

Message

From: John Cannella [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=CD667C6D53774DD0A749783BB02AE89D-JOHN CANNEL]
Sent: 2017-06-29 11:01:21 AM
To: Jordan Penic [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7d23bcd450594583bb40b447b35485da-Jordan Peni]; Mary Bernard [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7e3e3e8d7f9345c2b0aab3e0fd7a79f2-Mary Bernar]
CC: Andrew Dow [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=6268b334c119488b888395bba8b155d9-Andrew Dow]
Subject: RE: Hydro Power

Importance: High

Just got off the phone with Chris Reynolds from QP Briefing—He’s looking for comment on this news release, which is related to this morning’s presser with the PC Party. OSPE joined the PCs at the Press Gallery studio this morning to talk about their findings.

Chris will send me an email outlining the details of his request but I suspect he will in part be asking us to check our numbers against OSPE’s findings.

Ontario Wasted More Than \$1 Billion Worth of Clean Energy in 2016

STAFF June 29, 20172017-06-29T09:30:11+00:002017-06-29T10:17:18+00:00 Advocacy, Featured No Comments

Following a detailed analysis of year-end data issued by the Independent Electricity System Operator (IESO) and Ontario Power Generation (OPG), the Ontario Society of Professional Engineers (OSPE) is reporting that in 2016, the province wasted a total of 7.6 terawatt-hours (TWh) of clean electricity – an amount equal to powering more than 760,000 homes for one year, or a value in excess of \$1 billion.

“This represents a 58 per cent increase in the amount of clean electricity that Ontario wasted in 2015 – 4.8 TWh – all while the province continues to export more than 2 million homes-worth of electricity to neighbouring jurisdictions for a price less than what it cost to produce,” said Paul Acchione, P.Eng., energy expert and former President and Chair of OSPE.

OSPE shared these findings with all three major political parties, and will be at Queen’s Park this morning to speak to media regarding the importance of granting professional engineers more independence in the planning and designing of Ontario’s power system.

So why is Ontario wasting all this energy?

“Curtailement is an industry term that means the power was not needed in Ontario, and could not be exported, so it was dumped. It’s when we tell our dams to let the water spill over top, our nuclear generators to release their steam, and our wind turbines not to turn, even when it’s windy,” said Acchione.

“These numbers show that Ontario’s cleanest source of power is literally going down the drain because we’re producing too much. Speaking as an engineer, an environmentalist, and a rate payer, it’s an unnecessary waste of beautiful, clean energy, and it’s driving up the cost of electricity.”

In addition to curtailment, surplus hydroelectric, wind, and nuclear generation was exported to adjoining power grids in 2014, 2015, and 2016 at prices much lower than the total cost of production. This occurs because Ontario produces more clean electricity than it can use, so it is forced to sell off surplus energy at a discounted rate. Total exports in 2016 were 21.9 TWh compared to 22.6 TWh in 2015, and a significant portion was clean, zero-emission electricity.

“Taken together, those total exports represent nearly enough electricity to power every home in Ontario for an entire year,” said Acchione. “OSPE continues to assert that the government must restore the oversight of professional engineers in the detailed planning and design of Ontario’s power grid to prevent missteps like this from happening.”

Engineers have solutions

Because Ontario is contractually obligated to pay for most of the production costs of curtailed and exported energy, OSPE believes it would be better to find productive uses for the surplus clean electricity to displace fossil fuel consumption in other economic sectors. In the summer of 2016, OSPE submitted an advisory document to the Minister of Energy and all three major political parties detailing 21 actionable recommendations that would deliver efficiencies and savings, including reducing residential and commercial rates by approximately 25 per cent, without the creation of the subsidy and deferral account under the Ontario Fair Hydro Act.

OSPE also recommended the establishment of a voluntary interruptible retail electricity market in order to make productive use of Ontario’s excess clean electricity. This market would allow Ontario businesses and residents to access surplus clean power at the wholesale market price of less than two cents per kilowatt-hour (KWh), which could displace the use of fossil fuels by using things like dual fuel (gas and electric) water heaters, and by producing emission-free hydrogen fuel.

Ontario is currently in the process of finalizing its 2017 Long Term Energy Plan (LTEP), a multi-year guiding document that will direct the province’s investments and operations related to energy. This presents a key opportunity for the government to reduce Ontarians’ hydro bills by making surplus clean electricity available to consumers.

“It is imperative that we depoliticize what should be technical judgments regarding energy mix, generation, distribution, pricing and future investments in Ontario,” said Jonathan Hack, P.Eng., President & Chair of OSPE. “We are very concerned that the government does not currently have enough engineers in Ministry staff positions to be able to properly assess the balance between environmental commitments and economic welfare when it comes to energy.

Professional Engineers must be given independence in planning and designing integrated power and energy system plans, which will in turn benefit all Ontarians.”

About the Ontario Society of Professional Engineers (OSPE)

OSPE is the voice of the engineering profession in Ontario, representing more than 80,000 professional engineers and 250,000 engineering graduates, interns, and students.

OSPE's 2012 report *Wind and the Electrical Grid: Mitigating the Rise in Electricity Rates and Greenhouse Gas Emissions* detailed the mounting risk of hydraulic spill, nuclear shutdowns, and periods of negative wholesale electricity prices during severe surplus base load generation.

While curtailment will decrease during the nuclear refurbishment program that began in October 2016 and the retirement of the Pickering reactors scheduled to occur from 2022 to 2024, it will rise again when the refurbished reactors return to service, unless the government takes action.

OSPE's Energy Task Force has provided strategic engineering input to Ontario's Ministry of Energy for more than ten years. The majority of OSPE's recommendations have been fully or partially implemented over the past five years, saving consumers hundreds of millions of dollars per year. But more can be done if government engages Ontario's engineers to optimize the use of the province's clean electrical power system.

From: Jordan Penic
Sent: June 29, 2017 10:19 AM
To: Andrew Dow
Cc: Mary Bernard; John Cannella
Subject: RE: Hydro Power

Ok thanks. We need to send back asap.

From: Andrew Dow
Sent: June 29, 2017 10:17 AM
To: Jordan Penic
Cc: Mary Bernard; John Cannella
Subject: RE: Hydro Power

One thing to flag is that we mention hydroelectric spill in our operability assessments as an SBG mitigation measure. I spoke to Dave Robitaille earlier who confirmed that we don't direct the spilling of water, but I'm going to follow up now to ask him why we say this:

Operability considerations? The IESO's current SBG mitigating measures are expected to be sufficient to manage SBG in 2020. These mitigating measures include: hydroelectric spill, economic exports, variable generation dispatch and nuclear manoeuvres/shutdowns.

Andrew Dow | Analyst, Issues Management
Independent Electricity System Operator (IESO) | T: (416) 506-2827

From: Jordan Penic
Sent: June 29, 2017 10:11 AM
To: Andrew Dow
Cc: Mary Bernard; John Cannella
Subject: RE: Hydro Power

Minor edit, but I'm good with this.

From: Andrew Dow
Sent: June 29, 2017 10:08 AM
To: Jordan Penic
Cc: Mary Bernard; John Cannella
Subject: RE: Hydro Power

How's this?

- The purchase and sale of electricity in Ontario is managed through the operation of a competitive wholesale market.
- Every hour, the IESO receives offers from a wide range of suppliers to provide electricity (as well as bids from large consumers to reduce electricity use on demand) and then schedules the lowest-cost offers needed to meet demand every 5 minutes.
- Any given hydroelectric facility will generate energy when it successfully offers into Ontario's electricity market, and it is not used when its offers are not economic relative to other sources of energy.
- Ontario's electricity system is built to meet the peak demand for the year. Like any other jurisdiction, this means that not all power is needed at all times.
- All sources of generation must comply with applicable safety and environmental regulations.
- The IESO does not make decisions regarding the spilling of water at hydroelectric facilities.

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-----Original Message-----

From: Jordan Penic
Sent: June 28, 2017 5:41 PM
To: Andrew Dow
Cc: Mary Bernard; John Cannella
Subject: Fw: Hydro Power

Hi Andrew,

Do we have/can we develop some messaging for tomorrow morning that we could share with the Ministry on hydro, how the market and dispatch actually works (i.e. We don't choose when to spill water), and the supply mix in general (i.e. We don't need all the resources to be providing all their energy at all times)?

I'm not sure we know exactly how much water is spilled, because we don't have access to that info from generators, but if you can find anything related to it in the 18 month outlook, per se, that might be good.

If anyone else has any feedback/input, please feel free to share.

Let me know if you want to discuss,

-Jordan

Original Message

From: Campbell, David (ENERGY) <David.Campbell2@ontario.ca>
Sent: Wednesday, June 28, 2017 5:35 PM
To: Jordan Penic
Cc: Coker, Meaghan (ENERGY)
Subject: Hydro Power

Hey Jordan,

MPP Smith is going to be in the Queen's Park media studio tomorrow morning at 10:15 to talk about "hydro power." Our best guess is he's planning to talk about the province spilling water at Niagara, which has been a favourite topic of his recently.

Does IESO have any messaging related to this topic you could share before the press conference tomorrow? Any details on how/when/why we choose to spill water, and how often it actually happens, would be very helpful context.

Thanks!

David