### **Ontario Energy Board**

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## TESTS FOR EVALUATING NATURAL GAS SYSTEM EXPANSION PROJECTS

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For

**Pollution Probe** 

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### TABLE OF CONTENTS

| 1.0 INTRODUCTION   | ΟN   |  |
|--|--|--|
|  | are the  | IST QUESTIONS  |
| 2. The Soci  | and e<br>Net Env<br>etal Co<br>a) As<br>b) As  | ach test: What are the appropriate financial, societalanvironmental costs and benefits to include?applied Loss Testapplied to system expansion projects for new customers4applied to system expansion projects for existing customers5 |
| 4. The Net 5. The Parti<br>6. The Parti<br>6. The First<br>7. The No L | Societa<br>icipant<br>and Se<br>Jndue E  | Il Benefit Per Dollar of Rate Impact Test    5      Test    6      econd Round Net Benefit Test    6      Burden Test    6      ervations    7   |
| 1 (b) (ii)   |  | ach test: What inputs are common to all three utilities?<br>d identical values be used for common inputs?  |
| 1. (b) (iii)   |  | d the test be applied uniformly by all three utilities? If not,<br>differences are appropriate? 8  |
| 1. (b) (iv)  | d the impact of variations in the relevant accounting<br>eporting practices and rates among the utilities be<br>ciled? If so, how? |  |
| 1 (c) How s  | hould tl<br>i).  | he test be applied and in what order?  |
|  | ii)  | System Expansion Projects to Meet the Incremental<br>Energy Service Needs of Existing In-Franchise Customers<br>of Utilities Regulated by the OEB  |
|  | iii)   | Storage System Expansion Projects by an<br>OEB-Regulated Utility to Meet the Needs of Another<br>OEB-Regulated Utility   |
|  | iv)  | Storage System Expansion Projects by an<br>OEB-Regulated Utility to Meet the Needs of a Non<br>OEB-Regulated Utility or Non-Ontario End-User   |

|       | <ul> <li>v) Union Gas Transmission System Expansion Projects to<br/>Meet the Needs of Another OEB-Regulated Utility 13</li> <li>vi) Union Gas Transmission System Expansion Projects to<br/>Meet the Needs of a Non-OEB-Regulated Utility or a<br/>Non-Ontario End-User 13</li> </ul> |
|-------|---|
| l (d) | Should the financial, societal and environmental costs and<br>benefits that accrue beyond the utility's franchise borders<br>be considered? If so, how?   |
| 1 (e) | Should the costs and benefits of fuel switching be considered?<br>If so, how?   |
| 2 (a) | What are the appropriate financial thresholds for expenditures on natural gas system expansions?  |
| 2 (b) | Under what circumstances and to what level might subsidization<br>be appropriate? If there is subsidization what principles should<br>guide decisions about who should benefit and who should pay?15  |
| 2 (c) | Should a standard or threshold be applied each project? Is it appropriate to apply the standard or threshold to a utility's portfolios of natural gas system expansions?  |
| 2 (d) | Should any threshold of financial feasibility be applied uniformly within a utility or across the three utilities?  |
| 2 (e) | Under what circumstances, over what period of time, and to<br>what level might contributions in aid of construction be collected<br>from the primary beneficiaries of an expansion in order to<br>enhance the financial feasibility of the expansion?                                 |
| 2 (f) | Should a variety of methods be available for collecting contributions in aid of construction (e.g., one-time charge, monthly contributions, etc.)? Under what circumstances should a particular method be chosen?   |
| 3 (a) | How should natural gas demand-side management initiatives<br>be considered when determining the need for, timing and scale<br>of, natural gas system expansion projects?  |
| 3 (b) | Should the tests and financial thresholds for expenditures on natural gas system expansions be consistent with those for natural gas demand-side management expenditures? If not, what differences are appropriate?   |

| 4.    | In the route selection process, how should trade-offs among financial feasibility, societal and environmental impacts, and customer additions in a project be identified and evaluated? | 19 |
|-------|---|----|
| 5 (a) | How should natural gas system expansions be monitored<br>and reported to the Board?   |    |
| 5 (b) | What monitoring and reporting should there be at the project level, portfolio level and on a cumulative basis?  | 19 |
| 5 (c) | How should under- and over-collections of contributions in aid of construction be treated?  | 19 |
| 6.    | What should be the definitions of transmission, distribution, storage, infill, replacement and reinforcement?   | 20 |
| 7 (a) | What guidelines should result from the Board's deliberations in this matter?  | 20 |
| 7 (b) | How should these guidelines be applied to expenditures<br>on transmission, distribution, storage, infill, replacement<br>and reinforcement?   | 20 |

#### **1.0 INTRODUCTION**

Consumers do not purchase energy for its own sake but rather for the energy services it can provide (i.e., heat, light and power). That is, they want warm houses and hot showers, not electricity, oil or natural gas.

Energy service requirements can be met by a wide variety of options. For example, the need for a warm house can be met by a combination of: electricity, oil, natural gas, propane or solar energy; a mid or high efficiency furnace; varying degrees of insulation; single pane, double pane or low E argon-filled windows.

If we minimize the societal cost of meeting our energy service needs, we will increase the quantity of other market and non-market goods and services that present and future generations can enjoy on a sustainable basis. That is, meeting our energy service needs at least societal cost is a prerequisite for maximizing our real income per capita or our quality of life.

Therefore the fundamental premise of this testimony is that the objective of the Ontario Energy Board's (OEB's) natural gas system expansion guidelines should be to promote the fulfilment of Ontario's energy service needs at the least societal cost.

This testimony will consist of responses to the questions on the OEB's E.B.O. 188 Issues List.

### 2.0 E.B.O. 188 ISSUES LIST QUESTIONS

1 (a) What are the appropriate tests for evaluating the economic feasibility of expenditures on natural gas system expansions?

The appropriate tests for evaluating the feasibility of natural gas system expansions are:

1. The No Net Environmental Loss Test;

2. The Societal Cost Test;

3. The Ratepayer Impact Measure (RIM) Test;

4. The Net Societal Benefit Per Dollar Of Rate Impact Test;

5. The Participant Test;

6. The First And Second Round Net Benefit Test; and

7. The No Undue Burden Test.

Each of these tests measures a particular type of impact of a natural gas system expansion project and thus allows the OEB to better determine if it is in the public interest. The impact which each test measures is discussed below.

## 1 (b) (i) For each test: What are the appropriate financial, societal and environmental costs and benefits to include?

### 1. The No Net Environmental Loss Test

Ontario's natural gas utilities seek to design, construct and operate their storage, transmission and distribution facilities in a manner which will minimize their adverse impacts on the local environment.

According to the no net environmental loss test, a natural gas facility should only be approved if its construction and operation will not deplete the local area's stock of environmental assets.

A gas utility can comply with the no net environmental loss principle by:

- 3
- i. adopting measures to mitigate or eliminate adverse impacts from the construction and operation of its facilities; and
- ii. creating a new local environmental resource(s) to offset any local environmental loss(es) created by the construction or operation of its facilities.

For example, if a natural gas facility destroys, degrades or impairs a fish or bird habitat, a wetland or a forest, the utility can create an equivalent new fish or bird habitat, wetland or forest in the same region to ensure that its operations do not lead to a net loss of the region's stock of environmental resources.

Adoption of the no net environmental loss test will ensure that the province-wide or global benefits of natural gas system expansion (e.g., lower energy bills, reduced greenhouse gas emissions) are not achieved by depleting the local area's stock of environmental assets.

### 2. The Societal Cost Test

The Societal Cost Test is defined in the E.B.O. 169-III Report Of The Board, which

states that:

"The Societal Test incorporates all costs and benefits arising from the adoption of a program. These would include all direct costs borne by the utility such as commodity, transportation, storage, load-balancing, and distribution costs as well as system expansion costs. Also utility costs such as incremental administration, maintenance, and participant incentive costs would be recognized. In addition, all participant costs (net of incentives) should be included. In the case of programs that affect consumption of more than one fuel, all avoided costs of all fuels would be recognized. Finally, all externalities, including environmental and societal externalities, would be included. Externalities which cannot be monetized should be treated qualitatively.

Thus the Societal Test considers all costs and benefits accruing to society as a whole, and is not limited to the utility and its customers."

[E.B.O. 169-III, <u>Report Of The Board</u>, pp. 23, 24]

The Societal Cost Test can be applied both to cases of new customers being served and of new facilities for existing customers.

### a) As applied to system expansion projects for new customers

When evaluating a system expansion project which adds new customers to the natural gas system, the societal cost test compares i) the societal cost of meeting the new customers' energy service needs with natural gas service; and ii) the societal cost of providing the customers' energy service needs with alternative energy options (e.g., oil, electricity).

In this context, a gas system expansion project passes the societal cost test if: i) the societal cost of meeting the customers' energy service needs by natural gas is less than the societal cost of meeting the customers' energy service needs by alternative supply options; and ii) the new customers' energy service needs will be met, to the maximum extent possible, by the least cost mix of natural gas supply-side and DSM expenditures.

### b) As applied to system expansion projects for existing customers

When evaluating a system expansion project to provide additional gas service to existing gas customers, the societal cost test compares i) the cost of meeting the customers' incremental energy service needs with increased gas supply; and ii) the costs of avoiding or reducing the need for increased gas supply. This avoidance can occur through the implementation of programmes and/or policies to promote the conservation and efficient use of natural gas and/or through promoting fuel switching from natural gas to alternative energy sources (e.g., renewable energy).

In this context, a gas system expansion project passes the societal cost test if: i) the societal cost of meeting the customers' energy service needs by increased gas supply is less than the societal cost of meeting the customers' incremental energy service needs exclusively by the promotion of energy conservation and efficiency and/or fuel switching; and ii) the customers' energy service needs will be met, to the maximum extent possible, by the least cost mix of natural gas supply-side and DSM expenditures.

### 3. The RIM Test

The RIM Test measures the impact of a utility's system expansion programme on its rates.

A project passes the RIM Test if its life-cycle impact on the utility's rates is zero or negative (i.e., has no impact on rates or causes rates to fall).

A project fails the RIM Test if its life-cycle impact on the utility's rates is positive (i.e., it causes rates to rise).

### 4. The Net Societal Benefit Per Dollar of Rate Impact Test

This test is applicable to projects that fail the RIM Test.

The numerator of this test is the programme's net societal benefit (total benefits minus total costs) as measured by the societal cost test. The denominator is the programme's rate impact as measured by the RIM Test.

This test ranks projects that fail the RIM Test. The projects with the highest ratios provide the greatest societal benefits per dollar of rate impact.

Therefore, if the objective is to achieve the greatest net societal benefit subject to a

maximum acceptable rate impact, the projects with the highest ratios should be selected first.

### 5. The Participant Test

"The Participant Test includes only those costs and benefits borne by the participant, which could comprise capital, installation, and operating and maintenance costs, offset by energy cost savings measured at the rate paid by the participant, net of utility incentives."

[E.B.O. 169-III, <u>Report Of The Board</u>, p. 24]

A project passes the participant test if participation in the project is in the financial self-interest of the participants.

### 6. The First and Second Round Net Benefit Test

If a natural gas system expansion project causes the utility's rates to rise, the resulting second round net societal costs could exceed the project's first round net societal benefits. For example, higher gas rates might cause some customers to switch to non-gas energy sources for some or all of their end-uses. If the non-gas energy sources have higher societal costs than natural gas (e.g., greater greenhouse gas emissions), the second round net societal costs (due to fuel switching away from natural gas) might exceed the first round net societal benefits of the system expansion project.

A project passes the first and second round net benefit test if the sum of its first and second round societal benefits is greater than or equal to the sum of its first and second round societal costs.

### 7. The No Undue Burden Test

A project that fails the RIM Test will raise the utility's rates. Such a project will pass the no undue burden test if the rise in rates does not create an undue burden for any individual, group or class.

### 8. Concluding Observations

All of the above tests assume that costs and benefits will be measured on a marginal basis. This method is consistent with the O.E.B.'s finding in 1987 that incremental costs should be used to evaluate natural gas system expansion projects:

"The Board finds that incremental costs should be used in evaluating the feasibility of system expansion." [E.B.O. 134, <u>Report Of The Board</u>, para. 6.70]

In this context it is important to note that, despite the above-noted finding in E.B.O. 134, the gas utilities' status quo system expansion tests use a mixture of marginal and average fully allocated costs. For example, Consumers Gas uses its weighted <u>average</u> cost of gas (WACOG) as a proxy for its <u>incremental</u> gas commodity, transmission and storage costs for its residential and small commercial/industrial customers. [E.B.O. 188, Consumers Gas, Ex. B, Tab 1, Sch. 1, p. 7]

## 1 (b) (ii) For each test: What inputs are common to all three utilities? Should identical values be used for common inputs?

(a) The monetized externality values for greenhouse gases should be common for all three utilities since the external costs of greenhouse gases do not vary according to the location of their emissions.

The monetary values for other environmental externalities should also be common for all the utilities unless their costs vary according to the location of their emissions (e.g., the

environmental cost of a tonne of  $NO_x$ , which is a precursor of urban smog, may be lower if it is emitted in northern Ontario than in the Ontario portion of the Windsor-Quebec corridor).

Furthermore, the externality values used to evaluate natural gas expansion projects should be the same as the externality values used to evaluate natural gas DSM programmes.

(b) All utilities should use the same social discount rate since it measures the cost of capital to society, not to a particular utility.

(c) The time horizons for evaluating natural gas system expansion projects should equal their expected economic lives. Thus it may be appropriate to adopt different time horizons for storage, transmission and distribution projects. Furthermore, it may be appropriate to adopt different time horizons for distribution projects depending on whether the end-user is a residential, commercial or industrial customer.

However, the time horizons for evaluating each of these categories of projects should be uniform across all three utilities unless there is good reason to believe that the expected economic lives will vary by utility.

At the present, Centra Gas and Union Gas use an economic life of up to 30 years for evaluating residential system expansion projects, whereas Consumers Gas assumes an economic life of 60 years. [Submission of Centra Gas Ontario Inc., September 1, 1995, p. 1; Submission of Union Gas, September 1, 1995, p.4; Consumers Gas, Ex. B, Tab 1, Sch. 1, p. 3] If a 30 year life is appropriate for Centra and Union, it is unlikely that a 60 year life is appropriate for Consumers and vice versa.

1. (b) (iii) Should the test be applied uniformly by all three utilities? If not, what

#### differences are appropriate?

The above noted tests are generic and hence should be applied uniformly by all gas utilities in order to facilitate consistent and transparent regulation.

# 1. (b) (iv) Should the impact of variations in the relevant accounting and reporting practices and rates among the utilities be reconciled? If so, how?

If the above tests are applied uniformly by all the utilities there will be no need to reconcile variations in accounting practices or rates.

### 1 (c) How should the test be applied and in what order?

The appropriate tests to be applied by the OEB will vary according to the following six categories of system expansion projects.

### i). System Expansion Projects To Increase the Number of In-Franchise Gas Customers of Utilities Regulated by the OEB

System expansion projects to increase the number of in-franchise customers of utilities regulated by the OEB should be subject to the following screens in order to gain OEB approval.

1. The No Net Environmental Loss Test.

2. The Societal Cost Test.

3. The RIM Test.

4 (a) If a project passes all of the above tests, it should be approved by the OEB.

4 (b) Projects that fail the no net environmental loss test or the societal cost test should <u>not</u> be approved by the OEB.

4 (c) Projects that pass the first two tests but fail the RIM Test should be ranked in order of their net societal benefit per dollar of rate impact. The projects with the highest

rank should be selected first, subject to the following conditions:

i. the project is unlikely to proceed at all in the absence of a subsidy;

ii. the net present value of the rate surcharge for the direct financial beneficiaries of the project is as high as is reasonably possible subject to the constraint that it will not seriously reduce participation rates;

iii. the project passes the first and second round net benefit test;

iv. the project's net societal benefit per dollar of rate impact ratio is at least as great as the lowest net societal benefit per dollar of rate impact ratio of its DSM (natural gas conservation and efficiency) programmes; and

v. the subsidy does not cause an undue burden on any individual, group or class.

### ii) System Reinforcement Projects to Meet the Incremental Energy Service Needs of Existing In-Franchise Customers of Utilities Regulated by the OEB

System expansion projects to meet the incremental energy service needs of existing in-franchise gas customers of utilities regulated by the OEB should be subject to the following screens.

1. The No Net Environmental Loss Test.

2. The Societal Cost Test.

In general, if a reinforcement project passes the above tests, it should be approved by the OEB.

In my opinion, it will typically not be acceptable to the public to collect contributions-inaid-of-construction or rate surcharges from existing residential or small commercial customers whose incremental energy service needs are being met by reinforcement projects that fail the RIM test for the following reasons.

First, the costs and benefits of a reinforcement project will seldom be transparent to its beneficiaries. As a consequence, some of the beneficiaries of a reinforcement project will

not accept the legitimacy of their geographic-specific rate surcharges.

Second, some customers whose natural gas consumption has remained constant or declined will not accept the legitimacy of geographic-specific rate surcharges to pay for system expansions that are necessitated by the rising gas consumption of other customers.

However, it may be acceptable to the public to collect contributions-in-aid-ofconstruction or rate surcharges from existing large commercial or industrial customers that are the beneficiaries of financially non-sustaining reinforcement projects (e.g., if the utility is required to reinforce the customer's service line).

# iii) Storage System Expansion Projects by an OEB-Regulated Utility to Meet the Needs of Another OEB-Regulated Utility

A storage system expansion project of an OEB-regulated utility to meet the needs of another OEB-regulated utility should be required to pass the following screens in order to gain OEB-approval.

1. The No Net Environmental Loss Test.

2. The Societal Cost Test.

3. The RIM Test.

A storage system expansion project of an OEB-regulated utility to meet the needs of another OEB-regulated utility should be required to pass the RIM Test, if necessary by means of a contribution-in-aid-of-construction or a rate surcharge. This would: i) increase the financial incentive for the purchasing utility to pursue all cost-effective measures to reduce its customers' peak day and/or seasonal demands (e.g., DSM programmes, seasonally adjusted rates); and ii) minimize cross-subsidies amongst storage service

customers.

### iv) Storage System Expansion Projects by an OEB-Regulated Utility to Meet the Needs of a Non OEB-Regulated Utility or Non-Ontario End-User

Storage system expansion projects by an OEB-regulated utility to meet the needs of a non OEB-regulated utility (e.g., Kingston Public Utilities Commission) or a non-Ontario end-user (e.g., Sithe Independence Power Partners) should be required to pass the following screens in order to gain OEB-approval.

1. The No Net Environmental Loss Test.

2. The RIM Test.

Storage system expansion projects should be subject to the no net environmental loss test since this test is in the public interest, as explained earlier, and the OEB has regulatory jurisdiction with respect to the construction and operation of storage facilities in Ontario.

Storage system expansion projects to meet the needs of non OEB-regulated utilities or non-Ontario end-users should not be subject to the societal cost test <u>by the OEB</u> since the DSM programmes or policies of these entities , which might offset the need for such projects, are beyond the jurisdiction of the OEB.

Storage system expansion projects to meet the needs of non OEB-regulated utilities or non-Ontario end-users should be required to pass the RIM Test in order to: i) promote an efficient allocation of resources; and ii) ensure that the end-use customers of local distribution companies regulated by the OEB are not required to subsidize incremental storage projects for non-OEB-regulated utilities or non-Ontario end-use customers.

### v) Union Gas Transmission System Expansion Projects to Meet the Needs of Another OEB-Regulated Utility

Union Gas transmission system expansion projects to meet the needs of another OEBregulated utility should be required to pass the following screens in order to receive OEBapproval.

1. The No Net Environmental Loss Test.

2. The Societal Cost Test.

It should be noted that Union's transmission system expansion projects should arguably also be required to pass the RIM Test, but the OEB's E.B.O. 188 Issues List has excluded that issue.

### vi) Union Gas Transmission System Expansion Projects to Meet the Needs of a Non-OEB-Regulated Utility or a Non-Ontario End-User

Union Gas transmission system expansion projects to meet the needs of a non-OEBregulated utility or a Non-Ontario end-user should be required to pass the following screen in order to receive OEB approval.

1. The No Net Environmental Loss Test.

Union Gas transmission system expansion projects should be subject to the no net environmental loss test since this test is in the public interest and the OEB has regulatory jurisdiction with respect to the construction and operation of Union's Dawn-Trafalgar transmission facilities.

Union Gas' transmission system expansion projects to meet the needs of non- OEBregulated utilities or non-Ontario end-users should not be subject to the societal cost test by the OEB since the DSM programmes or policies of non OEB-regulated utilities or non-Ontario end-users is outside of the OEB's jurisdiction. Again, as noted above, the OEB's E.B.O. 188 Issues List has excluded the issue of whether or not Union's transmission system expansion projects should be required to pass the RIM Test, although arguably they should be.

## I (d) Should the financial, societal and environmental costs and benefits that accrue beyond the utility's franchise borders be considered? If so, how?

In order to promote the achievement of Ontario's energy service needs at least cost, financial and environmental costs that are <u>external</u><sup>1</sup> to Ontario's gas utilities and their customers must be taken into account in the utility's system expansion tests and decision-making processes.

For example, if TCPL's incremental costs of expanding its Alberta to Ontario transmission system are greater than its tolls, the difference between TCPL's tolls and incremental costs must be taken into account, in the societal cost test, in order to determine the least cost options to meet the energy service needs of Ontario's end-users.

Furthermore, if the full fuel cycle (e.g., from drill bit to burner tip) greenhouse gas emissions of natural gas and alternative fuels are not taken into account, in the societal cost test, energy supply and service options which are not consistent with achieving Canada's greenhouse gas emission targets at least cost may be selected by the utility.

In addition, if the greenhouse gas emissions of U.S. energy suppliers to Ontario (e.g., U.S. coal-fired electricity generation stations) are excluded from the societal cost test being applied to natural gas system expansion projects, energy supply options which will lead to a global increase in greenhouse gas emissions may be selected. Moreover, exclusion of

<sup>&</sup>lt;sup>1</sup>. In this context, external costs are costs which are not included in the bills payable by Ontario's gas utilities or their customers.

the greenhouse gas emissions of U.S. suppliers, from the societal cost test, would give them an unfair competitive advantage over Ontario's local distribution companies, TCPL and Canadian natural gas producers.

In order to promote the achievement of Ontario's energy service needs at least cost,

Ontario's gas utilities, to the fullest extent practical, should:

i. include the incremental financial costs of upstream Canadian energy suppliers in their societal cost test analyses (e.g., Consumers Gas should use Union's and TCPL's incremental transmission costs);

ii. include the actual tolls of U.S. energy suppliers in their societal cost test analyses since tolls of U.S. suppliers equal Canada's and Ontario's incremental financial cost of obtaining supplies from the U.S.; and

iii. include the external environmental costs of all the options, on a full fuel cycle basis, that will impact on Canada's environment.

### 1 (e) Should the costs and benefits of fuel switching be considered? If so, how?

Yes. Ontario's natural gas system should only be expanded when it is the least cost,

practically achievable, option to meet Ontario's energy service needs. Thus the costs and

benefits of fuel switching must always be considered.

The societal cost test is the appropriate method to compare the costs and benefits of

fuel switching.

## 2 (a) What are the appropriate financial thresholds for expenditures on natural gas system expansions?

Please see our response to question 1 (c).

2 (b) Under what circumstances and to what level might subsidization be appropriate? If there is subsidization what principles should guide decisions about who should benefit and who should pay?

In general, to the fullest extent that is both practical and publicly acceptable, the direct

financial beneficiaries of a natural gas system expansion project should pay its full

incremental costs since:

i. rates that reflect cost-causality promote an efficient use of resources; and

ii. there is broad public support for rates that reflect cost-causality.

However, if a societally cost-effective system expansion project does not pass the participant test, it may be in the public interest for the utility's ratepayers to subsidize the project.

Please also see our response to question 1 (c).

# 2 (c) Should a standard or threshold be applied to each project? Is it appropriate to apply the standard or threshold to a utility's portfolios of natural gas system expansions?

It is our recommendation that each individual system expansion project should be subject to the tests or standards outlined in our response to 1 (c). Application of these tests or standards will produce a utility's optimal portfolio of storage and distribution expansion projects.

## 2 (d) Should any threshold of financial feasibility be applied uniformly within a utility or across the three utilities?

As noted in our response to question 1 (c), the minimum acceptable level of financial feasibility, as measured by the RIM Test, should vary depending on the circumstances.

In cases where projects pass the societal cost test and fail the RIM test, the maximum acceptable level of subsidy (rate impact) will vary from year to year and from utility to utility. For example, in a year when the gas costs of Consumers Gas are <u>falling</u> by 10%, the maximum acceptable rate impact from a Consumers' system expansion project will be greater than when Consumers' gas costs are <u>rising</u> by 10%.

2 (e) Under what circumstances, over what period of time, and to what level might contributions in aid of construction be collected from the primary beneficiaries of an expansion in order to enhance the financial feasibility of the expansion?

In general, the contributions-in-aid-of-construction should be set at a level that would ensure that the direct financial beneficiaries of a system expansion project reimburse the utility for the <u>full</u> incremental costs of the system expansion since:

i. rates that reflect cost-causality promote an efficient use of resources; and

ii. there is broad public support for rates that reflect cost-causality.

However, if a societally cost-effective system expansion project does not pass the

participant test, it may be in the public interest for the utility's ratepayers to subsidize the

project.

Please also see our response to question 1 (c).

The time period for collecting the contributions-in-aid-of-construction should not exceed

the expected economic life of the system expansion. Subject to this constraint, the time

period should be subject to the discretion of the utility.

2 (f) Should a variety of methods be available for collecting contributions in aid of construction (e.g., one-time charge, monthly contributions, etc.)? Under what circumstances should a particular method be chosen?

Yes. In general, any method for collecting the contributions which is fair and will promote an efficient use of resources should be acceptable.

3 (a) How should natural gas demand-side management initiatives be considered when determining the need for, timing and scale of, natural gas system expansion projects?

Storage, transmission and distribution reinforcement projects to meet the needs

of the in-franchise customers of utilities regulated by the OEB should only be undertaken

if natural gas DSM (conservation, efficiency and end-use fuel switching) programmes cannot meet all of the customers' incremental energy service needs at a lower societal cost.

If a reinforcement of the natural gas system is required, its size and timing should be consistent, to the maximum extent possible, with the objective of meeting the customers' energy service needs by the least cost mix of supply-side and DSM expenditures.

3 (b) Should the tests and financial thresholds for expenditures on natural gas system expansions be consistent with those for natural gas demand-side management expenditures? If not, what differences are appropriate?

In general, the tests for natural gas system expansion projects should be consistent with those for natural gas DSM expenditures.

In particular, a utility should use the same internal and external avoided costs for

evaluating the cost-effectiveness of its supply-side and DSM programmes.<sup>2</sup>

Our proposed supply side feasibility tests differ from the O.E.B.'s E.B.O. 169-III DSM

tests in three important respects:

i. we are proposing that the construction and operating costs of all new storage, transmission and distribution projects should be required to pass the no net environmental loss test;

ii. we are <u>not</u> proposing that the OEB should use the societal cost test to screen all system expansion projects; and

iii. we are <u>not</u> proposing that the application of the RIM test for system expansion projects should always be similar to its application for DSM projects.

<sup>2</sup>. At the present, the internal avoided costs that are used to evaluate the utilities' system expansion projects are different from the internal avoided costs that are used to evaluate their DSM programmes.

# 4. In the route selection process, how should trade-offs among financial feasibility, societal and environmental impacts, and customer additions in a project be identified and evaluated?

If the no net environmental loss test is accepted by the OEB, the net stock of local

environmental assets will not be depleted in order to increase customer additions, financial

feasibility or province-wide societal benefits.

## 5 (a) How should natural gas system expansions be monitored and reported to the Board?

According to the OEB's Environmental Guidelines For Locating, Constructing and

Operating Hydrocarbon Pipelines In Ontario, (1989):

"A "Final Monitoring Report" is usually required prior to November 1 following the first complete growing season after construction." [p. 28]

In some cases, a longer environmental impacts monitoring period may be necessary

in order to ensure that the construction and operation of a natural gas facility will not result

in a net loss of local environmental assets.

## 5 (b) What monitoring and reporting should there be at the project level, portfolio level and on a cumulative basis?

No testimony at this time.

## 5 (c) How should under- and over-collections of contributions in aid of construction be treated?

In its E.B.R.O. 486 <u>Decision</u> with respect to rates for Union Gas (July 1995) the Board found that under-collections of contributions-in-aid-of-construction should be charged to the account of Union's shareholder and that Union would not be permitted to over-collect customer contributions:

"In keeping with established regulatory principles, shareholders should remain responsible for forecasts. Therefore, any shortfalls in the market contribution

collections remaining at the end of the forecast timeframe for the project shall be to the account of the shareholders. Should the amounts for a project forecast to be recovered through the monthly market contribution charge be realized before the forecast timeframe, the Board directs the Company to cease collection of the monthly charge at that time. In this way, there will be no over-collection of contributions from customers based on inaccurate forecasts."

[E.B.R.O. 486, Decision With Reasons, para. 7.4.27]

The above finding of the OEB is in the public interest for the following reasons.

First, it creates a financial incentive for the utility to develop accurate forecasts. In the absence of the above-noted policy, it might be in a utility's self-interest to over-estimate its customer attachment and volume forecasts in order to gain OEB-approval for a system expansion project.

Second, it is fair since it provides a utility with the opportunity to increase its earnings per share. Under rate base regulation, everything else being equal, a rise in a utility's rate base will lead to a rise in its earnings per share. [Paul H. Jeynes, <u>Profitability and Economic Choice</u>, (Ames Iowa, Iowa University Press; 1968), Chapter 2] Therefore, if a system expansion project's actual customer attachments and volumes are greater than or equal to its forecast, the utility's earnings per share will rise.

## 6. What should be the definitions of transmission, distribution, storage, infill, replacement and reinforcement?

No testimony at this time.

7 (a) What guidelines should result from the Board's deliberations in this matter?

The Board should issue a report similar to its E.B.O. 169-III Report.

7 (b) How should these guidelines be applied to expenditures on transmission, distribution, storage, infill, replacement and reinforcement?

Please see our response to question 1 (c).