**EB-2016-0296**

**Environmental Defence’s Interrogatories for Union Gas Limited (“Union”)**

1. **Reference: Ex. 3, pages 24-25**

Please provide the following information with respect to Union’s 2017 a) industrial; b) commercial & institutional; c) residential; and d) low-income DSM programs:

1. Forecast TRC Test benefit/cost ratios;
2. Forecast TRC Test net benefits;
3. Forecast TRC Test benefits;
4. Forecast TRC Test costs;
5. Forecast 2017 DSM savings (cubic metres);
6. Forecast lifetime DSM savings (cubic metres)
7. Forecast 2017 greenhouse gas emission reductions (tonnes);
8. Forecast lifetime greenhouse gas emission reductions (tonnes); and
9. Forecast 2017 program budgets.

When answering this interrogatory please exclude DSM programs and budgets that pertain to Large Final Emitters and “voluntary participants” in the cap and trade program who purchase their own emission allowances.

1. **Reference: Ex. 3, pages 24-25**

Please provide all studies prepared by or for Union with respect to the costs and benefits of increasing its 2017 DSM budget in order to achieve incremental greenhouse gas emission reductions.

1. **Reference: Ex. 3, pages 24-25**

Please provide your 2017 natural gas commodity charge per cubic metre.

1. **Reference: Ex. 3, pages 24-25**

Does Union plan to include incremental ratepayer funded customer abatement activities into its 2018 compliance plan? If yes, please provide an approximate range of the budget level for those activities that Union believes is worth considering. If no, please fully explain and justify that position.

1. **Reference: Ex. 3, pages 24-25**

Please make best efforts to provide the following estimated incremental DSM results based on the assumption that Union’s 2017 DSM budget was increased by 25%:

1. Forecast TRC Test benefit/cost ratio;
2. Forecast TRC Test net benefits;
3. Forecast TRC Test benefits;
4. Forecast TRC Test costs;
5. Forecast 2017 DSM savings (cubic metres);
6. Forecast lifetime DSM savings (cubic metres)
7. Forecast 2017 greenhouse gas emission reductions (tonnes);
8. Forecast lifetime greenhouse gas emission reductions (tonnes); and
9. Forecast 2017 program budgets.

Please assume that the incremental budget would be spent as efficiently as possible. If possible, please assume that the incremental budget would be spent only in relation to customers whose emissions Union is responsible for under cap and trade legislation. Please make and state any additional assumptions as necessary.

If it is necessary to assume a date on which Union would have begun preparation and planning for the use of the incremental spending, please provide a response for two scenarios (a) the date that the draft regulations under the *Climate Change Act* were released (February 25, 2016); and (b) the date that the Cap and Trade Framework was released (September 26, 2016).

1. **Reference: Ex. 3, pages 24-25**

Please make best efforts to provide the following estimated incremental DSM results based on the assumption that Union 2017 DSM budget was increased by 50%:

1. Forecast TRC Test benefit/cost ratio;
2. Forecast TRC Test net benefits;
3. Forecast TRC Test benefits;
4. Forecast TRC Test costs;
5. Forecast 2017 DSM savings (cubic metres);
6. Forecast lifetime DSM savings (cubic metres)
7. Forecast 2017 greenhouse gas emission reductions (tonnes);
8. Forecast lifetime greenhouse gas emission reductions (tonnes); and
9. Forecast 2017 program budgets.

Please assume that the incremental budget would be spent as efficiently as possible. If possible, please assume that the incremental budget would be spent only in relation to customers whose emissions Union is responsible for under cap and trade legislation. Please make and state any additional assumptions as necessary.

If it is necessary to assume a date on which Union would have begun preparation and planning for the use of the incremental spending, please provide a response for two scenarios (a) the date that the regulations under the *Climate Change Act* were issued (May 19, 2016); and (b) the date that the Cap and Trade Framework was issued (September 26, 2016).

1. **Reference: Ex. 3, pages 24-25**

Please consider a scenario where the Board directs Union to achieve as many tonnes of incremental greenhouse gas emissions reductions as possible via incremental cost-effective 2017 DSM spending, including through the expansion of budgets for existing programs. Based on that scenario, please estimate:

1. The forecast incremental 2017 greenhouse gas emission reductions (tonnes);
2. The forecast incremental lifetime greenhouse gas emission reductions (tonnes);
3. The estimated cost of purchasing carbon allowances or credits for the tonnes of emission indicated in response to parts (a) and (b) of this interrogatory.

Please assume that the direction is issued by the Board on May 1, 2017. Please state all other assumptions and provide all underlying calculations.

1. **Reference: Ex. 7, schedule 1**
2. What are Union’s total forecast cap and trade compliance costs for 2017?
3. What are Union’s forecast 2017 costs for purchasing of carbon allowances and credits?
4. How many tonnes of emissions does Union forecast it will be responsible for in 2017?
5. What is Union’s forecast average 2017 cost per tonne for the purchasing of carbon allowances and credits?