an application by Hydro One
Networks Inc. for the relief necessary to increase transmission
rates in 2017 and 2018.

EB-2016-0160

EVIDENCE

ANWAATIN INC.

November 9, 2016

EVIDENCE OF ANWAATIN INC.

INTRODUCTION

1. My name is Dr. Don Richardson. I am the principal of Shared Value Solutions Ltd., a consultant to Anwaatin Inc. (**Anwaatin**). My *curriculum vitae* is attached at Appendix A.
2. I present this evidence to support Anwaatin and the Ontario Energy Board (the **Board**) in their consideration of the transmission reliability, revenue requirement, and customer engagement issues being considered in the EB-2016-0160 proceeding (the **Proceeding**). This evidence reflects my direct and informed knowledge of the electricity reliability and procedural concerns of Anwaatin's First Nation members, and is not submitted as expert evidence.
3. Anwaatin's members for this proceeding include Aroland First Nation, MoCreebec Eeyoud and Waaskiaysay Ziibi Inc. Development Corporation, which is an economic development corporation representing five First Nations in the Lake Nipigon Watershed: Biinjitiwaabik Zaaging Anishinaabek (**BZA - Rocky Bay First Nation**), Bingwi Neyaashi Anishinaabek (**BNA**), Red Rock Indian Band, Whitesand First Nation, and Animbiigoo Zaagiigan Anishinaabek (**AZA**) (collectively, the **Anwaatin First Nation Communities**).
4. The Anwaatin First Nation Communities are important customers of Hydro One Networks Inc. (**Hydro One**). They have unique needs and challenges that result from Hydro One's current and proposed spending (or lack thereof) on transmission assets serving the Anwaatin First Nation Communities and related cost and reliability issues. To date, the Anwaatin First Nation Communities report that they have had no meaningful consultation or engagement from Hydro One related to this or any other proceeding or process related to the certainty and timing of

transmission investment projects, project planning and on-going transmission system operation.¹

5. The importance and unique needs of Indigenous communities as energy customers are also reflected in the Ministry of Energy's objectives and consultation/discussion questions for the Long-Term Energy Plan that is currently being developed.² Further, the Independent Electricity System Operator (**IESO**) has expressed the need to understand and meet specific needs of Indigenous customers in the area of the Anwaatin First Nation Communities.³
6. This evidence pertains to, and is intended to assist the Board in, its consideration of Issues 2, 3, and 12 from the final Board Issues List as they may pertain to the 2017/2018 test years. It is organized as follows:
 - (i) Hydro One's existing processes and measures to determine and address the needs of Indigenous customers;
 - (ii) the impact of Hydro One's customer engagement and transmission planning and spending on Indigenous customers needs, preferences and the proposed spending; and
 - (iii) Anwaatin's proposed process to determine and address the needs of, and transmission spending on Indigenous customers.

¹ I understand that Hydro One may have visited the traditional territory of some of the Anwaatin First Nation Communities just prior to the filing of this evidence.

² Ontario Ministry of Energy, *Planning Ontario's Energy Future: A Discussion Guide to Start the Conversation* at 4. Specifically, the Ministry hopes to determine: (i) how to better represent the interests of Indigenous communities, and (ii) how local energy plans will integrate with broader planning. Available online: < <http://www.energy.gov.on.ca/en/files/2016/10/LTEPDiscussionGuide.pdf> >.

³ Independent Electricity System Operator (**IESO**), *Northwest Ontario Regional Planning*, available online: < <http://www.ieso.ca/Pages/Ontario%27s-Power-System/Regional-Planning/Northwest-Ontario/default.aspx> >.

HYDRO ONE'S EXISTING PROCESSES AND MEASURES TO DETERMINE AND ADDRESS THE NEEDS OF INDIGENOUS CUSTOMERS

7. Hydro One's application in this Proceeding contains no evidence of any processes for consultation and engagement with Indigenous Peoples including the Anwaatin First Nation Communities. This stands in marked contrast with Hydro One's past practices.⁴
8. Hydro One had a robust two-way customer engagement process for Indigenous customers and presented evidence on that process and the outcomes.⁵ In EB-2005-0501 Hydro One indicated that, "based on its previous experience with such applications, the involvement of stakeholders and First Nations was recognized as critical to developing a submission that reflected the broad interests and concerns of Hydro One constituencies."⁶ This does not appear to be reflected in the current Proceeding.
9. In EB-2005-0501, the main objectives of the consultation process were (i) to inform stakeholders and First Nations about Hydro One's transmission revenue requirement and rate applications; (ii) to inform stakeholders and First Nations about key issues and challenges facing Hydro One's transmission business; and (iii) to learn about stakeholder issues. These objectives were to be achieved in a non-adversarial manner that would allow for Hydro One, stakeholders, and First Nations to discuss and explore questions and potential areas of agreement around key application-related issues, with a goal to scoping the issues to be addressed in pre-filed

⁴ See Hydro One's 2007/2008 Transmission Revenue and Rate Application, EB-2005-0501, at Exhibit A, Tab 16, Schedule 1. Available online: < http://www.hydroone.com/RegulatoryAffairs/Documents/EB-2006-0501/Exhibit%20A/Tab_16_Sched_1-Stkhldr_and_FN_Engagement.pdf >.

⁵ EB-2005-0501, Exhibit A, Tab 16, Schedule 1.

⁶ EB-2005-0501, Exhibit A, Tab 16, Schedule 1, at 1.

evidence where possible or at the oral hearing.⁷ No similar objectives are expressed in the instant evidence and Proceeding.

10. Hydro One conducted a series of discussion sessions in 2006 with First Nation governments, tribal councils, and communities across Ontario to inform them about the 2007/2008 Transmission Rate Application and seek their input. Meetings were scheduled in both southern and northern Ontario to facilitate participation from a wide range of First Nations organizations and communities, as well as to recognize that there could be different issues across the different geographical areas. A web site was also established through which those who were unable to attend could review the materials and provide comments. First Nations Discussion Sessions were conducted in Toronto, London and Thunder Bay in July and August, 2006, where detailed presentations were made around key application issues including transmission benchmarking, reliability, and cost allocation and rate design.⁸ No similar discussion sessions were held to support Hydro One's current transmission rate Proceeding.
11. Participants in the July and August 2006 First Nation Discussion Sessions included representatives from the following First Nations and Indigenous organizations: Fort Frances First Chiefs Secretariat - Nigigoonsiminikaaning First Nation: Garry Allen; Nigigoonsiminikaaning First Nation: Ron Allen; Grand Council Treaty #3: Clifford Bob; Bimose Tribal Council: George Boyd; Wikwemikong Unceded Indian Reserve: Cherie L. Brant; Mohawks of the Bay of Quinte: Barry Brant; Chippewas of Nawash (Cape Croker): Walter Chegahno; Chiefs of Ontario: Sue Chiblow; Ojibways of Anigaming: Anthony Copenace; Wikwemikong Unceded Indian Reserve: Robert Corbiere; Mohawks of Akwesasne: Brian David; Association of Iroquois and Allied

⁷ EB-2005-0501, Exhibit A, Tab 16, Schedule 1, at 1.

⁸ EB-2005-0501, Exhibit A, Tab 16, Schedule 1, at 23-24.

Indians: Rolanda Elijah; M'Chigeeng/United Chiefs and Council of Manitoulin: Joe Endanawas; Mushkegowuk Tribal Council: Gilbert Etherington; White Dog First Nation: Eric Fisher; Kenora Chiefs Advisory: Corrina Gagnon; Windigo First Nations Council: Allyne Gliddon; Biinjitiwaabik Zaaging Anishinaabek (BZA - Rocky Bay): James Hardy Sr.; Beausoleil First Nation: Arnold Jamieson Jr.; Seine River First Nation: Andrew Johnson; Fort Frances Chiefs Secretariat - Seine River First Nation: Earl Klyne; Mohawks of the Bay of Quinte: Todd Kring; New Credit First Nation: Stace Laforme; Union of Ontario Indians: Byron Leclair; Biinjitiwaabik Zaaging Anishinaabek (BZA - Rocky Bay): Victor Lesperence; New Credit First Nation: Sherry Lickers; Ogemawahj Tribal Council: Keith Maracle; Windigo First Nations Council: Kelly McKay; Long Lake First Nation: Frank Onabigon; White Dog First Nation: John Paishk; Wikwemikong Unceded Indian Reserve: Roland Pangowish; Shawanaga First Nation: Dan Pawis; Dokis First Nation: Cory R. Restoule; New Credit First Nation: Margaret Sault; Chippewas of Nawash (Cape Croker): Frank Solomon; Ojibways of Anigaming: Jimmy Spruce; Mohawks of Akwesasne: William Sunday; Long Lake First Nation: Ervin Waboose; Bkejwanong Territory (Walpole Island): Lee R. White; Bkejwanong Territory (Walpole Island): Davie White; and Chiefs of Ontario: Nathan Wright.⁹ None of these Indigenous communities or organizations was consulted in the current transmission rates Proceeding.

12. As part of the EB-2005-0501 process, Hydro One also provided presentation content for its First Nation Discussion Sessions that included an overview of its business and documents on transmission rate application development, transmission benchmarking studies, transmission

⁹ EB-2005-0501, Exhibit A, Tab 16, Schedule 1, Appendix B.

reliability, and cost allocation and rate design.¹⁰ To date, the Anwaatin First Nation Communities have not received any presentations related to this transmission rates Proceeding.

13. Hydro One noted that the First Nation Discussion Sessions held in July and August 2006 achieved the objectives of informing First Nations about its 2007/2008 rate application and receiving First Nation input. Hydro One also indicated that most participants indicated that they would participate in future meetings with Hydro One. It was also suggested that Hydro One should work with the Chiefs of Ontario to co-develop an effective and culturally-appropriate consultation process. Hydro One further stated that these suggestions would be taken into consideration by Hydro One in the future when planning to engage First Nations communities and political and treaty organizations.¹¹ Hydro One's commitment does not appear to be reflected in the current transmission rates Proceeding.
14. In and apart from its prior conduct on transmission rate proceedings, Hydro One also has a written policy on First Nations and Métis Relations.¹² The spirit and intent of the Hydro One First Nations and Métis Relations Policy does not appear to be reflected in this transmission rates Proceeding.
15. Similarly, the importance of Indigenous stakeholders is also expressly referenced in Hydro One's financial statements.¹³ The absence of any evidence of engagement with Indigenous

¹⁰ Hydro One, *2007/2008 Transmission Revenue Requirement & Rate Application*, "First Nations Discussion", available online: < http://www.hydroone.com/RegulatoryAffairs/Documents/EB-2006-0501/First_Nations_Discussion.htm >.

¹¹ EB-2005-0501, Exhibit A, Tab 16, Schedule 1, at 23 and 29.

¹² Hydro One Networks Inc., *First Nations and Métis Relations*, "Background and Policy," available online: < <http://www.hydroone.com/OurCommitment/FirstNationsMetisRelations/Pages/Background.aspx> >.

¹³ EB-2016-0160, Exhibit A, Tab 8, Schedule 1, at 5, 11, 12, 36, and 39.

customers and stakeholders in this Proceeding appears to be at odds with Hydro One's public disclosures regarding the importance of Indigenous stakeholders.

16. It is my view that Hydro One's failure to engage with Indigenous customers and stakeholders in this Proceeding has resulted in a fundamental lack of understanding of the Anwaatin First Nation Communities' serious reliability and transmission cost issues, the impacts on these communities, and informed spending and investment that should be reflected in the revenue requirement.

THE IMPACT OF HYDRO ONE'S CUSTOMER ENGAGEMENT AND TRANSMISSION PLANNING AND SPENDING ON INDIGENOUS CUSTOMERS NEEDS, PREFERENCES, AND THE PROPOSED SPENDING

17. The Anwaatin First Nation Communities are located in the provincial planning regions of Northwest Ontario and North/East of Sudbury. Aroland First Nation, BZA - Red Rock Indian Band, BNA, and AZA are within the Greenstone-Marathon sub-region of Northwest Ontario Planning Region, while McCreebec Eeyoud is in the North/East of Sudbury Planning Region.
18. The Greenstone sub-system consists of one single-circuit 115 kV transmission line, the A4L,¹⁴ which has, according to the IESO, "performed well with respect to frequency of outages, but duration of outages have had recent consecutive years of substandard performance, 2016 being the worst in the last 10 years."¹⁵ The IESO identifies the main cause of long outage durations in

¹⁴ Greenstone-Marathon Integrated Regional Resource Plan, dated June 30, 2016, at 17. Available online: < http://www.ieso.ca/Documents/Regional-Planning/Northwest_Ontario/Greenstone_Marathon/2016-Greenstone-Marathon-IRR-Report.pdf >.

¹⁵ IESO, *Greenstone-Marathon IRRP*, "Local Advisory Committee Meeting #4", dated October 24, 2016, at 15. Attached at Appendix B.

recent years as the remoteness and accessibility of A4L, noting that identifying the location and cause of the outages requires the use of a helicopter during daylight.¹⁶

19. Hydro One has experienced infrequent, but lengthy outages in recent years for the A4L, with outages exceeding the minimum Customer Delivery Point Performance standard, making the A4L an outlier. According to the IESO, Hydro One has identified the difficulty in locating faults on A4L as the root cause for long outage durations and is investigating remedial measures that would result in shortening outage duration.¹⁷ This investigation includes Hydro One Distribution, but not Hydro One Transmission, engaging the local community.
20. While the IRRP process may provide some level of First Nation interaction with Hydro One Transmission, several First Nations customers have been negatively impacted by Hydro One Transmission for its failure to:
 - meaningfully attempt to understand the realities of life in a Hydro One Transmission "outlier" context, including acknowledging hardships and formally and directly apologizing to First Nation community members when significant outages occur;
 - engage First Nation community members as solution providers who may provide local remedies and human resources for locating faults and reporting maintenance issues that need attention;
 - fully explain how bills are calculated to allow Indigenous customers with very high bills to verify that they have been calculated correctly;

¹⁶ *Ibid.*

¹⁷ IESO, *Greenstone-Marathon IRRP*, "Local Advisory Committee Meeting #4", dated October 24, 2016, at 20.

- support First Nation solutions to outlier issues, including solutions for jointly developing transmission line upgrades that could yield improved grid reliability while also providing First Nations with benefits that could include increase capacity for renewable generation such as hydro, wind, solar, and biomass; and
- collaborate on planning power generation solutions, including desired renewable generation and energy storage solutions, that could provide multiple benefits to First Nations while providing local generation that may improve grid reliability.

21. The hardships associated with life in a Hydro One Transmission "outlier" context can be particularly pronounced during prolonged power outages. Between August 30, 2016, and August 31, 2016, First Nation community members associated with Aroland First Nation, BZA - Red Rock Indian Band, BNA, and AZA experienced a power outage along the A4L transmission line in the Greenstone-Marathon planning area for nearly 24 hours. The power outage extended from the west, near Cameron Falls south of Lake Nipigon, to east of Longlac and north of Nakina, including Aroland First Nation, and affected thousands of people. Community members affected by the power outage reported significant hardship arising from it, including¹⁸:

- full loss of most refrigerated foods;
- loss of significant quantities of frozen meat, fish, and game birds, representing months of protected hunting and harvested food upon which First Nation families depend for their livelihoods;

¹⁸ Note: Anwaatin's evidence at the hearing will include videotaped first-person interview testimony that supplements and provides detail on this list of hardships. This video is available online at: < <https://www.youtube.com/watch?v=ofgea2QFzQY&feature=youtu.be> >.

- lost hunting and harvesting time as a result of the necessity of dealing with the prolonged outage, and the need to find ways to replace lost meat, fish, and game birds with new protein sources through additional hunting and harvesting;
- loss of significant quantities of frozen blueberries used for sustenance as well as for cash sales to supplement family incomes;
- significant time needed to engage in the traditional practice of honouring the bodies of harvested animals whose meat is spoiled and wasted by taking the harvested animal parts that spoiled during the long outage to the bush to be buried and honoured with tobacco;
- increased sightings of, and dangers from, bears foraging at landfills for spoiled meats that are not subject to traditional methods of disposition;
- financial challenges for families with elders and caregivers who rely on traditional food sources to nourish their families with traditional meals, but who were forced to replace traditional food sources with store-bought foods, and use very limited household incomes to purchase food instead of paying for other family necessities; and
- additional financial expenditures in Aroland First Nation, community and band council planning to identify a source of funds for building a community freezer with a back-up generator to provide elders and caregivers with assurance that harvested foods will be protected from substandard transmission performance.

22. In addition to these hardships resulting from the August 30-31, 2016, A4L power outage, community members across all noted First Nations identified additional hardships resulting from many power outages over the winter, especially for children and elders who rely on electricity for

home heating. Community members report that the duration of power outages in recent years is causing stress to families who must plan to pay for backup generators and/or find ways to ensure that children and elders can be taken care of when the power goes out. Winter transmission power outages on the transmission line between Otter Rapids and Moosonee / Moose Factory Island have resulted in declarations of a state of emergency during cold winter months, sometimes including boil water advisories due to complications at water treatment facilities (e.g. January 22, 2011).

23. Some community members identified the impacts of climate change and increasingly severe weather patterns, including ice storms, as causing periodic increases in both momentary and sustained outages in the IESO regional planning areas of Greenstone-Marathon and the North and East of Sudbury Region. Among those noting the impacts of climate change on transmission service, some mentioned the opportunity for Hydro One to engage with First Nation knowledge holders about specific and localized risks to transmission lines based on their observations of trees and branches in proximity to transmission lines that could become ice covered and result in power outages.
24. In summary, Anwaatin First Nations Communities face disproportionate reliability issues that have a disproportionate impact on the lives and well-being of community members. They experience the impacts of poor reliability while paying among the highest of Ontario's transmission customers.²⁰ This represents approximately 5.5% of a typical household in Aroland First Nation's disposable income.

²⁰ Please see representative bills from Anwaatin First Nation Communities attached at Appendix C.

ANWAATIN'S PROPOSED PROCESS TO DETERMINE AND ADDRESS THE NEEDS OF, AND TRANSMISSION SPENDING ON, INDIGENOUS CUSTOMERS

25. First Nation and stakeholder engagement is an important aspect of the regional transmission planning process. This includes providing opportunities for input in the regional planning process to enable the views and preferences of First Nations within a region to be considered in the development of transmission plans and regulatory applications. The plans that result from meaningful participation will help lay the foundations for successful implementation and enhanced reliability. Hydro One can improve its First Nation engagement activities by adopting core principles of creating transparency, engaging early and often, and bringing First Nations to the table through regional planning processes. Such regional planning processes ought to include ongoing community advisory committees that focus on dialogue to enhance economic efficiencies, improve system reliability and identify appropriate regional grid strengthening transmission and generation projects and initiatives that meet the needs of First Nations, meet Hydro One objectives, and meet regulatory requirements.
26. Anwaatin proposes that Hydro One create a Best Practice Guide for Indigenous Consultation (the **Best Practice Guide**) that covers a range of practices and procedures to help facilitate the responsible and sustainable operation and development of transmission services across Ontario regions. The Best Practice Guide would recommend ongoing operations, Indigenous consultation, and special purpose consultation, including on initiatives such as transmission rate increase applications, and might include sections on:
- Indigenous engagement program development;
 - familiarizing staff with Indigenous community realities, issues, aspirations and plans;
 - establishing and earning community support;

- community engagement and information sharing;
- the role of Hydro One, the Board, and Ontario in Crown consultation and accommodation processes;
- co-developing Terms of Reference for Hydro One consultation and accommodation processes;
- working with formal and informal leadership;
- consultation techniques and tools including presentations and materials that are culturally relevant and appropriate for Indigenous communities;
- an annual reporting and tracking mechanism for engagement with Indigenous communities and how their issues and concerns have been addressed;
- precautionary and adaptive approaches to environmental assessment and licensing;
- communicating with the media;
- presentation approaches that fit the needs of Indigenous participants; and
- dealing respectfully with emotional situations and crisis issues.

APPENDIX A

Donald R. Richardson, PhD
Managing Partner, Shared Value Solutions Ltd.

Professional History

06/2012 – present, Shared Value Solutions, Managing Partner
09/2004 – 06/2012, AECOM, Global Practice Leader – Socio-economics & Communications, National Leader – Indigenous Business Development
2001 - 2004, Stantec Consulting Ltd., Senior Community Infrastructure and Project Development Specialist
1998 - 2001, TeleCommons Development Group, Director
1994 - 2000, University of Guelph, Associate Graduate Professor (part-time), Faculty of Environmental Design and Rural Development
1987 - 1994, University of Guelph, McMaster University and Wilfred Laurier University, Sessional Lecturer

Education

PhD, Industrial Sociology, McMaster University
MA, Communications and Sociology, University of Guelph
BA, Sociology, University of Guelph
Diploma, Business and Marketing, Lambton College

Awards

Award of Merit – Consulting Engineers of Ontario: Aboriginal Traditional Ecological Knowledge Study
Brownie Award – Canadian Urban Institute: Stelco Swansea Works Remediation & Residential Rebuild

Years of Experience

25



Overview

Don Richardson has over 25 years of experience as a skilled facilitator supporting project implementation, impact assessments and building agreements between energy, infrastructure and resource management project proponents, community/non-governmental organizations, government agencies and rural/Indigenous communities. He fosters constructive engagement to create “shared value”

between communities and infrastructure proponents.

Don currently manages stakeholder and government relations on several large scale environmental and infrastructure development projects. He is a recipient of the Canadian Urban Institute's Brownie Award recognizing outstanding achievement in building and maintaining effective working partnerships with professionals, the local community and others involved in Brownfields redevelopment, and a Consulting Engineers of Ontario, Canada Award for Indigenous Traditional Knowledge achievements.

Specialties

Collaborative energy and infrastructure project management, environmental assessment, major project impact assessment, cumulative impact assessment, consultation, communication, facilitation, mediation, negotiation, environmental enhancement programs, natural resource management, and participatory communications.

Selected Global and Canadian Experience

Northand Power – Northern Ontario Power Generation Business Coordinator. Assistance in establishing joint-venture partnership among several entities including municipalities and several Anishnabwe First Nations for a proposed gas-fired power generating station in northern Ontario. [2014 – Present]

Anwaatin Inc. – Technical advisor for Indigenous low-carbon energy business development and Indigenous carbon offset projects. [Present]

Walker Industries and Anwaatin. Siting process for establishing a proposed commercial-scale biosolids-to-fertilizer and biomethane-to-pipeline-grid facility on First Nation owned lands in Ontario. [Present]

Multiple Northern Ontario First Nations – Feasibility study for extending natural gas infrastructure to communities adjacent to the TransCanada Mainline natural gas pipeline. [Present]

Matawa First Nations – Ring of Fire Mining Initiatives. Strategic regional and community infrastructure advisor for focused on rail, road, transmission telecommunication and water management infrastructure. [2011 – Present]

Aroland First Nation – Project coordinator for regional transmission line project development initiatives, including regional transmission and transmission line planning for the Ring of Fire mining development and connections to remote first Nations [2013 – Present]

Saugeen Ojibway Nation – Environmental Communications Capacity Building Advisor. Assistance in establishing a communications unit to enhance community engagement and informed community decision-making with respect to the proposed Deep Geological Repository for Low and Intermediate Level Nuclear Waste at the Bruce Nuclear Site. [2014 – Present]

Aroland First Nation. Strategic Advisor. Assistance to develop approaches to major infrastructure, mining, power, rail, road and land use projects that integrate indigenous First Nation values, environmental considerations and cultural heritage contributions. Includes liaison with major mining companies, CN Rail, TransCanada Pipelines, Cliffs Natural Resources, the IESO and several other entities with projects, operations and interests in the traditional territory of the First Nation. Work also includes coordinating First Nation led environmental assessments and risk assessments of contaminated sites to be incorporated within reserve lands. [2011 – Present]

Aroland First Nation. Project Director. IESO-funded Community Energy Plan project to provide the First Nation with a strategic sustainable energy plan [2015-2016]

Mississaugas of the New Credit First Nation. Strategic Advisor. Assistance to develop approaches to major Greater Toronto Area, Canada infrastructure projects that integrate indigenous values, environmental considerations and cultural heritage contributions. Work has included review and impact benefit agreement coordination with the proposed 1,000 kV ITC Lake Erie transmission line from Nanticoke to Pennsylvania, successfully positioning the First Nation as *the* Host First Nation for the 2015 Pan Am Games, and economic development relationship building with OPG and regional pipeline operators [2012 – 2016].

Bamkushwada-Great Lakes Power Transmission. Environmental Assessment Advisor. Working directly with joint venture partners, Brookfield Power, HydroOne Networks and six indigenous rural First Nation business partners involved in the proposed East-West Tie Transmission project along the north of Lake Superior, provided detailed work plan and budgeting support to the joint venture. [2011 – 2014]

Indigenous Aboriginal Community Energy Planning Program Development; Ontario Power Authority. Strategic Advisor. Assistance to develop a new funding program to provide indigenous rural

First Nation and Métis communities across Ontario with resources to undertake Community Energy Planning. [2010 – 2012]

Canadian Environmental Assessment Agency. Co-author. Guidance report on ways and means to improve the integration of indigenous Aboriginal Traditional Knowledge as part of federal Environmental Assessments. [2014]

Brookfield Power – First Nation Business Coordinator. Assistance in establishing joint-venture partnerships among several Anishnabwe First Nations for transmission line projects in northern Ontario. [2014]

Cumulative Effects Management Association (CEMA). Strategic Advisor. Project to identify practical paths forward for the integration of Indigenous traditional knowledge within oil sands mine closure and rehabilitation. (CEMA) is the leading multi-stakeholder group operating in the heart of Canada's Boreal Forest – the Regional Municipality of Wood Buffalo, Alberta. CEMA is comprised of more than 50 members who sit on one of four caucuses: Indigenous, Government, Non-Government Organizations and Industry. CEMA is a key advisor to the provincial and federal governments committed to respectful, inclusive dialogue to make recommendations to manage the cumulative environmental effects of regional development on air, land, water and biodiversity. [2014 – 2015]

Technical Review of Environmental Assessments Detour Lake Gold Mine Project Coral Rapids Power L.L.P, (representing Taykwa Tagamou First Nation). Strategic advisor for reviews of technical aspects and Aboriginal consultation for two provincial EAs and a federal Comprehensive Study EA for the proposed Detour Lake gold mine project. [2010 – 2011]

Ontario Power Generation, Deep Geological Repository for Low/Intermediate Level Nuclear Waste, Public Consultation Program, Canada. Project manager for public consultation and Indigenous community impact assessment components for the environmental assessment for Canada's first deep geological repository for nuclear waste. [2007 – 2013]

Walpole Island First Nation Community, Peer Review - Proposed Shell Canada Refinery Expansion, Sarnia, Ontario. Project manager working closely with First Nation technical staff, community elders, clan mothers and band councillors, facilitated the technical review and socio-economic impact assessment review of a proposed \$10 billion, 200,000 barrel per day heavy oil refinery on the St. Clair River. [2007 - 2008]

Windsor Essex Parkway – Province of Ontario. Strategic advisor for community communications and Indigenous consultation for the Windsor Essex Parkway engineering, design and construction, reporting to Province of Ontario. [2011 – 2013]

Flin Flon & Creighton Education Outreach Campaign for HudBay Minerals - Strategic Advisor overseeing the design and implementation of a community outreach campaign to educate residents of the Flin Flon area about ways to reduce exposure to lead in relation to human health risks. [2010-2013]

Nuclear Waste Management Organization, Community Well-being Support. Stakeholder engagement specialist providing expert guidance to the Nuclear Waste Management Organization on community well-being and stakeholder and indigenous Aboriginal engagement aspects of site selection for a deep geological repository for used nuclear fuel in Canada. [2008 to 2013]

GE Canada, Environmental Programs - Community Relations Programs for Legacy Industrial Sites, Ontario. Implementing four stakeholder relations and communication management programs to manage issues associated with remedial activities for contaminated industrial sites, including First Nation engagement. [2005 - Present]

Walker Industries Southwestern Landfill Environmental Assessment, Oxford County, Ontario.

Public consultation and communication coordinator responsible for planning and implementation of an extensive public consultation program to enable stakeholders and First Nation partners to actively participate in the planning and execution of an Individual environmental assessment for an industrial, commercial and institutional Ontario, Canada landfill. [2012 – Present]

Gabriel Resources and Rosia Montana Gold Corporation, Environmental Assessment, Romania.

Provided planning and strategic support for an extensive public and Indigenous Roma consultation program for the strategic environmental assessment for what may become one of the world's largest gold and silver mining operations. [2002 - 2004]

Global Environment Facility, Meso-American Barrier Reef System - Environmental Monitoring and Information System.

Facilitated a multi-stakeholder program for the design and implementation of a distributed electronic information system for government and local/Indigenous partners from Belize, Guatemala, Honduras, and Mexico who are collaborating in the protection of the ecologically unique and vulnerable marine ecosystems of the western Caribbean. [2003 - 2004]

Environmental Monitoring Information Network (EMIN), Governance Component, Bangladesh.

Provided advice and assistance on mechanisms and processes for achieving multi-stakeholder governance of the Network, including representation from indigenous peoples' organizations. The purpose of EMIN is to implement an information network to facilitate the planning and management of water and land resources as it relates to flood and erosion monitoring among national stakeholders and relevant agencies in the Brahmaputra-Jumuna Rivers region of Bangladesh. [2001 - 2003]

Keewaytinook Okimakanak First Nations, Aboriginal Smart Community Project Planning and Evaluation Component, Northwestern Ontario.

Worked with First Nation community leaders in six Keewaytinook Okimakanak First Nations communities for this \$10 million Smart Community Project. Activities incorporated participatory exercises that enable local residents to envision the integration of telecommunication systems, applications and related energy infrastructure within their communities, together with assistance in developing and implementing the monitoring and evaluation program for the community initiatives. [1999 - 2004]

Industry Canada, Smart Communities Engagement Best Practices, Nationwide. Project team leader for a cross-Canada fact-finding and analysis of community experiences, particularly among rural and Indigenous communities, to yield five community engagement best practices with concrete examples. [2002 - 2003]

Industry Canada, Smart Communities Performance Measurement and Sustainability, Nationwide.

Researcher and co-author for a cross-Canada fact-finding and analysis of community networking experiences, particularly among rural and indigenous communities, to yield a series of sustainability and performance measurement best practices with concrete examples. [2002 - 2003]

Caribbean Telecommunication Union, International Telecommunication Union, United Nations Educational, Scientific and Cultural Organization, Caribbean Development Bank, Canadian International Development Agency, Multi-stakeholder Collaboration to Enhance Rural and Remote Telecommunications, Caribbean. Planned and facilitated multi-stakeholder workshops for cross-Caribbean stakeholders: government, regulators, telecommunication operators, Indigenous communities, and rural community leaders. [2003]

Social Action Program Communication, Pakistan. Planned and facilitated multi-stakeholder planning for public-private district and provincial infrastructure and service delivery in Punjab, Sindh and Balochistan provinces. Focused on enabling partner organizations and indigenous peoples' organizations to develop a comprehensive results-based management plan and evaluation framework for this project. [1998 - 2002]

Government of Egypt and Food and Agriculture Organization of the United Nations, Rural Development and Agricultural Communication System, Egypt. Worked with Egyptian counterparts to develop and implement a program framework for the establishment and evaluation of a stakeholder driven Internet-based communication network that improves linkages between agricultural extension and research systems and rural community members. The project evolved from a four site pilot project to a fifty site program funded entirely by the government of Egypt and continues to generate significant improvements to the lives of rural community members across the country. [1998 - 2002]

Canadian International Development Agency, Institutional Support to the Development Support Communication Centre, Dikirnis, Nile Delta, Egypt. Responsible for enabling a government facility to transform itself for public-private service provision. Work included developing business planning, marketing and sales processes, facilitating and coordinating joint work plans to strengthen rural community development and agricultural communication, designing monitoring and evaluation frameworks, training program development, gender mainstreaming for agricultural services, introduction of improved electricity, water/irrigation and telecommunication and Internet services for the agricultural extension system, and the establishment of new decentralized, fee-for-service Rural Extension Units to provide more responsive extension services to small farmers across Egypt. The project enabled the Ministry of Agriculture to establish a physical hub in the Nile Delta to support the transition of Egypt's agricultural system from a state-controlled system to a market-based system. [1995 - 2001]

Grameen Bank / Grameen Phone, Bangladesh: Multi-Media Research and Evaluation - Project Director (1999). In partnership with Grameen Telecom, conducted a multi-media evaluation and case study of telephone demand in rural villages of Bangladesh, focusing on the impact of phone use on agricultural marketing, agricultural extension, poverty reduction and analysis of phone usage patterns.

SR Telecom, Ghana: Environmental Assessment and Rapid Market Appraisal /Demand Analysis for rural telephone system in Northern Ghana - Project Team Leader (1998-99). Coordinated a detailed environmental assessment, infrastructure assessment and socio-economic business planning study for a private sector telecom provider for demand-based telecommunication service among rural and agricultural stakeholders in Northern Ghana. The study included power infrastructure inventory and assessment, plus focus groups and survey interviews in 64 villages, together with meetings with village chiefs and key rural and agricultural leaders.

SR Telecom, Multiple Projects, Chile, Haiti, Ghana, and the Philippines. Co-ordinated a corporate strategic program to assist in the implementation and management of telecommunication infrastructure development projects in rural areas. Work included producing detailed socio-economic business plans, coordinating village-based market research programs, producing environmental impact assessments, conducting power infrastructure assessments, and developing strategic approaches to dovetailing telecommunication infrastructure with in-country programs for environment, health, agriculture, Indigenous community wellbeing, and socio-economic development. [1997 - 2000]

International Development Research Centre and International Fund for Agricultural Development, Rural Electronic Networking, Asia-Pacific. Managed multi-stakeholder communication and rural community development needs assessment, planning and development of evaluation frameworks for an eight country Asia-Pacific electronic networking project to enable rural and agricultural development projects to combine Internet connectivity with traditional communication media and outreach activities. Specific support for enabling rural development stakeholders to develop and evaluate practical telecommunications infrastructure and applications in the Philippines, Sri Lanka and Nepal, India. [1998 - 2001]

Community Basic Infrastructure Development, Various Locations. Provided multi-stakeholder communication and rural community development needs assessments, program planning and project

implementation for a variety of clients. Work included projects for clients such as the World Bank, Industry Canada, Rotary International, UK Department for International Development and UN agencies in Bangladesh, Belize, Bolivia, Cameroon, Canada, Colombia, Guatemala, Honduras, India, Italy, Nepal, Pakistan, South Africa, Sri Lanka, Tanzania, Thailand, Uganda, and the United States. [1993 - 2002]

Confidential Client, Waste Management Facility Site Selection, Ontario. Strategic advisor for a comprehensive analysis of stakeholder and political contexts for the siting of two major waste management “campus” facilities in Ontario, Canada. [2008 to 2011]

Environmental Assessment Guide - Métis Nation of Ontario. Co-author and Reviewer. Developed a guide on the environmental assessment processes for use by Métis Nation of Ontario (MNO) staff and Community Council leaders. [2009 – 2010]

Walker Industries Atlas Landfill Remediation Project, Welland, Ontario. Strategic advisor responsible for overseeing engagement of area residents, indigenous Aboriginal communities and government agency technical staff in shaping plans for the remediation and reopening of an abandoned industrial landfill on the banks of the Welland River. [2009 - 2010]

Walker Industries Niagara Falls Landfill Expansion Environmental Assessment, Niagara Region, Ontario. Public consultation and communication coordinator responsible for planning and implementation of an extensive public consultation program to enable stakeholders and Indigenous communities to actively participate in the planning and execution of a comprehensive environmental assessment for one of the largest private sector landfill expansions in Ontario. The project received provincial, regional and municipal approval with no objections from area stakeholders. [2002 – 2009]

Walpole Island First Nation Community, Peer Review - Proposed Shell Canada Refinery Expansion, Sarnia, Ontario. Project manager working closely with First Nation technical staff, indigenous community elders, clan mothers and band councillors, facilitated the technical review and socio-economic impact assessment review of a proposed \$10 billion, 200,000 barrel per day heavy oil refinery on the St. Clair River. [2007 - 2008]

District of Greater Sudbury, Soils Study, Sudbury, Ontario. Planned and implemented a public consultation program for the largest human health and ecological risk assessment in Canada related to historic smelting operations. Work included multi-stakeholder planning to design the engagement of First Nations communities in the scientific fieldwork and results analysis. [2003 - 2009]

Government of Hong Kong, Kowloon Bay Waste Transfer Facility Environmental Assessment, Hong Kong. Project director for strategic planning and community stakeholder relations advice for the environmental assessment of a major waste transfer and waste diversion facility. [2008]

Shell Canada, Sarnia Refinery, Effluent Management Plan Review, Multiple Locations. Project manager for an internal multi-stakeholder review of the oil refinery's effluent management system and proposals for system upgrades. Work included significant attention to the stated requirements of external stakeholders: indigenous First Nations, communities in Michigan, and regulatory authorities. [2007]

Nuclear Waste Management Organization, Assessment of Benefits, Risks and Costs for Long Term Management Approaches for Used Nuclear Fuel: Community Well-being and Stakeholder Engagement Issues, Canada. Compared several Canadian economic regions with respect to community capacity to engage in complex social, economic and environmental planning processes. Report included recommendations for capacity building for equitable, transparent and meaningful stakeholder engagement, particularly with respect to poorer economic regions and economic regions with significant First Nations populations. [2004 - 2005]

APPENDIX B

GREENSTONE-MARATHON

Integrated Regional Resource Plan

Local Advisory Committee Meeting #4

October 24, 2016

Discussion Outline

- Background/Refresher
- LAC members present findings of socio-economic report
- Discussion of updates for the region, including reliability performance
- Next Steps

BACKGROUND/REFRESHER

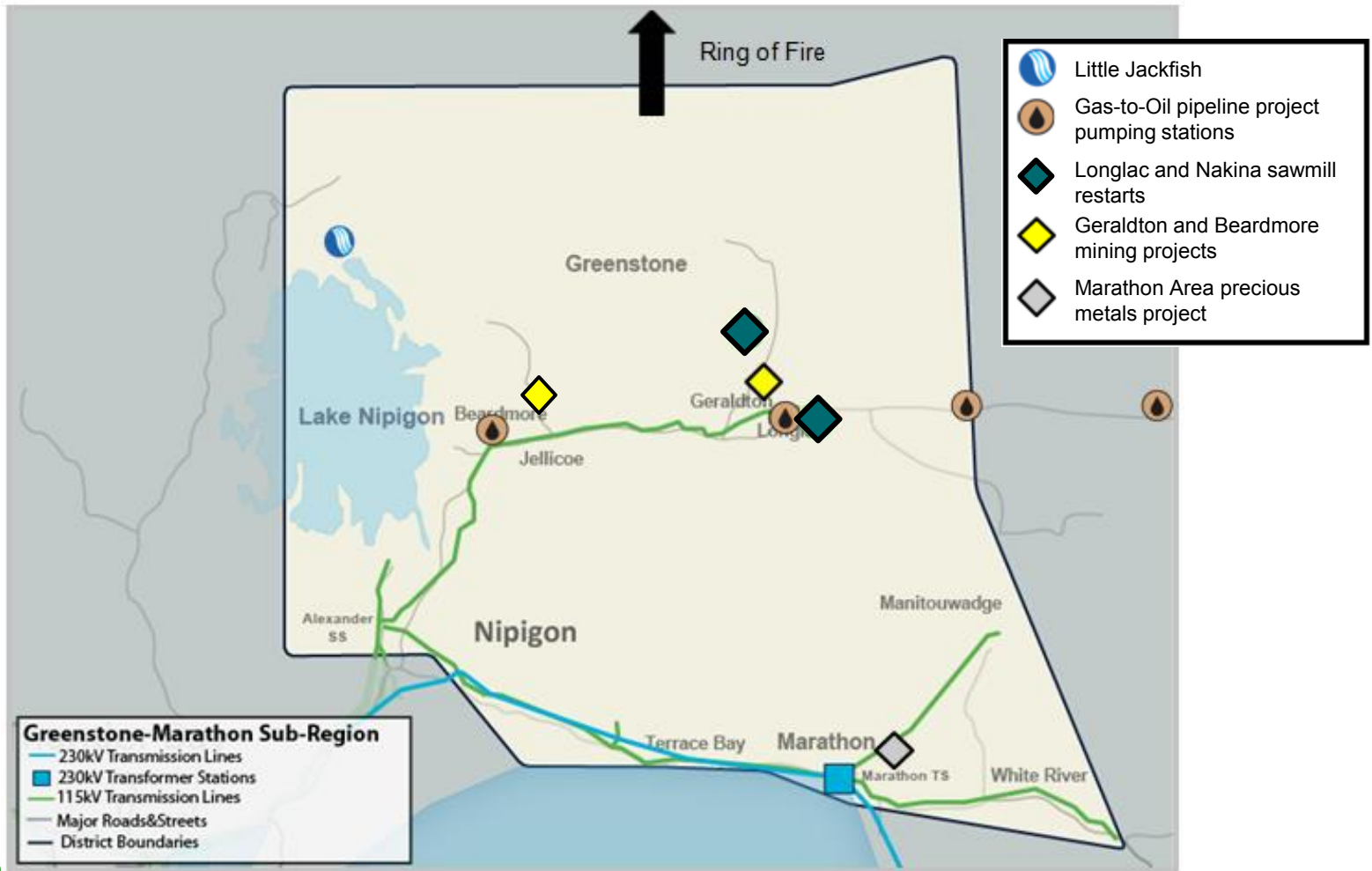
Status of Electricity Planning for the Greenstone-Marathon area

- Regional electricity planning was formalized by the Ontario Energy Board (“OEB”) in 2013 through amendments to Codes and Licences applicable to Transmitters, Distributors, and the IESO.
- An Integrated Regional Resource Plan (“IRRP”) is a planning process led by the IESO in collaboration with Transmitters and Distributors (Hydro One Transmission and Distribution) as required by Code that results in the issuance of a 20-year plan (the IRRP), after 18-months from initiating the process.
- Recognizing that industrial growth is the major driver for the need for infrastructure expansion in the Greenstone-Marathon area, the IESO engaged with industry to obtain forecasted demand.
- The IESO released a Scoping report on January 28, 2015 which outlined the scope and Terms of Reference for three planning sub-regions in the Northwest planning region after receiving feedback on the Draft Scoping Report.

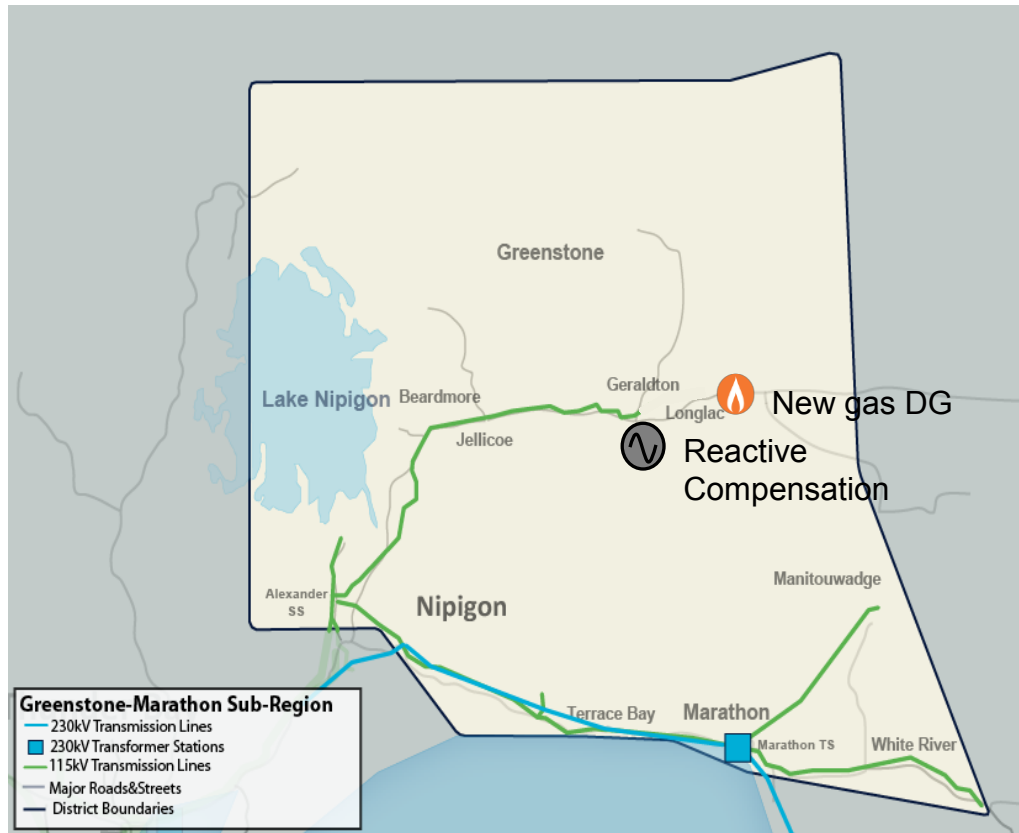
Status of Electricity Planning for the Greenstone-Marathon area

- In response to feedback from the Municipality of Greenstone on the Draft Scoping Report that the formal 18-month timeline did not accommodate the timelines of local industry, the IESO released an interim IRRP report on June 22, 2015 focusing on the near term.
- The IESO formed General and First Nations Local Advisory Committees, which have met three times and informed the 2016 Greenstone-Marathon IRRP released on June 30, 2016.
- The IESO will continue to engage with local communities and industry.
- Regional Plans are revisited at a minimum of once every five years.

Greenstone-Marathon IRRP: Area Map



Recommended Near-term Plan: Stage 1



Need

- Geraldton mine materializes

Recommendation

- Install +40 MVar reactive compensation (either synchronous condenser or STATCOM) at mine site
- Install grid-connected generation in the form of two 10 MW natural gas gensets at the Geraldton mine site

Timing

- Coincident with Geraldton mine in-service

Net present value cost

- \$5 M – Reactive Compensation
- \$60 M – Customer Generation

Recommended Near-term Plan: Stage 2



Need

- In addition to the Geraldton mine, pipeline conversion project proceeds

Recommendation

- Install new 230 kV transmission supply
- Install new 115 kV connection line

Timing

- Coincident with pipeline project connection to grid

Net present value cost

- \$160 million

- If timelines communicated by the Geraldton mine developer are delayed, it may be more economic to advance the new 230 kV line to be in-service coincident with the Geraldton mine, if there is certainty that the pipeline is proceeding.

LAC PRESENTATION OF SOCIO-ECONOMIC REPORT

DISCUSSION OF UPDATES FOR THE REGION

Updates for the Region

- System Reliability and Performance
- Mining
- Gas-to-Oil Pipeline Conversion

Planning Reliability & Performance Standards

- North American Reliability Standards for Bulk Systems
 - Recognizes that the power system is interconnected and events can cascade (e.g. Aug 2003 blackout)
 - North American Electric Reliability Corporation (“NERC”)
 - Northeastern Power Coordinating Council (“NPCC”)
- Ontario Reliability **Design** Criteria
 - Outlines the requirements for the design of facilities specific to Ontario for planning and system assessment purposes
 - Ontario Resource and Transmission Assessment Criteria (“ORTAC”)
- Transmission Performance Standards
 - Based on historical performance of individual facilities and groups of similar class of facilities, the standard specifies individual baseline, group target and group upper bound of outage frequency and outage duration
 - OEB approved Customer Delivery Point Performance (“CDPP”) Standards
- Distribution Performance Standards
 - Performance of the distribution system from the transformer station to the customer
 - SAIDI, SAIFI, CAIDI, CAIFI, etc.

Customer Delivery Point Performance

- Approved by the OEB in 2005 (EB-2002-0424) based on Hydro One submission
 - Defined a minimum performance standard related to frequency and duration of outages that about 90% of delivery points had historically met.
 - Reflects typical transmission system configurations that take into account the historical development of the transmission system at the customer delivery point level (single or dual supply).
 - Triggers technical and financial evaluations by the transmitter to determine root cause of sub-standard performance and identify remedial actions to improve performance as part of the outlier program.
 - Establishes any circumstances in which the performance standards will not apply.

A4L Sustainment Investments

- Hydro One has continually made significant sustainment investment in A4L:
 - Over the past twelve years, close to 440 poles have been replaced (close to 40 poles per year on average), including their insulators and other hardware.
 - Additionally, about 120 insulators, as well as short sections of skywires, have been replaced, based on condition assessment.
 - Similarly, about 40 poles per year are expected to be replaced in the coming years.

Hydro One's CDPP Standards

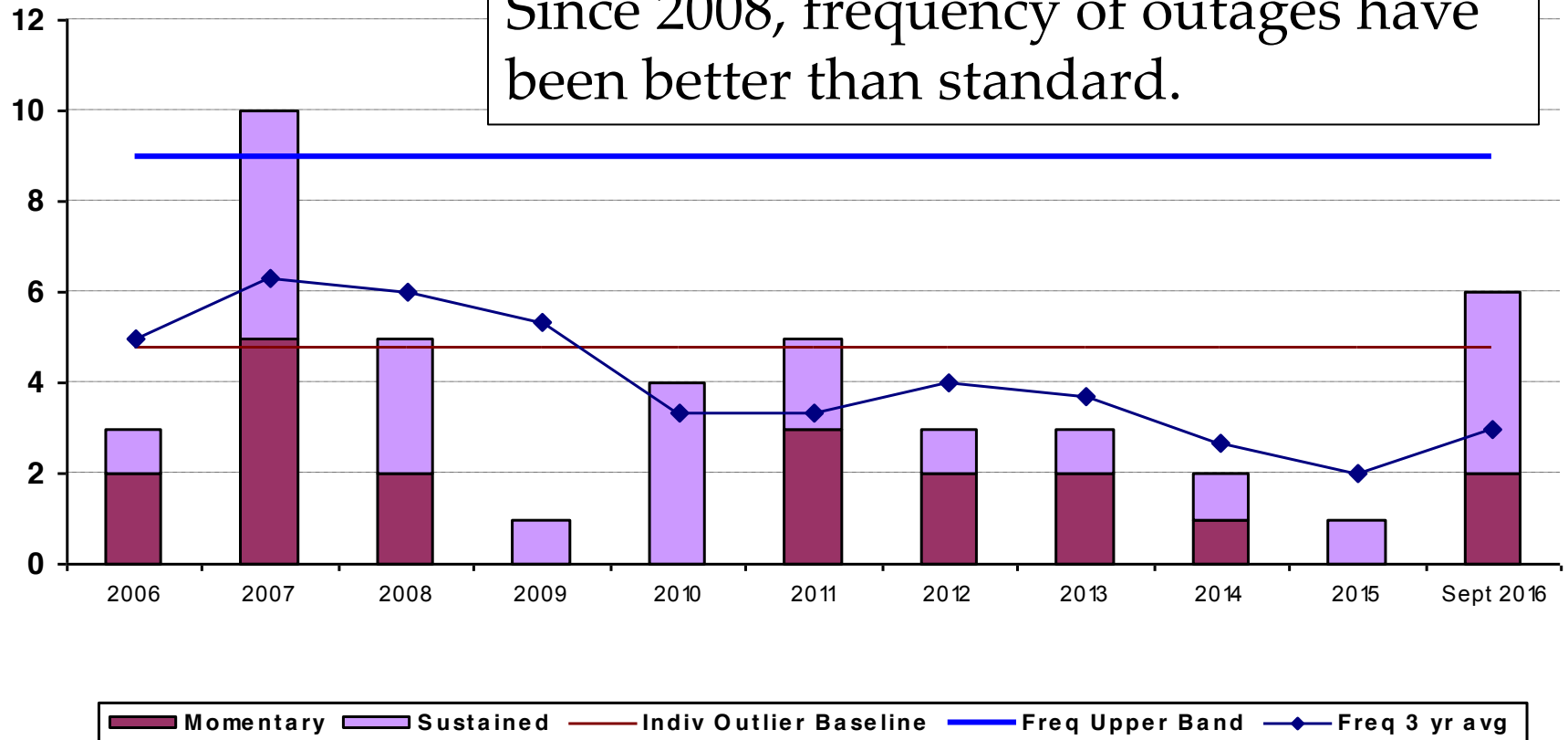
Performance Measure	Customer Delivery Point Performance Standards (Based on a Delivery Point's Total Average Station Load)							
	0-15 MW		>15 - 40 MW		>40 - 80 MW		>80 MW	
	Standard (Average Performance)	Minimum Standard of Performance	Standard (Average Performance)	Minimum Standard of Performance	Standard (Average Performance)	Minimum Standard of Performance	Standard (Average Performance)	Minimum Standard of Performance
DP Frequency of Interruptions (Outages/yr)	4.1	9.0	1.1	3.5	0.5	1.5	0.3	1.0
DP Interruption Duration (min/yr)	89	360	22	140	11	55	5	25

- Next slides summarize historical performance of A4L with respect to both individual baseline performance and group baseline performance.
- A4L has performed well with respect to frequency of outages, but duration of outages have had recent consecutive years of substandard performance, 2016 being the worst in the last 10 years.
- Main cause of long outage durations in recent years has been remoteness and accessibility of A4L; identifying the location and cause of the outages require the use of helicopter during the daylight.

A4L Performance Statistics

Frequency of Longlac TS Interruptions

Since 2008, frequency of outages have been better than standard.

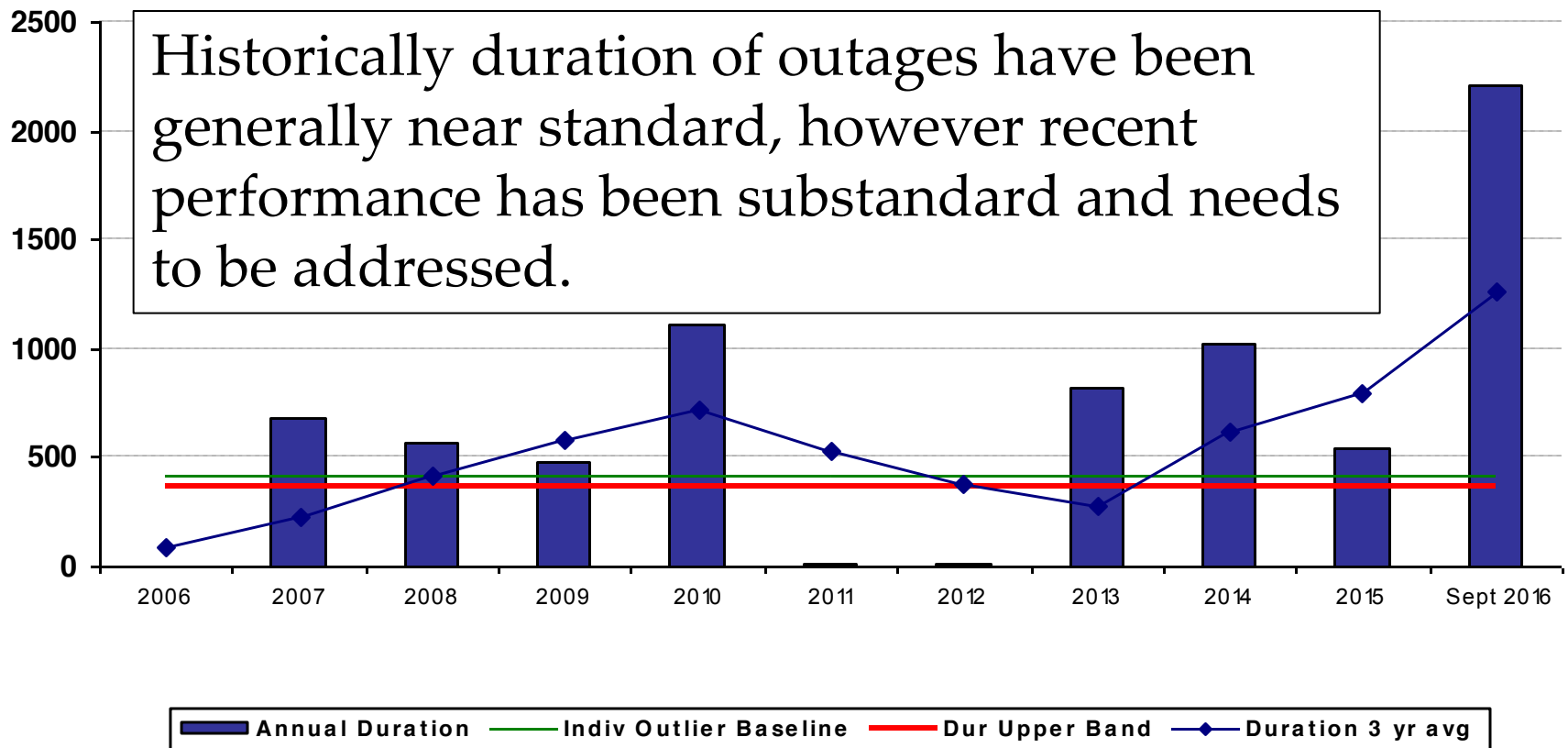


Source: Hydro One

Performance Analysis Dept.

A4L Performance Statistics

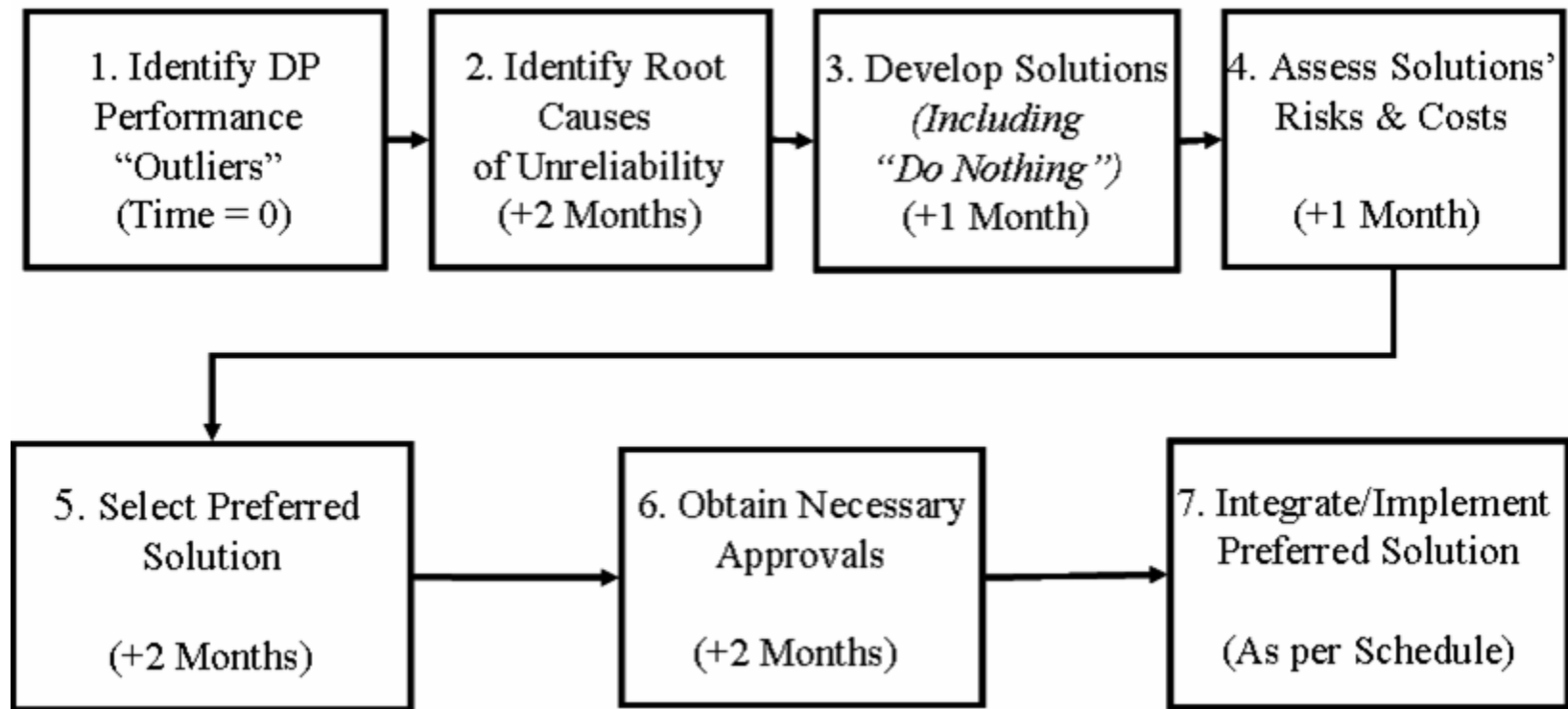
Duration of Longlac TS Interruptions



Source: Hydro One

Performance Analysis Dept.

Hydro One's Outlier Program Process



Cost Responsibility for Outliers

- Cost responsibility for these investments is to be consistent with the TSC, specifically;
 - Hydro One is responsible for regular sustainment to maintain the performance of the existing facilities, to what was designed originally, through “good utility practice” and within the OEB approved Operating, Maintenance and Administration budget
 - Hydro One’s responsibility for improving the performance of an outlier beyond what was designed originally will be limited to the present value of three years’ worth of transformation and/or transmission line connection revenue associated with the delivery point
 - Customers are responsible for the additional cost of improving the performance of an outlier facility beyond what was designed originally

A4L Performance - Summary

- Hydro One invests in A4L through ongoing sustainment work, e.g. replacing insulators, conductor and wood poles based on their conditions.
- A4L has better than Baseline and Target performance from the perspective of the frequency of outages, reflecting the effectiveness of ongoing sustainment/maintenance work
- A4L has experienced infrequent, but lengthy outages in recent years; outage durations have exceeded the minimum CDPP standard, making A4L an outlier
- Hydro One has identified the difficulty in locating faults on A4L as the root cause for long outage duration and is investigating remedial measures that would result in shortening outage duration
- The local community shall be engaged in the process by Hydro One Distribution (the transmission customer)

Updates for the Region - Industry

- Geraldton mining project continues work to obtain necessary permits and approvals.
- Gas-to-Oil Pipeline Conversion project Hearing is Adjourned until new Hearing Panel is Appointed.
- Any news that LAC members wish to share?

DISCUSSION OF FUTURE ROLE OF THE LAC

Discussion of Future Role of the LAC

- Is there a desire for the LAC to remain active between regional planning cycles (at least once every five years)?
- If so, what meeting frequency is appropriate?
 - Once per year
 - Twice per year

QUESTIONS?

APPENDIX C



Service address:

Your account number:

Page 2 of 2

How we calculated your charges

Balance forward	Amount of your last bill	\$12,985.29
	Amount we received on November 5, 2014 - thank you	\$3,098.77 CR
	Amount we received on November 25, 2014 - thank you	\$3,341.20 CR
	Balance forward that is past due	\$6,545.32
Your electricity charges	Your service type is General Service - Energy	
	Electricity used this billing period	
	We read your meter J2996111 on November 27, 2014	004973
	We estimated your meter on October 28, 2014	- 004609
	Difference in meter readings	000364
	Metered usage in kilowatt-hours (364 x 120) = 43,680 kWh	
	Electricity: 75 kWh @ 8.6000 ¢ (28-Oct-14 to 31-Oct-14)	
	3,885 kWh @ 10.1000 ¢ (28-Oct-14 to 31-Oct-14)	\$6.45
	675 kWh @ 8.8000 ¢ (01-Nov-14 to 27-Nov-14)	\$392.39
	39,045 kWh @ 10.3000 ¢ (01-Nov-14 to 27-Nov-14)	\$59.40
	Estimated Bill Adjustment	\$4,021.64
		\$48.32 CR
	Delivery	\$2,680.86
	Regulatory Charges	\$272.14
	Total of your electricity charges	\$7,384.56
	Ontario Clean Energy Benefit: 10% off applicable electricity charges and taxes***	\$46.22 CR
	New total of your electricity charges	\$7,338.34
Adjustments	Bill Correction Instalment (remaining balance \$7,156.71) **	\$1,192.77
	Interest earned on your security deposit **	\$1.14 CR
	Total adjustments	\$1,191.63

** GST/HST exempt

Electricity : This is the cost of the electricity supplied to you during this billing period and is the part of the bill that is subject to competition

Delivery : These are the costs of delivering electricity from generating stations across the Province to Hydro One then to your home or business. This includes the costs to build and maintain the transmission and distribution lines, towers and poles and operate provincial and local electricity systems. A portion of these charges are fixed and do not change from month to month. The rest are variable and increase or decrease depending on the amount of electricity that you use.

The delivery charge also includes costs relating to electricity lost through distributing electricity to your home or business. * Hydro One collects this money and pays this amount directly to our suppliers.

*When electricity is delivered over a power line, it is normal for a small amount of power to be consumed or lost as heat. Equipment, such as wires and transformers, consumes power before it gets to your home or business.

Regulatory Charges : Regulatory charges are the costs of administering the wholesale electricity system and maintaining the reliability of the provincial grid and include the costs associated with funding Ministry of Energy and Infrastructure conservation and renewable energy programs.

Debt Retirement Charge : The debt retirement charge pays down the debt of the former Ontario Hydro.

NOTE: For a detailed explanation of electricity terms, please visit www.HydroOne.com or www.ontarioenergyboard.ca.

+Your consumption is based on metered use. Historically this was based on adjusted use.



Service address:

Your account number:

residential

Page 2 of 2

How we calculated your charges

Balance forward	Amount of your last bill	\$281.24
	Amount we received on February 24, 2015 - thank you	\$281.24 CR
	Balance forward	\$0.00
Your electricity charges	Your service type is Residential - Medium Density	
	Electricity used this billing period	
	We read your meter J3296598 on March 03, 2015	022350
	We estimated your meter on January 28, 2015	- 013142
	Difference in meter readings	009208
	Metered usage in kilowatt-hours (9,208 x 1) = 9,208 kWh	
	Electricity: 1,000 kWh @ 8.8000 ¢	\$88.00
	8,208 kWh @ 10.3000 ¢	\$845.42
	Delivery	\$539.36
	Regulatory Charges	\$57.20
	Total of your electricity charges	\$1,529.98
	Ontario Clean Energy Benefit: 10% off applicable electricity charges and taxes***	\$49.85 CR
	New total of your electricity charges	\$1,480.13

Electricity : This is the cost of the electricity supplied to you during this billing period and is the part of the bill that is subject to competition.

Delivery : These are the costs of delivering electricity from generating stations across the Province to Hydro One then to your home or business. This includes the costs to build and maintain the transmission and distribution lines, towers and poles and operate provincial and local electricity systems. A portion of these charges are fixed and do not change from month to month. The rest are variable and increase or decrease depending on the amount of electricity that you use.

The delivery charge also includes costs relating to electricity lost through distributing electricity to your home or business. * Hydro One collects this money and pays this amount directly to our suppliers.

*When electricity is delivered over a power line, it is normal for a small amount of power to be consumed or lost as heat. Equipment, such as wires and transformers, consumes power before it gets to your home or business.

Regulatory Charges : Regulatory charges are the costs of administering the wholesale electricity system and maintaining the reliability of the provincial grid and include the costs associated with funding Ministry of Energy and Infrastructure conservation and renewable energy programs.

Debt Retirement Charge : The debt retirement charge pays down the debt of the former Ontario Hydro.

NOTE: For a detailed explanation of electricity terms, please visit www.HydroOne.com or www.ontarioenergyboard.ca.

*Your consumption is based on metered use. Historically this was based on adjusted use.

How we calculated your charges

Balance forward	Amount of your last bill	\$0.00
	Balance forward	\$0.00
Your electricity charges	Your service type is Residential - Medium Density	
	Electricity used this billing period	
	We estimated your meter J3345594 on December 27, 2013	040065
	We activated your meter on December 13, 2013	- 040566
	Difference in meter readings	099499
	Metered usage in kilowatt-hours (99,499 x 1) = 99,499 kWh	
	<hr/>	
	Electricity: 500 kWh @ 8.3000 ¢	\$41.50
	98,999 kWh @ 9.7000 ¢	\$9,602.90
	Delivery	\$5,499.52
	Regulatory Charges	\$604.69
	Debt Retirement Charge	\$696.49
	HST (87086-5821-RT0001)	\$2,137.86
	Total of your electricity charges	\$18,582.96
	Ontario Clean Energy Benefit: 10% off applicable electricity charges and taxes***	\$28.02 CR
	New total of your electricity charges	\$18,554.94
Adjustments	Account set-up charge	\$30.00
	HST (87086-5821-RT0001)	\$3.90
	Total adjustments	\$33.90

Electricity : This is the cost of the electricity supplied to you during this billing period and is the part of the bill that is subject to competition.

Delivery : These are the costs of delivering electricity from generating stations across the Province to Hydro One then to your home or business. This includes the costs to build and maintain the transmission and distribution lines, towers and poles and operate provincial and local electricity systems. A portion of these charges are fixed and do not change from month to month. The rest are variable and increase or decrease depending on the amount of electricity that you use.

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Regulatory Charges : Regulatory charges are the costs of administering the wholesale electricity system and maintaining the reliability of the provincial grid and include the costs associated with funding Ministry of Energy and Infrastructure conservation and renewable energy programs.

Debt Retirement Charge : The debt retirement charge pays down the debt of the former Ontario Hydro.

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+Your consumption is based on metered use. Historically this was based on adjusted use.



Service address:

Your account number:

Residential

Page 2 of 2

How we calculated your charges

Balance forward	Amount of your last bill	\$1,883.55
	Balance forward that is past due	\$1,883.55
Your electricity charges	Your service type is Residential - Medium Density	
	Electricity used this billing period	
	We estimated your meter J3222430 on December 29, 2014	009395
	We read your meter on November 27, 2014	- 005242
	Difference in meter readings	004153
	Metered usage in kilowatt-hours (4,153 x 1) = 4,153 kWh	
	Electricity: 1,000 kWh @ 8.8000 ¢	\$88.00
	3,153 kWh @ 10.3000 ¢	\$324.76
	Delivery	\$261.33
	Regulatory Charges	\$25.94
	Debt Retirement Charge	\$29.07
	HST (87086-5821-RT0001)	\$94.78
Adjustments	Total of your electricity charges	\$823.88
	Ontario Clean Energy Benefit: 10% off applicable electricity charges and taxes***	\$59.52 CR
	New total of your electricity charges	\$764.36
	Miscellaneous Adjustment	\$59.56 CR
	Late payment charge **	\$27.36
	Total adjustments	\$32.20 CR
	** GST/HST exempt	

Electricity : This is the cost of the electricity supplied to you during this billing period and is the part of the bill that is subject to competition.

Delivery : These are the costs of delivering electricity from generating stations across the Province to Hydro One then to your home or business. This includes the costs to build and maintain the transmission and distribution lines, towers and poles and operate provincial and local electricity systems. A portion of these charges are fixed and do not change from month to month. The rest are variable and increase or decrease depending on the amount of electricity that you use.

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