

ONTARIO ENERGY BOARD

IN THE MATTER OF the *Ontario Energy Board Act, 1998*, S.O. 1998, c. 15, Sch.B, as amended;

AND IN THE MATTER OF a proceeding on the motion of the Ontario Energy Board to consider amendments to the framework for expansion of natural gas service into new communities

**FIRST ROUND SUBMISSIONS
OF THE
ONTARIO GEOTHERMAL ASSOCIATION**

June 20, 2016

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TABLE OF CONTENTS

1	GENERAL COMMENTS AND SUMMARY	3
1.1	<u>INTRODUCTION</u>	3
1.2	<u>SUMMARY OF SUBMISSIONS</u>	4
2	UNECONOMIC COMMUNITY EXPANSIONS.....	8
2.1	<u>INTRODUCTION</u>	8
2.2	<u>BACKGROUND</u>	9
2.3	<u>CUSTOMER PREFERENCES</u>	14
2.4	<u>RATIONALE FOR SUBSIDIES</u>	15
2.5	<u>UTILITY PROPOSALS</u>	17
2.6	<u>WHAT DO THE NEW CUSTOMERS REALLY WANT?</u>	18
2.7	<u>WHAT DOES THE GOVERNMENT WANT?</u>	20
2.8	<u>PICKING WINNERS AND LOSERS</u>	22
2.9	<u>OGA POSITION</u>	23
3	ONTARIO'S LOW CARBON FUTURE	25
3.1	<u>INTRODUCTION</u>	25
3.2	<u>CLIMATE CHANGE ACTION PLAN AND NATURAL GAS</u>	25
3.3	<u>THE ROLE OF GEOTHERMAL</u>	28
3.4	<u>STRANDED ASSETS</u>	30
3.5	<u>UTILITY CLIMATE CHANGE PLANNING</u>	31
3.6	<u>OGA RECOMMENDATION – CCAP STRATEGY A THRESHOLD CONDITION</u>	33
4	A SEPARATE UCE PROJECT FRAMEWORK	35
4.1	<u>INTRODUCTION</u>	35
4.2	<u>THE PROPOSED FRAMEWORK</u>	35
4.3	<u>ECONOMIC TEST</u>	36
4.4	<u>RISKS</u>	37
4.5	<u>LEAST COST PLANNING ANALYSIS</u>	37
4.6	<u>UTILITY CONTRIBUTIONS</u>	39
4.7	<u>ENVIRONMENTAL AND RELATED IMPACTS</u>	40
4.8	<u>INDUSTRIAL AND COMMERCIAL BENEFITS</u>	41
4.9	<u>OTHER COSTS AND BENEFITS</u>	42
4.10	<u>CONCLUSION</u>	42
5	RESPONSES TO THE BOARD'S ISSUES LIST	43
5.1	<u>INTRODUCTION</u>	43
5.2	<u>DEFINITION OF COMMUNITY</u>	43
5.3	<u>LEGAL AUTHORITY FOR INTER-UTILITY SUBSIDIES</u>	43
5.4	<u>MERITS OF INTER-UTILITY SUBSIDIES</u>	43
5.5	<u>MODIFYING OR REPEALING EBO188</u>	43
5.6	<u>SURCHARGES</u>	44
5.7	<u>OTHER RATEMAKING AND RATE RECOVERY OPTIONS</u>	45
5.8	<u>UCE PROJECT COSTS AND IRM</u>	45

5.9 MUNICIPAL FRANCHISE AGREEMENTS AND CPCNS.....45
5.10 NEW ENTRANTS.....45
5.11 CAP AND TRADE – IMPACTS ON FRAMEWORK46
5.12 CAP AND TRADE – ECONOMIC IMPACTS46
5.13 LOAN AND GRANT PROGRAMS46
6 OTHER MATTERS **47**
6.1 COSTS.....47

1 GENERAL COMMENTS and SUMMARY

1.1 Introduction

1.1.1 On January 20, 2016 the Board, in response to the evolution of the issues and positions in a Union Gas Application (EB-2015-0179), initiated a generic proceeding to consider natural gas community expansions in Ontario. The Board described its intent as follows¹:

“A generic proceeding will allow the OEB to establish a common framework and provide guidance to all entities that wish to provide gas distribution services in communities across Ontario.”

1.1.2 The essence of this proceeding is that the utilities, and perhaps some other parties, propose that a longstanding policy² of the Board prohibiting cross-subsidization of natural gas community expansion projects should be overturned. Those parties believe – with other parties disagreeing - that the government of Ontario has asked the Ontario Energy Board to authorize subsidies by existing ratepayers of uneconomic community expansion projects (called “UCE projects” throughout these Submissions) by the natural gas distributors. The Board in this proceeding is considering whether to amend its current community expansion framework to allow such subsidies, and, if so, on what terms.

1.1.3 Further, these issues are being considered against the backdrop of a supervening event: the government’s announcement of an aggressive, forward-thinking Climate Change Action Plan³ that will affect every aspect of the use of carbon-based fuels in this province. Among other things, the Action Plan contemplates a shift away from fossil fuels in space heating⁴.

1.1.4 These are the First Round Submissions of the Ontario Geothermal Association.

1.1.5 Many of the groups who intervened in this proceeding have worked together throughout the hearing to avoid duplication, including exchanging drafts or partial drafts of their final arguments and discussing the issues extensively before finalizing positions. We have been assisted in preparing this Final Argument by that co-operation amongst parties.

1.1.6 We have not made submissions on every issue on the Issues List. In a number of cases, we have elected to focus our resources on the issues that affect our members

¹ Board’s Letter of January 20, 2016, p. 2.

² Generally ascribed to EBO 188.

³ Ontario’s Five Year Climate Change Action Plan, June 7, 2016, prepared pursuant to section 7 of the *Climate Change Mitigation and Low Carbon Economy Act*, S.O. 2016, C.7.. This plan is referred to in these Submissions as “CCAP” or the “Action Plan”.

⁴ CCAP p. 8, 27, and many other places.

most directly, and not develop positions on other issues, including some that may have material impacts. Where OGA indicates that it does not have submissions on any issue, that should not be interpreted as agreement with the position of any other party to this proceeding. Where we agree, we say so explicitly. Silence is just silence.

- 1.1.7 The numbering of Sections and Subsections in these Submissions is not consistent with the numbering in the Issues List, because the logic of our Submissions would make that hard to follow. In Section 5 of these Submissions, OGA deals with each of the issues on the Issues List seriatim.

1.2 Summary of Submissions

- 1.2.1 ***The Longstanding Policy of the Board is “No Subsidies”.*** The Board has consistently refused to allow the utilities to prop up community expansions through subsidies from existing ratepayers. EBO 188 reinforces that as its central theme. The suggestion in this proceeding that this longstanding policy should be overturned is a major change of direction, and should only be accepted by the Board on overwhelming evidence that this is necessary and appropriate.
- 1.2.2 Two aspects of the current situation make it particularly important that the Board exercise restraint in considering whether UCE projects should be allowed:
- (a) None of the existing ratepayers have been subsidized by the ratepayers who came before them. In each case, the existing ratepayers, when they were newly added, paid their own way, sometimes through substantial contributions in aid of construction.
 - (b) The government of Ontario had the power to require the Board to implement subsidies from existing ratepayers, was asked to do so by the utilities, and chose not exercise that power. Indeed, the former Minister, in his letter, did not even suggest subsidies as a possibility.
- 1.2.3 ***The Utilities Now Propose, for the First Time, Subsidies by Existing Customers to Allow New Customers to Have Lower Energy Bills.*** There are three fundamental issues with asking the existing customers to pay more, so that new customers can pay less:
- (a) ***Customer Engagement.*** At no time have the utilities determined whether existing customers are willing to accept an increase in their rates (estimated to be up to 7%) to subsidize UCE projects.

(b) **Just and Reasonable.** Charging existing customers for benefits to new customers, with no benefits expected for the existing customers, may bring into question whether the rates for the existing customers are, thereafter, “just and reasonable”.

(c) **Government Policy Mandate.** Leaving aside whether the Board has the jurisdiction to enact subsidies, it is questionable whether the Board should do so, or whether this is a policy decision within the ambit of the government rather than the regulator. That is especially true since the government has already determined the nature and amounts of the subsidies - \$200 million of loans, and \$30 million of grants – that it believes are appropriate.

1.2.4 The Board Should Not Choose Winners and Losers Between Energy Sources.

The Board has never in its history exercised its regulatory power to choose winners and losers between energy sources. As an economic regulator, the Board has focused on ensuring that the rates for those monopoly energy sources that it regulates are just and reasonable, and has left it to the market (and, to a certain extent, government) to decide which energy sources will be adopted, and to what extent.

1.2.5 In this proceeding, some parties are asking the Board to determine that natural gas be given a competitive advantage in the UCE communities. This would be a new role for the Board. Unless directed by the government to take on this role, the Board should be reluctant to do so unless there is a clear market failure that only the Board can rectify. There is none here.

1.2.6 The Utility Proposals are Inimical to the Government’s GHG Goals and Vision.

The evidence shows – and this appears to be common ground among the parties - that the use of natural gas for space and water heating must decline over the next thirty five years if the province of Ontario is to meet its targets for GHG reductions in 2020, 2030, and 2050. The best estimate appears to be a 40% reduction in natural gas throughput by 2030, but there is no consensus whether that is reasonable. The utilities readily admit that DSM and other known solutions do not achieve that result. It is clear that they face a substantial challenge in achieving the province’s GHG goals.

1.2.7 This is not about following policy direction from the government. Just as the government has not used its directive powers to cause the Board to implement subsidies, it has not used its directive powers to cause the Board to reduce investments in natural gas infrastructure. However, in both cases the government has announced actions it is taking⁵ that will have an impact on the market going forward. It is important that the Board’s policies are designed to be effective in this changed future market.

⁵ \$230 million in support for natural gas community expansion, and \$2.1 to \$3.0 billion in support for a shift away from fossil fuels for space and water heating in buildings.

- 1.2.8** OGA therefore recommends that the Board impose a moratorium on community expansion applications by utilities until they each prepare, and present for the Board's review, their strategy to achieve the goals of the Action Plan. This should include not just Union Gas and Enbridge, but also any new entrants that propose to provide natural gas service to communities currently not served.
- 1.2.9** The proposed moratorium is appropriate in its own right, but is also necessary in part because it is appropriate for the Board to require – as proposed below - that each community expansion be consistent with the applicant's strategy to achieve the goals of the Action Plan.
- 1.2.10** *OGA's Proposed New Framework for Uneconomic Community Expansion Projects.* Based on the evidence in this proceeding, the Ontario Geothermal Association proposes that, for uneconomic community expansion projects, each project should require prior Board approval, whether by way of leave to construct or otherwise. A utility, once it has a Board-approved CCAP strategy, should be required to apply for prior Board approval before launching a UCE project.
- 1.2.11** In seeking Board approval, an applicant should be required to provide the following:
- (a) *Economic Analysis.*** An economic analysis in the form established by EBO 188, including natural PI, and any proposed PI after municipal contributions, contributions in aid of construction, and/or rate surcharges. This should also include a rolling portfolio calculation for UCE projects.
 - (b) *Risk Analysis.*** A comprehensive analysis of the forecast risks associated with the project, including cost overruns, attachments, price elasticity, and all other risks, and the applicant's proposal for who will bear those risks.
 - (c) *Least Cost Planning Analysis.*** The applicant should demonstrate through objective evidence that the solution proposed by the applicant, the UCE project, is the most cost effective way of providing energy solutions to the community, having regard for all of the relevant costs and benefits of each potential alternative.
 - (d) *Utility Contributions (if any).*** The application should detail any reduced ROE, cost ceilings, segregated financing, risk minimization, or other proposal by the applicant to ensure that some of the costs or risks of the UCE project are borne by the utility's shareholders.
 - (e) *Environmental Impacts.*** This would include all environmental costs and benefits associated with the UCE project. The applicant would specifically be required to include a demonstration that the UCE project is consistent with the applicant's Board-approved CCAP Strategy.

- (f) Industrial and Commercial Economic Benefits.* The application should provide details of any industrial or commercial economic benefits of the UCE project that are specific to the community affected, such as the opening or retention of industrial concerns, job creation, etc.

- (g) All Other Costs and Benefits Relevant to any Potential Subsidy.* To the extent that the UCE project entails any additional costs or risks that are not included in the other analyses, or will generate any additional benefits that are not so included, details should be provided to the extent that they may be relevant to the Board's approval of any subsidy by existing ratepayers.

2 UNECONOMIC COMMUNITY EXPANSIONS

2.1 Introduction

- 2.1.1 The Board has made clear, both in its Letter and Procedural Orders, and many times during the hearing, that the focus of this proceeding is on developing a framework for community expansions of natural gas infrastructure going forward. In the context of the current situation, there are basically two ways to go about that:
- (a) Review the existing framework and identify its failings, restrictions, and other problems. Then modify that framework to correct those issues, and ensure that the projects that should go through actually do go through.
 - (b) Separate consideration of economic and uneconomic community expansion projects. Adjust EBO 188 if necessary for economic projects, but create an entirely new framework for UCE projects.
- 2.1.2 There has been limited discussion of issues with EBO 188 when it comes to projects that are “economic”, however that may be defined. The hearing did not focus on methodological issues that prevent economic projects from proceeding. Aside from the new proposal to now allow uneconomic projects to proceed, it would appear that many parties are satisfied with EBO 188. While we are aware that some parties will propose changes to the EBO 188 calculations, and will review their submissions on those points with interest, OGA has no initial submissions on EBO 188 for economic community expansions.
- 2.1.3 OGA has therefore focused in this proceeding, and these Submissions, on whether and, if so, how this new category of community expansions – UCE projects – should be allowed to proceed. Given the evidence before the Board, this naturally disaggregates into two issues:
- (a) Should the Board overturn its longstanding rule that existing ratepayers should not be required to subsidize the expansion of natural gas infrastructure to new ratepayers?
 - (b) If a project cannot pay for itself, what framework should be applicable going forward to guide whether that project can still proceed?
- 2.1.4 In this Section 2, we deal with question (a) above. In Section 3, we deal with Climate Change, which is related to both issues. In Section 4, we deal with question (b), and propose a separate framework for UCE projects.

2.2 Background

2.2.1 In order to deal with the question of whether the longstanding “no subsidies” rule should be reversed, there are a number of pieces of background information that are important.

2.2.2 **Rational Expansion.** The objective of the Board under the Act relating to natural gas expansion is as follows⁶:

“The Board, in carrying out its responsibilities under this or any other Act in relation to gas, shall be guided by the following objectives:

...

3. To facilitate rational expansion of transmission and distribution systems.”

2.2.3 Since this provision has been enacted, the term “rational expansion” has consistently been interpreted as being an economic test. That is, expansion is “rational” if it is cost-effective from an economic point of view. Indeed, this is completely consistent with the approach taken in EBO 188. Prior to the Board’s Letter in 2015, and the resulting EB-2015-0179 application, neither the utilities nor the Board have deviated from this economic construction of “rational expansion” since that time.

2.2.4 There are more than 1,400,000 potential customers⁷ in the province of Ontario that do not currently have natural gas service, precisely because expansion to those areas would not be “rational”, as that term is currently understood.

2.2.5 As a result, at no time in the past have existing customers subsidized new customers. All of the existing customers today paid their own way, and none of them received subsidies from the previous existing customers to ease their way into natural gas use.

2.2.6 That does not mean that attaching every new customer in Ontario has been cost-effective at the outset. Many customers added over the last twenty years have paid more than existing customers in order to get gas service, usually by paying contributions in aid of construction.

2.2.7 The paradigm has been that if it costs more to serve a new customer – as it often does – that new customer should pay that incremental cost. What is being proposed by some parties to this proceeding, under the guise of “fairness”⁸, is that former customers, some of whom have already paid extra for their gas service, now should be

⁶ Ontario Energy Board Act, 1998, S.O. 1998, C-15, Sched. B (the “Act”), s. 2.

⁷ J5.4 and Tr.5:197-8. Union and Enbridge had 3.5 million customers in 2014, according to the Board’s Gas Distribution Yearbook, and the electricity distributors had 5.0 million customers in 2014. As the Chair Mr. Quesnelle pointed out, the difference would be a “rough approximation” of the number of customers not yet served by natural gas.

⁸ Tr.3:20-5, and elsewhere.

forced to relieve new customers of the responsibility of paying the full cost of having natural gas. This is not, on the face of it, fairness.

- 2.2.8** It should be noted that those parties supporting UCE projects, including the utilities, are necessarily arguing that the term “rational expansion” should no longer be interpreted on an economic basis. However, none of those parties have proposed a new, principled way of interpreting what “rational expansion” should mean⁹.
- 2.2.9** In OGA’s submission, any decision by the Board to allow UCE projects to go forward should include an express interpretation by the Board – based on sound regulatory and statutory interpretation principles - of the term “rational expansion” in the Board’s statutory objectives.
- 2.2.10** *Natural Gas Cannot Compete.* One of the reasons why the existing definition of “rational expansion” makes sense is that, competing head to head, natural gas is not the option customers will choose in communities that don’t have it. Notwithstanding the many letters to the Board from customers seeking natural gas service in their local area, and notwithstanding the evidence of municipalities and others strongly urging the Board to authorize UCE projects in their area, none of those requests carry with them a willingness to pay the cost of the natural gas service. In every single case, without exception, the customer or municipality wants natural gas, ONLY if someone else pays all or most of the cost. If they have to pay the cost, they do not want it.
- 2.2.11** This is evident first by the fact that some of these communities have been offered gas service at full price, and none of them have taken up that offer. This is usually expressed as a refusal to pay the required contribution in aid of construction necessary to make a project economic. Both Enbridge¹⁰ and Union¹¹ make clear that, once they tell municipalities the full cost of natural gas expansion, the municipalities and their residents are no longer interested¹².
- 2.2.12** It is not just the high up-front cost that is a killer, though. Even if the cost is expressed in rates paid over the lifecycle of the assets, the customers still will not pay¹³. Time after time in the hearing the utilities talked about how high the rates could be before customers would simply not convert to gas, even if it had already been brought to their

⁹ In fact, it is apparent that at least the utilities are not intending that the new approaches they are proposing are based on any principled approach. See, e.g. Tr.6:127.

¹⁰ Tr.1: 53, 157, 205.

¹¹ Tr.4: 168 and Tr.6:31.

¹² And Enbridge candidly admits that residential customers will not pay \$30,000 each to be connected to natural gas service, even if that is less than their benefits from doing so. See Tr.1:204. One of the reasons for this could be that, for much less than \$30,000, most of these customers could get a geothermal system that would do a better job with lower environmental risks. What was even more telling is the position of the municipalities, even with subsidies. Enbridge notes that they will not agree to refund tax revenues generated from the projects beyond ten years, even to make them more cost-effective: Tr.1:51.

¹³ See, e.g., Tr.3:100 and Tr.5: 122.

community¹⁴. If rates were raised past the level of the proposed surcharges, attachment rates would fall, and the UCE projects still could not go ahead. There is no circumstance in which the new customers would be willing to pay the full price of the service they want.

- 2.2.13** The reason for that is that natural gas is not the most cost-effective solution for the energy needs of most rural communities¹⁵. Dr. Reitsma, giving evidence on behalf of the Ontario Geothermal Association, described this as follows¹⁶:

“DR. REITSMA: I did the technical comparisons with natural gas with geothermal. Without subsidies or equal subsidies with all technologies and all companies, it is unlikely that natural gas would be the competitive choice to provide energy to the communities listed by the two utilities.

Other fossil fuels would be significantly cheaper, and we've heard from [the CPA] about the propane, although potentially worse for the environment.

Geothermal would still be less costly, but also better for the environment.”

- 2.2.14** Mr. Hatherton, after explaining a head to head schematic of natural gas vs. geothermal¹⁷, explained why natural gas is more expensive¹⁸:

“MR. HATHERTON: In a green field application where there is no natural gas infrastructure, geothermal will be less expensive and do better for the environment, for most space and water heating and some other applications.

The cost of the pipe in the ground is much less for geothermal; the cost of the mechanical equipment in the basement is similar. And the long-term cost of the energy inputs -- in our case, thermal energy from the property and electricity -- is usually lower.

It is only if you don't count the cost of gas pipes but you do count the cost of geothermal pipes that geothermal is more expensive.”[emphasis added]

- 2.2.15** It is already clear that propane and other fossil fuels, which do not require dedicated infrastructure, are significantly cheaper than natural gas in these communities, absent any subsidies. Geothermal is also cheaper. DSM programs, which could solve part of the problem, would likely also be cheaper.

- 2.2.16** When the Board is considering whether to allow subsidies for natural gas expansions, OGA believes that the Board should be instructed by the fact that, on its own, natural

¹⁴ E.g. Tr.1: 177 and Tr.5:129.

¹⁵ Which Enbridge appears to admit: Tr.3:116.

¹⁶ Tr.5:61-2.

¹⁷ K5.2.

¹⁸ Tr.5:69-70.

gas would not be the first – or in most cases even second or third – choice for most customers in the expansion communities.

2.2.17 Government Policy Mandate. Enbridge described the reason for this proceeding as follows¹⁹:

“MR. MCGILL: Well, I think I have to go back to the reason we're here to begin with. The reason we're here, to begin with, is because the province, through the Ontario Energy Board, has asked us to try and find ways to extend gas service to unserved communities.

On a purely economic basis that may not make sense, in terms of the discounted cash flow analysis that we use in EBO 188, or as it is defined in EBO 134, without looking beyond at the more -- at the societal benefits that EBO 134 took into account.

So notwithstanding what Mr. Jarvis said three or four years ago, we're in a different environment today. We have been asked to try and find ways to extend service to these communities, and that's what we're here to do.”
[emphasis added]

2.2.18 Later, under cross-examination, the witness reiterated that same thinking in even stronger terms²⁰:

“MR. MCGILL: Well, I believe the main objective for us all being here is to determine ways to extend gas service to unserved parts of the province. And what the province asked the Board to do, from what I can read, is examine ways that that could be done.”

2.2.19 There are numerous references of a similar nature in the oral hearing and elsewhere, including similar statements from Union Gas²¹. Enbridge says that if the objective is not implementing a changed government policy to approve more natural gas expansion, that is the end of the discussion. There is no point in having the proceeding²².

2.2.20 What does the Board in fact know about the “provincial policy mandate” referred to so many times in the proceeding²³? The Board knows three things.

2.2.21 First, the government had the power to require the Board to cause more expansions to happen, and had the power to require subsidies from existing customers to new customers. Union Gas specifically asked the government to use that power to ensure

¹⁹ Tr.1:172.

²⁰ Tr. 3:30.

²¹ E.g. Tr.6:69.

²² Tr.1:202.

²³ Tr. 2:17, Tr. 5:130, etc.

that these expansions would go through²⁴. The government elected not to do so.

- 2.2.22** Second, the government put its mind to the amount and types of support it felt were appropriate for natural gas expansion into new areas of the province. Those amounts were \$200 million of loans, and \$30 million of grants. This is significantly less in grants than what the utilities wanted²⁵. Thus, the government has made a policy decision with respect to gas expansion subsidies, and the Board knows the dollars and type of subsidies the government wants.
- 2.2.23** Third, in writing a letter to the Board (as opposed to a directive or other binding document), the Minister of Energy did nothing more than repeat the express wording in the Act: “rational expansion” of gas distribution. The Minister could have gone further, and talked about changing the definition of “rational expansion”, or could have specifically referred to subsidies or other such techniques. He chose not to do so. Instead, he specifically referred to wording that he must be taken to have known has a certain meaning before the Board. That is, the Minister must be taken to know that the Board’s view of rational expansion ruled out uneconomic expansions, which under the Board’s longstanding interpretation of its own statute would not be rational.
- 2.2.24** Other parties will make arguments about the non-binding nature of the Minister’s letter. OGA takes it as given that, notwithstanding many witnesses referring to the Minister’s letter as a “directive” or “direction”²⁶, it is nothing of the sort. The Minister could have issued a directive. He did not.
- 2.2.25** As the Board is aware, it would be an error of law for the Board to treat the Minister’s letter as in any way binding on the Board, even if it did suggest something beyond the current statutory interpretation. In this case, the Minister suggested nothing like that.
- 2.2.26** In short, this proceeding is not taking place because the government wants the Board to order subsidies, and there is no suggestion that is what the government wants in fact. The government has already decided on the subsidies, and specifically decided not to ask or require the Board to subsidize anyone.
- 2.2.27 Summary.** The importance of the background here is to highlight the extraordinary nature of what the utilities, and some others, are proposing in this proceeding:
- (a) There are 3.5 million natural gas customers in Ontario, and all of them paid their own way. For many years the expansion of natural gas followed a user-pay principle, and that principle has, for decades, been enshrined in the Act as one of the objectives of the Board: “rational expansion”.

²⁴ Tr.4:184.

²⁵ Tr.4:189.

²⁶ Tr.2:91 (Goulding), Tr.4:97 (Ladanyi), Tr. 7:50 (Dr. Yatchew), and many others.

- (b) There are more than a million potential customers in communities that do not have natural gas. Natural gas cannot compete against other energy sources in the communities that do not currently have gas. It would rarely be even the second or third choice, absent any subsidies.
- (c) The government has been asked by municipalities and the utilities to subsidize natural gas expansion, and has decided to do so, in a certain manner (loans and grants), and with specific dollars (\$230 million). It was also asked to order the Board to allow uneconomic expansions, but it declined to do so. Instead, the government directed nothing, and in a non-binding letter reiterated the principle of “rational expansion” that has applied to existing customers for a long time.

2.2.28 Based on these background facts, it is not immediately apparent that there is any reason - whether based on government policy or regulatory policy - to subsidize UCE projects unless there are exceptional circumstances.

2.3 Customer Preferences

- 2.3.1 **Existing Customers.** The utility proposals would authorize increases in distribution rates of up to 7% to subsidize expansions into new areas²⁷. There is no benefit²⁸ to the existing customers, either now or in the future. The math of a PI of 0.4 is that, on a present value basis, and over the entire lifetime of the new assets (40 years), the existing customers will be out of pocket for 60% of the total cost, and the new customers will pay 40% of the total cost²⁹.
- 2.3.2 Given the importance of customer engagement in the Board’s regulatory policies, the utilities were therefore asked whether they asked their existing customers whether they would be willing to subsidize expansion into new communities. Both Union³⁰ and Enbridge³¹ admitted that they had not done so.
- 2.3.3 This is not surprising. “*Would you agree to a 7% rate increase to subsidize very expensive expansions of our systems into small towns like Kincardine and Bobcaygeon? What? No, we’re not planning to charge those new customers full price. That’s why we’re asking you to agree to a rate increase.*” Enbridge and Union quite reasonably did not ask their customers, because they know what the answer will be. That’s especially true if they also have to deal with the next question - “*How much contribution will you be making to these expansions?*” – to which they would have to answer “*Nothing.*”

²⁷ Tr.6:76 and 131. The proposed projects would be about 1% increase, but the authority the utilities want the Board to build into a new framework would include an increase of up to 7%.

²⁸ The small economies of scale benefit is negligible – 50 cents per year -, and is doubted by some of the experts.

²⁹ Tr.1:20. The utilities don’t really want to admit this, but they have no choice, because the math is the math.

³⁰ Tr.5:154-5.

³¹ Tr.1:40.

- 2.3.4 Potential Customers.** Enbridge and Union have surveyed potential customers on whether they would like to have natural gas in their communities³².
- 2.3.5** It is perhaps surprising that they did survey these customers. They get calls all the time, and the answer to the question is pretty predictable. “*Would you like to have natural gas service to your home, paid for as to 50% or more by people in Toronto and London?*” What is even more surprising is that, when they did this survey, there was a less than 100% agreement to take the subsidized natural gas.
- 2.3.6** As noted later, it is clear that the new customers want subsidized energy costs, and will take natural gas if it is the requirement for a subsidy. It is also clear – even without customer engagement – that there will not be a groundswell of support among existing customers for a rate increase of up to 7% to subsidize new customers.
- 2.3.7** However, what is even more clear is that Enbridge and Union should not be asking their customers to subsidize the new customers without having a dialogue with them about that proposal. The lack of any customer engagement with the very customers who are being asked to pay is disturbing, although understandable given the likely answer.

2.4 Rationale for Subsidies

- 2.4.1** KPMG notes, in their jurisdictional review prepared for the Board, that subsidies for natural gas expansions are unusual. They say, in part³³:

“Decision-makers were generally not willing to broadly socialize the costs associated with extending service to areas that did not pass the economic test over the existing natural gas distribution grid and existing natural gas distribution customers.”

- 2.4.2** Many of the experts note that, to justify a subsidy, governments or regulators should have a good reason, like correction of a market failure, or valuing externalities, or similar things. Dr. Nieberding³⁴ and Dr. Yatchew³⁵ both agree with this, and in fact even Enbridge appears to agree³⁶.
- 2.4.3** Dr. Nieberding sets out four reasons why subsidies might be justified, based on rational decision-making³⁷.

³² E.g. Tr.6:90.

³³ EB-2015-0156, Report for the Board by KPMG, Section 2, p. 4.

³⁴ Tr.5:29.

³⁵ Tr.6:174.

³⁶ Tr.3:4.

³⁷ Tr. 5:5.

- 2.4.4** Not surprisingly, the Enbridge and Union Gas witnesses were brought back to the question of the rationale behind subsidies again and again. It became one of the themes in the hearing.
- 2.4.5** The answer from Enbridge and Union was always the same, said various ways but with the same meaning:
- (a)** The customers in the unserved communities are unwilling to pay the full cost of gas service, so if there is no subsidy there will be no expansion into those communities.
 - (b)** The cost to existing customers is small³⁸.
- 2.4.6** It is notable that these “reasons” are not among the normal justifications for subsidies. They may justify government action, on the basis of sharing benefits around the province. That would be a legitimate role of government and, while the economists may not like it, it is within their purview to implement³⁹. Regional development, and shifting money between regions, are a normal government role.
- 2.4.7** A regulator, on the other hand, unless given a mandate by its statute to do so, is not normally in a position to engage in social policy, and is not really suited for the task. Determinations of regional economic disparity, and the appropriate methods to tackle that disparity, are not within the expertise of the regulator.
- 2.4.8** A telling fact is that this Board can only deal with subsidies for gas distribution, even though there are a range of appropriate options for the unserved communities, and some of the other options are clearly better candidates for subsidies. The fact that the Board does not have the authority to deal with all or even most of the options to deal with the social policy issue before it, suggests that dealing with that social policy objective is not really the Board’s role.
- 2.4.9** That does not mean that the Board is prohibited from allowing subsidies for gas expansion projects. It just means that subsidies must be justified by reference to a more rigorous set of criteria. The broader freedom of the government to implement regional subsidies is not within the mandate of the Board⁴⁰.

³⁸ For example, Tr.5:129.

³⁹ It is interesting to note that Dr. Yatchew, when asked by Mr. Elson about subsidies for geothermal, said: “Now, geothermal may very well merit subsidies, but that’s a separate determination that the government would presumably want to make.” (Tr.6:185) No-one appeared to see the irony of allocating geothermal subsidies to be a government responsibility, but assuming that the Board could consider subsidies for natural gas.

⁴⁰ This is similar to the Board’s scope when it comes to low income assistance. It can act on the direction of the government, or it can act on its own. In the latter case, however, the courts have been clear that its actions must be within the context of energy regulation, not primarily social policy: *Advocacy Centre for Tenants-Ontario v. Ontario Energy Board*, Ontario Div. Ct. 2008 CanLII 23487, para. 52-61, and in particular para. 56. See also para. 49 and cases cited therein.

2.4.10 OGA believes that the Board can correct market failures, and even quantify externalities to achieve real fairness between ratepayers. The Board already does that with DSM, and this is really no different in that respect.

2.4.11 What is different is that those providing the subsidy dollars in DSM have an overall benefit, both in terms of their own ability to participate in programs, and the environmental and social benefits of DSM for everyone. In the case of UCE projects, there is no benefit to those providing the subsidies. In most cases, this is not making the market fair by correcting a market failure. It is simply a transfer payment from one group in society to another. The Act doesn't give that mandate to the Board, or, put another way, the Board's role does not include initiating a regime of transfer payments.

2.4.12 OGA therefore submits that the Board should, in considering any proposed UCE project, carefully identify the rationale, within its mandate, for any subsidy that is proposed. The framework proposed in Section 4 of these Submissions seeks to provide the Board with the tools to do that.

2.5 Utility Proposals

2.5.1 Other parties, particularly ratepayer groups, will discuss the details of the proposals by Union Gas and Enbridge at some length. OGA will leave that discussion to them, except for one aspect of their proposals: their request that they be allowed to use the framework to limit competition from other energy sources.

2.5.2 We note that at no time during the hearing did either of the incumbent utilities seek the right to use predatory pricing to beat back competition. Obviously the request for subsidies by itself is a step in that direction, but anything beyond that was not discussed. It is, however, central to their specific proposals.

2.5.3 *Union Gas.* Union's witnesses were the most explicit of the two. They readily admitted that their calculations of the appropriate level of subsidy were driven by their desire to have an acceptable attachment rate⁴¹. They surveyed their customers to see how much they would be willing to pay for gas, and then set the rate to get a high takeup⁴²:

“MR. OKRUCKY: Yeah, the surcharge value was calculated to provide a means for those customers to achieve a simple payback on the conversion or replacement of equipment in their home in under four years, and -- but of course in many cases they would continue paying that surcharge for a longer period of time for up to ten years.”

⁴¹ Tr.5:126.

⁴² Tr.5:126.

- 2.5.4** What Mr. Orlucky did not say is that the payback calculation is entirely driven by how much of a price advantage gas needs over competitors – including propane, electric resistance heat, and geothermal – in order to convince customers to switch. The whole point is to get a market advantage, i.e. to manipulate the competitive market to improve the position of gas.
- 2.5.5** It appears clear that the proposed PI level of 0.4 for individual projects is set with that in mind as well. Who would say no to a subsidy of 60% of your energy bill? However, if it is only 20%, perhaps geothermal is a better option for people in the community (or even staying with propane or wood, until carbon pricing kicks in).
- 2.5.6** We note that Union Gas has not proposed that it will implement UCE projects starting with those with the highest PI. Their criteria include which communities really want gas a lot (and therefore call them all the time). Because they are not proposing any restrictions, they would also be free to implement projects early if there is a threat from another energy source. For example, if a geothermal district heating system is proposed for a town, Union would have the ability under their proposal to fast forward their gas expansion to that town – paid for by existing ratepayers – in order to fight off the competition.
- 2.5.7** *Enbridge.* Enbridge has a slightly different approach, in which their UCE portfolio is treated as a separate, accumulating portfolio. Individual projects have no PI minimum, but the overall portfolio has to be at least 0.5 PI at all times⁴³. Further, Enbridge has provided a list of projects, but has made clear that these are examples, not the list they will actually implement⁴⁴.
- 2.5.8** The Enbridge proposal is essentially a blank cheque. As long as their cumulative PI is at least 0.5, they can choose the projects they implement based on whatever approach they deem appropriate. An LNG firm wants to expand service into one town? Build a main and they will be cut out. Geothermal companies target another town? Another main, subsidized by existing ratepayers, solves that problem. How can geothermal compete with half price gas service?
- 2.5.9** OGA submits that the requests from the utilities for a broad freedom to use customer subsidies to compete against other energy sources is inappropriate, and should not be approved by the Board.

2.6 *What Do the New Customers Really Want?*

- 2.6.1** How many times in the hearing did the Board hear witnesses say that the customers in the unserved communities want natural gas? Fifty? A hundred?

⁴³ Tr.3:129.

⁴⁴ Tr.1:13, 183. Tr.4:43.

2.6.2 The statement is probably true. They do want natural gas – because at the rates in the existing areas it is far cheaper than any other option. What they don’t want, as we have discussed earlier, is natural gas at the full cost to buy and deliver natural gas.

2.6.3 The representative from NOACC, Thunder Bay councilor Ian Angus, was clearest in articulating what the customers really want, when he said⁴⁵:

“We want to make sure that everybody in Ontario has access to a reasonably priced form of energy to heat their homes, residences, and institutions.”

2.6.4 This same sentiment was evident in many other parts of the evidence, including the testimony of Anwaatin on behalf of First Nations⁴⁶, the evidence of South Bruce⁴⁷, the evidence of Greenfield Alcohols⁴⁸, and others, including many of the letters written to the Board. Some were more altruistic, others more focused on their own situation, but in each case what really concerned them is the high costs of energy for their communities or businesses. The problem to be solved is not “we don’t have gas”. The problem to be solved is the high cost of energy. A possible solution is gas.

2.6.5 As the Chair quite correctly pointed out in an exchange with various counsel, this hearing was not about whether rural and remote communities get gas or nothing, as much as the utilities would like it to be. It is about low cost energy. The focus on gas is because it is gas expansion that has been proposed and is being discussed. The exchange is as follows⁴⁹:

“MR. SHEPHERD: The implication of the approach of the witnesses to this is that this hearing is binary. It is about gas or no gas and cannot consider anything else. And I did not see that in the Board's letter or in any of the Board's rulings.

MR. QUESNELLE: No. I agree with you. You know, I think that is appropriate. But, Ms. DeMarco, jump in, but the -- I think what I heard -- and I would ask Dr. Richardson to restate it -- was that the focus is about -- their focus, their views, is to get natural gas. That is their motivation for being here. It wasn't a reference to the scope of this hearing. It was their focus. And that is what I heard as the answer coming back three times.

MR. SHEPHERD: Thank you, Mr. Chair.

MS. DeMARCO: With respect, Mr. Chair, if I can jump in here, I heard three times Mr. Richardson state that he was interested in low-cost energy, but his focus here specifically was any subsidies relating to natural gas, and

⁴⁵ Tr.4:22.

⁴⁶ Tr.1:70 et. seq.

⁴⁷ Tr.:211-9.

⁴⁸ Tr.4:135-6.

⁴⁹ Tr.1:90-2.

so --

MR. QUESNELLE: And I take it --

MS. DeMARCO: -- I don't know if you want to play back the transcript on that point. I'm very happy to have it played back, particularly in relation to the direct evidence and his responses.

MR. QUESNELLE: But I didn't take his -- and I don't consider the response that he provided to be one of scoping this hearing. It is the focus that they have as your client. Is that correct?

MS. DeMARCO: Absolutely, and what is and is not in their evidence.

MR. QUESNELLE: Okay. Thank you. Mr. Keizer.

MR. KEIZER: Can I just ask a question? Just so we're clear, are we, then, embarking also on an inquiry as to whether the relative merits of different type of fuel sources and heating sources? Or are we focused on the generic approach to how remote communities are going to be served with respect to existing fuel sources? I'm not sure -- just to be clear.

MR. QUESNELLE: I think, Mr. Keizer, as the Board has said, we're interested in what information would be provided to allow us to create a framework. I think it would be impossible to create a framework of how you would allow expansion of natural gas without some understanding directionally, without the specifics of granularity of the options, without an understanding of what the spectrum of options may be, which would then allow you to create a framework that could possibly further analyze these in actual further proceedings. But I think we need to have a breadth of understanding of what the potential technologies and the direction on these technologies are going. Thank you. [emphasis added]

- 2.6.6 In our submission, the intervention by the Chair got this exactly right. The issue is not whether these communities get natural gas, even if that's what they are asking for. The issue is how to improve their energy costs, and gas is just one of the options to do that. OGA believes that, if gas is not the best option, then the Board should not approve the expansion. The problem to be solved is not getting gas to the communities. It is reducing their energy costs. Solve the correct problem, in the best possible way.

2.7 What Does the Government Want?

- 2.7.1 At one level, what the government actually wants the Board to do is irrelevant, because the Board cannot be influenced in its decision by the government's wishes. The Board is an independent body. It can only allow government influence of its decisions when the government uses its directive, regulatory, or statutory powers. If the government does not use any of those powers – as here – the Board must be guided only by its statutory mandate, and the evidence before it. This is all trite law.
- 2.7.2 In a practical sense, however, government policy is part of the evidentiary background the Board must consider. What the government wants really doesn't matter.. What

the government plans to do, and the impacts of those actions on the gas sector, do matter very much.

- 2.7.3** So, as we have noted elsewhere in these Submissions, the fact that the government wants the expansion of natural gas infrastructure into additional communities does not – and legally cannot – cause the Board to implement a new, subsidized system to expand natural gas infrastructure. Even if the Minister had specifically asked the Board to consider additional subsidies of expansion – which he did not - the Board cannot be influenced by that request. The Minister can direct the Board to do that. If he does not, whether he wants it or not is irrelevant in this proceeding.
- 2.7.4** There are two things the government clearly does want, and that will impact the Board’s policy decisions.
- 2.7.5** *Community Expansion.* First, the government wants to reduce energy poverty in rural and remote communities, and has earmarked \$230 million for that purpose. This has two potential impacts on the Board’s policies:
- (a)** Knowing that the government plans to spend that money, it would be counterproductive if the Board’s policies stood in the way of that government initiative. In this proceeding – as the Minister said in his letter – the Board should be reviewing its community expansion policies to ensure that they are not a barrier to the government’s policy. For example, the Board should ensure that the EBO 188 formula will not count the government loan differently if it goes to a municipality, vs. the utility or the customers, thus preventing projects the government wants to incent from actually going ahead.
 - (b)** \$230 million will be invested by the government in community expansion. This investment not only informs the Board as to the government’s view of the appropriate level of subsidy for these projects, but is also an external fact that may affect the Board’s policies. The Board might not otherwise consider expansion surcharges, for example, because not many new projects would go ahead even if they were allowed. However, with \$230 million being added into the mix, expansion surcharges now may put a number of projects over the top, and allow them to proceed.
- 2.7.6** Note that in neither of these cases would the Board be reacting to what it thinks the government wants. Rather, it would be looking at an external event – government financial support for expansion projects – and adapting its policies to work optimally in light of that external event.

2.7.7 Climate Change Action Plan. Second, the government wants to move the province to a lower-carbon future, and has approved legislation, a pricing system, and an Action Plan to get there on an aggressive time frame. This external event also has implications for the Board’s policies relating to natural gas:

- (a) The price of natural gas will clearly increase over time, and this will affect the economics of natural gas relative to alternatives. In this scenario, forecasts of attachments and retention must be reviewed, and the Board should ensure that its expansion policies take this change in economics into account.
- (b) The Action Plan will include actions to limit or even reduce the use of natural gas for space heating. Building codes will be changed. Alternatives to natural gas will be incented. And so on. These various actions could have the effect of accelerating demand destruction for natural gas, with the potential for stranded assets. The Board should ensure that its community expansion policies are sufficiently robust, and flexible, to deal with this potential threat.

2.7.8 Again, as with the first government policy, the second – the CCAP – is an external event that will cause some Board policies to be more effective than others.

2.7.9 In OGA’s submission, the back and forth in the hearing about whether the government really wants the Board to promote more community expansion, or the government is now turning away from natural gas as a preferred fuel, was largely irrelevant. The government has announced two initiatives - \$230 million for community expansion, and \$6.0 to \$8.3 billion⁵⁰ under the Climate Change Action Plan – that could have material impacts on the Board’s community expansion policies. In our view, the Board should assume that the government will implement both of these initiatives, and should design the Board’s community expansion policies to work well with both.

2.8 Picking Winners and Losers

2.8.1 The former President of Enbridge Gas Distribution was quoted as saying⁵¹:

“What I am suggesting is that we look at opportunities where natural gas makes economic sense and may even be able to help local utilities by displacing some load. The government should not pick the fuel. Selection should be based on the need and what’s available. I’m confident that if it’s considered objectively, natural gas will find a strong place in the energy mix.”[emphasis added]

2.8.2 When this was put to the Enbridge witnesses, Mr. McGill’s response was

⁵⁰ CCAP, p. 85.

⁵¹ CPA Evidence, Exhibit 5, Tab 5, p. 5 of 7, Speech to the OEN June 19, 2013.

enlightening⁵²:

“MR. MCGILL: ... So notwithstanding what Mr. Jarvis said three or four years ago, we're in a different environment today. We have been asked to try and find ways to extend service to these communities, and that's what we're here to do.

MR. DUNCANSON: Right. Even if it does not make economic sense.

MR. MCGILL: Well, I would suggest that economic sense is in the eye of the beholder. I think it must be making sense to someone in the province if they have asked the Board to conduct this kind of proceeding.”

- 2.8.3** What Enbridge and Union are in fact trying to do in this proceeding is convince the Board to interfere in the competitive markets and pick natural gas as the preferred fuel for communities around the province of Ontario selected by Enbridge and Union.
- 2.8.4** OGA does not agree that market interference is always a bad thing. However, we do agree with Mr. Todd⁵³ and Dr. Yatchew⁵⁴ that generally that kind of decision should be the purview of government, not an economic regulator. In fact, as we note in Section 3, the government is exercising that power in the Action Plan, picking some fuels – in transportation and in space and water heating – over others to achieve environmental objectives. In one such choice, transportation, natural gas may be the big winner. In the other, space and water heating, it will likely be de-emphasized in favour of other fuels.
- 2.8.5** The position of the utilities appears to be that the government wants the Board to pick natural gas as the preferred fuel for space and water heating. The government has not said anything of the sort, as discussed earlier, and in fact interfering in the market to promote natural gas for space and water heating would likely be directly contrary to an announced, and legislated, government policy on GHG emissions.
- 2.8.6** OGA therefore submits that the Board, in its decision in this proceeding, should ensure that any changes to its policies do not have the effect of interfering in the market, and picking the energy source for communities seeking lower energy costs.

2.9 OGA Position

- 2.9.1** Changing the definition of “rational expansion”, and for the first time forcing existing customers to subsidize new customers, are major changes in regulatory and public policy. The Board should in any case be reluctant to make such major changes except in the face of overwhelming evidence.

⁵² Tr.1:173.

⁵³ Tr.3:225,

⁵⁴ Tr.6:183-4.

- 2.9.2** The Board should be even more reluctant to do so where the utilities have made no effort to engage with their customers to find out what they think about the proposed rate increases. Will the customers accept the 1% increase proposed by Union Gas in the EB-2015-0179 proceeding? Perhaps, although you can't know until you ask. It is much less likely that they will accept the 7% increase which the Board is being asked to authorize, essentially in the discretion of the utilities.
- 2.9.3** Further, the Board should be even more reluctant to make these major changes when the government was asked to do the same thing, declined to do so, decided on an alternate approach instead, and even declined to tell the Board to move in this policy direction. The utilities and the municipalities have tried to make the Board believe that the government wants the Board to implement ratepayer subsidies. That is not true. The government was invited to communicate that to the Board. It said no.
- 2.9.4** Thus, the proposals of the utilities, with their blanket approvals in principle for many UCE projects, do not appear to be appropriate. Any set of rules (0.4 PI, 0.8 portfolio; 0.0 PI, 0.5 portfolio; etc.) that gives blanket approval for this or that broad category of UCE projects, should be rejected. There is no evidence before the Board that this major policy change is appropriate.
- 2.9.5** That does not mean that no UCE projects should be approved. There may be situations in which the investment in gas infrastructure will deliver benefits to existing customers as well as new ones. There may be situations in which gas expansion is so obviously the best solution for a community – even in a low carbon future – that the Board should say yes.
- 2.9.6** However, in OGA's view those should be the exception rather than the rule, and each such proposal should be dealt with on its own merits. For this reason, OGA has proposed a framework, specific to UCE projects, that would provide a route for approval of those exceptional projects, while still preventing the gas distributors from spending hundreds of millions of dollars of customer money that they will never get back, on projects that are simply not a good idea.

3 ONTARIO'S LOW CARBON FUTURE

3.1 Introduction

3.1.1 The Board's policies relating to the expansion of natural gas infrastructure – both in this proceeding and in other contexts – will be profoundly affected by the recent enactment of the *Climate Change Mitigation and Low Carbon Economy Act, S.O. 2016, C.7*, and the announcement of the Climate Change Action Plan contemplated by that Act. Two impacts are immediately apparent:

- (a) The price of gas will change due to the addition of a cost of carbon.
- (b) Low carbon alternatives to natural gas for certain energy functions will be promoted and incented by the government. Due to the province's success in largely decarbonizing the electricity supply, it is likely that alternatives such as geothermal that rely on electricity inputs to deliver energy functions efficiently will expand.

3.1.2 These changes create risks of demand destruction and stranded assets for natural gas.

3.2 Climate Change Action Plan and Natural Gas

3.2.1 The Action Plan is still very new, so all most observers, including the Board, have to go on is the document approved by Cabinet, and released to the public on June 7, 2016. That document, plus the Act itself, makes clear that the role of natural gas in Ontario's energy future is going to change. In the most extreme scenario, the risk, as Dr. Yatchew says, is⁵⁵:

“If the government said ...we want to stop the use of natural gas in this province in the next six years, and that would certainly be something you'd have to pay close attention to and that would -- you'd better not be expanding, because that stuff's going to be empty.” [emphasis added]

3.2.2 Of course, the government is not saying that. However, directionally fossil fuels are going to have a reduced role in some energy functions, and lower carbon alternatives are going to have a greater role in all energy functions. The utilities, and the Board, have to live with this inevitable reality. GHG emissions are not going to go away by themselves. Carbon-based fuels will have to decline⁵⁶. The government, in the Action Plan, has recognized that.

3.2.3 *Cap and Trade.* The most obvious impact is the increasing price of carbon-based

⁵⁵ Tr.6:189.

⁵⁶ Including natural gas, as the utilities – perhaps reluctantly – admit: see e.g. Tr.5:207.

fuels, including natural gas, as a result of an increasing price on carbon. According to a study done for Enbridge and Union, and presented to the Board, the price of carbon in 2030, less than 15 years away, will likely be in the range of \$47-\$138 per tonne⁵⁷. This will result in a material increase in the cost of natural gas.

- 3.2.4** Those impacts on gas, however, assume that only the emissions from end-use combustion, and distribution leakage, are priced into the cost of natural gas. As Enbridge agrees⁵⁸, there are other GHG emissions from natural gas that are not currently in the price, and are not included in the forecasts of carbon costs in Ontario. Those include emissions from exploration, extraction (including fracking), and transmission. Because those emissions happen in other jurisdictions, the utilities assume that they do not have an impact.
- 3.2.5** OGA believes it is likely that the carbon emitted upstream from Enbridge and Union's distribution systems will also likely be included in the price of natural gas. This may be because the local jurisdictions in which exploration, extraction and transmission take place impose their own price on carbon. Alternatively, it may be because the government of Canada imposes carbon taxes on fossil fuels being brought into Canada. In either case, the price of natural gas would be increased even further by the cost of upstream emissions.
- 3.2.6** The forecasts from the utilities do not make assumptions about the price of carbon⁵⁹. This is because they see their competition as other fossil fuels, rather than low carbon alternatives. In our submission, this is myopic. The cost of natural gas to the end user will certainly go up due to the imposition of a price on carbon, whatever it is. It is unreasonable to think that an increasing price will have no impact on the number of potential customers that choose natural gas.
- 3.2.7** ***The Action Plan.*** The bigger problem for natural gas may come with the CCAP, which makes no bones about the fact that natural gas use will have to decline for space and water heating. For example, the Action Plan⁶⁰ says:

“Currently, natural gas combustion and carbon based electricity emissions from buildings represent 24 per cent of Ontario’s climate change causing air pollution. Because of Ontario’s growing population and economy, greenhouse gas pollution from its buildings sector continues to rise each year – with no end in sight. Without action in this sector, we will lose the fight to reduce carbon emissions across the economy.” [emphasis added]

- 3.2.8** The Action Plan goes on to explain how it will tackle that part of the problem,

⁵⁷ Tr.1:196.

⁵⁸ Tr.1:193

⁵⁹ J1.1.

⁶⁰ CCAP, p. 16.

including measures such as:

“1.2 Protecting tenants from the price of carbon: Ontario will consider options for legislative and/or regulatory change that lessen the impact on residential tenants of increased energy costs from cap and trade. The government wants to make sure that carbon pricing does not get passed on to tenants who are unable to make changes to reduce energy use, and that private building owners are able to take advantage of retrofit programs, including boiler replacements and geothermal technology.”⁶¹

“2.1 Support schools: Ontario intends to provide funding for existing schools to improve energy efficiency and install renewable energy technologies. Technologies could include building automation systems, energy-efficient windows, solar energy and geothermal systems.”⁶²

“2.2 Support hospitals, universities and colleges: The government would establish a fund to help hospitals, universities and colleges retrofit their facilities with energy efficient and renewable energy technologies, including building automation systems, energy-efficient windows, solar thermal and geothermal systems.”⁶³

“4.1 Boost low-carbon technology in homes: Ontario intends to help homeowners purchase and install low-carbon energy technologies such as geothermal heat pumps and air-source heat pumps, solar thermal and solar energy generation systems that reduce reliance on fossil fuels for space and water heating. This will include an increased benefit for low-income households and vulnerable communities.”⁶⁴

“5.1 Update the Building Code: The government intends to update the Building Code with long-term energy efficiency targets for new net zero carbon emission small buildings that will come into effect by 2030 at the latest, and consult on initial changes that will be effective by 2020. Ontario will consult on how to best achieve these targets through Building Code improvements.”⁶⁵

3.2.9 These are just a few of the provisions targeting a change in space and water heating from natural gas to either more efficient buildings, or lower carbon energy sources, or both. The most ominous are the proposed changes to the Building Code, getting to net-zero carbon in small buildings by 2030, and implementing changes to move in that direction starting in 2020. It is not realistic to think that natural gas will have a

⁶¹ CCAP, p. 26.

⁶² CCAP, p. 26.

⁶³ CCAP, p. 26.

⁶⁴ CCAP, p. 27.

⁶⁵ CCAP, p. 27.

significant role in the heating of homes and small commercial buildings that are net zero carbon.

- 3.2.10** The ICF study that produced the carbon price forecasts also suggested that the throughput of the gas utilities will have to decrease by 40% by 2030 if the Ontario government is to meet its climate change targets. The utilities have no alternative forecast of the impact they expect⁶⁶.
- 3.2.11** It is likely that the ICF doom and gloom prediction is overstated, but not because natural gas can continue to be the fuel of choice for space and water heating. The Action Plan is also dealing with transportation fuels, in which natural gas may have significant GHG advantages over diesel for heavy transportation. In addition, the government plans to promote and incent renewable natural gas, and the government has an ongoing commitment to support natural gas and electricity conservation programs.
- 3.2.12** Nonetheless, the move is away from natural gas in heating. A stark reminder of the magnitude of this shift comes from comparing the \$230 million announced for community expansion support by the government, with the total amounts budgeted for just the next five years in the Buildings and Homes sector to reduce fossil fuel use. That figure is a range: \$2.1 billion to \$3.0 billion. Just the five items listed above – all directly targeting natural gas use – have a range of \$1.2 billion to \$1.8 billion⁶⁷.
- 3.2.13** The fact that the government plans to spend ten times as much to reduce fossil fuel use in buildings as it plans to spend on community expansion does not, of course, mean that reducing fossil fuel use is ten times as important as a policy compared to community expansion. What it does mean, however, is that government spending of this magnitude is likely to have a substantial impact on natural gas use to heat buildings. There is a real likelihood of demand destruction.
- 3.2.14** Note that there is, of course, the potential for a kind of “death spiral” effect. As the numbers of billing determinants – both customers and cubic meters – available to the utilities to cover their costs declines, the unit prices will go up for this reason, in addition to the increases from carbon pricing. This has the potential to drive further customers to choose alternatives for space and water heating, especially if those alternatives come with substantial government incentives.

3.3 The Role of Geothermal

- 3.3.1** Geothermal has been demonstrated to be a cost-effective, low carbon energy option that is particularly suited to space and water heating. Straight up, with neither gas nor geothermal benefiting from subsidies or other market interventions, geothermal is

⁶⁶ See, e.g., Tr.5:199.

⁶⁷ CCAP, p. 65-69.

cheaper and better for the environment than natural gas⁶⁸. The Board saw this with the evidence of the OGA, which to no-one's surprise was subjected to very little cross-examination? Why? Because if the gas utilities had cross-examined to any great extent, they would only have succeeded in emphasizing the point that geothermal has natural advantages over gas.

3.3.2 The proof of the pudding is in the eating, as they say. In the communities currently proposed for expansion, there are already a number of full-price geothermal installations. There is no full-price natural gas, because as the Board heard at length, if these communities, and the customers living there, have to pay full price for natural gas, they elect not to have it at all.

3.3.3 In a low carbon future, there are two additional reasons that geothermal is a viable alternative to natural gas for community expansions.

3.3.4 *Government Support.* As noted earlier, the government has announced substantial funding for alternative heating technologies, including in particular geothermal. The combination of budgets for government buildings, loans from the new Green Bank, and outright incentive grants will increase the ability of customers to choose low carbon options like geothermal.

3.3.5 As the Board heard, both from the OGA⁶⁹ and others⁷⁰, the lifecycle costs of geothermal are lower than current energy options, but the killer is the high up front capital costs. The Action Plan has a number of specific provisions designed to address those capital costs, either by directly reducing them through government assistance, or by spreading them out over the life of the assets, so that they become periodic rather than up-front costs.

3.3.6 The result of this government support for geothermal may be that natural gas community expansion is, to some extent, swimming upstream. The energy loads in the proposed expansion communities are almost entirely space and water heating. Even if the Board were to provide the subsidies requested in this proceeding by the gas utilities, home and business owners in the proposed communities still face annual costs higher than the annual non-capital costs of geothermal. To the extent that government support reduces the geothermal capital costs, geothermal's lower environmental footprint, and lower price risks, will likely mean that many residents of the communities will elect to go with geothermal rather than the newly-available natural gas. Or, they will elect natural gas, but in a few years change to geothermal when they see the relative costs and risks. Either way, the unit cost of gas service goes up, and the subsidies from existing customers also go up.

⁶⁸ Pre-filed evidence of the Ontario Geothermal Association.

⁶⁹ Tr.5:67.

⁷⁰ Tr.1:83.

- 3.3.7** This may be the reason why the utilities are unwilling to take the risk that the subsidies being requested in this proceeding will be enough.
- 3.3.8** *Remote Communities including First Nations.* The situation for the First Nations that appeared before this Board, and those referred to by NOACC and others, is even more pointed.
- 3.3.9** The reality is that those communities will probably never get natural gas service. There is a reason they are not on the proposed expansion lists of the gas utilities: even in this highly subsidized new paradigm being proposed, expansion to these communities is simply too expensive⁷¹.
- 3.3.10** In any case, these communities don't really want natural gas. Their issue is energy poverty. What they want, and need, is energy solutions at a reasonable cost. There is no set of circumstances in which that is likely to be natural gas.
- 3.3.11** These communities do, on the other hand, have grid-connected electricity⁷². While they have reliability issues for their electricity (which is a separate issue that certainly needs to be addressed), they also use significant amounts of electric resistance heating right now. The high winter electricity bills are the direct result of electric resistance heating in a cold climate. The problem with electric resistance heating is not ineffectiveness. It does the job. It's just too inefficient, and therefore too expensive.
- 3.3.12** The solution to the energy poverty the First Nations and other remote communities know only too well is not natural gas. The solution is to use the thermal energy in the ground beneath their homes and businesses to heat those buildings. The Board can reasonably expect that, as the First Nations and the province of Ontario work jointly to establish energy solutions for those communities, the likely solution will be geothermal. The fact that First Nations have a strong and enduring relationship with the land and the environment⁷³ just increases the probability that they will opt for a low carbon solution to their energy poverty.

3.4 *Stranded Assets*

- 3.4.1** For natural gas, the Action Plan creates a significant risk of stranded assets. Whether it is the more extreme future characterized by a death spiral of gas costs, or the more measured erosion of gas use in buildings through garden variety demand destruction, there is a material risk that some or even most of the infrastructure serving gas loads in Ontario will no longer be viable. "That stuff's going to be empty", as Dr. Yatchew suggested.

⁷¹ Even a cursory look at J1.3 brings this home. And, in fact, it may be worse. For many First Nations, their priority is not natural gas, its roads (Tr.1:69). Without a year round road, it is unlikely that installing gas mains is a realistic option.

⁷² Tr.1:107,120.

⁷³ Tr.1:115.

3.4.2 Against this backdrop, it is counter-intuitive to be building more infrastructure that has that same high risk of being stranded. That is particularly true before there is even a plan in place to manage, or reduce, the stranded assets risk.

3.5 Utility Climate Change Planning

3.5.1 Neither Enbridge⁷⁴ nor Union⁷⁵ have a plan to deal with the impact of the lower carbon future on their distribution business. To be fair, the situation has been developing over a rather short period of time, with the Act being passed only a couple of months ago, and the Action Plan released on June 7th. Further, the change is a fundamental one, in which the bulk of the gas utilities' infrastructure is likely going to go from growth to no-growth, or even decline, while at the same time there are some opportunities to be part of the solution to climate change as well. This is a non-trivial problem. It is probably not reasonable to expect Enbridge and Union to have already developed a full-fledged strategy to maintain the viability of their businesses.

3.5.2 On the other hand, the most recent forecast – the ICF study produced for the utilities - is that, by 2030, gas throughput for current uses will have to decline by 40%. To put that in perspective, the Board needs only look at the current forecasts of gas use for major uses. Union Gas says they do not have customer number and load forecasts out to 2030. Enbridge has both⁷⁶.

3.5.3 The Enbridge numbers show the following results to 2030:

⁷⁴ Tr.1:58 and Tr.3:118.

⁷⁵ Tr.6:62-66.

⁷⁶ SEC 10 is the average use per customer for general service customers, and J1.9 is the forecast number of customers.

Enbridge General Service Gas Load 2016-2030			
Year	Customers	Average Use	Total Load
Residential			
2016	1,964,199	2,480	4,871,213,520
2030	2,456,172	2,144	5,266,032,768
	Growth in Load		394,819,248
	Percentage Change		8.11%
Apartment			
2016	7,499	145,181	1,088,712,319
2030	7,881	111,448	878,321,688
	Growth in Load		-210,390,631
	Percentage Change		-19.32%
Commercial			
2016	152,260	19,826	3,018,706,760
2030	172,889	18,993	3,283,680,777
	Growth in Load		264,974,017
	Percentage Change		8.78%
Industrial			
2016	6,096	109,381	666,786,576
2030	6,036	111,469	672,826,884
	Growth in Load		6,040,308
	Percentage Change		0.91%
Totals			
2016	2,130,054	4,528	9,645,419,175
2030	2,642,978	3,822	10,100,862,117
	Growth in Load		455,442,942
	Percentage Change		4.72%

- 3.5.4** These figures, which include the impacts of DSM programs, but not the impacts of carbon pricing, demonstrate that Enbridge doesn't have a need to reduce by 40%. It's need is almost 45%.
- 3.5.5** While the Board doesn't have similar figures for Union Gas, it is instructive to note that the Enbridge figures are heavily influenced by a substantial drop in average use for apartment buildings. Union Gas has far fewer apartment buildings than Enbridge.
- 3.5.6** It is hard to understate the challenge the gas utilities face, and by implication the Board as their regulator. The utilities want to add renewable natural gas, of course, but their forecasts for how much of the problem that will solve show that it is low. Expanded DSM programs - spending billions of dollars to make buildings for efficient,

for example – will have some impact, but nothing like 40%⁷⁷. Even at that, DSM programs would be even more effective if combined with a lower carbon, non-fossil fuel providing the primary energy source.

3.5.7 The government appears to be assuming that natural gas will shift from being a heating fuel to being a transportation fuel. This certainly creates an opportunity for the gas utilities, and one that they have sought for more than a decade. However, it also means that the nature of their distribution system must change in major ways. In that scenario, the building of mains to serve residential and small commercial heating loads in small towns is simply not likely to be part of the strategy.

3.5.8 From the Board’s point of view, the issue is lack of necessary evidence. For the Board to make a rational determination on uneconomic community expansions, it needs to know how those expansions of the conventional gas infrastructure fit into a low carbon future. The utilities need a strategy to do that, and need to be able to show the Board how their strategy, and their expansions, are consistent.

3.6 OGA Recommendation – CCAP Strategy a Threshold Condition

3.6.1 There is little doubt that the move to a low carbon future in Ontario will require fundamental changes to how we produce and use energy, and which energy sources we use for each function. Those changes will result in the gas distribution business looking far different in twenty, or even ten, years, relative to today.

3.6.2 Faced with that sea change, it is imperative that the gas distribution companies develop strategies to adapt. They have not done so, and that not only puts the companies at risk, but also their customers and the regulator. Demand destruction – which appears to be inevitable – affects everyone connected with the gas industry. Developing strategies to comply with Ontario’s Climate Change Action Plan should be considered an urgent priority for both Enbridge and Union.

3.6.3 In the meantime, regulation must go on, and the Board has to make decisions. Some of those decisions, like the one in this proceeding, create a significant risk that they will authorize the spending of hundreds of millions of dollars on future stranded assets. It is, in OGA’s view, unreasonable to ask the Board to authorize such spending in the absence of any evidence that it is consistent with the Action Plan, and that it will be viable notwithstanding the fundamental changes that are coming.

3.6.4 OGA therefore submits that the Board should not consider any specific UCE project until the applicant utility has filed with the Board a detailed CCAP compliance strategy, and the Board has considered and approved that strategy. This should be a threshold requirement, and in the absence of an approved CCAP strategy, a gas distribution company should not be eligible to apply for approval of UCE projects.

⁷⁷ Tr.1:197.

- 3.6.5** As proposed, OGA contemplates that the consideration and approval of CCAP strategies will be a separate proceeding, and OGA recognizes that the policy issues associated with climate change are currently under consideration in EB-2015-0363. Since climate change affects all aspects of the gas distribution business, it is appropriate that CCAP strategies be considered separately from expansion proposals, rate cases, deferral account proceedings, and other areas in which the strategy will be relevant. The Board should, in one place, consider the interactive risks (and potential opportunities) associated with climate change and gas consumption.
- 3.6.6** Until that process has happened, in OGA's view the risk that expansions will be a waste of ratepayer money is too great to allow approvals of more spending. Although it is clearly counter-intuitive, it is certainly possible that the gas utilities will find a way to deliver their CCAP obligations, while still expanding their networks. However, until the Board sees cogent and comprehensive plans to do so, in our submission the Board must recognize and act on the obviously high risks of any future expansion.

4 A SEPARATE UCE PROJECT FRAMEWORK

4.1 Introduction

- 4.1.1 Under EBO 188, not every community expansion has to be approved in advance by the Board. Some will require a leave to construct, but others will not. In the latter case the utility is entitled to proceed, and to include the costs in rate base at the time of their next rebasing⁷⁸. All EBO 188 projects must be economic, either alone or in conjunction with the others being built around the same time. Thus, EBO 188 is structured to build in ratepayer protection. The Board's oversight for every project is not required.
- 4.1.2 What is being proposed by the utilities in this proceeding is UCE projects, in which by definition the existing ratepayers will experience a rate increase. In those cases, it is submitted that it is not appropriate for a utility to proceed with a UCE project unless the Board has first reviewed and approved the proposal. This is required in any case where a leave to construct is required. Union Gas has committed to applying in advance for every UCE project as part of their annual IRM rate case⁷⁹, and agrees that this should be made a requirement in the Board's framework for such projects⁸⁰.
- 4.1.3 OGA submits that, any time a utility wishes to proceed with a UCE project, it should, assuming it has satisfied the threshold requirement proposed in Section 3 of these Submissions, file an application - by way of leave to construct, rates (for example as part of their annual IRM rate filing), or otherwise - to get prior Board approval for that UCE project, and any subsidy by existing ratepayers that project requires.
- 4.1.4 Any such application for approval should be required to include the information set forth below, so that the Board will have a sufficient evidentiary base to determine whether or not some ratepayers should subsidize others.

4.2 The Proposed Framework

- 4.2.1 In seeking Board approval for a UCE project, an applicant should be required to provide the following:
- (a) **Economic Analysis.** An economic analysis in the form established by EBO 188, including natural PI, and any proposed PI after municipal contributions, contributions in aid of construction, and/or rate surcharges. This should also include a rolling portfolio calculation for UCE projects.

⁷⁸ Tr.6:73.

⁷⁹ Tr.6:74.

⁸⁰ Tr.6:75.

- (b) **Risk Analysis.** A comprehensive analysis of the forecast risks associated with the project, including cost overruns, attachments, price elasticity, and all other risks, and the applicant's proposal for who will bear those risks.
- (c) **Least Cost Planning Analysis.** The applicant should demonstrate through objective evidence that the solution proposed by the applicant, the UCE project, is the most cost effective way of providing energy solutions to the community, having regard for all of the relevant costs and benefits of each potential alternative.
- (d) **Utility Contributions (if any).** The application should detail any reduced ROE, cost ceilings, segregated financing, risk minimization, or other proposal by the applicant to ensure that some of the costs or risks of the UCE project are borne by the utility's shareholders.
- (e) **Environmental Impacts.** This would include all environmental costs and benefits associated with the UCE project. It would specifically be required to include a demonstration that the UCE project is consistent with the applicant's Board-approved CCAP Strategy.
- (f) **Industrial and Commercial Economic Benefits.** The application should provide details of any industrial or commercial economic benefits of the UCE project that are specific to the community affected, such as the opening or retention of industrial concerns, job creation, etc.
- (g) **All Other Costs and Benefits Relevant to any Potential Subsidy.** To the extent that the UCE project entails any additional costs or risks that are not included in the other analyses, or will generate any additional benefits that are not so included, details should be provided to the extent that they may be relevant to the Board's approval of any subsidy by existing ratepayers.

4.2.2 Each of the components of our proposed framework are described in more detail below.

4.3 Economic Test

4.3.1 As noted earlier, OGA has no submissions on the EBO 188 economic test. We understand that other parties will propose changes to the test, to make it less discretionary and more rigorous. Rather than provide submissions at this point, OGA will review the submissions of other parties on proposed changes, and respond to the extent that we can provide useful input.

4.3.2 Any application for a UCE project should, however, include calculations of the cost effectiveness using EBO 188 both with and without subsidies, surcharges, tax rebates, government grants or loans, utility contributions, and all other forms of adjustments to

the raw economics. As the utilities have done in the evidence in this proceeding, they should provide sufficient information that the Board understands the natural economics of the project, and then the contributions of each proposed adjustment to those economics.

- 4.3.3** The application should also include a rolling portfolio calculation, just as today. While it is not apparent why the investment portfolio calculation would be required for UCE projects, the rolling portfolio calculation allows the Board to keep on top of how much money from existing ratepayers is being spent in any given period.

4.4 Risks

- 4.4.1** The Board heard a lot about risks related to community expansion projects. In addition to the obvious risk of cost overruns, both on capital and operating costs, there are a range of risks associated with the revenue and attachments figures, including:
- (a)* Weather.
 - (b)* Economic conditions.
 - (c)* Cap and trade/carbon pricing.
 - (d)* Cost of gas.
 - (e)* Cost of alternatives, including potentially subsidies for low carbon alternatives.
 - (f)* Customers switching away from gas in the future.
- 4.4.2** This list is not exhaustive. What is clear, though, is that neither Enbridge nor Union wish to take on any of these risks. Under their proposals, they would be made whole – as an additional subsidy from existing ratepayers – if any of these risks come to pass.
- 4.4.3** As a condition of asking for customer subsidies for UCE projects, any utility should be required to identify, both qualitatively and quantitatively, all of the material risks associated with the economics of the project. For each of those risks, the utility should propose who should bear those risks (utility, existing customers, new customers, municipality, government, or someone else), and why. This will allow the Board, in deciding whether to authorize a subsidy from existing customers, to assess how much that subsidy could be in fact. In addition, it would assist the Board in determining whether the natural gas option is in fact the least cost planning option for the community, when risks are taken into account.

4.5 Least Cost Planning Analysis

- 4.5.1** OGA's theme throughout this proceeding has been that it is not "rational" expansion to

extend natural gas infrastructure if it is not the best option for the affected community. Mr. Todd said that natural gas is appropriate only if it is the most cost-effective option⁸¹, which he made clear means an appropriate balance of cost and policy considerations⁸². Others have talked about it in similar terms.

4.5.2 However, the Chair has characterized it in the way that resonates with the OGA. In talking about the relevance of looking at alternatives, the Chair said⁸³:

“MR. QUESNELLE: Mr. Ardal, if could?

Mr. Todd, could you envision a framework that would have a least cost planning component to it as to what the options are to meet the objective, if the objective was to have lower rates?

I'm just basing this on -- the premise of the question was if the objective is lower rates, lower bills – I shouldn't say rates, but lower bills, energy bills, could a framework have a component that would look at the alternatives to the expansion?”

4.5.3 While Mr. Todd went on to talk about community-wide versus individual-building solutions, he did not challenge the overall concept. Least cost planning is, in fact, a sensible approach to solving the energy needs of a community in the most beneficial manner.

4.5.4 The utilities argue that they are not experts in other technologies, and should not be required to compare gas to other technologies⁸⁴. They are in the gas business, so their role is to propose solutions involving gas. If other parties want to propose different solutions, they can come forward in leave to construct applications with alternative proposals⁸⁵.

4.5.5 Some other parties may agree with this. Don't leave it to the gas utilities to do least cost planning. They will always choose gas⁸⁶.

4.5.6 With respect, this misses the fundamental onus on the utilities, when they apply to the Board, to prove each and every aspect of their case. Whether it is rates, or facilities, or other things, it is accepted by everyone that the onus starts and finishes on the applicant. They don't get to spend ratepayer money on an expansion just because there is no evidence from others. They have a positive onus to show that their proposal is the best approach.

⁸¹ Tr.3:164.

⁸² Tr.3:180.

⁸³ Tr.3:182-3.

⁸⁴ See, e.g. Tr.5:184-9, where Union Gas counsel Mr. Keizer fought a running battle to try to prevent Environmental Defence counsel Mr. Elson from asking questions about comparisons of gas expansion proposals to alternatives, the very least cost planning that the Chair had contemplated.

⁸⁵ Tr.6:57.

⁸⁶ See, e.g. Tr.3:6 and Tr.5:190-3.

4.5.7 The utilities strategy on this is, of course, a good one. They have substantial resources, courtesy of the ratepayers. They will have dozens of proposed expansions. If the proponents of alternative solutions for those communities have to mount a “competing bid”, using their own money rather than ratepayer money, they will quickly run out of time and resources. The utilities know that, and their proposal would ensure adversarial facilities applications in which they have a significant advantage.

4.5.8 OGA believes that is not the right answer. The right answer is to require the utilities to show that their solution, expansion of the gas distribution infrastructure with a subsidy from existing customers, is appropriate because it is the best solution to meet the energy needs of the local community.

4.6 Utility Contributions

4.6.1 The two incumbent utilities, Union and Enbridge, have made pretty clear throughout this proceeding that, if UCE projects are to proceed, it will be with no contributions, or risk, by the shareholders of the utilities.

4.6.2 Both utilities, for example, have refused to consider taking a lower ROE/profit on these projects to help make them happen⁸⁷. When asked about the possibility of financing these projects with a higher level of debt, rather than the normal debt/equity split, Union said they haven’t considered that⁸⁸.

4.6.3 It is not as if the utilities can’t afford to kick in some of the cost of the UCE projects. For example, the total cost of capital, including taxes, of the Enbridge sample portfolio is \$533 million over 40 years, most of the cumulative cost of the projects. Of that \$533 million, about \$269 million is after-tax profit to the shareholders, an average of \$6.7 million per year⁸⁹.

4.6.4 For example, utilities could agree to recover only the debt rate on UCE projects, as suggested by Mr. Janigan⁹⁰. Assuming a 4% debt rate, that would reduce the cumulative cost of the projects in the Enbridge sample portfolio, as an example, by \$239 million⁹¹. This could reduce the subsidy being requested from existing customers from \$440 million down to about \$200 million⁹².

⁸⁷ Tr.1:227 (Enbridge); Tr.6:3 (Union).

⁸⁸ Tr.6:202-3.

⁸⁹ J1.7. The average rate base of the projects over 40 years is \$207.6 million per year, and the equity component, at 36%, averages \$74.7 million per year. This produces aggregate after-tax profit/ROE of \$269 million over 40 years, or \$6.7 million per year. From a customer point of view, this has to be grossed-up, so the rate equivalent of that \$269 million is actually \$358.6 million, the balance being taxes. A similar calculation can be done for Union.

⁹⁰ Tr.6:202.

⁹¹ ROE is reduced by \$149 million, and the tax gross-up is reduced by \$90 million.

⁹² J1.7. The Enbridge forecast of subsidy from existing customers totals \$440.3 million over 40 years. The simple

- 4.6.5 If ROE is too sacrosanct, a utility could as an alternative propose to accept incremental risks: cost overruns, weather, economic conditions, cost of carbon/attachments, etc.
- 4.6.6 OGA is not proposing that the Board require a shareholder contribution, or assumption of increased risk, in any UCE project application. Rather, what we are proposing is that the application include a section on utility contributions, so that if the utility is not planning to propose any, it has to say so. And, we are proposing that the Board take any utility contribution or risk proposals into account when deciding whether the individual UCE project should be allowed to proceed with customer subsidies⁹³.

4.7 Environmental and Related Impacts

- 4.7.1 **General Environmental Analysis.** It should go without saying that any application to build gas infrastructure should identify the material environmental impacts of the proposal. The Board has to know, for example, that the utility is planning to lay pipe across a sensitive wetland, or, on the other side, is displacing fuel that is being carried to the community in trucks, with their emissions.
- 4.7.2 While the Board is not responsible for environmental assessments of UCE projects, any more than any other projects, the provision of basic information on emission and other impacts of the project allows the Board to ensure that its decision in the public interest doesn't inadvertently harm the public interest in other ways.
- 4.7.3 **Consistency with CCAP Strategy.** For the purposes of this proceeding, however, the biggest question is how the UCE project is consistent with the Climate Change Action Plan, and the utility's strategy for dealing with it. While this is obviously driven by environmental concerns, the issue for the utility and its customers, and therefore the Board, is broader than that. The issue is demand destruction, a changing competitive landscape, and the potential for stranded assets.
- 4.7.4 OGA has proposed that the Board require each gas utility to develop their own CCAP compliance strategy, for review by the Board. This would then set out a Board-approved roadmap for dealing with the potential for demand destruction, and the impacts of that changing landscape on the utility and the customers. In a UCE project application, the utility should be required to demonstrate that the project is consistent with that strategy and roadmap.
- 4.7.5 For example, the CCAP strategy will have to deal with the risk of customers opting off

step of accepting a debt rate, rather than a profit level, for UCE projects would reduce that by about 54%. Of course, if interest rates were to rise, the dollar value of a no-profit proposal would increase as well.

⁹³ A utility contribution in dollars has the obvious value that it reduces the subsidy in dollar terms and, depending on how it is structured, may also limit the risk of cost overruns because it is more shareholder money at risk. The assumption of additional risk will normally have the value that it caps the amount of the subsidy at forecast amounts, reducing the possibility that existing customers will be on the hook for even more than is forecast.

gas, or not attaching, because the cost of gas is increasing due to carbon pricing, and/or the cost of lower-carbon alternatives is dropping due to economies of scale and subsidies, and/or the mood of the public is turning more strongly in favour of lower-carbon energy choices. This kind of “death spiral” risk (as more and more choose against gas, the cost for the remaining customers goes up, driving more and more to exit the system) will be at the root of the utilities’ CCAP planning.

- 4.7.6** Thus, if Union Gas wants to expand into Milverton with a subsidy from existing customers, they would have to show why that expansion remains on their roadmap that avoids the death spiral problem. They may show, for example, that their CCAP strategy includes increasing use of natural gas to fuel heavy transportation, and Milverton is a heavy transportation hub. Thus, while the residential and small business users will see some of the same cost pressures as around the rest of the province, that will be offset by the substantial CCAP benefits of expanded natural gas availability in a key heavy transportation hub.
- 4.7.7** Or, for example, the utility may show that expansion into an agricultural community is consistent with the CCAP strategy because the community is a key source of renewable natural gas, and will in the future be the home of a processing and injection facility for RNG.
- 4.7.8** On the face of it, building forty year assets that will be part of a declining energy option in 2030 or 2035 (at the latest) is not in the interests of the customers, or even the utility. There will, however, be situations in which that infrastructure will have a value in a low-carbon future. Any UCE project should be required to show that, by showing that the project is consistent with the utility’s Board-approved CCAP strategy.
- 4.7.9** OGA understands that the utilities will oppose this requirement⁹⁴. This should not deter the Board from imposing it. A major change in regulatory policy is being proposed, in the face of a fundamental shift in government policy that suggests UCE projects are unwise and contrary to the public interest. OGA believes that, in those circumstances, the Board’s key goal in any changes it makes is to build in strong safeguards for known and likely risks.
- 4.7.10** The low-carbon future of Ontario is a major risk to the gas utilities. Requiring utilities to demonstrate that their actions are managing that risk properly is just common sense.

4.8 Industrial and Commercial Benefits

- 4.8.1** Enbridge and Union⁹⁵ believe that they are simply not in a position to provide information on the industrial and commercial benefits to a local community of

⁹⁴ See, e.g. Tr.5:158 and Tr.6:61-2.

⁹⁵ Tr.6:68.

providing natural gas infrastructure. They say, in effect, that it is simply too hard to do.

4.8.2 In OGA's view, it is primarily the industrial and commercial benefits that will justify UCE projects. These projects will rarely be the best option for space and water heating, as we have noted elsewhere. It will be where natural gas can do something that alternatives like geothermal cannot do – high pressure steam, for example – that natural gas may have a legitimate case.

4.8.3 Therefore, to the extent that the utilities want to justify their UCE projects, OGA believes that the Board should require cogent evidence that there are industrial and commercial benefits not available from cheaper, less environmentally harmful, options.

4.9 Other Costs and Benefits

4.9.1 Each application should provide details on all other costs and benefits not included in the other categories.

4.10 Conclusion

4.10.1 The Board will be aware that, in OGA's view, most UCE projects should not be approved, because their only rationale – lower bills for local residents – can be achieved in other, preferred ways. In most cases, the proposed subsidies from existing customers will not be justified by the facts.

4.10.2 That having been said, there will be situations in which expansion of the natural gas infrastructure is a good idea, despite the cost and despite the drive to lower GHG emissions. Where that is the case, the Board should identify and authorize those expansions only on solid evidence that is the case. This proposed framework is designed to ensure that the Board has the evidence it needs in each such application.

5 RESPONSES TO THE BOARD'S ISSUES LIST

5.1 Introduction

- 5.1.1 The interests of OGA and its members relate primarily to Issues 4 and 10 of the Board-approved Issues List. OGA's response to those issues is the subject of Sections 2-4 above.
- 5.1.2 For the assistance of the Board and other parties, OGA summarizes below its positions on each of the issues on the Issues List.

5.2 Definition of Community

- 5.2.1 *Issue 1: What is considered a community in the context of this proceeding?*
- 5.2.2 No submissions.

5.3 Legal Authority for Inter-Utility Subsidies

- 5.3.1 *Issue #2: Does the OEB have the legal authority to establish a framework whereby the customers of one utility subsidize the expansion undertaken by another distributor into communities that do not have natural gas service?*
- 5.3.2 No submissions.

5.4 Merits of Inter-Utility Subsidies

- 5.4.1 *Issue #3: Based on a premise that the OEB has the legal authority described in Issue #1, what are the merits of this approach? How should these contributions be treated for ratemaking purposes?*
- 5.4.2 No additional submissions.

5.5 Modifying or Repealing EBO188

- 5.5.1 *Issue #4: Should the OEB consider exemptions or changes to the EBO 188 guidelines for rural, remote and First Nation community expansion projects?*
- (a) *Should the OEB consider projects that have a portfolio profitability index (PI) less than 1.0 and individual projects within a portfolio that have a PI lower than 0.8?*
- (b) *What costs should be included in the economic assessment for providing natural gas service to communities and how are they to be determined and*

calculated.

- (c) What, if any, amendments to the EBO 188 and EBO 134 guidelines would be required as a result of the inclusion of any costs identified above?*
- (d) What would be the criteria for the projects/communities that would be eligible for such exemptions? What, if any, other public interest factors should be included as part of this criteria? How are they to be determined?*
- (e) Should there be exemptions to certain costs being included in the economic assessment for providing natural gas service to communities that are not served? If so, what are those exemptions and how should the OEB consider them in assessing to approve specific community expansion projects?*
- (f) Should the economic, environmental and public interest components in not expanding natural gas service to a specific community be considered? If so how?*

5.5.2 The central issue is whether existing ratepayers should, for the first time in history, be required by the Board to subsidize new ratepayers in UCE communities. OGA believes that, except to the extent that the government determines there should be a subsidy for any energy source, the Board should not normally impose one on existing customers.

5.5.3 To the extent that there may be exceptions to this general rule, OGA discusses that at length in Section 2 of these Submissions, and proposes a new framework to deal with those exceptions in Section 4 of these Submissions.

5.6 Surcharges

5.6.1 *Issue #5: Should the OEB allow natural gas distributors to establish surcharges from customers of new communities to improve the feasibility of potential community expansion projects? If so, what approaches are appropriate and over what period of time?*

5.6.2 Yes, surcharges are appropriate, because they maintain a level playing field for the customers in the UCE projects. Allowing surcharges distinguishes between

- (a) the restrictions caused by postage stamp rates (i.e. “we can’t charge different rates to the new customers in order to recover the full cost of their service”) and*
- (b) the restrictions caused by the high cost of getting gas to communities, relative to the alternatives (i.e. “even if we could charge rates based on full cost, the new customers will not pay those rates, and so will not choose natural gas”).*

5.7 Other Ratemaking and Rate Recovery Options

5.7.1 Issue #6: Are there other ratemaking or rate recovery approaches that the OEB should consider?

5.7.2 No additional submissions.

5.8 UCE Project Costs and IRM

5.8.1 Issue #7: Should the OEB allow for the recovery of the revenue requirement associated with community expansion costs in rates that are outside the OEB approved incentive ratemaking framework prior to the end of any incentive regulation plan term once the assets are used and useful?

5.8.2 It is not clear to OGA how the Union Gas proposal to add a new set of criteria for capital cost pass-throughs is consistent with the agreement Union Gas entered into with intervenors on July 17, 2013⁹⁶. While it is undoubtedly true that the Board has authority to modify its order in EB-2013-0202, that does not deal with the rights of the parties to the Settlement Agreement. Parties to that Agreement should be entitled to make submissions as to whether the Agreement is still appropriate if an additional benefit is granted to Union Gas.

5.8.3 With respect to the policy merits of changes to IRM for both Union and Enbridge, OGA leaves it to others to deal with that issue.

5.9 Municipal Franchise Agreements and CPCNs

5.9.1 Issue #8: Should the OEB consider imposing conditions or making other changes to Municipal Franchise Agreements and Certificates of Public Convenience and Necessity to reduce barriers to natural gas expansion?

5.9.2 No additional submissions.

5.10 New Entrants

5.10.1 Issue #9: What types of processes could be implemented to facilitate the introduction of new entrants to provide service to communities that do not have access to natural gas. What are the merits of these processes and what are the existing barriers to implementation? (e.g. Issuance of Request for Proposals to enter into franchise agreements)

5.10.2 The bulk of this issue will be dealt with in full by other parties.

⁹⁶ Union Gas agrees it is not: Tr.6:150.

5.10.3 OGA does note that, whether or not an RFP or other process is voluntary or required, in our submission the Board should apply the requirements of the OGA proposed framework when considering the results of the process in any leave to construct or other application for approval. This would include, in particular, consideration of the alternatives to natural gas infrastructure in the community.

5.11 Cap and Trade – Impacts on Framework

5.11.1 Issue #10: How will the Ontario Government’s proposed cap and trade program impact an alternative framework that the OEB may establish to facilitate the provision of natural gas services in communities that do not currently have access?

5.11.2 Please see Section 3 of these Submissions.

5.12 Cap and Trade – Economic Impacts

5.12.1 Issue #11: What is the impact of the Ontario Government’s proposed cap and trade program on the estimated savings to switch from other alternative fuels to natural gas and the resulting impact on conversion rates?

5.12.2 No additional submissions.

5.13 Loan and Grant Programs

5.13.1 Issue #12: How should the OEB incorporate the Ontario Government's recently announced loan and grant programs into the economic feasibility analysis?

5.13.2 The Board should consider the loan and grant programs in the following ways:

- (a)** The Board should treat the loan and grant programs as the government’s policy decisions with respect to the amount and nature of subsidies that should be provided to UCE projects. Any subsidies in excess of the government’s amounts should be considered by the Board only in exceptional cases.
- (b)** In any UCE project application:
 - (i)** The loans and grants should be included in the EBO 188 analysis to determine the project PI and the portfolio PI, in each case in accordance with their terms; and
 - (ii)** The loans and grants should be excluded from the least cost planning analysis, which should instead be done without any public or ratepayer support for any of the options considered. A least cost planning analysis should look at whether the solution is the optimal solution on its own, before taking subsidies into account.

6 OTHER MATTERS

6.1 Costs

- 6.1.1* The Ontario Geothermal Association hereby requests that the Board order payment of our reasonably incurred costs in connection with our participation in this proceeding. It is submitted that the Ontario Geothermal Association has participated responsibly in all aspects of the process, in a manner designed to assist the Board as efficiently as possible

All of which is respectfully submitted.

Jay Shepherd
Counsel for the Ontario Geothermal Association