

## **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 regulated facilities. The evidence also summarizes relevant best practices and guidelines to which OPG adheres particularly in matters where regulations are under development.

The evidence has been updated to reflect developments since EB-2010-0008.

### **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 (i.e., the Ontario Energy Board, the Independent Electricity System Operator and the Canadian Nuclear Safety Commission), and to Canada's international obligations under certain international treaties (i.e., 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 on OPG's operations.

### **3.0 ONTARIO ENERGY BOARD ACT**

The *Ontario Energy Board Act, 1998* ("Act"), when read in conjunction with O. Reg. 53/05, as made under the act, as amended ("Regulation"), establishes that OPG is a prescribed generator for the purposes of section 78.1 of the Act. As such, section 78.1 provides that OPG is entitled to receive payments with respect to the output from the prescribed generating facilities.

The payment amounts for the output from the prescribed facilities are determined in accordance with the order of the OEB then in effect. Section 78.1 further provides that the OEB must make its orders for payments that the OEB determines to be just and reasonable in accordance with the rules that are set out in the Regulation.

On September 13, 2013, the Government of Ontario announced its intention to amend the Regulation to prescribe an additional 48 hydroelectric stations, as discussed further in Ex. A1-3-1. The additional facilities are described in Ex. A1-4-2.

The relevant provisions of the Act are provided at Attachment 1 to this exhibit. The Regulation, in its entirety, is provided in Attachment 2. The Government of Ontario's notice of proposal to amend O. Reg. 53/05 to subject additional hydroelectric facilities to regulation by the OEB is provided in Attachment 3.

#### **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 basic obligations on OPG to provide reports to its shareholder.

#### **5.0 ELECTRICITY MARKETS**

Under authority granted to it by the *Electricity Act, 1998*, the Independent Electricity System Operator ("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.

#### **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 is provided in Attachment 4. The Licence applies to all generating stations that are owned or owned and operated by OPG, including the prescribed facilities. The Licence obligates OPG to comply with all applicable provisions of the *Ontario Energy Board Act*, the *Electricity Act*, 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. Ancillary

services provided by the regulated hydroelectric facilities are discussed in Ex. G1-T1-S1 and for the nuclear facilities in Ex. G2-T1-S1.

## **7.0 REGULATED HYDROELECTRIC FACILITIES**

OPG's regulated 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 regulated hydroelectric facilities are highlighted below.

### **7.1 Water Rights and Usage**

Relevant legislation and agreements include:

- the *Public Lands Act* (Ontario).
- the *Lakes and Rivers Improvement Act* (Ontario).
- the *Niagara Parks Act*. (Ontario)
- the *Boundary Waters Treaty of 1909 between Great Britain and the United States* (sanctioned by the Parliament of Canada).
- the *Niagara Diversion Treaty of 1950* between Canada and the United States.
- the *Niagara Development Act, 1951* (Ontario)
- an Agreement between OPG and the Niagara Parks Commission, February 2005.
- *International Rapids Power Development Agreement Act, 1952*, between Canada and Ontario
- the *St. Lawrence Development Act, 1952 (No. 2)* (Ontario)
- the *Dominion Water Power Act* and *Dominion Water Power Regulations* (Canada)
- the *Ottawa River Water Powers Act, 1943* (Ontario and Quebec)
- an Agreement Respecting Ottawa River Basin Regulation, 1983 (Canada, Ontario, Quebec) pertaining to management and regulation of the waters within the Ottawa River basin.
- an Agreement Concerning the Revision of the Rent for the Water Powers of the Ottawa River, executed 1995 (Quebec, Ontario, Hydro Quebec, and Ontario Hydro)
- the *Lake of the Woods Control Board Act* (Canada, 1921, and Ontario, 1922)

- 1 • *Tripartite Agreement (Canada, Ontario, and Manitoba), 1922*, pertaining to control of
- 2 upper waters of the Winnipeg River.
- 3 • the *Lac Seul Conservation Act, 1928* (Canada and Ontario)
- 4 • the *Lake of the Woods Control Board Amendment Act, 1958* (Canada, Ontario, and
- 5 Manitoba)
- 6 • the *Manitoba-Ontario Lake St. Joseph Diversion Agreement Authorization Act – 1958*
- 7 (Manitoba, Ontario, Manitoba Hydro-Electric Board, and Hydro-Electric Power
- 8 Commission of Ontario)
- 9 • the *Electricity Act, 1998*, section 92.1, which addresses the gross revenue charge.
- 10 • Water Power Leases and Water Power Lease Agreements, Crown Leases and
- 11 Licences of Occupation with Ontario Ministry of Natural Resources
- 12 • Licences with Parks Canada for facilities on the Trent River and Rideau Canal.
- 13 • Lease agreement with St. Lawrence Seaway Management Corporation for diversion
- 14 of water from the Welland Ship Canal for utilization at DeCew Falls.
- 15 • Agreements between OPG and other utilities/generators (New York Power Authority,
- 16 Manitoba Hydro, Hydro Quebec, H2O Power LP) related to operational
- 17 requirements/guidelines, joint works, water sharing, water diversions, and
- 18 compensation settlements.
- 19

## 20 **7.2 Dam Safety**

21 OPG's Safe Operations Policy and the associated Dam Safety Program Management  
22 document require that all OPG dams be designed, constructed, operated and maintained in  
23 accordance with all regulations. In the absence of a specific regulation, the Canadian Dam  
24 Association ("CDA") – Dam Safety Guidelines (2007); the CDA Guidelines for Public Safety  
25 Around Dams, or other appropriate industry standards shall apply. These Guidelines and  
26 OPG's internal standards provide guidance on dam safety covering: inspections, testing of  
27 flow control equipment, emergency preparedness planning, periodic reviews of safety and  
28 other aspects considered critical for ensuring the safety of the regulated hydroelectric  
29 facilities and their operations.

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

5  
6 In Quebec, Provincial legislative authority over dams is exercised through the Quebec Dam  
7 Safety Act (2002) and the supporting Quebec Dam Safety Regulation (2002). This covers  
8 OPG facilities on the Ottawa River.

9  
10 Federally the Government of Canada exercises authority over dams through the Navigable  
11 Waters Protection Act and the Canada Shipping Act, including associated  
12 Regulations. These Acts cover all dams located in Canadian waters. The Acts are applied  
13 for the construction of new dams as well as the alterations to existing dams. Federally the  
14 Government of Canada has jurisdiction over all boundary waters as well as waters  
15 associated with canals. As well as operating the Sir Adam Beck facilities on the Niagara  
16 River and the R.H. Saunders facility on the St. Lawrence River, OPG also operates a number  
17 of structures on the Trent Severn Waterway (TSW) and the Rideau Canal which come under  
18 Federal jurisdiction. In the case of the OPG facilities located on the TSW and Rideau Canal  
19 the guidelines OPG is required to follow are administered by Parks Canada.

20  
21 Relevant dam safety guidelines and legislation include:

- 22 • the Canadian Dam Association ("CDA") – Dam Safety Guidelines (2007).
- 23 • the *Lakes and Rivers Improvement Act* (Ontario).
- 24 • the *Navigable Waters Protection Act* (Canada).
- 25 • the International Joint Commission regulation of the Niagara and St. Lawrence  
26 Rivers, pursuant to the *Boundary Waters Treaty of 1909*.
- 27 • Quebec Dam Safety Act and Dam Safety Regulation.
- 28 • Quebec Civil Protection Act.
- 29 • Directive for Dam Safety Program of Parks Canada Dams and Water-Retaining  
30 Structures.

### 7.3 Environmental

The following environmental legislation and best practice standards impact OPG's regulated hydroelectric facilities:

- *Fisheries Act* (Canada).
- *Conservation Authorities Act* (Ontario).
- *Environmental Assessment Act* (Ontario).
- *Environmental Protection Act* (Ontario).
- *Ontario Water Resources Act* (Ontario).
- *Endangered Species Act, 2007*.
- ISO 14001 Environmental Management System standard, to which OPG's prescribed hydroelectric facilities are registered.

### 7.4 Other

OPG's regulated hydroelectric facilities are also subject to relevant municipal by-laws that apply locally, as well as to more generally applicable legislative and regulatory requirements such as in areas that include:

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

## 8.0 NUCLEAR GENERATING FACILITIES

### 8.1 Nuclear Operations and Materials

OPG's nuclear operations are subject to the jurisdiction of the Canadian Nuclear Safety Commission ("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 (Canada)*, which is described below. Several of the key

1 regulatory regimes that are uniquely applicable to OPG's nuclear facilities are discussed  
2 below.

3  
4 The *Nuclear Safety and Control Act* (Canada) is intended to limit the risks to national  
5 security, health and the safety of persons and the environment that are associated with the  
6 development, production and use of nuclear energy, as well as to limit risks associated with  
7 the production, possession and use of nuclear substances, certain equipment and certain  
8 related information. This Act also implements measures to which Canada has agreed  
9 respecting international control of the development, production and use of nuclear energy,  
10 including the non-proliferation of nuclear weapons and nuclear explosive devices. In addition,  
11 this Act establishes the CNSC and delineates its powers.

12  
13 The CNSC's regulatory control extends to regulating all aspects of site selection,  
14 construction, operation and maintenance (including refurbishment for life extension), and  
15 decommissioning of nuclear facilities, that have bearing on the purposes of the Act.

16  
17 The CNSC exercises its mandate in respect of OPG's nuclear operations largely by means of  
18 the issuance of operating licences and amendments, as well as through continuous  
19 monitoring and inspections to ensure compliance with operating licences, relevant standards  
20 and applicable regulations. The regulator issues requests for action and information on a  
21 routine basis in the order of 400 pieces of correspondence per station per year. Operating  
22 licences, which must be renewed approximately every five years for the generating stations  
23 (or ten years in respect of certain nuclear waste facilities), impose numerous conditions and  
24 constraints on OPG, including obligations to comply with Regulatory Documents issued by  
25 the CNSC and various external standards and codes (i.e., National Building Code, National  
26 Fire Code). The CNSC has issued a number of Regulatory Documents for nuclear power  
27 plants, including for example, ones relating to maintenance programs, reliability programs  
28 and aging management.

29  
30 For refurbishment of nuclear power plants for life extension, the regulatory process and  
31 CNSC expectations have been documented in Regulatory Document RD-360, Life Extension

1 of Nuclear Power Plants. This document outlines expectations for, and CNSC acceptance of,  
2 Integrated Safety Reviews against modern codes and standards, including an Environmental  
3 Assessment, and the ensuing integrated implementation plan for the corrective actions and  
4 safety improvements. Regulatory control by the CNSC is exercised through amended  
5 operating licences by including licence conditions that have to be met.

6  
7 There are also CNSC Guidance Documents that provide direction to licensees and  
8 applicants on how to meet the requirements set out in the CNSC's regulations, Regulatory  
9 Documents, and licences. It is OPG's practice to incorporate the directions from these  
10 Guidance Documents into the design and operating documents for its nuclear generating  
11 stations.

12  
13 With respect to all of these conditions and constraints, while not imposing a limiting date for  
14 continued operation of a nuclear facility, they do need to be addressed on an on-going basis  
15 to justify fitness for service and continued operation.

16  
17 OPG holds two Power Reactor Operating Licences from the CNSC, which allow for the  
18 operation of Pickering and Darlington, as well as separate licences that authorize the  
19 operation of nuclear waste management facilities. OPG also holds licences for nuclear waste  
20 packaging, the construction of new waste management facilities and the possession,  
21 transport, and import/export of various nuclear substances. In addition to the resources and  
22 costs associated with compliance with the conditions in these licences, the application  
23 process for each licence, including significant amendments or renewal, requires extensive  
24 preparation and the conduct of public hearings involving CNSC staff and intervening  
25 stakeholders. Also significant is the CNSC's power under the *Nuclear Safety and Control Act*  
26 to make regulations in the licensing area. OPG's nuclear facilities are required to operate in  
27 accordance with numerous regulations under this Act, including the following:

- 28 • General Nuclear Safety and Control Regulations
- 29 • Class 1 Nuclear Facilities Regulations
- 30 • Packaging and Transport of Nuclear Substances Regulations
- 31 • Nuclear Security Regulations



- 1       • Nuclear Non-proliferation Import and Export Control Regulations
- 2       • CNSC Cost Recovery Fees Regulations

3  
4   A person or organization may only possess or dispose of nuclear substances, or construct,  
5   operate and decommission nuclear facilities in accordance with the terms of a licence issued  
6   by the CNSC, with such terms incorporating the applicable requirements set out in the  
7   regulations.

8  
9   It is a fundamental principle of nuclear regulation that the licensee, in this case OPG, bears  
10   responsibility for the safe operation of nuclear facilities. The CNSC sets safety objectives in  
11   areas such as radiation protection, physical site security, and the transport of radioactive  
12   materials. OPG is required to design, implement, monitor, and continually improve upon its  
13   extensive programs in each of these critical areas. The CNSC audits OPG's performance  
14   against these objectives, continually monitors OPG's safety performance and reports  
15   annually to Parliament with an assessment of licensee performance in all areas of nuclear  
16   safety. The delivery and continual improvement of these programs represent a significant  
17   cost driver for OPG in respect of the regulated nuclear facilities.

## 18 19   **8.2   Civil Liability**

20   OPG is subject to the *Nuclear Liability Act* (Canada), which governs civil liability for nuclear  
21   damage in Canada. Proposed changes to this legislation, expected to be tabled late in 2013,  
22   will result in an increase to OPG's risk management costs which are centrally-held and, in  
23   turn, directly assigned to Nuclear (see Ex. F4-4-1).

## 24 25   **8.3   Nuclear Waste Management**

26   The *Nuclear Safety and Control Act* provides the CNSC with authority over nuclear waste  
27   from a health, safety and environmental protection perspective. The CNSC licenses all of  
28   OPG's waste management facilities. OPG is also subject to the *Nuclear Fuel Waste Act*  
29   (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 the nuclear waste management and decommissioning liabilities that OPG inherited from Ontario Hydro.

The *Nuclear Safety and Control Act*, the *Nuclear Fuel Waste Act* (Canada), and ONFA are discussed in greater detail in Ex. C2-1-1.

#### **8.4 Environmental**

Projects associated with OPG's nuclear facilities, including the nuclear waste management facilities, can be subject to requirements for the preparation of environmental assessments under the *Canadian Environmental Assessment Act* (Canada). In addition, nuclear operations are subject to a wide range of environmental legislation and regulation, both federal (e.g., *Fisheries Act*, *Canadian Environmental Protection Act*, *Transportation of Dangerous Goods Act*, *Species at Risk Act*) and provincial (e.g., *Environmental Protection Act*, *Ontario Water Resources Act*, *Endangered Species Act, 2007*), along with the associated costs of compliance and the need to respond to rapidly changing regulatory requirements in these areas. Also, like the hydroelectric facilities, OPG's nuclear generating facilities operate in accordance with the ISO 14001 environmental management system standard.

#### **8.5 Other**

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 *Public Works Protection Act* (Ontario). OPG expects that the *Public Works Protection Act* will be repealed and replaced by Bill 51: *The Security for Courts, Electricity Generation Facilities and Nuclear Facilities Act, 2012*.

OPG's nuclear facilities are also subject to applicable legislation and regulations in areas such as public access to information (Ontario or, indirectly as an affected third party,

1 Canada), occupational health and safety (Ontario), employment standards (Ontario) and  
2 labour relations (provincial and federal), shipping and hazardous products as well as relevant  
3 municipal by-laws.  
4

## **LIST OF ATTACHMENTS**

1

2

3 Attachment 1: Section 78.1 of the OEB Act

4

5 Attachment 2: Ontario Regulation 53/05

6

7 Attachment 3: Proposed Amendment to Ontario Regulation 53/05

8

9 Attachment 4: OPG Electricity Generation Licence