

Message

From: Kim.Marshall@ieso.ca [Kim.Marshall@ieso.ca]
Sent: 2017-11-17 10:11:26 AM
To: LADAK Lubna -TREASURY [lubna.ladak@opg.com]
Subject: Re: EXTERNAL – RE: “In Ontario, hydro’s future gets murkier as costs of leaving the grid decline”

Sent from my iPad

On Nov 17, 2017, at 10:08 AM, LADAK Lubna -TREASURY <lubna.ladak@opg.com> wrote:

Kim,
I’m available from 11:45 to 2, and from 4 to 6.
The two of us can speak, and if we need to consult John later, we can do that.

Lubna Ladak | VP Treasury | Ontario Power Generation
700 University Avenue, Toronto, Ontario M5G 1X6 | 416-592-5984 | Cell 416-578-0219 |
lubna.ladak@opg.com

From: Kim Marshall [mailto:Kim.Marshall@ieso.ca]
Sent: Friday, November 17, 2017 9:57 AM
To: LADAK Lubna -TREASURY <lubna.ladak@opg.com>
Subject: Re: EXTERNAL – RE: “In Ontario, hydro’s future gets murkier as costs of leaving the grid decline”

Lubna might be good to have a conversation about this request. I am off today and have a number of appointments but may be able fit in. Want too include john lee or just us first?

Thx

Sent from my iPad

On Nov 16, 2017, at 6:02 PM, LADAK Lubna -TREASURY <lubna.ladak@opg.com> wrote:

Welcome back Kim. Please spread some of the Bahamas’ sunshine in TO!

I don’t know if you’ve seen the email below from DBRS, but they are asking for OPG and the IESO’s strategies for collecting the CEA if electricity demand decreases. They’re referencing comments made by Leonard Kula and a Senior Advisor at EY regarding the impact of technology on electricity demand. Do you know the context around Leonard’s comments? How is the IESO treating the impact of technological changes on its demand forecast?

Lubna Ladak | VP Treasury | Ontario Power Generation
700 University Avenue, Toronto, Ontario M5G 1X6 | 416-592-5419 | Cell 416-578-0219 |
lubna.ladak@opg.com

From: Tim O'Neil [mailto:toneil@dbrs.com]
Sent: Thursday, November 16, 2017 10:15 AM
To: Benaiah, Ian <ian.benaiah@rbccm.com>; Khan, Nur <nur.khan@rbccm.com>; Taylor, Brent R <brent.r.taylor@rbccm.com>; Malhi, Harman

<harman.malhi@rbccm.com>; Katrina Niehaus (Katrina.Niehaus@gs.com)
<Katrina.Niehaus@gs.com>; Brian Delaney (brian.delaney@gs.com)
<brian.delaney@gs.com>; Donnie Persaud (Donnie.Persaud@cibc.com)
<Donnie.Persaud@cibc.com>; Adalja, Sunil (Sunil.Adalja@cibc.com)
<Sunil.Adalja@cibc.com>; Maciel, Andrew (Andrew.Maciel@cibc.com)
<Andrew.Maciel@cibc.com>; LEE John -TREASURY <john.s.lee@opg.com>; RYFA Ken -
TREASURY <ken.ryfa@opg.com>; LADAK Lubna -TREASURY <lubna.ladak@opg.com>; GO
Matthew -TREASURY <matthew.go@opg.com>; Chen, Zhidang
<Zhidang.Chen@rbccm.com>; Papp, David <david.papp@rbccm.com>; Green, Lesley
<lesley.green@rbccm.com>; Jamie Feehely <jfeehely@dbrs.com>; King Lam
<KLam@dbrs.com>; Justin Tsang <JTsang@dbrs.com>; Arthi Sambasivan
<ASambasivan@dbrs.com>; Dal Bello, David <david.dalbello@rbccm.com>
Cc: WONG Leslie -LAWDIV <leslie.wong@opg.com>; Anthony Martinello
<Anthony.Martinello@ieso.ca>; Michael Boll <Michael.Boll@ieso.ca>; Jeannette Briggs
<jeannette.briggs@ieso.ca>; Antonios, Paul <Paul.Antonios@gs.com>; Sabri, Salina
<Salina.Sabri@gs.com>

Subject: EXTERNAL – RE: “In Ontario, hydro’s future gets murkier as costs of leaving the grid decline”

*** Exercise caution. This is an EXTERNAL email. DO NOT open attachments or click links from unknown senders or unexpected email. ***

Good morning,

Once again, thank you to IESO representatives for the opportunity to understand your role in the Ontario Hydro market and specifically as it relates to the Fair Hydro Act. Prior to the meeting I mentioned to some of you an article that was published (attached) earlier Tuesday morning discussing the future of hydro in Ontario.

Follow up question for IESO and OPG:

While we recognize that the semi-annual true-up is a significant mitigant to demand forecast error our sensitivity and stress analysis needs to incorporate the potential for a loss of ratepayers which will potentially over-burden any remaining ratepayers. Of particular interest is the rapid technological changes that are anticipated (including by Leonard Kula, Chief Operating Officer of IESO) and the potential for a significant loss of ratepayers as the article’s title suggests “costs of leaving the grid decline”.

Given the timing of the transaction which contemplates all of the borrowing up front, our stress needs to incorporate the potential changes to the market as the bonds are issued. This results in a significant exposure to technological change (and consequently rate payers leaving the grid) given the very long repayment horizon which needs to be considered as part of our initial rating analysis.

Request: Please provide additional information on IESO and OPG strategies to manage the technological changes with respect to maintaining an acceptable scale of ratepayers over the repayment period

and how these risks are incorporated into the repayment (demand) forecast in the financial modeling. And the impact on the LDC's.

<https://www.theglobeandmail.com/news/national/in-ontario-hydros-future-gets-murkier-as-costs-of-leaving-the-grid-decline/article36962354/>

Once an idea limited to isolated cottages and the environmentally zealous, making your own electricity and storing it in your garage could be cheaper than the traditional way of buying power within a decade. Benoit Laclau, Ernst and Young's adviser on power and utilities, has guidance for politicians and utility leaders around the world who employ the accounting firm: Exercise caution on any big projects that will require more than a decade to pay off.

On a piece of paper, he can draw a graph with two lines. One starts low and represents the slowly increasing cost of electricity provided by a traditional electricity company; the second starts higher but is going down "really rapidly" and reflects the cost of people producing power on their own roof. "Those two lines cross, and they are going to cross soon, a lot sooner than we had expected," he said.

Tim O'Neill
Senior Vice President, CDN ABS
Global Structured Finance

<image001.jpg>

DBRS Limited
DBRS Tower 181 University Avenue, Suite 700
Toronto, ON M5H 3M7 Canada
TEL +1 (416) 597 7477
FAX +1 (416) 593 8432
toneil@dbrs.com
<http://www.dbrs.com>

-----Original Appointment-----

From: Benaiah, Ian [<mailto:ian.benaiah@rbccm.com>]

Sent: Friday, November 10, 2017 4:30 PM

To: Benaiah, Ian; Khan, Nur; Taylor, Brent R; Malhi, Harman; Katrina Niehaus (Katrina.Niehaus@gs.com); Brian Delaney (brian.delaney@gs.com); Donnie Persaud (Donnie.Persaud@cibc.com); Adalja, Sunil (Sunil.Adalja@cibc.com); Maciel, Andrew (Andrew.Maciel@cibc.com); John Lee (john.s.lee@opg.com); Ken Ryfa (ken.ryfa@opg.com); 'LADAK Lubna -TREASURY'; GO Matthew -TREASURY; Chen, Zhidang; Papp, David; Green, Lesley; Tim O'Neil; Jamie Feehely; King Lam; Justin Tsang; Arthi Sambasivan; Dal Bello, David

Cc: WONG Leslie -LAWDIV; Anthony Martinello; Michael Boll; Jeannette Briggs; Antonios, Paul; Sabri, Salina

Subject: OPG/IESO Servicing Review (DBRS) *** Presentation Attached, Dial-in Available ***

When: Tuesday, November 14, 2017 1:00 PM-4:00 PM (UTC-05:00) Eastern Time (US & Canada).

Where: Royal Bank Plaza (200 Bay Street), South Tower, 2nd Floor, Room S1

When you arrive on the 2nd Floor, please contact Lesley Green at 416-842-4810. Lesley will take you through the security doors and to the meeting room.

Conference Call Details:



This email is intended only for the use of the individual(s) to whom it is addressed and may be privileged and confidential. Unauthorised use or disclosure is prohibited. If you receive this e-mail in error, please advise immediately and delete the original message. This message may have been altered without your or our knowledge and the sender does not accept any liability for any errors or omissions in the message.

Ce courriel est confidentiel et protégé. L'expéditeur ne renonce pas aux droits et obligations qui s'y rapportent. Toute diffusion, utilisation ou copie de ce message ou des renseignements qu'il contient par une personne autre que le (les) destinataire(s) désigné(s) est interdite. Si vous recevez ce courriel par erreur, veuillez m'en aviser immédiatement, par retour de courriel ou par un autre moyen.

This email is intended only for the party to whom it is addressed, and may contain information which is privileged or confidential. Without the sender's authorization, any dissemination, distribution or copying of this email and the information it contains is strictly prohibited. If you have received this email in error, please notify me immediately by return e-mail and please delete this e-mail from your system. www.dbrs.com, DBRS Limited

THIS MESSAGE IS ONLY INTENDED FOR THE USE OF THE INTENDED RECIPIENT(S) AND MAY CONTAIN INFORMATION THAT IS PRIVILEGED, PROPRIETARY AND/OR CONFIDENTIAL. If you are not the intended recipient, you are hereby notified that any review, retransmission, dissemination, distribution, copying, conversion to hard copy or other use of this communication is strictly prohibited. If you are not the intended recipient and have received this message in error, please notify me by return e-mail and delete this message from your system. Ontario Power Generation Inc.

This e-mail message and any files transmitted with it are intended only for the named recipient(s) above and may contain information that is privileged, confidential and/or exempt from disclosure under applicable law. If you are not the intended recipient(s), any dissemination, distribution or copying of this e-mail message or any files transmitted with it is strictly prohibited. If you have received this message in error, or are not the named recipient(s), please notify the sender immediately and delete this e-mail message.

THIS MESSAGE IS ONLY INTENDED FOR THE USE OF THE INTENDED RECIPIENT(S) AND MAY CONTAIN INFORMATION THAT IS PRIVILEGED, PROPRIETARY AND/OR CONFIDENTIAL. If you are not the intended recipient, you are hereby notified that any review, retransmission, dissemination, distribution, copying, conversion to hard copy or other use of this communication is strictly prohibited. If you are not the intended recipient and have received this message in error, please notify me by return e-mail and delete this message from your system. Ontario Power Generation Inc.