
Results-based Plan Briefing Book 2014-15

Ministry of Energy

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Part I: Results-based Plan Briefing Book 2014-15

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PART I: PUBLISHED RESULTS-BASED PLAN 2014-15

1. MINISTRY OVERVIEW

The Ministry of Energy is guided by a vision of a clean energy economy that provides jobs and sustainable, liveable communities for all Ontarians and for generations to come.

1.1. Mandate

The Ministry of Energy is responsible for setting the legislative and policy framework to assure a clean, reliable and affordable energy system for all Ontarians.

The ministry develops and advises on all aspects of energy policy for Ontario, including electricity, natural gas and oil. It oversees the Ontario Energy Board (OEB), Ontario Power Authority (OPA), and the Independent Electricity System Operator (IESO). The ministry also represents the shareholder, the provincial government, in dealings with Hydro One and Ontario Power Generation (OPG). The development of a diverse supply mix, including more renewable energy sources, and putting conservation first are cornerstones of Ontario's balanced plan to provide clean and reliable energy.

The ministry works with many partners inside and outside the government to develop the electricity generation, transmission, distribution and other energy-related facilities that help power our economy, and ensure that Ontario remains one of the best places in the world in which to live, work, invest and raise a family.

In 2013, the ministry updated its Long-Term Energy Plan (LTEP). This review resulted in a reinforcement of Ontario's role as a clean energy leader and ensures the maintenance of the electricity generation, transmission and distribution infrastructure that powers the economy and enhances quality of life. The updated LTEP, *Achieving Balance*, released on December 2, 2013, is a balanced approach to meeting energy needs today and for generations to come.

The 2013 LTEP builds on the foundation laid in the 2010 LTEP while also lowering the projected total system costs. The plan encourages conservation and provides the clean, reliable and affordable energy Ontario will need now and into the future. It balances five principles that will guide future decisions: cost effectiveness, reliability, clean energy, community engagement, and an emphasis on conservation and demand management before building new generation.

Guided by this Plan and the *Green Energy and Green Economy Act, 2009* (GEGEA), the Ministry of Energy continues to establish a new clean energy economy that creates jobs, enhances prosperity and builds sustainable communities.

1.2. Ministry Contribution to Priorities and Results

The ministry plays a critical role in supporting the government's long-term priorities of economic prosperity, environmental stewardship and sustainable communities.

Priorities	Economic Prosperity	Environmental Stewardship	Sustainable Communities
Results	- Competitive business environment - New clean economy and jobs - Reliable energy supply	- Climate protection - Cleaner air - Preservation of natural resources	- Strong, vibrant, healthy and prosperous communities for generations to come - High standard of living for Ontarians
Strategies	- Ensure an affordable and sustainable energy system - Increase energy efficiency - Increase renewable energy - Protect and empower consumers - Invest in energy infrastructure and initiatives that will increase reliability and economic output, maximize job creation, and spur economic development	- Reduce GHGs from electricity generation by 75% by phasing out coal generation - Put conservation first before building new generation and transmission facilities - Increase renewable energy - Transition to a modern and reliable energy system by upgrading our transmission and distribution systems and adding more renewable sources to the system for a balanced mix of clean energy sources	- Revitalize energy infrastructure - Empower communities to participate in clean energy projects
Deliverables	- A clean, reliable and affordable energy system - Putting conservation first, before building new generation and transmission facilities - A clean energy economy		
Key Initiatives	- Implementation of the 2013 LTEP - Cost containment - Energy conservation and efficiency - Develop Large Renewable Procurement (LRP) process - Regional energy planning - Review of process of siting future energy infrastructure projects - Coal phase out - Nuclear refurbishment and retention of the option on new build - Smart grid and smart meters - Energy consumer protection		
Measures	- Reduce electricity demand by 30 Terawatt-hour (TWh) in 2032 through conservation - Aim to use demand response to meet 10% of peak demand by 2025 - Phase out coal by the end of 2014, reducing carbon emissions by up to 30 megatonnes (Mt)/year		

To meet these priorities, the ministry has set out the direction for Ontario's energy future through the 2013 LTEP, which takes into account the following five principles: cost-effectiveness, reliability, clean energy, community engagement and putting conservation first before building new generation and transmission facilities.

1.2.1. An Affordable Energy System

From 2013 to 2032, residential electricity bills are forecast to increase at an average annual rate of 2.8% per year. To help consumers transition, a number of initiatives are currently in place:

- The **Ontario Clean Energy Benefit (OCEB)** is helping residential consumers, small businesses, and farms manage rising electricity prices. The program provides a benefit equal to 10% of the total cost of electricity on eligible consumers' bills, including tax, limited to the first 3,000 kilowatt hours (kWh) of electricity consumed each month until the end of 2015. The OCEB was introduced in January 2011, and the 3,000 kWh per month cap came into effect September 1, 2012. Currently, the benefit is helping over four million residential consumers and over 400,000 small businesses and farms.
- The **Northern Ontario Energy Credit (NOEC)** helps eligible low-to middle-income northern residents manage energy costs. Effective July 2012, the credit is available through the personal income tax system as a component of the Ontario Trillium Benefit, which combines the province's sales, property and energy tax credits into one benefit received monthly by eligible Ontarians.

In addition, two proposed initiatives for providing assistance to residential consumers were announced on April 23, 2014 - the Ontario Electricity Support Program and the proposed removal of the Debt Retirement Charge from residential users' electricity bills.

- The **Ontario Electricity Support Program** would provide ongoing assistance directly on the bills of eligible low-income electricity consumers after December 31, 2015. Options for the Ontario Electricity Support Program's design are being developed by the OEB through collaboration with utilities and social service delivery agents, as well as public and stakeholder consultation. The OEB will report back to the province with a range of options by December 1, 2014. The government will review these options and decide on the next steps.
- The **Debt Retirement Charge** is proposed to be removed from residential users' electricity bills after December 31, 2015 and save a typical residential electricity ratepayer \$5.60 per month.

For industrial consumers

- The **Northern Industrial Electricity Rate Program** supports continued growth and development in the northern resource and manufacturing sector. The \$120 million per year program provides electricity price rebates of 2 cents per kWh, representing about a 25% reduction in electricity prices for large northern industrial consumers. Originally scheduled to end in 2013, Ontario extended the program for three years to 2016.
- The **Industrial Conservation Initiative** encourages the largest industrial energy users to shift consumption to off-peak hours to save on costs. Effective since January 2011, it rewards large industrial consumers and manufacturers that take steps to reduce their peak demand – mitigating the need to build new peaking capacity to meet brief periods of high demand. The program initially applied to users with average monthly peak demand greater than 5 megawatts (MW). In 2014, the program was expanded to include eligible customers in certain electricity-intensive sectors with average monthly peak demand greater than 3 MW and less than 5 MW, opening participation to hundreds of additional medium-sized electricity customers.
- The **Industrial Accelerator Program** provides financial incentives to transmission connected companies to assist them in fast tracking capital investments in major energy efficiency projects.
- The **Industrial Electricity Incentive Program** encourages electricity-intensive companies, such as those in the industrial and manufacturing sectors, to make use of Ontario's strong supply of electricity. Eligible companies in the identified sectors can qualify for a reduced electricity rate for increasing production or expanding their facility. A new application window is expected to open in 2014 to encourage broader participation in the program, as committed to in the 2013 LTEP.

For small businesses

The **Five-Point Small Business Energy Savings Plan** helps small businesses mitigate electricity rate increases by offering them enhanced conservation programs. The Five Point Plan will:

- Promote the use of roving energy managers to small businesses;
- Enhance the saveONenergy for Business Conservation Program;
- Market the saveONenergy for Business Conservation Program;
- Introduce on-bill financing for small businesses; and
- Provide long-term stable funding for small business programs under the Conservation First Framework.

Further Rate Mitigation Measures

Overall electricity costs show a decrease from the 2010 projections for all years, based on several factors, including lower demand forecasts and the various rate mitigation measures enacted by government which include:

- Significant ratepayer savings will be realized as a result of reduced Feed-In Tariff (FIT) prices, the ability to dispatch wind generation, the amended Green Energy Investment Agreement, and the decision to defer new nuclear;
- The government will continue to work with its agencies - Hydro One, OPG, the IESO, the OPA and the OEB - to develop business plans and efficiency targets that will reduce agency costs and result in significant ratepayer savings;
- The government will encourage OPG and Hydro One to explore new business and opportunities inside and outside Ontario. These opportunities will help leverage existing areas of expertise and grow revenues for the benefit of Ontarians;
- The Distribution Sector Review Panel, which delivered its report in late 2012, identified the potential for significant savings among the province's local distribution companies (LDCs). The government expects that LDCs will pursue innovative partnership and transformative initiatives that will result in electricity ratepayer savings; and
- The government will look closely at key features of the OEB's new regulatory framework for LDCs such as the Scorecard, which will report annually on key LDC performance metrics, to develop further distribution sector policy options.

1.2.2. A Reliable Energy System

Ontario is transitioning to a modern and even more reliable energy system by modernizing and upgrading its transmission and distribution grids, upgrading and refurbishing existing generation assets, and adding more renewable sources to the system for a balanced mix of clean power sources.

The transmission component of the 2013 LTEP incorporates and builds on a number of planning initiatives and ongoing priorities from the 2010 LTEP.

The 2013 LTEP has a particular focus on the unique needs of Northern Ontario. The enhancement to the existing East-West Tie through the construction of a new line will maintain reliable electricity supply to the Northwest over the long term and make the system more efficient. Through a competitive designation

process, the OEB selected Upper Canada Transmission, operating as NextBridge Infrastructure, to undertake project development work. The project is currently on schedule and expected to be in service in 2018.

The Minister of Energy directed Hydro One in December 2013 to begin development work on a new bulk transmission line west of Thunder Bay. This line will increase transmission capacity and provide a means for new customers and growing loads to be served in this area, and was identified as one of the priority transmission projects in the 2013 LTEP. Hydro One is expected to work with Infrastructure Ontario (IO) to explore ways to ensure that the project is developed and delivered in a cost-effective manner, and results in value for Ontario electricity customers.

A new line to Pickle Lake is also a priority project as highlighted in the 2013 LTEP. The line will serve new demand in the area north of Dryden, including expected growth in mining activity in the area and possibly in the Ring of Fire. It is also a necessary first step to enable connections of remote communities.

The Minister of Energy directed the OPA to develop a plan for connecting remote First Nation communities in northwestern Ontario to the provincial electricity grid. These communities currently rely on costly and polluting diesel generation for their electricity supply. The OPA produced a draft plan, which is expected to be finalized and published in 2014, that identifies the value in connecting up to 21 of the 25 remote communities currently not connected to the provincial grid. Cost savings are expected over time, as communities will no longer rely on expensive diesel generation. This project was identified as a priority in the 2013 LTEP, but federal commitment and co-operation will be required to make it a reality.

In southwestern Ontario, Hydro One is upgrading an existing line west of London. This priority project is a key step in the transmission plan to bring more clean energy projects online. It is expected to be fully in service in the Fall of 2014.

Transmission planning will also continue on the regional level, using an approach that considers conservation, demand management, distributed generation and transmission. Regional plans will assess needs based on a region's unique resource mix and community priorities. Ontario will continue to plan and study additional transmission projects as changing demand and supply conditions require.

1.2.3. A Clean Energy System

In 2009, the Legislature passed the GEGEA, which established the framework for the *Green Energy Act, 2009* (GEA) to launch growth in renewable sources of energy such as wind, solar, bioenergy and hydroelectricity by making it easier to bring such projects to life. Under the GEGEA, Ontario created the first comprehensive Feed-in Tariff (FIT) program in North America, which guarantees specific rates for energy generated from certain renewable sources. The FIT program makes it easier for homeowners, small businesses, farmers, not-for-profit groups, community groups, Aboriginal communities and large commercial developers to take part in renewable energy projects.

Wind, Solar and Bioenergy

In the 2013 LTEP, Ontario has set a target of 10,700 MW of wind, solar and bioenergy capacity online by 2021.

Ontario is also renewing its commitment to small renewable energy projects by making 900 MW of new capacity available, between 2013 and 2018, for the FIT and microFIT programs. In Summer/Fall 2013, the OPA opened a new procurement window for both programs, and starting in 2014, annual procurement targets will be set at 150 MW for FIT and 50 MW for microFIT.

The Ministry of Energy and the OPA are developing a new competitive procurement process for large renewable energy projects (generally greater than 500 kW). The Large Renewable Procurement (LRP) process will be conducted in two phases, using an initial Request for Qualifications (RFQ) process to qualify applicants who wish to participate in the LRP, followed by a Request for Proposal (RFP) process to evaluate the projects proposed by the short list of qualified candidates. Two LRP procurements are proposed, commencing in 2014 and 2015, respectively, with the possibility of a third procurement in 2016 should any procurement capacity remain.

Coal Phase-Out and Biomass Conversions

Ontario has fulfilled its commitment to end coal-fired generation in advance of its target of the end of 2014. In April 2014, Thunder Bay Generating Station burned its last coal and Ontario became the first jurisdiction in North America to fully eliminate the use of coal as a source of electricity generation.

With the last coal burned at Thunder Bay Generating Station, Ontario has now removed over 7,500 MW of coal fired capacity since 2003. This has reduced annual carbon dioxide emissions by up to 30 megatonnes (Mt).

In addition to reducing carbon dioxide emissions, the early closure of Lambton and Nanticoke Generation Stations (both closed in 2013, one year earlier than planned) is expected to save Ontario electricity customers \$95 million in 2014

from reduced maintenance and project costs.

Contributing to Ontario's clean and reliable electricity supply, two of Ontario's former coal generating stations, Atikokan and Thunder Bay Generating Stations, are being converted from coal to biomass and advance biomass fuel, respectively.

OPG has converted the Atikokan Generating Station to run on biomass. The conversion at Atikokan has created approximately 200 construction jobs and is helping protect existing jobs at the plant. It will generate 150 million kW hours of renewable power, enough to power more than 15,000 homes each year.

The government plans to convert one of the units at Thunder Bay Generating Station to advanced biomass starting in 2014. The facility is expected to be operational in 2015 and will be in service for five years.

Gas-fired Generation

Gas-fired plants address local and provincial reliability requirements while supporting the government's commitment to develop new clean energy and eliminate coal-fired generation by the end of 2014. New gas-fired generation facilities such as Goreway Station, Halton Hills, the Portlands Energy Centre, St. Clair Energy Centre and York Energy Centre help meet the need for clean, reliable power in areas of rapid growth.

By ensuring the reliability of the electricity system during periods of peak demand, these facilities provide communities with an increased security of supply while complementing the province's nuclear and hydro facilities, which generally provide baseload power. In total, Ontario's natural gas-fired power plants provide nearly 10,000 MW of clean energy capacity to the province.

Combined Heat and Power

Ontario has identified Combined Heat and Power (CHP) as a clean, efficient way to generate electricity and heat for nearby users. Over 480 MW has been put into operation since 2005 (434 MW of gas fired generation and 48 MW of biomass generation). Beyond this, the government will continue to encourage new local CHP generation projects, where price, size and location make sense.

On March 31, 2014, the Minister of Energy directed the OPA to develop a new standard offer procurement program for combined heat and power (CHPSOP 2.0). CHPSOP 2.0 targets agricultural industry projects (e.g. greenhouses) and district energy projects. The first application window is expected to be launched in November 2014 with a procurement target of 100 MW; a second window would be launched in 2015, procuring 50 MW.

Nuclear

Ontario is moving towards modernizing the province's nuclear fleet through the refurbishment of existing units at the Darlington and Bruce Power sites. During refurbishment, both OPG and Bruce Power will be subject to the strictest possible oversight to ensure safety, reliable supply and value for ratepayers.

Nuclear refurbishment will follow seven principles established by the government, including minimizing commercial risk to the government and the ratepayer, and ensuring that operators and contractors are accountable for refurbishment costs and schedules.

Ontario will not proceed at this time with the construction of two new nuclear reactors at the Darlington Generating Station. However, the Ministry of Energy will work with OPG to maintain the site licence granted by the Canadian Nuclear Safety Commission (CNSC).

The Pickering Generating Station is expected to be in service until 2020. An earlier shutdown of the Pickering units may be possible depending on projected demand going forward, the progress of the fleet refurbishment program, and the timely completion of the Clarington Transformer Station.

Ontario will also support the export of our home-grown nuclear industry expertise, products and services to international markets.

1.2.4. Community Engagement

Renewable Energy

Ontario remains committed to renewable energy. The Ontario government greatly values local input and is committed to protecting residents and the natural environment in communities that host renewable energy projects.

In June 2013, the Minister of Energy directed the OPA to develop a competitive procurement process for future renewable energy projects generally over 500 kilowatts (kW). Ontario is giving municipalities a stronger voice. The new LRP process will replace the existing large project stream of the FIT program. It will require energy planners and developers to work directly with municipalities to identify appropriate locations and site requirements for any future large renewable energy project. The approach should be balanced and should consider the views of local communities while ensuring the long-term sustainability of Ontario's electricity system.

To further strengthen municipal participation and support communities, Ontario has:

- Revised the FIT program rules for projects between 10 kW and 500 kW to give priority to projects partnered or led by municipalities;
- Worked with municipalities to determine a property assessment rate increase for wind turbine towers; and
- Made funding available to help small and medium-sized municipalities develop municipal energy plans – which will help municipalities better understand their local energy needs and conservation opportunities, set goals and develop implementation plans.

Development of a new integrated regional energy planning process

Regional electricity planning has been conducted in Ontario for many years, both by transmitters and, since 2005, by the OPA. The focus of regional planning is on maintaining adequate and reliable supply to meet a region's needs.

The siting of large energy infrastructure is also a matter of importance for Ontarians, and consequently for generators, transmitters and planners.

The OEB initiated a process to formalize regional electricity infrastructure planning. Given the integrated nature of electricity planning, this entailed dovetailing the OPA's existing regional planning work with the transmitters' planning processes.

In May 2013, the government asked the IESO and the OPA to recommend a new integrated regional energy planning process that would improve how large infrastructure projects are sited and would propose how to involve municipalities, Aboriginal communities and other stakeholders in developing regional energy plans.

On October 8, 2013 the Ministry of Energy announced that Ontario is improving the siting of large energy infrastructure projects by implementing the 18 recommendations in the IESO and OPA's report called *Engaging Local Communities in Ontario's Electricity Planning Continuum*. The report's recommendations are grouped into four main themes:

- Bringing Communities to the Table – Municipal governments, First Nation and Métis communities and stakeholders want to be engaged early and often. Local communities would like a formal seat at the table;
- Linking Local and Provincial Planning – Local governments identified need for capacity building and resources to better consider energy needs in

local plans. As municipalities plan to meet water, waste and growth needs they should likewise be required to plan for electricity needs;

- Reinforcing the Planning/Siting Continuum – Many municipalities, First Nation and Métis communities and stakeholders do not have resources to engage in all stages of planning so links between planning outcomes and procurement/siting need to be reinforced at the outset of each procurement; and
- Enhancing Electricity Awareness and Improving Access to Information – There is a strong desire to better understand electricity planning and siting processes so that municipalities, First Nation and Métis communities and stakeholders and the general public can become involved early on and effectively participate in decision-making.

Ontario and its energy agencies are making steady progress on implementing the recommendations put forward by the IESO and the OPA while continuing to move forward with current regional electricity planning activities.

It is expected that the improved regional energy planning process will include formal consultations with municipalities, communities and the energy sector.

1.2.5. Putting Conservation First

Energy Conservation and Efficiency

Ontario is putting conservation first. As Ontario plans for its electricity needs for the next 20 years, conservation will be considered before building new generation and transmission facilities and will be the preferred choice wherever it is cost-effective. Conservation is the cleanest and most cost-effective energy resource and it offers consumers a way to reduce their energy bills.

Through programs and improved codes and standards, Ontario expects to offset most of the growth in electricity demand to 2032, which will lessen the need for new supply. The long-term conservation target of 30 TWh in 2032 represents a 16% reduction in forecasted gross demand for electricity – equivalent to more than all the power used by the City of Toronto in 2012. Ontario is also aiming to use demand response to meet 10% of peak demand by 2025.

Promoting energy conservation and efficiency is key to ensuring both adequate energy supply and price competitiveness into the future. The government will continue to invest in energy conservation and efficiency and build momentum at the right pace. Energy conservation and efficiency will play an important role in meeting Ontario's electricity demand in the future and should be responsive to Ontario's changing supply needs.

Ontario's new six-year Conservation First Framework will begin in January 2015 to replace the one that is currently winding down. Under the new Framework, LDCs will remain the face of conservation to their customers and will be provided with the funding and certainty they need to deliver conservation programs to their customers.

Smart Meters

Smart meters are an important part of modernising Ontario's electricity infrastructure - they deliver benefits for individual consumers and for the provincial electricity system as a whole.

Close to 4.8 million smart meters deployed across the province are giving consumers more precise hourly readings of their energy consumption instead of just estimates. Smart meters allow consumers to better participate in energy conservation and have enabled time of use (TOU) pricing. Over 4.4 million customers pay TOU prices which set to reflect the fact that the cost of producing electricity varies throughout the day. TOU rewards customers who shift electricity usage from peak to off-peak hours when there is less demand on the system and electricity is less expensive to produce. At the system-level, reducing peak demand translates into avoiding or deferring the need for new generation, transmission and distribution system investments – costs which otherwise would have been borne by all Ontario electricity ratepayers.

Through initiatives such as Green Button, customers are increasingly able to access their smart meter data in a variety of forms, including connecting it with innovative software applications, and see their energy consumption patterns in near-real time. This enables new opportunities for conservation and energy cost management.

Smart meters are also the foundation for Ontario's smart grid. The hourly data recorded by smart meters provides a host of operational benefits for LDCs, such as enhanced grid visibility, improved outage management and more informed system planning. These improvements in utility operations are critical for the integration of innovative technologies, such as energy storage, home energy management systems and electric vehicles that will give utilities flexible options for supplying Ontario with clean energy.

1.3. Ministry Programs and Activities

The Ministry of Energy is responsible for setting the legislative and policy framework to assure a clean, reliable and affordable electricity system for all Ontarians.

The ministry develops and advises on all aspects of energy policy for Ontario, including electricity, natural gas and oil. It oversees the OEB, OPA and the IESO. The ministry also represents the shareholder in dealings with Hydro One and OPG.

The ministry is also responsible for updating and developing policy related to the LTEP.

The ministry works with many partners inside and outside the government to develop the electricity generation, transmission, distribution and other energy-related facilities that help power the economy, and ensure that Ontario remains one of the best places in the world in which to live, work, invest and raise a family.

Graph 1: 2014-15 Budget by Major Program

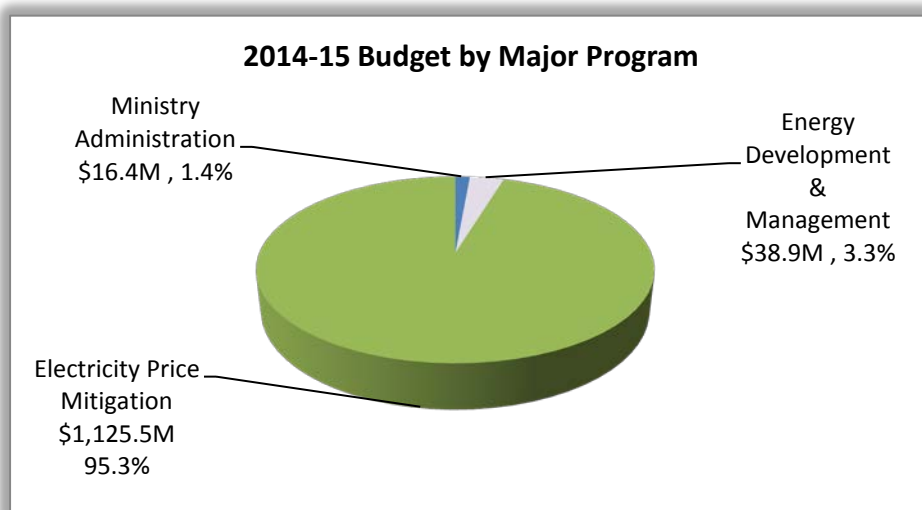


Table 1: Ministry Planned Expenditures 2014-15 (\$M)

	2014-15 Budget (\$M)
Operating	1,180.9
Capital	0.002
TOTAL	1,180.9

Note: Totals include statutory appropriations but do not include operating and capital consolidation adjustments of \$251.9M

Below is a detailed description of each program within the Ministry of Energy.

Ministry Administration

This program works to achieve ministry and government objectives by providing executive direction, strategic advice and vital corporate services, including communications, strategic human resources, accessibility, French Language Services, information technology and business solutions, legal services, Freedom of Information and Protection of Privacy activities, information and records management, accommodations and facilities management, emergency management, continuity of operations planning, procurement, controllership and accounting, and strategic and resource planning and allocation activities. The program provides corporate services to two ministries – the Ministry of Energy and the Ministry of Infrastructure.

Energy Development and Management

This program is responsible for developing Ontario's energy policy framework, which is central to the building of a strong and prosperous economy. It provides leadership and support to the energy sector to ensure clean, reliable, affordable and sustainable energy supply, transmission and distribution systems. The program supports energy conservation and efficiency, grid modernization, and the development of cleaner forms of energy. This program also oversees engagement and consultation with First Nations and Métis on provincial energy sector activities and projects while facilitating the participation of Aboriginal communities in the new renewable energy and transmission system developments.

Electricity Price Mitigation

The Electricity Price Mitigation program helps Ontarians manage electricity costs and assists consumers with the transition to a reliable and cleaner electricity system. These programs include the OCEB and the NOEC which is delivered as part of the Ontario Trillium Benefit.

- The OCEB provides direct relief to eligible electricity consumers, through a benefit equal to 10% of the total cost of electricity on their electricity bills including tax for the first 3,000 kWh per month of electricity consumed, until the end of 2015.
- The NOEC helps low-to moderate-income individuals and families living in northern Ontario with their home energy costs, which are often higher in the North due to more severe winters and is delivered as part of the Ontario Trillium Benefit.

More information on the programs and policies in this document can be found online at:

Organization	Website
Ministry of Energy	http://www.energy.gov.on.ca
Ontario Power Authority (OPA)	http://www.powerauthority.on.ca/
Ontario Energy Board (OEB)	http://www.ontarioenergyboard.ca/
Independent Electricity System Operator (IESO)	http://www.ieso.ca/
Ontario Power Generation (OPG)	http://www.opg.com/
Hydro One	http://www.hydroone.com/

2. HIGHLIGHTS OF 2013-14 ACHIEVEMENTS

In 2013-14, the Ministry of Energy continued to create and deliver key initiatives in support of the ministry's long-term priorities including:

1. Maintaining a clean, reliable and affordable energy supply system;
2. Putting conservation first before building new generation and transmission facilities;
3. Protecting energy consumers; and
4. Transforming Ontario's energy supply mix.

To meet these priorities, the ministry has set out the direction for Ontario's energy future through the following five principles: cost-effectiveness, reliability, clean energy, community engagement and putting conservation first before building new generation and transmission facilities.

The following are highlights of achievements for 2013-14. For further information on each achievement, please refer to the *Appendix: Annual Report*.

	Achievement	Description
1.	The development and release of the updated LTEP.	In December 2013, the updated LTEP was released. It was developed after the most comprehensive consultation and engagement process undertaken to date by the ministry, with input from thousands of people across the province.
2.	Review of Part II of the Energy Consumer Protection Act, 2010 (ECPA) by the OEB is under way.	In December 2013, the Minister requested that the OEB conduct a review of Part II of the ECPA and the regulations made under Part II and report back on any proposed recommendations to further strengthen its effectiveness.
3.	Continued delivery of the OCEB which is helping residential consumers, farms and small businesses transition to a cleaner, and modern electricity system.	The ministry continued to provide a 10% rebate for the first 3,000 kWh of electricity consumed per month by families, farms and small businesses.
4.	Continued delivery of the NOEC which helps northern Ontario residents with the higher energy costs they face living in the North. The credit is paid monthly as part of the Ontario Trillium Benefit.	The NOEC is a refundable tax credit for low- to middle-income individuals and families living in northern Ontario, effective for 2010 and subsequent years. The maximum annual credit for an individual is \$141 and for a family (including single parents) is \$216.

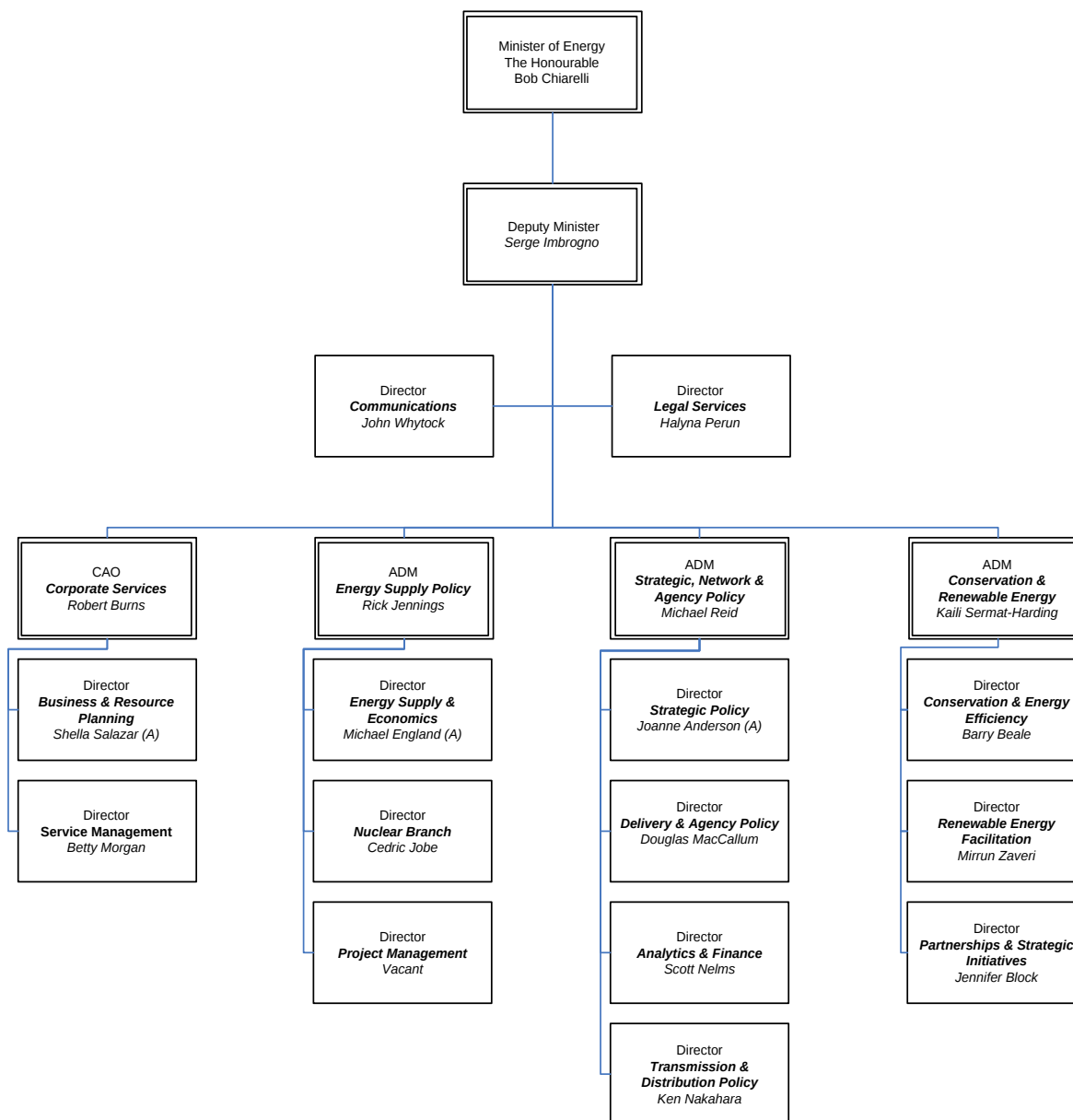
	Achievement	Description
5.	Investment of \$1.4B by Hydro One in improvements, replacements and expansions to its power systems.	This includes the west of London rewiring project and upgrades to several transformer stations.
6.	Launch of round 2 of the Smart Grid Fund (SGF).	Round 2 of the SGF was launched in July 2013. Offers were made in February-March 2014 to 17 projects with 16 LDCs committed to participating in these projects.
7.	Commitment to support a smart grid laboratory at Ryerson University.	This laboratory will be a collaborative facility for research, development and testing of smart grid algorithms, products and systems for Ontario institutions.
8.	Supporting innovation through the development of the Advanced Energy Centre (AEC)	In February 2014, the Premier announced the establishment of the Advanced Energy Centre (AEC), a partnership between MaRS, Siemens and Capgemini. The AEC will help high-potential energy innovators commercialize in Ontario and export their solutions globally.
9.	Integrating Energy Storage	Through the LTEP and Direction to the IESO and OPA, the ministry is moving forward with its commitment to include 50 megawatt (MW) of energy storage resources into the procurement processes.
10.	Ontario became the first jurisdiction in North America to fully eliminate coal as a source of electricity generation when the last operating coal-fired facility, Thunder Bay Generating Station, burned its last supply of coal in April 2014.	Ontario is committed to investing in clean energy. Last year, coal accounted for less than 3% of total generation, and Ontario became coal free in April 2014. The elimination of coal as a source for electricity generation has produced a real improvement in air quality in Ontario.
11.	New procurement windows were opened in Summer/Fall 2013 for the FIT program (with a target of 123.5 MW) and the microFIT program (with a target of 30 MW). Starting in 2014, annual procurement targets for the next four years are set at 150 MW and 50 MW for FIT and microFIT, respectively.	These measures are expected to create 6,400 jobs and to produce enough electricity each year to power more than 125,000 homes.

	Achievement	Description
12.	Development of a new competitive procurement process to replace the large project stream of the FIT program (projects generally over 500 kW).	In June 2013, the Minister directed the OPA to end procurement of large renewable energy projects under the FIT program and commence the development of a new competitive procurement process that will take into account local needs and considerations before contracts are offered.
13.	Development of a new integrated regional energy planning process.	In May 2013, the government asked the IESO and the OPA to recommend a new integrated regional energy planning process that would improve how large infrastructure projects are sited and would propose how to involve municipalities, Aboriginal communities and other stakeholders in developing regional energy plans.
14.	Development of the new Conservation First Framework.	In March 2014, the ministry announced its new 6-year framework that will replace the current conservation framework beginning in January 2015.
15.	Development and release of the Conservation White Paper.	In July 2013, the ministry released the Conservation First white paper to support discussions with the public and stakeholders, including LDCs, on a renewed vision for conservation in Ontario and a new Conservation Demand Management (CDM) framework for post 2014.
16.	Launch of the Green Button Initiative and the Energy Apps for Ontario Challenge.	This initiative will help provide energy consumers with tools to help manage and control their electricity consumption by being able to access the data in a standardized and machine-readable format. The next phase of this initiative is the implementation of “Connect My Data”, which allows customers to automate the process of accessing their energy data through innovative third-party software applications. The ministry supported the development of energy applications through the Energy Apps for Ontario Challenge that awarded \$50,000 to the winning developers.

	Achievement	Description
17.	Launch of the Municipal Energy Plan Program (MEP) with 8 municipalities being funded in round 1.	The MEP program is designed to help municipalities better understand their local energy needs and conservation opportunities, set goals and develop implementation plans.
18.	First reporting deadline under the Energy Conservation and Demand Management Plans Regulation	A key conservation initiative that will assist Ontario in achieving its conservation goals is the energy reporting and conservation plan regulation (O. Reg. 397/11 (Energy Conservation and Demand Management Plans)) developed under the Green Energy Act, 2009. O. Reg. 397/11 became effective on January 1, 2012.
19.	Partnership with Ontario EcoSchools to bring more energy conservation into the classroom with 302 schools currently being supported.	Ontario EcoSchools uses the local school as an energy education resource, encouraging students to reduce energy use in the classroom and providing them with skills they can take back home.

3. MINISTRY ORGANIZATION CHART

As of July 21, 2014



4. AGENCIES, BOARDS AND COMMISSIONS (ABC)

1. Ontario Energy Board

The Ontario Energy Board (OEB) is a quasi-judicial adjudicative and regulatory tribunal that regulates the province's electricity and natural gas sectors in the public interest. The OEB's mandate and powers in relation to the energy sector are set out principally in three statutes – the *Ontario Energy Board Act, 1998*, the *Electricity Act, 1998* and the *Energy Consumer Protection Act, 2010* and the regulations made under those statutes. Other statutes, such as the *Statutory Powers Procedure Act* also inform the OEB's jurisdiction and powers.

The revenues and expenses of the OEB are consolidated onto the ministry's financial records. However, the OEB's operations and activities are fully-funded by its regulated stakeholders in the gas and electricity sectors, under the auspices of its cost-assessment authority pursuant to Ontario Regulation 16/08 (Assessment of Expenses and Expenditures).

2014-15 Budget	\$M
Operating Expense	32.2
Capital Expense	0.9
Total	33.1

The revenues and expenses of the following two government organizations are also consolidated onto the ministry's financial records:

2. Independent Electricity System Operator

The Independent Electricity System Operator (IESO) is responsible for short-term system planning, maintaining the reliability of Ontario's bulk electricity system and operating the wholesale electricity market. It is also responsible for overseeing the Government's Smart Metering Initiative for the province. The mandate and governance structure of IESO is embodied in the *Electricity Act, 1998*.

2014-15 Budget	\$M
Operating Expense	137.1
Capital Expense	22.2
Total	159.3

3. Ontario Power Authority

The Ontario Power Authority (OPA) is responsible for coordinating province-wide conservation efforts, planning the electricity system for the medium and long term and contracting for clean electricity resources for Ontario. Its mandate is embodied in the *Electricity Act, 1998*.

2014-15 Budget	\$M
Operating Expense	57.1
Capital Expense	2.5
Total	59.6

The ministry has oversight of the following government business enterprises. The Government of Ontario, through the Minister of Energy, is the sole shareholder of the corporations below:

4. Hydro One and Ontario Power Generation

Hydro One Inc. (Hydro One) is wholly-owned by the Province. Through its wholly-owned operating subsidiaries, it owns and operates most of Ontario's electrical transmission system. It also serves as a local electricity distributor, mostly in rural communities throughout Ontario.

Ontario Power Generation (OPG) is in the business of generation and sale of electricity in Ontario. OPG operates the following generating assets: two nuclear generating stations, three thermal generating stations, 65 hydroelectric generating stations and two wind power turbines.

2014-15	\$M
Combined Projected Net Income	1,194

5. DETAILED FINANCIAL INFORMATION

The following table summarizes the Ministry of Energy's combined operating and capital budgets by program (or Vote) for 2014-15. The ministry has three programs (Votes):

1. Ministry Administration
2. Energy Development and Management
3. Electricity Price Mitigation

Table 2: Combined Operating and Capital Summary by Votes

Votes/Programs	Estimates 2014-15	Change from Estimates 2013-14		Estimates 2013-14	Interim Actuals 2013-14*	Actuals 2012-13
	\$	\$	%	\$	\$	\$
OPERATING AND CAPITAL EXPENSE						
Ministry Administration Program	16,366,100	203,100	1.3	16,163,000	16,163,000	13,157,989
Energy Development and Management	38,941,100	452,700	1.2	38,488,400	32,487,400	70,558,962
Electricity Price Mitigation	1,125,500,000	60,500,000	5.7	1,065,000,000	1,045,538,600	1,017,734,273
Less: Special Warrants	400,503,700	400,503,700				
Total Operating and Capital Expense to be Voted	780,303,500	(339,347,900)	(30.3)	1,119,651,400	1,094,189,000	1,101,451,224
Special Warrants	400,503,700	400,503,700				
Statutory Appropriations	66,014	1,000	1.5	65,014	64,014	65,968
Ministry Total Operating & Capital Expense	1,180,873,214	61,156,800	5.5	1,119,716,414	1,094,253,014	1,101,517,192
Consolidation Adjustments:						
Independent Electricity System Operator	159,273,500	(7,903,500)	(4.7)	167,177,000	152,407,900	141,791,000
Ontario Energy Board	33,074,000	(237,000)	(0.7)	33,311,000	32,972,400	34,789,969
Ontario Power Authority	59,578,000	179,000	0.3	59,399,000	60,274,000	56,956,000
Total Including Consolidation Adjustments	1,432,798,714	53,195,300	3.9	1,379,603,414	1,339,907,314	1,335,054,161
Capital Assets	1,000			1,000		
Total Capital Assets to be Voted	1,000			1,000		

* 2013-14 Interim actuals reflect the numbers presented in the 2014 Ontario Budget.



For additional financial information, see:

<http://www.fin.gov.on.ca/english/budget/estimates/>

<http://www.fin.gov.on.ca/english/budget/paccts/>

<http://www.fin.gov.on.ca/en/budget/ontariobudgets/2014/>

6. LEGISLATION

The following is a list of legislation for which the Ministry of Energy has primary legislative or administrative responsibility.

1. *Electricity Act, 1998*, S.O. 1998, c. 15, Sched. A
 - Except Parts V, V.1, VI, VII, (Minister of Finance), Part VIII (Minister of Consumer Services) and Part IX.1 (Minister of Infrastructure)
2. *Energy Consumer Protection Act, 2010*, S.O. 2010, c. 8
3. *Green Energy Act, 2009*, S.O. 2009, c. 12, Sched. A
 - Except for section 10 and except for subsection 8 (2) which is shared with the Minister of Infrastructure
4. *Hydro One Inc. Directors and Officers Act, 2002*, S.O. 2002, c. 3
5. *Ministry of Energy Act, 2011*, S.O. 2011, c. 9, Sched. 25
 - In respect of energy matters, except for sections 7 and 10 insofar as the powers and duties set out in those sections are required to develop and administer the Ontario Ethanol Growth Fund program, assigned to the Minister of Agriculture, Food and Rural Affairs
6. *Ontario Clean Energy Benefit Act, 2010*, S.O. 2010, c. 26, Sched. 13
 - Except in respect of sections 8, 9 and 10, which are administered by the Minister of Finance.
7. *Ontario Energy Board Act, 1998*, S.O. 1998, c. 15, Sched. B
8. *Power Corporation Act*, R.S.O. 1990, c. P. 18
9. *The Toronto District Heating Corporation Act, 1980*, S.O. 1980, c. 73
10. *Toronto District Heating Corporation Act, 1998*, S.O. 1998, c. 15, Sched. C
 - Except for section 4

7. GLOSSARY OF TERMS

ABCs	Agencies, Boards and Commissions
BPS	Broader Public Sector
CDM	Conservation and Demand Management
CHP	Combined Heat and Power
CNSC	Canadian Nuclear Safety Commission
ECPA	Energy Consumer Protection Act, 2010
FIT	Feed-in Tariff
GEGEA	Green Energy and Green Economy Act, 2009
GHG	Greenhouse Gas
IESO	Independent Electricity System Operator
IO	Infrastructure Ontario
kW	Kilowatt
kWh	Kilowatt Hours
LDC	Local Distribution Company
LRP	Large Renewable Procurement
LTEP	Long-Term Energy Plan
MEP	Municipal Energy Plan
Mt	Megatonnes
MW	Megawatts
NOEC	Northern Ontario Energy Credit
OCEB	Ontario Clean Energy Benefit
OEB	Ontario Energy Board
OPA	Ontario Power Authority
OPG	Ontario Power Generation
RFP	Request for Proposals
RFQ	Request for Qualifications
SGF	Smart Grid Fund
TOU	Time-of-Use
TWh	Terawatt-hour

8. APPENDIX: ANNUAL REPORT 2013-14

2013-14 ACHIEVEMENTS

In 2013-2014, the Ministry of Energy's key achievements were:

1. The development and release of the updated Long-Term Energy Plan (LTEP)

In December 2013, the government released its updated Long-Term Energy Plan (LTEP). The LTEP was developed after the most comprehensive consultation and engagement process ever undertaken by the Ministry and reflects the input received from thousands of people across the province. Regional sessions were held in 12 communities around the province, and representatives from over 90 First Nation and Métis communities and organizations participated in 10 engagement sessions and meetings. More than 1,000 submissions and comments on the consultation document, *Making Choices*, were received primarily through the online Environmental Registry, and over 2,000 e-mails were received from the public through letter-writing campaigns. An online survey was also completed by almost 8,000 people.

In setting out the direction for Ontario's energy future, the LTEP takes into account the following five principles: cost-effectiveness, reliability, clean energy, community engagement and putting conservation first before building new generation or transmission.

The 2013 LTEP covers all aspects of Ontario's electricity system including conservation and demand response, supply options including nuclear, renewable and natural gas generation resources, clean imports, and transmission requirements. The need for innovation is considered in the LTEP, as well as activities to support the participation of First Nations and Métis communities in the electricity sector. Given the importance of oil and gas to Ontario's economy, issues related to oil and gas are also considered.

Highlights of the 2013 LTEP include:

- Lessening the need for new supply by using conservation programs and improved codes and standards to offset most growth in electricity demand over the next 20 years;
- Lowering costs for consumers;
- Aiming to use Demand Response to meet 10% of peak demand by 2025;
- Making new financing tools available to consumers starting in 2015, including on bill financing for energy efficient retrofits;
- Moving ahead with nuclear refurbishment at both Darlington and Bruce Generating Stations, beginning in 2016;

- Extending the phasing-in of wind, solar and bioenergy for three more years than estimated in the 2010 LTEP, with 10,700 MW online by 2021;
- Increasing the hydroelectric energy target of 9,000 MW to 9,300 MW by 2025;
- Developing a new competitive procurement process with the OPA for future renewable projects generally larger than 500 kW;
- Continuing to encourage First Nation and Métis participation in transmission, renewable energy generation and conservation;
- Introducing a new energy reporting process as part of Ontario's Open Government initiative, and to help identify changes in demand and plan prudently for more resources if and when they are needed; and
- Pursuing options with natural gas distributors and municipalities to expand the gas infrastructure to service more communities in rural and northern Ontario.

The LTEP was developed against a lower electricity demand scenario and was designed to be flexible and capable of responding to changes in demand. Putting conservation first before building new generation and transmission facilities mitigates upward pressure on electricity rates. In addition, Ontario will work with its agencies and local distribution companies (LDCs) to ensure more efficient operations, driving further ratepayer savings.

The Ministry of Energy began to implement the 2013 LTEP through a series of directions to the OPA on December 16, 2013. Several other activities have been started to help ensure that Ontario meets its commitments in the 2013 LTEP.

2. Review of Part II of the Energy Consumer Protection Act, 2010 (ECPA) by the Ontario Energy Board (OEB).

The *Energy Consumer Protection Act, 2010* (ECPA) and its supporting regulations came into effect on January 1, 2011 to offer enhanced protection to Ontario energy consumers. This legislation enhances protection of consumers in their dealings with energy retailers, ensuring that consumers will have the information they need to make the right decisions about energy contracts, and confidence that they are protected by fair business practices. This legislation also provides the Ontario Energy Board (OEB) with a strong legislative framework to create codes and rules to protect Ontario's electricity and natural gas consumers.

The Government is committed to ensuring that it is doing all that it can do to protect Ontario energy consumers in light of an evolving energy sector. Accordingly, in December 2013, the Minister of Energy requested that the OEB undertake a review of Part II of the ECPA and the regulations made under Part II of the ECPA and report back on any proposed recommendations to further strengthen its effectiveness.

3. Continued Delivery of the Ontario Clean Energy Benefit (OCEB)

Until the end of 2015, the ministry will continue to deliver the Ontario Clean Energy Benefit (OCEB) program to help families, small businesses, and farms manage rising electricity prices. The OCEB provides a benefit of 10% of the total cost of electricity on eligible consumers' bills, including tax, limited to the first 3,000 kilowatt hour (kWh) of electricity consumed each month until the end of 2015. Typical residential customers will receive an average annual benefit of \$180.

4. Continued Delivery of the Northern Ontario Energy Credit (NOEC)

Continuing this year was the delivery of the Northern Ontario Energy Credit (NOEC). The NOEC is a refundable tax credit for low-to middle-income individuals and families living in northern Ontario, effective for 2010 and subsequent years. The NOEC is paid monthly as part of the Ontario Trillium Benefit. The maximum annual credit for an individual is \$141 and for a family (including single parents) is \$216.

5. Investment of \$1.4B by Hydro One in improvements, replacements and expansions to its power systems

Since 2003, Hydro One has invested more than \$11 billion in its transmission and distribution systems, including upgrades more than 10,000 km of lines. In 2013 alone, Hydro One invested nearly \$1.4 billion in improvements, replacements, and expansions within its power systems. The Independent Electricity System Operator (IESO) estimates that significant transmission projects over the last ten years have increased Ontario's transmission capacity by about 10,000 MW. As an example of its continuing investments in improving supply and reliability, Hydro One is upgrading five major transformer stations, including three stations in the Toronto area.

Maintaining system reliability is the government's top electricity priority. Ontario's Independent Electricity System Operator (IESO) is responsible for maintaining reliable operation of the province's bulk power system including adherence to mandatory North American electric reliability standards.

6. Launch of round 2 of the Smart Grid Fund (SGF)

Distribution is the backbone of Ontario's electricity system. A modern and reliable distribution system is crucial for supporting Ontario's evolving generation mix, including the decommissioning of coal-fired generation by the end of 2014 and the further expansion of the clean energy portfolio. With a solid foundation set by the deployment of smart meters, the continued modernization of the distribution system with smart grid technologies will:

- Improve system operation and reliability;

- Facilitate the addition of renewable and distributed generation to the grid; and
- Allow customers to have greater control over their energy usage.

In April 2011, the ministry launched the Smart Grid Fund (SGF), a grant program that provides financial resources to help companies and organizations design, test and commercialize the next generation of smart grid solutions, further solidifying Ontario's reputation as a global hub for smart grid technology. The SGF aims to develop and advance the smart grid in Ontario in the near term, create economic development opportunities and jobs for Ontario, and reduce risk and uncertainty of important electricity sector investments.

In June 2012, the ministry announced the recipients of the first round of funding from the SGF. The ministry is investing \$14.7 million in projects across the province that will test, develop and bring to market the next generation of smart grid solutions. These projects are generating \$103 million in investment and include 602 direct and indirect jobs at over 15 companies, 12 utilities, and 4 universities. The second round of funding was launched in July 2013 and the Ministry received over 40 applications. In February-March 2014, offers of funding worth \$23.3 million were made to (and accepted by) 17 projects across the province, which will generate \$54.2 million in investments and 234 direct and indirect jobs. These projects have the support of 11 academic/research institutions and 16 utilities.

7. Commitment to support a smart grid laboratory at Ryerson University

In August 2013, the ministry announced its support in the creation of a smart grid laboratory at Ryerson University Centre for Urban Energy. This Laboratory will be a collaborative facility for research, development and testing of smart grid algorithms, products and systems for Ontario institutions. It will be used to develop strategies and solutions for effective use of Ontario's smart meter investment including solutions for LDCs to leverage smart meters for technical innovation, reliability enhancement and improved delivery service. The infrastructure would integrate energy storage systems and renewable energy sources, which will simulate similar circumstances and challenges faced in Ontario. The laboratory will also help educate and train the next generation of smart grid experts in Ontario.

8. Supporting innovation through the development of the Advanced Energy Centre (AEC)

In February 2014, the Premier announced the establishment of the Advanced Energy Centre (AEC), a partnership between MaRS, Siemens and Capgemini. The AEC, funded by the Ministry of Energy (\$5 million), with contributions from MaRS Discovery District, and corporate partners including Capgemini and Siemens, will help high-potential energy innovators commercialize in Ontario and

export their solutions globally. The process to establish the Centre began with a 2012 assessment by MaRS on the potential need for a new organization to bring Ontario stakeholders together to increase economic opportunities for the province's energy sector.

9. Integrating Energy Storage

Through the LTEP and direction to the IESO and OPA, the ministry is moving forward with its commitment to include 50 megawatt (MW) of energy storage resources into the procurement processes. The LTEP also committed to addressing regulatory barriers to energy storage's participation in Ontario's electricity market, and to commission an independent assessment of the value of storage to Ontario.

In December 2013, the Minister of Energy issued a direction to the OPA and wrote a letter to the IESO requesting that they collaborate to develop a joint procurement framework for energy storage, with a view to enable a competitive procurement as early as possible and to address existing regulatory barriers.

Following the successful completion of the joint framework the Minister authorized the agencies to proceed with the procurement.

As a result, an IESO-led Phase 1 of 2 energy storage procurement is now underway and is near completion. This competitive procurement is aiming to bring up to 35 MW of ancillary service capability from energy storage resources to the Ontario grid. Phase 2 of the procurement will be led by the OPA, looking to competitively procure the balance of the 50 MW target, aiming to fulfill longer-term needs of the Ontario electricity grid, such as system capacity and integration of renewables, with energy storage resources.

10. The last operating coal-fired facility, Thunder Bay Generating Station, burned its last supply of coal in April 2014.

Ontario fulfilled its commitment to end coal-fired generation in advance of its target of the end of 2014. In April 2014, Thunder Bay Generating Station burned its last coal and Ontario became the first jurisdiction in North America to fully eliminate the use of coal as a source of electricity generation.

With the last coal burned at Thunder Bay Generating Station, Ontario has now removed over 7,500 MW of coal fired capacity since 2003. This has reduced annual carbon dioxide emissions by up to 30 megatonnes (Mt).

Contributing to Ontario's clean and reliable electricity supply, two of Ontario's former coal generating stations, Atikokan and Thunder Bay Generating Stations, are being converted from coal to biomass and advance biomass fuel, respectively.

OPG has converted the Atikokan Generating Station to run on biomass. The conversion at Atikokan has created approximately 200 construction jobs and is helping protect existing jobs at the plant. It will generate 150 million kWh of renewable power, enough to power more than 15,000 homes each year.

The government plans to convert one of the units at Thunder Bay Generating Station to advanced biomass starting in 2014. The facility is expected to be operational in 2015 and will be in service for five years. Once converted, the plant is expected to provide 150 MW of generation capacity.

Ontario's phasing out coal-fired electricity, achieved in April 2014, remains the single largest climate change initiative in North America.

11. New procurement windows were opened in Summer/Fall 2013 for the Feed-in Tariff (FIT) and microFIT programs. Starting in 2014, annual procurement targets for the next four years are set at 150 MW and 50 MW for FIT and microFIT, respectively.

In October 2009, the province launched the largest, most comprehensive clean energy initiative of its kind in North America. The Feed-in Tariff (FIT) program, which is enabled by the GEGEA, continues to spark the development of renewable energy projects through the OPA offering guaranteed prices to developers of wind, water, solar, and bioenergy sourced power.

The FIT program delivers significant benefits to project developers – including communities, Aboriginal communities, municipalities and public sector entities who are leading or partnering on projects - as well as equipment suppliers and installers, consumers and the overall provincial economy. By encouraging further investment in generation, transmission and distribution, even more renewable energy sources are being incorporated into Ontario's electricity system and supply mix.

Following the FIT Two-Year Review in 2011-2012, the FIT 2 application window (for 200 MW) opened on December 14, 2012, and closed on January 18, 2013. On July 3, 2013, the OPA announced that 951 new FIT contracts would be offered, representing a total of 146.5 MW of power.

Subsequently, the FIT 3 application window was opened from November 4 to December 13, 2013 during which time the OPA received 1,982 applications representing a total of 493.71 MW.

Successful applicants for the FIT 3 procurement window are expected to be announced in the third quarter of 2014. The OPA will award up to 123.5 MW worth of contracts as a result of applications received during this application period.

As of June 19, 2014, more than 19,000 microFIT projects representing more than 160 MW of generation capacity have been connected to the grid. Starting on January 1, 2014, the OPA continued microFIT procurement with a 2014 target of 65.3 MW.

Ontario is further renewing its commitment to small renewable energy projects by making 900 MW of new capacity available, between 2013 and 2018, for the FIT and microFIT programs. Starting in 2014, annual procurement targets have been set at 150 MW for FIT and 50 MW for microFIT for the next four years. These measures are expected to create 6,400 jobs and produce enough electricity each year for more than 125,000 homes.

12. Development of a new competitive procurement process for large renewable energy projects.

In June 2013, the Minister directed the OPA to end procurement of large renewable energy projects under FIT program and commence the development of a new competitive procurement process that will take into account local needs and considerations before contracts are offered. This process will replace the large project stream of the FIT program, and will engage municipalities from the beginning to identify appropriate locations and siting requirements for future large renewable energy projects.

Following community and stakeholder engagement activities from December 2013 to February 2014, the OPA submitted its “Development of a New Large Renewable Procurement Process; Final Recommendations Report” on February 28, 2014. The LRP program will include an initial Request for Qualifications (RFQ) process to qualify applicants, followed by a Request for Proposals (RFP) process to evaluate projects proposed by the qualified applicants. The RFQ process will include robust qualification criteria that contain a requirement to demonstrate previous project development experience. After developers are qualified at the RFQ stage they will be required to meet specific community engagement criteria before a contract is awarded.

13. Development of a new integrated regional energy planning process

Regional electricity planning has been conducted in Ontario for many years, both by transmitters and, since 2005, by the OPA. The focus of regional planning is on maintaining adequate and reliable supply to meet a region's needs.

The siting of large energy infrastructure is also a matter of importance for Ontarians, and consequently for generators, transmitters and planners.

The OEB initiated a process to formalize regional electricity infrastructure planning. Given the integrated nature of electricity planning, this entailed dovetailing the OPA's existing regional planning work with the transmitters' planning processes.

May 2013, the government asked the IESO and the OPA to recommend a new integrated regional energy planning process that would improve how large infrastructure projects are sited and would propose how to involve municipalities, Aboriginal communities and other stakeholders in developing regional energy plans.

On October 8, 2013 the Ministry of Energy announced that Ontario is improving the siting of large energy infrastructure projects by implementing the 18 recommendations in the IESO and OPA's report called *Engaging Local Communities in Ontario's Electricity Planning Continuum*. The report's recommendations are grouped into four main themes:

- Bringing Communities to the Table – Municipal governments, First Nation and Métis communities and stakeholders want to be engaged early and often. Local communities would like a formal seat at the table;
- Linking Local and Provincial Planning – Local governments identified need for capability building and resources to better consider energy needs in local plans. As municipalities plan to meet water, waste and growth needs they should likewise be required to plan for electricity needs;
- Reinforcing the Planning/Siting Continuum – Many municipalities, First Nation and Métis communities and stakeholders do not have resources to engage in all stages of planning so links between planning outcomes and procurement/siting need to be reinforced at the outset of each procurement; and
- Enhancing Electricity Awareness and Improving Access to Information – There is a strong desire to better understand electricity planning and siting processes so that municipalities, First Nation and Métis communities and stakeholders and the general public can become involved early on and effectively participate in decision-making.

Ontario and its energy agencies are making steady progress on implementing the recommendations while continuing to move forward with current regional electricity planning activities.

14. Development of the new Conservation First Framework

Ontario's 2013 LTEP is putting conservation first. Conservation is the cleanest and most cost-effective energy resource and it offers consumers a way to reduce their energy bills.

As we plan Ontario's electricity needs for the next 20 years, conservation will be considered before building new generation and transmission facilities and will be the preferred choice wherever cost-effective.

Through programs and improved codes and standards, Ontario expects to offset most of the growth in electricity demand to 2032, which will lessen the need for new supply. Our long-term conservation target of 30 terawatt hours (TWh) in 2032 represents a 16% reduction in forecast gross demand for electricity – equivalent to more than all the power used by the City of Toronto in 2012. Ontario is also aiming to use demand response to meet 10% of peak demand by 2025.

Promoting conservation and energy efficiency is key to ensuring both adequate energy supply and price competitiveness into the future. The government will continue to invest in conservation and build momentum at the right pace. Conservation and energy efficiency will play an important role in meeting Ontario's electricity demand in the future and needs to be responsive to Ontario's changing supply needs.

Ontario's new six-year Conservation First Framework will begin in January 2015 to replace the one that is currently winding down. Under the new Framework LDCs will remain the face of conservation to their customers and will be provided with the funding and certainty they need to deliver conservation programs to their customers.

The Conservation First Framework was developed with input from members of the public, LDCs, municipalities, Aboriginal partners, environmental groups, business associations, and other stakeholders.

The consultation and engagement process identified four themes to inform the new Conservation First Framework, including the need for:

- Greater LDC autonomy over the design and delivery of conservation programs;
- A long-term commitment to conservation to enable effective planning and investment;
- A flexible framework that can reflect changing needs, including regional needs; and
- Streamlined conservation programming to eliminate delays.

Many responses asked that the Government issue a directive to the OEB to ensure electricity and natural gas utilities put conservation first in their planning processes, and that conservation was made a core function of their respective businesses.

In order to put conservation first and to give LDCs a strong role in conservation, separate directives to the OEB and the OPA were issued to implement the Conservation First Framework.

At the end of March, 2014, a directive was issued to the OEB that provides the regulatory context and outlines the role of the OEB in the Conservation First Framework. The directive requires the OEB to require LDCs to deliver conservation programs to all their customers as a condition of their license. This will ensure conservation programs are available throughout the province.

The OEB was also directed to consider and take appropriate steps to implement the policy of conservation first in electricity and natural gas distributor infrastructure planning processes at the regional and local levels.

A direction at the end of March, 2014 was also issued to the OPA that provides LDCs with long-term stable funding to deliver conservation programs to their residential and business customers over six-years to achieve a total of 7 TWh of conservation. This approach gives consumers more choice by providing LDCs with more flexibility and autonomy to design, deliver and administer programs with a streamlined approvals process through the OPA to encourage innovation in program design.

Further, the OEB was directed to consider the following objectives in developing its new natural gas demand side management policy framework (DSM Framework) to enable coordination of natural gas and electricity conservation programs under the Conservation First Framework:

- A six-year term, aligned with the Conservation First Framework;
- Natural gas utilities will be asked to achieve all cost-effective natural gas conservation to more closely align with electricity conservation efforts; and
- Natural gas utilities will coordinate programs with electricity conservation programs to achieve efficiencies and to provide customers convenient, integrated programs, including low income initiatives.

15. Development and release of the Conservation White Paper

In July 2013, the ministry released *Conservation First: A Renewed Vision for Energy Conservation in Ontario*.

Conservation First helped guide discussion over the Summer of 2013 as the province sought input from Aboriginal partners, members of the public, local utilities, municipalities, environmental groups, business associations, and other stakeholders to develop a new conservation and demand management policy framework.

The ministry received valuable feedback on how to improve and enhance the delivery of conservation in Ontario – including how to ensure that LDCs have a

greater role in the new conservation framework and how to improve the tools and programs available to Ontarians.

Feedback received informed the development of the new six-year Conservation First Framework which was announced in March 2014.

16. Launch of the Green Button Initiative and the Energy Apps for Ontario Challenge

The Green Button Initiative is designed to help provide energy consumers with tools to help manage and control their energy consumption the ministry is coordinating this initiative along with a MaRS led working group with membership from:

- LDCs
- OPA
- OEB
- IESO
- the Information and Privacy Commissioner's Office

This initiative has reached an important milestone in early 2014, with 60% of the province's electricity customers now able to access their electricity consumption data in Green Button format. Through the next phase of the initiative, Connect My Data, customers will soon be able to securely share their data with third party applications designed to promote conservation and energy efficiency, among other benefits. To help build the software applications needed for consumers, the ministry supported the *Energy Apps for Ontario Challenge*, which provided \$50,000 in awards to developers to build the next generation of energy applications. This challenge received 27 submissions, including three from outside Ontario and provided awards in six categories. As part of the next steps, the ministry is supporting two Green Button Connect My Data pilot projects with London Hydro and Hydro One.

17. Launch of the Municipal Energy Plan Program (MEP)

In August 2013, the ministry launched the Municipal Energy Plan (MEP) Program. The MEP program is designed to help municipalities better understand their local energy needs and conservation opportunities, set goals and develop implementation plans. Participation is optional and will complement the LTEP and regional energy plans by focusing on unique community needs and goals.

The programs will help municipalities develop energy plans that focus on increasing conservation and help identify the best energy infrastructure options for a community. Energy plans help municipalities:

- Assess their energy use and greenhouse gas (GHG) emissions;

- Identify opportunities to conserve, improve energy efficiency and reduce GHG emissions;
- Consider impact of future growth and options for local clean energy generation; and
- Support economic development by better meeting local energy needs.

Engaging municipalities is part of the new Ontario government's plan to build strong communities, powered by clean, reliable and affordable energy.

18. First reporting deadline under the Energy Conservation and Demand Management Plans Regulation

A key conservation initiative that will assist Ontario in achieving its conservation goals is the energy reporting and conservation plan regulation (O. Reg. 397/11 (Energy Conservation and Demand Management Plans)) developed under the *Green Energy Act, 2009*. O. Reg. 397/11 became effective on January 1, 2012.

The regulation requires certain broader public sector (BPS sector) organizations, including hospitals, municipalities, universities, colleges, school boards and municipal service boards responsible for water and sewage treatment and pumping operations to:

- Report on their annual energy use and greenhouse gas (GHG) emissions in designated buildings/facilities by July 1 beginning in 2013; and
- Develop and implement 5-year energy conservation and demand management plans (CDM) plans by July 1, 2014.

Requiring BPS organizations to report their energy use and develop conservation plans:

- Raises the profile of energy conservation within BPS organizations;
- Helps identify energy savings opportunities to manage energy costs, which can free up funding for core activities; and
- Assists Ontario in achieving its Long-Term Energy Plan conservation target of 30 TWh in 2032.

The Ministry provided significant support to assist BPS organizations in meeting the reporting requirements. Resources included on-line guidelines and instructional videos, sector webinars and a customer service email account.

95% of all BPS organizations reported to the ministry by July 23, 2013. As part of *Open Government*, the 2011 BPS data was posted publically on *Open Data*. It will provide a resource for research and potential economic activity.

The Ministry retained a consultant to review and benchmark the 2011 data received from BPS organizations. This will allow organizations to compare the performance of their operations against operations in other sectors and help inform their 5-year Conservation and Demand Management (CDM) plans required on July 1, 2014.

19. Partnership with Ontario EcoSchools to bring more energy conservation into the classroom.

In September 2013, the ministry announced that it will be working with Ontario EcoSchools to bring more information about energy conservation into the curriculum for students and teachers (Public, Catholic, French-language) through the Energy Conservation Education (ECE) Teacher Professional Development Program.

The Program focuses on providing teachers with the knowledge and resources to increase energy conservation education through professional development sessions. Teachers are agents of change within the school community and teacher professional development is a key method for schools to build the capacity to implement teaching and learning strategies for energy conservation. By targeting teacher capacity, this project fills the void for quality professional development focused on energy conservation in Ontario.

Ontario EcoSchools uses the local school as an energy education resource, encouraging students to reduce energy use in the classroom and providing them with skills they can take back home.

Table 3: Ministry Interim Actual Expenditures 2013-14

	Ministry Interim Actual Expenditures (\$M) 2013-14 *
Operating	1,316.4
Capital	23.5
Staff Strength ** (as of March 31, 2014)	204

* Interim actuals reflect the numbers presented in the 2014 Ontario Budget.

** Ontario Public Service Full-Time Equivalent positions.