

January 10, 2011

File 10329

VIA COURIER AND RESS FILING

Ms. Kirsten Walli
Board Secretary
Ontario Energy Board
P.O. Box 2319
2300 Yonge Street, 27th Floor
Toronto, Ontario M4P 1E4

Dear Ms. Walli:

**Re: 2010 Time Of Use Consultation
EB-2010-0364**

The Power Workers' Union ("PWU") represents a large portion of the employees working in Ontario's electricity industry. Attached please find a list of PWU employers.

The PWU is committed to participating in regulatory consultations and proceedings to contribute to the development of regulatory direction and policy that ensures ongoing service quality, reliability and safety at a reasonable price for Ontario customers. To this end, please find the PWU's comments on the Time-of-Use Consultation (EB-2010-0364).

We hope you will find the PWU's comments useful.

Yours very truly,

PALIARE ROLAND ROSENBERG ROTHSTEIN LLP

Original signed by
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encl.

cc: J. Kwik; J. Sprackett

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List of PWU Employers

Algoma Power
AMEC Nuclear Safety Solutions
Atomic Energy of Canada Limited (Chalk River Laboratories)
BPC District Energy Investments Limited Partnership
Brant County Power Incorporated
Brighton Beach Power Limited
Brookfield Power – Mississagi Power Trust
Bruce Power Inc.
Capital Power Corporation Calstock Power Plant
Capital Power Corporation Kapuskasing Power Plant
Capital Power Corporation Nipigon Power Plant
Capital Power Corporation Tunis Power Plant
Coor Nuclear Services
Corporation of the City of Dryden – Dryden Municipal Telephone
Corporation of the County of Brant, The
Coulter Water Meter Service Inc.
CRU Solutions Inc.
Ecaliber (Canada)
Electrical Safety Authority
Erie Thames Services and Powerlines
ES Fox
Great Lakes Power Limited
Grimsby Power Incorporated
Halton Hills Hydro Inc.
Hydro One Inc.
Independent Electricity System Operator
Inergi LP
Innisfil Hydro Distribution Systems Limited
Kenora Hydro Electric Corporation Ltd.
Kincardine Cable TV Ltd.
Kinectrics Inc.
Kitchener-Wilmot Hydro Inc.
Lake Superior Power Inc. (A Brookfield Company)
London Hydro Corporation
Middlesex Power Distribution Corporation
Milton Hydro Distribution Inc.
New Horizon System Solutions
Newmarket Hydro Ltd.
Norfolk Power Distribution Inc.
Nuclear Waste Management Organization
Ontario Power Generation Inc.
Orangeville Hydro Limited
Portlands Energy Centre
PowerStream
PUC Services
Sioux Lookout Hydro Inc.
Sodexo Canada Ltd.
TransAlta Generation Partnership O.H.S.C.
Vertex Customer Management (Canada) Limited
Whitby Hydro Energy Services Corporation

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

AND IN THE MATTER OF a consultation initiated by
the Ontario Energy Board to review the methodology
used for setting Time-of-Use electricity prices.

Comments of the Power Workers' Union

1. Introduction

On October 18, 2010 the Ontario Energy Board ("OEB" or the "Board") issued a letter initiating a consultation to review the price setting methodology and structure of Time-of-Use ("TOU") prices under the Regulated Price Plan ("RPP"). The purpose of the review is to ensure that the design is fair and meets the objective of ultimately reducing overall power system costs.

The Board retained The Brattle Group to prepare an analysis of the current TOU pricing structure and methodology, and the impact of alternative options that could be considered by the Board going forward using customer data from a representative group of Ontario distributors.

The Board issued a letter on December 6, 2010 that contained a list of issues (Appendix A) that were prepared by Board staff to help stimulate discussion at the stakeholder meeting.

On December 15, 2010 the Board posted the report prepared by The Brattle Group entitled, *Assessing Ontario's Regulated Price Plan* (the "Report"). A stakeholder meeting was held on December 21, 2010 to provide a forum for participants to engage The Brattle Group in a discussion on the content of its Report.

2. Comments of the Power Workers' Union

The Power Workers' Union ("PWU") supports cost-based prices that are fair for the consumers and ensure the ongoing financial viability of industry participants and their ability to provide ongoing service reliability and safety.

The PWU's comments stem from the PWU's energy policy:

Reliable, secure, safe, environmentally sustainable and reasonably priced electricity supply and service, supported by a financially viable energy industry and skilled labour force is essential for the continued prosperity and social welfare of the people of Ontario. In minimizing environmental impacts, due consideration must be given to economic impacts and the efficiency and sustainability of all energy sources and existing assets. A stable business environment and predictable and fair regulatory framework will promote investment in technical innovation that results in efficiency gains.

2.1 PWU General Comment

The smart metering installation in Ontario is progressing towards completion and over 3 million of the province's 4 million RPP consumers are expected to be on TOU pricing by the summer of 2011. The policy decision that embarked Ontario on the smart metering and TOU pricing path was made in the absence of any robust research on the costs and benefits of this undertaking. By comparison, Massachusetts Electric Company and Nantucket Electric Company (the "National Grid") is proposing to conduct a comprehensive pilot study to gain a fuller understanding of the expected long-term benefits and costs of smart metering in Massachusetts before additional investments are made. National Grid's pilot will include a wide variety of customers – single and multi-family and small business -- from urban, suburban and rural settings with variable electricity usage. The pilot study provides customers with smart meters, and as an option, customers can have additional equipment installed in their homes that includes special programmable thermostats and other devices that provide data and support energy management.

National Grid's proposal filed with the Massachusetts Department of Public Utilities is for a \$57 million demonstration pilot project to be paid for by all of the

state's consumers.¹ The pilot will involve approximately 15,000 customers in Worcester, Massachusetts, which is more than 1 per cent of Massachusetts customer base.

While Ontario is well on the way with the installation of province-wide smart metering, the current Board review does not provide the opportunity for an Ontario pilot study on the impact of TOU pricing structure and design options on consumer energy usage and the overall power system costs. The pricing signal is key to consumers' electricity usage and assumptions on the impact of specific TOU pricing structures and designs should be based on Ontario consumer behaviour that factors in Ontario specific economic and social welfare circumstances. The expected impact of any preferred TOU rate structure and design that results from this review should be tested in a comprehensive Ontario-based pilot study similar to that proposed by the National Grid. This will minimize the risk of unexpected outcomes that can result from introducing TOU rates that are untested in the Ontario context. It will also minimize the likelihood that adjustments will be needed later, in order to address undesirable outcomes. Ongoing rate structure modifications will only serve to confuse consumers and should be avoided. While TOU pilot studies have been conducted with several Ontario LDCs, these studies have serious limitations (see section 2.2.1 below).

In reviewing the RPP TOU pricing it is necessary to accept the reality of the cost impact of the change in the supply mix (i.e. the increase in intermittent renewable supply that requires fossil-fuelled generation back-up for system reliability). The resulting increase in off-peak cost has narrowed the RPP TOU price ratio and the increase in intermittent renewable supply contemplated in Ontario's Long Term Energy Plan will exacerbate the problem by further reducing this differential.

¹ http://www.nationalgridus.com/aboutus/a3-1_news2.asp?document=4003

2.2 The Brattle Group Report

2.2.1 Alternative Rate #1: The existing TOU with the addition and reallocation of expected wind and solar GA costs to the peak period (price ratio = 2.7-to-1)

The sun does not only shine during the peak period and wind activity is not limited to the peak period. To the contrary, a cursory review of the IESO's Hourly Wind Generation Output reveals that there are days during the summer period when the highest wind output does not coincide with the timing of maximum electricity demand. Rather, the highest wind output occurred in the off-peak period in the middle of the night or in the early morning and not during the peak period.

The allocation of costs to the various TOU periods should not be arbitrary, but properly determined based on cost causality. Arbitrary allocation of costs does not contribute to the proper pricing signals which are required to achieve the objective of reducing overall power system costs.

The arbitrary allocation of expected wind and solar global adjustment ("GA") costs to the peak period and the expected consumer response to shift to off-peak could lead to under-recovery of costs depending on how much of the load is shifted. It was noted at the stakeholder conference that a major load shift would have to occur for under-recovery of costs and the model/pilot results do not indicate that this is likely to happen. The PWU notes that it is difficult to draw conclusions with any degree of certainty based on the results from the Ontario TOU pilots referenced by The Brattle Group at the stakeholder conference due to the small number of participants and short duration of these pilot studies.² Robust research is required in setting the TOU rates regardless of rate design/structure. The Board should conduct such research in any event in determining the usage in each TOU period to be used in deriving the TOU rates.

² OEB Consultation Meeting, December 21, 2010, Assessing Ontario's Regulated Price Plan, Slide 36

2.2.2 Alternative Rate #2: The same as Rate #1 described above, but with the peak and mid-peak windows each reduced to four hours (price ratio = 3.2- to-1)

According to the Report, the timing and duration of the peak period also aligns fairly well with load and prices. Additionally, the duration of the peak period is sufficiently short to allow customers to shift load to lower priced hours. The Report also noted that a six-hour peak is at the upper end of this range and could be shortened.

The timing and duration of the peak period should reflect the hourly shape of system load and energy prices in the province. Any deviation from this will be arbitrary and can result in unsustainable rates that significantly under-recover or over-recover costs.

If one moves away from cost causality in setting prices and begins to introduce other criteria or objectives for setting prices, it is possible that at different times, different criteria or objectives may become relevant and this would result in prices being adjusted unnecessarily, adding confusion and instability to price setting. This confusion and instability would be avoided if price setting is based on cost causality as it provides for a consistent basis for changing prices as costs change.

The Government decision to expand the off-peak period by two hours year round (starting at 7 p.m. rather than 9 p.m. – effective November 1, 2011) was discussed at the stakeholder conference. The Brattle Group ran this change through their model and it did not change the price ratio to a significant degree. The expanded off-peak period appears more accessible/friendly to the consumer but The Brattle Group mentioned that, as a consequence, it may require that prices increase in the off-peak period. There was no mention of a price increase when the Government announced the decision to expand the off-peak period.

The Brattle Group determined that expanding the off-peak period by two hours did not affect the price ratio. Can we assume from this that the same results will happen when peak and mid-peak windows each are reduced to four hours? Because this adjustment is a departure from Ontario's system load profile, and in

the absence of an Ontario specific pilot study to determine the impact of this change it is difficult to provide comment at this point.

Shorter peak periods can also increase the chances that the system peak will shift to hours adjacent to the shorter peak period. This issue of peak chasing should be analysed further in considering this option.

Again, the PWU submits that it is imperative that a comprehensive pilot study be designed to address Ontario's unique circumstances and to assess the complexity of the TOU pricing structure that is considered to ensure that the TOU pricing is fair and sustainable.

2.2.3 Alternative Rate #3: The same as Rate #2 described above, but with the TOU rate limited to the summer months (May through October); a flat rate would apply during all remaining months (summer price ratio = 4.9-to-1)

Given that Ontario's system peak is in the summer, and that the intent of the TOU rates is to reduce this system peak it is reasonable to limit the TOU rates to the summer months and apply a flat rate during the remaining months. The existence of two winter peaking periods is confusing for residential consumers. Since applying TOU rates at times other than the summer months would not contribute to the objective of lowering the provincial system peak, there is not sufficient reason to inconvenience consumers by applying TOU rates outside of the summer months.

2.2.4 Alternative Rate #4: An alternative two-period TOU design in which the peak price is set equal to the average historical energy price during those hours plus the levelized cost of peaking capacity (estimated at \$100/kW-yr), and the off-peak price is solved to maintain revenue neutrality. The rate is summer-only and has a four-hour peak period (price ratio = 4.1-to-1)

Currently, the rate is developed such that mid-peak and off-peak prices are set based on costs, and the peak price is solved to maintain revenue neutrality. Alternative rate #4 does the opposite. There is more cost certainty in the off-peak period and the current approach therefore provides for more cost reflective rates than the alternative rate #4 approach. The current approach of setting the off-

peak price equal to the average historical energy price and where the peak price is solved to maintain revenue neutrality therefore is more sustainable and therefore a preferred approach to the alternative rate #4 approach.

2.3 Structural Issues

2.3.1 Are the current three price periods still appropriate given changes in Ontario's electricity demand profile and supply mix?

According to the Report the use of three pricing periods is consistent with many other TOU rates currently being offered and is reasonable given the hourly shape of system load and energy prices in the province. However, given that the intent of the TOU rates is to reduce the system peak, two price periods in the summer with a flat rate for the remainder of the year should be sufficient to accomplish the objective. This would be easier to explain to consumers and therefore increase the likelihood of consumer acceptance.

2.3.2 What are the advantages/disadvantages of fewer price periods?

Having fewer price periods will make it easier for residential customers to understand and apply the TOU rates and in turn achieve the objective of system peak reduction assuming that the cost-based TOU rates provides such a pricing signal.

2.3.3 Having fewer price periods will make it easier for residential customers to understand and apply the TOU rates and in turn achieve the objective of system peak reduction assuming that the cost-based TOU rates provides such a pricing signal. Are there significant system cost issues associated with changing the number of price periods?

Given that the desired system cost reduction is that associated with the system peak, any change in price periods that focuses on doing so would reduce the system costs if the cost-based TOU rates provide such pricing signal.

2.3.4 Is the current seasonal structure appropriate on a go forward basis?

No. TOU rates for the summer months with a flat rate for the remainder of the year is a more appropriate seasonal structure for meeting the objective of reducing the system peak. See section 2.2.3 above.

2.3.5 Does the change in Ontario's peak demand and the supply mix affect the seasonal nature of TOU?

The seasonality of the TOU rates should only reflect changes in Ontario's system peak demand.

2.3.6 Are there significant system cost issues associated with changing the approach to seasonality?

See section 2.3.3 above.

2.3.7 Given that the Ontario electricity system is summer peaking, would it make sense to adopt a structure which specifically addresses the summer peak. i.e., a summer only super peak or critical peak pricing that operated during predetermined peak hours?

Yes. See response in section 2.2.3 above.

2.3.8 What type of costs would be associated with implementing such a system?

The type of costs that would be associated with implementing TOU rate structure that specifically address only the summer peak are those associated with demand that demonstrates a summer system peak and is flat in the winter period.

2.4 Price Setting Methodology

2.4.1 The Board has established in the RPP Manual target ratios of 1:2:3, are these targets still appropriate?

According to the RPP Manual:³

To determine TOU prices, the production cost model price forecast is analyzed to determine average price levels during the different times of application referred to in Figure 5. Then the process can set prices or price ratios to reflect costs.

In the PWU's view the Board should continue to set prices or price ratios to reflect costs.

³ *Regulated Price Plan Manual, Ontario Energy Board, July 22, 2009, Page 26, Paragraph 3.*

2.4.2 Should the Board increase its focus on the price ratios when setting prices or continue emphasizing RPP supply cost recovery as the primary objective?

Consistent with the PWU's response to 2.4.1 the Board ought to continue emphasizing RPP supply cost recovery as the primary objective.

2.4.3 To achieve the target ratios, should the Board focus on one price, i.e., increase peak prices or decrease off-peak prices?

See response in section 2.4.1 above.

2.4.4 What are the advantages or disadvantages of differentiating the recovery of the variance account such that the variance account balances could be used to either enhance price ratios or buffer consumer bill impacts through accelerated or decelerated recovery?

This proposal moves the rates away from cost causality and minimizes the pricing signal that addresses the objective of reducing overall power system costs.

2.4.5 Currently the Board allocates forecast Global Adjustment ("GA") costs to be recovered in the price period, which relates to the portion of the load curve that the GA-eligible contract serves. Should the Board continue this practice? If not, what other method should the Board use to recover forecast GA costs?

This approach reflects costs and the Board should continue this practice.

2.4.6 Should the Board use the GA cost assignment to enhance the time of use price ratios regardless of "cost causality"?

The Board should not use the GA cost assignment to enhance the TOU price ratios regardless of "cost causality". As stated earlier in this submission, the allocation of costs to various TOU periods should not be arbitrary but properly determined based on cost causality. Arbitrary allocation of costs do not contribute to pricing signals that address the objective of reducing overall power system costs appropriately. As noted earlier in this submission, the resulting increase in off-peak cost has narrowed the RPP TOU price ratio and the increase in intermittent renewable supply contemplated in Ontario's Long Term Energy Plan will exacerbate this differential.

2.5 Additional Comments

2.5.1 Monitoring/Annual Review

Once the TOU pricing structure has been determined there should be ongoing monitoring and annual reviews to ensure that the price setting objectives of cost causality continue to be met, given changes in cost and that changes expected in the supply mix can be dynamic.

2.5.2 Ontario Pilot Study

If an Ontario pilot study were to be conducted, a good starting point would be to look at the National Grid pilot study contemplated in Massachusetts. The National Grid has proposed that their pilot study take place over 18 months with the potential to provide valuable insights into the benefits and costs of a larger deployment of smart grid technologies:

First, because of the size of the pilot program, the Company will be able to evaluate the customer-facing component using: (1) different segments of program participants (see Section III.A.5, above); (2) different combinations of smart grid tools and technologies (see Section III.A.2, above); and (3) various marketing, education, and outreach channels (see Section III.A.4, above). This type of granular analysis should allow the Company to gain a richer understanding of the behavioral changes of groups of customers (1) empowered with different smart grid tools and technologies, and (2) provided information and education through different channels. This understanding will, in turn, enable the Company and the Department to better determine the optimal path of any future smart grid deployment.

Second, because of its integrated nature, the pilot program will enable the Company to test and evaluate: (1) the effect that the presence of distributed supply resources (such as energy storage units, plug-in hybrid electric vehicles, solar photovoltaics and wind turbines) and demand response resources (i.e., customers price responsive consumption) has on the operational status of its distribution network; and (2) its ability to adapt its distribution network to changes created by these resources. Such testing and evaluation should improve the Company's understanding of how these distributed resources can be safely and reliably incorporated into its distribution system.

Third, by investing in smart grid information technology ("IT") infrastructure and creating new business processes to leverage smart grid technologies for the pilot program, as the Company has proposed, National Grid will be gaining valuable insight into best practices for potential future use of smart grid technologies.

2.5.3 Surplus Baseload Generation

According to the IESO with more than 5,000 MW of wind generation installed by 2013, absent price, rule and contract changes, the IESO expects surplus baseload generation (“SBG”) conditions about 14.5 per cent of the time, based on average wind output.⁴ The IESO states that nuclear generation will typically be down for 48 to 72 hours regardless of the length of the SBG event, with carbon emitting gas or coal generation replacing nuclear generation for the non-SBG duration of the nuclear down time. The IESO identifies increased costs for consumers as a result of higher marginal cost replacement energy, increasing the GA and/or the Market Clearing Price and increased uplifts when replacing nuclear resources with gas or coal generation. These increased costs in the off-peak period will impact the price ratio for the TOU periods. This is another issue that must be taken into account in considering a preferred TOU pricing structure/design.

All of which is respectfully submitted.

⁴ <http://www.ieso.ca/imoweb/pubs/consult/se91/se91-20101216-Principles.pdf>