IN THE MATTER OF the Ontario Energy Board Act, 1998, S.D. 1998, Sch. B;

AND IN THE MATTER OF Applications by Union Gas Limited and Enbridge Gas Distribution for Orders approving or fixing rates for the sale, distribution, transmission and storage of gas commencing January 1, 2008.

INDUSTRIAL GAS USERS ASSOCIATION ("IGUA")
TECHNICAL CONFERENCE QUESTIONS OF PACIFIC ECONOMICS GROUP ("PEG")/BOARD STAFF

The following questions relate to Responses provided by PEG/Board Staff to IGUA Interrogatories:

<u>IGUA # 1</u>

1. Were the views expressed in the Board Staff Discussion Paper the views of PEG and/or Board Staff when the paper was circulated?

2. Have any of the opinions changed? If so, what are they now?

3. PEG/Board Staff indicate that IGUA is asking for material covered by privilege. What are the facts on which the claim for privilege is based?

4. Please explain why it is too early in the process for PEG to provide its Responses to the Questions contained in the Board's List of Issues?

<u>IGUA # 2</u>

5. Please elaborate on the differences between the Revenue Cap calculated by PEG and a Revenue Cap Per Customer Method proposed by EGD.

Enbridge proposes to escalate its base revenue requirement using the formula

$$RR_t = (RR_{t-1} / C_{t-1}) \times (1 + GDPIPI - X) \times C_t + Y+Z \qquad [1]$$

The X factor here is, evidently, the same one that would apply to a *price* cap index.

Rearranging terms, the Enbridge formula can be restated as

$$RR_t/C_t = (RR_{t-1} / C_{t-1}) \times (1 + GDPIPI - X) + (Y+Z)/C_t \qquad [2]$$

This is the form in which the calculations are made in the Company's illustrative example in Tab 4 of its testimony.

The formula can usefully be restated as

$$(RR_t/C_t)/(RR_{t-1} / C_{t-1}) - 1 = (GDPIPI - X) + (Y+Z)x[C_{t-1} /(C_t \times RR_{t-1})] \qquad [3]$$

Revenue *per customer* is thus escalated annually by the same GDPIPI - X formula that would be used to calculate a price cap index even though a PCI would afford the company compensation for its declining average use.

We may also express the proposed escalation formula as

$$RR_t /RR_{t-1} = (1 + GDPIPI - X) \times (C_t/C_{t-1}) + (Y+Z)/R_{t-1} \qquad [4]$$

Stated in this form it can be seen that the revenue requirement is escalated by an index appropriate for rates and then escalated for growth in the number of customers served.

PEG believes that there are two problems with this escalation mechanism. First, the Enbridge formula should be revised to bring the Y and Z terms inside the parentheses. Secondly, the productivity research on which the X factor is based should use the number of customers as the output variable since the number of customers is used to escalate the revenue requirement.

Our second concern is a matter of basic mathematical logic, which we discuss in our answer to Board Staff question 1 and reproduce here for IGUA's convenience. Suppose that the trend in the revenue requirement equals the trend in cost, which is the sum of the trends in input price and productivity indexes:

trend Revenue = trend Cost = trend Input Prices + trend Inputs.

Now

trend Revenue =
trend Input Prices - (trend Customers - trend Inputs) + trend Customers

so that

trend Revenue – trend Customer = trend (Revenue/Customer)
= trend Input Prices - (trend Customers - trend Inputs).

The relevant output index for a revenue/customer cap index is thus the *number of customers*, much as the relevant output index for a PCI is revenue-weighted.

Both of the PEG revenue cap indexes are based on the empirical research that provided the basis for PEG's proposed price cap index. The two PEG indexes differ only insofar as one is used to cap the growth in the revenue requirement whereas the other is used to cap the growth in the revenue requirement *per customer*. This requires the addition of a revenue per customer adjustment to the X factor formula. This adjustment effectively replaces the *elasticity*-weighted output quantity index in the TFP formula with a simpler output measure: the number of customers.

The two PEG revenue cap indexes are designed to operate in tandem with a balancing account that records the difference --- positive or negative --- between actual base rate revenue and the revenue requirement. Rates would then be adjusted in the following year to attempt the recover this amount.

6. PEG indicates that its proposed X factor would be higher if Capital Expenditures are considered as a Y factor. What would PEG's X factor be if Capital Expenditures are considered a Y factor?

This will be addressed in an undertaking.

IGUA # 3

7. Please clarify whether all costs falling within the scope of X and Y factors, and within the parameters of Deferral Accounts, lie outside the "Base" subject to the adjustment factor, and that amounts falling within the scope of X and Y factors and Deferral Accounts only change to track the actual changes in expenditures.

Costs covered by Y factors are generally excluded from the indexing research. Costs covered by Z factors are generally included.

IGUA # 8

8. The Response indicates that PEG is updating the results of certain tables in its evidence. When will the updated evidence be available?

PEG hopes to have this result available on or before the date that the other results are made available.

IGUA #12

9. Documents attached to the electronic copy of the Response to IGUA #12 include a presentation entitled "Overview of Alternative Regulation" provided by Larry Kaufmann, a PEG partner, in Boston on June 25, 2007, as well as a document entitled "Comparing AltReg Options" bearing the same date and a document entitled "Range of AltReg Options". Do these documents form part of the Response to IGUA #12 or are they responsive to another IGUA Interrogatory?

They are responsive only to IGUA 12, which asked PEG to address any and all Enbridge criticisms of its report.

IGUA #15

10. In the Response, it is stated "PEG does not know the precedents with regard to Revenue Cap Plans". Please reconcile this statement with the Response to IGUA #3 where reference is made to a Revenue Per Customer Approach and a Revenue Per Customer Cap Plan of Southern California Edison. In addition, please provide any Regulatory Decisions pertaining to the Revenue Per Customer Cap Plan of Southern California Edison and the similar approach taken by San Diego Gas and Electric referenced in the Response to IGUA #3.

Mark Lowry is familiar with some revenue cap plans but has not done a systematic review of these plans, which have proliferated recently to deal with declining average use challenges in the gas utility industry. In his response to IGUA 2 he mistakenly referred to Southern California *Edison* when he meant to say Southern California *Gas*. The requested documents are attached.

IGUA #20

11. In this Interrogatory Response reference is made to two prior retainers of Dr. Lowry by EGD. Please list and briefly describe all of the retainers Dr. Lowry has had with either EGD and Union.

Dr. Lowry has twice prepared benchmarking studies for EGD and has also provided brief and periodic advice to the company on IR issues. Dr. Lowry was once engaged by Union Gas to be a policy witness in an (aborted) IR initiative.

<u>IGUA #21</u>

12. Please produce the Agreement dated May 11,2006 and all subsequent amendments thereto prior to the July 13, 2007 amendment attached to the Response to IGUA #21.

Board Staff to provide.

<u>IGUA #22</u>

13. Please list by date and by nature of correspondence such as letter, email, etc. all of the communications between Board Staff and PEG which it is alleged are covered by a privilege claim. Please explain the basis on which these communications are privileged.

Board Staff will respond.

<u>IGUA #27</u>

14. This Response refers to building innovative re-basing mechanisms into IR Plans. What are PEG's re-basing recommendations for Union and EGD?

Dr. Lowry believes that an innovative rebasing mechanism should be added to the IR plans for both companies. Such mechanisms can materially strengthen performance incentives and can discourage opportunistic timing of deferrable expenses that might otherwise limit customer benefits from the rebasing. While Dr. Lowry has not developed a view with respect to the optimal rebasing approach, three sensible approaches can be noted.

- **Have new rates be based 80% on the results of the new rate case and 20% on a one year extension of the expiring rate adjustment mechanism.**
- **Give each company an option on new rates at the expiration of the IR plan that embody a remarkable rate of productivity growth.**
- **Use statistical benchmarking to evaluate recent historical and proposed forward test year expenses of the companies.**