

Fwd: Electricity Companies Gaming the Electricity System

From: "Rowe, Mary (OPO)" <mary.rowe@ontario.ca>
To: "McEachern, Gillian (OPO)" <gillian.mceachern@ontario.ca>, "Donelson, Philip (OPO)" <philip.donelson@ontario.ca>
Date: Sun, 05 Feb 2017 15:41:40 -0500

Mary W. Rowe
Deputy Principal Secretary
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Ontario, Canada

----- Forwarded message -----

From: "Imbrogno, Serge (ENERGY)" <Serge.Imbrogno@ontario.ca>
Date: Feb 4, 2017 11:14 AM
Subject: Re: Electricity Companies Gaming the Electricity System
To: "Orsini, Steve (CAB)" <Steve.Orsini@ontario.ca>
Cc: "Bevan, Andrew (OPO)" <Andrew.Bevan@ontario.ca>, "Rowe, Mary (OPO)" <Mary.Rowe@ontario.ca>, "Davidson, Steven (CAB)" <Steven.Davidson@ontario.ca>, "Bromm, William (CAB)" <William.Bromm2@ontario.ca>, "Kwamena, Boafoa (CAB)" <Boafoa.Kwamena@ontario.ca>

Hi Steve,

I'll work with IESO to get you a detailed response to your questions. We have been supportive of the IESO market renewal initiative. This is in part doable as the 20 year contracts previously signed expire and the generators are available to bid into an auction market. It's also supported by new technologies like storage. However, we have to be careful about how we implement some of the changes. The reference to locational marginal pricing could translate into a different commodity price depending on where the generator is located on possibly the consumer. IESO currently manages the issue now with congestion payments. Market renewal should feature prominently in LTEP as a way to bend the cost curve in the out years given it will take a number of years before it is fully implemented.

Serge

Sent from my BlackBerry 10 smartphone on the Rogers network.

From: Orsini, Steve (CAB)
Sent: Saturday, February 4, 2017 10:04 AM
To: Imbrogno, Serge (ENERGY)
Cc: Bevan, Andrew (OPO); Rowe, Mary (OPO); Davidson, Steven (CAB); Bromm, William (CAB); Kwamena, Boafoa (CAB)
Subject: Electricity Companies Gaming the Electricity System

Serge,

I have a few questions:

1. Can I get a copy of this paper and your analysis?
2. In your electricity relief package, are these savings part of the IESO market reforms or are in addition to them?

3. Are these higher than what you have included in the relief options?
4. Why has it taken IESO so long to figure this out (since 2002)? Can we hold the Board and/or IESO senior executives for failure to correct for this earlier (e.g., cancel their performance pays)?
5. Can you audit the companies to collect the portion of the \$1.5 billion due to companies inappropriately billing the system. If this was tax planning, we would be all over it! Would we need legislation to recover these funds.
6. If I got this wrong, please let me know as I am extremely upset if this happens to be true!

Thanks

Steve

03.02.2017

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Ontario electricity customers could save \$3 billion on their hydro bills, starting in 2021, if the province reforms its complex and costly power market, a new analysis shows.

The Independent Electricity System Operator, the public agency that manages the province's power grid and runs Ontario's electricity market, has quietly been working on a sweeping reform of that market, where power producers bid dozens of times a day to supply energy to the province's households.

The market, which opened in 2002 after the breakup of Ontario Hydro, contains inefficiencies, as well as extra payments that are made to power companies when the transmission system is clogged. Those congestion payments, a cost borne by electricity customers, have totalled \$1.5 billion since 2002, and are "susceptible to gaming" by companies, a panel of experts has repeatedly warned.

An update on "market renewal," as it's been dubbed, was tabled at a meeting of the IESO's stakeholder advisory committee earlier this week. Included in the update was an analysis done by "an expert independent third party," Brattle Group, which found reforming the electricity market could result in net benefits for electricity consumers worth an estimated \$3 billion from 2021 to 2030. There could also be an added \$500 million in potential savings for market players.

"We see a large reduction in future costs," said IESO president Bruce Campbell in an interview with QP Briefing. "And we think that by far the largest portion of that will show up as reductions on the consumer bill."

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Whoever forms government in the wake of the June 2018 provincial election could collect the credit for these savings. Campbell said it would likely take four years to get the new market up and running.

"We would expect that then, from that point forward, the payback is going to be good," Campbell said.

In the meantime, Premier Kathleen Wynne and her Liberal government have promised more relief for electricity customers before the 2017 budget is tabled, which will likely be in the next couple of months. The Grits have already gifted families an 8-per-cent hydro rebate on their household bills and increased assistance offered to rural and remote electricity customers.

But Energy Minister Glenn Thibeault discussed at length the IESO's market renewal efforts in a November speech to the Empire Club of Canada. He noted that a previous study done by the IESO had found a more competitive way of signing contracts for electricity capacity could yield about \$300 million in annual savings.

"If appropriately designed, an adaptive energy market has the power to remove inefficiency from the existing market; offer increased transparency to generators; enhance the opportunity for innovative new-entrants and – most importantly for our government – help drive the competitive tension necessary to reduce system electricity costs," Thibeault said, according to a copy of his remarks. "Jurisdictions who

have made the sort of market transition that we are envisioning have achieved upwards of 8% savings in production costs, directly reducing the monthly bills of consumers."

The \$3 billion in benefits to consumers and the electricity system would chiefly come from savings achieved by changing Ontario's procurement process for electricity capacity – capacity being the ability to produce power if it's needed, but not necessarily a power source used all the time, such as a gas plant that's flipped on when electricity demand is highest.

Currently, the province adds new capacity by signing long-term contracts with power companies. Those contracts have locked Ontario into power contracts that may be above the market price for electricity, especially now, when sources of energy are becoming more diverse and affordable.

Changing the procurement system to a capacity "auction" model – where power companies are trying to outbid each other for the rights to be the back-up plan for the grid – would be worth net savings of approximately \$2.5 billion from 2021 to 2030, the analysis showed.

Ontario has already run a couple of "demand response" auctions, where power users bid to be paid to cut their electricity use, rather than the IESO contracting for those reductions. The payments to the facility cutting their usage would be less than having to pay for the electricity it would have used. Campbell said the second DR auction saw prices fall by 12 to 17 per cent.

Among the reasons for reforming Ontario's electricity market is its age, 15 years old, as well as inefficiencies that have been identified and a rapidly changing power industry, said Campbell. The IESO is even looking at instituting a binding "day-ahead" market, which would procure power for the system a day ahead, instead of just every five minutes or an hour as the system currently does.

"The current market has a certain amount of inefficiencies just by the nature of its design and it means that we make a lot of operating decisions on the day in real-time," Campbell said. "I think we'll save significant funds just through people being able to operate their facilities with better knowledge of what they need to do the following day."

The current rapid-fire market also requires a lot of global adjustment payments, where power producers who win bids to provide electricity are paid even more to meet the terms of their contracts with the province. Auditor General Bonnie Lysyk reported in 2015 that Ontario electricity customers are likely to pay another \$133 billion in global adjustment fees from 2015 to 2032.

Another feature of the electricity market that could be reformed is tightening purse strings when it comes to "out of market payments," one of which are the so-called congestion payments to power companies.

Those congestion costs have totalled \$1.5 billion since the electricity market opened in 2002, as noted a recent report by the Ontario Energy Board's Market Surveillance Panel, which keeps an eye on the market. The bulk of these payments make power companies whole when they lose out on producing electricity due to bottlenecks in the transmission grid. They are paid for by electricity customers.

But these payments, which, again, average around \$110 million annually, "have resulted in inefficiencies and inappropriate wealth transfers, and have shown themselves to be susceptible to gaming," the panel said in a December 2016 report that was released publicly in January. The panel actually warned about possible gaming in the system before the market even opened, but it is repeating itself now because of the market renewal efforts.

The Market Surveillance Panel is recommending changes to the electricity market that would "rely less" on the congestion payments and usher in "locational pricing," which would offer flexible payments to power producers depending on where they're located on the grid.

"There is simply too much inefficiency and opportunities for gaming of CMSC payments in a market design '... in which we sell energy at one price while producing it at another price,' " the panel says, quoting its own work from 2006. The two prices is a reference to Ontario's two-tier pricing system – or two-schedule system – which is caused by algorithms the system uses to buy electricity, one of which considers physical transmission constraints and one that does not.

The two-schedule system shows up on the IESO's "inefficiencies" slide on market renewal. Another slide notes that "Single Schedule is needed to achieve further efficiencies in scheduling and optimizing energy and ancillary services." The projected savings from switching to a single schedule and a day-ahead market are estimated to be worth about \$500 million over ten years.

“We need to take operating steps to overcome those constraints,” said Campbell. “We have to run a more expensive plant over here because we can’t get less expensive generation to the load centre.”

The IESO is examining how it could incorporate the congestion payments into the price electricity, providing a price that consumers can see, rather than having the payments occur out of the market.

“Congestion, by its very nature, is always going to cost you some money to address it, because you can’t build a copper plate over the whole province,” said Campbell.

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