

A Progress Report on Contracted Electricity Supply



2012
Fourth
Quarter



Preface

The Ontario Power Authority (OPA) was established by the Ontario government under the *Electricity Restructuring Act, 2004* (amending the *Electricity Act, 1998*), as Ontario's long-term energy planner to accommodate Ontario's growing electricity demand and to ensure a clean, reliable, cost-effective and sustainable supply of electricity for Ontarians.

In accordance with the Ontario Energy Board (OEB) Order EB-2005-0489 dated March 3, 2006, the OPA posts regular updates on its website on the progress of procurement initiatives, including the progress of selected projects, subject to confidentiality constraints. *A Progress Report on Contracted Electricity Supply* is posted on a quarterly basis to provide an update on the status of the OPA's contracted electricity supply projects and procurement initiatives.

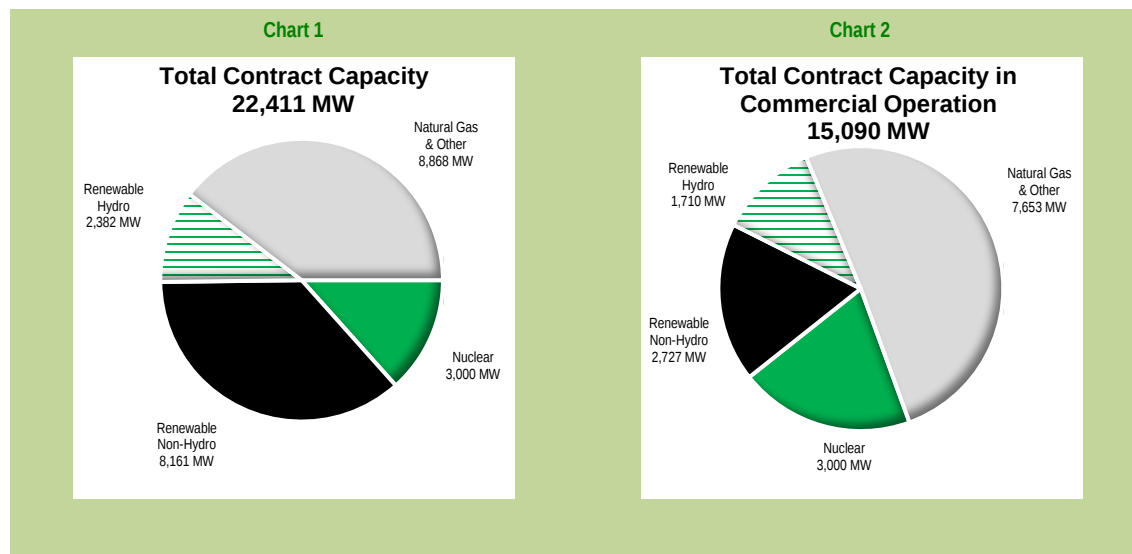
Together with our partners, we ensure that electricity needs are met for the benefit of Ontario both now and in the future. We plan and procure electricity supply from diverse resources and facilitate the measures needed to achieve ambitious conservation targets.

Table of Contents

Preface.....	1
Executive Summary	3
Overview.....	3
New Contracts	5
Contracts That Reached Commercial Operation.....	5
Contract Amendments.....	6
Contract Terminations.....	6
Contract Capacity – Progress Table.....	7
Aboriginal and Community Participation.....	7
Renewable Energy	8
Non-Hydroelectric Projects	8
Renewable Program Projects – Development Status.....	12
Natural Gas and Other Fuel Sources	15
Simple Cycle and Combined Cycle Projects.....	15
Combined Heat and Power Projects.....	15
Energy-from-Waste Projects.....	15
Nuclear	18
Bruce A Restart and Refurbishment Projects	18
Photo Gallery	19
Appendices	23
Appendix I: OPA Contracts and Contract Capacity.....	23
Appendix II: Non-Standard Offer Program Contracted Facilities in Commercial Operation.....	25
Appendix III: Non-Standard Offer Program Contracted Facilities Under Development.....	30
Appendix IV: Summary of RESOP and FIT Contracts.....	33

Executive Summary

Overview



As of the end of the fourth quarter of 2012, the OPA administered contracts for 22,411¹ megawatts (MW) of electricity supply² generation.

Of this 22,411 MW of supply capacity, 4,728³ MW were procured from existing generating facilities, which required minimal or no new capital investment. The remaining capacity of 17,736 MW was procured from new development, expansion, redevelopment, or refurbishment of existing facilities. This capacity represents about \$37 billion of new capital investment in power generation in Ontario's electricity system since 2005.

Since the last reporting period, the overall net increase in contracted capacity was 920 MW and the capacity that achieved commercial operation was 1,543 MW, including a combined capacity of 1,500 MW from Bruce A Units 1 and 2.

By the end of the reporting period, the OPA had 8,161 MW of renewable non-hydroelectric, 2,382 MW of renewable hydroelectric, 8,868 MW of natural gas and other fuel sources and 3,000 MW of nuclear capacity under contract (see Chart 1).

Of this total capacity, 2,727 MW from renewable non-hydroelectric, 1,710 MW from renewable hydroelectric, 7,653 MW from natural gas and other fuel sources and 3,000 MW from nuclear generation were in commercial operation, for a total of 15,090 MW (see Chart 2). The remaining 7,374 MW of the OPA's contracted capacity were in various stages of development.

¹ Throughout this report, variations in MW and percentage occur due to value rounding.

² All capacity figures in this report refer to average contract capacity.

³ Including existing Smoky Falls Generating Station with a capacity of 53 MW which will be decommissioned in January 2015.

Within the total renewable generation capacity, about 1,402 MW were contracted with Aboriginal participation and 228 MW were contracted with community and municipal participation. This represented about 7.3 percent of the OPA's total procured generation capacity.

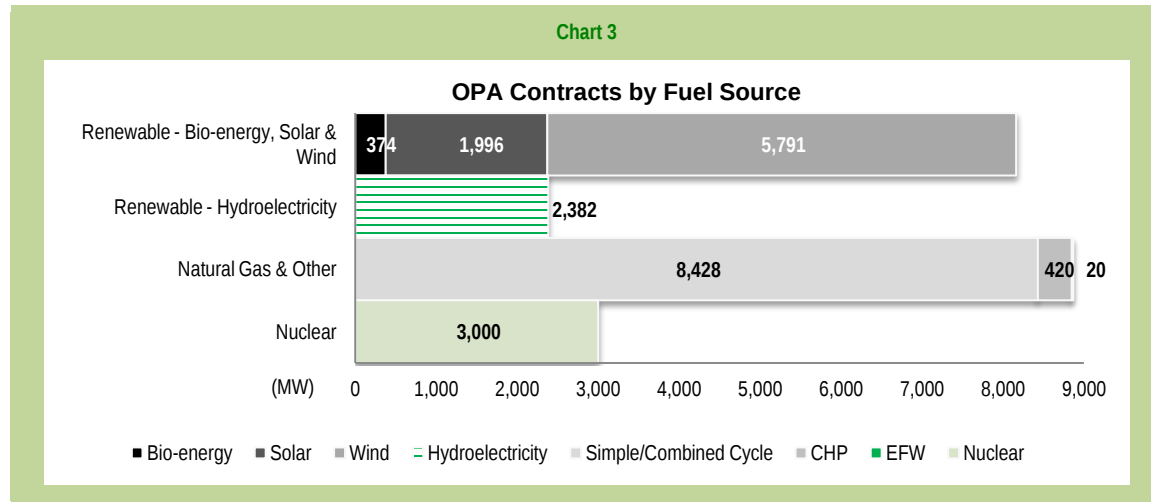


Table 1: Breakdown of Total Contract Capacity as of December 31, 2012

	Total	Under Development	Commercial Operation
Renewables			
Bio-energy	374	312	63
Solar	1,996	1,350	645
Wind	5,791	3,772	2,019
Non-Hydroelectric – Subtotal (MW)	8,161	5,434	2,727
Hydroelectric	2,382	725	1,710 ³
Renewables – Subtotal (MW)	10,543	6,159	4,437
Natural Gas and Other Fuel Sources			
Combined Heat and Power (CHP)	420	6	414
Simple Cycle and Combined Cycle (SC/CC)	8,428	1,189	7,239
Energy-from-Waste (EFW)	20	20	-
Natural Gas and Other – Subtotal (MW)	8,868	1,215	7,653
Nuclear			
Bruce A	3,000	-	3,000
Nuclear – Subtotal (MW)	3,000	-	3,000
Total Contract Capacity (MW)	22,411	7,374	15,090

³Including existing Smoky Falls Generating Station with a capacity of 53 MW which will be decommissioned in January 2015.

New Contracts

Natural Gas and Other Fuel Sources

Simple Cycle and Combined Cycle

Within the reporting period, the OPA executed a long-term supply agreement with Ontario Power Generation (OPG) for the Lennox Generating Station (GS) for the period of January 1, 2013 to September 30, 2022. It will provide reliability during peak demand times and back up when other sources are not available.

Energy-from-Waste

Within the reporting period, the OPA entered into an energy-from-waste pilot contract with Plasco Trail Road Inc. for its 2.8-MW Plasco Trail Road energy-from-waste facility located in Ottawa, Ontario.

Renewable Energy – Non-Hydroelectricity

Solar

Within the reporting period, 6.9 MW of combined capacity was contracted through the micro Feed-in Tariff (microFIT) Program.

Renewable Energy – Hydroelectricity

Within the reporting period, the OPA entered into a Hydroelectric Contract Initiative (HCI) contract with Jancal Power Ltd. for its existing 0.25-MW Saugeen Generating Station near Town of Durham, Ontario.

Contracts That Reached Commercial Operation

Renewable Energy – Non-Hydroelectricity

Bio-energy

Within the reporting period, 0.8 MW of combined capacity came into commercial operation under the Feed-in Tariff (FIT) Program.

Solar

Within the reporting period, 39.5 MW of combined capacity came into commercial operation under the FIT and microFIT programs.

Wind

Within the reporting period, 4.0 MW of combined capacity came into commercial operation under the FIT Program.

Nuclear Energy

Bruce A Units 1 and 2 with a combined capacity of 1,500 MW came into commercial operation in October 2012.

Contract Amendments

Renewable Energy – Non-Hydroelectricity

Bio-energy

Within the reporting period, capacity was reduced by 0.3 MW through contract amendments under the FIT Program.

Solar

Within the reporting period, capacity was increased by 0.8 MW through contract amendments under the FIT Program.

Renewable Energy – Hydroelectricity

Within the reporting period, capacity was increased by 6.1 MW through contract amendments under the FIT Program.

Within the reporting period, the OPA reached an agreement with Yellow Falls Power Limited Partnership to amend its Renewable Energy Supply II contract. The capacity of the originally contracted facility has been reduced to 16 MW from 20 MW. The facility, Yellow Falls Generating Station, is located on the Mattagami River near the town of Smooth Rock Falls, Ontario. The facility is forecasted to be completed in the third quarter of 2016.

Natural Gas and Other Fuel Sources

Simple Cycle and Combined Cycle

Within the reporting period, the OPA reached an agreement with TransCanada Energy to develop a relocated 900-MW natural gas-fired power plant on the site of OPG's Lennox Generating Station in eastern Ontario. The facility, Napanee Generating Station, is forecasted to be completed in the fourth quarter of 2018.

Contract Terminations

Renewable Energy – Non-Hydroelectricity

Solar

Within the reporting period, 1.7 MW of combined capacity from 12 FIT contracts were terminated due to contract counterparties failing to meet contract requirements.

Renewable Energy – Hydroelectricity

Within the reporting period, 4.6 MW of combined capacity from five FIT contracts were terminated due to the contract counterparty failing to meet contract requirements.

Contract Capacity – Progress Table

The following table shows the OPA's contracted capacity that has achieved commercial operation since 2005, and the capacity that will reach commercial operation in accordance with the milestone commercial operation dates.

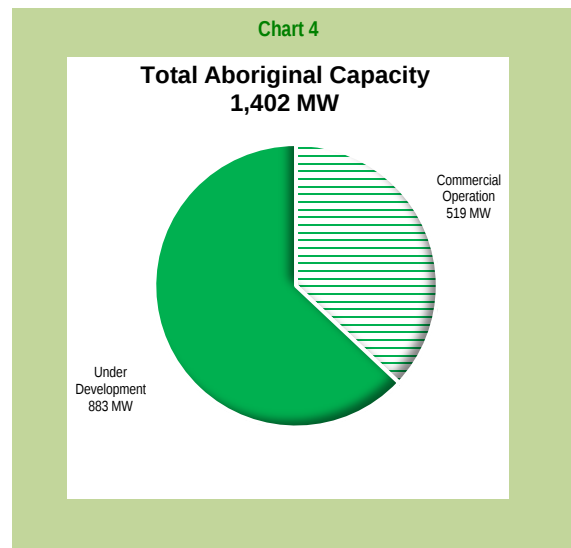
Table 2: Contract Capacity – Commercial Operation Progress Table as of December 31, 2012

Energy Supply	2005-2010	2011	2012	2013	2014	2015	2016	2017	2018	TOTAL (MW)
Renewable	3,348	776	313	1,380	3,785	559	40	8	-	10,543
Natural Gas and Other Fuel Sources	7,260	-	393	-	6	335	309	-	900	8,868
Nuclear	1,500	-	1,500	-	-	-	-	-	-	3,000
Total (MW)	12,108	776	2,206	1,380	3,791	894	349	8	900	22,411
Cumulative Total (MW)	12,108	12,883	15,090	16,470	20,261	21,154	21,503	21,511	22,411	

Aboriginal and Community Participation

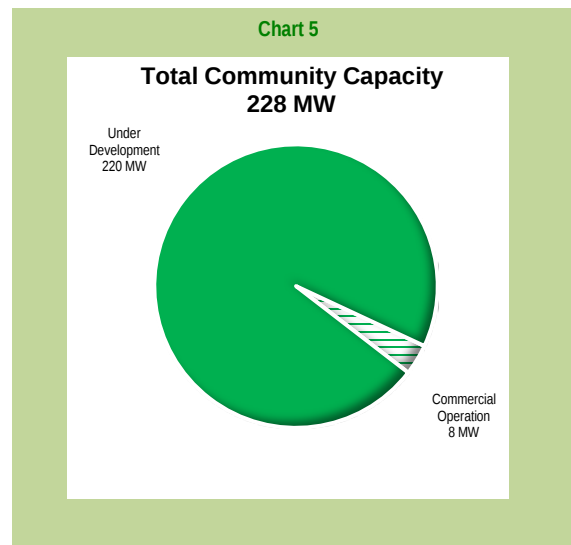
Aboriginal Participation

By the end of the reporting period, 19 First Nations and Métis communities were participating in the development of renewable generation projects throughout Ontario. These Aboriginal groups were participating in 5 MW of solar, 364 MW of wind and 1,033 MW of hydroelectric generation projects.



Community Participation

By the end of the reporting period, 90 communities were participating in the development of renewable generation projects throughout Ontario. These communities were participating in 14 MW of bio-energy, 47 MW of solar and 167 MW of wind projects. Within the reporting period, 1.25 MW of combined capacity from two FIT contracts were terminated due to the contract counterparty failing to meet contract requirements.



Additional Details and Related Links

For further information on the OPA's electricity supply projects, visit <http://www.powerauthority.on.ca/current-electricity-contracts>.

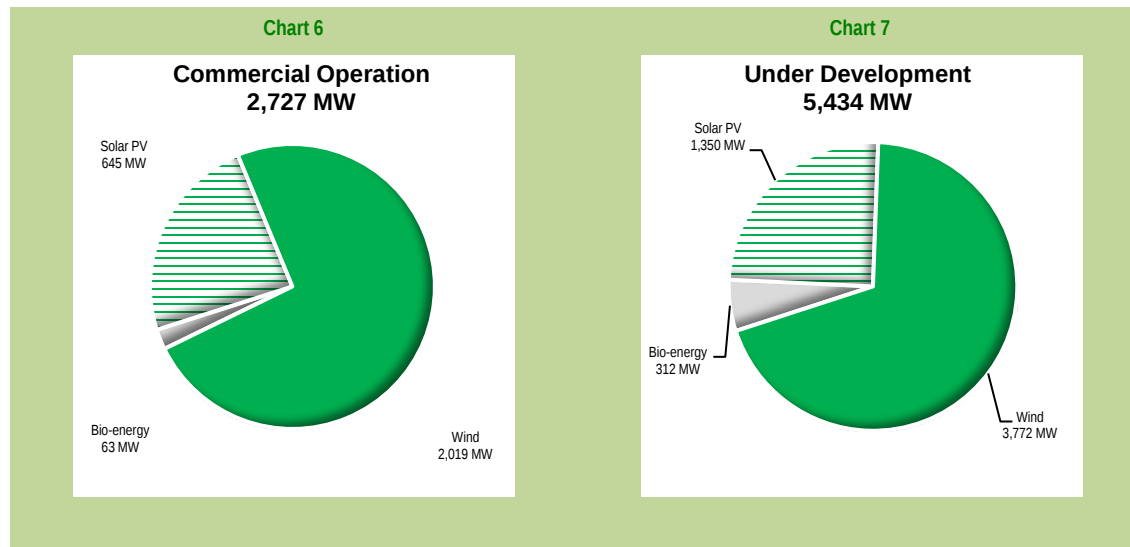
For further information on the OPA's FIT and microFIT programs, visit <http://fit.powerauthority.on.ca>.

For further information on programs offered to First Nations and Métis communities, visit <http://www.powerauthority.on.ca/first-nations-metis-relations/aboriginal-energy-partnership-program>.

Renewable Energy

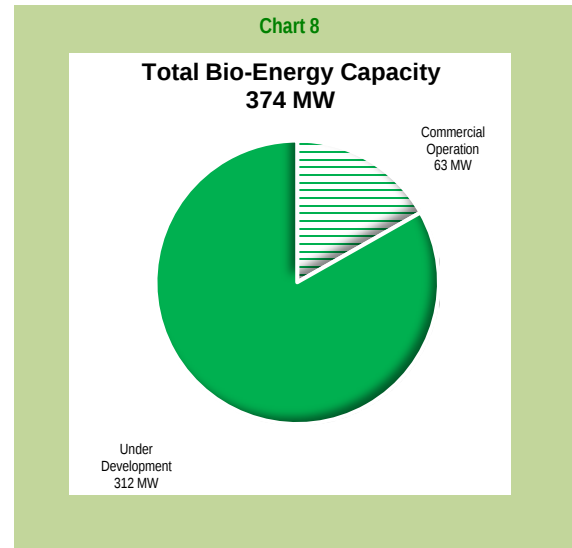
Non-Hydroelectric Projects

By the end of the reporting period, the OPA was managing 8,161 MW of combined capacity from renewable non-hydroelectric energy projects, of which 2,727 MW of capacity were in commercial operation and 5,434 MW were under development. The breakdown is shown in Charts 6 and 7 below.



Bio-Energy

By the end of the reporting period, the OPA was managing 374 MW of combined capacity from bio-energy projects. Of the total capacity, 63 MW were in commercial operation and 312 MW were under development. All of the capacity from projects that were under development is scheduled to be in service at or before the end of 2014.



The status of these non-FIT bio-energy projects as submitted by the developers to the OPA is set out in Table 3.

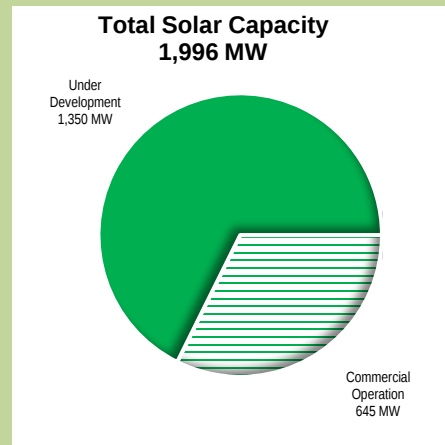
Table 3: Progress Status of non-FIT Bio-Energy Projects as of December 31, 2012

Developer	Project
Ontario Power Generation	Atikokan Generating Station, Atikokan Capacity: 205 MW Status: - Main Engineering, Procurement and Construction (EPC) contract was signed - Fuel Combustion System (FCS) installation contract negotiations were nearing completion - Construction activities were under way
	Becker Cogeneration Plant, Hornepayne Capacity: 8 MW Status: - Turbine refurbishment was continuing - Boiler foundation was poured and structural steel was being erected - Main transformer and switchgear were installed - Electrical room floor was poured and cable trays were being installed - Engineering was 75 percent completed, and building was enclosed and heating system was functional
Resolute FP Canada Inc. (name changed, previously known as AbiBow Canada Inc.)	Thunder Bay Condensing Turbine Project, Thunder Bay Capacity: 40 MW Status: - Cooling tower structure was 96 percent completed - Turbine lower casing, rotor, generator and line/neutral cubicle were installed - Electrical annex building was completed - Installation of electrical and fuel revenue metering equipment was 90 percent completed

Solar

By the end of the reporting period, the OPA was managing 1,996 MW of combined capacity from solar projects. Of the total capacity, 5 MW were developed with Aboriginal participation. All of the capacity from projects that were under development is scheduled to be in service at or before the end of 2014.

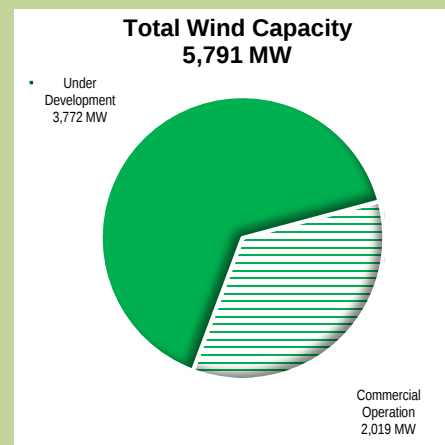
Chart 9



Wind

By the end of the reporting period, the OPA was managing 5,791 MW of combined capacity from wind projects. Of the total capacity, 364 MW were developed with Aboriginal participation. All of the capacity from projects that were under development is scheduled to be in service at or before the end of 2015.

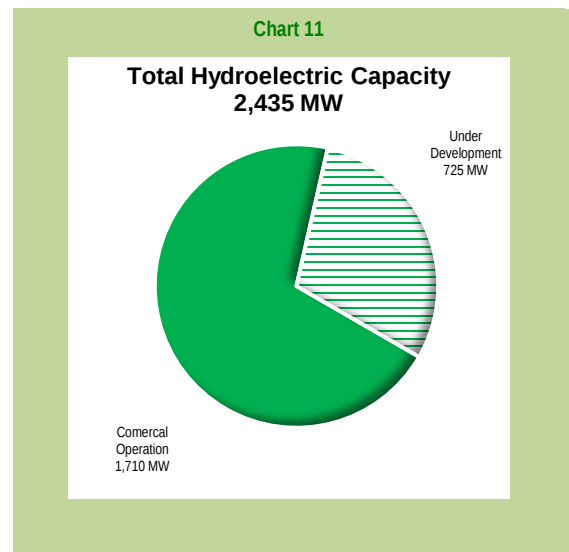
Chart 10



Hydroelectric Projects

Hydroelectricity

By the end of the reporting period, the OPA was managing 2,435 MW of combined capacity from hydroelectric projects. Of the total capacity, 1,033 MW were developed with Aboriginal participation. All of the capacity from projects that were under development is scheduled to be in service at or before the end of 2017.



The status of these non-FIT hydroelectric projects as submitted by the developers to the OPA is set out in Table 4.

Table 4: Progress Status of non-FIT Hydroelectric Projects as of December 31, 2012

Developer	Project
Ontario Power Generation and Moose Cree First Nation Partnership	Lower Mattagami Hydroelectric Station Expansion, Kapuskasing: Mattagami River Capacity: 516 MW (station expansion/redevelopment 491 MW; runner upgrade 25 MW) Status: - Harmon GS – Concrete work continued to progress well. Installation of the turbine embedded parts was completed - Kipling GS – Work at this unit was interrupted prior to December holidays resulting from a failure of water retaining structure. Recovery plans will be initiated in early 2013 - Little Long GS – Delivery of electrical and mechanical parts were continuing. The unit 3 construction area was fully enclosed and insulated. Cofferdam removal was well advanced - Smoky Falls GS – Concrete work continued to progress well. The west service bay of the powerhouse was enclosed and heated. The powerhouse crane was erected and tested. The powerhouse steel superstructure was erected. Tower erection for transmission line to Hydro One connection point was completed, and wire stringing and the station switchyard were well advanced
	Yellow Falls Generating Station, Smooth Rock Falls: Mattagami River Capacity: 16.0 MW Status: An amending agreement was executed and work was expected to resume in 2013
Boralex	

Renewable Program Projects – Development Status

Renewable Energy Standard Offer Program

A total of 856 MW were contracted through the Renewable Energy Standard Offer Program (RESOP); 736 MW were in service and the remaining 120 MW had milestone commercial operation dates prior to the end of 2014.

Feed-in Tariff Program

By the end of the reporting period, 4,545 MW of combined capacity were contracted through the FIT Program, of which 58 MW were from bio-energy, 1,191 MW were from solar, 3,113 MW were from wind and 183 MW were from hydroelectricity. Of this total capacity, 371 MW were in commercial operation. In addition, 130 MW of combined contract capacity from solar generation were in commercial operation under the microFIT Program.

Furthermore, 858 MW of capacity were from projects that reached the notice to proceed (NTP) stage of development. Of these, 22 MW were from bio-energy, 367 MW were from solar, 407 MW were from wind and 63 MW were from hydroelectric generation. The remaining 3,317 MW were in the pre-NTP stage of development, of which 23 MW were from bio-energy, 724 MW were from solar, 2,450 MW were from wind and 121 MW were from hydroelectric generation.

Feed-in Tariff Projects – Progress Table

The status of selected large FIT projects as submitted by the developers to the OPA is set out in Table 5.

Legend

Reg EA	Regulatory Environmental Approvals	SIA	System Impact Assessment
CIA	Connection Impact Assessment	DCP	Domestic Content Plan
FIN	Financing Plan	NTP	Notice to Proceed
CON	Construction		

Progress

C	Complete	U	Under Way
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Table 5: Progress Status of Selected Feed-in Tariff Projects as of December 31, 2012

Developer (total capacity under development)	Project Name	Location	MW	Pre-NTP								Achieved NTP	CON	
				Reg EA		SIA/CIA		DCP		FIN			U	C
				U	C	U	C	U	C	U	C			
Algonquin Power	Amherst Island Wind Project	Stella	75	✓			✓		✓	✓				
Capital Power GP Holdings Inc.	Port Dover/ Nanticoke Wind Project	Walpole	105		✓		✓							
China Longyuan Power Group Corporation Limited	Dufferin Wind Farm	Shelburne	100	✓			✓		✓	✓				
DP Energy (60 MW)	Bow Lake Phase 1 (wind)	Montreal River Harbour	20	✓			✓	✓		✓				
	Bow Lake Phase 2a (wind)	Montreal River Harbour	20	✓			✓	✓		✓				
	Bow Lake Phase 2b (wind)	Montreal River Harbour	20	✓			✓	✓		✓				
Henvey Inlet First Nation	Nigig Power Corporation (wind)	Pickerel	300		✓	✓			✓	✓				
Invenenergy Wind Canada ULC.	Conestogo Wind energy Centre 1	Drayton	69	✓			✓	✓		✓				
NextEra Energy (409 MW)	Bluewater Wind Energy Centre	Zurich	60	✓			✓		✓	✓				
	Bornish Wind Energy Centre	Keyser	74	✓			✓	✓		✓				
	East Durham Wind Energy Centre	Priceville	23	✓		✓		✓		✓				
	Goshen Wind Energy Centre	Dashwood	102	✓			✓	✓		✓				
	Jericho Wind Energy Centre	Thedford	150	✓			✓	✓		✓				
Niagara Region Wind Corporation	Niagara Region Wind Farm	Smithville	230	✓			✓		✓	✓				
Northland Power (150 MW)	Grand Bend Wind Farm	Zurich	100	✓		✓			✓					
	McLean's Mountain Wind Farm	Little Current	50	✓			✓		✓		✓			
Pic Mobert First Nation and White River Hydro Limited Partnership (a	Gitchi Animki Bezhig Generating Station	Brothers Township	9		✓		✓		✓		✓	✓		

Developer (total capacity under development)	Project Name	Location	MW	Pre-NTP								Achieved NTP	CON	
				Reg EA		SIA/CIA		DCP		FIN			U	C
				U	C	U	C	U	C	U	C			
wholly owned subsidiary of Regional Power Inc.) (19 MW)	Gitchi Animki Niizh Generating Station	Brothers Township	10		✓		✓		✓		✓	✓		
Samsung C&T Corporation and Korea Electric Power (1,070 MW)	Armow (wind)	Kincardine	180	✓		✓		✓		✓				
	Grand Renewable Energy Park (wind)	Haldimand County	150		✓		✓	✓		✓				
	K2 (wind)	Ashfield-Colborne-Wawanosh	270	✓			✓	✓		✓				
	South Kent (wind)	Chatham-Kent	270		✓		✓	✓		✓				
	Grand Renewable Energy Park (solar)	Haldimand County	100		✓		✓	✓		✓				
	Sol-Luce Kingston Solar Energy Project	Kingston & Loyalist Township	100	✓			✓							
Suncor Energy Products Inc.	Cedar Point Wind Power Project Phase II	Forest	100	✓		✓								
Veresen Inc.	Grand Valley Wind Farms Phase 3	Grand Valley	40	✓			✓	✓						
wpd Canada Corp.	White Pines Wind Farm	Milford	60	✓			✓	✓						

Natural Gas and Other Fuel Sources

Chart 12

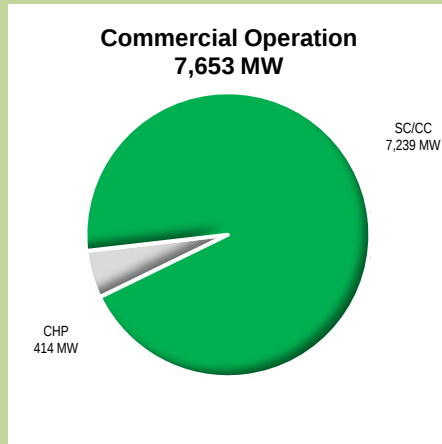
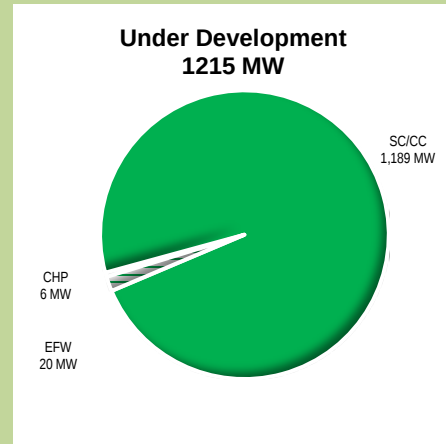


Chart 13



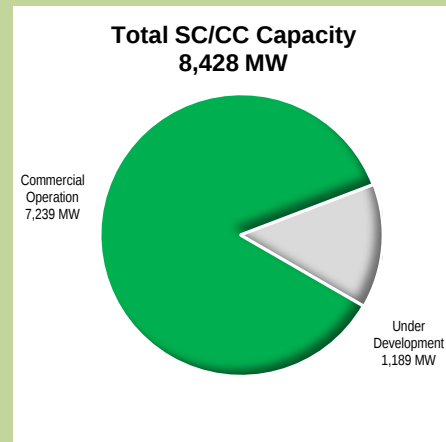
By the end of the reporting period, the OPA was managing 8,868 MW of combined capacity from natural gas-fired projects and projects with other fuel sources. This capacity included 8,428 MW from simple cycle and combined cycle facilities, 420 MW from combined heat and power contracted facilities and a 20-MW energy-from-waste facility. Of this capacity, 7,653 MW were under commercial operation and 1,215 MW were under development.

Simple Cycle and Combined Cycle Projects

Simple Cycle and Combined Cycle

By the end of the reporting period, the OPA was managing 8,428 MW of combined capacity from simple cycle and combined cycle projects. Of this capacity, 7,239 MW were already in operation and 1,189 MW were under development.

Chart 14



The status of the combined cycle project as submitted by the developers to the OPA is set out in Table 6.

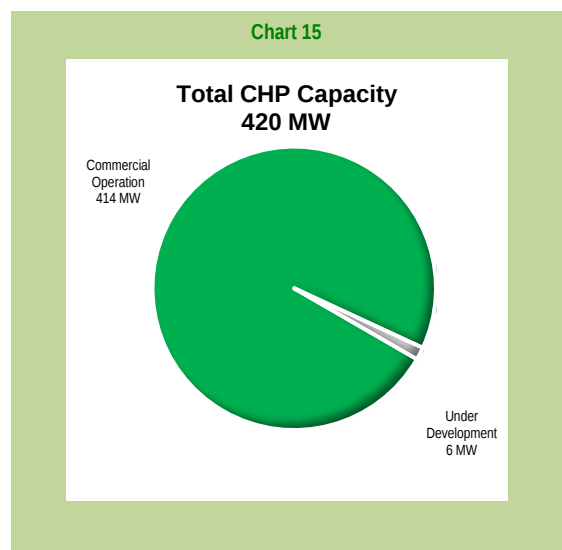
Table 6: Progress Status of Simple Cycle and Combined Cycle Projects as of December 31, 2012

Developer	Project
Greenfield South Power Corporation	Green Electron Power Plant, Sarnia Capacity: 289 MW Status: • Notice of completion of environmental screening and review report were issued • Consultation and accommodation process continued with First Nations groups • Site permitting was in progress
	Napanee Generating Station, Town of Greater Napanee Capacity: 900 MW Status: • Lennox Generating Station lands agreement of purchase and sale and shared site agreement between Ontario Power Generation and TransCanada Energy Ltd. were executed • Field work and consultations were started for environmental permits, consent and other approvals • Site due diligence activities were started for facility permitting and engineering
TransCanada Energy Ltd.	

Combined Heat and Power Projects

Combined Heat and Power

By the end of the reporting period, the OPA was managing 420 MW of combined capacity from combined heat and power contracted projects. The 6 MW of capacity from the two projects listed in the following table were scheduled to be in service by 2014.



The status of the two CHP projects under development as submitted by the developers to the OPA is set out in Table 7.

Table 7: Progress Status of Combined Heat and Power Projects as of December 31, 2012

Developer	Project
Markham District Energy Centre Inc.	Birchmount Energy Centre, Markham Capacity: 2.6 MW Status: - Detailed engineering design was nearing completion - Major equipment was scheduled to ship to site at the end of March 2013
	Bur Oak Energy Centre, Markham Capacity: 3.3 MW Status: - Detailed engineering design was nearing completion - Major equipment was scheduled to ship to site at the end of March 2013

Energy-from-Waste Projects

By the end of the reporting period, the OPA was managing 20 MW of capacity from one energy-from-waste project which was under development. The target for commercial operation is mid-2016.

The status of the energy-from-waste project as submitted by the developer to the OPA is set out in Table 8.

Table 8: Progress Status of Energy-from-Waste Project as of December 31, 2012

Developer	Project
Regional Municipality of Durham-York	Durham York Energy Centre, Municipality of Clarington Capacity: 20 MW Status: - Major equipments were procured or on route to the facility - Refuse cranes for the refuse pit were delivered and installed, and refuse chute and stoker grates were delivered - Civil concrete construction activities including refuse building, boiler building, turbine generator building and pedestal and residue handling building were in progress - Electrical underground conduit work was nearing completion

Nuclear

Bruce A Restart and Refurbishment Projects

The OPA had 3,000 MW of nuclear energy supply capacity under contract; 1,500 MW were from the restart of units 1 and 2, which were completed at the end of October 2012. The other 1,500 MW were from units 3 and 4, which were in operation prior to contract execution and continued operations during the reporting period. These two units will be refurbished when they reach their end-of-service life.

For additional information on the Bruce A Restart Project, visit

<http://powerauthority.on.ca/nuclear/bruce-restart-and-refurbishment-project-3000-mw-tiverton>

<http://www.brucepower.com/>.

Photo Gallery

Atikokan Generating Station



Photo 1 – Foundation concrete forming and pouring were under way



Photo 2 – Structural steel erection was under way

Becker Cogeneration Plant



Photo 3 – Boiler parts were delivered



Photo 4 – Boiler support steel erection was under way

Durham York Energy Centre



Photo 5 – Refuse building and tipping building construction were in progress



Photo 6 – Vibrating conveyor pedestals and boiler slab preparation were in progress

Lower Mattagami Hydroelectric Station Expansion

Harmon Generating Station



Photo 7 – Concrete was in progress, installation of major turbine embedded parts was completed

Kipling Generating Station



Photo 8 – A view of significant progress was made on concrete work in the intake and powerhouse prior to a failure of a temporary water retaining structure (cofferdam) before the December holidays

Little Long Generating Station



Photo 9 – Work at the additional unit continued to progress well

Smoky Falls Generating Station



Photo 10 – Concrete work and powerhouse steel frame erection continued to progress well. Tarps had been installed and prepared for winter construction

Thunder Bay Condensing Turbine Project



Photo 11 – Erection of cooling tower was nearing completion



Photo 12 – Construction of electrical annex was in progress

Twin Falls Generating Station (Runner Upgrade)



Photo 13 – Old turbine runner was being removed

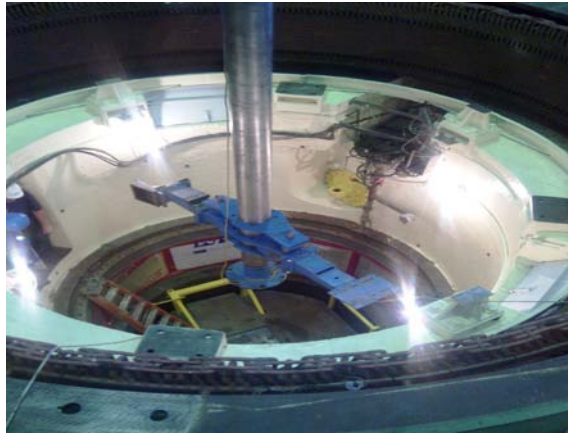


Photo 14 – In place machining was in progress

Appendices

Appendix I: OPA Contracts and Contract Capacity

Table 9: All Contracts Capacity as of December 31, 2012

Energy Source	Contract Type	Number of Contracts			New Capacity (MW) Post-OPA Inception		Total Capacity (MW) Pre- and Post-OPA Inception		In Service and Under Development (MW) Total
		Total	In Service	Under Development	In Service	Under Development	In Service	Under Development	
Bio-energy	FIT	49	20	29	13.6	44.7	13.6	44.7	58
	microFIT	1	1	0	0.0	0.0	0.0	0.0	0
	RESOP	20	18	2	39.7	14.0	39.7	14.0	54
	CHP III	2	0	2	0.0	48.0	0.0	48.0	48
	RES	3	3	0	9.3	0.0	9.3	0.0	9
	Atikokan	1	0	1	0.0	205.0	0.0	205.0	205
	Subtotal	76	42	34	62.6	311.6	62.6	311.6	374
Solar	FIT	1,562	499	1,063	100.2	1,090.3	100.2	1,090.3	1,191
	microFIT	14,815	14,815	0	129.9	0.0	129.9	0.0	130
	RESOP	57	51	6	415.2	60.0	415.2	60.0	475
	KC	2	0	2	0.0	200.0	0.0	200.0	200
	Subtotal	16,436	15,365	1,071	645.2	1,350.3	645.2	1,350.3	1,996
Wind	FIT	75	8	67	256.8	2,856.4	256.8	2,856.4	3,113
	microFIT	6	6	0	0.0	0.0	0.0	0.0	0
	RESOP	37	32	5	252.8	46.0	252.8	46.0	299
	RES	15	15	0	1,509.4	0.0	1,509.4	0.0	1,509
	KC	4	0	4	0.0	870.0	0.0	870.0	870
	Subtotal	137	61	76	2,019.0	3,772.4	2,019.0	3,772.4	5,791
Renewable Non-Hydro Subtotal		16,649	15,468	1,181	2,727	5,434	2,727	5,434	8,161
Hydroelectricity	FIT	44	0	44	0.0	183.5	0.0	183.5	183
	RESOP	16	16	0	28.2	0.0	28.2	0.0	28
	RES	3	2	1	31.0	16.0	31.0	16.0	47
	HCI	46	44	2	4.3	9.4	1,077.5	9.4	1,087
	HESA	4	3.0	1.0	62.9	516.0	573.0	516.0	1,036
Renewable Hydro Subtotal		113	65	48	126	725	1,710	725	2,382³
Natural Gas (SC/CC)	CES	5	3	2	1,672.0	1,189.0	1,672.0	1,189.0	2,861
	ACES	3	3	0	2,030.6	0.0	2,030.6	0.0	2,031
	EMCES	5	5	0	1,003.6	0.0	1,003.6	0.0	1,004
	Lennox	1	1	0	2,140.0	0.0	2,140.0	0.0	2,140
	PGS	1	1	0	393.0	0.0	393.0	0.0	393
	Subtotal	15	13	2	7,239.2	1,189.0	7,239.2	1,189.0	8,428
Natural Gas(CHP)	CHP I & CHPSOP	9	7	2	414.0	5.9	414.0	5.9	420
Other	EFW	1	0	1	0.0	20.0	0.0	20.0	20
Natural Gas and Other Subtotal		25	20	5	7,653	1,215	7,653	1,215	8,868
Nuclear	Bruce	1	1.0	0.0	3,000.0	0.0	3,000.0	0.0	3,000
Nuclear Subtotal		1	1.0	0.0	3,000	0	3,000	0	3,000
Subtotal			15,554	1,234	13,506	7,374	15,090	7,374	22,411
Total			16,788		19,906		22,411³		

³ Existing Smoky Falls Generating Station with a capacity of 53 MW will be decommissioned in January 2015.

Table 9 abbreviations:

KC = Korean Consortium

RES = Renewable Energy Supply

HCI = Hydroelectric Contract Initiative

HESA = Hydroelectric Energy Supply Agreement

CES = Clean Energy Supply

ACES = Accelerated Clean Energy Supply

EMCES = Early Movers Clean Energy Supply

PGS = Peaking Generation Supply

CHPSOP = Combined Heat and Power Standard Offer Program

Appendix II: Non-Standard Offer Program Contracted Facilities in Commercial Operation

Table 10: Renewable Energy – Bio-energy as of December 31, 2012

Contract Facility	Contract Capacity (MW)	Commercial Operation/Term Commencement Date	Contract Expiry Date
Eastview Landfill Gas Energy Plant	1.7	18-Aug-05	Q3 2025
Hamilton (Digester Gas) Cogeneration Project	1.6	10-Jul-06	Q3 2026
Trail Road Landfill Generating Facility	6.0	31-Jan-07	Q1 2027
Subtotal	9		

Table 11: Renewable Energy – Wind as of December 31, 2012

Contract Facility	Contract Capacity (MW)	Commercial Operation/Term Commencement Date	Contract Expiry Date
Enbridge Ontario Wind Farm	181.5	19-Feb-09	Q1 2029
Erie Shores Wind Farm	99.0	24-May-06	Q2 2026
Gosfield Wind Project	50.6	16-Sep-10	Q4 2032
Greenwich Wind Farm	98.9	14-Oct-11	Q4 2031
Kingsbridge I Wind Power Project	39.6	16-Mar-06	Q1 2026
Kruger Energy Chatham Wind Project	99.4	01-Jan-11	Q4 2031
Kruger Energy Port Alma Wind Power Project	101.2	31-Oct-08	Q4 2028
Melancthon I Wind Plant	67.5	04-Mar-06	Q1 2026
Melancthon II Wind Plant	132.0	24-Nov-08	Q4 2028
Prince I Wind Power Project	99.0	21-Sep-06	Q3 2026
Prince II Wind Power Project	90.0	19-Nov-06	Q4 2026
Raleigh Wind Energy Centre	78.0	29-Jan-11	Q1 2031
Ripley Wind Power Project	76.0	22-Dec-07	Q4 2027
Talbot Wind Farm	98.9	16-Dec-10	Q4 2031
Wolfe Island Wind Project	197.8	26-Jun-09	Q2 2029
Subtotal	1,509		

Table 12: Renewable Energy – Hydroelectricity as of December 31, 2012

Contract Facility	Contract Capacity (MW)	Commercial Operation/Term Commencement Date	Contract Expiry Date
Andrews Generating Station	47.0	1-Dec-09	Q4 2029
Appleton Eco Power Centre	1.4	1-Jan-11	Q4 2030
Aubrey Falls Generating Station	162.0	1-Dec-09	Q4 2029
Barrie Small Hydro Limited	0.1	17-Jul-10	Q3 2030
Brewers Mills	0.9	1-May-10	Q2 2030
Bracebridge Falls Generating Station	2.6	1-May-10	Q2 2030
Burk's Falls	1.1	1-May-10	Q2 2030
Calm Lake Generating Station	9.0	1-Dec-09	Q4 2029
Campellford-Seymour Electric Generation Inc. – Plant No. 1	2.0	1-Jan-10	Q4 2029
Chaudiere No. 2. Generating Station	8.4	1-Apr-10	Q1 2030
Chaudiere No. 4 Generating Station	9.3	1-Apr-10	Q1 2030
Clergue Generating Station	52.0	1-Dec-09	Q4 2029
Current River Hydro	0.5	1-Mar-10	Q1 2030
Devil's Gap Generating Station	0.5	1-Jun-10	Q2 2030
Domtar, Espanola Mill	18.0	1-Jan-12	Q1 2032
Dunford Generating Station	45.0	1-Dec-09	Q4 2029
Enerdu Power Systems Ltd.	0.3	1-Mar-11	Q1 2031
Fort Frances Generating Station	10.0	1-Dec-09	Q4 2029
Gananoque	0.7	1-May-10	Q2 2030
Galetta Eco Power Centre	1.6	1-Jan-11	Q4 2030
Gartshore Generating Station	23.0	1-Dec-09	Q4 2029
Glen Miller Generating Station	8.0	19-Dec-05	Q4 2025
Harmon Generating Station	141.0	22-Jun-10	Q4 2065
Harris Generating Station	12.0	1-Dec-09	Q4 2029
Healey Falls Generating Station	15.7	7-Apr-10	Q2 2060
Heywood Generating Station	7.2	1-Jan-10	Q4 2029
High Falls Generating Station #1	0.8	1-Oct-10	Q3 2030
Hogg Generating Station	18.0	1-Dec-09	Q4 2029
Hollingsworth Generating Station	23.0	1-Dec-09	Q4 2029
Hound Chute Generating Station	9.5	7-Dec-10	Q4 2060
Hurdman Dam	0.6	1-Jun-11	Q2 2031
Iroquois Falls Generating Station	29.0	1-Dec-09	Q4 2029
Island Falls Generating Station	38.0	1-Dec-09	Q4 2029

Jones Falls	2.4	1-May-10	Q2 2030
Kagawong Generating Station	0.8	1-Jan-10	Q4 2029
Kenora Generating Station	6.0	1-Dec-09	Q4 2029
Kingston Mills	1.9	1-May-10	Q2 2030
Kipling Generating Station	157.0	22-Jun-10	Q4 2065
Lac Seul/Ear Falls Generating Station	29.3	18-Feb-09	Q1 2059
Little Long Generating Station	133.0	22-Jun-10	Q4 2065
London Street Generating Station	4.1	1-Jan-10	Q4 2029
Lower Sturgeon Generating Station	14.0	21-Nov-10	Q4 2060
MacKay Generating Station	62.0	1-Dec-09	Q4 2029
Maple Hill	0.6	1-Dec-10	Q4 2030
Matthias Generating Station	3.0	1-Jan-10	Q4 2029
McPhail Generating Station	13.0	1-Dec-09	Q4 2029
Minden Generating Station	4.0	1-Jan-10	Q4 2029
Mission Generating Station	16.0	1-Dec-09	Q4 2029
Moose Rapids Generating Station	1.4	1-Jan-11	Q4 2030
Norman Generating Station	10.0	1-Dec-09	Q4 2029
Parry Sound PowerGen Corporation – Cascade Street Generating Station	1.2	1-Mar-10	Q1 2030
Rayner Generating Station	46.0	1-Dec-09	Q4 2029
Red Rock Falls Generating Station	41.0	1-Dec-09	Q4 2029
Renfrew Power Generation Inc. – Lower Plant	1.0	1-Jan-10	Q4 2029
Renfrew Power Generation Inc. – Upper Plant	1.0	1-Jan-10	Q4 2029
Rideau Falls	2.0	1-May-10	Q2 2030
Sandy Falls Generating Station	5.5	27-Oct-10	Q4 2060
Saugeen Generating Station	0.3	12-Aug-12	Q3 2032
Scone Generator	0.1	1-Jan-10	Q4 2029
Scott Falls Generating Station	22.0	1-Dec-09	Q4 2029
Shand Dam Generating Station	0.7	1-Sep-10	Q3 2030
Smoky Falls Generating Station	53.0	22-Jun-10	Decommission Q1 2015
Steepphill Generating Station	16.0	1-Dec-09	Q4 2029
Stewart Generating Station	0.2	5-Jun-10	Q2 2030
Sturgeon Falls Generating Station	7.0	1-Dec-09	Q4 2029
Swift Rapids Generating Station	7.9	1-Jan-10	Q4 2029
Tembec, Smooth Rock Falls Facilities	8.0	14-Mar-10	Q1 2030
Truisler Chute Generating Station	0.6	1-Jun-11	Q2 2031
Tweed Generating Station	0.2	1-Nov-10	Q4 2030
Twin Falls Generating Station	22.0	1-Dec-09	Q4 2029

Umbata Falls Generating Station	23.0	12-Nov-08	Q4 2028
Washburn	0.2	1-May-10	Q2 2030
Wawaitin Generating Station	15.0	22-Nov-10	Q4 2060
Wells Generating Station	239.0	1-Dec-09	Q4 2029
West Nipissing Power Generation	6.5	1-Mar-10	Q1 2030
Wilson's Falls	2.9	1-May-10	Q2 2030
635294 Ontario Inc.	0.5	1-Feb-10	Q1 2030
1149377 Ontario Limited	2.3	1-Jan-10	Q4 2029
Subtotal	1,681		

Table 13: Natural Gas and Other Fuel Sources – Simple Cycle and Combined Cycle as of December 31, 2012

Contract Facility	Contract Capacity (MW)	Commercial Operation/Term Commencement Date	Contract Expiry Date
Brighton Beach Power Station	541.3	01-Jan-06	Q3 2024
Goreway Station	839.1	04-Jun-09	Q2 2029
Greenfield Energy Centre	1,005.0	16-Oct-08	Q4 2028
GTAA Cogeneration Plant	90.0	01-Feb-06	Q1 2026
Halton Hills Generating Station	641.5	01-Sep-10	Q3 2030
Lennox Generating Station	2,140.0	01-Jan-13	Q3 2022
Portlands Energy Centre	550.0	22-Apr-09	Q2 2029
Sarnia Regional Cogeneration Plant	444.0	01-Jan-06	Q4 2025
St. Clair Energy Centre	577.0	30-Mar-09	Q1 2029
Sudbury District Energy Cogeneration Plant	5.0	01-Jan-06	Q4 2024
Sudbury District Energy, Hospital Cogeneration	6.7	01-Jan-06	Q4 2024
Trent Valley Cogeneration Plant	6.7	01-Jan-06	Q4 2015
York Energy Centre	393.0	09-May-12	Q2 2032
Subtotal	7,239		

Table 14: Natural Gas and Other Fuel Sources - Combined Heat and Power Contracts as of December 31, 2012

Contract Facility	Contract Capacity (MW)	Commercial Operation/Term Commencement Date	Contract Expiry Date
Durham College District Energy Project	2.3	11-Mar-08	Q1 2028
East Windsor Cogeneration	84.0	06-Nov-09	Q4 2029
Essar Cogeneration Facility	63.0	13-Jun-09	Q2 2029
Great Northern Tri-Gen Facility	11.3	31-Oct-08	Q4 2028
London Cogeneration Facility	12.0	31-Dec-08	Q4 2028
Thorold Cogen	236.4	28-Mar-10	Q1 2030
Warden Energy Centre	5.0	04-Jun-08	Q2 2028
Subtotal	414		

Table 15: Nuclear Energy as of December 31, 2012

Contract Facility	Contract Capacity (MW)	Term Commencement Date	Contract Expiry Date
Bruce A Units 1 – 4	3000.0	31-Oct-05	Q4 2037
Subtotal	3,000		

Appendix III: Non-Standard Offer Program Contracted Facilities Under Development

Table 16: Renewable Energy – Bio-energy as of December 31, 2012

Contract Facility	Contract Capacity (MW)	Scheduled Commercial Operation Date	Forecasted Contract Expiry Date
Atikokan Generating Station	205.0	Q4 2013	Q4 2023
Becker Cogeneration Plant	8.0	Q4 2013	Q4 2033
Thunder Bay Condensing Turbine Project	40.0	Q1 2013	Q1 2023
Subtotal	253		

Table 17: Renewable Energy – Solar as of December 31, 2012

Contract Facility	Contract Capacity (MW)	Scheduled Commercial Operation Date	Forecasted Contract Expiry Date
Grand Renewable Energy Park	100.0	Q1 2014	Q1 2034
Sol-Luce Kingston Solar Energy Project	100.0	Q4 2014	Q4 2034
Subtotal	200		

Table 18: Renewable Energy – Wind as of December 31, 2012

Contract Facility	Contract Capacity (MW)	Scheduled Commercial Operation Date	Forecasted Contract Expiry Date
Armow Wind Project	180.0	Q4 2014	Q4 2034
Grand Renewable Energy Park	150.0	Q1 2014	Q1 2034
K2	270.0	Q4 2014	Q4 2034
South Kent Wind Project	270.0	Q1 2014	Q1 2034
Subtotal	870		

Table 19: Renewable Energy – Hydroelectricity as of December 31, 2012

Contract Facility	Contract Capacity (MW)	Scheduled Commercial Operation Date	Forecasted Contract Expiry Date
Casselman Generating Station	0.5	Q4 2011	Q4 2031
Harmon Generating Station (Expansion)	78.0	Q4 2015	Q4 2065
Harmon Generating Station (Runner Upgrade)	17.6	Q4 2016	Q4 2065
Kipling Generating Station (Expansion)	78.0	Q4 2015	Q4 2065
Little Long Generating Station (Expansion)	67.0	Q4 2015	Q4 2065
Little Long Generating Station (Runner Upgrade)	7.5	Q4 2017	Q4 2065
Smoky Falls Generating Station (Redevelopment)	267.9	Q4 2015	Q4 2065
Stanley Adamson Powerhouse	3.9	Q2 2013	Q2 2033
Twin Falls Generating Station (Runner Upgrade)	5.0	Q1 2014	Q4 2029
Yellow Falls Hydroelectric Project	16.0	Q3 2016	Q3 2036
Subtotal	541		

Table 20: Natural Gas and Other Fuel Sources – Simple Cycle/Combined Cycle as of December 31, 2012

Contract Facility	Contract Capacity (MW)	Scheduled Commercial Operation Date	Forecasted Contract Expiry Date
Green Electron Power Plant	289.0	Q3 2017	Q3 2037
Napanee Generating Station	900.0	Q4 2018	Q4 2038
Subtotal	1,189		

Table 21: Natural Gas and Other Fuel Sources – Combined Heat and Power Contracts as of December 31, 2012

Contract Facility	Contract Capacity (MW)	Scheduled Commercial Operation Date	Forecasted Contract Expiry Date
Birchmount Energy Centre	2.6	Q3 2014	Q3 2034
Bur Oak Energy Centre	3.3	Q3 2014	Q3 2034
Subtotal	6		

Table 22: Natural Gas and Other Fuel Sources – Energy-from-Waste as of December 31, 2012

Contract Facility	Contract Capacity (MW)	Scheduled Commercial Operation Date	Forecasted Contract Expiry Date
Durham York Energy Centre	20.0	Q3 2016	Q3 2036
Subtotal	20		

Appendix IV: Summary of RESOP and FIT Contracts

Table 23: Renewable Energy Standard Offer Program and Feed-in Tariff Program as of December 31, 2012

Program	Fuel Source	Under Development (MW)	Commercial Operation (MW)	Total (MW)
RESOP	Bio-Energy	14	40	856
	Hydroelectric	-	28	
	Solar	60	415	
	Wind	46	253	
	Subtotal	120	736	
FIT	Bio-Energy	45	14	4,545
	Hydroelectric	183	-	
	Solar	1,090	100	
	Wind	2,856	257	
	Subtotal	4,175	371	
microFIT	microFIT Solar Contracts (Total 14,822)	-	130	130
Total (MW)		4,295	1,236	5,531



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