K5.4

EB-2011-0242
EB-2011-0283

IN THE MATTER OF the Ontario Energy Board Act, 1998, S.O. 1998, c.15, Schedule B; and in particular section 36 (2) thereof;

AND IN THE MATTER OF an application by Enbridge Gas Distribution Inc. for an Order or Orders approving and setting prices for Enbridge Gas Distribution Inc.'s purchase of biomethane;

AND IN THE MATTER OF an application by Union Gas Limited for an Order or Orders approving and setting prices for Union Gas Limited's purchase of biomethane;

ARGUMENT OF BULLFROG POWER INC.

OVERVIEW OF BULLFROG'S POSITION

1 Bullfrog Power Inc. ("Bullfrog") is licensed with the Ontario Energy Board ("Board") as a retailer of electricity and a marketer of renewable natural gas ("RNG"). Bullfrog sells the environmental attributes from an RNG facility to Ontarians.

2 Bullfrog believes that giving consumers a renewable energy choice has at least two very positive benefits. First, voluntary demand provides necessary economic support for new renewable energy. Second, a widely available and well communicated consumer choice educates and engages consumers. As a result, it facilitates beneficial environmental and energy changes, ranging from individual behaviour changes to increased public acceptance of, and advocacy for, progressive environmental and energy policies.

3 Bullfrog's objective is to ensure that Union's and Enbridge's proposed renewable natural gas program (the "RNG Program") is structured so as to encourage, and not prejudice or negatively impact, the voluntary purchasing of RNG by consumers.

4 In principle, Bullfrog is supportive of the RNG Program. However, the RNG Program must be developed in order to foster, and not to undermine, voluntary demand for RNG. Bullfrog is concerned that Union and Enbridge have not designed the RNG Program so as to avoid negatively impacting the development of a voluntary market for RNG in Ontario, and have also not taken steps to design the RNG Program so as to encourage the development of such a voluntary market.

5 The Board has the objective, pursuant to section 2 of the *Ontario Energy Board Act, 1998*[1] (the "Act") (see Tab A), to facilitate competition in the sale of gas to users. The Board accordingly must ensure that the RNG Program facilitates, and does not undermine, this objective.

6 Bullfrog respectfully submits that the RNG Program fails to facilitate competition in the sale of RNG to users because it:

(a) does not include measures to address or mitigate the impact it will have on the development of a voluntary market for RNG, and in particular fails to ensure that it is constructed in such a way so as not to undermine the development of a voluntary market and competition;

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[1] S.O. 1998, c. 15, Sch. B.

(b) includes provisions that threaten the viability and development of a voluntary market;

(c) is large in size and scope and therefore any negative impacts will be substantial (whereas if the RNG Program was of a more modest size and scope, any negative implications on the voluntary market could be detected and addressed);

(d) fails to consider or include measures that would support or nurture the development of a voluntary market for RNG.

7 Bullfrog respectfully requests that the Board order Union and Enbridge to engage in consultations in order to ensure that the RNG Program adequately addresses the objective of building voluntary demand for RNG in Ontario. Bullfrog would be willing to participate in these consultations. In this submission, Bullfrog proposes a number of measures and recommendations that would accelerate the development of a voluntary consumer market for RNG in Ontario. Bullfrog submits that these measures and recommendations could be explored during the consultations requested.

BULLFROG'S ARGUMENT

8 Enbridge and Union state that the purpose of their application is to establish a RNG Program "to enable the development of a viable RNG industry in Ontario."

Common Evidence, Exhibit B, Tab 1, p. 1 (Tab B)

9 Enbridge and Union also state that the "emerging RNG industry requires a foundation to be built over a longer-term horizon so that a viable market can develop."

Common Evidence, Exhibit B, Tab 1, p. 11 (Tab C)
Transcript Vol. 2, Evidence of Mr. Maclean, p. 81, lines 11-16 (Tab D)

10 Union and Enbridge agree that developing a viable market requires the development of both supply and demand.

Transcript Vol. 2, Evidence of Mr. Maclean, p. 81, lines 17-20 (Tab D)

11 Union and Enbridge also recognize that there are a number of positive benefits to having third party marketers participate in the RNG Program.

Transcript, Vol. 3, Evidence of Mr. Maclean, p. 72, lines 2-6 (Tab E)

12 Bullfrog submits that ensuring the RNG Program is appropriately structured to permit and encourage voluntary purchase of RNG would advance Union's and Enbridge's stated intention of enabling a "viable market" to develop.

13 However, the only demand contemplated in the RNG Program is the demand of Union and Enbridge. The RNG Program fails to consider the development of a competitive market for RNG. As a result, the RNG Program does not meet the Board's objective of encouraging a competitive market for RNG.

14 In addition, the term of the RNG Program is limited to 5 years or 5.5 petajoules, whichever comes first. The RNG Program does not consider how to build a voluntary market for RNG after the term of the Program expires, and therefore is deficient because it fails to create a source of enduring demand necessary to create a true market.

Transcript, Vol. 2, Evidence of Mr. Maclean, p. 81, lines 21-24 and p. 82, lines 22-25 (Tab D)

15 The RNG Program does not support creation of voluntary demand for RNG in a true market; further, the RNG Program fails to consider whether it will have a negative impact on the development of a voluntary RNG market. In particular:

(a) Union and Enbridge have not conducted a formal examination of the impacts that the RNG Program may have on the voluntary market;

Response to Bullfrog Interrogatory #1 (Tab F)
Transcript Vol. 2, Evidence of Mr. Maclean, p. 83, lines 16-19 and 24-25 (Tab D)

(b) Union and Enbridge have not presented any information regarding the anticipated impact of the RNG Program on pricing of RNG in the voluntary market;

Response to Bullfrog Interrogatory #1 (Tab F)

(c) Union and Enbridge rely exclusively on modeling to determine a price for RNG, and fail to consider or present any actual market data. Union and Enbridge did not obtain market data on pricing by way of a Request for Proposals ("RFP"), but did identify that an RFP process may be worthwhile in the case of the Landfill sector, as an example. Bullfrog submits that a small RFP would provide actual market data on pricing and ensure that the prices suggested by Union and Enbridge are appropriate and do not undermine the development of a true market; and

Transcript Vol. 2, Evidence of Mr. Goulden, p. 95, lines 16-24 and Evidence of Mr. Maclean, p. 96, lines 16-24 (Tab D)
Response to Board Staff Interrogatory #5 (Tab G)
Response to Consumers Council of Canada Interrogatory #4 (Tab H)
Transcript Vol. 2, Evidence of Mr. Maclean, p. 119, lines 3-15 (Tab I)
Exhibit J3.1, p. 2 (Tab J)

(d) Union and Enbridge have not presented any information regarding the anticipated impact of the RNG Program on volumes of RNG available for the voluntary market.

Response to Bullfrog Interrogatory #1 (Tab F)

16 The RNG Program further threatens the viability of a competitive RNG market given the large size of the RNG Program. Bullfrog submits that if the RNG Program were modest in size, any negative impact on the voluntary market could be detected and addressed. However, the size of the RNG Program is extremely ambitious, so any adverse impact will be very significant. In fact, the

RNG Program is approximately 80 to 90 times the size of the RNG program approved in British Columbia.

Common Evidence, Exhibit B, Tab 1, p. 16, line 17 - 20 (FortisBC expected to deliver 60,000 - 70,000 GJs by end of 2011) (Tab K)

Enbridge Specific Evidence, Exhibit C, Tab 1, p. 1 and Union Specific Evidence, Exhibit C,, p. 1 (RNG Program expects to deliver a total of 5.5 petajoules combined) (Tab L)

Transcript, Vol. 2, Evidence of Mr. Maclean, p. 92, lines 11-13 (Tab D)

17 Furthermore, Union and Enbridge have also failed to consider ways in which the RNG Program could be configured so as to promote the development of an RNG market. For instance:

(a) despite being aware that utility procurement exists alongside voluntary market demand in the U.S., Union and Enbridge did not look to the U.S. to design the RNG Program's procurement in a way that spurs or supports the development of a voluntary market;

Transcript, Vol. 2, Evidence of Mr. Goulden, p. 86, line 22 to p. 87, line 2, and p. 87, lines 24-28 and Evidence of Mr. Maclean, p. 88, line 28 to p. 89, line 8 (Tab D)

(b) Enbridge has no transportation rate for RNG producers who wish to connect to the Enbridge network in order to sell to parties other than Union and Enbridge.

Response to Bullfrog Interrogatory #1 (Tab F)

CONCLUSION

18 In conclusion, while Bullfrog is supportive of the general intent of the RNG Program, the RNG Program as currently conceived falls short because it:

(a) fails to adequately consider its impacts on the voluntary market for RNG, and ensure that those impacts are not negative;

(b) is a very large program – approximately 80 to 90 times the size of the British Columbia RNG program – so to the extent that it does have negative impacts on the voluntary market, such impacts will be extremely significant; and

(c) fails to consider or adopt measures that would actually spur on or nurture the development of a voluntary market for RNG.

19 Bullfrog respectfully submits that, in order to avoid threatening the development of a viable consumer market, the RNG Program should have at least the following characteristics:

(a) *Pricing*: the pricing for the RNG should be set as aggressively as possible while still permitting the development of RNG facilities. The lowest price possible will ensure that the impact on all consumers is as modest as possible. The prices proposed by Union and Enbridge will significantly influence the prices voluntary market participants will have to pay to RNG developers in Ontario. Bullfrog submits that the resulting price will be too high for voluntary consumers to pay and the voluntary market will not flourish.

Bullfrog submits that the best way to ensure appropriate pricing is to hold a RFP for a small amount of RNG to allow the RNG industry to provide their best prices. This was the approach Ontario took with respect to renewable electricity, namely, testing the market with RFPs before selecting a feed-in-tariff price. Bullfrog submits that this approach would assist the Board in fulfilling its second objective under section 2 of the Act to protect the interests of consumers with respect to prices of gas service;

(b) *Transmission and distribution access and capacity*: if the voluntary market for RNG faces difficulty in accessing the transmission and distribution systems of Union and Enbridge, the voluntary market will not flourish. Given that the development of a market is Union and Enbridge's ultimate objective, rules are required to give priority access to distribution and transmission to supply that is destined for the voluntary RNG market. Bullfrog submits that development of these rules would assist the Board in fulfilling its objectives under section 2 of the Act to facilitate rational expansion of transmission and distribution systems (objective 3) and to facilitate the maintenance of a financially viable gas industry for the transmission and distribution of gas (objective 5.1);

(c) *Comprehensive rules and supporting structures*: a comprehensive set of rules and supporting structures will be required to implement the RNG Program, and these too must favour supply for voluntary demand if a true market is to emerge.

20 In addition, if the development of an RNG market is the ultimate objective, Union and Enbridge should be required to develop innovative strategies for encouraging the growth of voluntary demand. Examples of innovative strategies that should be considered, many of which have been adopted in other jurisdictions, include:

(a) subsidizing the communication and marketing programs of companies building the voluntary market, as has been done in the renewable electricity sector in a number of jurisdictions including Canada (federally) and New York State. Bullfrog submits that such a strategy would assist the Board in fulfilling its objective (objective 6) under section 2 of the Act to promote communication within the gas industry and the education of consumers;

(b) allowing companies building the voluntary market to insert messaging regarding the voluntary choices into Union's and Enbridge's communications and communication vehicles including mailings and websites, which, Bullfrog again submits, would assist the Board in fulfilling its objective to promote communication within the gas industry and the education of consumers;

(c) offering billing and collection services to voluntary market participants;

(d) setting aside a portion of the output of projects for the voluntary market, as has been done for electricity in New York State.

21 Bullfrog Power would be pleased to be part of consultations to ensure that the RNG Program takes proper account of, and assists in, the development of a voluntary market for RNG.

Document #: 519788

Ontario Energy Board Act, 1998

S.O. 1998, CHAPTER 15
SCHEDULE B

PART I
GENERAL

Board objectives, gas

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

1. To facilitate competition in the sale of gas to users.
2. To protect the interests of consumers with respect to prices and the reliability and quality of gas service.
3. To facilitate rational expansion of transmission and distribution systems.
4. To facilitate rational development and safe operation of gas storage.
5. To promote energy conservation and energy efficiency in accordance with the policies of the Government of Ontario, including having regard to the consumer's economic circumstances.

5.1 To facilitate the maintenance of a financially viable gas industry for the transmission, distribution and storage of gas.

6. To promote communication within the gas industry and the education of consumers.

Renewable Natural Gas Application
Common Evidence (Enbridge Gas Distribution Inc. and Union Gas Limited)

PURPOSE

The purpose of this application is to establish a Renewable Natural Gas ("RNG") Program (The "Program") to enable the development of a viable RNG industry in Ontario. This will allow the benefits outlined in this evidence to be realized. The benefits represent significant opportunities, including the opportunity to offer greater choice for energy consumers, and the opportunity to maximize the efficient use of biogas resources. Establishing a RNG Program now, when these opportunities are available, will ensure that these benefits are not passed over.

The proposed RNG Program consists of four integrated and essential facets:

1. A pricing framework approving Enbridge Gas Distribution Inc. ("EGD") and Union Gas Limited ("Union") (together, the "Utilities") to purchase RNG from Ontario producers at specified prices and for a 20-year term as part of their existing system supply portfolios.

   These proposed Ontario RNG Supply Prices are required to support the development of the RNG market. Currently, they are proposed at levels higher than market-based prices of conventional natural gas. RNG purchased by the Utilities will be incorporated into each utility's gas supply portfolio under the established and Board-approved QRAM processes.

2. A maximum annual volume cap of 3.3 petajoules (87 million m^3) of RNG for EGD and 2.2 petajoules (58 million m^3) for Union.

   This maximum volume cap, which represents less than 2% of system gas supply, will limit the total amount of RNG that each utility can add to their overall gas supply portfolio under this Program. The volume limit, combined with specified

Part IV: The Role of Utilities in Enabling a Viable RNG Industry

The Utilities believe that a viable Ontario-based RNG industry will realize the benefits outlined above, and will help to make the product delivered to customers more sustainable. The Utilities' view in this regard is supported by the RNG community, several of whom have filed letters (see Exhibit B, Tab 1, Appendix 2), indicating their support for a utility-led RNG Program.

The Utilities are uniquely positioned within the provincial energy market to enable the RNG industry on behalf of consumers throughout the province. The Utilities' size, scope and stability position them to enable a RNG industry. This has been recognized by potential producers and stakeholders from industry, agriculture and municipalities.

The emerging RNG industry requires a foundation to be built over a longer-term horizon so that a viable market can develop. Under the proposed RNG Program, the RNG Prices paid by the Utilities will allow the emerging market to establish itself until it matures through technology development, producer sophistication, increasing natural gas prices and the potential development of a carbon price (based on a GHG trading value). Following this maturation process, RNG should be able to compete with conventional natural gas supplies.

Part V: Market Considerations

Market Support

In the fall of 2010, the Utilities commissioned Ipsos Reid, an independent market research firm, to determine the attitudes of residential and commercial customers on issues related to RNG. The firm conducted an online survey of 1,052 residential natural gas customers and a telephone survey of 500 commercial customers. The full report is found in Exhibit B, Tab 1, Appendix 3.

--- Luncheon recess taken at 12:22 p.m.

--- On resuming at 1:40 p.m.

MR. SOMMERVILLE: Thank you. Please be seated. Mr. Gardner?

CROSS-EXAMINATION BY MR. GARDNER:

MR. GARDNER: Thank you, Mr. Chair. Good afternoon, panel. I think most of my questions should relate to the purpose of the program in general, but I have a few, as well, regarding pricing and environmental attributes. So I will start with the purpose questions.

I believe that, Mr. Maclean, you stated this earlier, and it is in your evidence, as well, the common evidence of the Applicants, that the objective of the proposed program is to lay a foundation so that a viable market can develop; is this correct?

MR. MACLEAN: That's correct.

MR. GARDNER: So do you agree that a viable market requires both a robust supply and a robust demand?

MR. MACLEAN: Yes, I think I would agree with that characterization.

MR. GARDNER: As the program is proposed, the demand for biomethane is provided exclusively by Enbridge and Union; is that correct?

MR. MACLEAN: That's correct.

MR. GARDNER: Thank you. And Enbridge and Union, through this program, mandatorily pass the premium on to consumers, so that the consumers have no real choice but to pay this premium; is this correct?

MR. MACLEAN: The program as we've constituted it is applicable to system gas customers. So within that context, yes, we're asking for system gas customers to pay for this program.

MR. GARDNER: Mandatorily?

MR. MACLEAN: Correct.

MR. GARDNER: Thank you. Correct me if I'm wrong, but the program as proposed is designed to stop after this five-year contract acceptance window; is that correct?

MR. MACLEAN: Yes. The two factors are either meeting the volume threshold or the five-year window.

MR. GARDNER: So a certain amount of petaJoules or the five-year window is the --

MR. MACLEAN: Correct.

MR. GARDNER: Okay. Thank you. Are there any measures within the proposed program to address what happens after the end of this program, whether it is after the five years or the certain amount of volume?

[Mr. Goulden and Mr. Maclean confer]

MR. MACLEAN: I think we have been struggling a little bit by what you mean by "measures."

The program is designed to last five years. It has a number of components to it. The only measures, per se, that would last beyond five years is the contracts that were signed themselves within that first five-year period.

MR. GARDNER: Okay. Thank you. Are you aware that my client, Bullfrog Power, is a renewable energy retailer?

MR. MACLEAN: Yes, we are.

MR. GARDNER: Are you aware that Bullfrog sells a biomethane product across the country, but also in Ontario?

MR. MACLEAN: We understand that Bullfrog sells a product with environmental attributes. It is not what we would define as a renewable natural gas product within the context of our application.

MR. GARDNER: But certainly Bullfrog is selling the renewable attributes from RNG facilities in Ontario? Or to Ontarians, I should say. Is that your understanding?

MR. MACLEAN: So just to clarify, we're not aware of Bullfrog Power acquiring RNG within the province of Ontario.

Nor are we aware of anyone selling cleaned biomethane injected into the gas distribution systems of the two gas companies that are represented here today.

MR. GARDNER: Okay. That's fine. Thank you. So neither Enbridge nor Union have presented to the Board any formal sort of examination of the impact of this program on the retail market for biomethane, have they?

[Mr. Goulden and Mr. Maclean confer]

MR. MACLEAN: Just to be clear, from our perspective there is no renewable natural gas marketplace in the province of Ontario.

We have not conducted, I think -- with your words -- a formal analysis, but we have outlined some of the pros and cons of various options, including options related to third-party marketers within our response to Board Staff No. 5.

MR. GARDNER: You haven't -- okay. Thank you. Neither Union nor Enbridge have conducted an examination or sort of foreseen what impacts may be on what is an emerging retail market for biomethane, though? You haven't proposed that to the Board, was my first question.

My second question, this question right now is whether you have conducted an examination of what you foresee or what exists right now, because I am not going to bring in evidence, but I don't agree that there isn't an emerging retail market at present.

MR. GOULDEN: I think what Mr. Maclean said was there is no current market for biomethane commodity in the province.

We understand that your client has a product whereby they're selling the environmental attributes, but it's -- in our definition of our program, that is not, in fact, the same thing.

MR. GARDNER: And you haven't included anything to foresee, though, as well? I mean, to foresee what could be an emerging market? That's basically my question.

MR. MACLEAN: I'm not sure I would characterize it that way.

I think our point of view is that nothing within our program precludes it working in conjunction with a third-party marketer designing, developing and implementing their own program within the province of Ontario.

So I guess what I'm saying is they're not necessarily mutually incompatible.

MR. GARDNER: Okay. Thank you. Certainly, though, you haven't given any analysis or you haven't put forth any framework or suggested rules on how the two types of markets, this voluntary -- if I can use that word -- market versus your proposed mandatory program could co-exist?

[Mr. Goulden and Mr. Maclean confer]

MR. MACLEAN: Frankly, this is an area that we've struggled with, if I can use those terms. There is no existing RNG marketplace, and we believe that it is very difficult to build an RNG marketplace exclusively through the third-party marketers right now. And we think that they have some challenges in being able to do that.

At the same time, we do see that the future should hold where both the utility program and third-party marketer programs could co-exist. And in fact, if you asked us from a longer-term point of view what we would like to see happen after five years or however long, I think we would all agree -- certainly Enbridge and Union would agree -- that it would be beneficial in the long term for other programs and other marketers to exist and participate in the marketplace.

The challenge is: How do you do that right at the outset, when the marketplace doesn't exist?

MR. GARDNER: Can you give me some examples of how you might foresee such a challenge being overcome, such as sort of a co-existence taking place?

I mean, some of the questions may be allocation of distribution capacity between the mandatory and the

voluntary demand, if there is insufficient distribution capacity in certain areas.

Or, you know, have you looked at transportation rates for the biomethane for those in the voluntary market?

And thirdly, have you looked at what service utilities would have to provide to generators for the retail market, and at what cost? You know, testing quality issues?

These are all issues I am kind of bringing up. I know it is sort of a statement, but are those three things, allocation of distribution capacity, transportation rates and testing quality, at least something that you agree would be very, very important to consider, given that you are coming up with such a significant program and there might be an emerging market out there on the voluntary side, the retail market?

[Mr. Goulden and Mr. Maclean confer]

MR. GOULDEN: We talked about -- we indicated in our response to Board Staff Interrogatory No. 4 the concept we had with regards to sort of the business models and where we -- what we had explored with regards to what you have referred to. So that might be helpful.

MR. GARDNER: Okay, thank you. Are you aware of sort of similar programs within the electricity sector, renewable electricity across North America, specifically in the States, where utilities have the right or requirement to procure certain amounts of renewable electricity?

MR. GOULDEN: That's I think what you had referred to as a RPS or renewable portfolio standard.

MR. GARDNER: Right.

MR. GOULDEN: We are generally familiar. We didn't think it was applicable in the province of Ontario, but we are generally familiar that that occurs in some jurisdictions in the States.

MR. GARDNER: So you are aware that there is a parallel between the mandatory and voluntary markets? They seem to co-exist, and yet you haven't really done an examination of those to apply to this, this program?

MR. MACLEAN: No, I think our answer is that we're aware that voluntary and involuntary markets can co-exist in different marketplaces. We're at a time of formation with respect to this marketplace, and we believe that it is important for us to bring a substantive and large enough piece of the marketplace to bear to actually create the marketplace.

We're hopeful that over time that will, in fact, allow other programs to exist. We note that there is nothing to stop third-party retailers from bringing renewable natural gas into the province of Ontario or products with environmental attributes from either in or outside of the province of Ontario and to market those into this marketplace to customers.

MR. GARDNER: So you haven't looked at the States for a template to show how utility procurement can be designed to spur on or support development of a voluntary market; is that correct?

MR. GOULDEN: That's correct. And based on our

knowledge of what we were able to determine about RPS-type programs in the States, we didn't reach the same conclusion as you did, but we didn't look at it in as much detail as you appear to have --

MR. GARDNER: Okay, fair enough.

MR. GOULDEN: -- considered.

MR. GARDNER: Thank you. Two more questions on the purpose. So there is no examination within your proposed program of how mandatory programs can set aside supply volumes as an example for the retail market? I haven't seen it, but I am just asking if -- correct me if I'm wrong.

[Mr. Goulden and Mr. Maclean confer]

MR. GOULDEN: In our response to Board Staff Interrogatory No. 5, we indicated -- we provided a table where we looked at a number of options. I think the option that you are referring to is the system gas procurement with third party marketer passthrough. So that was one of the options we considered.

We do note that although many of the options within this table are what I will call either/or options, the option that I have just referred to is really potentially a complementary alternative. So there is no: You can't do this and do other things. So I don't know if that helps but, we did consider that.

MR. GARDNER: Okay, we have that chart. Thank you. One second. Sorry.

So you haven't considered -- there is an example in

New York, and I don't have anything in terms of evidence to give you, but where 95 percent may be the utility's volume that they have set aside, and then 5 percent would be set aside for the voluntary market. You haven't considered this specific scenario as something that may apply or may be beneficial to Ontario?

MR. MACLEAN: I wouldn't say that we've looked at perhaps precisely what you're referring to. But, in spirit, I think we've looked at what you're referring to.

And my colleague here directed us to Board Staff No. 5 and the option of third party marketer passthrough. And, frankly, from our point of view, that has a number of attractive elements to it.

We're trying to do the right thing here. We're trying to create a marketplace that will be sustainable over time, and we're trying to use what is within our control to be able to do so, which happens to be our system gas supply portfolio is the mechanism to do so.

But we do not believe that options on the third party marketer side are incompatible with our option. And so while we didn't necessarily look at something directly, 95/5, and maybe not exactly the mechanism that you're talking about, we did consider, and I think it is in fact noted in the "pros", that is there a possibility -- sorry, it is page 4 of 5 on I-1-5, which is Board Staff No. 5, the option system gas procurement.

If you look at the number of pros that are there, this is what I'm talking about: Sell through whatever portion

of supply third parties wish to buy, reduce the total remaining cost burden on system gas customers, and work in concert with a third party voluntary marketplace.

So we actually considered a number of quite strong positives with respect to this option and how that could work with a system gas portfolio. And we do agree that it would allow marketers to bring different products into the marketplace.

If you look at it from our perspective, the system gas proposal that we have is, you know, a vanilla one size fits all. Marketers might be able to package things in a 10 percent blend or a 20 percent blend or 50 percent blend, or whatever it is they wanted to do.

And we liked a lot of aspects of that. What we came up against really came down to two things. We weren't sure there really was a mechanism for us to really be able to do this, to effectively resell gas.

And, number two, we're concerned that whatever we did, it would have to be at a sort of passthrough, so that we weren't asking system gas customers to subsidize third party marketer customers.

We decided not to include that in our proposal for the time being, because when you look at all of the options that are available, you can say certain ones have various aspects. We decided to go with: What is it that the utility can control, and what is it that we can actually bring to the marketplace?

And we didn't feel that it was incompatible with a

third party option, and that that third party option could evolve over time, or, in fact, if there was a mechanism for us to be able to do this, that we would entertain doing so.

MR. GARDNER: Thank you. Did Union and Enbridge look to Fortis BC - I know there is a reference to Fortis in the common evidence, I believe - as sort of a template for developing this program?

MR. GOULDEN: Yes, we did.

MR. GARDNER: And I think it is also in the common evidence at page 16, line 19, that Fortis is expected to deliver an amount of 60,000 to 70,000 gigaJoules of biomethane in its distribution system.

Then according to Union's and Enbridge's specific evidence, collectively the program that you propose has a cap of 5.5 petaJoules. So you will agree with me the size of the program that you propose, as measured in annual volumes, is almost 100 times that of Fortis'; do you agree with me?

MR. GOULDEN: Can you give us the reference to the Fortis program? I didn't -- I'm not sure I heard you correctly.

MR. GARDNER: Sure. Common evidence page 16, line 19, so Exhibit B, tab 1.

MR. GOULDEN: Thank you. I have looked at that reference now, and yes, that was what they were hoping to get to by the end of 2011.

I think their intent generally was to build the program over a longer period of time. There's a number of

differences between what we've proposed and what Fortis has identified.

MR. GARDNER: Certainly you would agree Fortis' program is much smaller than the one proposed by Union and Enbridge?

MR. MACLEAN: Yes. I think, to be as responsible and helpful as we can, we're trying to do the math because the number you referred to is really just the very short-term for a year or two of tariffs and not the full extent of where they expect to go.

But if your question is from a materiality -- is our program designed to be significantly larger than theirs -- the answer is yes.

MR. GARDNER: Thank you. I have a few clarification questions about environmental attributes. There was a response to Bullfrog's interrogatory No. 7. You note that:

> "Union and Enbridge propose to acquire all environmental attributes, including credits for destruction of methane emissions and displacement of conventional natural gas."

You also note that -- and I am quoting here:

> "The value the attributes will be accrued to system customers through a deferral account mechanism."

So my question is just if you can provide some clarification on what you mean by this deferral account mechanism, and how you foresee it would work.

MR. GOULDEN: Our proposal with regards to a deferral

account mechanism is, in principle, all of the environmental attribute value will, in fact, accrue to the benefit of those customers who pay for it.

So we would establish a deferral account, and to the extent we -- if and when a market for environmental attributes develops, where, in fact, there is -- where there is a real value, then, in fact, what we would do is we would credit those values, whatever they are, to the deferral account, so that we would then pass on those benefits, whatever they are in whatever year this occurs, to those customers that have paid for it.

So that is the concept.

MR. GARDNER: Right. And I understand we're working sort of in a vacuum right now, but that is helpful. Thank you.

Then I think this is in response to Shell's IR No. 14. You don't need to flip to it. I will just ask you the basic terms within it.

If you could explain for me what you mean by "retire and monetize the attributes and apply the benefits to gas purchase costs." It may be a similar answer, but...

MR. GOULDEN: I think it is intended to be a similar answer.

We recognize there is a lot of things that have to be worked out with regards to environmental attributes and what the rules are as they develop, because, in fact, they don't -- you know, they're still developing, but the intention in our response to that interrogatory, as well,

is whatever the benefits are, they will accrue to the benefit of those customers that pay for the program through a deferral account mechanism.

MR. GARDNER: Okay. I might be mixing up concepts here, but is there a suggestion that Union and Enbridge might sell environmental attributes to the public in order to monetize them?

MR. GOULDEN: I think the intention was, again, to just communicate that we would dispose of those, realize the -- effect the monetization and pass through that value to the customers that pay through a deferral account.

So we haven't figured out and -- you know, there is lots to be developed with regards to what that mechanism would look like and how it would work.

What we wanted to be clear was we're passing those benefits on to those that pay for the program.

MR. GARDNER: Is there another way that you can think of to monetize them, other than selling them?

MR. MACLEAN: We may be somewhat over our head here, so bear with me, but I can think of at least two ways.

You can sell them, and I'm not sure that selling them retail is the only way of selling them.

But the other way that it could evolve and that certainly some talk has been involved with respect to carbon trading is the utilities might be responsible for putting programs in place with regards to the emissions of their customers.

And so rather than selling them, it might be there

might be an opportunity to retire them at some economic value.

MR. GARDNER: Very helpful. Thank you. Okay. Moving on to pricing; this is my final section of questions.

I appreciate that Union and Enbridge have employed Electrigaz and done a study. I think it was mentioned earlier that there were nine different scenarios to calculate production costs, to determine this one pricing model. And I also realize that much of your pricing model is based on -- I think Mr. Goulden said this earlier -- informed by the FIT program.

Is there any other source that you have looked to, besides this report and the FIT itself, to come up with the proposed rates and pricing system?

[Mr. Goulden and Mr. Maclean confer]

MR. GOULDEN: With regards to the analysis we used to determine the price, we relied on the Electrigaz work to determine the appropriate costs.

We then applied our judgment -- which is sort of dealt with in a little bit more detail at the top of page 22 of our common evidence -- with regards to doing the balancing act or using the judgment we needed to do to determine what the price looked like as a result of the work done by the costing report.

So the costing report is actually found at appendix 5, Exhibit B, tab 1, appendix 5 -- sorry, the costing report is Exhibit B, tab 1, appendix 4. The pricing report, which was the analysis and the judgment that we applied, is at

Exhibit B, tab 1, appendix 5.

MR. GARDNER: But correct me if I'm wrong, but those relates to the Electrigaz report itself.

So is there anything outside of what Electrigaz did for you and what you have presumed, based on the FIT as a template that you've gone to, to help with your model for pricing and proposed rates?

In other words -- let me give you an example -- have you looked to the 20 entities that you identified as potential suppliers? I think it was in response to one of our -- Interrogatory 4 of Bullfrog, you mentioned 20 entities that you have consulted with.

Have you looked to them, to see if they can help inform you as to how your pricing system may unfold?

[Mr. Goulden and Mr. Maclean confer]

MR. MACLEAN: Our approach was really to engage a neutral third party in the form of Electrigaz, and, you know, it is fraught with peril to go out and ask for potential proponents to give you a price on what they might require.

So we're informed by, you know, some of our understanding of what's happening with respect to the OPA, and we engaged a consultant to do a cost-based analysis for us.

MR. GARDNER: Okay. So your consultation with those 20 potential suppliers didn't include specifics on pricing? They weren't able to inform you about pricing, give you some actual market data, at least in the biogas sector?

of time on this yesterday, with respect to Bullfrog.

We recognize that there are a number of positive benefits of trying to find a path or mechanism for third-party marketers to participate within this program.

We certainly think that, in the longer term, that is a desirable state.

What we felt is that on reflection, it does not appear that we have a mechanism in place to resell gas, that we don't, in fact, sell gas, that we're more of a supplier of last resort. I don't know if that is the correct words to use.

And so we had some concerns and issues with respect to the mechanism to be able to do that and the mechanics to be able to do that.

And the other aspect that we considered in this is that if we were to try to make something available on a pass-through basis, that we would want the costs to be fully recovered so that there wasn't any subsidization from system gas customers, but subject to being able to solve those two problems, we think there is merit in proceeding in that direction.

MR. AIKEN: Back on Exhibit I-1-5, page 4, the second con says:

"Likely raises same voluntary market issues."

Can you explain what the "same" in particular is referring to?

MR. MACLEAN: Yes. I can. And I will preface my comments by saying it is kind of a limitation of the format

ENBRIDGE GAS DISTRIBUTION INC.
UNION GAS LIMITED
RESPONSE TO BULLFROG POWER INC. INTERROGATORY #1

ISSUE 1 - Role of the Utilities

Aside from the Ipsos Reid survey conducted (Ex. B, Tab 1, App. 3):

(a) What examinations have Union Gas Limited ("Union") and Enbridge Gas Distribution Inc. ("Enbridge") performed to evaluate the impact of this initiative on the retail market, and in particular the retail market for RNG?

(b) In what ways and to what extent will the proposal affect the current and future retail market?

(c) Please provide all relevant information on the anticipated impact, including pricing, volumes, access to distribution, etc.

Response:

a) The Utilities have not conducted a formal examination of the impacts on the retail market.

b) Refer to a). Generally the program would have the effect of raising current system gas costs, thereby indirectly increasing the financial competitiveness of all alternate retail supply options.

c) Refer to a). The Utilities do not have any information on the anticipated impact regarding pricing or volume as it relates to retailers.

At Union, access to distribution is open to retailers who want to contract with RNG suppliers to transport their gas using the existing M13 rate. The RNG Program will have no impact on this access for retailers who want to contract with RNG suppliers.

EGD may, in the future, develop a transportation rate for RNG producers who do not participate in the Utilities' RNG Program but wish to connect to EGD's network. This application does not preclude retailers from participating in Ontario through open access to the distribution system and does not affect any arrangements that retailers may have or plan to have with sources of supply outside of Ontario.

ENBRIDGE GAS DISTRIBUTION INC.
UNION GAS LIMITED
RESPONSE TO BOARD STAFF INTERROGATORY #5

1.0 Role of the Utilities

Reference: Prefiled Evidence / Exhibit B/Tab 1/ page 1/ lines 17-21

a) With respect to the proposed biomethane program, have the companies considered allowing for a customer opt-out option, where customers can choose not to pay a premium charge for biomethane, or voluntary sign-up, where customers can choose to opt-in to the biomethane program and pay a premium for biomethane, to have the biomethane in the supply mix?

b) If yes, please discuss the opt-out process and voluntary sign-up process?

c) If no, please discuss if the companies would continue to pursue a modified biomethane program with either a mandatory opt-out option or with a provision of voluntary sign-up to have the biomethane in the gas supply mix?

Response:

Background

In developing the Renewable Natural Gas Program the Utilities considered the merits and issues associated with such a program as well as the merits and issues of specific program elements. It should be noted that at its most fundamental level the program will enable a market to develop that will result in:

- The efficient use of organic materials that might otherwise be deposited on or in lands throughout the province,
- The useful and efficient use of energy that may be released or flared to the atmosphere or otherwise utilized in less efficient applications, and
- The development of an energy supply source that is equivalent in all physical characteristics to natural gas, but which would materially reduce the carbon footprint in Ontario, while simultaneously providing additional benefits.

Overarching Program Considerations

As previously mentioned, the utilities considered a number of program merits and issues. Some of these merits and issues are set out below, and details on these elements are set out in the pre-filed evidence:

- Is there a need and benefits for such a program
- Do customers desire and support such a program
- Do the Utilities need to be involved and if so, should they be involved
- How long do the Utilities need to be involved
- Does technology exist to support development of a market

The Utilities carefully considered the merits and issues of a Renewable Natural Gas Program and arrived at the conclusion that it is not only appropriate for the Utilities to embark upon such a program, it is something that customers support. Based on our conclusions, the Utilities then set out to consider specific program design elements and alternatives as shown in the following table.

Model/Element	Pros	Cons
Voluntary Sign-Up/Opt In or Out	1. Direct cost attribution to specific customers 2. Customer choice to participate	1. Complicated to administer. 2. Would require significant customer outreach and communication to ensure that customers are able to make an informed choice. 3. Separate approval process required for gas supply charge applicable to customers opting in or opting out. 4. Impede/slow market development.
Request for Proposal	1. Clearer line of sight to cost/ value for RNG 2. Might reduce per unit of production costs	1. Reduces planning certainty around program limits and customer impacts e.g. still needs upper limits on price to manage overall cost impacts 2. Onerous & expensive for utilities, regulator and producers – reducing cost benefits (if any). 3. Tends to screen out smaller, less sophisticated proponents. 4. Non-price factors difficult to assess for all parties. 5. Price purchasing via RFP better suited to standardized products and terms. 6. Raises a complexity barrier vs other Ontario FIT mechanisms.
Renewable Portfolio Standard	1. Usually results in RFP with same pros	1. No RPS model in Ontario. 2. Mandatory targets introduce unnecessary risk in an unknown/ undeveloped market.

		3. Supply of RNG inputs limited and controlled by 3rd parties – introducing far more risk than in comparative electricity RPS models. 4. Same other cons as RFP model.
Cost Recovery Through Distribution Rates	1. Lower per customer bill impacts. 2. Public interest benefits are distributed across all ratepayers.	1. RNG costs are attributed to customers not taking RNG supplies (i.e. direct purchase). 2. Delivery rate/Deferral account solution requirement that could be more complex than QRAM solution. 3. No opportunity for customers to avoid paying for costs of RNG supply.
Source RNG Outside Ontario	1. Pay for only Environmental Attributes benefits. 2. Can be complementary to proposed Utility Supply Model.	1. Can already be done by marketers & does not require utility involvement 2. There are more benefits to RNG than just EA. 3. Core utility vision is to enable an Ontario RNG Production market with full benefits of doing so
System Gas Procurement with 3rd Party Marketer Pass Through	1. Sell through whatever portion of supply 3rd parties wish to buy. 2. Reduce total remaining cost burden on system gas customers (portion not sold through). 3. Works in concert with 3rd party voluntary market.	1. No mechanism for doing so. 2. Likely raises same voluntary market issues.
Utility Ownership of Pilot Program Assets	1. Pilot projects might enhance utility learnings that could be shared broadly. 2. Pilot projects might have a higher chance of success.	1. Unnecessarily limits market participants. 2. Technology & business models sufficiently advanced for many parties to succeed.

	3. Possible source of utility earnings.	3. Earnings from pilots are not strategic to the utility business. 4. 5. Primary objective of long term GHG reduction strategy for utilities and customers does not require utility ownership.

Recommended Model	Pros	Cons
Utility Supply Price Approach	1. High control over cost impacts, program parameters, limits customer bill impact. 2. Invites many types and sizes of proponents to participate. 3. Including RNG in system supply eliminates the need for significant marketing/customer communication costs. 4. Retains customer opt out ability by leaving system gas. 5. Consistent with other Ontario mechanisms e.g. FIT. 6. Can co-exist with other retail market offerings that included renewable energy 7. Provides planning clarity & certainty to RNG developers. 8. Can be implemented quickly and supports rapid market development. 9. Can easily be accommodated within existing QRAM mechanism. 10. Attributes RNG costs to those consuming the RNG supplies.	1. Costs are recovered from system gas customers only. 2. Only indirectly aids development of voluntary market. 3. Support RNG trading in Ontario only. 4. Pricing will not result in development of all RNG projects 5. Less line of sight to cost/value of RNG

ENBRIDGE GAS DISTRIBUTION INC.
UNION GAS LIMITED
RESPONSE TO CONSUMERS COUNCIL OF CANADA INTERROGATORY #4

ISSUE 1 - ROLE OF THE UTILITIES

(B/T1)

Please provide copies of all presentations, business cases and reports regarding the RNG program provided to:

- EGD/Union's Senior Management Team;
- EGD/Union's Board of Directors;
- EGD/Union's parent, Enbridge Inc./Spectra; and
- Any other affiliated companies.

Response:

Please find attached all RNG-related presentation slides.

Attachment 1, consisting of Union's presentations.
Attachments 2 – 5, consisting of EGD's presentations.

with respect to the impact on the competitive market.

I want to deal more broadly.

In our -- my client's Interrogatory No. 4, we asked you to produce any business cases that had been prepared with respect to this proposal.

We didn't get any business cases in response to it. May I assume that there were no business cases prepared with respect to any aspect of this proposal? Is that fair?

[Mr. Goulden and Mr. Maclean confer]

MR. MACLEAN: We interpret your question within the context of cost-benefit analysis.

MR. WARREN: Right.

MR. MACLEAN: And our answer is that it's very difficult -- in fact, it is impossible -- to do a full analysis when a marketplace does not exist.

That doesn't mean the benefits don't exist. It also doesn't mean, as you have pointed out, that the costs remain the same. They could go up. They could go down.

That's why we've built this model with caps and limits and very clear parameters, so we all know going in what we control and what the maximum impact is.

MR. WARREN: Well, do we know the maximum impact, Mr. Maclean, if the cost -- price of gas from other sources goes down over the course of the 20 years, then we're looking at more than a $1.2-billion cost impact for ratepayers.

So we don't know the upper limit of the burden on ratepayers, do we?

Specifically, while operating costs will go up for producers on an annual basis, the program will assume that 70% of CPI will be absorbed by producers through gains in efficiencies. In addition, the initial price was arrived at using the target of 11% discounted cash flow return on equity (ROE) and the revenue stream. Changing the revenue stream would result in either less than 11% threshold ROE or requires a higher initial price.

2) Questions from Mr. Warren

"And one of the propositions I put to you is a modification to your program would be a trial period in which you seek bids from, in effect, an RFP process from representatives of the nine scenarios that you've got, so that you can return to the Board with an actual set of data as to what the market is likely to look like in terms of people out there actually willing to engage in this. That's one proposition, whether you would be willing to do that. A second proposition would be whether or not you would be willing to include in this mechanism some sort of competitive bidding process."

[Transcript Reference –Volume 4 Page 135 Line 16 to Page 136 Line 5]

Response

As indicated at Board Staff Interrogatory #5 (Exhibit I-1-5) and Bullfrog Interrogatory #6 (Exhibit I-4-6), a Request for Proposal (RFP) process includes the following drawbacks:

- The need for multiple RFPs,
- the rigidity of timing and structure of RFPs may discourage full participation from different sectors,
- the need to pre-evaluate distribution systems for connectivity,
- the costs of these processes for both the proponents and the utilities, and
- the experience of OPA's RFPs and standard offer programs.

The Utilities believe that an RFP process could possibly be established for those RNG production scenarios where potential benefits may outweigh the drawbacks. This could most appropriately apply to the Landfill sector which tends to have:

- large sophisticated proponents ,
- Identifiable market participants,
- Limited scope of technology development required (i.e. clean up only)

If this approach were to be taken, and multiple bids were received, the lowest cost landfill sourced supply would be accepted provided it was lower than or equal to that proposed by the

The funding will enable a new anaerobic reactor to convert 65% of the mill effluent into biogas and the modification of burners to use biogas to dry pulp.

In its June 2008 feasibility study (*Biogas Upgrading and Grid Injection in the Fraser Valley, British Columbia*[7]), the BC Innovation Council determined that in British Columbia, conversion of biogas energy into RNG presents clear economical and environmental advantages to conversion into electricity. The Council concluded that, because electricity can be generated through hydroelectric production in a manner that is both inexpensive and does not emit GHGs, production of RNG to displace natural gas presents a more sensible alternative use of biogas energy. Locally produced RNG has the advantage of a carbon tax exemption ($1.50/GJ in 2012) and avoids pipeline transportation costs that natural gas from Alberta and northern BC will carry.

Subsequent to the feasibility study, FortisBC (Terasen Gas) has moved forward in buying RNG for its renewable, carbon neutral benefits and its prospective price stability. FortisBC has taken steps to roll out a Biomethane Service Offering as a result of a December 2010 Decision by the BC Utilities Commission. In the first phase, customers will have the option of designating 10% of the natural gas they use as RNG. FortisBC will then inject the equivalent amount of renewable gas into its system. Currently, FortisBC has two sources of biomethane (expected to deliver an annual amount in the range of 60,000 – 70,000 GJs of biomethane into FortisBC's distribution system by the end of 2011).

United States

Anaerobic digestion and biogas upgrading are common and mature technologies used extensively in the United States.

The U.S. Environmental Protection Agency (EPA) has developed a guide to actual market opportunities for the operation of biogas recovery systems. As of 2007, the EPA

[7] This study was conducted by Electrigaz Technologies Inc.

RNG SUPPLY VOLUME AND BILL IMPACT

1. Based on the results of the Ipsos Reid customer survey for EGD and UGL customers, provided at Exhibit B, Tab 1, Appendix 3, approximately two thirds of the residential customers surveyed indicated that they were willing to pay an increase of approximately $18 annually to support utilities' purchase of RNG. This bill impact level was used to determine the level of RNG supplies to be included in EGD's gas cost portfolio.

2. Based on an acceptable residential bill impact level of $18 per year, EGD has estimated that the limit of current system gas volumes to be replaced by RNG supplies would equal approximately 87 million m^3 (3.3 million GJs) or 1.5% of its system sales volume forecast of 5,853 million m^3 (220.6 million GJs). This estimate is based on EGD's July 1, 2011 QRAM forecast of volumes and gas costs in which EGD replaced 87 million m^3 of delivered supply at Dawn with RNG supplies.

3. The estimated volumes were derived assuming a producer price of $15/GJ for RNG supplies. This estimated price was based on the RNG pricing framework as provided at Exhibit B, Tab 1, page 21 and assumed 50% of RNG volumes sourced from landfill gas priced at $13/GJ and 50% of RNG volume sourced from anaerobic digestion priced at $17/GJ. This resulted in a blended average rate of $15/GJ for the calculations. Table 1 of this exhibit outlines the volume impact as described above.

4. The impact of EGD purchasing its RNG supplies at $15/GJ translates into an increase of approximately 0.59 ¢/m^3 from its existing July 1, 2011 gas supply charge of 14.93 ¢/m^3 to 15.51 ¢/m^3. Based on EGD's July 1, 2011 rates, this represents an

Union Gas Limited
Prefiled Evidence on
Renewable Natural Gas Application

DERIVATION OF CUSTOMER BILL IMPACT AND RELATED VOLUME

As identified in the market surveys of Union Gas Limited ("Union") and Enbridge Gas Distribution ("EGD") customers (see Exhibit B, Tab 1, Appendix 3) and outlined in Exhibit B, Tab 1, pp. 9-11, a majority of residential customers indicated they would be willing to pay approximately 2% or $18/year more on their gas bills in order to reduce greenhouse gas emissions through the Utilities' purchase of renewable natural gas ("RNG") as part of their supply portfolio. This bill impact level was used as a guideline when determining the maximum cumulative annual volume for the program.

Based on an acceptable bill impact of approximately $18/year for an average residential sales service customer, Union calculated an RNG gas supply volume limit of 2.2 PJs. Using that cumulative volume limit, Union used the current approved Quarterly Rate Adjustment Mechanism ("QRAM") methodology to review the impact of replacing existing supply with RNG.

The Ontario RNG supply price used for this analysis was based on the RNG pricing framework as provided at Exhibit B, Tab 1, Appendix 5, p. (iii) ("RNG Pricing"), and assumed 50% of the RNG volume is sourced from landfill gas and 50% of the RNG volume is sourced from anaerobic digestion. The maximum price level defined in the