

ONTARIO POWER AUTHORITY



A Progress Report On Electricity Supply

Fourth Quarter 2009

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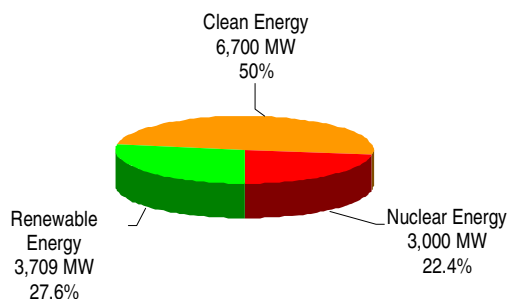
EXECUTIVE SUMMARY

This progress report is prepared quarterly to provide updates on the electricity supply contracts and programs currently managed by the Ontario Power Authority (OPA).

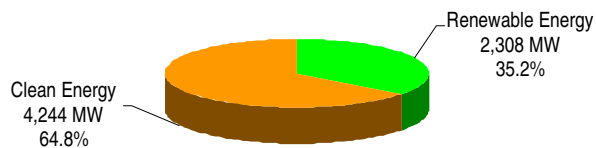
As of the fourth quarter 2009, the OPA had 13,409 megawatts (MW) of electricity supply capacity, based on average contract capacity, under contract. This includes 3,709 MW of renewable energy, 6,700 MW of clean energy, and 3,000 MW of nuclear

energy. Within this 13,409 MW of supply capacity, 1,972 MW were procured from early movers' generating facilities, which required no or minimal new capital investment. The remaining capacity, 11,437 MW, was procured from new development, redevelopment or refurbishment of existing facilities. This represents over \$15.3 billion of new capital investment in generation in the Ontario electricity system since 2005.

TOTAL CONTRACT CAPACITY
13,409 MW



TOTAL CAPACITY
IN COMMERCIAL OPERATION
6,552 MW



RENEWABLE ENERGY 3,709 MW		CLEAN ENERGY 6,700 MW		NUCLEAR ENERGY 3,000 MW	
Commercial Operation	Under Development	Commercial Operation	Under Development	Construction (1 & 2)	Planning (3 & 4)
2,308 MW	1,401 MW	4,244 MW	2,456 MW	1,500 MW	1,500 MW

CONTRACTS EXECUTED DURING THIS QUARTER

In October, the OPA entered into a 20-year contract with TransCanada to develop, construct and operate a new 900 MW natural gas-fuelled, combined-cycle generating facility in Oakville.

Under a directive from the Minister of Energy and Infrastructure dated May 7, 2009, the OPA successfully completed negotiations and executed two 20-year contracts in December for existing waterpower generation facilities with a combined capacity of 967 MW. One of the contracts was for a total capacity of 836 MW from 16 existing facilities with Brookfield Renewable Power Inc. The other contract was for a total capacity of 131 MW from eight existing facilities with ACH Limited Partnership. All of these existing facilities are located in northern Ontario.

CONTRACTS ACHIEVED COMMERCIAL OPERATION DURING THIS QUARTER

Within this quarter, the 84 MW East Windsor Cogeneration Centre, developed by Pristine Power Inc., completed all of the stipulated requirements in the combined heat and power contract and achieved commercial operation as of November 6.

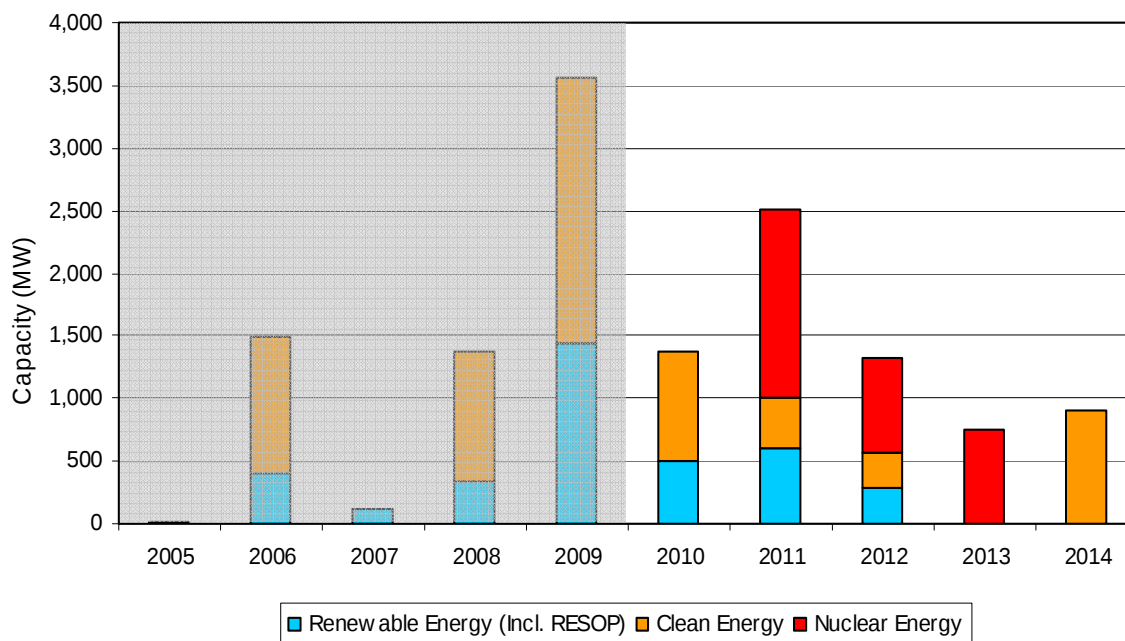
For further information on OPA electricity supply contracts, visit:

<http://www.powerauthority.on.ca/Page.asp?PageID=1212&SiteNodeID=123>.

COMMERCIAL OPERATION CHART

The following chart shows the progress the OPA's contracted generation facilities have made.

- The shaded area reflects capacity that is in commercial operation.
- The un-shaded area reflects the current forecast.



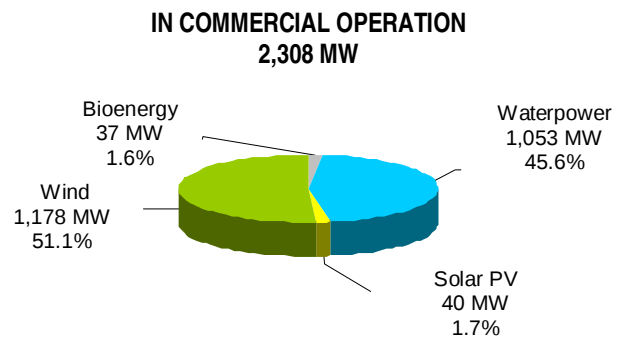
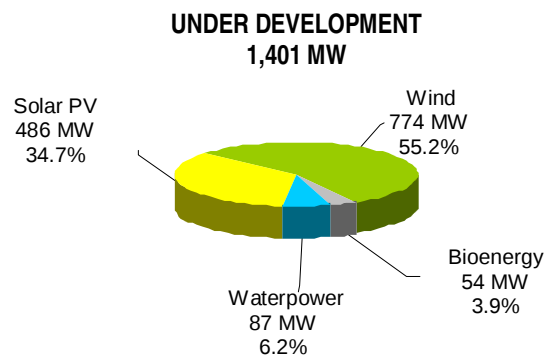
Technology Type	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	Total
Renewable (Incl. RESOP)	11	396	113	341	1,447	507	600	286		7	3,709
Clean		1,095		1,036	2,113	868	408	280		900	6,700
Nuclear							1,500	750	750		3,000
Totals	11	1,492	113	1,377	3,560	1,375	2,508	1,316	750	907	13,409
Accumulative Totals	11	1,502	1,615	2,992	6,552	7,927	10,435	11,752	12,502	13,409	

Note: In-service nuclear capacity in 2012 and 2013 are for indicative purposes only; the refurbishment schedule for Bruce A Units 3 and 4 is under review.

RENEWABLE ENERGY

As of the fourth quarter 2009, the OPA is managing 3,709 MW of renewable energy supply capacity. This capacity had been procured by different

procurement methods, including competitive procurements, standard offers and the Feed-in Tariff program.



PROGRAMS

Feed-in Tariff

The implementation of the Feed-in Tariff (FIT) Program is a key element in meeting the objectives of the *Green Energy Act, 2009*, and is critical to Ontario's success in becoming a leading renewable energy jurisdiction.

The OPA launched the FIT Program in October 2009. By the end of December, more than 2,200 applications had been received. The applications are currently being processed. The OPA continues to accept applications for the FIT Program.

microFIT

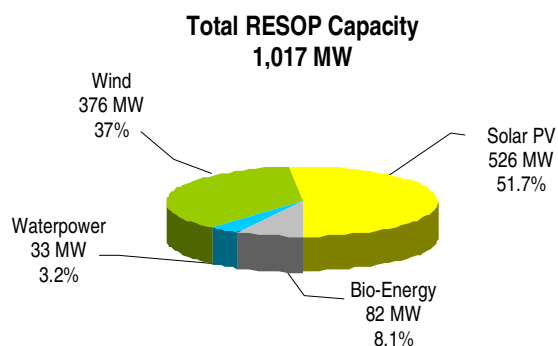
The FIT Program is divided into two streams – FIT and microFIT. The microFIT Program is designed for very small renewable power projects that have a generating capacity of 10 kilowatts (kW) or less. Of the 2,200 applications received, over 1,200 were

microFIT applications, and 700 of those applications were approved in December. The remaining applications are currently being processed. The OPA continues to accept applications for the microFIT Program.

Renewable Energy Standard Offer Program

As of the fourth quarter 2009, the OPA had 1,017 MW of Renewable Energy Standard Offer Program (RESOP) capacity, under contract. Of these, 188 MW, or 18.5 percent, have achieved commercial

operation. Based on the conditions of the FIT Rules, a number of RESOP contract counterparties had expressed interest to switch their RESOP contracts to FIT contracts.

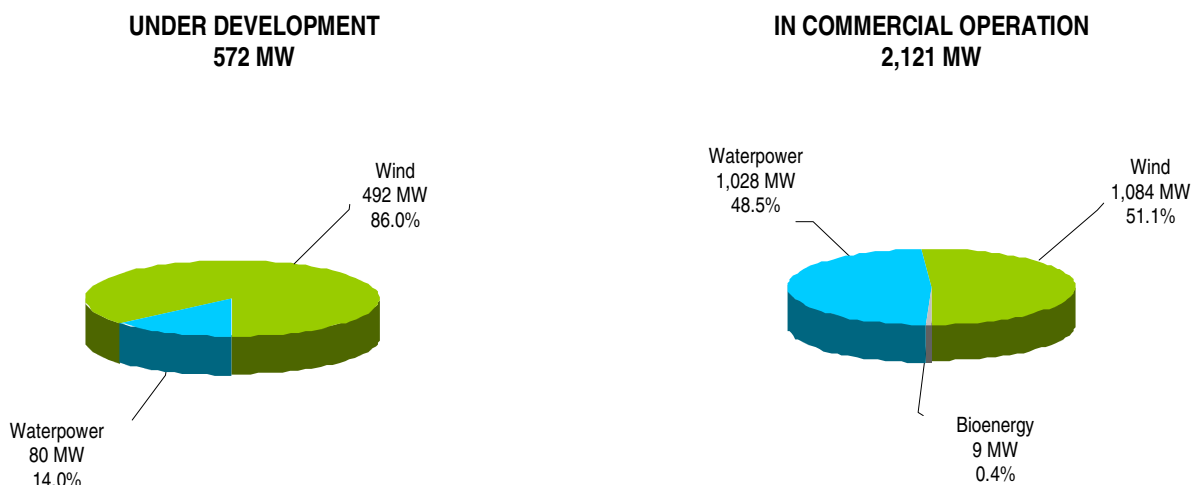


RESOP CONTRACTS 1,017 MW						
	CAPACITY IN COMMERCIAL OPERATION		CAPACITY UNDER DEVELOPMENT			
ENERGY SOURCE	EXECUTED CONTRACTS	MW	EXECUTED CONTRACTS	MW	TOTAL CONTRACTS	TOTAL CAPACITY (MW)
WIND	19		35		54	
		94		282		376
WATERPOWER	15		3		18	
		26		7		33
BIOENERGY	13		11		24	
		28		54		82
SOLAR PV	159		145		304	
		40		486		526
TOTAL CONTRACTS	206		194		400	
TOTAL MW		188		829		1,017

NEGOTIATED AND COMPETITIVELY PROCURED CONTRACTS

Presently, the OPA has 2,693 MW of renewable energy supply capacity under contract that was procured through negotiations or through a competitive procurement process; 2,121 MW have achieved commercial operation; 572 MW are under

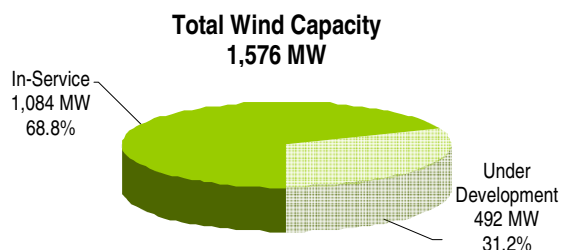
development. With the implementation of the FIT Program, the OPA does not have plans to procure further renewable energy supply capacity by a competitive procurement process in the near future.



Wind

The OPA has 1,576 MW of wind capacity contracted through a competitive procurement process; 1,084 MW have achieved commercial operation; 492 MW

are still under various stages of development. Status of these contracts are:



Raleigh Wind Energy Centre (78.0 MW) - Raleigh Wind Power Partnership - Municipality of Chatham-Kent

- Construction commenced in October
- Wind turbine components delivered to site
- Project finance activities initiated

Raleigh Wind Energy Centre

Construction of access roads to tower sites in progress



Raleigh Wind Energy Centre

Construction of foundations for turbine towers in progress





Raleigh Wind Energy Centre
Nacelle components have been delivered to the site and are ready for installation



Raleigh Wind Energy Centre
Transformer and tower storage

Byran Wind Project (64.5 MW) - Interwind Corp. - Prince Edward County

- Working with the Ministry of the Environment (MOE) to respond to elevation requests as part of the Environmental Screening Process and review process for the project
- A portion of the turbine sites needed to be relocated due to close proximity to an air field; a re-layout process has been initiated
- Major equipment procurement process has been initiated

Gosfield Wind Project (50.6 MW) - Gosfield Wind LP - Essex County

- Project financing achieved
- Municipality property re-zoning concerns have been resolved; final project permitting ongoing
- Turbine supply agreement executed, and delivery expected early summer 2010

Greenwich Windfarm (98.9 MW) - Renewable Energy Systems Canada Inc. - District of Thunder Bay

- Key permitting activities complete; some minor permitting activities remaining
- Selection of turbine type is complete
- Project financing activities have been initiated
- First Nations consultations ongoing

Kruger Energy Chatham Wind Project (101.2 MW) - Kruger Energy - Municipality of Chatham-Kent

- Individual Environmental Assessment elevation request was denied by the Director of Environmental Assessment and Approvals Branch (EAAB) of the MOE; one appeal was received; certificate of approval issued February 1.
- Connection assessment and approvals – 70% complete
- Balance of plant (BOP) engineering and construction contractor selected
- Financial closing – 60% complete
- Major equipment procurement – 90% complete

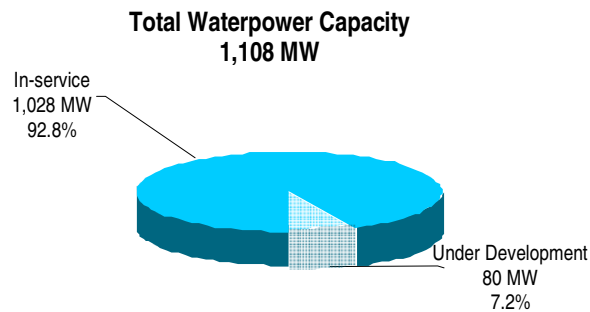
Talbot Windfarm (98.9 MW) - Renewable Energy Systems Canada Inc. - Municipality of Chatham-Kent

- Key permitting activities complete; some minor permitting activities remaining
- Project financing achieved
- First Nations consultations ongoing

Waterpower

The OPA has 1,108 MW of waterpower capacity contracted through direct negotiations with owners or operators and a competitive procurement process; 1,028 MW are in commercial operation, including 967 MW procured from existing waterpower

facilities under a Hydroelectric Contract Initiative; 80 MW are still under various stages of development. Status of contracts that are still under development is reported below.



Healey Falls Generating Station (15.7 MW) – Ontario Power Generation – Campbellford: Trent-Severn Waterway

- Existing units G2, 3 and 4 returned to service
- Unit 1 installation and alignment completed
- All civil works and electrical upgrades to the station completed

Healey Falls Generating Station

Unit G4 back in service





Healey Falls Generating Station
Unit 1 removable steel penstock piece secured
to turbine housing

Hound Chute Generating Station (9.5 MW) – UMH Energy Partnership – Timiskaming: Montreal River

- Overall project 69.5% complete
- Regulatory approvals and permitting – 90% complete
- Electrical switchyard commissioned and ready for Hydro One connection
- Excavation work at the intake canal along with slope stabilization complete



Hound Chute Generating Station
Concrete formwork around the tailrace
complete and construction of intake structure
progressing well

Island Falls Generating Station (20.0 MW) – Yellow Falls Power LP – Smooth Rock Falls: Mattagami River

- Project awaiting a decision from the Director of the EAAB of the MOE
- Project has experienced long delays in permitting and approval process, in-service date of the project is under review

Lower Sturgeon Generating Station (14.0 MW) – UMH Energy Partnership – Timmins: Mattagami River

- Overall project – 67% complete
- Regulatory approvals and permitting – 90% complete
- Connection assessment and approvals – 100% complete
- Installation of tailrace guide along with secondary concrete pouring complete
- Telecommunications tower work in progress

Lower Sturgeon Generating Station
Backfilling of service bay in progress



Sandy Falls Generating Station (5.5 MW) – UMH Energy Partnership – Timmins: Mattagami River

- Overall project – 71% complete
- Regulatory approvals and permitting – 90% complete
- Electrical switchyard commissioned
- Erection of steel building and powerhouse crane commenced
- Draft tube elbow delivered to site



Sandy Falls Generating Station
Watering up in the intake area

Wawaitin Generating Station (15.0 MW) – UMH Energy Partnership – Timmins: Mattagami River

- Overall project – 72% complete
- Connection assessment and approvals – 100% complete
- Erection of steel building in progress
- Welding of both steel and Weholite penstocks complete

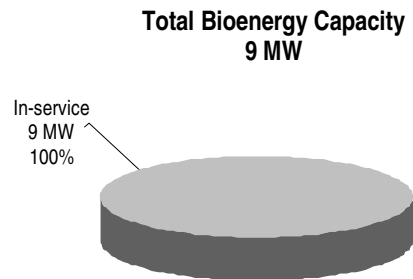


Wawaitin Generating Station
Installation of powerhouse crane in progress

Bioenergy

The OPA has 9 MW of bioenergy capacity generated by bio- and landfill waste under contract.

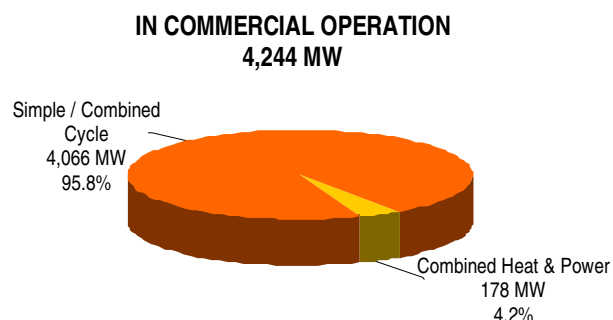
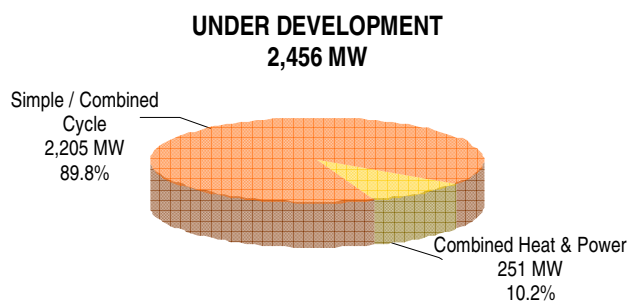
All of the capacity has achieved commercial operation.



CLEAN ENERGY

As of the fourth quarter 2009, the OPA is managing 6,700 MW of clean energy supply capacity generated mainly by natural gas-fired facilities. Two CHP contracts, with a combined capacity of

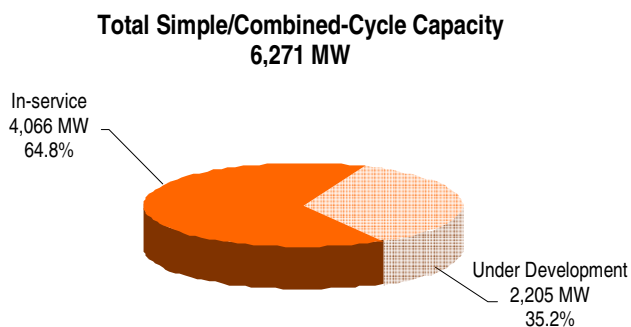
78 MW, are fuelled by either by-product gas or biomass. This capacity includes 6,271 MW from simple/combined-cycle facilities and 429 MW from combined heat and power facilities.



SIMPLE/COMBINED CYCLE

The OPA has 6,271 MW of clean energy supply capacity generated by simple/combined-cycle facilities under contract; 4,066 MW are already

in commercial operation; 2,205 MW are under various stages of development.



Greenfield South Power Plant (280.0 MW) – Greenfield South Power Corp. – Mississauga

- Detailed engineering continues
- Major and BOP equipment procurement activities continue
- Building permit approval process ongoing but is experiencing delays

Halton Hills Generating Station (631.5 MW) – TransCanada Corp. – Halton Hills

- Overall project – 94% complete
- High-voltage cable, switchyard and junction facility installation complete

Halton Hills Generating Station

Aerial view of the station looking south with the Macdonald-Cartier Freeway (Highway 401) in the background; testing and pre-commissioning of mechanical, electrical, protection and controls, and instrumentation equipment inside the powerhouse has commenced



Halton Hills Generating Station

Hydroelectric lubrication oil assembly inside the powerhouse



Oakville Generating Station (900.0 MW) - TransCanada Corp. – Oakville

- Contract between TransCanada and Ontario Power Authority executed on October 9, 2009
- Site plan application submitted to the Town of Oakville and was rejected
- Ontario Municipal Board (OMB) hearing on appeal of an interim control bylaw filed by TransCanada and Ford (which own the project site) was completed in October; the OMB upheld the bylaw in its decision released in December; TransCanada is reviewing the impact and considering its options
- Notice to proceed was provided to gas turbine manufacturer
- Limited notice to proceed was issued to engineering, procurement and construction (EPC) contractor

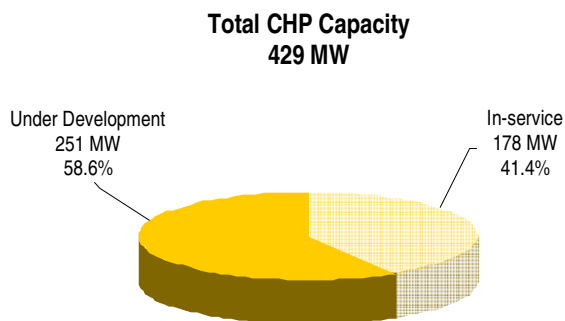
York Energy Centre (393.0 MW) – York Energy Centre LP – Township of King

- Project is experiencing delays in obtaining site plan approval from the municipality; an appeal was filed with the OMB, and a hearing has been scheduled for February
- Project financing activities in progress
- Turbine supply agreement and EPC agreement executed

COMBINED HEAT AND POWER (CHP)

The OPA has 429 MW of combined heat and power capacity under contract; 178 MW have achieved

commercial operation; 251 MW are under various stages of development.



Becker Cogeneration Plant (15.0 MW) - Becker Cogeneration Plant – Hornepayne

- Separate agreements for engineering and construction executed
- Project financing in progress and near completion
- Purchase order for major equipment issued



Becker Cogeneration Plant
Site clearing and preparation for construction
in progress and near completion

Thorold Cogeneration Project (236.4 MW) - Thorold CoGen LP, Thorold

- Project focus switched from construction to commissioning with first fire of combustion turbine generator occurring in January
- Final inspection of heat recovery steam generator complete



Thorold Cogeneration Project
Powerhouse and equipment installation
substantially completed

Thorold Cogeneration Project

Temporary set up for steam blow is in progress, with piping and associated insulation blanket installed inside the powerhouse



Thorold Cogeneration Project

Steam turbine installation near completion; remaining work will be completed during the restoration of piping systems after steam blow



NUCLEAR ENERGY

BRUCE A REFURBISHMENT

The OPA had 3,000 MW of nuclear energy supply capacity under contract; 1,500 MW are from the restart of Bruce Units 1 and 2, which are currently under construction. The forecast commercial operation date for Unit 2 is mid-2011; Unit 1 should be in operation four months after Unit 2 is back on-

line. Another 1,500 MW are from the refurbishment of Bruce Units 3 and 4, for which planning work is currently under way. These two units are presently in operation. The schedule to take these two units offline for refurbishment is being reviewed.

Bruce Power Refurbishment Implementation Agreement (3,000 MW) - Bruce Power - Tiverton

Bruce A Units 1 and 2 Restart



Bruce A Units 1 and 2 Restart

Polychlorinated biphenyls PCB fluid removals from legacy transformers in Units 1 and 2. The transformers are being replaced to meet corporate and government requirements.

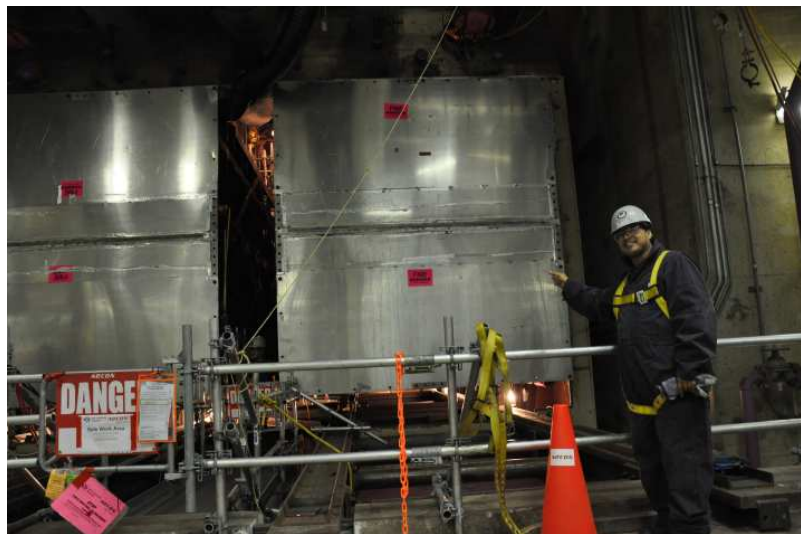


Bruce A Units 1 and 2 Restart

A boilermaker connects a milling machine to the severed end of a feeder tube on the west face of the Unit 1 reactor. New lower feeder tube segments are to be installed after new fuel channels have been installed.

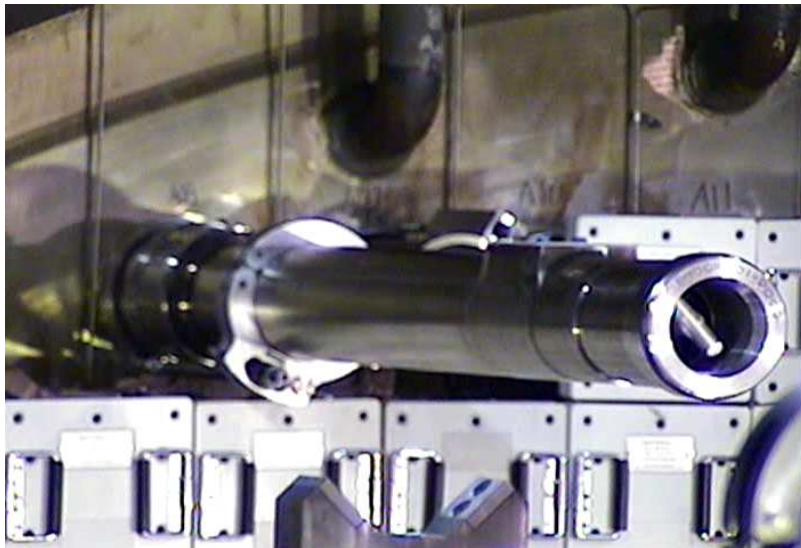
Bruce A Units 1 and 2 Restart

Welded in -- the last of six new tube bundles for the Unit 1 condensers was recently welded into position. Made up of two 65-ton halves, each bundle is about 40 feet long.



Bruce A Units 1 and 2 Restart

Another first (U2 West Top Row North) -- AECL's Bruce Retube Team installed the first new fuel channel assembly in a Unit 2 reactor during a recent 10-day trial run to field-test tools and procedures.



Bruce A Units 1 and 2 Restart

Members of the Feeder Team rehearse with a cutting machine in a training facility near the Bruce Power site. The team began preparing the severed ends of feeder tubes in the Unit 2 reactor vault in October.



STATUS OF MINISTERIAL DIRECTIVES

The OPA was established by *The Electricity Restructuring Act, 2004*. One of its mandates is to engage in activities in support of the goal of ensuring adequate, reliable and secure electricity supply and resources in Ontario. The OPA receives directives

from the Minister of Energy and Infrastructure to authorize it to undertake major initiatives. The following provides the status of electricity supply procurement directives. A full listing of directives to the OPA is available on www.powerauthority.on.ca.

Directive	Procurement Method	Recommended (MW)	Presently Under Contract (MW)	
				In Service Construction Pre-Construction
RENEWABLE ENERGY				
300 MW Renewable Energy Supply (RES) I	RFP	300	345	100% (345 MW)
1000 MW RES II	RFP	1,000	799	97.5% (779 MW) 2.5% (20 MW) →
2000 MW RES	RFP	2,000	492	← 15.9% (78 MW) 84.1% (414 MW)
Standard Offer Program	Program		1,017	* 39.4% (400 MW) 42.1% (429 MW)
OPG Waterpower Energy Supply	Negotiation	530	89	33.1 % (29 MW) 66.9 % (60 MW)
Existing Waterpower Facilities	Negotiation		967	100% (967 MW)
Feed-in Tariff Program	Program		0	Applications under review
Total		3,830	3,709	
CLEAN ENERGY				
2500 MW Clean Energy Supply (CES)	RFP	2,500	1,962	85.7% (1,682 MW) **
Combined Heat & Power (CHP)	RFP	1,000	414	43% (178 MW) 57% (236 MW)
CHP (Renewable)	RFP	100	15	100% (15 MW)
Early Movers Clean Energy Supply	Negotiation	1,315	1,005	100 % (1,005 MW)
Downtown Toronto and Goreway	Negotiation	1,350	1,389	100 % (1,389 MW)
Western GTA Supply	RFP	600	632	100 % (632 MW)
Northern York Region Supply	RFP	350	393	100 % (393 MW)
Southwest GTA Supply	RFP	850	900	100 % (900 MW)
Durham & York Region Energy-from-Waste Facility	Negotiation		0	Contract under negotiation
Total		8,065	6,710	
NUCLEAR ENERGY				
Bruce A Restart & Refurbishment	Negotiation	3,000	3000	50 % (1,500 MW) 50 % (1,500 MW)
Total		14,895	13,419	

* 18.5% (188 MW)

** 14.3 % (280 MW)

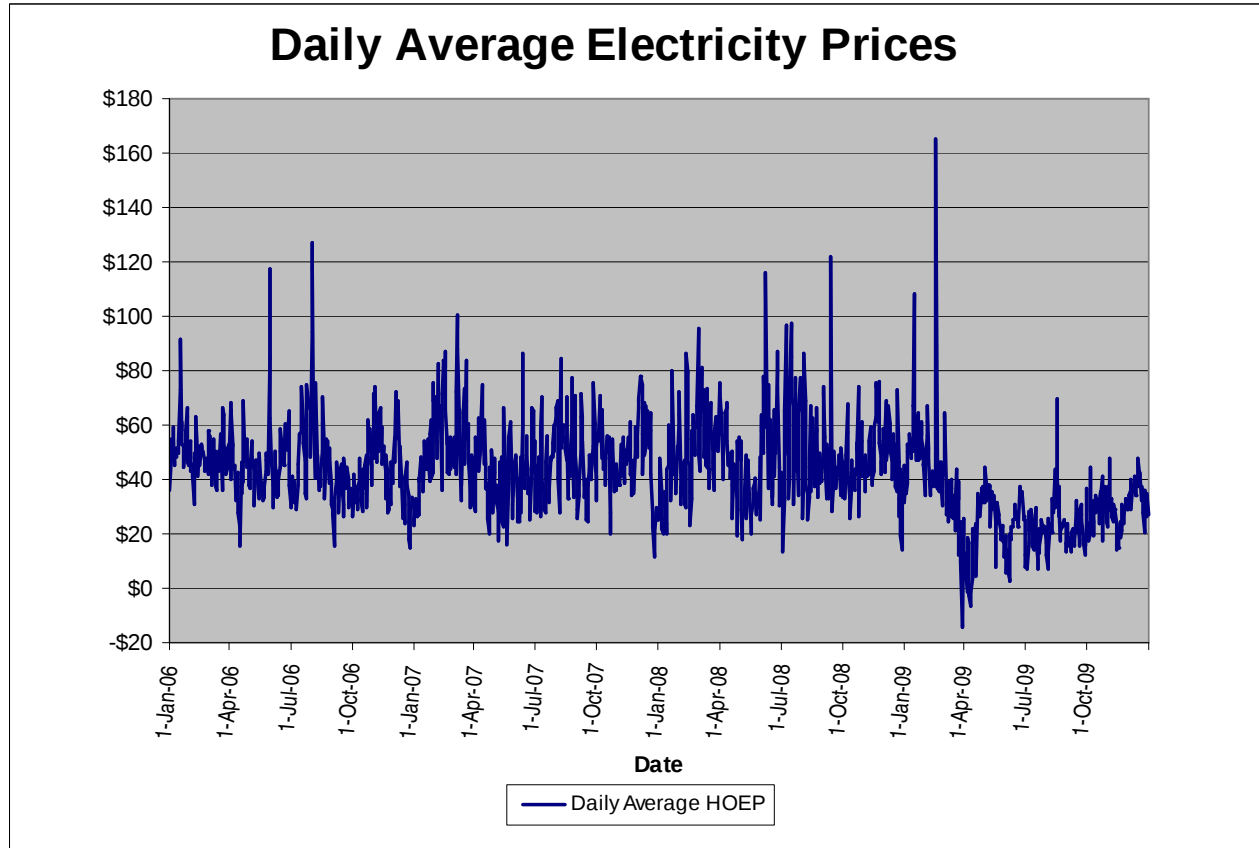
APPENDICES

I: Commercial Operation Date Table

Negotiated and Competitively Procured Facilities – In Commercial Operation						
6,552 MW						
ENERGY SOURCE		CONTRACT FACILITY	AVERAGE CONTRACT CAPACITY (MW)	COD	SUB-TOTAL	TOTAL
RENEWABLE ENERGY	Wind	Enbridge Ontario Wind Farm	181.5	19-Feb-09	1,178	2,308
		Erie Shores Wind Farm	99.0	24-May-06		
		Kingsbridge I Wind Power Project	39.6	16-Mar-06		
		Kruger Energy Port Alma Wind Power Project	101.2	31-Oct-08		
		Melancthon I Wind Plant	67.5	04-Mar-06		
		Melancthon II Wind Plant	132.0	24-Nov-08		
		Prince I Wind Power Project	99.0	21-Sep-06		
		Prince II Wind Power Project	90.0	19-Nov-06		
		Ripley Wind Power Project	76.0	22-Dec-07		
		Wolfe Island Wind Project	197.8	26-Jun-09		
		RESOP	94.0	Several		
	Waterpower	ACH Limited Partnership (8 Facilities)	131.0	01-Dec-09	1,053	
		Brookfield Renewable Power Inc. (16 Facilities)	835.4	01-Dec-09		
		Glen Miller Generating Station	8.0	19-Dec-05		
		Lac Seul/Ear Falls Generating Station	29.3	18-Feb-09		
		Umbata Falls Generating Station	23.0	12-Nov-08		
		RESOP	26.0	Several		
	Bioenergy	Eastview Landfill Gas Energy Plant	2.5	18-Aug-05	37	
		Hamilton (Digester Gas) Cogeneration Project	1.6	10-Jul-06		
Trail Road Landfill Generating Facility		5.0	31-Jan-07			
RESOP		28.0	Several			
Solar PV	RESOP	40.0	Several	40		
CLEAN ENERGY	Simple/Combined Cycle (S/CC)	Brighton Beach Power Station	541.25	01-Jan-06	4,066	4,244
		Goreway Station	839.1	04-Jun-09		
		Greenfield Energy Centre	1,005.0	16-Oct-08		
		GTAA Cogeneration Plant	90.0	01-Feb-06		
		Portlands Energy Centre	550.0	22-Apr-09		
		Sarnia Regional Cogeneration Plant1	444.0	01-Jan-06		
		St. Clair Energy Centre	577.0	30-Mar-09		
		Sudbury District Energy Cogeneration Plant	5.0	01-Jan-06		
		Sudbury District Energy, Hospital Cogeneration	6.7	01-Jan-06		
		Trent Valley Cogeneration Plant1	8.3	01-Jan-06		
	Combined Heat and Power (CHP)	Algoma Energy Cogeneration Facility (CHP)	63.0	13-Jun-09	178	
		Durham College District Energy Project (CHP)	2.3	11-Mar-08		
		East Windsor Cogeneration (CHP)	84.0	06-Nov-09		
		Great Northern Tri-Gen Facility(CHP)	11.3	31-Oct-08		
		London Cogeneration Facility (CHP)	12.0	31-Dec-08		
		Warden Energy Centre (CHP)	5.0	04-Jun-08		

II: IESO-Administered Market Data

The following chart and table provide a summary of the daily average Hourly Ontario Energy Price (HOEP) since January 2006.

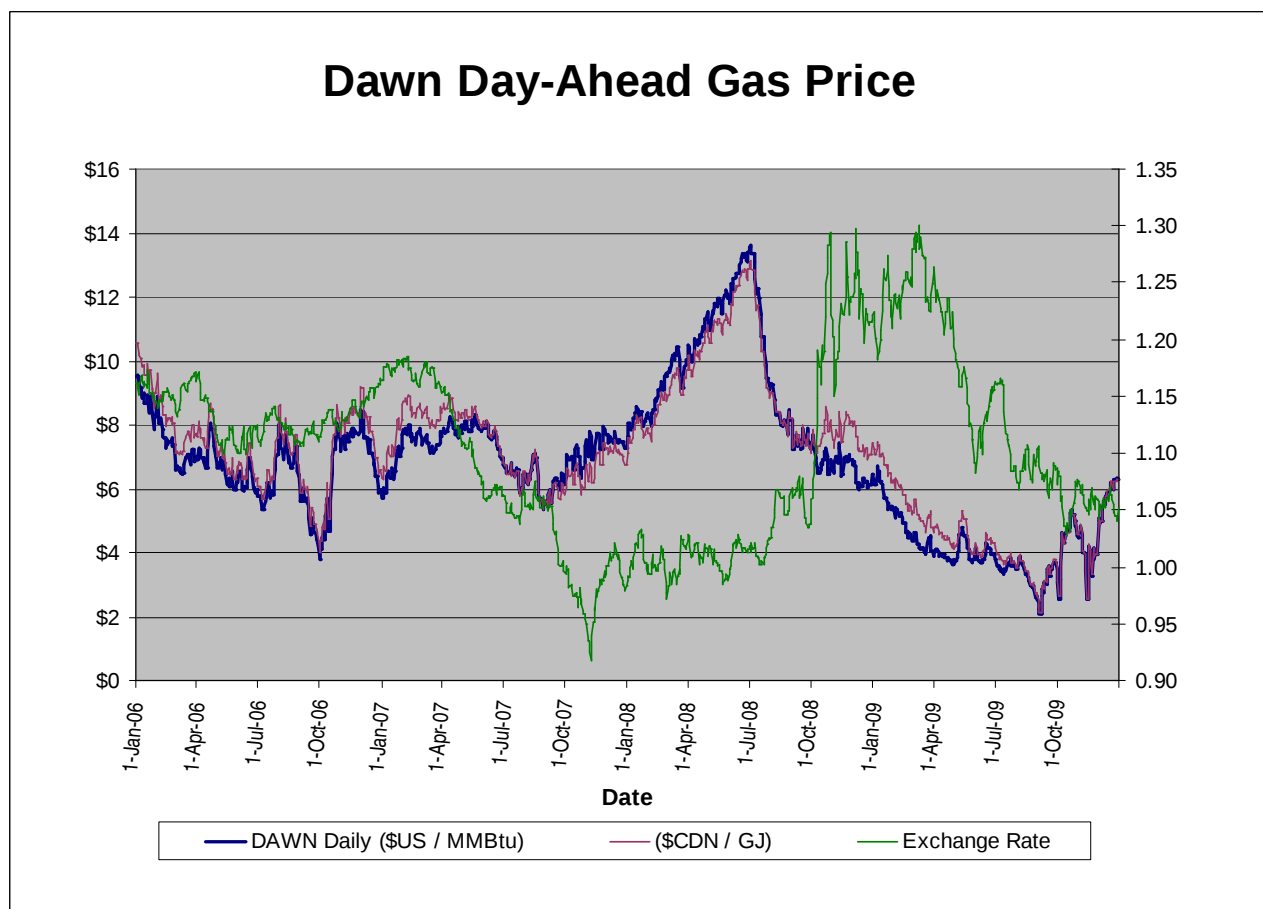


HOEP (\$/MWh)					
Year	Average	High	High Date	Low	Low Date
2006	\$46.38	\$699.65	21-Apr-06	(\$3.10)	3-Sep-06
2007	\$47.81	\$436.53	12-Jun-07	(\$0.40)	18-Sep-07
2008	\$48.83	\$563.62	1-Feb-08	(\$34.00)	28-Dec-08
2009	\$29.52	\$1,891.14	18-Feb-09	(\$52.08)	7-Jun-09

Note: Average refers to the simple arithmetic average

III: NGX Union-Dawn Day-Ahead Gas Price

The following chart displays the NGX Union-Dawn Day-Ahead Gas Price in US\$/MMBTU and CDN\$/GJ, along with the daily Canada/US \$ exchange rate, from January 1, 2006, to December 31, 2009. The table displays the NGX Union-Dawn Day-Ahead Gas Price in US\$/MMBTU only.



YEAR	EXCHANGE RATE				GAS PRICE INDEX (GPI)			
	High	High Date	Low	Low Date	High	High Date	Low	Low Date
2006	1.1726	18-Jan-06	1.099	11-May-06	\$9.5698	4-Jan-06	\$3.7978	1-Oct-06
2007	1.1853	8-Feb-07	0.917	7-Nov-07	\$8.2962	19-May-07	\$5.3571	28-Aug-07
2008	1.2969	5-Dec-08	0.9719	28-Feb-08	\$13.6337	2-Jul-08	\$5.9870	10-Dec-08
2009	1.3000	9-Mar-09	1.0292	14-Oct-09	\$6.6881	7-Jan-09	\$2.0751	5-Sep-09



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Web: www.powerauthority.on.ca

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This document includes information on electricity contracts managed by the Ontario Power Authority. For a more comprehensive description of generating sources in Ontario, visit the website of the Independent Electricity System Operator, www.ieso.ca.