

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

AND IN THE MATTER OF an Application by Union Gas Limited for an Order or Orders approving the clearance and disposition of certain deferral and variance accounts.

**SUPPLEMENTARY INTERROGATORIES
(DIAMOND REPORT, Ex. B/1/N, redacted)**

OF THE

SCHOOL ENERGY COALITION

1. [Ex. B/1/N] For each of the projects reviewed by Diamond Engineering, please advise what other projects that same customer did in 2014. If those other projects were also reviewed, please provide the project number. If those other projects have not been reviewed, please provide, for each such project for that customer:
 - a. Project number
 - b. Nature of project
 - c. In-service date of project
 - d. Claimed and Audited Net CCM
 - e. Project cost
 - f. Incentive paid
 - g. Simple payback
2. [Ex. B/1/N] For each of the projects included in this Exhibit, please reconcile the figure in Element #26 (CPSV firm ccm. recommendation) with the figure for the same project in C.SEC.1, Attachment 1.
3. [Ex. B/1/N] For each of the projects included in this Exhibit, please provide a table, in the same format as the CPSV firm's "Calculated Gas Savings from Union Gas Project" table (for example, table 649.3) setting out the calculation of the claimed amount.
4. [Ex. B/1/N] For projects 0649, 0670, and 0487,
 - a. Please confirm that assuming a 20 year life implies that, in the baseline, the steam leaks would have been left unrepaired for the next 20 years. Please justify that assumption.
 - b. Please provide any analysis done to assess whether these projects, or any of them, should be treated as advancements.

- c. Please provide evidence that these customers do not in fact repair steam leaks without addressing the root cause of the leaks. Please advise whether the CPSV firm verified the root cause of each of the leaks.
- 5. [Ex. B/1/N] For Project 0649,
 - a. Please advise why a 20% safety factor was not applied, when that factor was applied to all of the other steam-related projects.
 - b. Please explain why a project with a one-month simple payback and a cost of less than \$16,000 required Union Gas incentives or assistance.
- 6. [Ex. B/1/N] For Project 0670:
 - a. Please justify the use of a 20% safety factor, as opposed to some greater or lesser level.
 - b. Please confirm that the customer has a written protocol to repair steam leaks on a regular, year-round basis. Please provide the rationale for assuming that money or other assistance from Union Gas was a necessary cause of these steam leak repairs.
 - c. Please confirm that the CPSV firm did not independently verify the savings from the 9 condensate leaks or the 3 replaced steam traps referred to on page 17.
 - d. Please explain why the traps were assigned a life of 7 years, rather than a lesser amount representing the advancement of their replacement that would otherwise have occurred.
- 7. [Ex. B/1/N] For Project 0487:
 - a. Please justify the use of a 20% safety factor, as opposed to some greater or lesser level.
 - b. Please confirm that the customer has a written protocol to repair steam leaks on a regular, year-round basis. Please provide the rationale for assuming that money or other assistance from Union Gas was a necessary cause of these steam leak repairs.
- 8. [Ex. B/1/N] For projects 0664, 0356, 0522 and 0543,
 - a. Please confirm that assuming a 7 year life implies that, in the baseline, the steam traps would have been left unrepaired and unreplaced for the next 7 years. Please justify that assumption.
 - b. Please provide any analysis done to assess whether these projects, or any of them, should be treated as advancements.

9. [Ex. B/1/N] For Project 0664:
- a. Please justify the use of a 20% safety factor, as opposed to some greater or lesser level.
 - b. Please explain why a project with a two-month simple payback and a cost of \$8,000 required Union Gas incentives or assistance.
 - c. Please confirm that the customer has a written protocol to repair steam traps on a regular, year-round basis. Please provide the rationale for assuming that money or other assistance from Union Gas was a necessary cause of these steam trap repairs or replacements.
10. [Ex. B/1/N] For Project 0356:
- a. Please justify the use of a 20% safety factor, as opposed to some greater or lesser level.
 - b. Please explain why a project with a three-month simple payback and a cost of \$25,000 required Union Gas incentives or assistance.
 - c. Please confirm that the customer has a written protocol to repair steam traps on a regular, year-round basis. Please provide the rationale for assuming that money or other assistance from Union Gas was a necessary cause of these steam trap repairs or replacements.
 - d. Please explain the low per-trap replacement cost in this project as compared to the other projects in which steam traps were replaced.
11. [Ex. B/1/N] For Project 0522:
- a. Please justify the use of a 20% safety factor, as opposed to some greater or lesser level.
 - b. Please confirm that the customer has a written protocol to repair steam traps on a regular, year-round basis. Please provide the rationale for assuming that money or other assistance from Union Gas was a necessary cause of these steam trap repairs or replacements.
 - c. Please provide the calculation of the 9 month simple payback for this project in C.SEC.1.
 - d. Please expand on the implications of ignoring the “excessive” number of blowing traps as described on page 54.
12. [Ex. B/1/N] For Project 0675,

- a. Please confirm that assuming a 20 year life implies that, in the baseline, the steam injector would have been left unrepaired for the next 20 years. Please justify that assumption.
 - b. Please explain why a project with a two-month simple payback and a cost of \$16,000 required Union Gas incentives or assistance.
13. [Ex. B/1/N] For Project 0612:
- a. Please explain why a project with a two-month simple payback required Union Gas incentives or assistance.
 - b. Please confirm that the inclusion in the Applicant's results of the audited ccm for this project increases the claimed shareholders' incentive by more than \$150,000.
 - c. Please confirm that assuming a 20 year life implies that, in the baseline, the re-routing of the condensate would not have been implemented any time in the next 20 years. Please justify that assumption. Please provide more details of the phrase, on page 79, "The useful life of the project was discussed".
14. [Ex. B/1/N] For Project 0622:
- a. Please explain why a project with a one-month simple payback required Union Gas incentives or assistance.
 - b. Please explain why a project in which "The customer replaced the failed components" would have a ten year life. Please confirm that assuming a 10 year life implies that, in the baseline, the failed components would not have been replaced any time in the next 10 years. Please justify that assumption.
15. [Ex. B/1/N] For Project 0287:
- a. Please explain the reference to an Economizer on page 108.
 - b. Please confirm that assuming a 20 year life implies that, in the baseline, the kiln insulation, which the CPSV firm says was "seriously damaged", would not have been replaced any time in the next 20 years. Please justify that assumption.
 - c. Please explain the 20% safety factor on page 109. Please describe the steps taken by the CPSV firm to verify this estimate.
16. [Ex. B/1/N] For Project 0543:
- a. Please explain why no safety factor was applied.

- b. Please explain why a project with a six-month simple payback required Union Gas incentives or assistance.
 - c. Please confirm that the customer has a written protocol to repair steam traps on a regular, year-round basis. Please provide the rationale for assuming that money or other assistance from Union Gas was a necessary cause of these steam trap repairs or replacements.
 - d. Please provide further detail on the change in fuel mix referred to on page 114 that resulted in the increase in estimated savings.
17. [Ex. B/1/N] For projects 0630, 0632, and 0667,
- a. Please confirm that assuming a 20 year life implies that, in the baseline, the pipe insulation would have been left unrepaired and unreplaced for the next 20 years. Please justify that assumption.
 - b. Please provide any analysis done to assess whether these projects, or any of them, should be treated as advancements.
 - c. Please explain why projects with a low cost, and a five month simple payback, required Union Gas incentives or assistance.
 - d. Please confirm that the inclusion in the Applicant's results of the audited ccm for these three projects increases the claimed shareholders' incentive by more than \$200,000.
 - e. Please justify the use of a 20% safety factor, as opposed to some greater or lesser level.
 - f. Please explain why the loss of efficiency assumed for the insulation in all three cases was 15%. Please confirm that the CPSV firm took no steps to verify this assumption.

Respectfully submitted on behalf of the School Energy Coalition this 2nd day of May, 2016

Jay Shepherd