**IN THE MATTER OF** the *Ontario Energy Board Act, 1998*, S. O. 1998, c. 15, Schedule B;

**AND IN THE MATTER OF** an application by Ontario Power Generation Inc. pursuant to section 78.1 of the *Ontario Energy Board Act, 1998* for an order or orders determining payment amounts for the output of certain of its generating facilities.

# POWER WORKERS' UNION INTERROGATORIES ON CME EVIDENCE

## **PWU Interrogatory 1**

Issue 1.3: Is the overall increase in 2011 and 2012 revenue requirement reasonable given the overall bill impact on consumers?

Ref (a): Evidence of Bruce Sharp from Aegent Energy Advisors Inc. ("Aegent") Page 5, Paragraph 4 states:

#### "Reference Spot Market Prices

Based on the monthly behavior of HOEP and the GA over the last six to twelve months, we estimate the current, total commodity price to be approximately \$65/MWh, comprised of HOEP at \$38/MWh and the GA at \$27/MWh. For most of the new generation sources with fixed-price contracts, we assume they will be paid \$38/MWh from the spot market and then be "made whole" through payments funded through the GA. Solar and NUG projects are the exception - as they produce energy during higher-priced daylight and on-peak hours. We assume they will be paid \$48/MWh from the spot market, with the remainder funded through the GA."

### **Questions:**

- Please provide sensitivity analysis assuming that commencing in 2012 the HOEP rises to:
  - a. \$45/MWh, assuming a reference spot price of
    - (i.) \$45/MWh; and
    - (ii.) \$55/MWh
  - b. \$50/MWh, assuming a reference spot price of
    - (i.) \$50/MWh; and
    - (ii.) \$60/MWh

## **PWU Interrogatory 2**

Issue 1.3: Is the overall increase in 2011 and 2012 revenue requirement reasonable given the overall bill impact on consumers?

Ref (a): Evidence of Bruce Sharp from Aegent Energy Advisors Inc., Page 5, Paragraph 6 states:

"One major assumption of note is the amount of FIT generation that will come into service during the forecast period. For our analysis, we assume a total of 10,500 MW of FIT generation will come online by July 2015. This is comprised of 8,000 MW of FIT applications received by the OPA as of April 2010 and 2,500 MW of Samsung wind and solar projects."

## **Question**:

With regard Feed-in Tariff applications, the Ontario Power Authority's states the following on Ontario's Feed-in Tariff ("FIT") Program Backgrounder webpage: http://www.powerauthority.on.ca/Page.asp?PageID &ContentID )

"For these FIT projects, the Ontario Power Authority has estimated that there is approximately 2,500 megawatts of available transmission connection capacity. As of December 1, 2009 the Ontario Power Authority received 1,022 FIT applications with about 8,000 MW of potential electricity generation. This translates into about three megawatts of potential generation for every megawatt of connection capacity available."

1. Given the capacity constraints which could delay progress on FIT and possibly delay the Samsung development, please provide a sensitivity analysis assuming only 5,000 MW of FIT and 1,000 MW of Samsung capacity are in service by 2015. Please use your current timing but prorate the data in your current analysis on the basis of 6/10.5 (the ratio of the [5,000 MW + 1,000 MW] assumed for this PWU interrogatory compared to Aegent's 10,500 MW) for each period included in Aegent's analysis.

# **PWU Interrogatory 3**

Issue 1.3: Is the overall increase in 2011 and 2012 revenue requirement reasonable given the overall bill impact on consumers?

Ref (a): Evidence of Bruce Sharp from Aegent Energy Advisors Inc., Page 5, Paragraph 7 states:

"Using near-term IESO forecasts and similar escalation rates, we estimate that annual Ontario energy consumption will grow by 6.2 TWh between 2010 and 2015."

Ref (b): Evidence of Bruce Sharp from Aegent Energy Advisors Inc., Page 6, Last paragraph states:

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"The following Ontario total annual energy consumption values were used. The 2011 value is the IESO's most recent weather-normalized forecast. We used the same energy quantity for 2012 - 2015 as we believe that increased conservation and demand management efforts will offset load growth that would otherwise take place."

Ref (c): Evidence of Bruce Sharp from Aegent Energy Advisors Inc., Page 6, Paragraph 1 states:

"That leaves an incremental surplus of at least 15 TWh."

## **Questions**:

- 1. From these statements it appears that you have assumed 6.2 TWh of conservation and demand management ("CDM"). Please confirm that this is the case. If so, please provide evidence to support this level of CDM. If not, how do you rationalize the above referenced statements?
- 2. Data in the August 2010 IESO 18-month outlook shows that demand in 2010 is expected to increase by 1.5% and in 2011 by 0.3%, including CDM (see IESO chart below).

Year	Normal Weather Annual Energy Usage (TWh)	% Growth in Energy
2006 Energy	152.3	-1.9%
2007 Energy	151.6	-0.5%
2008 Energy	148.9	-1.8%
2009 Energy	140.4	-5.7%
2010 Energy (Forecast)	142.6	1.5%
2011 Energy (Forecast)	142.9	0.3%

Please provide a sensitivity analysis assuming the annual electricity usage in the table below, which represents a 1.5% annual growth:

2011	142.90
2012	145.04
2013	147.22
2014	149.43
2015	151.67

- 3. Please recalculate the surplus of 15 TW in Ref (c) using the assumptions in the tables provided in Question (2) above.
- 4. Given the IESO's projected increase in total demand on what basis does Aegent support holding demand constant and assuming growth would be offset by CDM measures?

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## **PWU Interrogatory 5**

**Issue 1.3:** Is the overall increase in 2011 and 2012 revenue requirement reasonable given the overall bill impact on consumers?

Ref (a): Evidence of Bruce Sharp from Aegent Energy Advisors Inc., T4 and T5, Nuclear capacity factor.

## Question:

The CNA shows the top two performing nuclear reactors in Ontario in 2009 were: Bruce 5 (872 MW) with 95.4% performance and Pickering 7 (540 MW) with 94.3% performance, and that five of the Ontario nuclear units had over 90% performance. Please provide a sensitivity analysis assuming nuclear capacity factor rises to 90% commencing in 2012.

# **PWU Interrogatory 6**

Issue 1.3: Is the overall increase in 2011 and 2012 revenue requirement reasonable given the overall bill impact on consumers?

Ref (a): Evidence of Bruce Sharp from Aegent Energy Advisors Inc., T4 Bruce Power (existing).

#### Question:

You have used a capacity factor of 85%. Please provide an updated T4 Bruce Power (existing) using a a 90% capacity factor.

# **PWU Interrogatory 7**

Is the overall increase in 2011 and 2012 revenue requirement Issue 1.3: reasonable given the overall bill impact on consumers?

Ref (a): Evidence of Bruce Sharp from Aegent Energy Advisors Inc., T5 Bruce Power (new).

#### Question:

You have used a capacity factor of 85%. Please provide an updated T5 Bruce Power (new) using a 90% capacity factor.

http://www.cna.ca/english/pdf/nuclearfacts/ /CNA Booklet

## **PWU Interrogatory 8**

Issue 1.3: Is the overall increase in 2011 and 2012 revenue requirement reasonable given the overall bill impact on consumers?

Ref (a): Ontario Energy Board Report, April 15, 2010. Regulated Price Plan Price Report May 1, 2010 to April 30, 2011, Prepared by Navigant ("Navigant study").

## **Question:**

- 1. The Navigant study shows a total price of HOEP and Global Adjustment greater than \$65/MWh. Please provide a sensitivity analysis with the total price at:
  - a. \$70/MWh; and,
  - b. \$75/MWh

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