EPCOR Responses to Public Interrogatories from Board Staff

Issue 1 – Cost Consequences

Staff IR EPCOR PUBLIC # 1
Topic: Administrative Costs

Ref: Exhibit 3 / pp. 22

Preamble:
EPCOR Natural Gas indicates that its 2018 administrative costs are $157,000, made up of consulting services ($76,500), legal services ($12,000), auditing services ($7,000), software development ($23,000), incremental admin staff ($28,000), travel ($2,000) and communications and marketing ($2,500).

Further, EPCOR Natural Gas states that it expects administrative costs to increase in 2018 for work required to develop software reports.

Questions and Responses:

a) ***Please explain what EPCOR Natural Gas means when it states that it expects administrative costs to increase in 2018 (e.g., does EPCOR Natural Gas expect the costs to increase from the 2018 estimated costs of $157,000?).***

Based on the 2017 Compliance plan estimates, $157,000/year is an increase from the previous estimate of $100,000 provided in the 2017 Compliance Plan. There is an expectation that this cost will decrease when considering that the development of software and custom reports is expected to be a one-time expense. We also expect that travel and consulting services will be reduced in future compliance periods.

One example of an unexpected cost is the requirement to provide financial guarantees to participate in each auction. The first Letter of credit was arranged at a cost of $1200. These bank charges in addition to clearing fees were not considered in the original administration cost provided in the 2017 Plan.

b) Please explain the cost of $23,000 for software development.

The billing software procured by Natural Resource Gas Limited (NRG), the former owner of EPCOR's natural gas distribution assets, prior to the introduction of Ontario's Cap and Trade program requires significant customization to allow for proper and adequate reporting of revenue collected and deferred. As the revenues collected are included in delivery rates, the software required customization and testing to report cap and trade specific revenues collected by each rate class.

Tools and reports also must be created to measure current and future abatement activities by rate class.

c) ***Please explain the cost of $28,000 for incremental administrative staff (e.g., the number of FTEs, the scope of work, etc.)***

The administrative team in EPCOR's Aylmer office is comprised of 7 FTEs. Each staff member on the team has additional duties. These duties include: liaising with software providers to develop customised reports and functions; Regulatory reporting and compliance plan writing; monitoring; liaising with contractors (Blackstone); exploring and analysing abatement opportunities with third parties; Liaising with legal support (Osler and EPCOR counsel); finance analysis; funding and borrowing analysis; Marketing and communication; participation in regulatory hearing processes; and contract analysis.

In addition to the above tasks, there is more work responding to inquiries related to Cap and Trade charges appearing on their monthly bills, monthly reporting and additional work within our collections department. The additional $28,000/year represent a conservative estimate of 0.5 of an FTE inclusive of benefits.

d) ***Is Blackstone Energy Services Inc. under a one-year contract? Please explain.***

Blackstone is under a two year agreement. That is the period that EPCOR defined as critical to develop a full understanding of the Cap and Trade program, establish secondary market contacts and adapt to regulatory and Cap and Trade program changes. Among other tasks, Blackstone assists by providing full market analysis, partial oversight and the development of procurement strategy.

e) ***Please discuss if EPCOR Natural Gas considered the need and appropriateness of increasing its bad debt amount in relation to the impact of the cap and trade program.***

EPCOR has been closely monitoring its late payment and bad debt figures. EPCOR is currently not increasing its bad debt significantly. However, it is increasing at a rate that is typically tied to a colder-than-usual winter. EPCOR will continue to monitor this but for this compliance period, EPCOR does not expect to seek greater recovery.

Issue 1.1 – Are the 2018 volume forecasts reasonable and appropriate?

Staff IR EPCOR PUBLIC # 2

Topic: Volume Forecasts

Ref: Exhibit 2 / p. 8

Preamble:
EPCOR Natural Gas states that it has been exempt from offering DSM programs to its customers.

Questions and Responses:

a) ***Please indicate where the OEB has exempted EPCOR Natural Gas from undertaking DSM activities.***

As the OEB is aware, the OEB granted leave for EPCOR to purchase all of Natural Resource Gas Limited's (NRG) natural gas distribution assets, along with NRG's associated orders and approvals, in October 2017. EPCOR understands from NRG that, approximately ten to fifteen years ago, the OEB requested that NRG attempt to offer a DSM program for its customers, and that NRG retained Enbridge to administer a pilot DSM program that ultimately received little-to-no customer uptake. EPCOR understands that NRG advised the OEB that the pilot DSM program would not be continued, and the OEB agreed with this approach.

The primary reason why the OEB has not required NRG, and now EPCOR, to have a DSM program is that 75% of EPCOR's current residential customers have been added since 2002. Between 2001 and 2005 mid-efficiency heating equipment was being phased out. The vast majority of equipment sold in EPCOR's system since 2002 was high efficiency heating equipment. From 2005-2010, the remaining mid-efficiency or single category 1 appliances were replaced because of breakdown or as a result of OPA and NR Can rebate programs.

b) ***OEB staff notes that in the OEB's Report of the Board, 2015-2020 DSM Framework[1], the OEB encourages Natural Resource Gas Ltd (NRG)/ EPCOR Natural Gas to prepare and file a DSM plan with the OEB. Please explain whether EPCOR Natural Gas has considered any DSM or abatement opportunities for its customers.***

As discussed above, previous efforts at a DSM program were not continued due to low uptake and due to the technical reasons raised above. Further, EPCOR only recently concluded its transaction with NRG. Consequently, very limited consideration has been given to a DSM plan at this time.

[1] EB-2014-0134, p. 18

c) ***Has EPCOR Natural Gas considered any of the abatement opportunities outlined in the OEB's Marginal Abatement Cost Curve[2] (OEB MACC)? Please explain.***

EPCOR was not in the position to consider abatement opportunities outlined in the OEB MACC at the time developing its 2018 Compliance Plan. Between the release of the OEB's MACC and the submission of the 2018 Compliance Plan, a focus was on ownership change and successful transition while making sure both entities (EPCOR and NRG) kept in compliance with the various regulatory and administrative requirements associated with Cap and Trade.

d) ***Has EPCOR Natural Gas initiated any studies/analysis regarding potential facility-related abatement opportunities? Please explain.***

No.

i. ***If yes, please file this material with the OEB.***
ii. ***If no, please explain why not.***

EPCOR has no compressors and operates from a modestly-sized office that was built within the past 12 years. Therefore no abatement opportunities will benefit its ratepayers.

[2] EB-2016-0359

Issue 1.2 – Are the 2018 GHG emissions forecasts reasonable and appropriate?

Staff IR EPCOR PUBLIC # 3

Topic: GHG Emissions Forecasts

Ref: Exhibit 2 / pp. 10 and 11, Tables 4, 5, 6 and 7

Preamble:
In Table 6, EPCOR Natural Gas estimates that its 2018 total GHG emissions forecasts is 58,531 t CO_2e.

In Table 7, EPCOR Natural Gas estimates that its 2018 total GHG emissions forecasts are:

Customer- related GHG Emissions (t CO_2e)	Facility-Related GHG Emissions (t CO_2e)	Total GHG Emissions (t CO_2e)
56,918	1,624	58,542

Questions and Responses:

a) ***Please explain which is EPCOR Natural Gas' GHG emissions forecasts for 2018: 58, 531 t CO_2e or 58,542 t CO_2e. Please update all necessary tables and file the updates with the OEB.***

EPCOR Natural Gas' 2018 GHG emissions forecast is 58,531 t CO_2e. 58,542 was obtained by multiplying the 2018 Customer-related and Facility-related Volume (in m^3) by the emission factor of 0.001915 t CO_2e per m^3. The emission factor should be 0.00191463 t CO_2e per m^3, which would give the GHG Emissions shown on Table 7. Please see Schedule "A" for the updated Table 7, 13, and 16.

b) ***Please explain in detail how EPCOR Natural Gas calculated its emission factor of 0.001915 t CO_2e per m^3 in Table 7. Please provide all supporting documentation.***

Please note that EPCOR has updated its emissions factor to 0.00191463 t CO_2e per m^3. The previous emissions factor of 0.001915 t CO_2e per m3 in Table 7 was rounded to 6 decimal places. The new emission factors have been rounded to 8 decimal places. The emission factors have been calculated from the following method:

$$\text{(2018 total GHG emissions forecasts in t } CO_2\text{e)}$$
$$\div$$
$$\text{[(2018 Customer-related Volume in } m^3\text{) + (2018 Facility-related Volume in } m^3\text{)]}$$
$$=$$
$$58{,}531 \text{ t } CO_2\text{e} \div [29{,}722{,}107.9 \text{ } m^3 + 848{,}095.9 \text{ } m^3]$$

The result of the formula above is then rounded to 8 decimal places.

Issue 1.9 – Are the gas utility's proposed longer term investments reasonable and appropriate?

Issue 1.10 – Are the gas utility's proposed new business activities reasonable and appropriate?

Staff IR EPCOR PUBLIC # 4

Topic: New Business Activities

Ref: Exhibit 3 / pp. 27

Preamble:
EPCOR Natural Gas states that it will be putting additional resources into advancing biofuels programs in the Ontario market. EPCOR Natural Gas also states that it has significant, proven experience and success in renewables.

Questions and Responses:

a) ***Please explain EPCOR Natural Gas' experience and success in renewables.***

EPCOR Utilities Inc. (EUI), through various wholly-owned subsidiaries, is currently developing biofuels projects in Alberta and has experience in procuring EcoLogo certified RECs to meet the requirements of its customers.

EUI's wastewater business produces biogas at the Gold Bar Wastewater Treatment Plant as a by-product of the anaerobic digestion process. Currently, roughly 35% of this biogas is burned in boilers for process and building heat, while the remainder is flared. The Gold Bar Biogas Power Generation Project will install biogas conditioning and reciprocating engines to produce green electricity in a combined heat and power (CHP) configuration. Depending on the option pursued, the power will be sold to the Alberta Power Pool, or used onsite, with an opportunity for the waste heat being captured to supply heat to Gold Bar. The project is currently in the development phase and EUI is working to finalize the design and business approach. The project is in keeping with commitments made to the City of Edmonton as EUI's water and wastewater regulator within Edmonton, to pursue initiatives to offset the impacts of climate change and/or which have a demonstrable positive environmental impact.

EUI's water business is in the process of finalizing its Facility Application to the Alberta Utilities Commission to build and operate a 12 MW solar generation facility at the EL Smith Water Treatment Plant in southwest Edmonton. If approved, the solar farm will generate locally produced renewable energy to help power the water treatment plant with any excess sold to the grid. The project will allow EUI's regulated water business in the City of Edmonton to meet its commitment to convert at least 10% of its power consumption to renewable sources, a commitment made in the most recent water performance-based rates application. EUI has significant experience and expertise transacting in Alberta's Power Pool through its energy services business which procures electricity for its Regulated Rate Option and default supply customers in Alberta and under competitive contracts through its Encor brand. These businesses procure and sell electricity and EcoLogo certified RECs to match customer requirements through a combination of fixed price contracts and spot purchases. EUI has a deep understanding of the underlying commodity risk associated with the sale of electricity and uses portfolio management techniques to ensure that exposure to market changes is managed and mitigated.

b) Please discuss in detail the biogas and landfill gas projects that EPCOR Natural Gas is considering.

As the OEB is aware, EPCOR only recently concluded its transaction with NRG to acquire all of NRG's natural gas distribution assets. At this time, EPCOR is considering and evaluating both local and regional projects but is only in the exploratory stages.

c) Please discuss the status of EPCOR Natural Gas' biogas and landfill gas projects.

Please see the response to question (b), above.

d) Does EPCOR Natural Gas plan to be an offset project developer and/or offset supplier?

i. ***If yes, please confirm that the laws and regulations governing cap and trade and offset credits in Ontario would allow a capped participant such as of EPCOR Natural Gas to undertake this business activity. Please explain whether of EPCOR Natural Gas would undertake this business activity through an affiliate or as a regulated utility.***

At the time of writing the plan, EPCOR did not have plans to be an offset project developer and/or offset supplier. The ownership change from NRG to EPCOR was ongoing at the time of writing of the 2018 compliance plan. Prior to EPCOR's purchase, NRG did not have the resources to develop or sponsor an offset project.

ii. ***Is EPCOR Natural Gas in partnership with other parties to invest in these projects? Please explain.***

No partnerships have been made or entered into.

e) Please provide any analysis, including underlying assumptions that EPCOR Natural Gas has done, with respect to the cost-effectiveness of biogas and landfill gas projects versus other abatement options.

i. ***Did EPCOR Natural Gas use the OEB MACC for this analysis? Please explain.***

EPCOR has not completed this analysis. Our focus has been on transition while ensuring that EPCOR remained in compliance with the plan inherited from NRG.

f) Please discuss in detail the potential costs and resources (e.g., FTEs, IT systems, etc.) that EPCOR Natural Gas would require to invest in these projects.

Please see the response to question (e), above.

Issue 3 – Customer Outreach

Staff IR EPCOR PUBLIC # 5

Topic: Customer Outreach

Ref: Exhibit 5 / pp. 31-32

Preamble:
EPCOR Natural Gas describes its customer outreach activities and has indicated that it has undertaken a number of activities to ensure customers are informed about the cap and trade program and its impacts.

EPCOR Natural Gas also states that in 2018, it will focus on education surrounding household and small commercial load reduction abatement.

Questions and Responses:

a) Please discuss EPCOR Natural Gas' experience to-date related to the communication material distributed to its customers. In your response, please discuss how the information has generally been received by customers and the volume of inquiries/comments submitted to EPCOR Natural Gas' call centre.

The information put forth to customers through medium other than bills (i.e., newspaper and website) is being accepted by the customers with very little direct feedback to management, communications and marketing.

Call volumes have increased by 5-10% but it is difficult to track if the calls were specifically initiated by the Cap and Trade costs or higher bills related to a colder heating season. The durations of the calls have increased and EPCOR is looking to measure these statistics in the near future.

b) Is EPCOR Natural Gas considering any changes to its communication strategy based on feedback and customer response based on the early response to the cap and trade program? Please explain.

EPCOR is working with its marketing team to develop new language around residential abatement opportunities; essentially tying those opportunities to Cap and Trade revenues. The Home Reno Rebate program is one area where EPCOR expects to make changes in its frequency and style of promotion.

c) What tools has EPCOR Natural Gas developed to help customers quantify cap and trade costs? Is EPCOR Natural Gas developing any additional tools (i.e., bill calculators, etc.)?

CSRs have scripts on how to direct customers to the website to use the bill calculator on EPCOR's website. There are currently no other tools in development.

d) Given that EPCOR Natural Gas has not implemented any DSM and/or abatement programs, please explain how it will educate customers on load reduction abatement opportunities.

EPCOR has residential abatement programs outlined for residential rate classes. This is in the form of the Home Reno Rebate program. EPCOR is considering ways to educate small commercial and industrial customers in the areas of building envelope improvement and heating equipment replacement recommendations. This abatement information can be delivered through our regular servicing intervals by EPCOR's technicians.

Issue 5 – Cost Recovery

Staff IR EPCOR PUBLIC # 6

Topic: Cost Recovery

Ref: Exhibit 7 / pp. 34 and 35 and Exhibit 3 / p. 26, Table 13

Preamble:
EPCOR Natural Gas describes it cap and trade related charges and outlines these charges in Table 16. EPCOR Natural Gas also states that its administrative rates in 2018 for all rate classes, including one LFE customer, will be kept at 0.1560 cents per cubic metre. Further, EPCOR Natural Gas, in Table 13, outlines its scenario analysis and associated costs.

Questions and Responses:

a) ***Please confirm that the 2018 administrative rate of 0.1560 ¢/m^3 is not included in the charges outlined in Table 16.***
   i. ***If these charges are included in Table 16, please update the table with the 2018 administrative rate removed.***

EPCOR can confirm that the 2018 administrative rate of 0.1560 ¢/m^3 is not included in the charges outlined in Table 16.

b) ***Please explain the difference in the 2018 administrative rate of 0.23588 ¢/m^3 as outlined in Table 13 and the 2018 administrative rate of 0.1560 ¢/m^3.***

In 2017, EPCOR contracted Blackstone to advise on the carbon market intelligence and assist in developing internal process and expertise as well as provide CITSS account management and general procurement strategies. This is at a cost of $76,500 CAD. EPCOR included $12,000 CAD per year for legal services and $7,000 CAD per year for potential auditing costs. Communication has been reduced to $2,500 CAD per year with some marketing collateral being provided by the green investment fund. EPCOR expects administrative cost to increase in 2018. The cost drivers are primarily related to work required to develop custom software reports. Accounting, collections, management and billing have new, routine tasks that are measurable. Banking and finance fees were also incurred to provide security and in some cases finance the procurement of allowances prior to receiving the revenue related to the specific volumetric charges.

It is expected that in 2018, EPCOR will find reductions in legal and software development costs. These savings will not be realized fully prior to 2019.

The higher administrative cost expected in 2018 was divided by a total forecasted 2018 volume, the latter of which remained relatively similar to the volume estimated for 2017. While the methodology was the same, the higher administrative cost spread over a similar expected volume lead to the higher administrative rate in 2018.

c) ***Please confirm that pursuant to the OEB's Decision and Order in the 2017 cap and trade Compliance Plans[3] that administrative costs are to be captured in the GGEIDA.***

EPCOR can confirm that administrative costs have been captured pursuant to the Decision and Order.

[3] EB-2016-0296/0300/0330

Schedule “A”: Updated Tables

Table 7 – Forecasted Customer-related and Facility-related Annual Emission for 2018

		Annual Customer-related Volume and Emission	Annual Facility-related Volume and Emission
Forecasted 2018 Volume	A	29,722,107.9 m^3	848,095.9 m^3
Emission Factor	B	0.00191463 t CO_2e per m^3	
Forecasted Emission	**C = A x B**	**56,907 t CO_2e**	**1,624 t CO_2e**

Table 13 – Cost Pass-through calculations for medium, high, and low risk scenarios as it pertains to EPCOR’s Cap and Trade compliance plan

		MEDIUM RISK	HIGH RISK	LOW RISK
2018 Total Volume (m3)	A	66,579,638.2	73,237,602.0	59,921,674.4
Customer-related Volume (m3)	B	29,722,107.9	26,665,087.5	32,779,128.2
Facility-related Volume (m3)	C	848,095.9	848,095.9	848,095.9
		-	-	-
Emission Value (t CO2e per m3)	D	0.001915	0.001915	0.001915
Customer-related Emission (t CO2e)	E = B x D	56,907	51,054	62,760
Facility-related Volume Emission (t CO2e)	F = C x D	1,624	1,624	1,624
Forecasted Price of Allowance (USD)	G	$15.46	$17.01	$13.91
Forecasted Foreign Exchange Rate (CAD per USD)	H	1.2290	1.3743	1.2128
Forecasted Price of Allowance (CAD)	I = G x H	$19.00	$23.37	$16.87
Customer-related Carbon Cost (CAD)	J = E X I	$1,081,229.95	$1,193,158.71	$1,059,034.40
Facility-related Carbon Cost (CAD)	M = F x I	$30,852.01	$37,948.99	$27,400.45
Customer-related charge (cents per m3)	**N = (J ÷ B) x 100**	**3.63780**	**4.47461**	**3.23082**
Facility related charge (cents per m3)	**O = (M ÷ A) x 100**	**0.04634**	**0.05182**	**0.04573**
Customer + facility related charge (cents per m3)	**P = N + O**	**3.68414**	**4.52643**	**3.27655**
			-	-
Administrative Cost (CAD)	Q	$157,050.00	$157,050.00	$157,050.00
Administrative Charge (cents per m3)	**R = (Q ÷ A) x 100**	**0.23588**	**0.26209**	**0.21444**

Table 16 - Interim Cap and Trade related charges Non-Large Final Emitters and Large Final Emitters in all rate classes for 2018

Rate Class	Non-Large Final Emitter (¢/m3)	Large Final Emitter (¢/m3)
RATE 1	3.68414	0.0463
RATE 2	3.68414	0.0463
RATE 3	3.68414	0.0463
RATE 4	3.68414	0.0463
RATE 5	3.68414	0.0463
RATE 6	3.68414	0.0463