

1 Bill 150, the *Green Energy and Green Economy Act, 2009*, is an act that enacts the GEA
2 in order to build a green economy. This effectively repeals the Energy Conservation
3 Leadership Act, 2006 and the Energy Efficiency Act and amends other statutes.

4
5 The GEA will boost investment in renewable energy projects and increase conservation,
6 creating green jobs and economic growth to Ontario. The GEA will also expedite the
7 growth of clean, renewable sources of energy, like wind, solar, hydro, biomass and
8 biogas, helping Ontario become North America's leader in renewable energy.

9
10 Specifically this would be achieved by:

- 11 • Creating a Feed-in Tariff that guarantees specific rates for energy generated from
12 renewable sources.
- 13 • Establishing the right to connect to the electricity grid for renewable energy
14 projects that meet technical, economic and other regulatory requirements.
- 15 • Establishing a one stop streamlined approvals process, providing service
16 guarantees for renewable energy projects that meet regulatory requirements.
- 17 • Implementing a 21st century "smart" power grid to support the development of
18 new renewable energy projects and prepare Ontario for new technologies like
19 electric cars.

20 21 **3.0 THE DISTRIBUTION SYSTEM AND RETAIL SETTLEMENT CODES**

22
23 Hydro One is bound by the terms of its Distribution license to adhere to the requirements
24 of the Distribution System Code ("DSC") and the Retail Settlement Code ("RSC"), both
25 of which are administered by the Ontario Energy Board.

26
27 The DSC provides the minimum conditions a distributor must meet in carrying out its
28 obligation to operate, maintain, manage and expand distribution systems and requires

1 Hydro One to operate and maintain its system in accordance with “good utility practice.”
2 The DSC sets out the obligations of electricity distributors with respect to their
3 customers, including the rules governing the economic evaluation of distribution system
4 connections and expansions and also the minimum standards for facilities connected to a
5 distribution system. It also includes guidance on the form of the Connection Agreement
6 for load customers, and includes a Connection Agreement template for generator
7 customers, which covers the technical and commercial responsibilities for both Hydro
8 One and the customer.

9
10 The RSC sets the minimum obligations that distributors and retailers must meet in
11 determining the costs of electricity services. It sets the rules for Hydro One's customer
12 billing process and its interactions with retailers. The main aspects of the RSC include
13 rules for processing service transaction requests, calculating distribution losses on
14 customer bills, meter reading and billing cycles, and defining and setting timelines for
15 billing options (such as retailer consolidated bills).

16
17 Both codes have been periodically amended over time. Hydro One has incorporated, or
18 is in the process of incorporating, these amendments into its work practices and
19 procedures.

20 21 **4.0 ENVIRONMENTAL MANAGEMENT**

22
23 Hydro One Distribution is subject to a wide range of legislation. The following are the
24 major acts that govern Hydro One Distribution's activities. Many others can apply in
25 specific circumstances but the following are applicable to most distribution work.

1 **4.1 Federal Legislation**

- 2
- 3 • *Canadian Environmental Protection Act*, which regulates the management of
4 hazardous substances such as Polychlorinated Biphenyls (“PCBs”).
- 5 • *Fisheries Act*, which regulates fish habitat and pollution prevention in and around
6 water bodies that support fish.
- 7

8 **4.2 Provincial Legislation**

- 9
- 10 • *Environmental Protection Act*, which regulates waste management/disposal, spills
11 and Certificates of Approval.
- 12 • *Ontario Water Resources Act*, which regulates discharges, sewage works and water
13 works.
- 14 • *Pesticides Act*, which regulates the storage, use and application of pesticides.
- 15 • *Environmental Assessment Act*, which regulates the planning and environmental
16 approvals of projects, such as high voltage stations that step down to distribution
17 voltages.
- 18

19 **4.3 Municipal Legislation**

20

21 Many municipal by-laws regulate noise, discharges to sewers, pesticide use and the
22 upkeep/maintenance of properties. The application of these will vary depending on the
23 municipality.

24

25 **4.4 Environmental Management and Governance**

26

27 In order to comply with all legislated requirements, Hydro One Distribution has
28 developed a number of environmental management programs. In addition, governance

1 activities such as management system maintenance, program monitoring and reporting
2 are provided by staff in the Health, Safety & Environment function.

3
4 The following is a summary of the major programs:

5
6 4.4.1 Land Assessment and Remediation

- 7
- 8 • Land and groundwater contamination is a legacy issue from spills, leaks and
9 historical use of persistent herbicides at distribution stations for vegetation control.
10 Underground tanks for fuel storage and dispensing have also been a cause of land and
11 water contamination. At the time that these herbicides were used by the former
12 Ontario Hydro, they were commonly used by North American utilities, and were
13 compliant with regulatory requirements in place at the time. There was no knowledge
14 of their potential negative environmental impact.
 - 15 • Program management and funding requirements are described in Exhibit C1, Tab 2,
16 Schedule 2.
- 17

18 4.4.2 Management of hazardous materials and wastes

19

20 On September 17, 2008, Environment Canada published its final regulations governing
21 the management, storage and disposal of polychlorinated biphenyls (“PCBs”). These
22 regulations were enacted under the *Canadian Environmental Protection Act, 1999*. The
23 new regulations impose timelines for disposal of PCBs based on different types of
24 equipment, in-use status and PCB contamination thresholds.

25

26 Priority will be given to targeting inspection and testing work toward identifying and
27 removing PCBs in assets as quickly as operationally feasible. Assets to be disposed of
28 primarily consist of pole and pad mount distribution transformers and light ballasts which

1 require disposal by 2025. Contaminated distribution and transmission station equipment
2 will generally be decontaminated by removing PCB-contaminated insulating oil and retro
3 filling with less than 2 ppm oil as the liquids are removed.

- 4
- 5 • Hazardous materials such as PCBs and wastes (oils, solvents, etc.) are managed in
6 accordance with regulatory requirements and good management practices;
 - 7 • PCBs are a contaminant in a small percentage of oil-filled electrical equipment. The
8 amount of PCBs has declined due to a program of PCB phase-out and destruction,
9 which began in the mid-1980s. The continued removal of equipment from service in
10 the future will ensure that Hydro One Distribution becomes a PCB-free utility;
 - 11 • Occasionally spills, leaks and fires occur as a result of equipment failure, adverse
12 weather or other causes. Most spills involve mineral oil from electrical equipment
13 such as transformers. The environmental impact of spills is mitigated by a well-
14 developed spill reporting and response system. This involves the timely reporting of
15 spills to all appropriate authorities and the clean-up and remediation of areas
16 impacted by the spill.
 - 17 • Management of these programs and funding requirements are described in
18 Exhibit C1, Tab 2, Schedule 2.

19

20 4.4.3 Vegetation Management (Herbicide Use)

- 21
- 22 • Herbicide use is an integral part of the vegetation management program associated
23 with maintenance of the distribution system, including rights-of-way and stations.
24 Environmental impacts are minimized through the use of approved product types, and
25 approved methods and procedures for application. Property owner approval is
26 obtained prior to the application of any herbicide on private properties. Vegetation
27 management programs and funding requirements are fully described in Exhibit C1,
28 Tab 2, Schedule 2.

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5.0 ELECTRICAL SAFETY AUTHORITY

The Electrical Distribution Safety Regulation 22/04 established objective-based electrical safety requirements for the design, construction and maintenance of electrical distribution systems owned by licensed distributors. It requires:

- Approval of equipment, designs and plans.
- Inspection and certification of construction before it is put into use.
- An assessment of plant based on the Ontario Electrical Safety Code prior to selling plant to non-distributors.
- Approval by the utility to place objects at a distance less than CSA clearance standards from distribution lines.
- Disconnection of unused lines.
- Reporting of serious electrical incidents.
- Annual compliance audits of processes.
- Safety due diligence inspections conducted by the ESA to ensure safety standards are met.

Electrical safety is a very high priority for Hydro One Distribution as indicated in the strategic goals in Exhibit A, Tab 4, Schedule 1. To address this priority Hydro One Distribution has implemented comprehensive training programs to ensure all Electrical Distribution Safety Regulations are adhered to across the corporation. The associated program management and costs are described in Exhibit C1, Tab 2, Schedule 2.

1 **6.0 SMART METERS**

2
3 The Government of Ontario, as part of achieving a conservation culture, is proceeding
4 with time-of-use (TOU) electricity pricing and the installation of smart meters throughout
5 Ontario. The enactment of the *Energy Conservation Leadership Act*, and changes to the
6 *Electricity Act* and the *Ontario Energy Board Act*, along with new regulations, have
7 defined the Government's Smart Meter Initiative, prescribed the technical and functional
8 requirements of the smart meter solutions (Advanced Metering Infrastructure – AMI),
9 and set the path for mass deployment of the meters across Ontario.

10
11 Regulations passed in August, 2006 (O. Reg. 425/06, 426/06 and 427/06), designate the
12 smart metering activities of Hydro One Networks Inc. (among those of other utilities) as
13 authorized discretionary metering activities and prescribe:

- 14
15 • the criteria and requirements for all smart meters and related equipment, systems and
16 technology,
17 • the principles for related procurement activities and
18 • the principles and process for cost recovery.

19
20 In line with the legislative and regulatory requirements, Hydro One has implemented its
21 smart metering program, including smart meter deployment, communication network
22 development, and updating the customer information system (“CIS”) and associated
23 processes to enable it to support TOU and Regulated Price Plan (“RPP”) implementation.
24 These activities will require on-going investments in 2010/2011 and
25 beyond, as identified in Exhibits C1, Tab 2, Schedule 2 and D1, Tab 3, Schedule 2.

26
27 Hydro One's smart metering costs for 2008 are included in a deferral account that is being
28 requested for approval in Exhibit F1, Tab 1, Schedule 1.

1
2 **7.0 CONSERVATION AND DEMAND MANAGEMENT**

3
4 Hydro One has participated in OPA sponsored CDM initiatives such as Summer Savings;
5 Residential and Small Commercial Demand Response; Business Incentive Program; and
6 the Great Refrigerator Roundup. Hydro One intends to continue participating in future
7 OPA-administered CDM programs and will look for opportunities to expand those
8 programs as appropriate. Initial feedback from these programs shows they were
9 successful, and Hydro One will consider extending these programs into future year, as
10 appropriate. Funding for these initiatives will be recovered through the OPA and is not
11 included in revenue requirement requested in this Application.

12
13 **8.0 BILL 198 – INTERNAL CONTROLS**

14
15 Bill 198 requires that the controls that oversee the processes and systems that impact how
16 the company initiates, records, processes, and reports transactions in significant
17 accounts must be documented and evaluated on an annual basis. The Ontario Securities
18 Commission (“OSC”) responded to Bill 198 with new Multilateral Instruments (“MI”)
19 that govern internal controls. These require the CEO and CFO of Hydro One Inc. (as a
20 public debt issuer) to attest to the appropriateness and effectiveness of internal financial
21 controls and financial disclosure processes for the Company's consolidated financial
22 information.

23
24 Hydro One has completed its project to ensure compliance with Bill 198 requirements.
25 This entailed changes to processes and technologies to ensure appropriate documentation
26 is in place. In addition, a unit has been established to sustain the Bill 198 requirement on
27 an on-going basis.

1 **9.0 ACCESS TO INFORMATION (FIPPA) AND PERSONAL PRIVACY**
2 **(PIPEDA)**
3

4 On December 10th, 2003, Hydro One Inc. became subject to Ontario's Freedom of
5 Information and Protection of Privacy ("FIPPA") legislation. On January 1st, 2004, Hydro
6 One Inc. also became subject to Canada's Protection of Individual Privacy and Electronic
7 Documents Act ("PIPEDA"). And most recently, on November 1st, 2004, the Corporation
8 also became subject to Ontario's Personal Health Information Protection Act.
9

10 These pieces of legislation require that the Corporation provide public access to business
11 records, as well as appropriate access to (and protection of) personal information. The
12 personal information of customers and, in specific circumstances, employees, is now
13 subject to legislated standards of protection.
14

15 **10.0 BILL 100 ELECTRICITY RESTRUCTURING ACT, 2004**
16

17 The *Electricity Act, 1998* and the *Ontario Energy Board Act, 1998*, as amended from
18 time to time, primarily establish the broad legislative framework for Ontario's
19 competitive electricity market. The *Electricity Act, 1998* implemented the fundamental
20 principles of the restructuring of Ontario's electricity industry, enabling the
21 implementation of open non-discriminatory access to transmission and distribution
22 systems. The *Ontario Energy Board Act, 1998* expanded the jurisdiction and mandate of
23 the OEB to include regulation of the electricity and natural gas markets. Both statutes
24 have been amended several times. Amending statutes include: *Reliable Energy and*
25 *Consumer Protection Act, 2002* *Electricity Pricing, Conservation and Supply Act, 2002*,
26 *Ontario Energy Board Amendment Act (Electricity Pricing), 2003*, *Electricity*
27 *Restructuring Act, 2004* and *Ontario Energy Board Consumer Protection and*
28 *Governance Act, 2003* and the *Energy Conservation Responsibility Act, 2006*.

1 Bill 100, the *Electricity Restructuring Act, 2004*, was passed by the Ontario Legislature at
2 the end of 2004, and as stated above, amended the *Electricity Act, 1998* and the *Ontario*
3 *Energy Board Act, 1998*.

4
5 Bill 100, the Electricity Restructuring Act, 2004, which was passed at the end of 2004,
6 enabled changes to electricity market settlement and billing processes. These changes
7 included the implementation of the Provincial Benefit for customers billed on spot market
8 commodity price and the introduction of the RPP. Hydro One made changes to its billing
9 and settlement systems in order to calculate settle and bill the Provincial Benefit, and the
10 RPP. This included adjusting the two-tiered pricing and consumption thresholds in May
11 and November of each year, plus changes to settlements with the IESO due to differences
12 between the spot price and the two-tiered regulated price. Costs for this initiative are
13 included in the Customer Care OM&A expenditures for 2010/2011 that are detailed in
14 Exhibit C1, Tab 2, Schedule 5.