

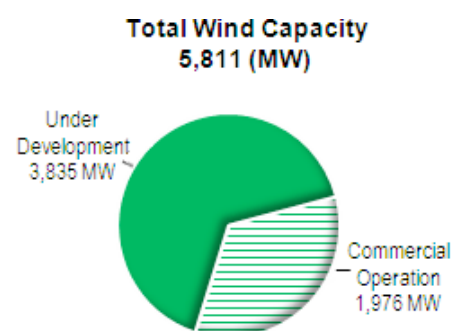
IESO & OPA Website listings <http://www.ieso.ca/imoweb/marketdata/windpower.asp>
<http://www.powerauthority.on.ca/current-electricity-contracts/wind-power>

Installed Wind Capacity in Ontario in Commercial Operation

Wind Farm	Capacity (MW)	Operational
Amaranth I, Township of Melancthon	67.5	Mar. 2006
Kingsbridge I, Huron County	39.6	Mar. 2006
Port Burwell (Erie Shores), Norfolk and Elgin Counties	99	May 2006
Prince I, Sault Ste. Marie District	99	Sep. 2006
Prince II, Sault Ste. Marie District	90	Nov. 2006
Ripley South, Township of Huron-Kinloss	76	Dec. 2007
Port Alma (T1) (Kruger), Port Alma	101.2	Oct. 2008
Amaranth II, Township of Melancthon	132	Nov. 2008
Underwood (Enbridge), Bruce County	181.5	Feb. 2009
Wolfe Island, Township of Frontenac Islands	197.8	Jun. 2009
Port Alma II (T3) (Kruger), Municipality of Chatham-Kent	101	Dec. 2010
Gosfield Wind Project, Town of Kingsville	50	Jan. 2011
Spence Wind Farm (Talbot), Townships of Howard and Oxford	98.9	Mar. 2011
Dillon Wind Centre (Raleigh)	78	Nov. 2011
Greenwich Wind Farm (Thunder Bay District)	99	Jan. 2012
Feed In Tariff (unspecified) from OPA Site	224 MW	
Renewable Energy Standard Offer (unspecified) from OPA Site	243 MW	
Sub Total – In Operation	1977.5 MW (1976)	

The following wind projects under development are identified, with in service dates where specified by IESO:

Project	Capacity (MW)	In Service*
Comber Wind Limited Partnership (FIT)	166	2012-Q1
Pointe Aux Roche Wind (FIT)	49	2012-Q1
Conestogo Wind Energy Centre 1 (FIT)	69	2012-Q4
Summerhaven Wind Energy Centre (FIT)	125	2013-Q1
McLean's Mountain Wind Farm (FIT)	60	2013-Q1
Port Dover and Nanticoke Wind (FIT)	105	2013-Q1
Dufferin Wind Farm (FIT)	100	2013-Q1
Armow (Samsung/Pattern) Bruce	180	
Grand (Samsung) Haldimand	150	
K2 (Capital/Samsung/Pattern)	270	
South Kent (Samsung/Pattern)	270	
Feed in Tariff	2235	
Renewable Energy Standard Offer	56	
Sub Total – OPA Contract (Developing)	3835	



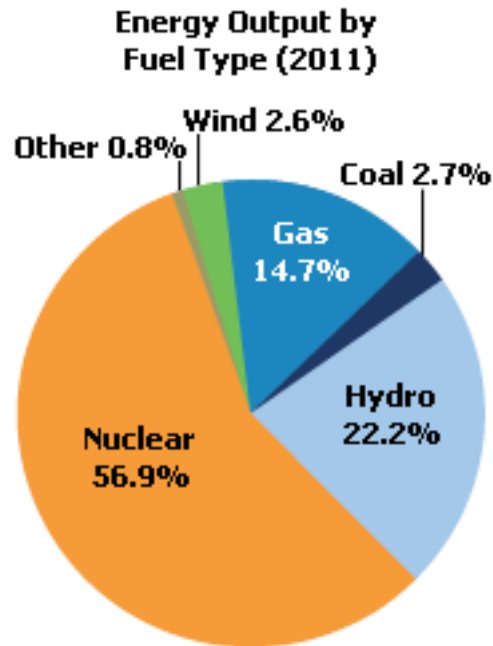
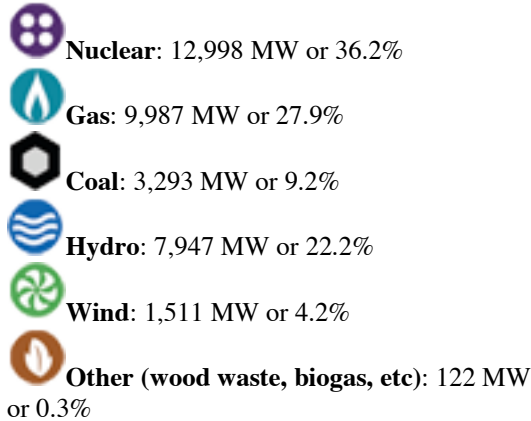
Total of OPA Managed Wind Generation Under Contract 5811 MW (all to be in service by 2015) per OPA.

http://www.ieso.ca/imoweb/media/md_supply.asp

Ontario has a diverse supply mix that is in the process of incorporating increasing amounts of renewable forms of energy. Here's an overview of Ontario's generation fleet:

Installed Capacity: There is 35,858 MW of installed generation in Ontario's electricity market. The amount of generation actually available at any one time is dependent on outages and the capacity factor of certain forms of supply.

- **Supply Mix*:** Ontario's installed generation capacity includes:



*Generating resources as of November 8, 2012. Updated quarterly. Note that these figures do not include generators that operate within local distribution service areas, such as wind turbines connected to low voltage distribution, like Huron Wind, and 20 MW or under plants, except for those that participate in the IESO-administered market.

- **Generator Output:** The IESO posts [hourly output and capability](#) for each generating unit over 20 MW that is connected to the transmission grid. This report includes how much each unit is capable of producing and how much it actually produces each hour.

New and Retired Generation Since the IESO Market Opened in May 2002

Ontario's electricity sector is going through a process of renewal – with the replacement of aging infrastructure and the transition to a more sustainable energy supply mix. Here's an overview of new or refurbished generation projects of 20 MW or more that have been commissioned onto the system since 2002. This table also includes coal units that have been retired as part of the government's plan to phase out coal by the end of 2014.

2003

 Pickering Unit 4 515 MW

 Bruce Unit 4 770 MW

2004

 Bruce Unit 3 782 MW

 Brighton Beach 580 MW

 Kirkland Lake 32 MW

 Beck and Kipling (Upgrades) 80 MW

2005

 Pickering Unit 1 515 MW

 Lakeview (Retirement) -1,130 MW

2006

 Greater Toronto Airport Authority 117 MW

 Amaranth 68 MW

 Kingsbridge 40 MW

 Port Burwell 99 MW

 Prince Wind Project 99 MW

 Prince II Wind Project 90 MW

2007

 Abitibi Canyon (Upgrades) 20 MW

 Ripley 76 MW

2008

 Portlands Energy Centre (Simple Cycle) 394 MW

 Greenfield Energy Centre 1,153 MW

	Umbata Falls	24 MW
	Kruger Energy Port Alma (T1) Wind Project	101 MW
	Melancthon II	132 MW
2009		
	St. Clair Energy Centre	678 MW
	Portlands Energy Centre (Combined Cycle)	246 MW
	Goreway Station	942 MW
	Beck Unit 7 conversion	69 MW
	Beck 2 upgrades	68 MW
	Enbridge Ontario Wind Farm	182 MW
	Wolfe Island Wind Project	198 MW
	East Windsor Cogeneration	100 MW
2010		
	Thorold Cogeneration	287 MW
	Halton Hills Generating Station	705 MW
	Nanticoke and Lambton unit shutdowns	-2,000 MW
	Conversion of Fort Frances to biomass	47 MW
	Kruger Energy Chatham (T3) Wind Project	101 MW
2011		
	Gosfield Wind Project	50 MW
	Spence Wind Farm	99 MW
	Talbot Wind Farm	99 MW
	Nanticoke Units 1 and 2 shutdown	-980 MW

2012



Greenwich Wind Farm

99 MW



Atikokan unit shutdown

-211 MW



Bruce Units 1 and 2

1,552 MW

Imports and Exports

Ontario is capable of importing or exporting approximately 4,800 MW at any one time, depending on system conditions. Ontario's high-voltage transmission grid is connected to Manitoba, Quebec, New York, Michigan and Minnesota.

Year	Imports (TWh)	Exports (TWh)	Net Imports (TWh)
2011	3.9	12.9	-9.0
2010	6.4	15.2	-8.8
2009	4.8	15.1	-10.3
2008	11.3	22.2	-10.9
2007	7.2	12.3	-5.1
2006	6.2	11.4	-5.2
2005	11.0	10.2	0.8
2004	9.8	9.5	0.3
2003	10.4	6.3	4.1
2002	7.1	3.9	3.2
2001	4.3	4.1	0.2
2000	5.1	5.5	-0.4
1999	6	4	2
1998	6	3	3
1997	3.8	6.4	-2.6

RELATED INFORMATION

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[Demand Overview](#)