

Message

From: Joyce Poon [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=3093C75378834FD195C6A07D2C0ADED1-JOYCE POON]
Sent: 2017-06-05 9:58:13 AM
To: Christie, Tim (ENERGY) [Tim.Christie@ontario.ca]
Subject: FW: GA refinancing
Attachments: GA Financing - by RPP period 170404.xlsm

In case the email I send doesn't work again.

This is the model we are using.

Cheers,
Joyce

From: Christie, Tim (ENERGY) [mailto:Tim.Christie@ontario.ca]
Sent: April 04, 2017 4:33 PM
To: TULLY Keegan -CBUSDEV&STRT (keegan.tully@opg.com); George Pessione; Joyce Poon; Ceiran Bishop (Ceiran.Bishop@oeb.ca)
Cc: Cayley, Daniel (ENERGY); O'Riordan, Eamon (ENERGY); Malecki, Justin (ENERGY); Bergman, Mark (ENERGY)
Subject: GA refinancing

Hello all

I have attached an updated version of our GA financing model with changes described below. Though the details have changed, the overall impact of the OFHP remains similar to what we shared with you before (e.g., \$20 billion borrowed total, \$26 billion total interest costs (previously was \$25 billion), 30-year financing). The model is "functional" in that all internal equations have been preserved so you should be able to follow the logic as before. Please contact Justin Malecki if you have any questions.

Changes since the previous model:

1. The calculation is now done on a biannual basis that coincides with the current RPP periods (starting in May and November), with the first period starting May 2017. For simplicity, the model assumes that the total amount required for each 6-month period is borrowed at the beginning of each 6-month period. Interest is compounded monthly and added to the account at the end of each 6-month period.
2. A more precise estimate of the cost savings due to the tax-basing of social programs is included and has been extended out to 2050 (the original only accounted for these savings out to 2021).
3. The borrowing schedule is now *strictly* determined by the following constraints (some of the previous constraints were approximate)
 - a. 25% reduction in May-October 2017 OFHP bill relative to non-OFHP bill
 - b. Increase at CPI in subsequent RPP periods until the end of 2021 (assumed 1% for every 6 months)
 - c. Rate of increase of bill in periods beyond 2021 is set such that the accumulated debt reaches a maximum value of \$28 billion
 - d. The cap on the increase of the OFHP bill in any given RPP period is set such that the debt is paid off by the end of 2047 (specifically, the debt is paid off with the amount paid back at the beginning of the November 2047 RPP period)
 - i. This cap is a 2.2% increase in the OFHP bill relative to the non-OFHP and a 10% increase in the OFHP bill relative to the non-OFHP bill with 8% rebate
 - e. Comparison is made between the full OFHP (financing, rebate, tax-basing) and the non-OFHP bill as well as the non-OFHP bill with rebate (i.e. the latest IESO forecast)
4. This model is more functional than the previous one in that we explicitly describe how certain inputs were chosen in order to achieve the above constraints.

I propose another meeting to go through the mechanics. Does Thursday at 3 work?

Tim

From: Christie, Tim (ENERGY)
Sent: March-08-17 11:18 AM
To: Ceiran Bishop; Joyce Poon <Joyce.Poon@ieso.ca> (Joyce.Poon@ieso.ca)
Cc: Malecki, Justin (ENERGY); Cayley, Daniel (ENERGY); Bergman, Mark (ENERGY); Ho, Larissa (ENERGY)
Subject: GA refinancing

Ceiran and Joyce, attached is a spreadsheet detailing our calculations for GA refinancing. A few points to note:

- 1) These figures are illustrative of a potential repayment schedule. Until legislation and regulations are passed we will not know how much flexibility OPG would have in deciding payback terms. I would say the first 4 years are relatively locked in, but the remainder is speculative.
- 2) This is not public information, so please don't share outside your organizations and limit internal circulation as much as possible.

If you have any questions please contact Justin directly. His number is 416-325-9372.

Tim