

A Progress Report on Contracted Electricity Supply



2012 First
Quarter



ONTARIO
POWER AUTHORITY



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Foreword

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 projects selected, 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.

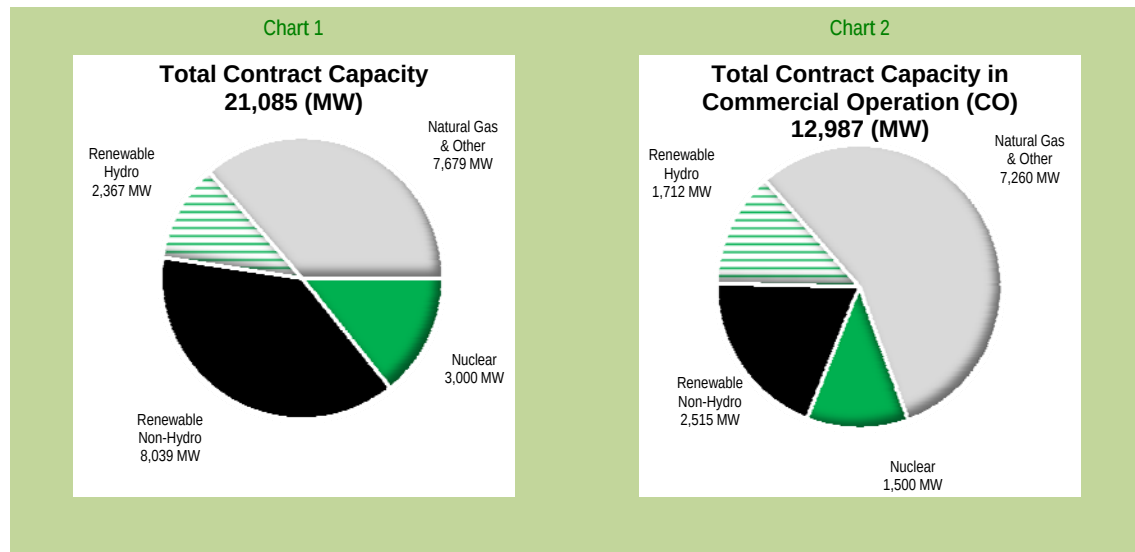
Together with our partners, we ensure that electricity needs are met for the benefit of Ontario both now and in the future. We plan and procure electricity supply from diverse resources and facilitate the measures needed to achieve ambitious conservation targets.

In 2009, the OPA launched the first-of-a-kind Feed-in Tariff (FIT) Program in North America as part of the *Green Energy Act, 2009* (GEA). The primary goal of the GEA is to enable and promote energy conservation and renewable energy development. This program has been very successful to date, with about 2,000 signed FIT contracts totalling more than 4,600 megawatts (MW). Following the recent two-year review of the FIT Program, the OPA's objective is to continue Ontario's commitment to ensure the long-term sustainability of the program through a revised FIT Program. We believe the program changes strike a balance between the interests of ratepayers and the need to continue building on the success of the clean energy economy. We are on track to procure 10,700 MW of renewable non-hydroelectric energy generation by 2015.

We will also continue to encourage greater Aboriginal participation in the Aboriginal Energy Partnerships Program (AEPP) managed by the OPA and will endeavour to increase community as well as municipal engagement in the FIT Program.

Executive Summary

Overview



As of the end of the first quarter of 2012, the OPA administered contracts for 21,085¹ megawatts (MW) of electricity supply generation. This capacity represents over \$35 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 about 47 MW and the capacity that achieved commercial operation (CO) was about 102 MW.

By the end of the reporting period, the OPA had 8,039 MW of renewable non-hydroelectric, 2,367 MW of renewable hydroelectric, 7,679 MW of natural gas and other fuel sources and 3,000 MW of nuclear capacity under contract (see Chart 1).

Of this total capacity, 2,515 MW from renewable non-hydroelectric, 1,712 MW from renewable hydroelectric, 7,260 MW from natural gas and other fuel sources and 1,500 MW from nuclear generation were in commercial operation, for a total of 12,987 MW (see Chart 2). The commercial operation capacity represented 62 percent of the OPA's total contracted capacity and accounted for about 37 percent of Ontario's total installed electricity supply capacity. The remaining 8,098 MW of the OPA's contracted capacity were in various stages of developmental status.

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

Within the total renewable generation capacity, about 1,433 MW were contracted with Aboriginal participation and 329 MW were with community and municipal participation. This represented about 8.4 percent of OPA's total procured generation capacity.

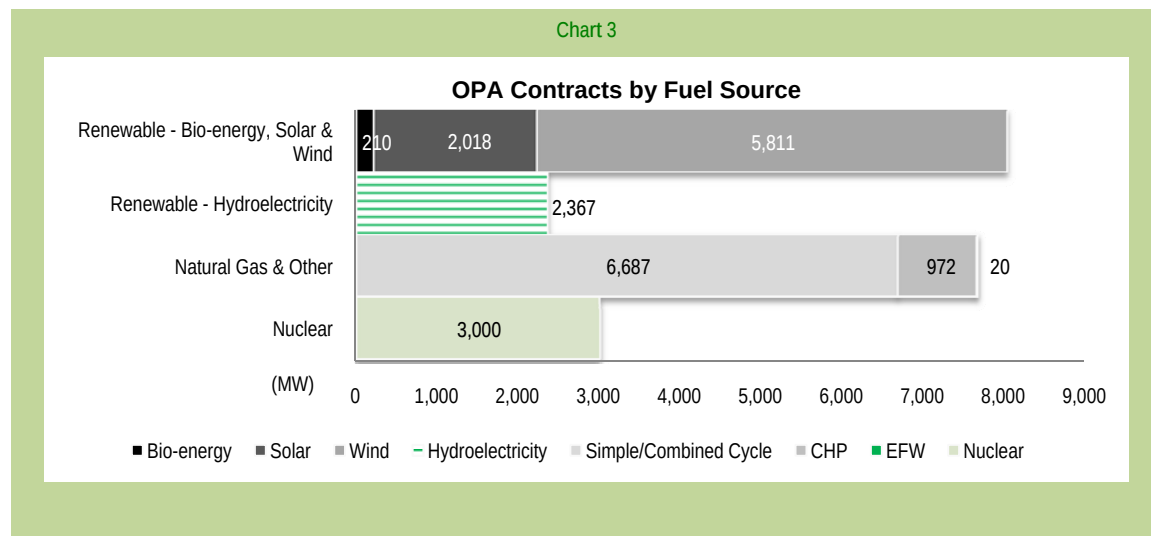


Table 1: Breakdown of Total Contract Capacity as of March 31, 2012

	Total	Under Development (UD)	Commercial Operation (CO)
Renewables			
Bio-energy	210	152	58
Solar PV	2,018	1,536	482
Wind	5,811	3,835	1,976
Non-Hydroelectric – Sub-total (MW)	8,039	5,524	2,515
Hydroelectric	2,367	655	1,712
Renewables – Sub-total (MW)	10,406	6,179	4,227
Natural Gas and Other Fuel Sources			
Combined Heat and Power (CHP)	972	6	966
Simple Cycle and Combined Cycle (SC/CC)	6,687	393	6,294
Energy From Waste (EFW)	20	20	-
Natural Gas and Other – Sub-total (MW)	7,679	419	7,260
Nuclear			
Bruce A	3,000	1,500	1,500
Nuclear – Sub-total (MW)	3,000	1,500	1,500
Total Contract Capacity (MW)	21,085	8,098	12,987

New Contracts

Renewable Energy – Non-Hydroelectricity

Solar PV

Within the reporting period, 15.7 MW of capacity was contracted.

Renewable Energy – Hydroelectricity

Hydroelectric

The OPA entered into a new 20-year contract with Domtar Inc. for its existing 18 MW hydroelectric facility located on the south shore of the Spanish River at Espanola. The facility has been in operation since 1946 and is capable of providing 125,000 MWh of electricity annually.

Natural Gas and Other Fuel Sources

Energy from Waste (EFW)

A 20-year contract was finalized with the Regional Municipalities of Durham and York to develop Durham York Energy Centre, a 20 MW facility located in the Municipality of Clarington. Commercial operation for the facility is scheduled for mid-2016. When complete, the facility is expected to produce enough electricity each year to power more than 14,500 homes.

Contracts Reached Commercial Operation

Renewable Energy – Non-Hydroelectricity

Bio-energy

Within the reporting period, 487 kilowatts (kW) of capacity came into commercial operation.

Solar PV

Within the reporting period, 66.8 MW of capacity came into commercial operation.

Wind

Within the reporting period, 18 MW of capacity came into commercial operation.

Renewable Energy – Hydroelectricity

Hydroelectric

Within the reporting period, Bracebridge Generation completed expansion of both Bracebridge Falls Generating Station (GS) and Wilson's Falls GS and added a combined capacity of 5.5 MW to Ontario's electricity system. This includes 4.3 MW of new capacity and 1.2 MW of existing capacity, 0.6 MW at each station, which was taken off-line during the station expansion project.

Contract Amendments

Renewable Energy – Non-Hydroelectricity

Solar PV

Within the reporting period, solar PV capacity was reduced by 4.5 MW through contract amendments.

Contract Terminations

Renewable Energy – Non-Hydroelectricity

Bio-energy

Within the reporting period, 2.5 MW of contract capacity was terminated due to the failure of contract counterparties to meet contract requirements.

Contract Capacity – Progress and Forecasts Table

The following table shows the OPA's contracted capacity that have achieved commercial operation since 2005 and the current forecast of commercial operation contract milestones.

Table 2: Contract Capacity - Commercial Operation and Forecast Table as of March 31, 2012²

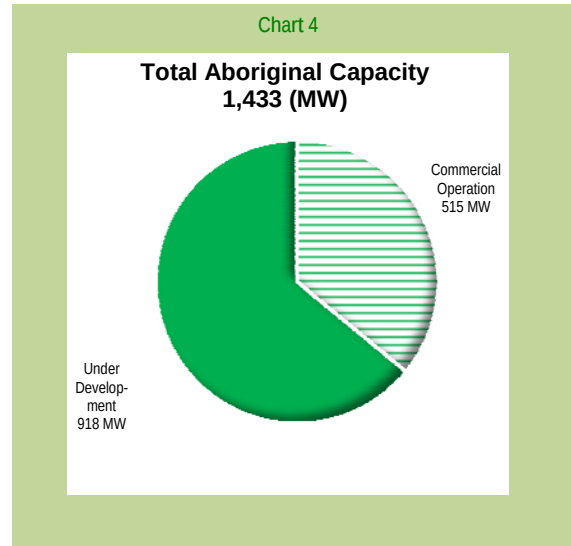
Energy Supply	2005-2009	2010	2011	2012 Q1	2012 Q2-4	2013	2014	2015	2016	TOTAL (MW)
Renewable	2,310	1,041	776	102	238	1,246	3,791	898	6	10,406
Natural Gas and Other Fuel Sources	4,242	3,018	-	-	393	-	6	-	20	7,679
Nuclear	1,500	-	-	-	1,500	-	-	-	-	3,000
Total (MW)	8,051	4,059	776	102	2,131	1,246	3,797	898	26	21,085
Cumulative Total (MW)	8,051	12,110	12,886	12,987	15,118	16,365	20,161	20,059	21,085	

² Variations in MW occur due to value rounding.

Aboriginal and Community Participation

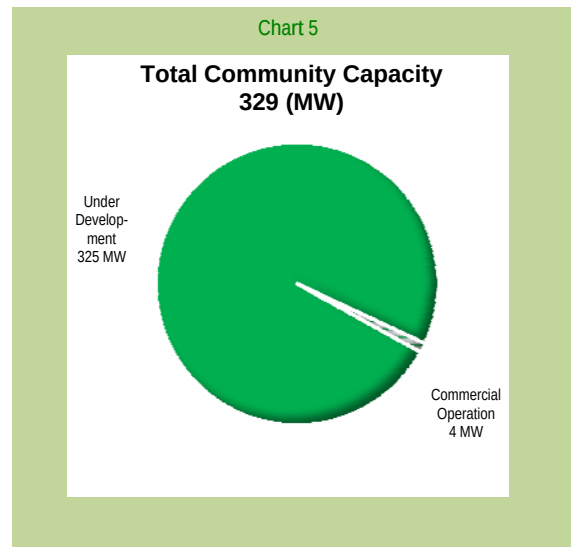
Aboriginal Participation

By the end of the reporting period, there were more than 10 First Nations and Métis communities participating in the development of renewable generation projects throughout Ontario. These Aboriginal groups are participating in 5 MW of solar PV, 384 MW of wind and 1,044 MW of hydroelectric generation projects.



Community Participation

By the end of the reporting period, there were several communities participating in the development of renewable generation projects throughout Ontario. These communities are participating in 14 MW of bio-energy, 47 MW of solar PV, 267 MW of wind and 1 MW of hydroelectric generation projects.



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 this reporting period, the OPA was managing nearly 8,039 MW of combined capacity from renewable non-hydroelectric energy projects, of which 2,515 MW of capacity were in commercial operation and 5,524 MW were under development. The breakdown is shown in charts 6 and 7 below.

Chart 6

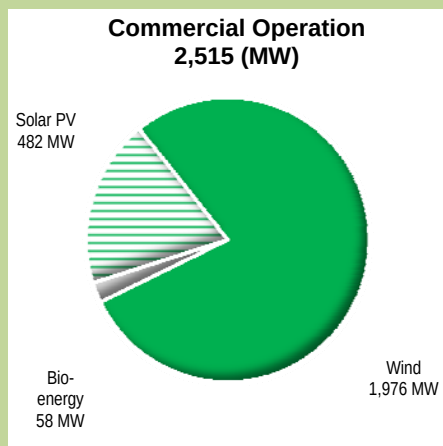
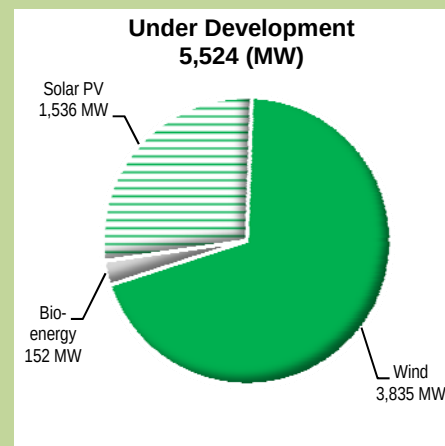


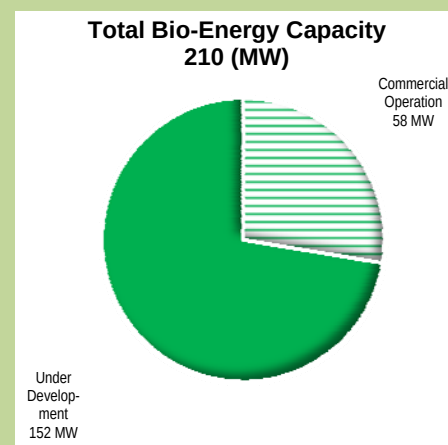
Chart 7



Bio-Energy

By the end of the reporting period, the OPA was managing 210 MW of combined capacity from bio-energy projects. All of the capacity from projects that are currently under development is scheduled to be in-service at or before the end of 2014.

Chart 8



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

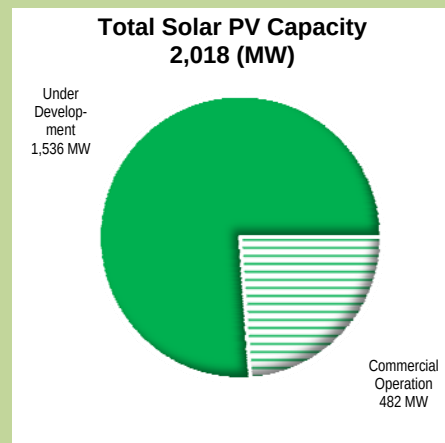
Table 3: Progress Status of Bio-Energy Projects as of March 31, 2012

Developer	Project
AbiBow Canada Inc.	Thunder Bay Condensing Turbine Project, Thunder Bay, Ontario Capacity: 40 MW Status: - Regulatory approval process continued - System Impact Assessment (SIA) and Connection Impact Assessment (CIA) agreements in place - Financing complete
Becker Cogeneration Plant	Becker Cogeneration Plant, Hornepayne, Ontario Capacity: 8 MW Status: - Major equipment procurement negotiations continued - Efforts to resume construction continued

Solar PV

By the end of the reporting period, the OPA was managing 2,018 MW of combined capacity from solar PV projects. Of the total capacity, 5 MW were developed with Aboriginal participation. All of the capacity from projects that are under development is scheduled to be in-service at or before the end of 2014.

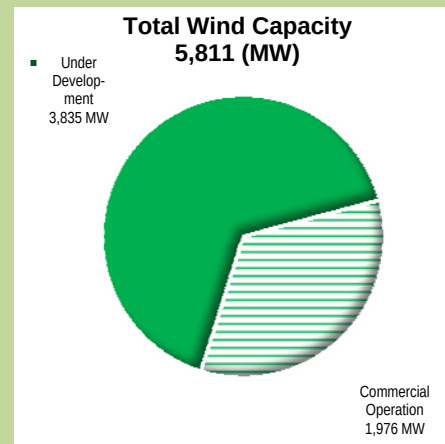
Chart 9



Wind

By the end of the reporting period, the OPA was managing 5,811 MW of combined capacity from wind projects. Of the total capacity, 384 MW were developed with Aboriginal participation. All of the capacity from projects that are currently under development is scheduled to be in-service at or before the end of 2015.

Chart 10

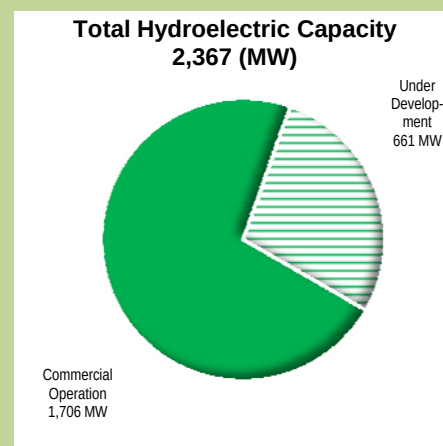


Hydroelectric Projects

Hydroelectricity

By the end of the reporting period, the OPA was managing 2,367 MW of combined capacity from hydroelectric projects. Of the total capacity, 1,044 MW were developed with Aboriginal participation. All of the capacity from projects that are currently under development is scheduled to be in-service at or before the end of 2016.

Chart 11



The status of these hydroelectric projects as submitted by the developers to the OPA is set out in Table 4:

Table 4: Progress Status of Hydroelectric Projects as of March 31, 2012

Developer	Project
Ontario Power Generation and Moose Cree First Nation Partnership	Lower Mattagami Hydroelectric Station Expansion, Kapuskasing: Mattagami River Capacity: 491 MW Status:
	• Harmon Generating Station (GS), Little Long GS, and Smoky Falls GS - work on concrete pours progressed well • Kipling GS - work on Cofferdam #2 and #3 continued to progress well
TransAlta	Island Falls Generating Station, Smooth Rock Falls: Mattagami River Capacity: 20.0 MW Status:
	• No change in project status for this reporting period

Renewable Program Projects – Development Status

Renewable Energy Standard Offer Program

A total of 869 MW contracted were contracted through the Renewable Energy Standard Offer Program (RESOP), 658 MW were in-service and the remaining 211 MW had forecasted milestone commercial operation dates prior to the end of 2014.

Feed-in Tariff Program

By the end of the reporting period, 4,619 MW of combined capacity were contracted through the Feed-in Tariff (FIT) Program, of which 59 MW were from bio-energy, 1,238 MW were from solar PV, 3,133 MW were from wind and 188 MW were from hydroelectricity. Of this total capacity, 266 MW were in commercial operation. In addition, through the microFIT Program 101 MW of combined contract capacity from solar PV generation were in commercial operation.

Furthermore, 240 MW of capacity were from projects that reached the notice to proceed (NTP) stage of development. Of these, 5 MW were from bio-energy, 56 MW were from wind, 127 MW were from solar PV and 53 MW were from hydroelectric generation. The remaining 4,113 MW were in the pre-NTP stage of development, of which 45 MW were from bio-energy, 2,853 MW were from wind, 1,079 MW were from solar PV and 136 MW were from hydroelectric generation.

Feed-in Tariff Projects – Progress Table

The status of these FIT projects as submitted by the developers to the OPA is set out in Table 5:

Legend

REA	Renewable Energy 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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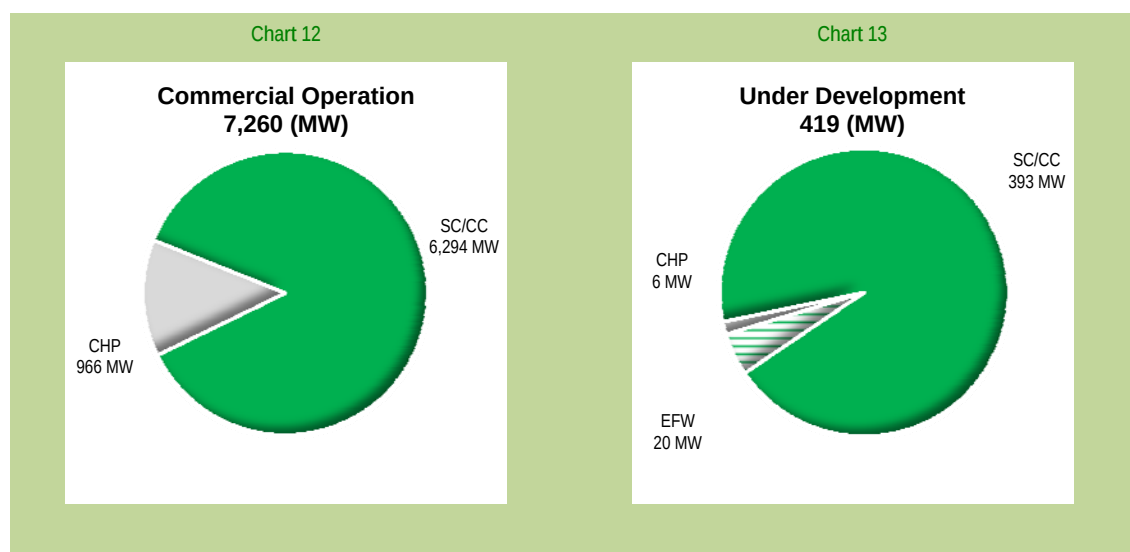
Table 5: Progress Status of Feed-in Tariff Projects as of March 31, 2012

Developer (total capacity under development)	Project Name	Location	MW	Pre-NTP								Achieved NTP	CON	
				REA		SIA/CIA		DCP		FIN			U	C
				U	C	U	C	U	C	U	C			
Algonquin Power (75 MW)	Amherst Island Wind Project	Stella	75	✓		✓			✓	✓				
Capital Power GP Holdings Inc. (105 MW)	Port Dover/ Nanticoke Wind Project	Walpole	105	✓			✓	✓						
China Longyuan Power Group Corporation Limited (100 MW)	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 (300 MW)	Nigig Power Corporation (wind)	Pickerei	300	✓		✓			✓	✓				
International Power plc. (198 MW)	East Lake St. Clair Wind	Wallaceburg	99		✓		✓		✓		✓			
	Erieau Wind	Chatham-Kent	99	✓		✓		✓			✓			
NextEra Energy (686 MW)	Adelaide Wind Energy Centre	Middlesex County	60	✓		✓		✓		✓				
	Bluewater Wind Energy Centre	Zurich	60	✓			✓	✓		✓				
	Bornish Wind Energy Centre	Keyser	74	✓			✓	✓		✓				
	Conestogo Wind Energy Centre	Alma	23		✓		✓		✓		✓	✓		

Developer (total capacity under development)	Project Name	Location	MW	Pre-NTP								Achieved NTP	CON	
				REA		SIA/CIA		DCP		FIN			U	C
				U	C	U	C	U	C	U	C			
	Conestogo Wind Energy Centre 1	Drayton	69	✓		✓		✓		✓				
	East Durham Wind Energy Centre	Priceville	23	✓		✓		✓		✓				
	Goshen Wind Energy Centre	Dashwood	102	✓			✓	✓		✓				
	Jericho Wind Energy Centre	Thedford	150	✓		✓		✓		✓				
	Summerhaven Wind Energy Centre	Nanticoke	125		✓		✓		✓					
Niagara Region Wind Corporation (230 MW)	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 wholly owned subsidiary of Regional Power Inc.) (19 MW)	Gitchi Animki Bezhig Generating Station	Brothers Township	9		✓		✓		✓		✓	✓		
	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 PV)	Haldimand County	100		✓				✓	✓				
	Kingston North (solar PV)	Kingston & Loyalist Township	100		✓	✓			✓					
Suncor Energy Products Inc. (100 MW)	Cedar Point Wind Power Project Phase II	Forest	100	✓		✓								

Developer (total capacity under development)	Project Name	Location	MW	Pre-NTP								Achieved NTP	CON	
				REA		SIA/CIA		DCP		FIN			U	C
				U	C	U	C	U	C	U	C			
Veresen Inc. (51 MW)	Grand Valley Wind Farms Phase 2	Dundalk	11		✓		✓		✓		✓	✓		
	Grand Valley Wind Farms Phase 3	Grand Valley	40	✓		✓		✓						
wpd Canada Corp (60 MW)	White Pines Wind Farm	Milford	60	✓		✓		✓		✓				

Natural Gas and Other Fuel Sources

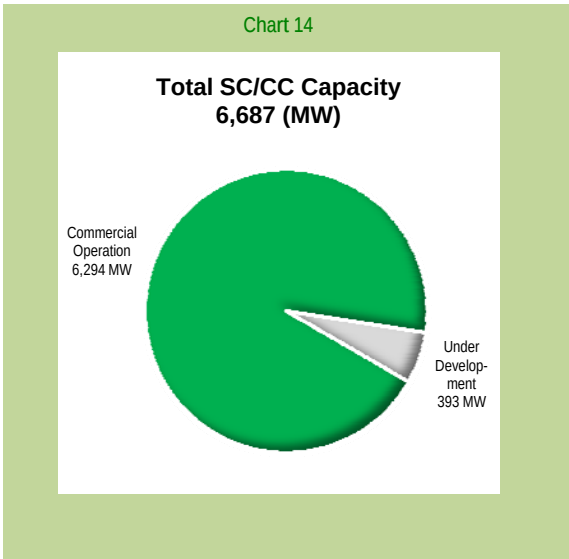


By the end of the reporting period, the OPA was managing 7,679 MW of combined capacity from natural gas-fired projects and projects with other fuel sources. This capacity included 6,687 MW from simple cycle and combined cycle (SC/CC) facilities, 972 MW from combined heat and power (CHP) and 20 MW from energy-from-waste facilities. Of this capacity, 7,260 MW are under commercial operation and 419 MW are under development.

Simple Cycle and Combined Cycle Projects

Simple Cycle and Combined Cycle

By the end of the reporting period, the OPA was managing 6,687 MW of combined capacity from simple cycle and combined cycle (SC/CC) projects. The only project still under development is scheduled to be in-service in 2012.



The status of the simple cycle project as submitted by the developer to the OPA is set out in Table 6:

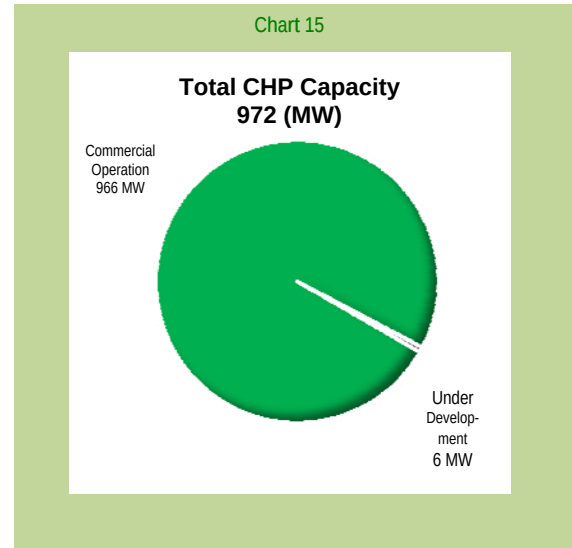
Table 6: Progress Status of Simple Cycle and Combined Cycle Projects as of March 31, 2012

Developer	Project
York Energy Centre LP	York Energy Centre, Township of King Capacity: 393 MW Status: • Turbine and generator installations complete • Performance testing nearing completion

Combined Heat and Power Projects

Combined Heat and Power

By the end of the reporting period, the OPA was managing 972 MW of combined capacity from combined heat and power (CHP) projects. The 6 MW of capacity from the two projects listed in the following table is scheduled to be in service by 2014.



The status of these combined heat and power projects 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 March 31, 2012

Developer	Project
Markham District Energy Centre Inc.	Birchmount Energy Centre, Markham Capacity: 2.6 MW Status: - All municipal approvals received - Connection Impact Assessment (CIA) application submitted - Major equipment activities ongoing
	Bur Oak Energy Centre, Markham Capacity: 3.3 MW Status: - All municipal approvals received - CIA application submitted - Major equipment activities ongoing

Energy-from-Waste Projects

By the end of the reporting period, the OPA was managing 20 MW of capacity from one energy-from-waste (EFW) project which is 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 March 31, 2012

Developer	Project
Regional Municipality of Durham-York	Durham York Energy Centre, Municipality of Clarington
	Capacity: 20 MW
	Status:
	• New 20-year contract executed • Municipal approvals complete • CIA and System Impact Assessment (SIA) applications submitted • Major equipment activities in progress

Nuclear

Bruce A Restart and Refurbishment Projects

The OPA had 3,000 MW of nuclear energy supply capacity under contract; 1,500 MW came from the restart of units 1 and 2, which were near completion with an expected commercial operation date in 2012. On May 7, 2012, when Bruce Power was preparing unit 2 to synchronize to the grid, a non-nuclear equipment malfunction occurred. Bruce Power is presently working on mitigating the damages. This event will impact the expected commercial operation date of unit 2. The expected commercial operation date of unit 1 is also delayed.

The other 1,500 MW came from units 3 and 4, which were in operation prior to contract execution and are currently in operation. 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

AbiBow Thunder Bay Condensing Turbine



Photo 1 – Installation of condenser inlet and outlet piping in progress.



Photo 2 – Installation of rebar to support cooling tower base in progress.

Bruce A Units 1 and 2 Restart

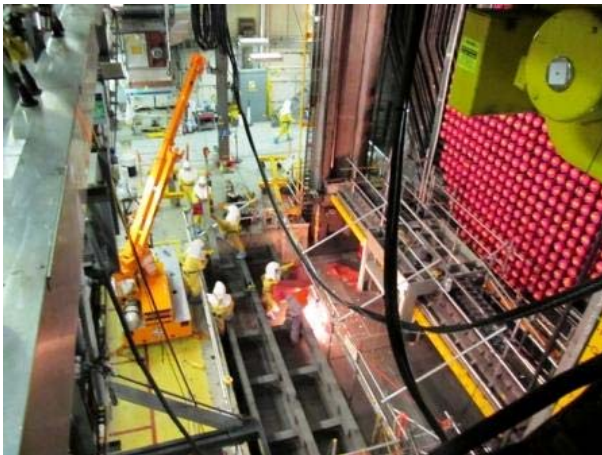


Photo 3 – Work crews in the Unit 1 vault re-install the refurbished fuelling machine bridge and carriage.

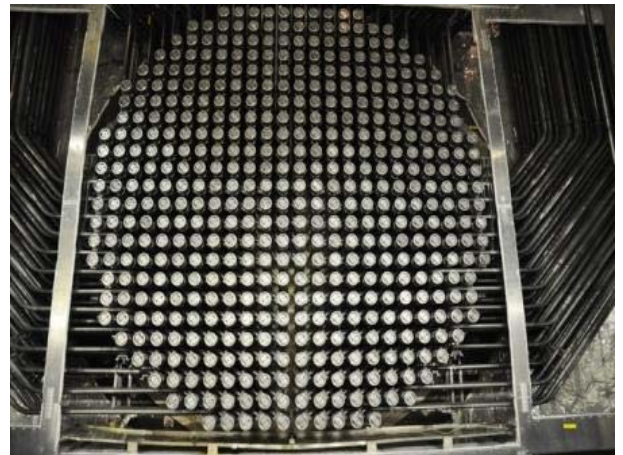


Photo 4 – Installation of new fuel channel and feeder tubes at Unit 2 was completed. Installation of insulation around the components is scheduled to commence soon.

Harmon Generating Station



Photo 5 – Rebar installation continued during winter months inside a special winter shelter erected around the powerhouse footprint.



Photo 6 – Winter shelter erected around powerhouse area to allow concrete pours to continue in the winter months.

Kipling Generating Station



Photo 7 – Cofferdam cell #3 was installed and backfilled with sand.



Photo 8 – Cleaning of the footprint for cofferdam #2 continued for steel shell installation.

Little Long Generating Station



Photo 9 – Overview of progress around the powerhouse and intake areas, preparing for concrete pours.



Photo 10 – Formwork and stay ring installed at the powerhouse.

Smoky Falls Generating Station



Photo 11 – View of the panel rigging and hoisting operations at the intake area.



Photo 12 – Overview of the draft tube pour in progress.

Appendices

Appendix I: Electricity Targets and Progress

Table 9: OPA Total Contracted Capacity as of March 31, 2012

Energy Source	Total Contact Capacity (MW)	Capacity In Commercial Operation (MW)	Capacity Under Development (MW)	Ontario's Long-Term Energy Plan (2030) (MW)
Bio-energy, Wind, and Solar PV	8,039	2,515	5,524	10,700
Hydroelectric	2,367	1,712	655	9,000
Natural Gas and Other – CHP, SC/CC & EFW	7,679	7,260	419	9,200
Nuclear	3,000	1,500	1,500	12,000
Sub-total	21,085	12,987	8,098	40,900

Appendix II: OPA Contracts and Contract Capacity

Table 10: All Contracts Capacity as of March 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 UD (MW) Total
		Total	In-Service	UD	In-Service	UD	In-Service	UD	
Bio-energy	FIT	50	11	39	9.3	49.8	9.3	49.8	59
	RESOP	21	17	4	39.1	24.6	39.1	24.6	64
	CHP III	3	-	3	-	78.0	-	78.0	78
	RES	3	3	-	9.1	-	9.1	-	9
	Sub-total	77	31	46	57.5	152.3	57.5	152.3	210
Solar	FIT	1,792	209	1,583	32.3	1,206.2	32.3	1,206.2	1,238
	microFIT	11,681	11,681	-	101.3	-	101.3	-	101
	RESOP	57	44	13	348.2	130.0	348.2	130.0	478
	KC	2	-	2	-	200.0	-	200.0	200
	Sub-total	13,532	11,934	1,598	481	1,536	481	1,536	2,018
Wind	FIT	77	5	72	224.0	2,909.2	224.0	2,909.2	3,133
	RESOP	37	31	6	242.8	56.0	242.8	56.0	299
	RES	15	15	0	1,509.4	-	1,509.4	-	1,509
	KC	4	-	4	-	870.0	-	870.0	870
	Sub-Total	133	51	82	1,976.2	3,835.2	1,976.2	3,835.2	5,811
Renewable Non-Hydro Sub-total		13,742	12,016	1,726	2,515	5,523	2,515	5,523	8,039
Hydroelectricity	FIT	49	-	49	-	188.1	-	188.1	188
	RESOP	16	16	-	28.2	-	28.2	-	28
	RES	3	2	1	31.0	20.0	31.0	20.0	51
	HCI	45	43	2	5.5	9.4	1,077.4	9.4	1,087
	HESA	4	3.5	0.5	62.9	438.0	575.0	438.0	1,013
Renewable Hydro Sub-total		117	65	53	128	655	1,712	655	2,367
Natural Gas	CES	3	3	-	1,672.0	-	1,672.0	-	1,672
	ACES	3	3	-	2,030.6	-	2,030.6	-	2,031
	EMCES	5	5	-	1,003.7	-	1,003.7	-	1,004
	Lennox	1	1	-	2,140.0	-	2,140.0	-	2,140
	PGS	1	-	1	-	393.0	-	393	393
	Sub-total	13	12	1	6,846	393	6,846	393	7,239
Natural Gas	CHP	9	7	2	414.0	5.9	414.0	5.9	420
Waste	EFW	1	-	1	-	20	-	20	20
Natural Gas and Other Sub-total		23	19	4	7,260	419	7,260	419	7,679
Nuclear	Bruce	1	0.5	0.5	1,500	1,500	1,500	1,500	3,000
Nuclear Sub-total		1	0.5	0.5	1,500	1,500	1,500	1,500	3,000
Sub-total			12,100	1,783	11,403	8,098	12,987	8,098	21,085
Totals			13,883		19,501		21,085		

Appendix III: Non-Program Contracted Facilities in Commercial Operation

Table 11: Renewable Energy – Bio-energy as of March 31, 2012

Contract Facility	Contract Capacity (MW)	Commercial Operation/Term Commencement Date	Contract Expiry Date
Eastview Landfill Gas Energy Plant	2.5	18-Aug-05	Q3 2025
Hamilton (Digester Gas) Cogeneration Project	1.6	10-Jul-06	Q3 2026
Trail Road Landfill Generating Facility	5.0	31-Jan-07	Q1 2027
Sub-total	9		

Table 12: Renewable Energy – Wind as of March 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
Sub-total	1,509		

Table 13: Renewable Energy – Hydroelectricity as of March 31, 2012

Contract Facility	Contract Capacity (MW)	Commercial Operation/Term Commencement Date	Contract Expiry Date
Andrews Generating Station	47.0	01-Dec-09	Q4 2029
Appleton Eco Power Centre	1.4	01-Jan-11	Q4 2030
Aubrey Falls Generating Station	162.0	01-Dec-09	Q4 2029
Barrie Small Hydro Limited	0.1	17-Jul-10	Q3 2030
Bracebridge Falls Generating Station	2.6	24-Jan-12	Q2 2030
Brewers Mills	0.9	01-May-10	Q2 2030
Burk's Falls	1.1	01-May-10	Q2 2030
Calm Lake Generating Station	9.0	01-Dec-09	Q4 2029
Campbellford-Seymour Electric Generation Inc. – Plant No. 1	2.0	01-Jan-10	Q4 2029
Chaudiere No. 2. Generating Station	8.4	01-Apr-10	Q1 2030
Chaudiere No. 4 Generating Station	9.3	01-Apr-10	Q1 2030
Clergue Generating Station	52.0	01-Dec-09	Q4 2029
Current River Hydro	0.5	01-Mar-10	Q1 2030
Devil's Gap Generating Station	0.5	01-Jun-10	Q2 2030
Domtar, Espanola Mill	18.0	01-Jan-12	Q1 2032
Dunford Generating Station	45.0	01-Dec-09	Q4 2029
Enerdu Power Systems Ltd.	0.3	01-Mar-11	Q1 2031
Fort Frances Generating Station	10.0	01-Dec-09	Q4 2029
Gananoque	0.7	01-May-10	Q2 2030
Galetta Eco Power Centre	1.6	01-Jan-11	Q4 2030
Gartshore Generating Station	23.0	01-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	01-Dec-09	Q4 2029
Healey Falls Generating Station	15.7	07-Apr-10	Q2 2060
Heywood Generating Station	7.2	01-Jan-10	Q4 2029
High Falls Generating Station #1	0.8	01-Oct-10	Q3 2030
Hogg Generating Station	18.0	01-Dec-09	Q4 2029
Hollingsworth Generating Station	23.0	01-Dec-09	Q4 2029
Hound Chute Generating Station	9.5	07-Dec-10	Q4 2060
Hurdman Dam	0.6	01-Jun-11	Q2 2031
Iroquois Falls Generating Station	29.0	01-Dec-09	Q4 2029

Table 13: Renewable Energy – Hydroelectricity as of March 31, 2012

Contract Facility	Contract Capacity (MW)	Commercial Operation/Term Commencement Date	Contract Expiry Date
Island Falls Generating Station	38.0	01-Dec-09	Q4 2029
Jones Falls	2.4	01-May-10	Q2 2030
Kagawong Generating Station	0.8	01-Jan-10	Q4 2029
Kenora Generating Station	6.0	01-Dec-09	Q4 2029
Kingston Mills	1.9	01-May-10	Q2 2030
Kipling Generating Station	155.0	22-Jun-10	Q4 2065
Lac Seul/Ear Falls Generating Station	29.3	18-Feb-09	Q1 2059
Little Long Generating Station	137.0	22-Jun-10	Q4 2065
London Street Generating Station	4.1	01-Jan-10	Q4 2029
Lower Sturgeon Generating Station	14.0	21-Nov-10	Q4 2060
MacKay Generating Station	62.0	01-Dec-09	Q4 2029
Maple Hill	0.6	01-Dec-10	Q4 2030
Matthias Generating Station	3.0	01-Jan-10	Q4 2029
McPhail Generating Station	13.0	01-Dec-09	Q4 2029
Minden Generating Station	4.0	01-Jan-10	Q4 2029
Mission Generating Station	16.0	01-Dec-09	Q4 2029
Moose Rapids Generating Station	1.4	01-Jan-11	Q4 2030
Norman Generating Station	10.0	01-Dec-09	Q4 2029
Parry Sound PowerGen Corporation – Cascade Street Generating Station	1.2	01-Mar-10	Q1 2030
Rayner Generating Station	46.0	01-Dec-09	Q4 2029
Red Rock Falls Generating Station	41.0	01-Dec-09	Q4 2029
Renfrew Power Generation Inc. – Lower Plant	1.0	01-Jan-10	Q4 2029
Renfrew Power Generation Inc. – Upper Plant	1.0	01-Jan-10	Q4 2029
Rideau Falls	2.0	01-May-10	Q2 2030
Sandy Falls Generating Station	5.5	27-Oct-10	Q4 2060
Scone Generator	0.1	01-Jan-10	Q4 2029
Scott Falls Generating Station	22.0	01-Dec-09	Q4 2029
Shand Dam Generating Station	0.7	01-Sep-10	Q3 2030
Smoky Falls Generating Station	53.0	22-Jun-10	Off Line Q1 2015
Steepphill Generating Station	16.0	01-Dec-09	Q4 2029
Stewart Generating Station	0.2	05-Jun-10	Q2 2030
Sturgeon Falls Generating Station	7.0	01-Dec-09	Q4 2029
Swift Rapids Generating Station	7.9	01-Jan-10	Q4 2029

Table 13: Renewable Energy – Hydroelectricity as of March 31, 2012

Contract Facility	Contract Capacity (MW)	Commercial Operation/Term Commencement Date	Contract Expiry Date
Tembec, Smooth Rock Falls Facilities	8.0	14-Mar-10	Q1 2030
Truisler Chute Generating Station	0.6	01-Jun-11	Q2 2031
Tweed Generating Station	0.2	01-Nov-10	Q4 2030
Twin Falls Generating Station	22.0	01-Dec-09	Q4 2029
Umbata Falls Generating Station	23.0	12-Nov-08	Q4 2028
Washburn	0.2	01-May-10	Q2 2030
Wawaitin Generating Station	15.0	22-Nov-10	Q4 2060
Wells Generating Station	239.0	01-Dec-09	Q4 2029
West Nipissing Power Generation	6.5	01-Mar-10	Q1 2030
Wilson's Falls	2.9	7-Feb-12	Q2 2030
635294 Ontario Inc.	0.5	01-Feb-10	Q1 2030
1149377 Ontario Limited	2.3	01-Jan-10	Q4 2029
Sub-total	1,684		

Table 14: Natural Gas and Other Fuel Sources – Simple Cycle and Combined Cycle as of March 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
Halton Hills Generating Station	641.5	01-Sep-10	Q3 2030
Lennox Generating Station	2,140.0	01-Jan-11	Q4 2011
Portlands Energy Centre	550.0	22-Apr-09	Q2 2029
St. Clair Energy Centre	577.0	30-Mar-09	Q1 2029
Sub-total	6,294		

Table 15: Natural Gas and Other Fuel Sources - Combined Heat and Power as of March 31, 2012

Contract Facility	Contract Capacity (MW)	Commercial Operation/Term Commencement Date	Contract Expiry Date
Essar Cogeneration Facility	63.0	13-Jun-09	Q2 2029
Durham College District Energy Project	2.3	11-Mar-08	Q1 2028
East Windsor Cogeneration	84.0	06-Nov-09	Q4 2029
Great Northern Tri-Gen Facility	11.3	31-Oct-08	Q4 2028
GTAA Cogeneration Plant	90.0	01-Feb-06	Q1 2026
London Cogeneration Facility	12.0	31-Dec-08	Q4 2028
Sarnia Regional Cogeneration Plant	444.0	01-Jan-06	Q4 2025
Sudbury District Energy Cogeneration Plant	5.0	01-Jan-06	Q4 2024
Sudbury District Energy, Hospital Cogeneration	6.7	01-Jan-06	Q4 2024
Thorold Cogen	236.4	28-Mar-10	Q1 2030
Trent Valley Cogeneration Plant	6.7	01-Jan-06	Q4 2015
Warden Energy Centre	5.0	04-Jun-08	Q2 2028
Sub-total	966		

Table 16: Nuclear Energy as of March 31, 2012

Contract Facility	Contract Capacity (MW)	Commercial Operation/Term Commencement Date	Contract Expiry Date
Bruce A Unit 3	750.0	31-Oct-05	Q4 2037
Bruce A Unit 4	750.0	31-Oct-05	Q4 2037
Sub-total	1,500		

Appendix IV: Non-Program Contracted Facilities Under Development

Table 17: Renewable Energy – Bio-energy as of March 31, 2012

Contract Facility	Contract Capacity (MW)	Scheduled Commercial Operation Date	Forecasted Contract Expiry Date
Becker Cogeneration Plant	8.0	Q4 2013	Q4 2033
St. Marys Renewable Energy Centre	30.0	Terminated	Terminated
Thunder Bay Condensing Turbine Project	40.0	Q1 2013	Q1 2023
Sub-total	78		

Table 18: Renewable Energy – Solar PV as of March 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
Kingston Solar Project	100.0	Q4 2014	Q4 2034
Sub-total	200		

Table 19: Renewable Energy – Wind as of March 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
Sub-total	870		

Table 20: Renewable Energy – Hydroelectricity as of March 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	78.0	Q4 2015	Q4 2065
Island Falls Generating Station	20.0	TBD	TBD
Kipling Generating Station	78.0	Q4 2015	Q4 2065
Little Long Generating Station	67.0	Q4 2015	Q4 2065
Smoky Falls Generating Station	215.0	Q4 2015	Q4 2065
Stanley Adamson Powerhouse	3.9	Q2 2013	Q2 2033
Twin Falls Generating Station	5.0	Q1 2012 – Q1 2014	Q4 2029
Sub-total	467		

Table 21: Natural Gas and Other Fuel Sources – Simple Cycle and Combined Cycle as of March 31, 2012

Contract Facility	Contract Capacity (MW)	Scheduled Commercial Operation Date	Forecasted Contract Expiry Date
York Energy Centre	393.0	Q3 2012	Q3 2032
Sub-total	393		

Table 22: Natural Gas and Other Fuel Sources – Combined Heat and Power as of March 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
Sub-total	6		

Table 23: Natural Gas and Other Fuel Sources – Energy from Waste as of March 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
Sub-total	20		

Table 24: Nuclear Energy as of March 31, 2012

Contract Facility	Contract Capacity (MW)	Scheduled Commercial Operation Date	Forecasted Contract Expiry Date
Bruce A Unit 1	750.0	Q3 2012	Q4 2037
Bruce A Unit 2	750.0	Q1 2012	Q4 2037
Sub-total	1,500		

Appendix V: Program Contracts Under Development and in Commercial Operation

Table 25: Renewable Energy Standard Offer Program (RESOP) and Feed-in Tariff (FIT) as of March 31, 2012

Program	Fuel Source	Under Development (MW)	Commercial Operation (MW)	Total (MW)
RESOP	Bio-Energy	25	39	869
	Hydroelectric	-	28	
	Solar PV	130	348	
	Wind	56	243	
	Sub-total	211	658	
FIT	Bio-Energy	50	9	4,619
	Hydroelectric	188	-	
	Solar PV	1,206	32	
	Wind	2,909	224	
	Sub-total	4,353	266	
microFIT	microFIT Solar PV Contracts (Total 11,681)	-	101	101
Total (MW)		4,564	1,025	5,589



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