SUMMARY OF LEGISLATIVE FRAMEWORK

1.0 PURPOSE

The purpose of this evidence is to provide a summary of the extensive legislative and regulatory framework as well as other government requirements that govern OPG and apply to OPG's prescribed facilities. The evidence also summarizes relevant best practices and guidelines to which OPG adheres, particularly in matters where regulations are under development.

This evidence is substantially the same as that filed in EB-2016-0152, with the following exceptions: the discussion of amendments to Ontario Regulation 53/05 ("O. Reg. 53/05") made subsequent to EB-2016-0152 in Section 3 (Attachment 1); the addition of the discussion of the Independent Electricity System Operator's ("IESO") electricity market renewal program in Section 5; changes to legislation regarding environmental assessments in Section 9.2; and introduction of legislation regarding public sector compensation in Sections 10.2 and 10.3.

2.0 INTRODUCTION

OPG is subject to provincial and federal legislation and regulations, including the decisions of administrative tribunals or other regulatory bodies whose powers are derived from such legislation or regulations (e.g., the Ontario Labour Relations Board, the IESO, and the Canadian Nuclear Safety Commission ("CNSC"), and to Canada's international obligations under certain international treaties (e.g., regarding international boundary waters and nuclear safeguards). Compliance with the legislative framework can drive the need for certain programs and capital and non-capital expenditures, and impact OPG's operations.

3.0 ONTARIO ENERGY BOARD ACT

The *Ontario Energy Board Act, 1998* (the "Act"), when read in conjunction with O. Reg. 53/05, as made under the Act, as amended, establishes that OPG is a prescribed generator for the purposes of section 78.1 of the Act (Attachment 2). The combination of the Act and O. Reg. 53/05 provide that OPG is entitled to receive just and reasonable payments, subject to specific rules in O. Reg. 53/05, with respect to the output from the prescribed generating facilities.

Since EB-2016-0152, O. Reg. 53/05 was amended on November 6, 2020, requiring that the OEB determine a base payment amount for OPG's prescribed hydroelectric facilities that is equal to the payment amount in effect on December 31, 2021. This payment amount would remain in effect for the period from January 1, 2022 until the OEB's next payment amount order in respect of the prescribed hydroelectric facilities in effect after December 31, 2026. In addition, the amended Regulation requires the establishment of a Pickering Closure Costs Deferral Account. This account will record any employment-related costs and non-capital costs related to third party service providers incurred by OPG arising from any Pickering closure activities. Further details related to the deferral account are found in Ex. H1-1-1.

4.0 ELECTRICITY ACT

Part IV.1 of the *Electricity Act, 1998* applies directly to OPG. The provisions set out in this part of the *Electricity Act, 1998* establish the objects of OPG as well as certain obligations on OPG to provide reports to its shareholder.

5.0 ELECTRICITY MARKETS

Under authority granted to it by the *Electricity Act, 1998*, the IESO administers and ensures compliance with the Market Rules for the Ontario Electricity Market (the "Market Rules"). All of OPG's prescribed generating facilities are registered in the IESO-controlled markets and are therefore required to comply with all applicable Market Rules.

The IESO is currently developing a market renewal program (the "Market Renewal Program"), which is comprised of a series of coordinated initiatives expected to result in a fundamental redesign of Ontario's electricity markets and may impact OPG's prescribed facilities depending on the ultimate market design and implementation. OPG is actively participating in the development of the Market Renewal Program and continues to collaborate with the IESO.

As set out in Ex. A1-3-1, OPG plans to file a separate application to address any changes resulting from the Market Renewal Program once the IESO has completed the detailed design phase and advanced the implementation phase of the program.

6.0 OEB LICENCE

OPG holds an Electricity Generation Licence (EG-2003-0104) from the OEB, which is valid until October 30, 2023 (the "Licence"). The Licence can be found in Attachment 3.

The Licence applies to all generating stations that are owned and/or operated by OPG, including the prescribed facilities. The Licence obligates OPG to comply with all applicable provisions of the Act, the *Electricity Act, 1998*, all regulations under these acts, and all applicable Market Rules. The Licence further obligates OPG to enter into agreements for the supply of energy or ancillary services where the IESO deems necessary for the purpose of maintaining the reliability and security of the IESO-controlled electricity grid. On April 9, 2020, as part of EB-2019-0258/EB-2020-0110 relating to a licence amendment application by OPG's unregulated subsidiary, Portlands Energy Centre Inc. on behalf of Portlands Energy Centre L.P., the OEB also ordered the amendment of the Licence to include licence conditions on ring-fencing of market functions and requirements to offer into IESO administered markets. Ancillary services provided by the nuclear facilities are discussed in Ex. G2-1-1.

7.0 REGULATED HYDROELECTRIC GENERATING FACILITIES

OPG's prescribed hydroelectric facilities are subject to international treaties between Canada and the United States; federal and provincial regulatory and legislative requirements; and common law as it pertains to riparian interests, waterways, and real property. The key regulatory obligations and constraints applicable to the prescribed hydroelectric facilities are highlighted below.

7.1 Water Rights and Usage

Relevant legislation and agreements include:

- *Public Lands Act* (Ontario);
- *Lakes and Rivers Improvement Act* (Ontario);
- *Niagara Parks Act* (Ontario);
- *Boundary Waters Treaty of 1909 between Great Britain and the United States* (sanctioned by the Parliament of Canada);
- *Niagara Diversion Treaty of 1950* between Canada and the United States;

- *Niagara Development Act, 1951* (Ontario);
- Agreement between OPG and the Niagara Parks Commission, February 2005;
- *International Rapids Power Development Agreement Act, 1952*, between Canada and Ontario;
- *St. Lawrence Development Act, 1952 (No. 2)* (Ontario);
- *Dominion Water Power Act* and *Dominion Water Power Regulations* (Canada);
- *Ottawa River Water Powers Act, 1943* (Ontario and Quebec);
- Agreement Respecting Ottawa River Basin Regulation, 1983 (Canada, Ontario, Quebec) pertaining to management and regulation of the waters within the Ottawa River basin;
- Agreement Regarding the Review of the Rent for the Water Powers of the Ottawa River, executed November 2020 (Ontario, Quebec, Hydro Quebec and OPG)
- *Lake of the Woods Control Board Act* (Canada, 1921, and Ontario, 1922);
- *Tripartite Agreement (Canada, Ontario, and Manitoba),1922*, pertaining to control of upper waters of the Winnipeg River;
- *Lac Seul Conservation Act, 1928* (Canada and Ontario);
- *Lake of the Woods Control Board Amendment Act, 1958* (Canada, Ontario, and Manitoba);
- *Manitoba-Ontario Lake St. Joseph Diversion Agreement Authorization Act, 1958* (Manitoba, Ontario, Manitoba Hydro-Electric Board, and Hydro-Electric Power Commission of Ontario);
- *Electricity Act, 1998*, section 92.1, which addresses the gross revenue charge;
- Water Power Leases and Water Power Lease Agreements, Crown Leases and Licences of Occupation with Ontario Ministry of Natural Resources;
- Licences with Parks Canada for facilities on the Trent River and Rideau Canal;
- Lease agreement with St. Lawrence Seaway Management Corporation for diversion of water from the Welland Ship Canal for utilization at DeCew Falls; and
- Agreements between OPG and other utilities/generators (New York Power Authority, Manitoba Hydro, Hydro Quebec, H2O Power L.P.) related to operational requirements/guidelines, joint works, water sharing, water diversions, and compensation settlements.

7.2 Dam Safety

OPG's Safe Operations Policy and the associated Dam Safety Program Management document require that all OPG dams be designed, constructed, operated, and maintained in accordance with all regulations. In the absence of a specific regulation, the Canadian Dam Association ("CDA") Dam Safety Guidelines (2013), the CDA Guidelines for Public Safety Around Dams (2011), or other appropriate industry standards shall apply. These guidelines and OPG's internal standards provide guidance on dam safety covering inspections, testing of flow control equipment, emergency preparedness planning, periodic reviews of safety, and other aspects considered critical for ensuring the safety of the prescribed hydroelectric facilities and their operations.

In Ontario, provincial legislative authority over dams is exercised through the *Lakes and Rivers Improvement Act* and the supporting Regulation 454/96. In August 2011, the Province of Ontario enhanced the direction to dam owners with the provision of new Technical Guidelines for Approval under the *Lakes and Rivers Improvement Act*.

In Quebec, provincial legislative authority over dams is exercised through the *Quebec Dam Safety Act* and the supporting Quebec Dam Safety Regulation. This covers OPG facilities on the Ottawa River.

The Government of Canada exercises authority over dams through the *Canadian Navigable Waters Act* and the *Canada Shipping Act, 2001*, including associated regulations. These acts apply to OPG in relation to the construction of new dams, alterations to existing dams, and the administration of "approved works", such as safety booms and exclusion zones associated with OPG's measures to manage public safety. The Government of Canada has jurisdiction over all boundary waters as well as waters associated with canals. In addition to operating the Sir Adam Beck facilities on the Niagara River and the R.H. Saunders facility on the St. Lawrence River, OPG also operates a number of structures on the Trent Severn Waterway ("TSW") and the Rideau Canal which come under federal jurisdiction. In the case of the OPG facilities located on the TSW and Rideau Canal, the guidelines that OPG is required to follow are administered by Parks Canada's Dam Safety Directive (2009).

Relevant dam safety guidelines and legislation include:

- CDA Dam Safety and Public Safety Around Dams Guidelines;
- *Lakes and Rivers Improvement Act* (Ontario);
- Province of Ontario Dam Safety Technical Guidelines;
- *Canadian Navigable Waters Act* (Canada);
- *Canada Shipping Act, 2001* and the Vessel Operation Restriction Regulations;
- International Joint Commission regulation of the Niagara and St. Lawrence Rivers, pursuant to the *Boundary Waters Treaty of 1909;*
- *Dam Safety Act* (Quebec) and Dam Safety Regulation;
- *Civil Protection Act* (Quebec); and
- Directive for Dam Safety Program of Parks Canada Dams and Water-Retaining Structures.

8.0 NUCLEAR GENERATING FACILITIES

8.1 Nuclear Operations and Materials

OPG's nuclear operations are subject to the jurisdiction of the CNSC, an independent federal government agency that derives its powers from, and is responsible for administering, ensuring compliance with and enforcing the *Nuclear Safety and Control Act*, which is described below. Several of the key regulatory regimes that are uniquely applicable to OPG's nuclear facilities are discussed below.

The *Nuclear Safety and Control Act* is intended to limit the risks to national security, the health and safety of persons and the environment that are associated with the development, production and use of nuclear energy, as well as to limit risks associated with the production, possession and use of nuclear substances, certain equipment and certain related information. This act also implements measures to which Canada has agreed respecting international control of the development, production and use of nuclear energy, including the non-proliferation of nuclear weapons and nuclear explosive devices. In addition, this act establishes the CNSC and delineates its powers.

The CNSC's regulatory control extends to regulating all aspects of site selection, construction, operation and maintenance (including refurbishment for life extension), and decommissioning of nuclear facilities.

The CNSC exercises its mandate in respect of OPG's nuclear operations largely by means of the issuance of operating licences and amendments, as well as through continuous monitoring and inspections to ensure compliance with operating licences, relevant standards and applicable regulations. The regulator issues requests for action and information on a routine basis in the order of 400 pieces of correspondence per station per year. Operating licences, which must be renewed approximately every five to ten years for the generating stations (or ten years in respect of certain nuclear waste facilities), impose numerous conditions and constraints on OPG, including obligations to comply with regulatory documents issued by the CNSC and various external standards and codes (e.g., National Building Code, National Fire Code, Canadian Standards Association ("CSA") Standards). The CNSC has issued a number of regulatory documents for nuclear power plants, including for example, ones relating to maintenance programs, reliability programs, aging management, safety analysis, and emergency preparedness.

For refurbishment of nuclear power plants for life extension, the regulatory process and CNSC expectations have been documented in Regulatory Document *2.3.3 Periodic Safety Reviews*, (which superseded RD-360, Life Extension of Nuclear Power Plants) (see Attachments 4 and 5). This document outlines expectations for, and CNSC acceptance of, Periodic Safety Reviews against modern codes and standards, including requiring a safety factor review, a global assessment report, and the ensuing integrated implementation plan for the corrective actions and safety improvements. Regulatory control by the CNSC is exercised through amended operating licences by including licence conditions that have to be met.

The CNSC also issues guidance documents that provide direction to licensees and applicants on how to meet the requirements set out in the CNSC's regulations, regulatory documents, and licences. It is OPG's practice to incorporate the directions from these guidance documents into the design and operating documents for its nuclear generating stations.

Although the above-mentioned conditions and constraints do not impose a limiting date for continued operation of a nuclear facility, OPG must maintain compliance in order to ensure that the nuclear facility is fit for service and continued operation.

OPG holds two Power Reactor Operating Licences from the CNSC, which allow for the operation of Pickering and Darlington nuclear generating stations, as well as separate licences that authorize the operation of nuclear waste management facilities. OPG also maintains regulated certificates for radioactive material transportation packages, and licences for the possession, transport, and import/export of certain radioactive materials. OPG also maintains a licence for the preparation of site of a new nuclear power plant at the Darlington site.

In addition to the resources and costs associated with complying with the conditions in these licences, the application process for each licence, including significant amendments or renewal, requires extensive preparation and the conduct of public hearings involving CNSC staff and intervening stakeholders. OPG is required to pay a licence fee to the CNSC each year, under the CNSC's Cost Recovery Fees Regulations, which in effect covers the CNSC's costs of staff and resources to administer the licence including compliance activities and inspections. The CNSC also has significant power to regulate licensing under the *Nuclear Safety and Control Act*. OPG's nuclear facilities are required to operate in accordance with numerous regulations under this act, including:

- General Nuclear Safety and Control Regulations;
- Class 1 Nuclear Facilities Regulations;
- Packaging and Transport of Nuclear Substances Regulations, 2015;
- Nuclear Security Regulations;
- Radiation Protection Regulations;
- Nuclear Substances and Radiation Devices Regulations;
- Class II Nuclear Facilities and Prescribed Substances Regulations;
- Nuclear Non-proliferation Import and Export Control Regulations; and
- CNSC Cost Recovery Fees Regulations.

A person or organization may only possess or dispose of nuclear substances, or construct, operate and decommission nuclear facilities in accordance with the terms of a licence issued by the CNSC. Licence terms incorporate the applicable requirements set out in the regulations.

It is a fundamental principle of nuclear regulation that the licensee, in this case OPG, bears responsibility for the safe operation of nuclear facilities. The CNSC sets safety objectives in areas such as radiation protection, physical site security, and the transport of radioactive materials. OPG is required to design, implement, monitor, and continually improve upon its extensive programs in each of these critical areas. The CNSC audits OPG's performance against these objectives, continually monitors OPG's safety performance, and reports annually to Parliament with an assessment of licensee performance in all areas of nuclear safety. The delivery and continual improvement of these programs represent a significant cost driver for OPG in respect of the nuclear facilities.

8.2 Civil Liability

OPG is subject to the *Nuclear Liability and Compensation Act* (Canada), which governs civil liability for nuclear damage in Canada. The legislation requires OPG (and all other operators of nuclear generating stations in Canada) to maintain specified amounts of nuclear liability insurance purchased from a federal government approved insurer or other equivalent forms of financial security approved by the federal government.

8.3 Nuclear Waste Management

The *Nuclear Safety and Control Act* provides the CNSC with authority over nuclear waste from a health, safety and environmental protection perspective. The CNSC licenses all of OPG's waste management facilities. OPG is also subject to the *Nuclear Fuel Waste Act* (Canada) which addresses the long-term handling and disposal of used nuclear fuel.

Coincident with the formation of OPG on April 1, 1999, OPG and the Province of Ontario entered into the Ontario Nuclear Funds Agreement ("ONFA"). The ONFA is an agreement that generally establishes the responsibilities for funding OPG's nuclear waste management and

decommissioning liabilities, which were inherited from Ontario Hydro. The ONFA is discussed in greater detail in Ex. C2-1-1.

8.4 Security Personnel

Beyond the nuclear-specific federal requirements described above, two pieces of provincial legislation apply in respect of the security personnel associated with OPG's nuclear generating facilities. These are the *Police Services Act* (Ontario) and the *Security for Electricity Generating Stations and Nuclear Generating Stations Act* (Ontario).

9.0 ENVIRONMENTAL

9.1 General

The environmental legislation and best practice standards that impact OPG's nuclear and/or prescribed hydroelectric facilities include:

- *Fisheries Act* (Canada);
- *Conservation Authorities Act* (Ontario);
- *Clean Water Act, 2006* (Ontario);
- *Environmental Assessment Act* (Ontario);
- *Environmental Protection Act* (Ontario);
- *Great Lakes Protection Act, 2015* (Ontario);
- *Ontario Water Resources Act*;
- *Endangered Species Act, 2007* (Ontario);
- *Migratory Birds Convention Act* (Canada);
- *Species at Risk Act* (Canada);
- *Transportation of Dangerous Goods Act* (Canada); and
- ISO 14001 Environmental Management System standard, to which OPG has corporate registration.

9.2 The Impact Assessment Act

Since EB-2016-0152, the *Impact Assessment Act* (the "*IAA*") came into force on August 28, 2019 and replaced the *Canadian Environmental Assessment Act,* 2012 (the "*CEAA*"). The *IAA*

broadens the scope of assessments to include environmental, health, social and economic effects of a proposed project on federal lands.

Under the *IAA*, the Impact Assessment Agency of Canada will lead the reviews of major projects and work in collaboration with CNSC to review projects that are subject to regulation under the *Nuclear Safety and Control Act*.

10.0 OTHER

10.1 General

OPG's prescribed facilities are also subject to broad range of generally applicable legislative and regulatory requirements in the following areas:

- Technical standards and safety including corresponding regulations and codes, particularly in respect of fuel storage tanks;
- Heritage;
- Dangerous goods transportation;
- Construction and liens;
- Occupational health and safety;
- Employment standards;
- Labour relations;
- Freedom of information; and
- Relevant municipal by-laws.

10.2 Broader Public Sector Executive Compensation Act

Since EB-2016-0152, on August 13, 2018, the Ontario government implemented the Compensation Framework Regulation ("O. Reg 406/18") issued under the *Broader Public Sector Executive Compensation Act, 2014*. Ontario Regulation 406/18 imposed a cap on base salaries and pay at risk envelopes, capped at the prior pay year. Further details on O. Reg. 406/18 and its impacts on OPG are described in Ex. F4-3-1.

10.3 The Protecting a Sustainable Public Sector for Future Generations Act

Since EB-2016-0152, the *Protecting a Sustainable Public Sector for Future Generations Act, 2019* ("Bill 124"), came into force on November 8, 2019. Bill 124 sets limits on compensation increases for unionized and non-unionized employees in the Ontario public sector. Bill 124 is discussed in further detail in Ex. F4-3-1.

LIST OF ATTACHMENTS

Attachment 1:	Ontario Regulation 53/05
Attachment 2:	Section 78.1 of the OEB Act
Attachment 3:	OPG Electricity Generation Licence
Attachment 4:	Regulatory Document 2.3.3: Periodic Safety Reviews
Attachment 5:	RD-360, Life Extension of Nuclear Power Plants