

RESPONSE TO METHODOLOGY REPORT

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1.0 INFORMATION RESPONDING TO THE METHODOLOGY REPORT

The OEB’s filing guidelines request that OPG provide the following additional information. The specific filing guideline is cited and the corresponding reference to the requested information is provided in the chart below.

Filing Guideline	OPG’s Filing
<p>Planned outage schedules (actual and forecast) for the nuclear units for the period 2005 to the date of filing; planned outage schedules for the period from the date of filing through, as far as possible, to the end of the Test Years; the reasons for each planned outage; and, actual or proposed duration and actual or expected impact on output of each planned outage.</p> <p>A listing of all unscheduled (forced) outages for the period 2005 to the date of filing; the reason, duration and impact on output of each forced outage; and, the action taken by OPG in response to forced outages, such as corrective action taken to prevent future occurrences.</p>	<p>Requested outage data are presented for the nuclear facilities in Ex. E2-T1-S1.</p>
<p>A schedule of the hours when the total combined output from the prescribed hydroelectric generation assets exceeded 1500 MWh and 1900 MWh per hour in the period from 2005 to the date of filing and the actual level of output for those hours by station, including the Beck Pump Storage facility.</p>	<p>A summary of these data is presented in Appendix A.</p> <p>OPG’s proposal for the incentive mechanism for the regulated hydroelectric facilities is presented in Ex. I1-T1-S1.</p>
<p>A schedule of hourly Beck Pump Storage MWh consumption and production and the Hourly Ontario Energy Price (“HOEP”) for those hours, from 2005 to the filing date.</p>	<p>A summary of these data is presented in Appendix B.</p> <p>OPG’s proposal for the incentive mechanism for the regulated hydroelectric facilities, including the Sir Adam Beck Pump Generating Station (“PGS”) is presented in Ex. I1-T1-S1.</p>
<p>A schedule of when prescribed generation asset</p>	<p>A summary of these data is</p>

prices for the nuclear and hydroelectric facilities exceeded HOEP, by day and hour on a quarterly basis for the period 2005 to the date of filing; a quarterly summation of these hours; and, a calculation of the percentage of total hours in each quarter when these prices exceeded HOEP.

presented in Appendix C, and further discussed below in section 2.

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2.0 COMPARISON OF PAST PAYMENT AMOUNTS TO MARKET PRICES

The OEB's Methodology Report stated: "The Board will also solicit input on whether the payment amounts for any of the prescribed generation assets should be capped or limited in some fashion if past payments have exceeded market prices for an extended period." In response to this, the filing guidelines requested the information cited in section 1.0 above and presented in Appendix C. The data shown in Appendix C compare HOEP from the IESO-administered energy market with OPG's regulated payment amounts. Although both are measured in \$/MWh, there are significant differences between them that should be noted in any comparison.

HOEP is the hourly market clearing price in Ontario for energy. It represents the average of the 12 five-minute prices paid to dispatchable generation in each hour and is based on the offers and bids received by the IESO. Offers of energy from generators in Ontario and suppliers from other jurisdictions, as well as bids for energy from dispatchable buyers, are provided to the IESO in advance of dispatch. The IESO ranks generator offers in merit order from cheapest to most expensive for each hour. The market price reflects the last offer accepted by the IESO to balance supply. All generators selected for dispatch are paid the market clearing price regardless of their offers. This encourages generators to offer based on their marginal production costs in order to maximize their chances of being selected for dispatch. An unregulated generator gets paid HOEP for all hours, many of which are in excess of their offers. The revenues in excess of the generator's offer are necessary to allow the unregulated generator to earn sufficient revenues to cover other costs which are not specifically included in its hourly offers.

1 OPG's regulated payment amounts are not based on marginal cost offers, but rather on the
2 total cost of service associated with the regulated facilities. This means that the regulated
3 payment amounts include elements associated with recovering fixed costs, depreciation
4 expenses, interest charges, return on equity, etc. which would not exist in an offer based on
5 marginal costs. These elements must be recovered through the regulated payment amounts
6 since this is the only mechanism that exists for covering those costs.

7
8 Within Ontario, many generators have contracts with the Ontario Power Authority which
9 provide a mechanism to ensure recovery of fixed costs when market prices are not sufficient
10 to allow their recovery. In many electricity markets there are capacity markets in addition to
11 energy markets to allow generators to recover fixed costs that are not recovered in the
12 energy markets.

13
14 It also should be noted that the Market Surveillance Panel has recognized that Ontario
15 market prices are often insufficient to allow generators to earn sufficient revenues¹. This
16 results in marginal generators not covering all costs and discourages additional investment,
17 thereby necessitating other means of ensuring long-term adequacy, such as contracting. In
18 its cost benefit analysis associated with operating reserve, the IESO also recognizes this
19 fact².

¹ MSP Report dated December 13, 2006 (page vii).

² IESO CBA on Operating Reserve states "The OPA as central planner is charged with identifying future investment needs in the province and contracting for this investment. In general, they are tasked with providing the incentives (through contract) to invest when the market itself does not provide these incentives." page 13.

LIST OF ATTACHMENTS

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- Appendix A: Hours Regulated Hydroelectric Generation Exceeded 1500 MWh and 1900 MWh
- Appendix B: Sir Adam Beck PGS Production and Consumption
- Appendix C: HOEP versus Regulated Payment Amounts

APPENDIX A

Hours Regulated Hydroelectric Generation Exceeded 1500 MWh and 1900 MWh

Chart 1 below provides a schedule of the hours when the total combined output from the regulated hydroelectric facilities exceeded 1500 MWh and 1900 MWh in an hour.

The hour by hour listing is not presented below because of the large quantity of hourly data, but the data has been provided electronically to the OEB and is available from the OEB.

Chart 1

	2005	2006	2007
Number of hours > 1500 MWh	7873	7826	7906
Number of hours > 1900 MWh	6226	6130	5694

APPENDIX B

Sir Adam Beck PGS Production and Consumption

Chart 1 below provides a schedule of annual Sir Adam Beck Pump Storage MWh consumption and production from January 1, 2005 – December 31, 2007. Also shown is the average Hourly Ontario Energy Price (“HOEP”) during pump activity and then average HOEP during generation activity.

The hour by hour listing is not presented below because of the large quantity of hourly data, but the data has been provided electronically to the OEB and is available from the OEB.

Chart 1

	PGS Consumption (MWh)	PGS Production (MWh)	Average HOEP during Pump (\$/MWh) ¹	Average HOEP during Generation (\$/MWh) ²
2005	271.8	127.5	53.38	84.29
2006	283.0	129.6	37.15	54.48
2007	268.8	118.7	37.86	57.10

¹ Average is not load weighted. HOEP for each hour of net pumping is summed and divided by the total number of net pump hours in the year.

² Average is not load weighted. HOEP for each hour of net generation is summed and divided by the total number of net generation hours in the year.

APPENDIX C

HOEP versus Regulated Payment Amounts

Chart 1 below provides a quarterly summation of hours where the regulated payment amounts exceeded Hourly Ontario Energy Price (“HOEP”), with a calculation of the percentage of total hours in each quarter when regulated payment amounts exceeded HOEP.

The hour by hour listing is not presented below because of the large quantity of hourly data, but the data has been provided electronically to the OEB and is available from the OEB.

Chart 1

	Hydroelectric	Nuclear
2005 – Q1		
Total hours per quarter	38	932
Percentage of quarter	1.76	43.15
2005 – Q2		
Total hours per quarter	136	1022
Percentage of quarter	6.23	46.79
2005 – Q3		
Total hours per quarter	195	671
Percentage of quarter	8.83	30.39
2005 – Q4		
Total hours per quarter	142	935
Percentage of quarter	6.43	42.35
2006 _ Q1		
Total hours per quarter	133	1235
Percentage of quarter	6.16	57.18
2006 _ Q2		
Total hours per quarter	634	1492
Percentage of quarter	29.03	68.32
2006 _ Q3		
Total hours per quarter	880	1498
Percentage of quarter	39.86	67.84
2006 _ Q4		
Total hours per quarter	940	1586
Percentage of quarter	42.57	71.83
2007 _ Q1		
Total hours per quarter	471	1213

	Hydroelectric	Nuclear
Percentage of quarter	21.81	56.16
2007 _ Q2		
Total hours per quarter	1045	1533
Percentage of quarter	47.85	70.19
2007 _ Q3		
Total hours per quarter	852	1385
Percentage of quarter	38.59	62.73
2007 _ Q4		
Total hours per quarter	663	1308
Percentage of quarter	30.03	59.24