
Estimates Briefing Book 2017-18

Ministry of Energy

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Part I: Published Plan 2017-18

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PART I: 2017-18 PUBLISHED PLAN

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PART I: 2017-18 PUBLISHED PLAN

1. MINISTRY OVERVIEW

1.1. Mandate

The Ministry of Energy is responsible for setting the legislative and policy framework to assure a safe, 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) and the Independent Electricity System Operator (IESO), and represents the provincial government as the shareholder in dealings with Ontario Power Generation (OPG). The Ministry also represents the Province as a shareholder of Hydro One, managing its investments in, and the governance relationship with, this publicly traded company.

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

The 2016 Premier's mandate letters set out priorities for the Minister of Energy that include:

- Taking further action to mitigate the impact of electricity prices on consumers and businesses;
- Developing the Province's next Long-Term Energy Plan;
- Promoting energy conservation and the adoption of renewable energy;
- Supporting the growth of the low-carbon economy and reduction in greenhouse gas pollution;
- Engaging with Indigenous partners in energy planning decisions and supporting economic development and reconciliation; and
- Driving efficiencies and maximizing return on investment from the electricity sector.

1.2. Ministry Contribution to Priority Outcomes

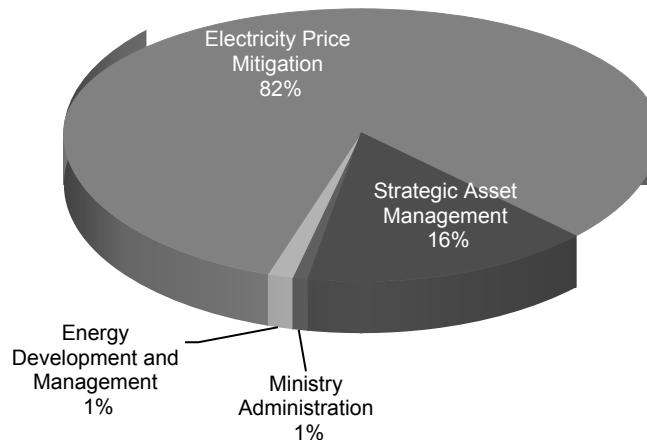
The Ministry plays a critical role in supporting the government's long-term priorities of economic prosperity, environmental stewardship and sustainable communities.

	Economic Prosperity	Environmental Stewardship	Sustainable Communities
Priorities and Results	- Competitive business environment - Clean economy and jobs - Reliable and affordable energy supply - Innovative approaches to support Indigenous participation - Raise funds for infrastructure investments	- Climate protection - Cleaner air - Preservation of natural resources	- Strong, vibrant, healthy and prosperous communities for generations to come - High standard of living for Ontarians - Reduce the reliance on diesel in remote First Nation communities
Strategies	- Ensure an affordable and sustainable energy system - Increase energy efficiency - Protect and empower consumers - Invest in energy infrastructure and initiatives to increase system reliability and economic output, maximize job creation, and spur economic development - Support opportunities to export Ontario's energy expertise - Address barriers to Indigenous participation in the energy sector - Maximize value of government assets	- Put conservation first before building new generation and transmission facilities, where cost-effective - Continue to transition to a modern and reliable energy system by upgrading transmission and distribution systems - Support the use of renewable sources in the supply mix for a diverse and balanced mix of clean energy sources - Support initiatives under the government's Climate Change Action Plan	- Revitalize energy infrastructure - Empower communities to participate in clean energy projects - Empower communities to participate in regional electricity planning activities - Empower communities to participate in local electricity planning activities through the Municipal Energy Plan Program
Key Initiatives	- Ontario's Fair Hydro Plan introduces new measures to lower electricity bills by 25 percent on average for all residential customers through: - The 8 percent rebate provided through the Ontario Rebate for Electricity Consumers Act - Refinancing a portion of Global Adjustment over a longer time period - Expanding the Ontario Electricity Support Program to increase participation - Establishing an Affordability Fund to provide energy efficiency measures to Ontarians who do not qualify for existing low-income conservation programs and who are otherwise unable to make energy efficiency upgrades without financial assistance. - Broadening Rural or Remote Rate Protection to provide distribution charge relief - Establishing a First Nations On-Reserve Delivery Credit to eliminate delivery charges for all on-reserve First Nations residential customers - Expanding the Industrial Conservation Initiative program to include smaller manufacturers and greenhouses - Energy efficiency and conservation - Renewable energy procurement through the Feed-in Tariff program - Updated net metering program - Regional electricity planning - Nuclear refurbishment - Develop innovative solutions to reduce reliance on diesel in the four remote First Nation communities not economic to connect to the grid - Remote First Nation community connection for up to 21 communities - Discussions with interconnected jurisdictions for potential import agreements - Continue to protect Ontario's interests in pipeline development - Aboriginal Community Energy Plan Program - Conservation and energy efficiency for Indigenous consumers - Broadened financing options for Indigenous partners - Constance Lake First Nations Agreement - Broadening the ownership of Hydro One		
Success Measures	- Lower electricity bills by 25 percent on average for all residential customers through the Ontario Fair Hydro Plan. - Achieve the following energy savings targets:		

	○ 30 terawatt-hours (TWh) of electricity savings in 2032 through electricity conservation programs and improved codes and standards ○ 7 TWh of electricity savings in 2020 through the 2015-2020 Conservation First Framework ○ Over 22 billion cubic metres of lifetime natural gas savings through the natural gas Demand Side Management Framework between 2015 and 2020. ● Increased utility collaboration in the delivery of conservation programs for customer convenience. ● Reduction in the amount of greenhouse gas emissions in the atmosphere ● Reduction on the volume of diesel consumed in remote First Nation communities ● Continued participation and engagement in energy planning, programs and projects by First Nation and Métis communities
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1.4. Ministry Programs

Ministry Operating Expense by Vote, excluding Consolidations



Below is a detailed description of Ministry programs:

Ministry Administration works to achieve ministry and government objectives by providing executive direction, strategic advice and vital corporate services, including communications, strategic human resources, French Language Services, information technology, legal services, Freedom of Information and Protection of Privacy activities, accommodations and facilities management, emergency management, continuity of operations planning, controllership and accounting, and strategic and resource planning and allocation activities.

Energy Development and Management is responsible for developing Ontario's energy policy framework, central to the building of a strong and prosperous economy. The program supports and oversees:

- Energy conservation and efficiency;
- Grid modernization;
- Cleaner forms of energy;
- Regulatory and business oversight of Ontario's energy sector and agencies;
- Engagement and consultation with First Nation and Métis communities; and
- Facilitation of Indigenous participation in renewable energy and transmission system developments.

Electricity Price Mitigation helps Ontarians manage electricity costs.

Strategic Asset Management supports the Province as a shareholder of Hydro One in regards to managing its investment and governance relationship.

Table 1: Ministry Planned Expenditures 2017-18 (\$M)

Operating	2,026.61
Capital	23.24
TOTAL	2,049.85

The Ministry is a policy development and implementation ministry. Below outlines the Ministry's key policy priorities:

An Affordable Energy System

Ontario's Fair Hydro Plan (OFHP) was announced on March 2, 2017 and introduced new measures to lower electricity bills by 25 percent on average for all residential customers. The proposed 25 percent on average reduction includes the 8 percent rebate (equal to the provincial portion of the HST). Implementing OFHP is subject to enacting recently passed legislation and associated regulations.

OFHP includes:

- Refinancing a portion of Global Adjustment (GA) over a longer time period. Electricity consumers that are eligible for the eight percent rebate would also be eligible for GA refinancing, including all residential consumers, farms, most small businesses, long-term care homes and condominiums.
- The **Ontario Rebate for Electricity Consumers** provides an 8 percent rebate (equal to the provincial portion of HST) for about five million residential consumers, small businesses and farms. The rebate was automatically added to every eligible consumer's bill beginning January 1, 2017.
- Eligible consumers would receive additional funding through assistance programs including:
 - Establishing an Affordability Fund to provide energy efficiency measures to Ontarians who do not qualify for low-income conservation programs, and who are otherwise unable to make energy efficiency improvements without financial assistance;
 - Broadening Rural or Remote Rate Protection (RRRP) to provide distribution charge relief for customers of the local distribution companies (LDC's) with the highest distribution charges;
 - Expanding the Ontario Electricity Support Program (OESP) to increase participation and provide further assistance to eligible participants; and

- Establishing a First Nations On-Reserve Delivery Credit to eliminate delivery charges for all on-reserve First Nations residential customers of licensed electricity utilities with a 100 percent credit of the delivery or service charge.
- Expanding the Industrial Conservation Initiative (ICI) to include smaller manufacturers and greenhouses between 500 kilowatts (kW) and 1 MW, in addition to the large consumers over 1 MW who are already eligible.
- Shifting cost recovery for RRRP and OESP from electricity bills to provincial revenues, lowering regulatory charges for everyone by approximately \$3/MWh.
- Improving sector efficiency and modernizing Ontario's electricity market, working in collaboration with the IESO and the OEB.

These measures will provide needed assistance to consumers of all sizes, and it targets support to those that need it most.

In addition to OFHP, the Ministry has a number of existing rate mitigation initiatives help consumers manage electricity costs:

Residential Consumers

- The **Ontario Energy and Property Tax Credit** provides low- to moderate-income Ontarians, including seniors, who own or rent a home, with help paying both their energy costs and property tax. Qualifying individuals can receive up to \$1,023 in tax relief annually, and seniors can receive up to \$1,165 annually.
- The **Northern Ontario Energy Credit (NOEC)** helps eligible low-to middle-income northern residents manage energy costs. For the 2017 benefit year, qualifying individuals received up to \$148 annually and families (including single parents) received up to \$227 annually.
- The **Low-Income Energy Assistance Program** offers emergency financial assistance as on-bill assistance up to \$600 annually, special customer service rules, and energy conservation programs to qualifying electricity and natural gas consumers.
- The **saveONenergy Home Assistance Program** was developed to help income-eligible consumers manage their energy costs by providing home energy efficiency assessments and energy savings measures at no cost.
- The government removed the **Debt Retirement Charge** from residential users' electricity bills as of January 1, 2016. This saves a typical residential electricity

ratepayer about \$65 per year. The *Budget Measures Act, 2015* legislated the end of debt retirement charge payments for all electricity users on electricity consumed after March 31, 2018 – nine months earlier than previously estimated.

Small Businesses

- Ontario's **Five-Point Small Business Energy Savings Plan** helps small businesses conserve energy, manage costs and save money. The plan:
 1. Promotes the use of local energy managers, who can perform assessments and help businesses, develop and carry out energy-efficiency and conservation.
 2. Markets business conservation programs, to ensure small business owners have access to the necessary information about government programs.
 3. Enhances business conservation programs to ensure simplicity of application, increased benefits and rebates, and increased contractor engagement and training.
 4. Works to make on-bill financing available, to help small business owners finance the upfront costs of significant energy conservation projects.
 5. Provides long-term stable funding for conservation initiatives through the 2015-2020 Electricity Conservation First Framework and the Natural Gas Demand Side Management (DSM) Framework.

Industrial Consumers

- The **Industrial Conservation Initiative (ICI)** allows all consumers with average peak monthly electricity demand over 1 MW, as well as manufacturers and greenhouses over 500 kW to lower their electricity costs by reducing their demand during the top five peak hours of the year. Reducing demand during peak hours benefits companies financially (current participants save about 25 percent on average on their electricity bills) and benefits the electricity system by deferring the need for new peaking generation.
- The **Northern Industrial Electricity Rate Program (NIERP)** supports continued growth and development in the northern resource and manufacturing sector. Participants in NIERP receive a rebate of two cents per kilowatt hour. On average, electricity prices can be reduced by up to 20 percent through the program.
- The **Industrial Accelerator Program** assists eligible industrial, commercial and institutional customers that are directly or indirectly connected to the IESO transmission grid to fast-track capital investment in major energy-efficiency

projects. Transmission-connected customers with distribution-connected sites can also elect to have their sites administered through this program.

- The **saveONenergy for Business** electricity conservation program offered by local distribution companies – offers distribution-connected customers financial incentives for audits, retrofits and process and systems improvements to help businesses better manage their electricity use.
- The demand response auction, available through the IESO, provides participating businesses with availability and utilization payments for reducing their electricity consumption when called upon by the IESO to do so to meet system needs.

A Reliable Energy System

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

- Supporting grid modernization and the demonstration of innovative technologies through Smart Grid Fund (SGF). SGF projects are commercializing the next generation of electricity grid solutions to improve reliability and efficiency on the distribution system.
- 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.
- A new line to Pickle Lake will serve new demand in the area north of Dryden, and is required to connect the remote First Nation communities currently reliant on diesel. A new line to Pickle Lake will also provide the capacity to serve expected growth in mining activity in the area and possibly in the Ring of Fire.
- Connecting up to 21 of 25 remote First Nation communities in northwestern Ontario, currently relying on costly and polluting diesel generation for their electricity supply, to the provincial electricity grid.
- Supporting projects to reduce reliance on diesel generation in the 4 remote First Nation communities deemed not economic to connect to the provincial electricity grid.

- Ontario is expanding access to natural gas for communities that do not currently have service, including those in rural and northern Ontario and First Nations communities.

Ontario will continue to plan and study transmission projects as changing demand and supply conditions require. Regional planning assesses needs and options based on a region's unique electricity infrastructure and community priorities.

A Clean Energy System

In 2009, the Legislature passed the *Green Energy and Green Economy Act, 2009* to encourage the development of renewable energy generation and to promote energy conservation.

Renewable energy generation is a vital component of Ontario's Climate Change Strategy and helped meet Ontario's goal to reduce the Province's greenhouse gas emissions by six percent below 1990 levels by 2014 and will play a key role in meeting the target of 37 percent reduction by 2030.

Currently, Ontario has approximately 16,200 MW of renewable energy online and approximately 2,000 MW of additional contracted renewable capacity yet to come online. Initiatives to support a clean energy system include:

- Ontario fulfilled its commitment to end coal-fired generation in advance of its target of the end of 2014. Replacing coal-fired electricity generation was the single largest climate change initiative undertaken in North America and was the equivalent of taking up to seven million cars off the road.
- Two of Ontario's former coal generating stations, Atikokan Generating Station and Thunder Bay Generating Station, were successfully converted from coal to biomass and advanced biomass fuel, respectively.
- Gas-fired plants address local and provincial reliability needs during periods of peak demand and complement Ontario's nuclear and hydro facilities, which provide baseload power, and support the integration of non-hydroelectric renewables into the electricity system.
- In May 2015, Ontario and Québec finalized a seasonal electricity capacity sharing agreement and signed a second agreement in December 2016 on electricity trade, capacity sharing and storage.
- Ontario is moving forward with plans to refurbish a significant part of the Province's nuclear fleet through the refurbishment of four units at Darlington Nuclear Generating Station and six units at Bruce Nuclear Generating Station.

- The government also approved a plan for OPG to seek the necessary regulatory approvals from the OEB and Canadian Nuclear Safety Commission (CNSC) to enable ongoing operation of the Pickering Generating Station up to 2022/2024.
- On January 1, 2017, Ontario's cap and trade program began and will limit greenhouse gas pollution and continue the province's fight against climate change. Cap and trade proceeds will be used to support programs aimed at reducing greenhouse gas (GHG) emissions and energy consumption, which will provide energy savings to households.
- The Feed-In Tariff (FIT) program has made it easier for homeowners, small businesses, farmers, not-for-profit groups, community groups, First Nation and Métis communities and large commercial developers to take part in renewable energy projects.
- The first phase of the Large Renewable Procurement (LRP I) introduced strong competition among developers of large renewable projects, helping to drive down price and secure clean, reliable generation for the Province.
- Ontario is updating its net metering program to support customer choice in generating clean, renewable energy, help reduce load on the electricity system and enable innovative technologies and customer-utility relationships.

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 Ontario plans for its energy needs for the next 20 years, conservation will be considered before building new generation and transmission facilities, where cost-effective.

Initiatives to support putting conservation first include:

- Long-term conservation target of 30 TWh in 2032; this represents a 16 percent reduction in forecasted gross demand for electricity – equivalent to more than all the power used by the City of Toronto in 2015. The target is expected to be achieved through a combination of programs and improved codes and standards.
- The 2015-2020 Conservation First Framework builds on the success of programs under the previous Framework and supports the development of new programs to meet local needs and offer more choice for consumers. Under the Conservation First Framework, LDCs remain the face of conservation to their

customers and have been provided with the funding and certainty they need to deliver conservation programs to their customers.

- Ontario's 2015-2020 DSM Framework supports the delivery of natural gas programs in the province by natural gas utilities. The Framework aligns with the Conservation First Framework and encourages coordination of electricity and natural gas conservation programs.
- The demand response auction, managed by the IESO, provides participating businesses with payments for being available to reduce their electricity consumption when called upon by the IESO to do so to meet system needs.
- Smart meters allow consumers to better participate in energy conservation and have enabled time-of-use (TOU) pricing. 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.
- Initiatives such as Green Button increasingly give customers access to their smart meter data in a variety of forms, allowing them to see their energy consumption patterns in near-real time. This enables new opportunities for conservation and energy cost management.

Broadening the Ownership of Hydro One

In April 2014, the Province asked the Premier's Advisory Council on Government Assets to review options for maximizing the value of government assets, including Hydro One, OPG and the LCBO. Following recommendations from the council, the Province moved forward with broadening the ownership of Hydro One to create lasting public benefits and ongoing public protections.

The Province completed the Hydro One IPO in November 2015. The IPO raised approximately \$1.83 billion in gross proceeds and about \$116 million from related share sales.

A secondary share offering of Hydro One was completed in April 2016, generating approximately \$2 billion in gross proceeds.

The Province completed the final offering of Hydro One common shares in May 2017, generating approximately \$2.8 billion in gross proceeds. With the completion of this transaction, the Province exceeded its objective to raise \$9 billion in gross proceeds and other revenue benefits from broadening the ownership of Hydro One. As a result, the Province does not anticipate any further offerings of Hydro One shares by the Province, other than sales for the collective benefit of Indigenous communities resulting from previously disclosed discussions.

Under the *Trillium Trust Act, 2014*, all net revenue gains associated with the sale of designated assets are to be credited to the Trillium Trust to support the Province's key infrastructure priorities, such as roads, bridges and public transit. Designated assets under the Act include the Province's shares in Hydro One.

The Province continues to hold approximately 49.9 percent of Hydro One's common shares and remains the largest shareholder. By law, the Province is prohibited from reducing its ownership below 40 percent, and no other shareholder or group of shareholders is permitted to own more than 10 percent of the company.

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

Organization	Website
Ministry of Energy	http://www.energy.gov.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/

2. HIGHLIGHTS OF 2016-17 ACHIEVEMENTS

In 2016-17, the Ministry of Energy continued to implement commitments set out in the 2013 Long-Term Energy Plan (LTEP) and the 2016 Premier's mandate letters.

The following are highlights of achievements for 2016-17. For further information on each achievement, please refer to the Appendix: 2016-17 Annual Report.

1. Public and Indigenous engagements for LTEP 2017

- From October 2016 to January 2017, the Ministry of Energy visited 17 municipalities for stakeholder and public sessions.
- There were also 17 Indigenous engagement sessions held across the province, with representatives from close to 80 Indigenous communities and organizations in attendance.
- Over 3,500 LTEP submissions received through various online channels.
- The LTEP engagement process was supported by an electricity technical report prepared by the IESO and a fuels sector technical report prepared by Navigant Consulting.

2. Electricity Rate Mitigation

- As of January 1, 2017, the following measures to reduce consumers' electricity bills took effect:
 - The introduction of the Ontario Rebate for Electricity Consumers Act, which provides an 8 percent rebate (equal to the provincial portion of HST) for about five million residential consumers, small businesses and farms;;
 - Expanded rate support for rural ratepayers; and
 - Expanding ICI to allow greater eligibility to businesses.

3. Ontario's Fair Hydro Plan (OFHP)

- In March 2017, the Province announced the OFHP that proposes new measures to lower electricity bills by 25 percent on average for residential consumers and hold increases to the rate of inflation for four years, as well as initiatives to reduce costs for businesses. The plan includes the eight percent rebate introduced in January 2017 and builds on previously announced initiatives to deliver broad-based rate relief on all electricity bills. Implementing OFHP is subject to enacting pending legislation and associated regulations.

4. Implementation of the OESP

- The OESP became available as of January 1, 2016, and provides an ongoing rate reduction directly on the electricity bills of low-income households who have applied and meet the eligibility requirements. Qualifying low-income Ontarians receive a monthly credit of \$30 to \$50.
- As of May 1, 2017, OESP credit amounts increased by 50 percent and additional eligibility criteria were added to benefit more low-income consumers in Ontario. Single low income consumers eligible for the lowest credit amount will receive \$45 per month, an increase from the current \$30, or an increase of \$180 per year.
- There is also an enhanced credit for customers with unique electricity requirements, including electric heating, certain medical devices that use a lot of electricity or Indigenous customers.
- As of March 2017, the OEB has received more than 293,000 OESP applications and enrolled almost 188,000 Ontarians in the program. Those numbers continue to grow. As of April 1, 2017 13,736 Indigenous households have applied.

5. Expansion of ICI

- ICI lowers electricity costs for eligible electricity consumers that reduce consumption during the five highest peak periods of the year. ICI participants can reduce their electricity rates by up to one third.
- To give more businesses the opportunity to participate in ICI, the threshold was lowered from 3 MW to 1 MW, and sector restrictions were removed so that more consumers can benefit. Newly eligible consumers that opt-in to ICI will see the impact beginning in July 2017.
- As part of OFHP, ICI has also expanded to include smaller manufacturers and greenhouses with average peak demand greater than 500 kW and less than 1 MW. The expansion to 500 kW is effective July 2017.

6. Continued delivery of NOEC

- NOEC, a refundable tax credit for low to middle-income individuals delivered as part of the Ontario Trillium Benefit, helps northern Ontario residents with the higher energy costs they face living in the North. For the 2017 benefit year, qualifying individuals receive up to \$148 and families (including single parent) receive up to \$227 annually.

7. Broadening the ownership of Hydro One

- The Province completed the Hydro One Ltd. IPO in November 2015 and raised approximately \$1.83 billion in gross proceeds and about \$116 million from related share sales.

- A secondary offering of Hydro One shares was completed in April 2016, generating approximately \$2 billion in gross proceeds.
- In May 2017, the Province completed the final offering of common shares, generating approximately \$2.8 billion in gross proceeds.
- The Province continues to hold approximately 49.9 percent of Hydro One's common shares and remains the largest shareholder. By law, the Province is prohibited from reducing its ownership below 40 percent, and no other shareholder or group of shareholders is permitted to own more than 10 percent of the company.

8. Passed legislation to enshrine long term energy planning process

- On July 1, 2016, the *Energy Statute Law Amendment Act, 2015* came into force. It enshrines in legislation a long term energy planning framework that is transparent, efficient, and responsive to changing technology, policy and program needs.
- The legislation also empowers the IESO to undertake competitive selection or procurement of transmission when appropriate, and this competitive approach will ensure ratepayers get the best value from infrastructure investments.

9. Launch of Natural Gas Grant Program

- On January 30, 2017, the government announced the new Natural Gas Grant Program at the 2017 Rural Ontario Municipal Association conference. The program was launched on April 21, 2017, and is accepting applications for grants until July 31, 2017.
- The Natural Gas Grant Program, a \$100 million initiative, part of the Province's Moving Ontario Forward plan, will be led by the Ministry of Infrastructure, with support from the Ministry of Energy and the Ministry of Agriculture, Food and Rural Affairs. The Grant Program will help facilitate the expansion of natural gas service into areas of the province which currently do not have access to natural gas.

10. Launch of SGF Round 3 Projects

- In October 2015, the Ministry launched a new call for applications to support advanced energy technology functions. Those contracts have been finalized; project and program announcements are expected for 2017-2018. To date, SGF supports 26 innovative projects, resulting in close to \$170 million in total electricity sector investment. These projects are also creating nearly 900 jobs and involve 22 utility partners.

11. Continued commitment to improve energy literacy

- For 2015-16, the emPOWERme site (landing page and subpages and files) received 24,129 unique page views, a 135 percent increase over the previous year (10,249 unique page views in 2014-2015).
- Total unique page views for the site as of 2013 are 65,261.

12. Continued partnership with Ontario EcoSchools to enhance energy conservation knowledge and actions by the Province's students and teachers

- In November 2015, the Ministry entered into a funding agreement with Ontario EcoSchools to provide approximately \$1.35 million over three years. The funding will be provided to support initiatives and activities to enhance energy conservation and climate change knowledge and awareness in schools.
- The first year under this agreement was successfully completed with 1,720 schools from 55 school boards being certified as EcoSchools. More than 800,000 students across the province are engaged in the program.

13. Continued quarterly release of the Ontario Energy Report

- In December 2014, the Ministry partnered with IESO to launch OntarioEnergyReport.ca, a website providing content from across Ontario's energy sector all in one place. The website also hosts quarterly reports on electricity, and oil and natural gas data.

14. Supporting Indigenous partners in economic development opportunities and reconciliation

- First Nation and Métis communities and groups are participating in more than 550 different wind, solar and hydroelectric projects across the province, representing over 1,800 MW of clean energy capacity.
- In July 2016, Ontario announced an agreement-in-principle to sell to First Nations up to 15 million shares of Hydro One for their collective benefit.
- Moving forward with legislation that, if passed, will automatically remove the delivery charge from the bills of all on-reserve First Nation residential customers of licensed electricity utilities.

15. Continued procurement of small renewable energy project generation capacity under the FIT and microFIT programs

- On June 29, 2016, the IESO announced 936 FIT 4 contract offers representing 241.43 MW of generation capacity.

- FIT 5 has a target of up to 150 MW. The FIT 5 application window was open from November 7, 2016 to November 25, 2016.
- On December 19, 2016, the IESO released a summary of the FIT 5 applications: 1,127 applications were received, representing a total of 397 MW.
- On April 24, 2017, the IESO announced that a total of 698 FIT 5 applications representing 248 MW had passed the completeness and eligibility review. More than 73 percent of complete and eligible applications are for projects with Indigenous, community, municipal or public sector participation, or for projects with Indigenous, municipal or public sector hosts. Successful applicants are expected to be announced in Q3 of 2017.
- microFIT has a procurement target of up to 50 MW in 2017. As of January 4, 2017 the IESO began accepting applications under version 4.1 of the microFIT program.
- The IESO will cease accepting applications under the microFIT program by December 31, 2017.

16. Evolving microFIT to a Net Metering Program

- In February 2017, Ontario posted an amended *Net Metering Regulation* (O.Reg. 541/05) to e-Laws. The amended regulation helps to meet the 2013 LTEP commitment to transition the microFIT program from a generation purchasing program to a net metering program and support initiatives under the government's 2016-2020 Climate Change Action Plan.
- The program updates include clarification of the 12 month carryover period for bill credits, removal of the 500 kW project capacity size limit and enables pairing of energy storage with renewable energy systems. The amendments will come into force July 1, 2017.
- The Ministry has also engaged with stakeholders and Indigenous groups on additional potential future program updates related to third-party ownership of net metering facilities and inclusion of virtual net metering models in Ontario's net metering program.

17. Suspension of LRP Program

- At present, Ontario has approximately 18,200 MW of wind, solar, bioenergy and hydroelectricity capacity online or under development. As confirmed by the IESO in the Ontario Planning Outlook, Ontario has a strong supply of reliable power for the foreseeable future and remains well-positioned to meet provincial electricity needs until the mid-2020s.
- Given this strong supply situation, in September 2016, the government announced the suspension of the second round of the LRP II and the Energy-from-Waste Standard Offer Program.
- This decision is expected to save up to \$3.8 billion in electricity system costs.

18. Meeting LTEP 2013 conservation commitments

- Through 2016-17, distributors continued to deliver new and enhanced electricity and natural gas conservation programs to their customers. Programs are available for all customer sectors (residential, commercial and industrial).
- In December 2016, the IESO published final 2015 electricity conservation results. About 1,243 GWh of electricity savings were achieved in 2015 through the Conservation First Framework and the Industrial Accelerator Program, which is equivalent to the electricity consumed by about 1,600 homes in a year. Natural gas conservation results for 2015 are expected to be published in summer 2017.
- Electricity conservation targets were considered first when developing the net demand forecast for all regional electricity scoping assessments and Integrated Regional Resource Plans in 2016-2017, as part of the Regional Planning Process.
- In December 2016, the IESO held its second demand response auction. About 455 MW were procured for the summer commitment period (May 2017 to October 2017) and about 478 MW for the winter commitment period (November 2017 to April 2018).

19. Continued commitment to show leadership in setting/adopting new and enhanced energy efficiency standards for products and appliances.

- Since 2013, Ontario has enhanced energy efficiency standards for over 60 products including setting standards for 30 new products. Ontario regulates more products than any other provincial jurisdiction in Canada including the federal government and has the most stringent efficiency standards for a number of products.
- On January 1, 2017, an amendment to Ontario's energy efficiency regulation including new and updated efficiency standards for 14 products became effective. The amendment also included new water efficiency standards for five existing products consuming both energy and water.

20. Commitment to greenhouse gas reduction through the new Green Investment Fund

- Ontario's Green Investment Fund is a \$325-million down payment on the Province's cap and trade program to strengthen the economy, create jobs and reduce greenhouse gas emissions.
- The Fund includes a \$100 million investment to enhance the Enbridge Gas Distribution and Union Gas programs across Ontario including homes heated with natural gas, oil, propane and wood. These programs help homeowners conduct audits to identify energy-saving opportunities and then complete retrofits, such as replacing furnaces, water heaters and upgrading insulation.

- In addition, two projects are underway using the SGF framework to support microgrids in remote First Nations communities to replace the use of diesel fuel with alternatives.

21. Continuing to encourage municipalities and Indigenous communities to develop their own community-level energy plans

- Since the launch of the Municipal Energy Program (MEP) in 2013, 20 applications have been approved for funding, covering 33 municipalities. Approximately \$281,000 in program funding was provided in 2016-17.
- Under the IESO-administered Aboriginal Community Energy Plan (ACEP) program, 89 First Nation communities are participating in the program.

22. Another successful reporting year under O Reg. 397/11 (*Energy Conservation and Demand Management Plans*)

- For 2016, 98 percent of all Broader Public Service organizations reported their annual energy consumption and greenhouse gas (GHG) emissions to the Ministry.

23. Helping develop a Canadian Energy Strategy (CES)

- The CES was adopted by Canada's Premiers in July 2015. Four committees were formed to identify initiatives of mutual interest to be implemented to enable further co-operation between jurisdictions.
- In July 2016, Premiers committed to continue collaborative work in priority areas, and welcomed participation of the federal government in certain areas of CES work. A progress report was delivered to the fall 2016 First Ministers' meeting.

24. Driving efficiencies and maximizing return-on-investment from electricity sector

- Ontario and Québec signed an agreement-in-principle in October 2016 to reduce GHG emissions and ensure electricity system reliability and affordability for mutual benefit.
- The IESO and Hydro Québec Energy Marketing have agreed on terms for an electricity trade agreement for trading energy, capacity and storage until 2023.
- The finalized agreement is expected to reduce Ontario's electricity system costs by about \$70 million over the course of the agreement and reduce electricity sector GHG emissions by approximately 1 million tonnes per year.

25. Nuclear continues to be the backbone of Ontario's supply

- OPG began the refurbishment of Unit 2 at Darlington Nuclear Generating Station on October 15, 2016.
- In April 2017, OPG achieved a major milestone when it successfully completed the first of four major segments of Unit 2 refurbishment work by defueling and safely separating the unit from the rest of the operating units, on time and on budget.
- Overall Darlington refurbishment remains on track to be complete within approved budget and schedule.

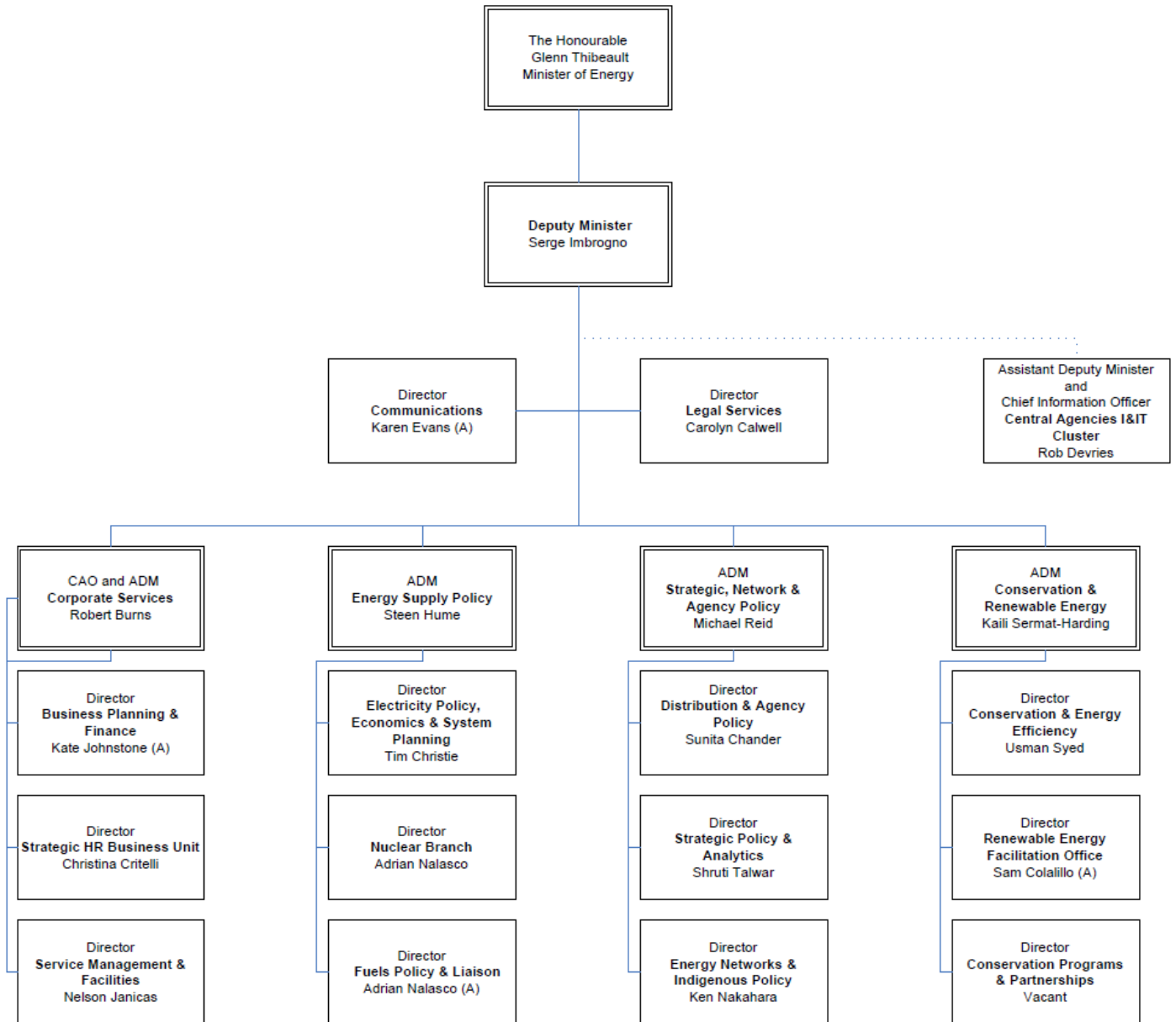
26. Continue to protect Ontario's interests in pipeline development

- Ontario adopted six principles it will use to review large scale pipeline projects to ensure they meet the highest environmental and safety standards as well as benefit Ontario's economy.
- Also, the Province has been proactive in its approach to the Energy East pipeline project and will participate in the National Energy Board (NEB) regulatory review.
- The OEB report on Energy East, released in August 2015, will inform Ontario's participation in the NEB regulatory proceeding, and provides advice on ensuring balance between the economic and environmental risks of the project and the expected benefits for Ontarians.
- The OEB's revised *Environmental Guidelines for the Location, Construction and Operation of Hydrocarbon Pipelines and Facilities in Ontario* were released in August 2016. Under these new guidelines, the Ministry of Energy coordinates the Crown's Duty to Consult obligations for intra-provincial pipelines.

27. Ontario amongst cyber-security leaders in North America

- The IESO is amongst North American leaders in bulk electric system (BES) cyber security practices; it is the vice-chair of the Canadian Electricity Association's Security and Infrastructure Committee, as well as one of three Canadian representatives on the North American Reliability Corporation's (NERC) Critical Infrastructure Protection Committee (CIPC).
- CIPC was formed to help advance physical and cyber security of the critical electricity infrastructure in North America. It plays a vital role in the maintenance of the Critical Infrastructure Protection (CIP) standards regime, a binding set of rules applying to all North American entities deemed as critical to the reliability of the BES.

3. MINISTRY ORGANIZATION CHART



As of April 1, 2017

4. AGENCIES, BOARDS AND COMMISSIONS (ABCs)

4.1. Ontario Energy Board (OEB)

The OEB, a quasi-judicial adjudicative and regulatory tribunal 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 OEB's annual operating expenses are consolidated onto the Ministry's financial records. Its 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)* of *the Ontario Energy Board Act, 1998*.

Ontario Energy Board (OEB)	Estimates 2017-18	Estimates 2016-17	Difference Between 2017- 18 and 2016- 17	Actuals 2015-16
Operating Expense	44,514,000	37,002,000	7,512,000	33,397,018
Capital Expense	1,223,800	941,000	282,800	795,000
Total OEB Consolidation Adjustments	45,737,800	37,943,000	7,794,800	34,192,018

4.2. Independent Electricity System Operator (IESO)

On January 1, 2015, IESO and the Ontario Power Authority merged into one entity. The IESO delivers key services across the electricity sector including: managing real-time operations of Ontario's power system the grid, planning for the Province's future energy needs, enabling conservation and designing a more efficient electricity marketplace to support sector evolution. The IESO's mandate is embodied in the *Electricity Act, 1998*.

The IESO's expenses are consolidated onto the Ministry's financial records. Its annual operating costs are recovered from annual usage fees set by the OEB for domestic and export market participants.

Independent Electricity System Operator (IESO)	Estimates 2017-18	Estimates 2016-17	Difference Between 2017-18 and 2016-17	Actuals 2015-16
Operating Expense	196,347,800	195,456,600	891,200	187,456,994
Capital Expense	22,013,900	21,039,800	974,100	21,971,600
Total IESO Consolidation Adjustments	218,361,700	216,496,400	1,865,300	209,428,594

4.3. Ontario Power Generation (OPG)

OPG, the largest electricity generator in the province, generates about half of the electricity produced in Ontario. The company owns and operates approximately 16,000 MW of in-service generation capacity. OPG's diverse generation fleet is over 99 percent free of smog and greenhouse gas emissions. OPG owns and operates the following generating assets:

- 2 nuclear stations;
- 65 hydroelectric stations on 24 river systems;
- 2 biomass stations;
- 1 thermal station; and
- 1 wind turbine.

OPG is owner of two other nuclear stations, which are leased to Bruce Power L.P. It also co-owns but does not operate the Portlands Energy Centre in Toronto and the Brighton Beach gas-fired generating station in Windsor.

The company is funded by ratepayers through rates set by the OEB for its prescribed assets, as well as through market prices and the global adjustment for certain generation assets under contract.

The Government of Ontario, through the Minister of Energy, is the sole shareholder of OPG. As a government-owned business enterprise, OPG contributed \$463 million in net income to the Province in 2015-16. This includes earnings from its nuclear funds which are also consolidated as revenue on the public accounts.

Through its Business Transformation Initiative, OPG has saved over \$1 billion in costs and reduced its employment footprint by 2,800 employees from 2011 to 2016.

5. DETAILED FINANCIAL INFORMATION

The following table summarizes the Ministry of Energy's combined operating and capital budgets by program (or Vote) for 2016-17. The Ministry has four programs:

- Ministry Administration
- Energy Development and Management
- Electricity Price Mitigation
- Strategic Asset Management

Table 2: Combined Operating and Capital Summary by Vote

Votes/Programs	Estimates 2017-18	Change from Estimates 2016-17	%	Estimates 2016-17 *	Interim Actuals 2016-17 *	Actuals 2015-16 *
	\$	\$		\$	\$	\$
OPERATING EXPENSE						
Ministry Administration Program	15,075,200	(24,700)	(0.2)	15,099,900	16,184,900	14,992,036
Energy Development and Management	24,459,500	(109,980,600)	(81.8)	134,440,100	262,940,100	43,476,410
Electricity Price Mitigation	1,464,000,000	1,138,000,000	349.1	326,000,000	346,800,000	886,000,000
Strategic Asset Management	280,000,000	210,000,000	300.0	70,000,000	44,624,300	44,170,257
Total Operating Expense to be Voted	1,783,534,700	1,237,994,700	226.9	545,540,000	670,549,300	988,638,703
Statutory Appropriations	65,014	-	-	65,014	65,014	61,436
Ministry Total Operating Expense	1,783,599,714	1,237,994,700	226.9	545,605,014	670,614,314	988,700,139
Consolidation Adjustments - Independent Electricity System Operator	196,347,800	891,200	0.5	195,456,600	187,449,900	187,456,994
Consolidation Adjustments - Ontario Energy Board	44,514,000	7,512,000	20.3	37,002,000	44,202,000	33,397,018
Operating Expense Adjustment - Greenhouse Gas Reduction Account Reclassification	2,150,000	2,150,000		-	-	-
Total Including Consolidation & Other Adjustments	2,026,611,514	1,248,547,900	160.5	778,063,614	902,266,214	1,209,554,151
OPERATING ASSETS						
Electricity Price Mitigation	1,100,000,000	1,100,000,000		-	-	-
Strategic Asset Management	-	-		-	-	2,600,100,100
Total Operating Assets to be Voted	1,100,000,000	1,100,000,000		-	-	2,600,100,100
Statutory Appropriations	-	-		-	-	-
Ministry Total Operating Assets	1,100,000,000	1,100,000,000		-	-	2,600,100,100

* Estimates, Interim Actuals and Actuals for prior fiscal years are re-stated to reflect any changes in ministry organization and/or program structure. Interim actuals reflect the numbers presented in the 2017 Ontario Budget.

Votes/Programs	Estimates 2017-18	Change from Estimates 2016-17	%	Estimates 2016-17 *	Interim Actuals 2016-17 *	Actuals 2015-16 *
	\$	\$		\$	\$	\$
CAPITAL EXPENSE						
Energy Development and Management	1,000	-	-	1,000	1,000	-
Total Capital Expense to be Voted	1,000	-	-	1,000	1,000	-
Statutory Appropriations	1,000	-	-	1,000	1,000	-
Ministry Total Capital Expense	2,000	-	-	2,000	2,000	-
Consolidation Adjustments - Independent Electricity System Operator	22,013,900	974,100	4.6	21,039,800	22,472,300	21,971,600
Consolidation Adjustments - Ontario Energy Board	1,223,800	282,800	30.1	941,000	780,600	795,000
Total Including Consolidation & Other Adjustments	23,239,700	1,256,900	5.7	21,982,800	23,254,900	22,766,600
CAPITAL ASSETS						
Energy Development and Management	1,000	-	-	1,000	1,000	-
Total Capital Assets to be Voted	1,000	-	-	1,000	1,000	-
Ministry Total Capital Assets	1,000	-	-	1,000	1,000	-
Ministry Total Operating and Capital Including Consolidation and Other Adjustments (not including Assets)	2,049,851,214	1,249,804,800	156.2	800,046,414	925,521,114	1,232,320,751

* Estimates, Interim Actuals and Actuals for prior fiscal years are re-stated to reflect any changes in ministry organization and/or program structure. Interim actuals reflect the numbers presented in the 2017 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/2017/>

6. LEGISLATION ADMINISTERED BY THE MINISTRY

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, (Minister of Finance), Part VIII (Minister of Government and Consumer Services) and Part IX.1 (Minister of Economic Development, Employment and Infrastructure)
2. *Energy Consumer Protection Act, 2010*, S.O. 2010, c. 8
3. *Green Energy Act, 2009*, S.O. 2009, c. 12, Sched. A
 - Section 10 and subsection 8 (2) are shared with the Minister 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 7, 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. *Ontario Rebate for Electricity Consumers Act, 2016*, S.O. 2016, c. 19
9. *Power Corporation Act*, R.S.O. 1990, c. P. 18
10. *The Toronto District Heating Corporation Act, 1980*, S.O. 1980, c. 73
11. *Toronto District Heating Corporation Act, 1998*, S.O. 1998, c. 15, Sched. C
 - Except for section 4

7. GLOSSARY OF TERMS

ACEP	Aboriginal Community Energy Plan Program
BES	Bulk Electric System
BPS	Broader Public Sector
CCAP	Climate Change Action Plan
CDM	Conservation and Demand Management
CES	Canadian Energy Strategy
CIP	Critical Infrastructure Protection
CIPC	Critical Infrastructure Protection Committee
CNSC	Canadian Nuclear Safety Commission
DSM	Demand Side Management
FIT	Feed-in Tariff
GA	Global Adjustment
GHG	Greenhouse Gas
GWh	Gigawatt Hours
ICI	Industrial Conservation Initiative
IESO	Independent Electricity System Operator
kW	Kilowatts
LDC	Local Distribution Companies
LTEP	Long-Term Energy Plan
LRP	Large Renewable Procurement
MEP	Municipal Energy Program
MW	Megawatts
MWh	Megawatt Hours
NEB	National Energy Board
NIERP	Northern Industrial Electricity Rate Program
NERC	North American Reliability Corporation
NOEC	Northern Ontario Energy Credit
OEB	Ontario Energy Board
OESP	Ontario Electricity Support Program
OFHP	Ontario Fair Hydro Plan
OPG	Ontario Power Generation
RRRP	Rural or Remote Rate Protection
SGF	Smart Grid Fund
TWh	Terawatt Hours
TOU	Time-of-use

8. APPENDIX: 2016-17 ANNUAL REPORT

2016-17 ACHIEVEMENTS

In 2016-17, the Ministry of Energy continued to implement commitments set out in the 2013 LTEP and the 2016 Premier's mandate letters.

1. Public and Indigenous engagements for LTEP 2017

From October 2016 to January 2017, the Ministry of Energy visited 17 communities for stakeholder and public sessions. There were also 17 Indigenous engagement sessions held across the province with representatives from close to 80 Indigenous communities and organizations.

The Ministry received over 3,500 LTEP submissions through various online channels. The LTEP engagement process was supported by an electricity technical report prepared by the IESO and a fuels sector technical report prepared by Navigant Consulting.

2. Electricity Rate Mitigation

As of January 1, 2017, the following measures to reduce consumers' electricity bills took effect:

- The introduction of the Ontario Rebate for Electricity Consumers Act, which provides an 8 percent rebate (equal to the provincial portion of HST) for about five million residential consumers, small businesses and farms;
- Expanded rate support for rural ratepayers; and
- Expanding ICI to allow greater eligibility to businesses.

3. Ontario's Fair Hydro Plan (OFHP)

In March 2017, the Province announced OFHP that proposes new measures to lower electricity bills by 25 percent on average for residential consumers and hold increases to the rate of inflation for four years, as well as initiatives to reduce costs for businesses. The plan includes the eight percent rebate introduced in January 2017 and builds on previously announced initiatives to deliver broad-based rate relief on all electricity bills. Implementing OFHP is subject to enacting pending legislation and associated regulations.

OFHP includes:

- Refinancing a portion of GA over a longer time period. Electricity consumers that are eligible for the eight percent rebate would also be eligible for GA

refinancing, including all residential consumers, farms, most small businesses, long-term care homes and condominiums.

- Helping vulnerable electricity consumers by enhancing electricity support programs. Eligible consumers would receive additional funding through assistance programs including:
 - Establishing an Affordability Fund to provide energy efficiency measures to Ontarians who do not qualify for low-income conservation programs, and who are otherwise unable to make energy efficiency improvements without financial assistance;
 - Broadening RRRP to provide distribution charge relief for the customers of LDC's with the highest distribution charges;
 - Expanding OESP to increase participation and provide further assistance to eligible participants; and
 - Establishing a First Nations On-Reserve Delivery Credit to eliminate delivery charges for all on-reserve First Nations residential customers of licensed electricity utilities with a 100 percent credit of the delivery or service charge.
- Expanding ICI to include smaller manufacturers and greenhouses between 500 kW and 1 MW, in addition to the large consumers over 1 MW who are already eligible.
- Shifting cost recovery for RRRP and OESP from electricity bills to provincial revenues, lowering regulatory charges for everyone by approximately \$3/MWh.
- Improving sector efficiency and modernizing Ontario's electricity market, working in collaboration with the IESO and OEB.

4. Implementation of the OESP

The OESP became available as of January 1, 2016, and provides an ongoing rate reduction directly on the electricity bills of low-income households who have applied and meet the eligibility requirements. Qualifying low-income Ontarians receive a monthly credit of \$30 to \$50.

As of May 1, 2017, OESP credit amounts increased by 50 percent and additional eligibility criteria were added to benefit more low-income consumers in Ontario. Single low-income consumers eligible for the lowest credit amount will receive \$45 per month, an increase from the current \$30, or an increase of \$180 per year.

There is also an enhanced credit for customers with unique electricity requirements, including electric heating, certain medical devices that use a lot of electricity, or Indigenous customers.

As of March 2017, OEB has received more than 293,000 OESP applications and enrolled almost 188,000 Ontarians in the program. Those numbers continue to grow. As of April 1, 2017, 13,736 Indigenous households have applied.

5. Expansion of ICI

ICI lowers electricity costs for eligible electricity consumers that reduce consumption during the five highest peak periods of the year. ICI participants can reduce their electricity rates by up to one third.

To give businesses the opportunity to participate in ICI, the threshold was lowered from 3 MW to 1 MW and sector restrictions were removed so that more consumers can benefit. Newly eligible consumers that opt-in to ICI will see the impact beginning in July 2017.

As part of the OFHP, ICI was also expanded to include smaller manufacturers and greenhouses with average peak demand greater than 500 kW and less than 1 MW. The expansion to 500 kW is effective in July 2017.

6. Continued delivery of NOEC

NOEC helps northern Ontario residents with the higher energy costs they face living in the North. It is a refundable tax credit for low to middle-income individuals delivered as part of the Ontario Trillium Benefit.

For the 2017 benefit year, qualifying individuals receive up to \$148 and families (including single parents) receive up to \$227 annually.

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.

7. Broadening the ownership of Hydro One

In April 2014, the government asked the Premier's Advisory Council on Government Assets to review options for maximizing the value of government assets, including Hydro One. Following recommendations from the council, the government broadened the ownership of Hydro One to create lasting public benefits and ongoing public protections.

The IPO was the first phase in broadening the ownership of Hydro One. The Province completed the Hydro One Ltd. IPO in November 2015 and raised approximately \$1.83 billion in gross proceeds and about \$116 million from related share sales.

A secondary share offering of Hydro One was completed in April 2016, generating approximately \$2 billion in gross proceeds.

In May 2017, the Province completed the final offering of Hydro One common shares, generating approximately \$2.8 billion in gross proceeds. With the completion of this transaction, the Province exceeded its objective to raise \$9 billion in gross proceeds and other revenue benefits from broadening the ownership of Hydro One. As a result, the Province does not anticipate any further offerings of Hydro One shares by the Province, other than sales for the collective benefit of Indigenous communities resulting from previously disclosed discussions.

Under the *Trillium Trust Act, 2014*, all net revenue gains associated with the sale of designated assets are to be credited to the Trillium Trust to support the Province's key infrastructure priorities, such as roads, bridges and public transit. Designated assets under the Act include the Province's shares in Hydro One.

The Province continues to hold approximately 49.9 percent of Hydro One's common shares and remains the largest shareholder. By law, the Province is prohibited from reducing its ownership below 40 per cent, and no other shareholder or group of shareholders is permitted to own more than 10 per cent of the company.

Ontario has dedicated \$3.7 billion in net revenue gains from the sale of Hydro One shares in 2015 and 2016 to the Trillium Trust.

8. Passed legislation to enshrine long term energy planning process

On July 1, 2016, the *Energy Statute Law Amendment Act, 2015* came into force. It enshrines in legislation a long-term energy planning framework that is transparent, efficient, and responsive to changing technology, policy and program needs. The framework is designed to balance the principles of cost effectiveness, reliability, clean energy, community and Indigenous engagement and conservation and demand management.

The legislation also empowers the IESO to undertake competitive selection or procurement of transmission when appropriate, and this competitive approach will ensure ratepayers get the best value from infrastructure investments.

9. Launch of Natural Gas Grant Program

The Province committed to develop a Natural Gas Grant Program to help Ontario residents and industries in underserved communities gain access to natural gas supplies.

The Ministry of Infrastructure responsible for establishing the Natural Gas Grant Program, and the Ministry of Energy and the Ministry of Agriculture, Food and Rural Affairs will provide support. Gas distribution expansion in Ontario is overseen by the OEB and managed by the private sector gas distribution companies.

On January 30, 2017, the government announced the new \$100 million Natural Gas Grant Program, part of the Province's Moving Ontario Forward plan, at the 2017 Rural Ontario Municipal Association Conference. The program was launched on April 21, 2017, and is accepting applications for grants until July 31, 2017.

10. Launch of SGF Round 3 Projects

SGF supports projects that test, develop and bring to market the next generation of electricity grid solutions, helping consumers and businesses manage energy costs, improve conservation efforts, and integrate new beneficial technologies like electric vehicles and storage.

In April 2011, the Ministry launched SGF, a grant program providing 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. 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 October 2015, the Ministry launched a new call for applications to support advanced energy technology functions. Those contracts have been finalized; project and program announcements are expected for 2017-2018.

To date, SGF supports 26 innovative projects, resulting in close to \$170 million in total electricity sector investment. These projects are also creating nearly 900 jobs and involve 22 utility partners.

11. Continued commitment to improve energy literacy

The Ministry continues to be committed to improve energy literacy in Ontarians. To accomplish this, the Ministry:

- Launched a website, emPOWERme, dedicated to educating Ontarians about their electricity system. The website offers a number of video shorts explaining electricity generation, distribution, measurement and conservation. For 2015-16, the emPOWERme site (landing page and subpages and files) received 24,129 unique page views, a 135 percent increase over the previous year (10,249 unique page views in 2014-2015). Total unique page views for the site as of 2013 are 65,261. The site includes an interactive bill tutorial, infographics, and interactive exhibits about Ontario's supply mix and smart grid innovations.
- The Education and Capacity Building Program, administered by IESO, provides funding for initiatives providing education, build capacity, and develop skills of target groups, including First Nation and Métis communities and organizations, municipalities and co-operatives, to better understand and participate in the electricity sector.
- Introduced legislation, the *Strengthening Consumer Protection and Electricity System Oversight Act, 2015* enhances consumer awareness and understanding of retail energy contracts. The legislation also promotes the education of consumers.

12. Continued partnership with Ontario EcoSchools to enhance energy conservation knowledge and actions by the Province's students and teachers

In November 2015, the Ministry entered into a multi-year agreement with Ontario EcoSchools to provide approximately \$1.35 million over three years. The funding will be provided to support initiatives and activities to enhance energy conservation and climate change knowledge and awareness in schools.

With a vision of helping every school become an EcoSchool, Ontario EcoSchools ensures all members of the school's community has the knowledge, skills, perspectives and desire to act as environmentally responsible citizens. The mission of the program is to nurture environmental leaders, reduce the ecological impact of schools and build school communities that are environmentally responsible.

The first year of a multi-year funding was successfully completed with 1,720 schools from 55 school boards being certified as EcoSchools. More than 800,000 students across the province are engaged in the program.

The second year of the program is underway. Over the next two years, the program is expected to grow to about 2,000 schools from 62 school boards, reaching approximately one million students from kindergarten to grade 12.

13. Continued quarterly release of the Ontario Energy Report

Regular energy reporting was a commitment of the 2013 LTEP and supports the provincial Open Government initiative.

In December 2014, the Ministry partnered with IESO to launch the Ontario Energy Report website that provides content from across Ontario's energy sector all in one place. The website also hosts quarterly reports on electricity, oil and natural gas data.

The first Ontario Energy Report was released in December 2014. New reports continue to be released each quarter to allow users to compare energy trends.

14. Supporting Indigenous partners in economic development opportunities and reconciliation

First Nation and Métis communities and groups are participating in more than 550 different wind, solar and hydroelectric projects across the province, representing over 1,800 MW of clean energy capacity.

In July 2016, Ontario announced an agreement-in-principle to sell to First Nations for their collective benefit up to 15 million shares of Hydro One depending on the level of participation. The Province also agreed to provide up to \$45 million in seed capital depending on the level of participation.

Moving forward with legislation that, if passed, will remove the delivery charge for all on-reserve First Nations residential customers of licensed electricity utilities

15. Continued procurement of small renewable energy project generation capacity under the FIT and microFIT programs

In October 2009, the Province launched the FIT and microFIT programs that supported the development of renewable energy projects by offering standard pricing to developers of wind, water, solar, and bioenergy projects.

The FIT program delivers significant benefits to project developers, including communities, First Nation and Métis communities, municipalities and public sector entities leading or partnering on projects. It also delivers significant benefits to equipment suppliers and installers, consumers and the overall provincial economy.

On June 29, 2016, the IESO announced 936 FIT 4 contract offers representing 241.43 MW of generation capacity.

The most recent FIT application window (FIT 5) was open from November 7 to November 25, 2016. On December 19, 2016, the IESO announced that 1,127 FIT 5 applications were received, representing a total of 397 MW.

On April 24, 2017, the IESO announced that a total of 698 applications, representing about 248 MW, passed the completeness and eligibility stages and will move onto the connection testing stage and be assessed in the order in which they were ranked. More than 73 percent of complete and eligible applications are for projects with Indigenous, community, municipal or public sector participation, or for projects with Indigenous, municipal or public sector hosts. More than 91 percent of complete and eligible applications are for solar photovoltaic projects. Of those applications, 65 percent are for non-rooftop solar projects.

Successful applicants are expected to be announced in Q3 of 2017, with a procurement target of up to 150 MW.

FIT 5 will be the final FIT program procurement, as per the Minister of Energy's December 16, 2016 direction to the IESO.

The microFIT program is for renewable energy projects 10 kW or smaller. The microFIT program has a procurement target of up to 50 MW in 2017. As of January 4, 2017, the IESO began accepting applications under version 4.1 of the microFIT program. The microFIT program will conclude by December 31, 2017.

On August 31, 2016, the IESO published the 2017 FIT/microFIT price schedule, which took effect on January 1, 2017. FIT and microFIT prices for new solar projects have been reduced between 50 and 75 percent since 2009.

16. Evolving microFIT to a Net Metering Program

The 2013 LTEP committed to examine the potential for microFIT to evolve from a generation purchasing program to a net metering program. Net metering is a billing arrangement allowing customers to generate renewable energy onsite for their own use and to receive bill credits that can be carried forward for any surplus electricity they send to the grid.

Since July 2015, the Ministry has been working closely with an Advisory Working Group comprised of industry, electricity distributors, and agency representatives on updating the net metering program.

In February 2017, part one of the regulatory updates to the 2005 Net Metering Regulation (*O.Reg. 541/05*) were filed and posted on e-laws.

The program updates include clarification of the 12 month carryover period for bill credits, removal of the 500 kW project capacity size limit and enable pairing of energy storage with renewable energy systems. The amendments will come into force July 1,

2017, and will support initiatives under the government's 2016-2020 Climate Change Action Plan.

During consultations on the above-noted updates, stakeholders expressed interest in further updates to the Net Metering Regulation that would enable third-party ownership and virtual net metering. The Ministry is currently examining these potential future program updates. In addition, a cost benefit analysis of implementing TOU billing for residential and small business net metered customers province-wide is being initiated in spring 2017.

17. Suspension of the LRP Program

At present, Ontario has approximately 18,200 MW of wind, solar, bioenergy and hydroelectricity capacity online or under development. As confirmed by the IESO in the Ontario Planning Outlook, Ontario has a strong supply of reliable power for the foreseeable future and remains well-positioned to meet provincial electricity needs until the mid-2020s.

Given this strong supply situation, in September 2016 the government announced the suspension of LRP II and the Energy-from-Waste Standard Offer Program. This decision is expected to save up to \$3.8 billion in electricity system costs.

18. Meeting LTEP 2013 conservation commitments

As part of the Conservation First Framework, launched January 1, 2015, the IESO encouraged LDCs to work collaboratively to develop regional conservation plans and targets to incorporate the policy of conservation first into regional planning. The Framework is expected to achieve 7 TWh of savings and assist the Province in achieving its long-term conservation target of 30 TWh in 2032. Sixty-eight percent of LDCs are in joint Conservation and Demand Management (CDM) plans, which represent 41 percent of all CDM plans (42 CDM plans) and 83 percent of the 7 TWh Conservation First Framework Target.

The Conservation First Framework is aligned with the natural gas DSM Framework to enable greater collaboration of conservation efforts among electricity and natural gas utilities. There are examples of joint LDC-natural gas utility collaboration, including Toronto Hydro and Enbridge Gas' smart thermostats program.

In December 2016, the IESO published final 2015 electricity conservation results. About 1,243 GWh of electricity savings were achieved in 2015 through the Conservation First Framework and the Industrial Accelerator Program, which is equivalent to the electricity consumed by about 1,600 homes in a year. Natural gas conservation results from 2015 are expected to be published in summer 2017.

In December 2014, the OEB released CDM Guidelines for LDCs outlining how they should consider conservation in their demand forecasts, cost of service applications, and transmission applications. Electricity conservation targets are now considered first when developing the net demand forecast for all regional electricity scoping assessments and Integrated Regional Resource Plans, as part of the Regional Planning Process.

The IESO has successfully evolved demand response so that it is now procured through capacity auctions through the IESO-administered electricity market. IESO has held two demand response auctions, in December 2015 and December 2016. In the 2016 demand response auction, about 455 MW were procured for the summer commitment period (May 2017 to October 2017) and about 478 MW for the winter commitment period (November 2017 to April 2018).

19. Continued commitment to show leadership in setting/adopting new and enhanced energy efficiency standards for products and appliances.

Ontario's energy efficiency regulation for products and appliances (O. Reg. 404/12) sets energy efficiency requirements for electrical, natural gas and oil appliances and products used in residential, commercial and industrial sectors.

Ontario regulates more products than any other provincial jurisdiction in Canada including the federal government and has the most stringent efficiency standards for a number of products.

Since 2013, annual updates to energy efficiency regulation have set new or enhanced energy efficiency standards for over 60 products, including standards for 30 new products.

In 2016, the *Green Energy Act*, 2009 was amended to enable regulating water efficiency of products which consume both energy and water.

On June 8, 2016 Ontario's Five Year Climate Change Action Plan 2016-2020 was released which included a commitment to "*Update energy efficiency standards for key energy-using products and equipment found in drinking water and waste water treatment plants*". The Ministry of Energy was identified to lead this work.

On January 1, 2017, an amendment to Ontario's energy efficiency regulation including new and updated efficiency standards for 14 products became effective. The amendment also included setting water efficiency standards for five existing products consuming both energy and water and energy efficiency standards for two products found in Drinking Water and Wastewater Treatment Plants.

Energy efficiency standards continue to contribute to the Province's long term energy conservation and climate change goals. Energy efficiency standards also complement and further advance efficiency requirements set through the Ontario Building Code and contribute to climate change goals by reducing GHG emissions.

Ontario is also working with other provinces and the federal government to improve and harmonize efficiency standards across Canada. Through this collaboration, Ontario also supports the goals of the Pan Canadian Framework on Clean Growth and Climate Change in reducing GHG emissions in buildings sector.

20. Commitment to greenhouse gas reduction through the new Green Investment Fund

In fall 2015, the Province announced it would invest \$325 million in 2015-16 through a new Green Investment Fund, which is a down payment on the Province's cap-and-trade program.

\$100 million has been provided to help homeowners reduce their energy bills and cut GHG emissions. In partnership with Enbridge Gas Distribution and Union Gas Limited, the program will help about 37,000 homeowners conduct audits to identify energy-saving opportunities and then take actions, such as replacing furnaces or water heaters and upgrading insulation. This investment is expected to save an equivalent of 1.6 million tonnes of greenhouse gas emissions.

The province-wide enhancement to the Enbridge Gas Distribution and Union Gas programs officially launched on October 31, 2016 and is expected to fund program results out to 2019.

Additionally, two projects are underway using the SGF program framework for advanced microgrid solutions in First Nations communities. These demonstration projects will deploy renewable generation and energy storage to displace diesel fuel as a source of power and improve reliability for customers.

21. Continuing to encourage municipalities and Indigenous communities to develop their own community-level energy plans

In August 2013, the Ministry launched the MEP Program and the IESO launched the ACEP 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 MEP program helps municipalities develop energy plans focusing on increasing conservation and helps identify the best energy infrastructure options for a community. Energy plans help municipalities:

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

As of 2017, the Ministry has funded 20 successful applicants representing 33 municipalities under MEP. Total program funding spent in 2016-17 is approximately \$281,000. To date, seven MEPs have been successfully completed by seven municipalities under the program.

The ACEP program, administered by the IESO, provides funding support to Indigenous communities to develop a community energy plan by assessing current needs and opportunities for conservation, efficiency and renewables.

To date, 89 First Nation communities have received funding to develop an energy plan, representing participation by over 60 percent of all First Nations in Ontario in community energy planning.

22. Another successful reporting year under O. Reg. 397/11 (*Energy Conservation and Demand Management Plans*)

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

The regulation requires Broader Public Sector (BPS) organizations, including hospitals, municipalities, universities, colleges, school boards and municipal service boards to:

- Report on their annual energy use and GHG emissions in designated buildings/facilities by July 1 beginning in 2013; and
- Develop and implement five-year energy conservation and CDM plans by July 1 beginning in 2014.

The requirement for BPS organizations to report their energy use, GHG emissions, and develop conservation plans:

- Raises the profile of energy conservation and GHG emissions within BPS organizations;
- Helps identify energy savings opportunities to manage energy costs, which can free up funding for core activities;
- Allows organizations to track and benchmark their energy usage; and
- Assists Ontario in achieving its 2013 LTEP conservation target of 30 TWh in 2032.

The Ministry provided significant support to assist BPS organizations in meeting the reporting requirements, including online guidelines and instructional videos, sector webinars and a customer service email account.

For 2016, 98 percent of all BPS organizations reported to the Ministry.

As part of Open Government, BPS data is posted annually on Open Data, providing a resource for research and potential economic activity.

23. Helping develop a Canadian Energy Strategy (CES)

The CES was adopted in July 2015.

Four committees were formed to identify initiatives of mutual interest to be implemented to enable further co-operation between jurisdictions. The four committees include: energy efficiency, delivery of energy, climate change and a transition to a lower-carbon economy and technology and innovation.

In July 2016, Premiers committed to continue collaborative work in priority areas, and welcomed participation of the federal government in certain areas of CES work, including reducing diesel use in remote and off-grid communities, supporting clean energy technology and innovation, and enhancing energy efficiency policies and mechanisms.

A progress report was delivered to the fall 2016 First Ministers' meeting that outlined priorities for federal-provincial-territorial collaboration in CES implementation and in support of the First Ministers' Pan-Canadian Framework on Climate Change. A report with concrete outcomes of work under CES in 2016-17 will be tabled for review by Premiers at summer 2017 Council of the Federation.

24. Driving efficiencies and maximizing return-on-investment from electricity sector

Ontario and Québec signed an agreement-in-principle in October 2016 to reduce GHG emissions and ensure electricity system reliability and affordability for mutual benefit.

The IESO and Hydro Québec Energy Marketing have agreed on terms for an electricity trade agreement for trading energy, capacity and storage until 2023.

The finalized agreement is expected to reduce Ontario's electricity system costs by about \$70 million over the course of the agreement and reduce electricity sector GHG emissions by approximately 1 million tonnes per year.

25. Nuclear continues to be the backbone of Ontario's supply

Nuclear power is reliable, cost-effective, emissions-free and it currently supplies about 60 percent of the power used by Ontarians every day.

The 2013 LTEP re-affirmed the government's plans to refurbish six nuclear units at the Bruce Generating Station and four nuclear units at the Darlington Generation Station. These refurbishments will secure over 9,800 MW of reliable and affordable round-the-clock generation capacity, and support GHG reduction targets set by Ontario's Climate Change Action Plan.

The multi-billion dollar investment in the refurbishment of Bruce and Darlington will support Ontario's globally recognized CANDU nuclear supply chain with more than 180 companies and support a workforce of approximately 60,000, including highly-skilled people in nuclear plant operation and support, nuclear refurbishment, and manufacturing supply chain.

During refurbishment, Bruce Power and OPG will be subject to the strictest possible oversight to ensure safety, reliable supply and value for ratepayers.

Bruce Generating Station

The Bruce Nuclear Generating Station is the largest operating nuclear facility in the world, with a total installed capacity of 6,300 MW. The Bruce facility houses two nuclear generating stations: Bruce A and Bruce B. Each of the generating stations has four CANDU reactors, for a total of 8 reactors. Two reactors at Bruce A representing 1,500 MW have already been refurbished.

Ontario has updated its contract with Bruce Power and will proceed with the refurbishment of six nuclear units at the Tiverton-based nuclear generation station. The first unit refurbishment will commence in 2020.

Bruce refurbishment and long-term operation will make up to 23,000 jobs possible and generate about \$6.3 billion in annual economic benefits in communities throughout the province.

Darlington Generation Station

Darlington Nuclear Generating Station is one of the best-performing nuclear plants in the world. The refurbishment of Darlington is critical to Ontario's energy future. Darlington refurbishment will boost economic activity across Ontario, create jobs, and secure 3,500 MW of affordable, reliable and emission-free power for 30-plus years.

The Darlington refurbishment and continued operation up to 2055 will contribute \$90 billion to Ontario's GDP and increase employment by an average of 14,200 jobs annually, including over 2,600 jobs onsite at Darlington.

OPG began refurbishment of Unit 2 at Darlington Nuclear Generating Station on October 15, 2016. Reactor defueling was safely completed in January 2017, ahead of schedule. Islanding of the unit (i.e., the physical separation of the unit under refurbishment from the three operating units) was achieved in April 2017, signifying the completion of the first of four major segments of Unit 2 refurbishment work, on time and on budget. The next phase involves opening up the reactor, setting up specialized equipment, and starting the disassembly and removal of reactor components. Overall, Darlington refurbishment remains on track to be complete within approved budget and schedule.

Pickering Generating Station

Pickering currently provides 3,094 MW of system capacity through its six operating nuclear units and plays a key role in maintaining Ontario's grid reliability.

The government also approved a plan for OPG to seek the necessary regulatory approvals from the OEB and the CNSC to enable ongoing operation of the Pickering Generating Station up to 2022/2024.

Operating Pickering up to 2022/2024 would also ensure that the Province has a reliable, affordable and emission-free source of round-the-clock power during the Darlington and initial Bruce refurbishments. Ongoing operation of Pickering would also protect 4,500 jobs across the Durham region, avoid 8 million tonnes of greenhouse gas emissions, and save Ontario electricity consumers up to \$600 million.

26. Continue to protect Ontario's interests in pipeline development

Ontario's Pipeline Principles

In the 2013 LTEP, Ontario adopted six principles it will use to review large scale pipeline projects to ensure they meet the highest environmental and safety standards as well as benefit Ontario's economy. Those principles are:

1. Pipelines must meet the highest available technical standards for public safety and environmental protection;

2. Pipelines must have world leading contingency planning and emergency response programs;
3. Proponents and governments must fulfill their duty to consult obligations with First Nation and Métis communities;
4. Local municipalities must be consulted;
5. Projects should provide demonstrable economic benefits and opportunities to the people of Ontario, over both the short and long term; and
6. Economic and environmental risks and responsibilities, including remediation should be borne exclusively by the pipeline companies, who must also provide financial assurance demonstrating their capability to respond to leaks and spills.

In November 2014, Ontario and Québec agreed on these six principles as joint principles for the review of Energy East and added the need to take into account the interests of natural gas consumers and greenhouse gas emissions.

Oil and natural gas pipelines are essential to Ontario's economic prosperity. Ontario will continue to work with its federal and provincial partners to ensure these principles are applied to all pipelines within Ontario, regardless of whether regulatory oversight rests at the provincial or federal level.

OEB Consultations on Energy East

On November 12, 2013, the Minister of Energy asked the OEB to conduct province-wide consultations regarding TransCanada's Energy East proposal. The consultation process focused on four areas of potential impact:

- The impacts on pipeline safety and the natural environment in Ontario;
- The impacts on First Nations, Métis and local communities;
- The short and long term economic impacts of the project in Ontario; and
- The impacts on Ontario natural gas consumers in terms of rates, reliability and access to supply, especially those consumers in eastern and northern Ontario.

The OEB met with stakeholders and held a series of community and First Nation and Métis meetings across the province in March and April of 2014 to listen to concerns of people living along the proposed pipeline route. The OEB hired experts in the field of pipelines, environmental reviews and economists to assist in understanding of the project.

The OEB report released on August 13, 2015 will inform Ontario's participation in the Energy East NEB regulatory proceeding. The report provides advice on ensuring an appropriate balance between the economic and environmental risks of the project and the expected benefits for Ontarians.

In 2016, the OEB released the 7th edition of the *Environmental Guidelines for the Location, Construction and Operation of Hydrocarbon Pipelines and Facilities in Ontario*. Under these new guidelines, the Ministry of Energy coordinates the Crown's Duty to Consult Obligations for intra-provincial pipelines.

27. Ontario is amongst cyber-security leaders in North America

Bulk Transmission System

Ontario is amongst cyber-security leaders in North America for ensuring business as usual for system operations and for its best practices at monitoring and securing the BES.

The IESO, as Ontario's Reliability Coordinator, is subject to stringent continent-wide cyber security standards, and its core responsibility is to ensure the Ontario BES is compliant with these standards and is secured against threats, including those related to cyber security. The IESO is also a key member of the NERC's CIPC – the standard setting body, which developed the continent's electrical grid security enforcement regime, known as NERC CIP Standards.

Hydro One's transmission business is required to comply with various rules and standards for transmission reliability, including mandatory standards established by the NERC and the Northeast Power Coordinating Council, both of which are industry organizations involved in promoting and improving the reliability of transmission networks in North America. Hydro One's physical, electronic and information security processes have and are being upgraded to meet these revised requirements. Hydro One expects to continue to perform additional work and incur further costs in order to comply with the NERC's updated and revised standards.

Ontario Distribution Level Cyber Security Framework

The OEB is developing a framework which will define cyber security guidance and reporting requirements for LDCs. The Ministry, as well as LDCs, are supporting this effort.

In November 2010, the Minister of Energy included cyber security in its Directive to the OEB requesting it issue smart grid guidance to utilities.

LDCs are not bound by NERC CIP standards, as they do not meet the threshold of being critical to the reliability of the BES. However, large distributors would typically have their own cyber protection plans as part of ensuring their business operations.

In addition, a number of discrete efforts have taken place to promote cyber security within the distribution sector.

O. Reg 425/06 sets out mandatory functional specifications that all distributors must meet when acquiring AMI systems, including a requirement to have security features to prevent unauthorized access.

- Current regulatory requirements by the OEB include the security and privacy of customer data as a distributor license condition.
- Rate Filing Requirements for distributors also require LDCs to include cyber security and privacy considerations in proposed investments. Chapter 5 of the Consolidated Distribution System Plan Filing Requirements lists the requirements.
- Information and Privacy Commissioner of Ontario provides independent oversight of the Province's access and privacy laws and has worked with utilities to advise on information protection processes.

Cyber Security at the distribution level is an emerging issue, and is an operational necessity for the distribution sector. It includes both the protection of customer-specific information held by LDCs and the protection of distribution-level system operations.

The OEB convened a working group in 2016 to develop a framework for LDCs to assess risk and to implement safeguards for cyber security. It is expected that the amendments will be issued in the Q2 of 2017.

Table 3: Ministry Interim Actual Expenditures 2016-17

	Ministry Interim Actual Expenditures (\$M) 2016-17 *
Operating	902.27
Capital	23.25
Staff Strength ** (as of March 31, 2017)	193

* Interim actuals reflect the numbers presented in the *2017 Ontario Budget*.

** Ontario Public Service Full-Time Equivalent positions.

Part II: Detailed Financials

2017-18

Ministry of Energy

PART II: 2017-18 DETAILED FINANCIALS

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PART II: 2017-18 DETAILED FINANCIALS

1. MINISTRY SUMMARY INFORMATION

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 and the Independent Electricity System Operator. The Ministry also represents the shareholder in dealings with Ontario Power Generation and represents the Province as a shareholder of Hydro One, managing its investment in and the governance relationship with this publicly traded company.

The Ministry is also responsible for updating and developing policy related to the Long-Term Energy Plan (LTEP).

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

Table 1: Total Operating and Capital Summary by Vote

MINISTRY OF ENERGY
Total Operating and Capital Summary by Vote

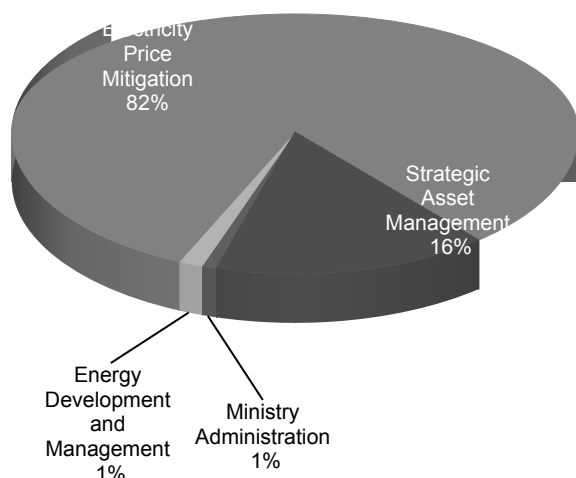
Votes/Programs	Estimates 2017-18	Change from Estimates 2016-17	%	Estimates 2016-17 *	Interim Actuals 2016-17 *	Actuals 2015-16 *
	\$	\$		\$	\$	\$
OPERATING EXPENSE						
Ministry Administration Program	15,075,200	(24,700)	(0.2)	15,099,900	16,184,900	14,992,036
Energy Development and Management	24,459,500	(109,980,600)	(81.8)	134,440,100	262,940,100	43,476,410
Electricity Price Mitigation	1,464,000,000	1,138,000,000	349.1	326,000,000	346,800,000	886,000,000
Strategic Asset Management	280,000,000	210,000,000	300.0	70,000,000	44,624,300	44,170,257
Total Operating Expense to be Voted	1,783,534,700	1,237,994,700	226.9	545,540,000	670,549,300	988,638,703
Statutory Appropriations	65,014	-	-	65,014	65,014	61,436
Ministry Total Operating Expense	1,783,599,714	1,237,994,700	226.9	545,605,014	670,614,314	988,700,139
Consolidation Adjustments - Independent Electricity System Operator	196,347,800	891,200	0.5	195,456,600	187,449,900	187,456,994
Consolidation Adjustments - Ontario Energy Board	44,514,000	7,512,000	20.3	37,002,000	44,202,000	33,397,018
Operating Expense Adjustment - Greenhouse Gas Reduction Account Reclassification	2,150,000	2,150,000		-	-	-
Total Including Consolidation & Other Adjustments	2,026,611,514	1,248,547,900	160.5	778,063,614	902,266,214	1,209,554,151
OPERATING ASSETS						
Electricity Price Mitigation	1,100,000,000	1,100,000,000		-	-	-
Strategic Asset Management	-	-		-	-	2,600,100,100
Total Operating Assets to be Voted	1,100,000,000	1,100,000,000		-	-	2,600,100,100
Statutory Appropriations	-	-		-	-	-
Ministry Total Operating Assets	1,100,000,000	1,100,000,000		-	-	2,600,100,100

* Estimates, Interim Actuals and Actuals for prior fiscal years are re-stated to reflect any changes in ministry organization and/or program structure. Interim actuals reflect the numbers presented in the 2017 Ontario Budget.

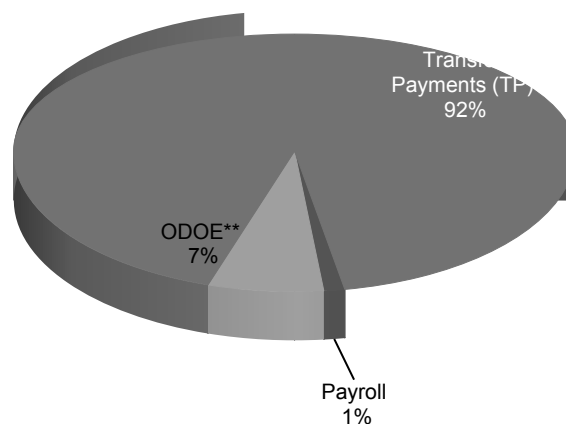
Votes/Programs	Estimates 2017-18	Change from Estimates 2016-17	%	Estimates 2016-17 *	Interim Actuals 2016-17 *	Actuals 2015-16 *
	\$	\$		\$	\$	\$
CAPITAL EXPENSE						
Energy Development and Management	1,000	-	-	1,000	1,000	-
Total Capital Expense to be Voted	1,000	-	-	1,000	1,000	-
Statutory Appropriations	1,000	-	-	1,000	1,000	-
Ministry Total Capital Expense	2,000	-	-	2,000	2,000	-
Consolidation Adjustments - Independent Electricity System Operator	22,013,900	974,100	4.6	21,039,800	22,472,300	21,971,600
Consolidation Adjustments - Ontario Energy Board	1,223,800	282,800	30.1	941,000	780,600	795,000
Total Including Consolidation & Other Adjustments	23,239,700	1,256,900	5.7	21,982,800	23,254,900	22,766,600
CAPITAL ASSETS						
Energy Development and Management	1,000	-	-	1,000	1,000	-
Total Capital Assets to be Voted	1,000	-	-	1,000	1,000	-
Ministry Total Capital Assets	1,000	-	-	1,000	1,000	-
Ministry Total Operating and Capital Including Consolidation and Other Adjustments (not including Assets)	2,049,851,214	1,249,804,800	156.2	800,046,414	925,521,114	1,232,320,751

* Estimates, Interim Actuals and Actuals for prior fiscal years are re-stated to reflect any changes in ministry organization and/or program structure. Interim actuals reflect the numbers presented in the 2017 Ontario Budget.

Operating Expense by Vote, excluding Consolidations & Other Adjustments



Operating Expense by Standard Account, excluding Consolidations & Other Adjustments



**ODOE includes Supplies and Equipment, Services, and Transportation and Communications

and Standard Account

MINISTRY OF ENERGY Operating Summary by Vote and Standard Account

Standard Account *	2901	2902	2905	2906	Total Ministry	
	Ministry Administration Program	Energy Development and Management	Electricity Price Mitigation	Strategic Asset Management		
	\$	\$	\$	\$	\$	% **
OPERATING EXPENSE						
Salaries and Wages	6,864,714	12,314,200	-	-	19,178,914	1.1
Employee Benefits	849,800	1,497,900	-	-	2,347,700	0.1
Transportation and Communications	312,700	385,000	-	-	697,700	0.0
Services	11,121,800	6,502,400	-	99,999,000	117,623,200	6.6
Supplies and Equipment	343,600	312,600	-	-	656,200	0.0
Transfer Payments	-	5,597,400	1,464,000,000	180,001,000	1,649,598,400	92.2
Other Transactions	-	1000	-	-	1,000	0.0
Less: Recoveries	(4,353,400)	(2,150,000)	-	-	(6,503,400)	
TOTAL	15,139,214	24,460,500	1,464,000,000	280,000,000	1,783,599,714	100.0
PERCENT OF TOTAL MINISTRY	0.8	1.4	82.1	15.7	100.0	
OPERATING ASSETS						
Loans and Investments		-	1,100,000,000	-	1,100,000,000	100.0
TOTAL	-	-	1,100,000,000	-	1,100,000,000	100.0
PERCENT OF TOTAL MINISTRY	-	-	100.0	-	100.0	
* Including Statutory Appropriations						
** Percentage of ministry total excludes Recoveries						

Table 3: Capital Summary by Vote and Standard Account

MINISTRY OF ENERGY
Capital Summary by Vote and Standard Account

Standard Account *	2902 Energy Development and Management	Total Ministry	
	\$	\$	%**
CAPITAL EXPENSE			
Other Transactions	2,000	2,000	100.0
TOTAL	2,000	2,000	100.0
PERCENT OF TOTAL MINISTRY	100.0	100.0	
CAPITAL ASSETS			
Land and Marine Fleet	1,000	1,000	100.0
TOTAL	1,000	1,000	100.0
PERCENT OF TOTAL MINISTRY	100.0	100.0	

* Including Statutory Appropriations

** Percentage of ministry total excludes Recoveries

Table 4: Reconciliation to Previously Published Data

MINISTRY OF ENERGY
Reconciliation to Previously Published Data

Operating Expense	Estimates 2016-17	Actual 2015-16
	\$	\$
Total Operating Expense Previously Published *	138,535,014	988,700,139
Government Reorganization:		
Transfer of functions to other Ministries	(930,000)	-
Supplementary Estimates		
2016-17 Supplementary Estimates	408,000,000	-
Restated Total Operating Expense	545,605,014	988,700,139

* Total Operating Expense includes Statutory Appropriations, Special Warrants and total operating expense to be voted.

2901
Ministry Administration

1. VOTE SUMMARY INFORMATION – 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.

Table 5: Vote 2901 – Ministry Administration (Operating Expense)

MINISTRY OF ENERGY
Vote 2901 – Ministry Administration

Vote/Program	Estimates 2017-18	Change from 2016-17 Estimates	%	Estimates 2016-17 *	Interim Actuals 2016-17 *	Actuals 2015-16 *
	\$	\$		\$	\$	\$
OPERATING EXPENSE						
Ministry Administration	15,075,200	(24,700)	(0.2)	15,099,900	16,184,900	14,992,036
Total Operating Expense to be Voted	15,075,200	(24,700)	(0.2)	15,099,900	16,184,900	14,992,036
S Minister's Salary, the <i>Executive Council Act</i>	47,841	-	-	47,841	47,841	49,301
S Parliamentary Assistant's Salary, the <i>Executive Council Act</i>	16,173	-	-	16,173	16,173	9,676
Total Statutory Appropriations	64,014	-	-	64,014	64,014	58,977
Total Operating Expense	15,139,214	(24,700)	(0.2)	15,163,914	16,248,914	15,051,013

* Estimates, Interim Actuals and Actuals for prior fiscal years are re-stated to reflect any changes in ministry organization and/or program structure. Interim actuals reflect the numbers presented in the 2017 Ontario Budget.

2.1. Item/Sub-Item Summary Information – Ministry Administration

VOTE/ITEM: 2901 - 01

VOTE: Ministry Administration

ITEM: Ministry Administration

TYPE: Operating Expense

ITEM DESCRIPTION

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.

Table 6: Comparative Details – Ministry Administration (Operating Expense)

Vote/Program	Estimates 2017-18	Change from 2016-17 Estimates	%	Estimates 2016-17 *	Interim Actuals 2016-17 *	Actuals 2015-16 *
	\$	\$		\$	\$	\$
Salaries and Wages**	6,864,714	-	-	6,864,714	6,864,714	6,686,175
Employee Benefits	849,800	-	-	849,800	849,800	963,177
Transportation and Communication	312,700	-	-	312,700	312,700	281,684
Services	11,121,800	(24,700)	(0.2)	11,146,500	12,231,500	8,293,159
Supplies and Equipment	343,600	-	-	343,600	343,600	270,983
Subtotal	19,492,614	(24,700)	(0.1)	19,517,314	20,602,314	16,495,178
Less: Recoveries	(4,353,400)	-		(4,353,400)	(4,353,400)	(1,444,165)
Total	15,139,214	(24,700)	(0.2)	15,163,914	16,248,914	15,051,013

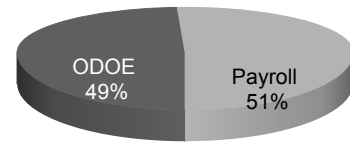
* Estimates, Interim Actuals and Actuals for prior fiscal years are re-stated to reflect any changes in ministry organization and/or program structure. Interim actuals reflect the numbers presented in the 2017 Ontario Budget.

**Includes Statutory Appropriations

Explanation for Estimates Changes from 2016-17

Bulk Media Buy Transfer	(15,000)
IT Services Realignment	(9,700)
	<u>(24,700)</u>

By Standard Account



VOTE/ITEM: 2901 - 01

VOTE: Ministry Administration

SUB-ITEM: Main Office

TYPE: Operating Expense

SUB-ITEM DESCRIPTION

The Main Office provides the overall policy, program and management direction of the ministry. It consists of the Offices of the Minister, Parliamentary Assistant and the Deputy Minister.

Table 7: Comparative Details – Main Office (Operating Expense)

Vote/Program	Estimates 2017-18	Change from 2016-17 Estimates	%	Estimates 2016-17 *	Interim Actuals 2016-17 *	Actuals 2015-16 *
	\$	\$		\$	\$	\$
Salaries and Wages**	1,713,514	-	-	1,713,514	1,713,514	2,271,891
Employee Benefits	194,200	-	-	194,200	194,200	267,254
Transportation and Communication	90,400	-	-	90,400	90,400	125,914
Services	510,400	-	-	510,400	510,400	89,068
Supplies and Equipment	60,400	-	-	60,400	60,400	55,181
Total	2,568,914	-	-	2,568,914	2,568,914	2,809,308

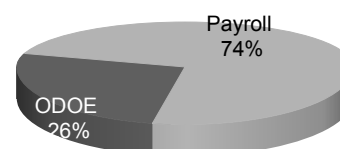
* Estimates, Interim Actuals and Actuals for prior fiscal years are re-stated to reflect any changes in ministry organization and/or program structure. Interim actuals reflect the numbers presented in the 2017 Ontario Budget.

**Includes Statutory Appropriations

Explanation for Estimates Changes from 2016-17

No change

By Standard Account



VOTE/ITEM: 2901 - 01

VOTE: Ministry Administration

SUB-ITEM: Communications Services

TYPE: Operating Expense

SUB-ITEM DESCRIPTION

Communications Services provides support to the ministry's policies and programs through the preparation and distribution of speeches, news releases and other communications tools. It develops and maintains the ministry website on the internet, supports the ministry's intranet site and handles information, advertising and promotion, broad-based educational programs, public inquiry support, regional communications activities and manages the correspondence for the ministry.

Communications Services ensures the ministry informs, consults and educates the public on ministry policies and programs, and provides information and other assistance to the media. Through Communications Services, the Minister, Deputy Minister and senior management are provided with timely and accurate information on ministry policy issues and programs.

Table 8: Comparative Details – Communications Services (Operating Expense)

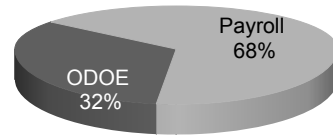
Vote/Program	Estimates 2017-18	Change from 2016-17 Estimates	%	Estimates 2016-17 *	Interim Actuals 2016-17 *	Actuals 2015-16 *
	\$	\$		\$	\$	\$
Salaries and Wages	2,486,800	-	-	2,486,800	2,486,800	2,484,813
Employee Benefits	320,000	-	-	320,000	320,000	376,761
Transportation and Communication	88,300	-	-	88,300	88,300	46,684
Services	1,126,700	(15,000)	(1.3)	1,141,700	2,226,700	453,261
Supplies and Equipment	81,800	-	-	81,800	81,800	28,381
Total	4,103,600	(15,000)	(0.4)	4,118,600	5,203,600	3,389,900

* Estimates, Interim Actuals and Actuals for prior fiscal years are re-stated to reflect any changes in ministry organization and/or program structure. Interim actuals reflect the numbers presented in the 2017 Ontario Budget.

Explanation for Estimates Changes from 2016-17 By Standard Account

Bulk Media Buy Transfer

(15,000)
(15,000)



VOTE/ITEM: 2901 - 01

VOTE: Ministry Administration

SUB-ITEM: Legal Services

TYPE: Operating Expense

SUB-ITEM DESCRIPTION

Legal Services provides the legislative and legal support to the ministry. Activities include strategic advisory services, legal drafting and negotiations. Legal staff are employees of the Ministry of the Attorney General and are seconded to the Ministry of Energy.

Table 9: Comparative Details – Legal Services (Operating Expense)

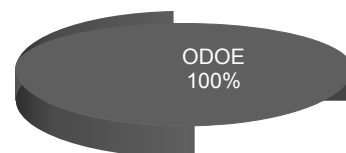
Vote/Program	Estimates 2017-18	Change from 2016-17 Estimates	%	Estimates 2016-17 *	Interim Actuals 2016-17 *	Actuals 2015-16 *
	\$	\$		\$	\$	\$
Salaries and Wages	-	-		-	-	52,656
Employee Benefits	-	-		-	-	5,719
Transportation and Communication	35,000	-	-	35,000	35,000	22,312
Services	3,144,900	-	-	3,144,900	3,144,900	3,435,307
Supplies and Equipment	75,000	-	-	75,000	75,000	15,694
Total	3,254,900	-	-	3,254,900	3,254,900	3,531,688

* Estimates, Interim Actuals and Actuals for prior fiscal years are re-stated to reflect any changes in ministry organization and/or program structure. Interim actuals reflect the numbers presented in the 2017 Ontario Budget.

Explanation for Estimates Changes from 2016-17

No change

By Standard Account



VOTE/ITEM: 2901 - 01

VOTE: Ministry Administration

SUB-ITEM: Analysis and Planning

TYPE: Operating Expense

SUB-ITEM DESCRIPTION

Analysis and planning is responsible for the development and implementation of the ministry's annual plan, estimates, expenditure monitoring, control and reporting to central agencies and senior management, strategic human resources planning, emergency management and support to the ministry on corporate priorities including controllership, risk management, Integrated Financial Information Systems (IFIS), and quality assessment and planning.

Table 10: Comparative Details – Analysis and Planning (Operating Expense)

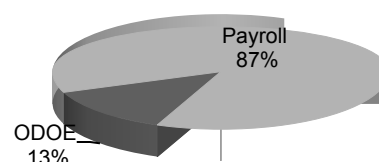
Vote/Program	Estimates 2017-18	Change from 2016-17 Estimates	%	Estimates 2016-17 *	Interim Actuals 2016-17 *	Actuals 2015-16 *
	\$	\$		\$	\$	\$
Salaries and Wages	2,664,400	-	-	2,664,400	2,664,400	1,817,838
Employee Benefits	335,600	-	-	335,600	335,600	313,443
Transportation and Communication	69,000	-	-	69,000	69,000	75,694
Services	309,500	-	-	309,500	309,500	121,361
Supplies and Equipment	66,400	-	-	66,400	66,400	30,411
Total	3,444,900	-	-	3,444,900	3,444,900	2,358,747

* Estimates, Interim Actuals and Actuals for prior fiscal years are re-stated to reflect any changes in ministry organization and/or program structure. Interim actuals reflect the numbers presented in the 2017 Ontario Budget.

Explanation for Estimates Changes from 2016-17

No change

By Standard Account



VOTE/ITEM: 2901 - 01

VOTE: Ministry Administration

SUB-ITEM: Financial and Administrative Services

TYPE: Operating Expense

SUB-ITEM DESCRIPTION

Finance and Administrative Services ensures the ministry has efficient financial and administrative policies, procedures and systems adhere to corporate and ministry policies, guidelines and procedures.

It represents the financial and French Language services the ministry obtains. It also includes accommodation charges paid to Infrastructure Ontario by the ministry.

Table 11: Comparative Details – Financial and Administrative Services (Operating Expense)

Vote/Program	Estimates 2017-18	Change from 2016-17 Estimates	%	Estimates 2016-17 *	Interim Actuals 2016-17 *	Actuals 2015-16 *
	\$	\$		\$	\$	\$
Salaries and Wages	-	-		-	-	-
Employee Benefits	-	-		-	-	-
Transportation and Communication	30,000	-	-	30,000	30,000	8,612
Services	3,968,300	-	-	3,968,300	3,968,300	2,789,234
Supplies and Equipment	60,000	-	-	60,000	60,000	141,316
Less: Recoveries	(2,790,000)	-		(2,790,000)	(2,790,000)	(1,077,665)
Total	1,268,300	-	-	1,268,300	1,268,300	1,861,497

* Estimates, Interim Actuals and Actuals for prior fiscal years are re-stated to reflect any changes in ministry organization and/or program structure. Interim actuals reflect the numbers presented in the 2017 Ontario Budget.

Explanation for Estimates Changes from 2016-17

No change

By Standard Account



VOTE/ITEM: 2901 - 01

VOTE: Ministry Administration

SUB-ITEM: Human Resources

TYPE: Operating Expense

SUB-ITEM DESCRIPTION

Human Resources is responsible for organizational planning and various HR activities to ensure ministry goals are met and corporate directives are followed. It is responsible for organizational development, health and wellness, employee engagement and diversity activities.

Table 12: Comparative Details – Human Resources (Operating Expense)

Vote/Program	Estimates 2017-18	Change from 2016-17 Estimates	%	Estimates 2016-17 *	Interim Actuals 2016-17 *	Actuals 2015-16 *
	\$	\$		\$	\$	\$
Employee Benefits	-	-	-	-	-	-
Services	160,000	-	-	160,000	160,000	20,112
Less: Recoveries	(110,000)	-	-	(110,000)	(110,000)	-
Total	50,000	-	-	50,000	50,000	20,112

* Estimates, Interim Actuals and Actuals for prior fiscal years are re-stated to reflect any changes in ministry organization and/or program structure. Interim actuals reflect the numbers presented in the 2017 Ontario Budget.

Explanation for Estimates Changes from 2016-17

No change

By Standard Account



VOTE/ITEM: 2901 - 01

VOTE: Ministry Administration

SUB-ITEM: Audit Services

TYPE: Operating Expense

SUB-ITEM DESCRIPTION

Internal Audit Services are provided to the Ministry by the Ontario Internal Audit Division of the Treasury Board Secretariat through a Memorandum of Understanding.

The Ontario Internal Audit Division provides a full range of independent and objective assurance and consulting services designed to add value and improve the operations of the Ministry including:

- Value-for-money, financial and internal control audits;
- Compliance reviews, risk assessment and control reviews;
- Forensic and fraud investigations;
- Advice on governance, controllership, accountability and sound business practices;
- Training and education on risk and control; and
- Specialized audit, risk assessment and advisory services for information management and information technology projects.

Table 13: Comparative Details – Audit Services (Operating Expense)

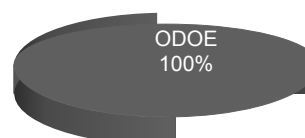
Vote/Program	Estimates 2017-18	Change from 2016-17 Estimates	%	Estimates 2016-17 *	Interim Actuals 2016-17 *	Actuals 2015-16 *
	\$	\$		\$	\$	\$
Services	236,000	-	-	236,000	236,000	400,001
Less: Recoveries	(160,000)	-		(160,000)	(160,000)	(131,651)
Total	76,000	-	-	76,000	76,000	268,350

* Estimates, Interim Actuals and Actuals for prior fiscal years are re-stated to reflect any changes in ministry organization and/or program structure. Interim actuals reflect the numbers presented in the 2017 Ontario Budget.

Explanation for Estimates Changes from 2016-17

No change

By Standard Account



VOTE/ITEM: 2901 - 01

VOTE: Ministry Administration

SUB-ITEM: Information Systems

TYPE: Operating Expense

SUB-ITEM DESCRIPTION

Information technology services are provided to the ministry through a Services Agreement with the Central Agency Cluster for I&IT.

Table 14: Comparative Details – Information Systems (Operating Expense)

Vote/Program	Estimates 2017-18	Change from 2016-17 Estimates	%	Estimates 2016-17 *	Interim Actuals 2016-17 *	Actuals 2015-16 *
	\$	\$		\$	\$	\$
Transportation and Communication	-	-		-	-	2,468
Services	1,666,000	(9,700)	(0.6)	1,675,700	1,675,700	984,815
Less: Recoveries	(1,293,400)	-		(1,293,400)	(1,293,400)	(234,849)
Total	372,600	(9,700)	(2.5)	382,300	382,300	752,434

* Estimates, Interim Actuals and Actuals for prior fiscal years are re-stated to reflect any changes in ministry organization and/or program structure. Interim actuals reflect the numbers presented in the 2017 Ontario Budget.

Explanation for Estimates Changes from 2016-17

IT Services Realignment

(9,700)
(9,700)

By Standard Account



2902
Energy Development and
Management

3. VOTE SUMMARY INFORMATION – 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 Indigenous communities in renewable energy and transmission system developments.

Table 15: Vote 2902 – Energy Development and Management (Operating Expense)

MINISTRY OF ENERGY
Vote 2902 – Energy Development and Management

Vote/Program	Estimates 2017-18	Change from 2016-17 Estimates	%	Estimates 2016-17 *	Interim Actuals 2016-17 *	Actuals 2015-16 *
	\$	\$		\$	\$	\$
OPERATING EXPENSE						
Policy and Programs	24,459,500	(109,980,600)	(81.8)	134,440,100	262,940,100	43,476,410
Total Operating Expense to be Voted	24,459,500	(109,980,600)	(81.8)	134,440,100	262,940,100	43,476,410
S Bad Debt Expense, the <i>Financial Administration Act</i>	1,000	-	-	1,000	1,000	2,459
Total Statutory Appropriations	1,000	-	-	1,000	1,000	2,459
Total Operating Expense	24,460,500	(109,980,600)	(81.8)	134,441,100	262,941,100	43,478,869

* Estimates, Interim Actuals and Actuals for prior fiscal years are re-stated to reflect any changes in ministry organization and/or program structure. Interim actuals reflect the numbers presented in the 2017 Ontario Budget.

Table 16: Vote 2902 – Energy Development and Management (Capital Expense and Capital Assets)

MINISTRY OF ENERGY
Vote 2902 – Energy Development and Management

Vote/Program	Estimates 2017-18	Change from 2016-17 Estimates	%	Estimates 2016-17 *	Interim Actuals 2016-17 *	Actuals 2015-16 *
	\$	\$		\$	\$	\$
CAPITAL EXPENSE						
Energy Development and Management - Expense related to Capital Assets	1,000	-	-	1,000	1,000	-
Total Capital Expense to be Voted	1,000	-	-	1,000	1,000	-
S Amortization Expense, the <i>Financial Administration Act</i>	1,000	-	-	1,000	1,000	-
Total Statutory Appropriations	1,000	-	-	1,000	1,000	-
Ministry Total Capital Expense	2,000	-	-	2,000	2,000	-
CAPITAL ASSETS						
Energy Development and Management	1,000	-	-	1,000	1,000	-
Total Capital Assets to be Voted	1,000	-	-	1,000	1,000	-
Total Capital Assets	1,000	-	-	1,000	1,000	-

* Estimates, Interim Actuals and Actuals for prior fiscal years are re-stated to reflect any changes in ministry organization and/or program structure. Interim actuals reflect the numbers presented in the 2017 Ontario Budget.

3.1. Item Summary Information – Policy and Programs (Operating Expense)

VOTE/ITEM: 2902 - 01

VOTE: Energy Development and Management

ITEM: Policy and Programs

TYPE: Operating Expense

ITEM DESCRIPTION

Policy and Programs develops the structural, legislative and regulatory approaches necessary for a reliable electricity sector, maintains shareholder relations with Ontario Power Generation (OPG) and Hydro One, develops mechanisms to protect energy consumers, and oversees the Ontario Energy Board (OEB) and the Independent Electricity System Operator (IESO). It encourages the development and implementation of energy efficient and renewable energy technologies and promotes a culture of conservation, leads the transition toward a coal-free, low-carbon electricity supply, advances initiatives to modernize Ontario's nuclear fleet and supports advanced network development while ensuring delivery through a strong, stable transmission and distribution system.

The ministry co-chairs the federal-provincial process on electricity reliability which engages with stakeholders, including North American standards organizations, provincial, federal and U.S. energy agencies, local distribution companies, independent generators, large power consumers, environmental groups, consumer groups and other provinces, territories and the federal governments to review supply adequacy and future transmission and distribution needs, future outlook and to facilitate and advance energy supply and conservation initiatives.

Table 17: Comparative Details – Policy and Programs (Operating Expense)

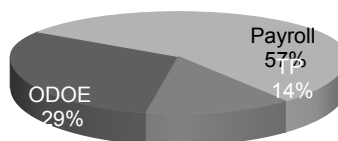
Vote/Program	Estimates 2017-18	Change from 2016-17 Estimates	%	Estimates 2016-17 *	Interim Actuals 2016-17 *	Actuals 2015-16 *
	\$	\$		\$	\$	\$
Salaries and Wages	12,314,200	-	-	12,314,200	12,314,200	12,171,937
Employee Benefits	1,497,900	-	-	1,497,900	1,497,900	1,501,498
Transportation and Communication	385,000	-	-	385,000	385,000	190,913
Services	6,502,400	(1,980,600)	(23.3)	8,483,000	36,983,000	5,058,619
Supplies and Equipment	312,600	-	-	312,600	312,600	100,157
Transfer Payments						
Electric Vehicle Overnight Charging Rebate Program	2,150,000	2,150,000	-	-	-	-
Conservation Initiatives	1,900,000	-	-	1,900,000	1,900,000	749,166
Aboriginal Engagement Agreements	200,000	-	-	200,000	200,000	478,704
Green Energy Initiatives	1,347,400	(100,000,000)	(98.7)	101,347,400	201,347,400	1,431,046
Smart Grid Fund	-	(8,000,000)	(100.0)	8,000,000	8,000,000	21,794,370
Other Transactions	1,000	-	-	1,000	1,000	2,459
Less: Recoveries	(2,150,000)	(2,150,000)	-	-	-	-
Total	24,460,500	(109,980,600)	(81.8)	134,441,100	262,941,100	43,478,869

* Estimates, Interim Actuals and Actuals for prior fiscal years are re-stated to reflect any changes in ministry organization and/or program structure. Interim actuals reflect the numbers presented in the 2017 Ontario Budget.

Explanation for Estimates Changes from 2016-17

Green Investment Fund*	(108,000,000)
Operating Efficiencies	(1,930,600)
Grants Ontario System Contribution	(50,000)
	<u>(109,980,600)</u>

* Green Investment Fund includes funding for the Green Energy Initiatives Transfer Payment and the Smart Grid Fund Transfer Payment

By Standard Account


3.2. Item Summary Information – Policy and Programs (Capital Expense)

VOTE/ITEM: 2902 - 04

VOTE: Energy Development and Management

ITEM: Policy and Programs

TYPE: Capital Expense

ITEM DESCRIPTION

Placeholder amount for expenses related to Capital Expense, including Statutory Appropriation for Amortization Expense, the Financial Administration Act.

Table 18: Comparative Details – Policy and Programs (Capital Expense)

Vote/Program	Estimates 2017-18	Change from 2016-17 Estimates	%	Estimates 2016-17 *	Interim Actuals 2016-17 *	Actuals 2015-16 *
	\$	\$		\$	\$	\$
Other Transactions	2,000	-	-	2,000	2,000	-
Total	2,000	-	-	2,000	2,000	-

* Estimates, Interim Actuals and Actuals for prior fiscal years are re-stated to reflect any changes in ministry organization and/or program structure. Interim actuals reflect the numbers presented in the 2017 Ontario Budget.

Explanation for Estimates Changes from 2016-17

No change

3.3. Item Summary Information – Policy and Programs (Capital Assets)

VOTE/ITEM: 2902 - 05

VOTE: Energy Development and Management

ITEM: Policy and Programs

TYPE: Capital Assets

ITEM DESCRIPTION

Placeholder amount for Capital Assets.

Table 19: Comparative Details – Policy and Programs (Capital Assets)

Vote/Program	Estimates 2017-18	Change from 2016-17 Estimates	%	Estimates 2016-17 *	Interim Actuals 2016-17 *	Actuals 2015-16 *
	\$	\$		\$	\$	\$
Land and Marine Fleet	1,000	-	-	1,000	1,000	-
Total	1,000	-	-	1,000	1,000	-

* Estimates, Interim Actuals and Actuals for prior fiscal years are re-stated to reflect any changes in ministry organization and/or program structure. Interim actuals reflect the numbers presented in the 2017 Ontario Budget.

Explanation for Estimates Changes from 2016-17

No change

2905
Electricity Price Mitigation

4. VOTE SUMMARY INFORMATION – ELECTRICITY PRICE MITIGATION

The Electricity Price Mitigation program helps Ontarians manage electricity costs.

Table 20: Vote 2905 – Electricity Price Mitigation (Operating Expense and Operating Assets)

MINISTRY OF ENERGY
Vote 2905 – Electricity Price Mitigation

Vote/Program	Estimates 2017-18	Change from 2016-17 Estimates	%	Estimates 2016-17 *	Interim Actuals 2016-17 *	Actuals 2015-16 *
	\$	\$		\$	\$	\$
OPERATING EXPENSE						
Electricity Price Mitigation Programs	1,464,000,000	1,464,000,000	-	20,800,000	860,000,000	
Northern Ontario Energy Benefit	-	(26,000,000)	(100.0)	26,000,000	26,000,000	26,000,000
Ontario Rebate for Electricity Consumers	-	(300,000,000)	(100.0)	300,000,000	300,000,000	-
Total Operating Expense to be Voted	1,464,000,000	1,138,000,000	349.1	326,000,000	346,800,000	886,000,000
Total Operating Expense	1,464,000,000	1,138,000,000	349.1	326,000,000	346,800,000	886,000,000
OPERATING ASSETS						
Electricity Price Mitigation	1,100,000,000	1,100,000,000	-	-	-	-
Total Operating Assets to be Voted	1,100,000,000	1,100,000,000		-	-	-
Total Operating Assets	1,100,000,000	1,100,000,000		-	-	-

* Estimates, Interim Actuals and Actuals for prior fiscal years are re-stated to reflect any changes in ministry organization and/or program structure. Interim actuals reflect the numbers presented in the 2017 Ontario Budget.

4.1. Item Summary Information – Electricity Price Mitigation

VOTE/ITEM: 2905 - 01

VOTE: Electricity Price Mitigation

ITEM: Electricity Price Mitigation Programs

TYPE: Operating Expense

SUB-ITEM DESCRIPTION

The Electricity Price Mitigation program helps Ontarians manage electricity costs.

Table 21: Comparative Details – Electricity Price Mitigation Programs (Operating Expense)

Vote/Program	Estimates 2017-18	Change from 2016-17 Estimates	%	Estimates 2016-17 *	Interim Actuals 2016-17 *	Actuals 2015-16 *
	\$	\$		\$	\$	\$
Transfer Payments						
Ontario Clean Energy Benefit	-	-		-	20,800,000	860,000,000
Ontario Electricity Support Program**	140,000,000	140,000,000		-	-	-
Rural or Remote Rate Protection Program**	344,000,000	344,000,000		-	-	-
Northern Ontario Energy Credit	26,000,000	-	-	26,000,000	26,000,000	26,000,000
Ontario Rebate for Electricity Consumers	939,000,000	639,000,000	213.0	300,000,000	300,000,000	-
On-Reserve First Nations Delivery Credit**	15,000,000	15,000,000		-	-	-
Total	1,464,000,000	1,138,000,000	349.1	326,000,000	346,800,000	886,000,000

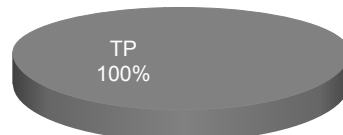
* Estimates, Interim Actuals and Actuals for prior fiscal years are re-stated to reflect any changes in ministry organization and/or program structure. Interim actuals reflect the numbers presented in the 2017 Ontario Budget.

** Subject to enacting pending legislation and associated regulations supporting Ontario's Fair Hydro Plan

Explanation for Estimates Changes from 2016-17

Ontario Fair Hydro Plan initiatives	1,138,000,000
	<u>1,138,000,000</u>

By Standard Account



Item Summary Information – Electricity Price Mitigation

VOTE/ITEM: 2905 - 05

VOTE: Electricity Price Mitigation

ITEM: Loans and Investments

TYPE: Operating Asset

SUB-ITEM DESCRIPTION

This program facilitates share sales related to Ontario Power Generation.

Table 22: Comparative Details – Loans and Investments (Operating Expense)

Vote/Program	Estimates 2017-18	Change from 2016-17 Estimates	%	Estimates 2016-17 *	Interim Actuals 2016-17 *	Actuals 2015-16 *
	\$	\$		\$	\$	\$
Loans and Investments						
OPG Share Purchase**	1,100,000,000	1,100,000,000		-	-	-
Total	1,100,000,000	1,100,000,000		-	-	-

* Estimates, Interim Actuals and Actuals for prior fiscal years are re-stated to reflect any changes in ministry organization and/or program structure. Interim actuals reflect the numbers presented in the 2017 Ontario Budget.

** Subject to enacting pending legislation and associated regulations supporting Ontario's Fair Hydro Plan

Explanation for Estimates Changes from 2016-17

OPG Share Purchase	1,100,000,000
	<u>1,100,000,000</u>

2906
Strategic Asset Management

5. VOTE SUMMARY INFORMATION – STRATEGIC ASSET MANAGEMENT

This program supports the Province as shareholder of Hydro One in regards to managing its investment and governance relationship.

Table 23: Vote 2906 – Strategic Asset Management (Operating Expense and Operating Assets)

MINISTRY OF ENERGY
Vote 2906 – Strategic Asset Management

Vote/Program	Estimates 2017-18	Change from 2016-17 Estimates	%	Estimates 2016-17 *	Interim Actuals 2016-17 *	Actuals 2015-16 *
	\$	\$		\$	\$	\$
OPERATING EXPENSE						
Strategic Asset Management and Transformation	280,000,000	210,000,000	300.0	70,000,000	44,624,300	44,170,257
Total Operating Expense to be Voted	280,000,000	210,000,000	300.0	70,000,000	44,624,300	44,170,257
Total Operating Expense	280,000,000	210,000,000	300.0	70,000,000	44,624,300	44,170,257
OPERATING ASSETS						
Strategic Asset Management and Transformation	-	-		-	-	2,600,100,100.00
Total Operating Assets to be Voted	-	-		-	-	2,600,100,100.00
Total Operating Assets	-	-		-	-	2,600,100,100.00

* Estimates, Interim Actuals and Actuals for prior fiscal years are re-stated to reflect any changes in ministry organization and/or program structure. Interim actuals reflect the numbers presented in the 2017 Ontario Budget.

5.1. Item Summary Information – Strategic Asset Management and Transformation

VOTE/ITEM: 2906 - 01

VOTE: Strategic Asset Management

ITEM: Strategic Asset Management and Transformation

TYPE: Operating Expense

ITEM DESCRIPTION

Strategic Asset Management and Transformation supports the Province as shareholder of Hydro One.

Table 24: Comparative Details – Strategic Asset Management and Transformation (Operating Expense)

Vote/Program	Estimates 2017-18	Change from 2016-17 Estimates	%	Estimates 2016-17 *	Interim Actuals 2016-17 *	Actuals 2015-16 *
	\$	\$		\$	\$	\$
Services	99,999,000	29,999,000	42.9	70,000,000	44,624,300	44,170,257
Transfer payments						
Conferred Benefit Amount	135,000,000	135,000,000		-	-	-
Strategic Asset Management						
Indigenous Engagement	1,000	1,000		-	-	-
Cash Contribution for First Nations	45,000,000	45,000,000		-	-	-
Total	280,000,000	210,000,000	300.0	70,000,000	44,624,300	44,170,257

* Estimates, Interim Actuals and Actuals for prior fiscal years are re-stated to reflect any changes in ministry organization and/or program structure. Interim actuals reflect the numbers presented in the 2017 Ontario Budget.

Explanation for Estimates Changes from 2016-17

Support to broaden the ownership of
Hydro One

30,000,000

Support for First Nations participation

180,000,000

210,000,000

By Standard Account

