Filed: 2007-09-04
EB-2007-0606/0615
Exhibit R-PEG
Tab 7
Schedule 1
Page 1 of 2

Union #1

INTERROGATORY

Ref: The Pacific Economics Group ("PEG") June 20th "Rate Adjustment Indexes
for Ontario's Natural Gas Utilities" report

Issue Number: 3.2
Issue: What are the appropriate components of an X factor?

Page 61 of PEG's June 20th "Rate Adjustment Indexes for Ontario's Natural Gas
Utilities" report states "In research for Board staff last year to develop an IR plan
for power distributors we found that the average explicit stretch factor approved
for the rate escalation indexes of North American energy utilities is around
0.50%."

    a. Please provide this research and identify what specific companies were
       included in PEG's analysis.

    b. Please identify the criteria that were used to determine which incentive
       regulation plans were to be included on this list.

    c. Please indicate for each incentive regulation plan included in this list
       whether it was a first or second generation plan.

    d. What other incentive regulation plans, not included in this list, were in
       existence during the same time frame? If there were such plans, please
       identify them and explain why they were excluded.

RESPONSE

a. Please see our response to Enbridge Question 44, where a summary of the
   relevant plans is provided.

b. These are plans involving rate adjustment indexes with formulas based on
   index research. It is indexes of this kind that commonly feature stretch
   factors.

c. We have not done the research needed to fully answer this question.
   However, we do know that many of the plans listed in our response to
   Enbridge Question 44 were the first experienced by the companies which

Witness: Mark Lowry

Filed: 2007-09-04
EB-2007-0606/0615
Exhibit R-PEG
Tab 7
Schedule 1
Page 2 of 2

featured rate adjustment indexes based on index research. Also, two of the plans listed are the second experienced by the company to feature such indexes and are therefore in some sense second generation plans. One of these (that for Boston Gas) contains an explicit stretch factor. The other (that for Central Maine Power) does not but an explicit stretch factor was not featured in either of its plans and the X factor in the second plan was quite high.

d. Some additional IR plans, involving rate freezes, are summarized in our response to LPMA question 36. Note that plans like these lack a rate adjustment index based on indexing research. That is why they were excluded from the response to EGD IR #44. However, a rate freeze is often considered by stakeholders to embody a stretch goal. Please note also that several of the listed plans are second generation plans.

In summary, the evidence we have gathered offers no substantiation for the notion that second generation IR plans do not involve stretch factors.

Witness: Mark Lowry

Filed: 2007-09-04
EB-2007-0606/0615
Exhibit R-PEG
Tab 7
Schedule 2
Page 1 of 1

Union #2

INTERROGATORY

Ref: The Pacific Economics Group ("PEG") June 20th "Rate Adjustment Indexes for Ontario's Natural Gas Utilities" report

Issue Number: 3.2
Issue: What are the appropriate components of an X factor?

What factors should be taken into account when determining the need for a stretch factor and the size of the stretch factor?

RESPONSE

The stretch factor is designed to share with customers during the years of the IR plan the benefits of superior performance that are expected under the plan. It accordingly depends on

- The current operating efficiency of the utility
- The performance incentives generated by the plan
- The performance incentives embodied in the regulatory systems under which sampled utilities operated
- Any discount that is offered at the inception of the plan that is intended to achieve the same goal of sharing expected benefits.

Witness: Mark Lowry

Filed: 2007-09-04
EB-2007-0606/0615
Exhibit R-PEG
Tab 7
Schedule 3
Page 1 of 1

Union #3

<u>INTERROGATORY</u>

Ref: The Pacific Economics Group ("PEG") June 20th "Rate Adjustment Indexes for Ontario's Natural Gas Utilities" report

Issue Number: 3.2
Issue: What are the appropriate components of an X factor?

Please provide all citations to research on the parameters of price cap or revenue cap plans referenced in peer reviewed academic literature that include a theoretical basis for choosing the magnitude of a stretch factor.

<u>RESPONSE</u>

We have never undertaken a systematic review of the peer reviewed academic literature with the goal of culling insights about the magnitudes of stretch factors. However, we have read the articles coauthored by Dr. Bernstein that are cited in his testimony. Please note also the discussion of stretch factors in Lowry, Getachew, and Hovde, *Energy Journal*, vol. 26, No. 3, 2005.

Witness: Mark Lowry

Filed: 2007-09-04
EB-2007-0606/0615
Exhibit R-PEG
Tab 7
Schedule 4
Page 1 of 1

Union #4

<u>INTERROGATORY</u>

Ref: The Pacific Economics Group ("PEG") June 20th "Rate Adjustment Indexes
for Ontario's Natural Gas Utilities" report

Issue Number: 3.2
Issue: What are the appropriate components of an X factor?

Please provide a complete copy of the incentive power research footnoted on
page 61 of PEG's June 20th "Rate Adjustment Indexes for Ontario's Natural Gas
Utilities" report.

<u>RESPONSE</u>

Please see our response to Enbridge Question 45 for details of this research.

Witness: Mark Lowry

Filed: 2007-09-04
EB-2007-0606/0615
Exhibit R-PEG
Tab 7
Schedule 5
Page 1 of 1

Union #5

INTERROGATORY

Ref: The Pacific Economics Group ("PEG") June 20th "Rate Adjustment Indexes for Ontario's Natural Gas Utilities" report

Issue Number: 3.1
Issue: How should the X factor be determined?

What were the magnitudes of the fixed revenue weights that were used to obtain revenue-weighted output quantity indexes in Table 7 in both the March 30, 2007 and the June 20, 2007 versions of PEG's "Rate Adjustment Indexes for Ontario's Natural Gas Utilities" report? If the revenue weights are the same, please explain the difference in Table 7 between the March 30, 2007 Fixed Revenue Weighted average aggregate output growth rate for Union of 1.05% over the 2000-2005 period, and the corresponding June 20, 2007 average growth rate for Union of 1.20%.

RESPONSE

Please see our response to CCC/VECC question 8 for requested calculations. Notice that for Union Gas PEG made a few upgrades that caused the change in the trend of the revenue-weighted output quantity index. These changes included breaking the customers into their specific rate classes and excluding storage from the calculations.

Witness: Mark Lowry

Filed: 2007-09-04
EB-2007-0606/0615
Exhibit R-PEG
Tab 7
Schedule 6
Page 1 of 1

Union #6

INTERROGATORY

Ref: The Pacific Economics Group ("PEG") June 20th "Rate Adjustment Indexes for Ontario's Natural Gas Utilities" report

Issue Number: 3.1
Issue: How should the X factor be determined?

In PEG's "Rate Adjustment Indexes for Ontario's Natural Gas Utilities" report, as noted in Table 17, the General Service Rate 10 service group was included in the Non-residential category for the determination of the X factor by service group. On January 1, 2008 the M2 rate class will be split into an M1 and M2 rate class. The M2 rate class will not include residential customers. Please identify the impacts of this M2 rate class split on the categorization by service group for the determination of the X factor by service group.

RESPONSE

Absent a revised set of PCIs that takes into consideration this split, the new M2 rate class should be transferred to the "other services". Therefore the rates for this class should be adjusted with the PCI of the "other services" rate class.

Witness: Mark Lowry

Filed: 2007-09-04
EB-2007-0606/0615
Exhibit R-PEG
Tab 7
Schedule 7
Page 1 of 1

Union #7

INTERROGATORY

Ref: The Pacific Economics Group ("PEG") June 20th "Rate Adjustment Indexes
for Ontario's Natural Gas Utilities" report

Issue Number: 3.1
Issue: How should the X factor be determined?

Is PEG aware of any service level price cap IR frameworks approved by
regulators that have been determined by calculating the TFP by service level? Is
PEG aware of any service level price cap IR frameworks approved by regulators
that have been determined without calculating a TFP by service level?

RESPONSE

We are not aware of any service specific price cap IR frameworks approved by
regulators that have been determined by calculating the TFP by service level.
However, it is our impression that a number of price cap plans in the
telecommunications industry have had service specific price caps that were not
based on TFP research. In many of these plans, rates for essential services to
residential customers have been frozen.

Witness: Mark Lowry

Filed: 2007-09-04
EB-2007-0606/0615
Exhibit R-PEG
Tab 7
Schedule 8
Page 1 of 1

Union #8

<u>INTERROGATORY</u>

Ref: The Pacific Economics Group ("PEG") June 20th "Rate Adjustment Indexes for Ontario's Natural Gas Utilities" report

Issue Number: 3.1
Issue: How should the X factor be determined?

Page 64 of PEG's June 20th "Rate Adjustment Indexes for Ontario's Natural Gas Utilities" report references a special adjustment term ("ADJ") used in the calculation of the X factor by service group. Please explain how this ADJ can be reliably determined without doing a productivity study by service level.

<u>RESPONSE</u>

The derivation of the ADJ terms supposes (see p. 95 of the June report) the hypothetical existence of stand alone utilities that specialize in the provision of a limited group of services.   The accuracy of the results depends on the extent to which we can approximate the formula at the bottom of p. 95 with the information that is available from a vertically integrated firm. For example, how well does R/R_l approximate C/C_l. We believe that no other party to this proceeding has provided an approach of equal or greater validity for calculating the ADJs.

Witness: Mark Lowry