

October 2014: Ontario's breath-taking, record-breaking month for electricity bills

By Parker Gallant and Scott Luft

New figures show that in October, the Ontario government paid \$1 billion more for electricity than the electricity market value of that power

Ontario's Independent Electricity System Operator (IESO) posted the 2nd Estimate for the Global Adjustment (GA) on October 31, 2014 for the month just ended. At \$1,009.2 million, the estimate surpasses September, 2014, by more than \$200 million.

In addition to the record Global Adjustment, Ontario will also set other records for the month: one is the lowest price on record for the HOEP (hourly Ontario Energy Price). That is likely to come in at \$7 per MWh (megawatt hour) or 0.7 cents/kWh. Class A electricity customers will appreciate this record-breaking event, but many holding a retailer contract will be disappointed as they will be charged 10.1 cents/kWh on top of their contracted price (4/6 cents per kWh) plus delivery, regulatory, debt retirement and HST charges. The final price for these retail customers may be close to 25 cents/kWh.

The third record for October is for "curtailed" or "constrained" production; we are confident that the total curtailment exceeded 500,000 MWh in October.

The fourth record in this record-breaking month is for the money paid to the Ontario Power Authority's [contracted generators](#) of 8,256 MW of renewable (wind, solar, bio-energy) non-hydroelectric as of June 2014 (4,008 MW or 48% is not yet in operation), and the other contracted, traditional generators of nuclear and hydro. The old record of \$538 million was set in November 2013.

Details of the record-breaking events follow.

Global Adjustment (GA)

The GA affects all consumers in the province but because there are two "classes" of ratepayers, it affects some more than others. Class A customers are the large companies who consume about 17% of Ontario's electricity demand annually, but pay a lesser portion (9.6%) of the GA. For October 2014, that portion is estimated to be about \$96 million, meaning the balance of \$913 million will hit the "[Class B](#)" ratepayers—ordinary citizens. The balance transferred to Class B ratepayers will be equal to an additional \$8.50 per MWh charge, more than the "Debt Retirement Charge."

Hourly Ontario Energy Price (HOEP)

The Ontario hourly energy price or HOEP is a signal of the value placed on the energy produced, and serves as a measurement of value just as any trading market would. In October, there was a glut of unneeded supply of power, and Ontario sold off the surplus at a loss. The weighted final average when calculated by IESO will be in the range of \$7 per MWh.

In fact, the HOEP was *negative* for 37% of all the hours of power production in October.

The October 2014 HOEP of \$7 will be a new record, with the previous low of \$15.45 set in March 2012.

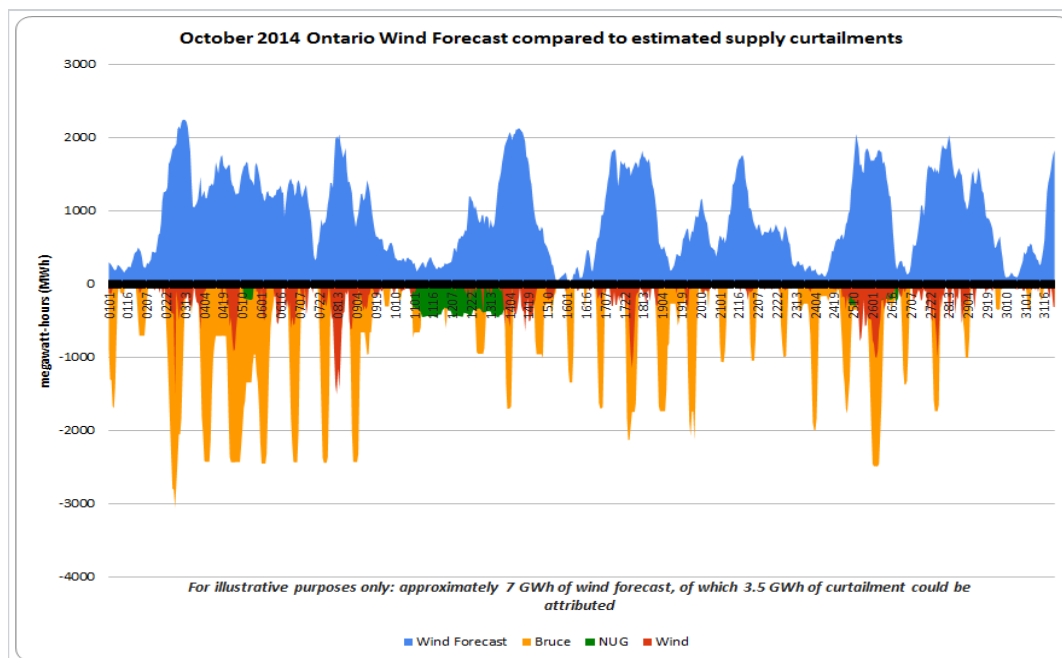
The outcome of those low prices is reflected in the export of 1.8 terawatts (TWh) generating about \$9.3 million.

The average cost of procuring 1 MWh of electricity in October 2014 will be approximately \$87, based on the IESO's reported demand, HOEP rates, and the Global Adjustment total. Because 1.8 terawatts were sold at \$5 per MWh, an additional \$147 million has to be charged to Ontario's ratepayers. This equates to an additional charge of \$32 per month on Ontario ratepayers' electricity bills.

	megawatt-hours	Value at HOEP	Global Adjustment	Total Cost	Average Rate (\$/MWh)	
Ontario Demand	10,819,854	\$77,017,410	\$1,009,200,000	\$1,086,217,410	\$100	
Exports	1,804,456	\$9,304,518		\$9,304,518	\$5	
Total Cost	12,624,310	\$86,321,928	\$1,009,200,000	\$1,095,521,928	\$87	
Estimated Ontario Figures						Cost share
Class A	2,178,663	\$15,508,064	\$96,883,200	\$112,391,264	\$52	9.6%
Class B	8,641,191	\$61,509,347	\$912,316,800	\$973,826,147	\$108	90.4%
Cost Shift to Class B/ Value at Average Rate less actual		Rate impact on class B				
Exports	\$147,283,930	\$17				
Class A	\$76,670,404	\$9				
Total	\$223,954,335	\$26				

HOEP and Wind

For the month of October, wind power generators produced almost 600,000 MWh of electricity and additionally were paid for "curtailment" of the 100,000 MWh they could have produced, but were asked not to add to the power grid. As wind power production has a negative effect on the HOEP (depressing prices) the production from this form of renewable power generated HOEP revenue of \$4.31 per MWh, or about \$2.6 million from the market. But it cost ratepayers \$81 million and "curtailed" production of wind power likely cost a further \$11 million, making the value of wind-generated electricity for October approximately \$90 million. This amount does not include what Bruce Nuclear was paid for the 400,000 MWh of "steamed off" nuclear production or the cost of the NRR (net revenue requirement) for idling gas plants.¹ Much of this can be attributed to wind power generation. Approximately half of all potential, or forecast, wind power generation resulted in the curtailment of contracted supply.



¹ Wind and solar have first-to-the-grid rights under Ontario's Green Energy Act, which means other sources of generation must be reduced in the event of surplus power production.

Curtailed Production and Exports

During October, 2014, the IESO curtailed more than 500,000 MWh of production. While wind power accounted for 100,000 MWh directly, much curtailment at nuclear and non-utility generators (NUGs) and import cuts occurred due to bloated supply levels during periods of windy weather. If one combines the curtailed production with the exports for October, it is obvious that Ontario dumped more than 21% of the province's procured (and paid-for) supply.

OPA Contracted Supply

As noted, only 52% of OPA's contracted renewables are in operation, but despite that the OPA will surpass their previous record contribution. This record will not stand for long however, as more than 4,000 MW of wind, solar and bio-energy are due to enter production within the next year, meaning our Spring and Fall weather months, when demand for power is low, will continue to see the GA climbing further driven by those additional megawatts.

Summary

Ontario's ratepayers are experiencing an energy price revolution, principally due to the rush to incorporate "renewable" energy in the form of wind, solar, biomass, etc. into the grid, without a cost-benefit analysis.² The politically motivated push to renewable apparently to clean Ontario's air (without scientific evidence) was enacted to the point where in the Spring and Fall seasons, when demand for power is lower, IESO has capacity supply cushions over 100% during many hours of the day. Ontario's electricity consumers pay for thousands of megawatts to contracted generators to idle or curtail generation. Those payments are then covered by the GA which acts as a "slush fund" for such expenses.

In addition, and particularly during Spring and Fall night hours, Ontario has surplus base-load power, which also results in steaming off nuclear, spilling hydro or curtailment of wind power.

Forecast

Ontario's electricity bills rose again on November 1st, and will continue to increase.

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The Authors:

Parker Gallant is a retired banker whose 33 year career with the TD bank included lending positions in the domestic market and many years in international banking where he had responsibility as VP for both trade finance and correspondent banking relationships. Between stints with the domestic and international parts of the TD, Parker spent several years with the Canadian subsidiary of a UK trade finance lender where he gained much of his knowledge on trade finance. During his time with TD Parker served a term as Chairman of the Canadian Bankers Association's Trade Finance Committee interacting with EDC, the Canadian Exporters Association and the Trade Ministry. Parker's retirement allows him to spend time researching the energy sector and apply his banker's common sense to analyzing the sector's approach to the production, transmission and distribution of electricity to Ontario's consumers. Parker is a regular contributor to the Financial Post on matters related to the energy sector.

Scott Luft advocates for responsible energy policies in Ontario via social media and blogging. Scott's diverse background includes an education in political science, a period in retailing, and a decade in the data sector.

² The Auditor-General for Ontario noted in 2011 that the government had never done any cost-benefit analysis for its renewable program; three years later, this is still the case.