

EB-2023-0336
OPG – MRP and DVA Proceeding

Interrogatories of Environmental Defence

Interrogatory # H1-ED-1

Reference: Exhibit H1, Tab 1, Schedule 1

Question(s):

- (a) Please reproduce the Chart 2 on page 21 with additional columns indicating the forecast amounts in each year and in total. Where there have been multiple forecasts over time, please include those as well.
- (b) Please provide, for each of the past five years and a forecast for the next five years, the cost of producing power at Pickering (\$/MWh), including both operating costs and annualized capital costs.
- (c) Please provide a table showing, for all of the nuclear costs that OPG proposes to clear, the variance from the forecast amount and the actual amount.
- (d) Please provide the actual versus forecast costs for each of the Darlington rebuild project components and for each reactor.
- (e) Please provide how much OPG has spent and is forecast to spend on the new nuclear reactors at Darlington.

Interrogatory # H1-ED-2

Reference: Exhibit H1-1-1, Attachment 3

Question(s):

- (a) Please provide a copy of the table in Attachment 3 in excel format. Please also add to the table: (i) the foregone electricity generation in each row, and (ii) whether gas generation is on the margin at that time, and (iii) whether gas plants that the pump station could offset are generating at that time.
- (b) Please express the economic decision-making rules described at pages 1-2 as formulas.
- (c) When assessing the opportunity to recover pumping costs, the revenues are considered net of applicable gross revenue charge. Please consider a scenario where that was not the case (i.e. GRC was not netted out):
 - (i) How much more would have been generated from the pump station in each year from 2018 to 2022 (an approximate answer on a best-efforts basis is sufficient)?
 - (ii) What amount of GRC would have been collected in those periods where this change would result in incremental generation from the pump station?
 - (iii) How much would the SBGVA and HIMVA be?

- (d) Please describe the GRC and confirm that it is a cost that benefits taxpayers by generating government revenue.

Interrogatory # H1-ED-3

Reference: Exhibit H1-1-1, Attachment 3

Question(s):

- (a) The evidence in Attachment 3 shows numerous occasions where OPG did not operate its regulated fleet to minimize total electricity supply costs during hours when OPG is booking additions to this variance account because doing so would cause OPG to experience an economic loss. Please propose a number of options to change the way that OPG is compensated to reduce or eliminate instances in which OPG is not operating its fleet to minimize total electricity supply costs.

Interrogatory # H1-ED-4

Reference: Exhibit H1-1-1, Attachment 3

Question(s):

- (a) Attachment three only provides evidence on the pump generations station. For OPG's whole fleet, please "identify each time that OPG did not operate its regulated fleet to minimize total electricity supply costs during hours when OPG is booking additions to this variance account because doing so would cause OPG to experience an economic loss, and explain why operating to minimize total electricity supply costs would have caused economic loss in each case" – as required by the settlement agreement.

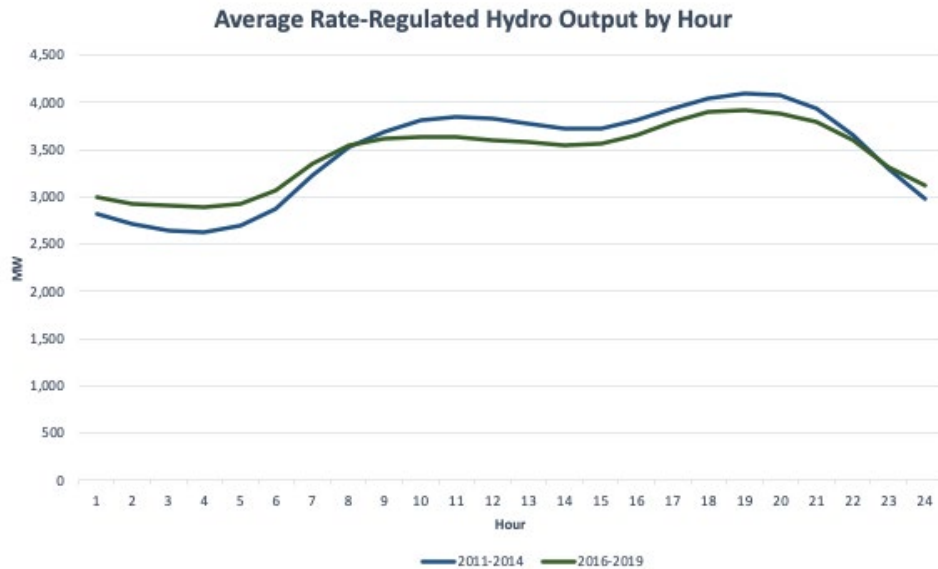
Interrogatory # H1-ED-5

Reference: Exhibit H1-1-1, p. 8

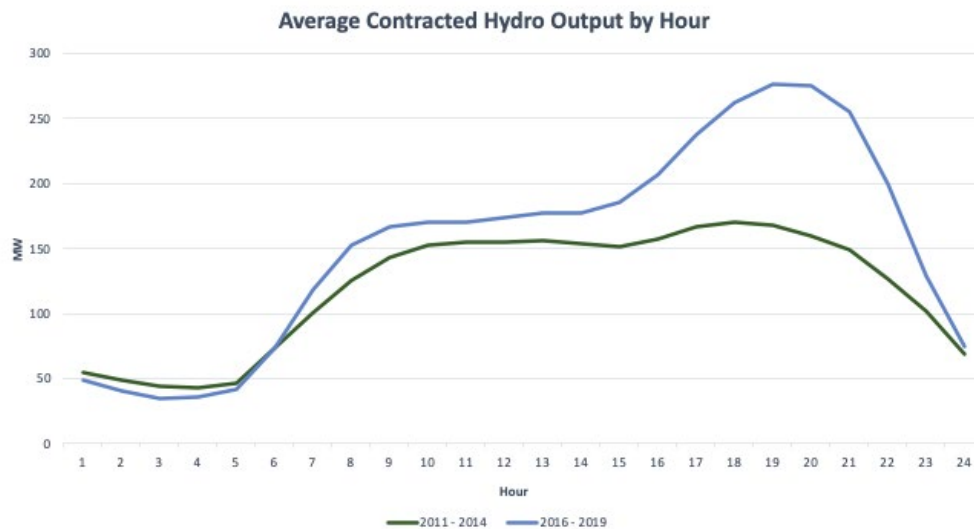
Preamble:

The below figures show the average output of OPG's rate regulated vs. unregulated hydro assets.

OPG Regulated Hydro Facilities – Average Output by Hour



OPG Unregulated Hydro Facilities – Average Output by Hour



Questions(s):

- (a) Please reproduce the above figures adding a line for 2020-2023
- (b) Please explain why OPG time-shifted its output for its regulated hydro assets less in 2016-2019 versus 2011-2014 (as shown by the flatter curve in the top figure). Please enumerate all causes. Please also describe any differences arising in 2020-2023 versus previous periods, enumerating all the differences.
- (c) Please explain why OPG time-shifted its output for its regulated hydro facilities far less than the output of its unregulated hydro facilities (as shown by comparing the figures). Please enumerate all causes.

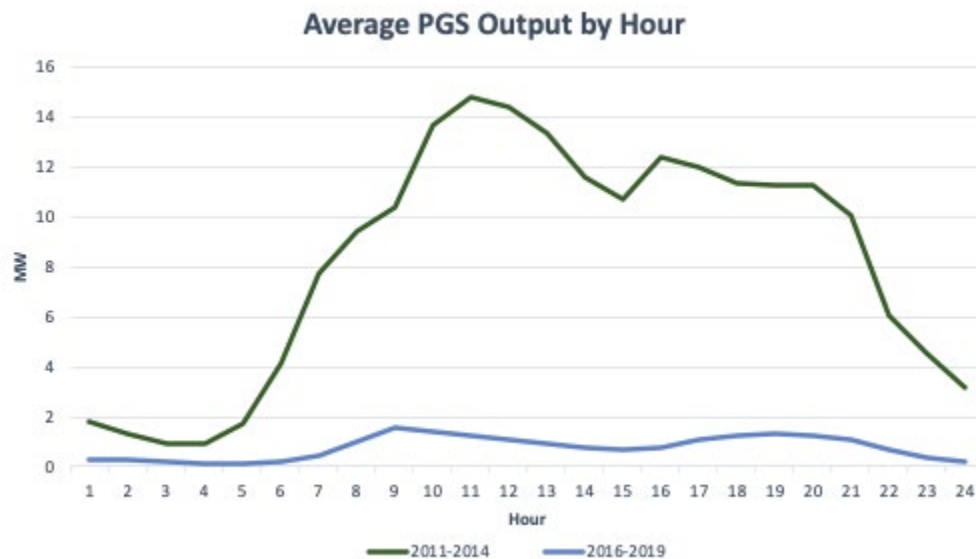
- (d) If OPG had time-shifted its regulated hydro facilities like it did its unregulated hydro facilities, how much less SBG costs would it be seeking in this application? Please provide an annual breakdown

Interrogatory # H1-ED-6

Reference: Exhibit H1-1-1, p. 8

Preamble:

The below figure shows the decline in the PGS's operations in recent years.



- (a) Please reproduce the above figure adding a line for 2020-2023.
- (b) What percent of the decline in PGS output from 2011-2014 to 2020-2023 (if any) was due to water levels?
- (c) What is the demand (MW) of the PGS pump running at full capacity?
- (d) What is the generating capacity (MW) of the PGS generator running at full capacity?
- (e) What is the GRC for power generated from the PGS?
- (f) What production did OPG forecast for the PGS for 2020 to 2023 in its last payment amounts application?
- (g) What production is OPG forecasting for the PGS for 2025-2026?

Interrogatory # H1-ED-7

Reference: Exhibit H1-1-1, p. 8

Questions:

- (a) Comment on a change whereby, going forward, SBG payments for spilt water would be reduced by the capacity of the PGS pump if for the time in question the PGS pump was not running;
- (b) Comment on a change whereby the PGS decision-making tool would be adjusted to focus on minimizing total system costs to customers instead of focusing on maximizing revenue;
- (c) Comment on a change to ensure that water is not spilt at a hydro facility if that can be avoided in whole or in part by ceasing generation and utilizing storage at another hydro facility (e.g. where the HOEP is \$10 and the facility A has a GRC of \$14.4 and no storage capacity whereas facility B has a GRC of \$5); and
- (d) Comment on the possibility of allocating a greater portion of existing capital budgets to cost-effectively expanding storage and/or time-shifting capabilities at OPG's hydro facilities.

Interrogatory # H1-ED-8

Reference: Exhibit H1-1-1, p. 8

Questions:

- (a) Please provide a table showing how much energy generation was spilt (MWh) for each year from 2018 to 2023 during hours in which gas generation was on the margin?
- (b) Please provide a table showing how much energy generation was spilt (MWh) for each year from 2018 to 2023 during hours in which gas generation was on the margin AND that gas generation could have been replaced by the foregone electricity from spilt water from one of OPG's hydroelectric stations?
- (c) Please describe all the situations in which OPG's decision-making rules for operating its hydroelectric stations might result in a hydroelectric station spilling water even though its output could be replacing some gas-fired generation. Please list and describe each potential situation and what element of the decision-making rules or market conditions cause that to take place.
- (d) Please provide all internal documents guiding its staff on when to generate at its hydroelectric facilities.
- (e) Please provide all internal documents guiding its staff on when to pump and generate at its PGS.

Interrogatory # H1-ED-9

Reference: Exhibit H1

Questions:

- (a) Please provide a table for each year from 2018 to 2023 showing the quantity of clean energy credits OPG has sold (MWh and TWh). Please also provide a breakdown between the types of generation the credits are attributable, where possible.

- (b) Please describe why the incremental revenue sought in this application should or should not be offset by the credits that OPG has sold for electricity that ratepayers already paid for.
- (c) Please describe and quantitatively itemize how OPG has spent the funds it has earned from selling clean energy credits over 2018 to 2023.

Interrogatory # M1-ED-10

Reference: Exhibit M1

Questions:

- (a) Please describe the likely impacts of the changes to the proposed SBGVA and HIMVA on the quantity of spilling (MWh) versus the status quo.
- (b) Please provide a description of all options considered by OPG for revising the SBGVA and HIMVA, along with the pros and cons of each.
- (c) Please disclosure all internal OPG analysis, presentations, or other similar such documents describing and assessing different options for revising the SBGVA and HIMVA.
- (d)