**Exhibit S4.EPCOR.Board Staff.1**
**Reference:** **Evidence of Adonis Yatchew for Epcor Utilities Inc., Page 1, Para. 3**

At paragraph 3 the evidence states:

> In addition to these benefits, the Province has recognized the increasing divergence of energy costs between areas that enjoy natural gas service and those that do not, the latter usually being in rural areas where incomes are often lower.

**Request:**

(a) To date EPCOR Utilities Inc. (EPCOR) has shown interest in serving Kincardine and surrounding areas with natural gas. To the best of EPCOR's knowledge, does the Kincardine area have lower incomes than the Ontario average?

(b) Does EPCOR have any specific information regarding income in the communities that Union has proposed to serve? Are incomes in these areas below the Ontario average?

**Response:**

(a) I am advised by EPCOR that it has not conducted an analysis of incomes in the communities where it has sought franchises. Their engagements occurred in response to 'Requests for Information' issued by the Municipalities.

(b) I am advised by EPCOR that it has not assembled any specific information regarding income in the communities that Union has proposed to serve.

**Exhibit S4.EPCOR.Board Staff.2**

**Reference:** **Evidence of Adonis Yatchew for Epcor Utilities Inc., Page 3 and 4, Paras. 7-10**

Dr. Yatchew's evidence discusses various communications from the Ontario Government that speak favourably of natural gas expansion.

**Request:**

(a) Is Dr. Yatchew aware of any statements from the Ontario Government that specifically reference a cross subsidy from existing customers to new customers that will be served by gas expansion?

(b) Is Dr. Yatchew aware of any statement from the Ontario Government that specifically references a subsidy (in any form) from the customers of one utility to the customers of a different utility?

**Response:**

(a) I am not aware of any explicit reference to, or use of, the term "cross-subsidy" in statements made by the Ontario Government. However, documents and policy pronouncements suggest that the Government supports broader sharing of natural gas expansion costs.

First, the $200 million Natural Gas Access Loan and $30 million Natural Gas Economic Development Grant represents a transfer from Ontario tax payers to natural gas consumers in expansion areas.

Second, it is reasonable to assume that most expansions which are profitable on a 'stand-alone' basis will generally occur spontaneously. Thus, the Minister of Energy's February 17, 2015 letter requesting that the Board examine options for facilitating access to natural gas services would seem to imply a degree of cost relief in new service areas through other mechanisms.

(b) See the response to (a) above.

**Exhibit S4.EPCOR.Board Staff.3**

**Reference:** **Evidence of Adonis Yatchew for Epcor Utilities Inc., Page 5, Para. 12**

Dr. Yatchew describes the lower carbon emissions that would result from a switch from heating with either propane or oil to heating with natural gas.

**Request:**

Does Dr. Yatchew agree that in Ontario carbon emissions from heating with natural gas would be higher than carbon emissions from heating with electricity? Is it possible to roughly quantify the difference in annual carbon emissions for a typical residential user as between heating with natural gas and heating with electricity?

**Response:**

Electricity that is generated from non-carbon sources (such as nuclear, hydraulic, wind and solar) has a minimal carbon footprint in any end-use, including home heating. However, if the electricity is generated using natural gas, its carbon footprint will be considerably higher than that of say a domestic gas furnace because of conversion and transmission losses: first the chemical energy stored in the hydrocarbon is converted to electricity, second there are transmission and distribution losses, and finally the electrical energy is converted to heat.[1] The carbon footprint of heating for an hour with natural gas generated electricity may be 2-4 times higher than the carbon footprint of heating for an hour using a natural gas boiler.

Ontario generates a relatively small proportion of its total electricity supply from natural gas sources. Calculation of relative carbon footprints requires knowledge of the number of hours

[1] The energy conversion losses are a consequence of the second law of thermodynamics, one implication of which is that whenever energy is transformed from one form to another, some of it is lost. Natural gas heating is very efficient because the energy that is being produced from combustion, i.e., heat, is exactly the form of energy that is required.

during which domestic natural gas heating displaces non-carbon electricity (such as hydro, nuclear or wind) and the number of hours it displaces natural gas generation.

**Exhibit S4.EPCOR.Board Staff.4**

**Reference:** **Evidence of Adonis Yatchew for Epcor Utilities Inc., Page 7, Para. 17(d)**

The evidence at para. 17(d) states:

> New entrants may bring alternative business models which take advantage of, for example, economies of scope, by providing multiple services. These can bring savings to customers through the sharing of billing service costs and common overheads. The provision of multiple services by a single entity can also provide added convenience to customers. There is significant statistical evidence that multi-utilities can produce significant cost savings.

**Request:**

Does EPCOR plan to offer services (for example, water) other than natural gas distribution in Ontario?

Given the restrictions on business activities contained in Union Gas Limited (Union) and Enbridge Gas Distribution's (Enbridge) Undertakings to the Lieutenant Governor in Council, in EPCOR's view would Union and Enbridge be able to offer other services to customers? Does EPCOR anticipate that it might become subject to similar restrictions?

**Response:**

I am advised by EPCOR that it is considering offering other services and that it has raised these issues in its discussions with municipalities. EPCOR provides multiple utility products in other jurisdictions.

There exist entities in Ontario offering multiple services (e.g., Utilities Kingston and Kitchener Utilities). On this basis, it is reasonable to anticipate that similar opportunities to attain improved efficiencies through economies of scope would be made available to EPCOR.

**Exhibit S4.EPCOR.Board Staff.5**

**Reference:** **Evidence of Adonis Yatchew for Epcor Utilities Inc., Page 8, Para. 17(f)**

> Some enterprises applying for a franchise may choose to use their own funds to cover a portion of capital costs without the expectation that these contributions would be repaid by ratepayers. This will bring benefits to customers through lower rates, and to shareholders to the extent that a valuable asset with market value will be created.

**Request:**

Does EPCOR plan to use its own funds to cover a portion of the capital costs of expansion into Ontario, without these contributions being repaid by ratepayers? If so, please provide details.

**Response:**

I am advised by EPCOR that in its efforts to arrive at arrangements that benefit all parties it is considering all options, including the one indicated above.

**Exhibit S4.EPCOR.Board Staff.6**

**Reference:** **Evidence of Adonis Yatchew for Epcor Utilities Inc., Pages 8-9, Paras 19 and 22.**

Dr. Yatchew's evidence points to examples from the United States where new entrants were able to facilitate natural gas expansion by financing the expansions with a rate of return below industry standards, or with no rate of return at all.

**Request:**

Does EPCOR propose to seek a rate of return below the Ontario Energy Board (OEB) approved rate of return for any of its planned expansion into Ontario? If so, please provide details.

**Response:**

I am advised by EPCOR that in its efforts to arrive at arrangements that benefit all parties it is considering all options, including the one indicated above.

**Exhibit S4.EPCOR.Board Staff.7**

**Reference:** **Evidence of Adonis Yatchew for Epcor Utilities Inc., Pages 9-10, Para. 22**

Dr. Yatchew's evidence discusses the business strategy of Summit Natural Gas of Maine:

> It has offered innovative approaches to pricing including accepting a rate of return that is below industry standards for the initial years of the tariff plan, offering pricing structures that include up-front financial incentives to help defray the costs of converting to natural gas and offering 'on-bill' loans to help bridge the gap between up-front costs of conversion and eventual savings from switching to a cheaper fuel source.

**Request:**

(a) Does EPCOR support the use of these types of tools to promote natural gas expansion? Does EPCOR intend to propose similar tools with respect to its planned expansion into Ontario?

(b) Did the customers of Summit Natural Gas that were served by expansion receive any direct subsidy from existing customers of Summit Natural Gas? Did they receive any direct subsidy from the customers of other natural gas providers in Maine?

**Response:**

(a) In an environment where competitive forces are at play, inventive financial arrangements, tariff designs and operational innovations can improve the likelihood of developing a successful franchise. The devices outlined above are principally targeted at promoting rapid conversion rates. I am advised that EPCOR is considering all of the above options.

(b) To my knowledge the customers of Summit Natural Gas did not receive direct subsidy from existing Summit Natural Gas customers or customers of other natural gas providers in Maine.

**Exhibit S4.EPCOR.Board Staff.8**

**Reference:** **Evidence of Adonis Yatchew for Epcor Utilities Inc., Pages 12-13, Paras. 29-38**

Dr. Yatchew's evidence proposes an "Expansion Reserve" whereby the OEB would establish and administer a reserve that would be funded through a levy on Ontario's existing natural gas customers. System expansion could then be partially funded by this reserve, subject to certain parameters.

**Request:**

(a) Is Dr. Yatchew aware of any other jurisdiction that uses a similar type of reserve to support natural gas system expansion? If so, please provide details.

(b) In Dr. Yatchew's opinion, does the OEB have the jurisdiction to establish an Expansion Reserve and implement an Expansion Charge on customer bills?

(c) OEB staff would be assisted by some more detail on how the Expansion Reserve would work. Please elaborate on the examples provided in paras. 30-31.

(d) Would an Expansion Charge be applicable to all customer classes: residential, commercial, industrial and contract customers?

(e) Epcor's proposal recommends a volumetric levy on province-wide sales of natural gas. Does Epcor propose any maximum monthly surcharge for large commercial or industrial customers or would the volumetric levy determine the monthly surcharge irrespective of the amount?

(f) Under Epcor's proposal, would the ratepayers of one utility be responsible for paying a portion of the cost of capital of another utility? Is Dr. Yatchew aware of any cases in other jurisdictions where this has happened?

(g) The evidence at para. 32 states that the OEB should determine what projects are eligible for funds from the Expansion Reserve. What eligibility criteria does EPCOR propose?

(h) The evidence at para. 37 states that existing customers could benefit in the longer term from system expansion if expansion reduces their unit transmission, distribution, storage or commodity costs. Has EPCOR conducted any research to determine the likelihood of existing customers benefitting financially from system expansion if that expansion has a Profitability Index of, for example, 0.4 or 0.6?

(i) The evidence at para. 38 states that a "modest surcharge" to current customers would be within the bounds of equity. Can EPCOR quantify what it believes a "modest surcharge" to be? Under EPCOR's proposals, what is the maximum surcharge that existing customers could be faced with? What is the expected annual amount that would be collected into the "Expansion Reserve"?

**Response:**

(a) I have not conducted an exhaustive survey. However, I am aware of several jurisdictions that have adopted an approach which has similarities to the one being proposed here, among them collection of funds from existing customers to support expansion of service to new customers.

i. Mississippi

The Mississippi Public Service Commission approved a Supplemental Growth Rider ("SGR") permitting one of its natural gas utilities, Atmos Energy Corporation to spend up to $5 million annually on system expansion to support industrial projects. The SGR is designed to encourage industrial development and job creation in Mississippi by providing Atmos with an incentive to extend gas service to potential industrial sites which are not otherwise economically feasible. SGR investments are authorized to earn an equity return equal to 12% for a 10-year period. The SGR costs are recovered as a surcharge added to Atmos customers' base rate.[2]

ii. Georgia

In 2013, the Georgia Public Service Commission approved a $46 million expansion of Atlanta Gas Light's Customer Growth program to extend the natural gas system into communities throughout the state that are currently unserved or underserved. The approval was essentially a second phase extension of the Strategic Infrastructure Development and Enhancement Program ("STRIDE") that the Commission approved in 2009. The STRIDE program allowed Atlanta Gas Light to recover the cost of investments from all of its customers through an additional surcharge.[3]

iii. Nebraska

In 2012, the Nebraska State Legislature passed legislation which facilitated the expansion of natural gas infrastructure to unserved or underserved areas in the state. The law streamlines the regulatory review process and allows utilities to spread costs across all ratepayers.[4]

iv. North Carolina

In North Carolina, the General Assembly enacted legislation for the creation of expansion funds for uneconomic line extensions. Gas utilities may only apply those funds to economically infeasible expansions. These funds can come from a surcharge imposed on existing ratepayers, supplier refunds and other sources approved by the NC PUC. (See KPMG Report, March 2015, prepared for the OEB.)

(b) EPCOR will respond to this in its legal argument.

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[2] http://www.psc.state.ms.us/InsiteConnect/InSiteView.aspx?model=INSITE_CONNECT&queue=CTS_ARCHIVEQ&docid=310900.
[3] http://ir.aglr.com/mobile.view?c=79511&v=203&d=1&id=1884375
[4] http://nebraskalegislature.gov/FloorDocs/102/PDF/Final/LB1115.pdf

(c) Implementation could incorporate the following:

i. The Board would determine an appropriate volumetric levy to be applied to all natural gas customers. As an upper bound, the Board may consider a magnitude similar to that proposed by Union in its application which represents an increase of about \$3 to \$4 per year for a residential customer consuming 2,200 $m^3$ per year in Union South. This in turn suggests a levy of about \$0.002 per $m^3$.

ii. All natural gas distributors would recover the levy from their customers through a new charge code identified on the customer's monthly bill. The funds would be transferred to an Expansion Reserve account administered by the Board.

iii. Once a prospective distributer reaches a franchise agreement with a municipality, it would apply to the OEB for franchise approval. At the same time, it could apply for access to funds from the Expansion Reserve. The maximum amount would be based on forecasted volumes of sales over the forthcoming 10-year period in the expansion area.

iv. The prospective distributor would be eligible for a contribution from the Expansion Reserve if

   a. it met the normal Board criteria for approval of a franchise, certificate of public convenience and leave to construct;

   b. it demonstrated a Profitability Index of 1 for the expansion project; the profitability index would be calculated recognizing Government grants and loans, contributions from the municipality, customers and the utility, contributions from the Expansion Reserve, and revenues from future natural gas sales.

v. Any funds collected from the Expansion Reserve would be treated as a 'Contribution in Aid of Construction'. The distributor would not earn a regulated rate of return on these funds.

vi. The term of the Expansion Reserve could be set at 10 years, with a Board review after 5 years. If and when the Board decides to terminate the Reserve, the funds would be redistributed to ratepayers.

(d) Yes, under our proposal, a small volumetric levy on Province-wide sales of natural gas would apply to all current customers.

(e) The simplest approach would be a volumetric levy across all customers. Given the proposed magnitude of the charge ($0.002 per $m^3$), a more complex approach may not be warranted.

(f) The amount recovered by a utility under the Expansion Reserve would be treated as a Contributions in Aid of Construction and would not enter rate base or attract a return on capital. The response to part (a) above provides examples where current customers made a contribution to capital costs for expansion purposes.

(g) See response to part (c) above.

(h) I am advised by EPCOR that it has not conducted an analysis of this type. However, changing geographical patterns of natural gas supply, combined with impacts on demand arising from a price on carbon, may lead to reduced utilization of existing transmission, distribution and storage infrastructure. In such cases, new customer contributions to fixed costs may have a beneficial impact on existing customer rates.

Lower energy prices in a newly serviced region can generate economic growth with wider benefits by stimulating economic activity in surrounding areas and elsewhere. There would also be increased tax revenues at local and Provincial levels. Current electricity prices are high and rising, which discourages business activity in areas not served by natural gas.

The benefits to Provincial customers are not independent of which companies will provide service to expansion areas. Competition for franchises and expansion opportunities is likely to reduce capital costs. Innovative business models (e.g., those which improve efficiency through economies of scope) may result in similar models being adopted more widely. Finally, the presence of new distributors is likely to improve regulatory efficacy as the Board will have additional comparators.

(i) A surcharge of \$0.002 per $m^3$ would be less than 0.5% of the gas bill for a typical residential customer. Given the potential for wider benefits, the amounts would seem to be reasonable and of minimal distortionary impact. Province wide the levy would raise at least \$50 million per year.

**Exhibit S4.EPCOR.Board Staff.9**

**Reference:** **Evidence of Adonis Yatchew for Epcor Utilities Inc., Page 14, Para 40**

The evidence states that there may be communities with industrial or commercial customers who are willing to contribute to expansion costs in order to secure gas supply.

**Request:**

Is EPCOR aware of any industrial or commercial customers in Ontario that are willing to contribute to expansion costs in order to get gas service in their communities? If yes, please provide details.

**Response:**

I am advised by EPCOR that one or more large users have expressed a willingness to enter into long term contracts. By undertaking some of the risk, such entities are making a contribution to the project.

**Exhibit S4.EPCOR.Board Staff.10**

**Reference:** **Evidence of Adonis Yatchew for Epcor Utilities Inc., Page 15, Para. 44(a) and 10**

Paragraphs 10 and 44(a) of the evidence reference $230 million dollars in loans and grants being made available by the Provincial Government to support gas expansion.

**Request:**

As the Provincial Government has already made significant funds available to communities hoping to receive gas service, are additional subsidies from existing customers necessary?

**Response:**

The Government has not yet announced how it will allocate the grants or loans so it is difficult to determine, but I expect that contributions from existing customers will be necessary to achieve significant expansions as envisioned by the Government.

**Exhibit S4.EPCOR.Board Staff.11**

**Reference:** **Evidence of Adonis Yatchew for Epcor Utilities Inc., Pages 16-17, Para. 47**

Paragraph 47 of the evidence states: "[f]or existing distributors that are in the midst of an incentive ratemaking cycle, expansion costs and revenues would need to be treated separately from ongoing operations until the completion of the cycle, at which time they could be merged for the subsequent period."

**Request:**

In EPCOR's view, do the current incentive ratemaking frameworks that the incumbent utilities are currently operating under permit this type of separate treatment? Would amendments to the approved incentive ratemaking framework be necessary?

**Response:**

It is my understanding that the current incentive ratemaking framework incorporates features that would permit relatively straightforward incorporation of system expansions by incumbent utilities (for example, through Y factor or Z factor adjustments).

**Exhibit S4.EPCOR.Board Staff.12**

**Reference:** **Evidence of Adonis Yatchew for Epcor Utilities Inc., Pages 20-21, Paras. 62-63.**

The evidence articulates a concern that if Union (and presumably Enbridge) are permitted to subsidize community expansion through rates paid by their existing customers, this would seriously disadvantage any potential new entrants into the market, as they will have no existing customers from whom to collect a subsidy. This is one of the reasons that EPCOR proposes the Expansion reserve, which is funded by all gas ratepayers and accessible by any natural gas distributor.

**Request:**

Would EPCOR's concern about barriers to new entrants be alleviated if no customer subsidies were provided at all?

**Response:**

No, as there are other potential barriers to new entrants arising from control of existing assets to which a newcomer would need to connect, additional costs that the incumbent may choose to invoke, such as advance reinforcement fees. See Prefiled Evidence of Union Gas, EB-2016-0004, Exhibit A, tab 1, pages 8-11.

**Exhibit S4.EPCOR.Board Staff.13**

**Reference:** **Evidence of Parkland Fuel Corporation**

The evidence filed in this proceeding by Parkland Fuel Corporation offers an extensive critique outlining a number of concerns with the use of cross subsidies to support system expansion.

**Request:**

Is Dr. Yatchew able to provide a high level response to the concerns raised in Parkland Fuel Corporation's evidence?

**Response:**

The economic analyses provided on behalf of Parkland are thoughtful and well referenced. However, given the Provincial Government's expressed intention to promote expansion of natural gas service, the central question would not seem to be *whether* transfers are appropriate but *how* best to implement expansion.

The Province has already signaled that it is not averse to transfers, having established a grant and loan program to help finance expansion (see response EUI-OEB-002). It has also identified economic development and equity considerations as factors that influenced its policies.

The evidence submitted by Parkland devotes significant space to the argument that price distortions (such as surcharges and taxes) lead to inefficiencies. The impact on the price of natural gas being proposed by EPCOR is \$0.002 per $m^3$ (see response to EUI-OEB-008 (c)) and therefore unlikely to lead to material changes in patterns of consumption by presently served customers. The impact is especially small when compared to existing price distortions embedded in the regulated environment.

The Parkland evidence also does not seem to address the benefits of the advent of competition for service to new franchises and the presence of additional gas distributors which may mitigate the informational asymmetries present in an industry with only two large incumbents. Nor is there discussion of the benefits of introducing new business models (e.g., those that seek scope efficiencies) into the Ontario environment. See the response to Exhibit.S4.EPCOR.Board Staff.8(h).

**Exhibit S4.EPCOR.Board Staff.14**

**Reference:** **Evidence of Union Gas Limited EB-2016-0004, Pages 28-30**

Union has listed the minimum requirements that any utility proposing to provide natural gas service in Ontario should meet and fulfil core expectations that the OEB has of existing gas utilities in Ontario. These expectations are further subdivided into operational capability, core expectations and demonstrated financial stability.

**Request:**

Does EPCOR agree with the expectations outlined by Union in its evidence?

**Response:**

I am advised that EPCOR does not agree with the extensive list of requirements put forth by Union. EPCOR believes that while certain minimum standards need to be met, there are various ways that capabilities can be demonstrated.

The Board has made determinations of core expectations in the past. For example, in EB-2014-0299, Greenfield applied for a Certificate of Public Convenience and Necessity to build pipe and ancillary services to connect to Vector Pipeline instead of Union's distribution system. Union opposed on the basis that it was a case of bypass and that it was not in the "public interest". The Board reviewed evidence relating to the Greenfield's competency as a builder and an operator and approved the application.

**Exhibit S4.EPCOR.Board Staff.15**

**Reference:** **Evidence of Canadian Propane Association, Exh. 3, Tab 3, Page 6**

The evidence of Canadian Propane Association (CPA) notes that in the event the OEB authorizes cross-utility subsidization to occur, such that customers of one utility subsidize the expansion undertaken by another distributor, the OEB can mitigate some of the adverse impacts by removing the return on rate base component embedded in the subsidy so that there is only a return "of" and not "on" the capital investment associated with the expansion. With the return component removed, utilities will continue to benefit from the remaining non-financial, social and other benefits of natural gas expansion.

**Request:**

(a) Please provide EPCOR's opinion on the approach proposed by CPA.

(b) Does EPCOR agree with the proposed approach of the CPA? If no, why not?

**Response:**

(a-b) The evidence of A. Yatchew, at paragraph 46 states:

"Contributions from the Expansion Reserve towards capital costs should not enter into rate base, but instead be treated as a Contribution in Aid of Construction." This would appear to be analogous to the approach proposed by the Canadian Propane Association in the above reference.

**Exhibit S4.EPCOR.BOMA.1**
**Reference: 79. Ref Page 20**

**Request:**

Does EPCOR agree that the electricity service for the small town and rural residential or business customers is a "must have", while natural gas is a "nice to have"? Please discuss.

**Response:**

I have been advised that EPCOR does not agree with this characterization.

The need for reasonably priced energy, such as can be obtained from natural gas, increases as the price of electricity rises. The cost of heating with electricity can be thousands of dollars over the course of a winter; with natural gas it could be in the hundreds. Furthermore, for businesses or families seeking to move into an area, the availability of natural gas may be a “must have”. Others who have lived in an unserved area for many years may be feeling a budget squeeze with the rise in electricity prices in recent years.

**Exhibit S4.EPCOR.BOMA.2**
**Reference: 80. Ref. Page 22**

**Request:**

Would you agree that if the province continues to state that it has not yet developed criteria for the loan/grant program, this regulatory initiative should be put on hold until the province develops the criteria for its loan and grant program, and is ready to disburse funds? Please discuss fully.

**Response:**

No. The Province has explicitly requested the Board to consider alternatives for expanding natural gas to unserved areas. It would seem to be incumbent on the Board to address the matter in a timely fashion.

**Exhibit S4.EPCOR.BOMA.3**
**Reference: 81. Ref. Page 23**

**Request:**

(a) Do you agree that the 2016 Ontario budget refers to project expansion loans, but not grants?

(b) Has the province discussed with you what the criteria for grants to expansion projects would be? Criteria for loans?

(c) Is it your understanding that the province has dropped the grant component of its promised program?

**Response:**

(a) The Ontario 2016 Budget, at page 62, refers to "a loan program to support access to natural gas". This does not exclude the possibility of a grant program in 2016, or in future years. Provincial budgets are under constant pressure and are susceptible to changes over the course of the election cycle. A stable source of support, such as would be available under the proposed Expansion Reserve is a better mechanism for promoting expansions.

(b) I have been advised by EPCOR that in their meetings with the Provincial Government to date, no indication has been provided on the criteria for the grant or loan programs that will be employed.

(c) EPCOR has no information on the Province's natural gas grant program being dropped.

**Exhibit S4.EPCOR.BOMA.4**
**Reference: 82. Ref: Page 23**

**Request:**

(a) What does EPCOR say the amount of the "small volumetric levy on province-wide sales of natural gas to current customers" should be? Please discuss.

(b) Why should new entrants in the gas distribution business not be required to finance their own business growth in Ontario, subject to contributions from a provincial loan or grant, just as any other business would be required to do? Is it not the case that in competitive markets, customers of the new entrant's established competitors are not required to contribute to the establishment of the new entrant's business?

(c) (i) Is EPCOR proposing that it should be able to bid on existing built out franchises as they come up for renewal?

(ii) If so, how would EPCOR deal with the issue of the incumbent utility's stranded costs if new entrants were allowed to compete for municipal franchises on their renewal date when the incumbent has already built out the franchise?

**Response:**

(a) See response to EUI-OEB-008.

(b) The current arrangement as well as the one proposed by Union is uncompetitive. Using a portfolio approach, incumbent utilities can expand services into areas that have a profitability index less than 1. Furthermore, Union's proposal involves surcharges on current customers to support expansions to future customers. These features give the incumbent a very significant and inappropriate advantage, and creates barriers to entry that are likely insurmountable.

The proposal put forth by EPCOR simply asks that the 'surcharge' funds proposed by Union be collected on a Province wide basis and be available to any entity seeking entry so that it can compete more effectively.

(c) EPCOR has not given consideration to this matter.

**Exhibit S4.EPCOR.Enbridge.1**

**Reference:** **Section: C.3 Sharing the Costs of Expansion and Regulatory Treatment**

**Preamble :** (page 16, line 1) "Given the high and divergent costs of available energy sources in comparison to natural gas prices, customers in new franchise areas stand to benefit. They could contribute via time-limited surcharges but these may create a free-rider problem as some may delay conversion until surcharges expire. Regulated rates that differ from those elsewhere, and are higher on a sustained basis because of the greater delivery costs, are an alternative option."

**Request:**

(a) Can Epcor please provide examples of where sustained higher rates have been utilized to avoid a free- rider problem?

(b) In the examples provided in the response to a) above, please provide evidence which substantiates that the free- rider problem was avoided?

(c) Please provide all analysis completed by Epcor of the impacts of having sustained higher rates rather than a time-limited surcharge and the associated impacts on customer conversion rates, project economics and all other impacts examined by Epcor.

**Response:**

(a) The above referenced statements made at page 16 are based on a bedrock principle in economics – that economic agents respond to prices, current and future, and make investment and consumption decisions with a degree of rationality. Intertemporal optimization is a standard tool in economics.

To expand on the idea, consider two scenarios, each of which requires the recovery of a fixed portion of capital investment. Under the first scenario, the utility imposes a surcharge for several years. Under the second, the utility charges a constant rate for the useful lifetime of the investment. Because a fixed level of funds is recovered under each scenario, customers pay higher rates in the initial years under the first scenario, leading to lower conversion rates during that critical time. Furthermore, some potential customers are likely to delay conversion until lower rates have arrived. They will be benefiting from the early converters who will have paid off the required amount.

(b) See the response to (a) above.

(c) EPCOR has not conducted independent empirical analyses of impacts under alternative scenarios.

**Exhibit S4.EPCOR.Enbridge.2**

**Reference:** **Section: C.1 Expansion Reserve Proposal**

**Preamble:** (page 12, line 8) EPCOR proposed that the Board should establish and administer an Expansion Reserve which would be funded by a small volumetric levy on Province-wide sales of natural gas to current customers.

**Request**

(a) How would the proposed Expansion Reserve Levy be determined?

(b) What would the annual cost of administering the Expansion Reserve be?

(c) How would community expansion projects be evaluated for the purpose of Expansion Reserve Funding?

(d) Under the Epcor Expansion Reserve Proposal how would the administrator of the Reserve ensure consistency across all community expansion proposals evaluated?

(e) What legislation provides the OEB with the legal authority to mandate, establish and administer the proposed Expansion Reserve?

**Response:**

(a) Please see response to EUI-OEB-008 (c).

(b) The approach that we are proposing involves minimal additional administrative cost. Assessment of eligibility, as outlined in the response to EUI-OEB-008 (c), part iv, would be conducted at the Franchise Agreement and Certification stages. Administration of the Reserve would entail an accounting and funding mechanism put in place by the Board.

(c) Please see response to EUI-OEB-008 (c), part iv.

(d) Several features of the proposed framework would ensure consistency of treatment. First, any community could apply for funding from the Expansion Reserve. Second, eligibility criteria would be common to all applicants, subject to any Directives or differential treatment the Province may choose to impose. Third, the maximum contribution from the Reserve would be determined by expected volumes. As stated in EPCOR evidence, at paragraph 31, “a customer seeking service would be eligible for the same level of support, per unit volume, wherever she or he is located.”

(e) EPCOR will respond to this in its legal argument.

**Exhibit S4.EPCOR.Enbridge.3**

**Reference:** **Section: C.1 Expansion Reserve Proposal**

**Preamble:** VECC EB-2016-0004 Evidence (page 11, line 20), "In other words, a marginal project attaching residential customers would not reach a PI of 0.8 until the end of the fortieth year. In the first part of the forty year period, the revenues collected from new customers would be lower than the costs of serving them. This would produce an annual revenue deficiency which would put an upward pressure on rates. Assuming that the OEB approved annual or periodic rate increases, existing customers would subsidize new customers through higher rates during this period. Some time, before halfway through the 40 years a crossover would be reached and the revenues from the new customers would exceed the costs, creating an annual revenue sufficiency putting a downward pressure on rates. From then on the new customers would subsidize existing customers."

**Request**

(a) Does Epcor agree with this statement? If not, why not?

(b) Given the statement above, how could Epcor's Expansion Reserve Proposal be administered equitably for all Ontario gas ratepayers without project specific tracking for extended periods of time (decades), or without establishing standardized province-wide gas distribution rates?

(c) As an alternative to Epcor's Expansion Reserve Proposal please explain why it would not be appropriate for Epcor's existing customers to subsidize its development of gas distribution systems in Ontario?

**Response:**

(a) Additional clarification would be required from VECC in order for EPCOR to determine whether it agrees or disagrees with this statement.

(b) One of our proposed criteria for approval is a project Profitability Index of one, once all sources of funds have been incorporated (see response to EUI-OEB-008 (c), part iv). This provides the basis for *ex ante* equitability. For new franchises, such as those signed by EPCOR in South Bruce, no further fund transfers would be forthcoming under the proposed approach. EPCOR rates in these areas would fall under the existing incentive regulation framework.

Rate design within incumbent utilities may continue under existing models. Standardized province-wide gas distribution rates do not assure equitable treatment, nor are they necessary. For example, electricity distribution rates vary widely across Ontario.

(c) The regulation of gas distribution is within the jurisdiction of the Province. Contributions to the Expansion Reserve by EPCOR natural gas customers would be appropriate once the company has such customers in Ontario.

**Exhibit S4.EPCOR.CCC.1**
**Reference:** **Yatchew Evidence**

**Request:**

Please specify whether any of the submitted material is intended to be accepted as expert evidence; if so, please specify precisely which assertions within the submitted material are intended to be expert opinions and identify the relevant expert.

**Response:**

The filed material is the expert evidence of Adonis Yatchew.

**Exhibit S4.EPCOR.CCC.2**
**Reference:** **Yatchew Evidence**

**Request:**

Please provide the Terms of Reference for this evidence.

**Response:**

See the attached file CharlesRiverRetainer.pdf.

Email

Privileged and Confidential

CRA No. M14630-00

December 11, 2015

Britt Tan
Legal Counsel
EPCOR Utilities Inc.
2000 – 10423 101 Street NW
Edmonton, AB T5H 0E8
Canada

RE: Application to the Ontario Energy Board ("Board") by Union Gas Limited ("Union") for an Order for Approval of Union's Distribution System Expansion Project Proposals, EB-2015-0179

Dear Britt:

I would like your confirmation that effective December 11, 2015, EPCOR Utilities Inc. ("EPCOR"), has retained Charles River Associates ("CRA") to provide services in connection with the above referenced matter.

We have confirmed that CRA does not have any conflicts of interest in relation to EPCOR or Union, which would in any way impair its ability to provide the services under this engagement.

Brian Rivard will be the CRA expert for this engagement. All services will be performed at the request and approval of EPCOR, and will be billed at Brian's hourly rate of [redacted] CAD.

Should this engagement be terminated prior to completion, for any reason, CRA will invoice EPCOR for its actual costs incurred, on a time and materials basis. All invoices will be submitted to EPCOR.

In establishing and maintaining good relationships with our clients, we have found it important to provide each client with a statement of our engagement practices and billing policies. These practices and policies are set forth in our Terms and Conditions, which are incorporated herein by reference and which are intended to safeguard our client information, establish reasonable fees for our services, and provide for the billing and collection of those fees in a timely manner.

If the above meets with your approval, please sign and date a copy of this letter and return it to me. Thank you for your confidence in our ability to assist you. We look forward to working with you.

Sincerely yours,

Charles River Associates

Chris Russo
Vice President
CJR/cjr
Enclosure

**Accepted by:**

EPCOR Utilities Inc.

Signature

Britt Tan Legal Counsel

Print Name and Title

December 11, 2015

Date

# Terms and Conditions

## Confidentiality

All of CRA's work for clients is confidential. CRA staff members and consultants have signed confidentiality agreements and are obligated not to disclose any confidential information or documents used or obtained in the course of our work. This obligation of confidentiality does not apply to data or information which: (1) is or becomes generally available to the public other than as a result of a disclosure by CRA or any of its representatives; or (2) was in CRA's possession prior to the time it was disclosed to CRA by you or your client; or (3) is disclosed to CRA by a third party who is under no obligation of confidentiality to you or your client. Should CRA be compelled by any valid court or administrative order to disclose any confidential information held in connection with this engagement, we will first notify you and will cooperate, to the extent practicable, with any attempts to legally limit or avoid such disclosure. The terms of this paragraph shall survive termination and/or the expiration of this agreement.

## Relationship

The role of CRA is solely that of an independent contractor. In no event shall this agreement or any work performed by CRA create a relationship of principal and agent, partnership or joint venture, or any fiduciary relationship between the parties. This agreement may be terminated, at the discretion of either party, on ten (10) days' written notice, or earlier with the consent of both parties. CRA will be compensated for all services rendered and expenses incurred by CRA up to the date of termination.

Under this agreement, CRA will provide consulting services and will report on the progress of our work, either orally or, if requested, in written form. CRA will offer independent, objective opinions and analysis.

## Data Handling

Any nonpublic information you have supplied to CRA will be kept confidential with at least the same degree of care as we use for our own materials. It is your obligation to inform CRA at the outset of the engagement of any special data handling, storage, or destruction requirements. CRA shall take appropriate steps to accommodate your data handling, storage, and destruction needs on the understanding that certain measures may incur additional expense, which shall be borne by you. Unless other terms are agreed or there is an order or other legal requirement to the contrary, upon the conclusion of the provision of services under this retention, CRA may destroy or return to you all information related to this retention (hard-copy or electronic). CRA reserves the right to bill you for such destruction or re-delivery activities. CRA reserves the right to maintain copies (at its expense) of such material as it deems necessary for administrative, legal, or regulatory purposes. The terms of this paragraph shall survive the termination and/or the expiration of this agreement.

## Liability

The total liability of CRA shall be limited to the total amount of fees paid to CRA under this engagement. Under no circumstances shall CRA be liable for any (1) loss of profits; (2) loss of sales; (3) loss of turnover; (4) loss of or damage to business; (5) loss of data; (6) business interruption; (7) wasted management or other staffing; (8) loss of customers; (9) indirect, consequential, incidental, or special damages. For the purposes of this paragraph, the term "loss" includes a partial loss or reduction in value as well as a complete or total loss. None of the foregoing exclusions and limitations on liability shall apply in respect of (a) liability in negligence causing personal injury or death; (b) liability for fraudulent misrepresentation; or (c) any other liability which cannot by law be excluded or limited (as appropriate). The terms of this paragraph shall survive termination and/or the expiration of this agreement.

## Intellectual Property

You acknowledge and agree that in performing the services for you under this retention, CRA may utilize proprietary works, including without limitation software, tools, models, specifications and other materials, that were developed by CRA or a third party prior to the start of or outside of this engagement ("Preexisting Materials"). CRA owns all right, title and interest in and to the Preexisting Materials and (a) to the extent (i) CRA incorporates Preexisting Materials into the work product, or (ii) any intellectual property rights in such Preexisting Materials are required in connection with the development, use or commercialization of any work product; and (b) all fees to CRA pursuant to this agreement have been fully-paid by you, CRA shall grant you a fully-paid, non-transferable, non-exclusive, royalty-free user license to use the Preexisting Materials, limited to the purposes as stated within this retention agreement.

## Reports

CRA's reports, and any portions or drafts thereof, are prepared for your use in connection with this matter and shall not be made available to any other party without the prior authorization of CRA, provided, however, that any such materials may be shared with your directors, officers, employees and agents, including accountants, legal counsel and other advisors to the extent necessary in connection with this engagement.

## Billing and Payment

All invoices are due and payable upon receipt. CRA reserves the option to charge interest on invoices that are outstanding more than sixty (60) days, at a rate equal to the lower of 1 percent per month or the maximum rate permitted under applicable law. The obligation to pay CRA's fees and expenses is not contingent upon the results of the services or any suit or matter in connection with which the services are provided. Any objection with respect to CRA's invoices must be made by the client in writing within fifteen (15) business days following receipt of the invoice to which objection is made. CRA reserves the right to suspend and/or terminate services, withhold any report or deliverable, and to prohibit the client from using or permitting the use of any report or any portion thereof until all of CRA's fees and expenses incurred to date have been paid in full. CRA may request a retainer at any time. CRA's hourly rates and costs are subject to periodic change.

## Miscellaneous

In the event that the scope and/or parties to this retention change after the commencement of CRA's services hereunder, CRA reserves the right to decline to provide further services and terminate this retention without liability, unless CRA determines that such change in scope and/or parties will not create a conflict of interest for CRA. You will from time to time provide to us such information and documentation as we may request to comply with our obligations under applicable anti-money laundering or similar legislation in any relevant jurisdiction. We may decline to act or to continue to act for you until you have complied with any such request.

The parties agree that an email agreed to by the parties regarding change of scope, pricing of fees and out of pocket expenses shall be sufficient evidence to approve such changes. In the event that CRA is required to undertake collection efforts for unpaid invoices, client shall also be responsible for payment of CRA's reasonable attorneys' fees and costs associated therewith. If CRA is required by government regulation, protective order, subpoena, or other similar legal requirement that may arise during or after the pendency of this agreement, to produce or destroy documents or provide personnel as witnesses with respect to the services or this agreement, CRA shall be reimbursed for its professional time and expenses, as well as reasonable attorneys' fees and expenses, including the allocable cost of in-house counsel, incurred in responding to such requests.

Neither party shall be liable in damages or have the right to terminate this agreement for any delay or default in performing hereunder if such delay or default is caused by conditions beyond its control including, but not limited to acts of God, government restrictions, wars (declared or undeclared), acts or threats of terrorism, pandemic, insurrections and/or any other cause beyond the reasonable control of the party whose performance is affected.

The client may not use the name, trade name or mark of CRA, any of its subsidiaries or its employees in any marketing or similar promotional materials, including websites or press releases without the express written consent of CRA, unless required by law.

The parties to this agreement hereby submit to the personal jurisdiction of the courts of the Province of Ontario, agree that any dispute that may arise in connection with this agreement shall be resolved by the courts of the Province of Ontario, and governed under the laws of the Province of Ontario without regard to conflicts of laws. The parties to this agreement hereby waive the right to a trial by jury on any matters arising under or related to this agreement. Charles River Associates is a registered trade name of CRA International Limited, which is the entity being retained herein.

**Entire Agreement**

This agreement constitutes the complete and exclusive statement of the parties in relation to the subject matter hereof; sets forth all obligations of the parties in relation to the subject matter hereof; supersedes all prior or simultaneous written or oral proposals, estimates and understandings relating thereto, all of which are expressly excluded.

## Tan, Britt

| | |
|---|---|
| **From:** | Tan, Britt |
| **Sent:** | February-22-16 3:43 PM |
| **To:** | 'Rivard, Brian' |
| **Cc:** | Gordon Kaiser; Adonis Yatchew |
| **Subject:** | RE: FW: CRA Retainer Letter |

Hi Brian,

Apologies for the delay. Yes, please add Adonis to the retainer for the generic hearing.

Thanks,

Britt

---

**From:** Rivard, Brian [mailto:brivard@crai.com]
**Sent:** February-17-16 8:48 AM
**To:** Tan, Britt
**Cc:** Gordon Kaiser; Adonis Yatchew
**Subject:** RE: FW: CRA Retainer Letter

Britt,

As per discussions with and concurrence from Gordon Kaiser, we would like to add Adonis Yatchew to this engagement letter to provide evidence and testimony at the new generic hearing on natural gas expansion EB-2016 0004 "OEB motion to consider alternative mechanisms to natural gas expansion". Adonis' hourly rate for this engagement is [redacted].

Please provide your approval through email.

Thank you

Brian

**From:** Tan, Britt [mailto:BTan@epcor.com]
**Sent:** Monday, December 14, 2015 12:25 PM
**To:** Rivard, Brian
**Cc:** Gordon Kaiser
**Subject:** RE: FW: CRA Retainer Letter

Brian,

Please find the executed retainer letter attached.

Thanks very much,

Britt

**Exhibit S4.EPCOR.CCC.3**

**Reference:** **Yatchew Evidence / p. 1**

**Preamble:** …the Government is promoting natural gas expansion, and supporting it with new loan and grant programs.

**Request:**

(a) Has EPCOR approached the Government regarding access to these new programs? If not, why not? If so, what has been the outcome of those discussions? If EPCOR proceeds with community expansion in South Bruce will it have access to provincial funds?

**Response:**

(a) I have been advised that EPCOR has been in discussions with Government Ministries of Energy and Infrastructure primarily to provide feedback on how the government announced funding of natural gas access programs may be structured to benefit communities. Following award of the franchise for Southern Bruce, EPCOR has, jointly with the Municipalities of Kincardine, Huron-Kinloss, and Arran Elderslie met with the Ministry of Infrastructure staff. The purpose of the meeting was to provide an update on the progress the communities have made in their selection of EPCOR, and to inform the Government that the parties will, in advance of a Leave to Construct application to the OEB, be seeking assistance from the natural gas access programs.

Throughout all the meetings and discussions, Government officials have been supportive and receptive to the feedback without making any definitive commitments.

**Exhibit S4.EPCOR.CCC.4**
**Reference:** **Yatchew Evidence / p. 3**

**Request:**

The evidence refers to the Long Term Energy Plan (LTEP) in which the Ontario Government signaled its intentions to ensure that additional communities would gain access to natural gas in order to benefit from the changing North American market and low prices. If community gas expansion is a stated government policy objective, why shouldn't gas expansions be funded through general revenue?

**Response:**

The proposed position – that Government policies be funded by Government revenues has its merits. While there are differences between natural gas distribution and other infrastructure industries, it is not uncommon for such Government policies to be funded primarily by industry sources with some support from general revenues. The electricity industry would be a prime example.

Industry funding also improves transparency and likely enhances stability and predictability of such programs. Government funds face many competing demands and pressures, particularly over the course of election cycles.

**Exhibit S4.EPCOR.CCC.5**

**Reference:** **Yatchew Evidence / p. 8**

**Preamble:** There is strong evidence that competition for franchise areas is feasible when encouraged and not impeded by regulatory or other artificial barriers.

**Request:**

(a) Please list and discuss the regulatory or other artificial barriers for competition for franchise areas in Ontario which EPCOR believes exist and need to be overcome.

**Response:**

(a) Please see response to Exhibit S4.EPCOR.Board Staff.12.

**Exhibit S4.EPCOR.CCC.6**

**Reference:** **Yatchew Evidence/p. 12**

**Preamble:** The maximum potential support from the Expansion Reserve could be based on expected annual sales, averaged over a suitable period. For example, if Project A is expected to generate 10 times the sales volume of Project B, then its maximum support in aid of construction would be 10 times the maximum potentially available for Project B.

**Request:**

(a) Please confirm that one of the effects of the proposed cap on support from the proposed Expansion Reserve is that, for example, if Project A and Project B have similar forecast sales volumes they will have similar caps on support, even if the required capital investment in Project A is materially higher then the require capital investment in Project B because Project A is much further

**Response:**

(a) Not necessarily, as the cap represents the maximum funding support, per unit volume, that the Board would consider. Based on the specifics of the project, it may be the case that lower support would be sufficient to bring the Profitability Index to 1.

**Exhibit S4.EPCOR.CCC.7**

**Reference:** **Yatchew Evidence/p. 13**

**Preamble**: In addition, even existing customers may arguably gain in the longer term from the increase in system customers, capacity usage and sales volumes if this in turn reduces their unit transmission, distribution, storage or commodity costs.

**Request:**

(a) The Union evidence includes a proposal to add approximately 18,000 customers at a capital cost of approximately $135M, while the EGD Evidence includes a proposal to add approximately 16,000 customers at a capital cost of $410M. Is it EPCOR's evidence that the addition of 34,000 natural gas customers at a total capital investment of $545M is going to result in a net benefit to the existing base of approximately 3.5M[5] natural gas distribution customers regardless of whether the newly added customers are served by either Union or Enbridge or some third party or third parties? If so please explain how that net benefit will be generated.

**Response:**

(a) The benefits to Provincial customers are not independent of which companies will provide service to expansion areas. Competition for franchises and expansion opportunities is likely to reduce capital costs. Innovative business models (e.g., those which improve efficiency through economies of scope) may result in similar models being adopted more widely. Finally, the presence of new distributors is likely to improve regulatory efficacy as the Board will have additional comparators.

[5] Union states in its evidence at Exhibit A, Schedule 1, page 13 that it has approximately 1.4M customers; Enbridge's forecast total customer count for 2015 in EB-2012-0459 Exhibit C4 Tab 2 Schedule 1 page 1 is 2.095M.

**Exhibit S4.EPCOR.CCC.8**

**Reference:** **Yatchew Evidence/p. 16**

**Preamble:** There may be communities with industrial or commercial customers who are willing to contribute to expansion costs in order to secure gas supply. In some communities, residential or agricultural customers may be prepared to pay more on the expectation of longer-term benefits.

**Request:**

(a) Please explain what impediment EPCOR perceives to exist under the current regime that stops major industrial or commercial customers from providing a Contribution in Aid of Construction or, in addition or alternatively, to contracting over a significant term to a material Minimum Annual Volume, with both options serving to improve the project economics?

**Response:**

(a) Major industrial and commercial customers can make such contributions, though these sources of funds would, on their own, be insufficient to bring natural gas to South Bruce. Long-term contracts between such customers and the distributing utility are an effective means for enhancing the viability of projects.

**Exhibit S4.EPCOR.CCC.9**

**Reference:** **Yatchew Evidence/p. 15**

**Preamble:** Provincial funds could be earmarked to support conversions.

**Request:**

(a) Is it EPCOR's assertion that the OEB has the authority to determine how Provincial Funds are to be utilized? If so please explain how that authority is derived.

**Response:**

(a) No.

**Exhibit S4.EPCOR.CCC.10**

**Reference:** **Yatchew Evidence/p. 19**

**Preamble:** However, for reasons indicated above, we believe that the proponent should also be willing to contribute to project costs. Furthermore, in our view, natural gas distributors should not be shielded from all financial risks associated with the projects. The distribution of risk should be an outcome of the negotiation process and embedded in the franchise agreement.

**Request:**

(a) Please provide copies of the EPCOR Southern Bruce Gas Inc. Franchise Agreements executed by the Municipalities of Arran-Elderslie and Kincardine and the Township of Huron-Kinloss.

(b) Please explain how EPCOR Southern Bruce Gas Inc. is contributing to the project costs within those Franchise Agreements, and how it is exposed to the financial risk associated with the process.

(c) Please provide the justification for any deviations from the Board's Model Franchise Agreement that may appear in the filed Franchise Agreements.

(d) What is EPCOR's view as to the ideal distribution of risk?

**Response:**

(a) EPCOR has filed the referenced Franchise Agreements with the Board in connection with recently filed Franchise Applications, which have been assigned their own docket numbers. The Applications will be addressed by the Board as it determines to be appropriate in future regulatory approval proceedings. EPCOR's Franchise Agreements and Applications are not at issue in this generic proceeding, and the requested information is well beyond the scope of the issues defined by the Board for this generic proceeding. In addition, the information sought is beyond both the scope of Dr. Yatchew's written evidence in this generic proceeding and the matters he is appearing before the Board to address. As such, Dr. Yatchew respectfully declines to provide the requested information

(b) See the response to (a) above.

(c) See the response to (a) above.

(d) Risk sharing would depend on the specific characteristics of the franchise and would be the outcome of the franchise negotiation process.

**Exhibit S4.EPCOR.CCC.11**
**Reference:** **Yatchew Evidence/p. 23**

**Request:**

Please indicate whether the Responses to the Board's Issues List in Appendix A are the views of Dr. Yatchew or EPCOR.

**Response:**

The filed material is the expert evidence of Adonis Yatchew and represents his views. Dr. Yatchew is advised by EPCOR that Appendix A to his written evidence also reflects EPCOR's views.

**Exhibit S4.EPCOR.ED.1**

**Reference:** **Adonis Yatchew pre-filed evidence, p.20**

Mr. Yatchew states: "The purpose of the Reserve that we have proposed is to defray capital costs."

**Request:**

Would it be appropriate for the proposed Reserve Fund to also defray the capital costs of home energy retrofits and renewable energy (solar thermal, heat pumps) investments?

**Response:**

The expressed intentions of the Province are expansion of the natural gas network, which is the objective of the proposed Expansion Reserve. Other investments, such as home energy retrofits or renewable energy installations, meritorious as they may be, would require independent funding.

**Exhibit S4.EPCOR.ED.2**
**Reference:** **Adonis Yatchew pre-filed evidence**

**Request:**

Does Mr. Yatchew agree that existing gas consumers should be required to subsidize expansions of Ontario's natural gas distribution system only if all of the following criteria are met:

(a) The expansion will lead to a net reduction in Ontario's greenhouse gas emissions [e.g., this could occur if the new customers' previous energy source (e.g., heating oil) had higher greenhouse gas emissions];

(b) Expanding the gas system is the most cost-effective, feasible option to achieve the greenhouse gas emission reductions [i.e., do not expand the gas distribution system using existing customer subsidies if the emission reductions could be achieved at a lower cost by energy efficiency or renewable energy investments (e.g., home energy retrofits, heat pumps)]; and

(c) The subsidy is necessary to make the project happen [e.g., do not require existing customers to subsidize an expansion of the gas system if the cost could be recovered from the new customers via a surcharge on their gas rates]?

If "no", please fully justify your response. Please specifically address each of the three criteria in your response. Note that the above three criteria would not be to the exclusion of other criteria required for community expansion.

**Response:**

Decarbonization is not only a leading policy objective of this Provincial Government and its predecessor, it is also a critical global challenge. The current Government is implementing a rational mechanism for reducing carbon use – a cap-and-trade program. Such programs limit total production of carbon, including any increases of hydrocarbon use in some sectors at the same time that use declines in others. The essential idea is that the carbon budget is allocated to the most efficient uses through a pricing mechanism. Thus, any increases in use of natural gas would be offset, through the cap-and-trade program, by reductions in hydrocarbon use elsewhere.

A condition of receiving funds from the Expansion Reserve is that the project does not have a Profitability Index of 1 in the absence of outside sources of funds.

**Exhibit S4.EPCOR.EP.1**

**Reference:** **Expert Evidence: Adonis Yatchew, Charles River Associates, On behalf of EPCOR Utilities**

The evidence states in paragraph 30, page 12:

> "The maximum potential support from the Expansion Reserve could be based on expected annual sales, average over a suitable period. For example, if Project A is expected to generate 10 times the sales volume of Project B, then its maximum support in aid of construction would be 10 times the maximum potentially available for Project B."

**Request:**

A major component of the community expansion program is that it will have wider "social benefits." Would EPCOR considering including a Stage 2 or Stage 3 test in its framework?

If so, please provide the proposed analysis framework, input assumptions and an example of each test.

**Response:**

Additional Stage 2 and 3 tests would add to administrative complexity and costs, which may not be merited. While there are wider social benefits, their quantification would be challenging.

**Exhibit S4.EPCOR.EP.2**

**Reference:** **Expert Evidence: Adonis Yatchew, Charles River Associates, On behalf of EPCOR Utilities**

The evidence states in paragraph 37, page 13:

> "In addition, even existing customers may arguably gain in the longer term from the increase in system customers, capacity usage and sales volumes if this in turn reduces their unit transmission, distribution, storage or commodity costs."

**Request:**

Does EPCOR have any evidence that details lower rates for existing customers based on the uneconomic expansion of the natural gas system?

If please, provide details of this.

**Response:**

Changing geographical patterns of natural gas supply, combined with impacts on demand arising from a price on carbon, may lead to reduced utilization of existing transmission, distribution and storage infrastructure. In such cases, new customer contributions to fixed costs may have a beneficial impact on existing customer rates. See also response to EUI-OEB-008 (h).

**Exhibit S4.EPCOR.EP.3**

**Reference:** **Evidence of EPCOR Adonis Yatchew, Charles Rivers Associates page 12**

> 29. To achieve the significant benefits of expansion and following the policy direction from the Government, the Board should establish and administer an Expansion Reserve which would be funded by a small volumetric levy on Province-wide sales of natural gas to current customers. System expansion brings direct and indirect benefits throughout the Province.
>
> 30. The maximum potential support from the Expansion Reserve could be based on expected annual sales, averaged over a suitable period. For example, if Project A is expected to generate 10 times the sales volume of Project B, then its maximum support in aid of construction would be 10 times the maximum potentially available for Project B. Confirm that the Expansion Reserve is to be funded from Sales of Gas as opposed to transmission and distribution revenues and margin and accordingly will include the variability of gas prices.

**Request:**

(a) Please indicate all other jurisdictions where such a levy is utilized and for each provide a review of the approach.

(b) Please explain in detail how such a fund would be applied to a new CE project using one of EPCORs proposed Franchises and the framework for analysis with an illustrative example.

**Response:**

(a) Please see response to EUI-OEB-008 (a).

(b) Please see response to EUI-OEB-008 (c).

**Exhibit S4.EPCOR.FRPO.1**

**Reference:** **EPCOR Evidence page 12, paragraph 30**

**Preamble:** "The maximum potential support from the Expansion Reserve could be based on expected annual sales, averaged over a suitable period. For example, if Project A is expected to generate 10 times the sales volume of Project B, then its maximum support in aid of construction would be 10 times the maximum potentially available for Project B."

**Request:**

(a) Please provide assumptions behind this approach in terms of economic equity.

(b) Please explain why a sales volume versus another econometric attribute (such as contribution to operating margin) is recommended.

(c) Where has such an approach been used successfully?

**Response:**

(a) The underlying idea is that the maximum support that could be expected per unit volume does not depend on the location of the customer.

(b) In addition to the above equity feature, the metric was selected because of its simplicity. It is based on numbers (i.e., projected sales volume) that would normally be estimated as part of any expansion plan.

(c) Please see response to EUI-OEB-008 (a) which discusses examples where expansion support schemes have been implemented.

**Exhibit S4.EPCOR.IGUA.1**

**Reference:** **Evidence, paragraph 22.**

The evidence cites refers to a successful proposal by Summit Natural Gas of Maine (SNG) to extend gas service to previously unserved areas in that state. The evidence indicates that SNG's business strategy included:

> *…innovative approaches to pricing including accepting a rate of return that is below industry standards for the initials years of the tariff plan, offering pricing structures that include up-front financial incentives to help defray the costs of converting to natural gas and offering "on bill" loans to help bridge the gap between upfront costs of conversion and eventual savings from switching to a cheaper fuel source.*

**Request:**

Has EPCOR considered any of these mechanisms, or any similar customer incentive mechanisms, to facilitate expansion of gas distribution unserved communities. If it has, please detail those considerations. If it has not, why not?

**Response:**

EPCOR is considering all these options.

**Exhibit S4.EPCOR.IGUA.2**

**Reference:** **Evidence, paragraph 29.**

Dr. Yatchew proposes an "Expansion Reserve" which would be funded by *"a small volumetric levy on Province-wide sales of natural gas to current customers"*, and the funds in which would be used to support gas service expansion by qualifying proponents.

**Request:**

(a) Please describe how this proposal differs in substance from the announced government grant and loan gas expansion programs, other than how the funds are collected.

(b) Please comment on the impacts on economic efficiency of adding such a levy to the delivered cost of gas for all Ontario gas consumers, as opposed to funding such a program through government collection (in the manner of collection of the funds for the government's gas expansion grant and loan programs). From the perspective of gas service price signal "fidelity", which mechanism would be preferable, and why?

(c) Should the recommended funding be available to alternative energy service proposals (LNG, CNG, bio-gas, district energy, micro-grid) if one or more such alternatives are demonstrably more economic?

(d) What criteria would Dr. Yatchew propose as required qualifications for access to the proposed fund?

(e) Would funding of customer conversion costs be an appropriate use of the proposed fund? If not, why not?

**Response:**

(a) The proposal differs in at least two important ways. First, it would be administered by the Board. Second, details of eligibility and implementation for the Provincial fund are not as yet available. The approach proposed in the EPCOR evidence and in its response to EUI-OEB-008 may also differ.

(b) Given the proposed magnitude of the levy, less than 0.5% of the gas bill for a typical residential customer, the impact on the fidelity of the price signal is likely minimal. (Please see responses to EUI-OEB-008 and EUI-OEB-013.)

(c) Unless specifically directed to do so by the Province, the program should be limited to natural gas expansion. The Board has determined that LNG transportation is a competitive business. In some instances, trucking LNG may be cheaper than building natural gas pipelines to a distribution system. In these instances, the cost of the trucking operations would not be eligible for support. However, the distribution system would be eligible, including the necessary compression systems. The trucking cost may be deemed an allowable operating cost for the purpose of calculating the revenue requirement but it would not be eligible to earn a regulated rate of return.

(d) Please see response to EUI-OEB-008.

(e) Both Provincial funds and the Expansion Reserve could be used for conversion costs, though the proposal envisions the latter to be primarily for the purpose of funding the capital costs of expanding the distribution network.

**Exhibit S4.EPCOR.IGUA.3**

**Reference:** **Evidence, paragraph 38.**

Dr. Yatchew advocates a *"modest surcharge"* on current customers to fund currently uneconomic gas system expansion.

**Request:**

Could Dr. Yatchew please quantify what he considers *"modest"* to be for such a surcharge.

**Response:**

Please see response to EUI-OEB-008 (i) where the proposed surcharge of \$0.002 per $m^3$ would represent less than 0.5% of the gas bill for a typical residential customer.

**Exhibit S4.EPCOR.IGUA.4**

**Reference:** **Evidence, paragraph 63.**

Dr. Yatchew asserts that:

> *A regulatory model that allows incumbent providers to recover part of their capital expansion costs through higher rates charged to their existing customers, without having these funds available to competing entities, would seriously disadvantage potential entrants.*

Dr. Yatchew goes on to assert that this *"underscores the essentiality of creating a segregated fund, administered by the Board or its designate"*.

**Request:**

(a) Does the government's announced natural gas expansion grant and loan fund/program present any such disadvantage to potential entrants?

(b) Would expansion of the government's program achieve the objectives endorsed by Dr. Yatchew at least as well as an OEB mandated and administered levy on natural gas ratepayers? If not, why not?

**Response:**

(a) The full details of the Government program are not yet available. If all applicants would have equal access to such funds, the disadvantage stated above would not be present.

(b) Intra-industry funding improves transparency and likely enhances stability and predictability of such programs. Government funds face many competing demands and pressures, particularly over the course of election cycles.

**Exhibit S4.EPCOR.IGUA.5**

**Reference:** **Evidence, paragraph 66 and page 24 (top).**

At the first reference, Dr. Yatchew states:

> *The allocation of costs in networks does not generally admit unique assignments based on cost causality. A range of outcomes can satisfy principles of equity.*

At the second reference, Dr. Yatchew states:

> *Cost allocations in networks (and more generally whenever there are common costs) do not have unique and unequivocal solutions based purely on principles of cost causality.*

**Request:**

(a) Does Dr. Yatchew offer these statements as justification for a degree of cross-subsidy of expansion projects by existing customers?

(b) If not, please provide further explanation of what is meant by these statements and how they relate to the issues addressed in Dr. Yatchew's evidence.

(c) If so, please provide further explanation of the meaning of these statements in the context of such cross-subsidies.

**Response:**

The purpose of these statements is to put into perspective the magnitude of the proposed levy which is 0.5% of a typical residential gas bill (see response to EUI-OEB-008 (i)).

Relatively simple cost allocation problems can lead to much wider ranges of percentage impacts on customer bills depending on the solution concept that is chosen.

**Exhibit S4.EPCOR.IGUA.6**

**Reference:** ***Comments on Economic Issues Raised in EB-2016-0004*, filed on behalf of Parkland Fuel, paragraph 1.8.**

In their evidence, Mr. Dasgupta and Dr. Nieberding discuss the load forecast risk associated with gas system expansions.

**Request:**

(a) Is EPCOR willing to assume the load forecast risk associated with its expansion project(s)?

(b) If not, how does EPCOR propose to allocate that risk?

**Response:**

(a) There are at least two sources of load forecast risk: the first arising from the rate and time profile of conversions to natural gas; the second from the usual business cycle and weather related impacts on demand. I understand that EPCOR is prepared to assume risks associated with conversion rates, on the assumption that financial incentives to possible customers are available. Apportionment of other demand risks would be governed by the Board's incentive regulation framework.

(b) See the response to (a) above.

**Exhibit S4.EPCOR.NOACC.1**

**Request:**

If a fund is created to support the expansion of natural gas service to those rural and remote communities who do not have such service, please provide your position with respect to:

(a) whether:

i. such a fund should be contributed to by all ratepayers in Ontario and used to expand service to communities irrespective of Utility; or

ii. whether separate funds should be created for each Utility, limiting contribution to each such fund to customers of each Utility with said funds being used to expand natural gas service to only customers or perspective customer of such Utility.

(b) how the Utility would prioritize the use of said fund for the expansion of specific projects;

(c) whether the Utility would be amenable to the incorporation, even partially, of a non-economic test (e.g. needs based) to prioritize the use of said fund for the expansion of specific projects;

**Response:**

(a) Under the proposed mode, a single Expansion Reserve would be created for the Province, with contributions by customers of all utilities.

(b) Utilities would present their project proposal to the Board for approval. For further details on implementation and eligibility, please see response to EUI-OEB-008 (c).

(c) As currently proposed, eligibility would be based on competency and economics. It may be that the Province may choose to add non-economic criteria when allocating its grants and loans.

**Exhibit S4.EPCOR.NOACC.2**
**Request:**

At Page 19 of 38, 4(f) of its evidence, Union Gas submits that an assessment of the "impacts of not proceeding with the project should not be required". Does the Utility agree with the above referenced submission of Union Gas? If so, would the Utility then agree that circumstances such as the current energy supply mix (e.g. electricity, diesel) and specific energy needs of the communities are not relevant criteria? If the Utility does not agree with the above noted submission, why not?

**Response:**

Further clarification of the intent of Union's statement would be required in order to offer an opinion.

**Exhibit S4.EPCOR.OGA.1**
**Reference:** **Evidence of EPCOR (CRA) p.4**

**Request:**

Please advise whether Mr. Yatchew agrees that subsidies for natural gas expansion are inconsistent with the government's cap and trade approach to carbon reduction, as subsidies skew the price signals and make it more difficult for "individuals, firms and markets to determine the most cost effective ways to reduce their dependence on fossil fuels."

**Response:**

Given the proposed magnitude of the levy, less than 0.5% of the gas bill for a typical residential customer, the distortionary effect on the price signal is likely minimal.

**Exhibit S4.EPCOR.PFC.1**

**Reference:** **Evidence of Adonis Yatchew on behalf of EPCOR Utilities Inc., pg. 24**

Dr. Yatchew discusses some broad economic benefits that may result from natural gas expansion.

**Request:**

(a) Does Dr. Yatchew believe that a natural gas expansion project constructed by one utility will benefit the customers of other natural gas utilities? If so, please explain these benefits fully.

(b) Is Dr. Yatchew aware of any recent academic research that supports and quantifies the notion of substantial positive externalities from natural gas expansion? If so, please provide copies of all relevant studies or reports.

**Response:**

(a) Yes, there is the potential for wider benefits. As stated at paragraph 37

> "… even existing customers may arguably gain in the longer term from the increase in system customers, capacity usage and sales volumes if this in turn reduces their unit transmission, distribution, storage or commodity costs."

Changing geographical patterns of natural gas supply, combined with impacts on demand arising from a price on carbon, may lead to reduced utilization of existing transmission, distribution and storage infrastructure. In such cases, new customer contributions to fixed costs may have a beneficial impact on existing customer rates.

Nor are the benefits to Provincial customers independent of which companies will provide service to expansion areas. Competition for franchises and expansion opportunities is likely to reduce capital costs. Innovative business models (e.g., those which improve efficiency through economies of scope) may result in similar models being adopted more widely. Finally, the presence of new distributors is likely to improve regulatory efficacy as the Board will have additional comparators.

For additional information, see response to EUI-OEB-008 (h).

(b) I am not aware of any recent academic research that quantifies positive externalities from natural gas expansion that would be relevant in the present context.

**Exhibit S4.EPCOR.SEC.1**
**Reference:** **Yachew Report, p. 6-7**

**Request:**

To achieve the benefits of a competitive franchise process set out in paragraph 17 of his report, what does Dr. Yachew believe are the factors should a municipality consider in selecting a proponent?

**Response:**

Among the factors that a municipality should consider are the projected costs of the project, the company's proposed risk sharing mechanism, the incentives that will be put in place to induce conversion, the potential for efficiency gains with resulting benefits to customers, the likely reliability of the service, and the reputation of the company.

**Exhibit S4.EPCOR.SEC.2**
**Reference:** **Yachew Report, p. 12**

**Request:**

Notwithstanding achieving any potential policy direction of the Government or Board regarding achieving community expansion, does Dr. Yachew believe that it is economically efficient or preferable to provide any form of subsidization for community expansion projects? If so, please explain.

**Response:**

Expansion that leads to the presence of new service providers in the Province can lead to improved dynamic efficiency. Innovative business models and additional comparators within the regulatory process can provide wider benefits. See response to EUI-OEB-008 (h).

**Exhibit S4.EPCOR.SEC.3**
**Reference: Yachew Report, p. 12**

**Request:**

Does Mr. Yachew believe that the "significant benefits of expansion" outweigh the costs of the proposed expansion reserve subsidy? If so, please explain and provide all calculations.

**Response:**

No calculations have been performed. See response to EUI-SEC-002.

**Exhibit S4.EPCOR.SEC.4**
**Reference: Yachew Report, p. 12**

**Request:**

If the Board were to approve the 'Expansion Reserve' mechanism discussed in Dr. Yachew's report, would the Board have the jurisdiction to require natural gas consumers of Utilities Kingston and Kitchener Utilities to contribute? If it does not, would it still be appropriate to require some but not all natural gas consumers in the province to contribute?

**Response:**

EPCOR will respond to this in its legal argument.

It is appropriate that all natural gas consumers contribute to the fund. The creation of exceptions would likely be perceived as inequitable.

**Exhibit S4.EPCOR.SEC.5**
**Reference:** **Yachew Report, Appendix A**

**Request:**

Are the responses to the Board's Draft Issues List set out in Appendix A to the Yachew Report, the position of Dr. Yachew, EPCOR, or both?

**Response:**

The filed material is the expert evidence of Adonis Yatchew and represents his views. Dr. Yatchew is advised by EPCOR that Appendix A to his written evidence also reflects EPCOR's views.

**Exhibit S4.EPCOR.SEC.6**
**Reference:** **Parkland Evidence, Dasgupta and Nieberding Report**

**Request:**

Please provide Dr. Yachew's view on the conclusions and the analysis contained in the Dasgupta and Nieberding Report.

**Response:**

See the response to Exhibit.S4.EPCOR.Board Staff.13.

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**Exhibit S4.EPCOR.SEC.7**
**Request:**

Did EPCOR's successful proposal to the South Bruce municipalities include any proposal for subsidization or a shareholder contributions? If so, please provide details.

**Response:**

EPCOR's Franchise Applications regarding the South Bruce municipalities have been filed with the Board and have been assigned their own docket numbers. The Applications will be addressed by the Board in a manner that it deems appropriate, in future proceedings. EPCOR's Applications are not at issue in the current generic proceeding, and the requested Application-specific information is well beyond the scope of the issues defined by the Board for this generic proceeding. In addition, the information sought is beyond both the scope of Dr. Yatchew's written evidence and the matters he is appearing before the Board to address. As such, Dr. Yatchew respectfully declines to provide the requested information.

**Exhibit S4.EPCOR.SEC.8**

**Reference:** **South Bruce evidence, Municipalities Report, p.9**

**Request:**

Please provide a copy of the responses provided by EPCOR to South Bruce's initial RFI and second phase of the RFI.

**Response:**

Dr. Yatchew understands that EPCOR's responses to the South Bruce RFI resulted in the franchise agreements which are the subject of the Applications referenced in the response to EUI-SEC-007. Dr. Yatchew respectfully declines to provide the requested information for reasons outlined in the response to that interrogatory.

**Exhibit S4.EPCOR.SEC.9**
**Reference:** **Enbridge Evidence, para 14-16**

**Request:**

Please provide Dr. Yachew's views with regards to Enbridge's position that more regulated natural gas utilities are not beneficial.

**Response:**

Dr. Yatchew disagrees with this position. Efficient scale is likely achieved at utility sizes that are substantially smaller than those of the two large incumbents. Furthermore, the presence of additional distributors can contribute to improved benchmarking and enhance regulatory efficacy. See also response to EUI-OEB-008 (h).

**Exhibit S4.EPCOR.SEC.10**
**Reference:** **Union Evidence, p. 30-35**

**Request:**

Please provide Dr. Yachew's views on Union's evidence regarding Issue 9.

**Response:**

See the response to Exhibit.S4.EPCOR.SEC.9.

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**Exhibit S4.EPCOR.SEC.11**
**Reference:** **Union Evidence, p. 28-30**

**Request:**

Please provide EPCOR's view regarding Union's proposed requirements for the Board to issue a Franchise Agreement or Certificate of Public Convenience and Necessity.

**Response:**

While certain minimum standards need to be met, there are various ways that capabilities can be demonstrated. See the response to Exhibit.S4.EPCOR.Board Staff.14.

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**Exhibit S4.EPCOR.SEC.12**
**Reference:** **EB-2016-0137/138/139, Franchise Agreement, section 5**

**Request:**

EPCOR has filed applications for approval of its Franchise Agreements with the Municipalities of Arran-Elderslie, Kinkarden and Huron-Kinloss. In each of those Franchise Agreements, EPCOR has agreed to pay each municipality an annual fee equivalent to 1% of the gross revenue derived by it for natural gas supplied for consumption within the municipality net of the commodity costs of supply. Will EPCOR seek to recover that that annual free from ratepayers or will that be a shareholder expense?

**Response:**

See the response to Exhibit.S4.EPCOR.SEC.7.

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**Exhibit S4.EPCOR.SEC.13**
**Reference:** **EB-2016-0137/138/139, Franchise Agreement, section 6**

**Request:**

EPCOR's proposed Franchise Agreements with the Municipalities of Arran-Elderslie, Kinkarden and Huron-Kinloss include an ITE for 10 years each. Please explain why EPCOR believes that is the appropriate term length.

**Response:**

See the response to Exhibit S4.EPCOR.SEC.7.

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**Exhibit S4.EPCOR.SEC.14**

**Request:**

Please provide any report or analysis conducted by EPCOR regarding potential rates for South Bruce customers.

**Response:**

See the response to Exhibit S4.EPCOR.SEC.7.

**Exhibit S4.EPCOR.SEC.15**
**Request:**

What is EPCOR's estimated PI for the each for its expected natural gas expansion into each of the Municipalities of Arran-Elderslie, Kinkarden and Huron-Kinloss. Please provide all calculations.

**Response:**

See the response to Exhibit S4.EPCOR.SEC.7.
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**Exhibit S4.EPCOR.Union.1**

**Reference:** **EB-2016-0004 – EPCOR Utilities / Adonis Yatchew Evidence**

**Preamble:** The evidence filed by EPCOR Utilities (dated March 21, 2016) was prepared by Adonis Yatchew of Charles River Associates and the University of Toronto.

**Request:**

(a) Please confirm that EPCOR adopts the evidence prepared and filed by Adonis Yatchew as its own?

(b) Please provide copies of all contract and retainer details related to the services provided by Mr. Yatchew.

**Response:**

(a) The filed material is the expert evidence of Adonis Yatchew and represents his views. Dr. Yatchew is advised by EPCOR his written evidence also reflects EPCOR's views.

(b) See the response to Exhibit S4.EPCOR.CCC.2.

**Exhibit S4.EPCOR.Union.2**

**Reference:** **EB-2016-0137 – Arran-Elderslie Franchise Agreement and CPCN**
**EB-2016-0138 – Kincardine Franchise Agreement and CPCN**
**EB-2016-0139 – Huron-Kinloss Franchise Agreement and CPCN**

**Preamble:** Paragraph 16 of each of the referenced Applications refers to recently signed Franchise Agreements between Bruce County municipalities and EPCOR.

**Request:**

Please provide copies of the applications filed by EPCOR Southern Bruce Gas Inc. with the Ontario Energy Board under docket numbers EB-2016-0137, EB-2016-0138 and EB-2016-0139.

**Response:**

The referenced Applications have been filed with the Board and have been assigned their own docket numbers. The Applications will be addressed by the Board as it determines to be appropriate in future regulatory approval proceedings. Many of Union's interrogatories seek specific details relating to the subject matter of those Applications. EPCOR's Applications are not at issue in this generic proceeding, and the requested Application-specific information is well beyond the scope of the issues defined by the Board for this generic proceeding. In addition, the information sought is beyond both the scope of Dr. Yatchew's written evidence in this generic proceeding and the matters he is appearing before the Board to address. As such, Dr. Yatchew respectfully declines to provide the requested information.

**Exhibit S4.EPCOR.Union.3**

**Reference:** **EB-2016-0137 – Arran-Elderslie Franchise Agreement and CPCN**
**EB-2016-0138 – Kincardine Franchise Agreement and CPCN**
**EB-2016-0139 – Huron-Kinloss Franchise Agreement and CPCN**

**Preamble:** Paragraph 16(a) of each of the referenced Applications states that Section 4 of Part II of the proposed Franchise Agreement contains termination provisions.

**Request:**

(a) Please confirm EPCOR Utilities' understanding that the current Model Franchise Agreement resulted from agreements among stakeholders participating in the Ontario Energy Board's RP-1999-0048 proceeding.

(b) Please confirm that EPCOR Utilities is requesting that paragraph 4(a) and (b) of the Model Franchise Agreement approved by the Ontario Energy Board be replaced by paragraphs 4(a), (c), (d), (e), (f), (g), (h) and (i) of the proposed franchise agreements with each of the South Bruce Municipalities.

(c) Please provide all correspondence between EPCOR Utilities and the Province of Ontario regarding the Natural Gas Access Loans and the Natural Gas Economic Development Grants.

**Response:**

(a) Dr. Yatchew is advised that EPCOR has not researched the history of the current Model Franchise Agreement.

(b) See the response to Exhibit S4.EPCOR.Union.2.

(c) See the response to Exhibit S4.EPCOR.CCC.3.

**Exhibit S4.EPCOR.Union.4**

**Reference:** **EB-2016-0137 – Arran-Elderslie Franchise Agreement and CPCN**
**EB-2016-0138 – Kincardine Franchise Agreement and CPCN**
**EB-2016-0139 – Huron-Kinloss Franchise Agreement and CPCN**

**Preamble:** Paragraph 16(c) of each of the referenced Applications states that Section 6 of Part III of the proposed Franchise Agreements provides for a rebate of each of the Municipality's portion of any property or similar taxes payable by EPCOR pursuant to the Ontario Assessment Act for the first 10 years of operation of the proposed gas distribution systems.

**Request:**

(a) Please provide an estimate of the rebate that EPCOR Utilities expects to receive in each of the first 10 years of operation of the proposed gas distribution systems in each of Arran-Elderslie, Kincardine and Huron-Kinloss. Please provide all associated calculations.

(b) Please provide details of any other natural gas distributor in Ontario that currently receives rebates of taxes payable to a municipality.

**Response:**

(a) See the response to Exhibit S4.EPCOR.Union.2.

(b) See the response to Exhibit S4.EPCOR.Union.2.

**Exhibit S4.EPCOR.Union.5**

**Reference:** **EB-2016-0137 – Arran-Elderslie Franchise Agreement and CPCN**
**EB-2016-0138 – Kincardine Franchise Agreement and CPCN**
**EB-2016-0139 – Huron-Kinloss Franchise Agreement and CPCN**

**Preamble:** Paragraph 26 of the EB-2016-0137 Application and Paragraph 23 of both of the EB-2016-0138 and EB-2016-0139 Applications states that EPCOR has committed over $2 million to date on external experts that have assisted in pipeline development activities including design, routing, stakeholder engagement, and gas supply and demand analysis for EPCOR's proposed franchise areas; modeled preliminary tariffs based on costing to date and designed to encourage customer conversion; and made substantial progress on the regulatory work necessary to become the natural gas supplier in Arran-Elderslie and the other proposed franchise areas.

**Request:**

(a) Please provide details of the gas supply and demand analyses for each of EPCOR's proposed franchise areas.

(b) Please provide details of the preliminary tariffs and costs to be recovered in each of the proposed franchise areas.

**Response:**

(a) See the response to Exhibit.S4.EPCOR.Union.2.

(b) See the response to Exhibit.S4.EPCOR.Union.2.

**Exhibit S4.EPCOR.Union.6**

**Reference:** **EB-2016-0137 – Arran-Elderslie Franchise Agreement and CPCN**
**EB-2016-0138 – Kincardine Franchise Agreement and CPCN**
**EB-2016-0139 – Huron-Kinloss Franchise Agreement and CPCN**

**Preamble:** Paragraph 29 of the EB-2016-0137 Application and Paragraph 26 of both of the EB-2016-0138 and EB-2016-0139 Applications states that EPCOR has consulted with every potential major customer in the proposed franchise areas, held three open houses and consulted with many potential residential and commercial customers.

**Request:**

(a) Please provide details of customers that have been consulted in each municipality and the materials provided to these potential customers.

(b) Please provide any correspondence exchanged with these potential customers and any comments / questions received during consultations.

(c) Please provide any tariff or rate information provided to these customers.

**Response:**

(a) See the response to Exhibit.S4.EPCOR.Union.2.

(b) See the response to Exhibit.S4.EPCOR.Union.2.

(c) See the response to Exhibit.S4.EPCOR.Union.2.

**Exhibit S4.EPCOR.Union.7**

**Reference:** **EB-2016-0137 – Arran-Elderslie Franchise Agreement and CPCN**
**EB-2016-0138 – Kincardine Franchise Agreement and CPCN**
**EB-2016-0139 – Huron-Kinloss Franchise Agreement and CPCN**

**Preamble:** In Schedule A to the Assignment and Assumption Agreements in each of the Applications, EPCOR refers to a letter agreement dated February 19, 2016 to EPCOR Utilities Inc. from the municipalities and a letter dated February 22, 2016 from EPCOR Utilities Inc. re: Irrevocable Option offered to the municipalities.

**Request:**

(a) Please provide copies of the referenced letter agreement and irrevocable option letter.

**Response:**

(a) See the response to Exhibit.S4.EPCOR.Union.2.

**Exhibit S4.EPCOR.Union.8**

**Reference:** **EB-2016-0004 – EPCOR Utilities / Adonis Yatchew Evidence**

**Preamble:** Paragraph 18 of the evidence states that the recently signed franchise agreements between two municipalities and a township in Bruce County, and EPCOR provides a clear indication of the feasibility of competition in Ontario.

**Request:**

(a) Please provide copies of any customer rate information provided by EPCOR to the South Bruce municipalities for their evaluation of RFI respondents.

(b) Please provide the projected revenue requirement in absence of government funding expected by EPCOR from the project to extend service to the South Bruce municipalities.

(c) Please provide copies of all reports and business case analyses that were provided to the South Bruce municipalities which were used to support the approval provided to EPCOR Utilities.

**Response:**

(a) See the response to Exhibit.S4.EPCOR.Union.2.

(b) See the response to Exhibit.S4.EPCOR.Union.2.

(c) See the response to Exhibit.S4.EPCOR.Union.2.