K9.3

EB-2015-0029
EB-2015-0049

Green Energy Coalition

Cross-examination Materials

For Union Panel 3

ONTARIO ENERGY BOARD

FILE NO.: **EB-2012-0337**

VOLUME: **1**

DATE: **January 31, 2013**

BEFORE:	**Paula Conboy**	**Presiding Member**
	Marika Hare	**Member**

EB-2012-0337

THE ONTARIO ENERGY BOARD

IN THE MATTER OF the Ontario Energy Board Act 1998, S.O. 1998, c.15, (Schedule B);

AND IN THE MATTER OF an application by Union Gas Limited pursuant to Section 36(1) of the Ontario Energy Board Act, 1998, for an Order or Orders approving the 2012 to 2014 Demand Side Management Plan.

Hearing held at 2300 Yonge Street,
25th Floor, Toronto, Ontario,
on Thursday, January 31st, 2013,
commencing at 9:31 a.m.

VOLUME 1

BEFORE:

PAULA CONBOY Presiding Member

MARIKA HARE Member

Tracy Lynch, Sworn

David MacEacheron, Sworn

Greg Tetreault, Sworn

MS. CONBOY: Thank you very much. Mr. Smith.

MR. SMITH: Good morning, Panel. As a preliminary matter, we have copies of the panel's résumés, which we propose to enter as Exhibit 1.

MR. MILLAR: Thank you, Mr. Smith. We have copies here for the panel. There are three separate CVs, but I will mark them altogether as Exhibit K1.1.

EXHIBIT NO. K1.1: CVS OF UNION WITNESS PANEL MEMBERS.

MS. CONBOY: Thank you.

EXAMINATION IN-CHIEF BY MR. SMITH:

MR. SMITH: I don't propose to go through these résumés in detail. I will just ask the panel to introduce themselves and state their role at Union as it pertains to this hearing.

MR. MacEACHERON: I'm David MacEacheron. I'm manager of strategic industrial markets at Union Gas.

MS. LYNCH: I'm Tracy Lynch, director energy conservation, strategy at Union Gas.

MR. TETREAULT: Greg Tetreault, manager of rates and pricing at Union Gas. I'm responsible for cost allocation and rate design.

MS. CONBOY: Thank you.

MR. SMITH: So I would like to take you through some of the evidence filed by APPrO and GEC after Union put in its evidence.

So I would like to first talk about the Navigant report. Have you had a chance to review the Navigant report both as it was originally filed and as corrected and supplemented in APPrO's answers to undertakings?

MS. LYNCH: Yes.

MR. TETREAULT: Yes.

MR. SMITH: Did you reconsider Union's application in light of the Navigant report?

MS. LYNCH: Yes, I did consider the evidence put forward by APPrO.

MR. SMITH: Did the Navigant report cause you to change your view of Union's application?

MS. LYNCH: No. The Navigant report actually reinforces my view that the need for these programs is -- have a very important role to play in the market.

MR. SMITH: Can you tell me why it did that?

MS. LYNCH: Yes. If I could ask that we turn to -- it's a response to GEC's IR 35. That is in Exhibit D5, page 38 of 38, and this would be the appendix that summarizes the survey results of Union Gas customers.

I would then ask if we could go to page 4.

MR. SMITH: We will just wait until the Panel has the...

MS. CONBOY: Thank you. Sorry, the second reference was?

MS. LYNCH: It's Exhibit D5. It's page -- sorry, let me just make sure I get this. It's response to interrogatory 35 from GEC.

MS. CONBOY: Thank you.

MS. LYNCH: Exhibit D5, and this it is appendix A, the survey results.

MS. CONBOY: Thank you.

MS. LYNCH: Page 4.

MR. SMITH: And so this is the page that has at the top "questions 11 to 12"; is that correct?

MS. LYNCH: Correct. I would note that in the responses here to question 11, when asked about having the option to opt out of our programs and not contribute to the cost of DSM, 77 percent of respondents said, yes, they would like to opt out.

I would then note that when you go to question 12 and when they're asked about the option of not contributing to our program, but then having the requirement that they would invest the same amount of money into energy efficiency in their facilities and demonstrate those savings, 85 percent said no.

So 85 percent of respondents were not willing to commit that they would actually spend the same amount and verify the savings that they had under their energy efficiency plans within their facilities.

So through our program and having customers participate in that, we are indeed verifying and proving the savings we have for participation in programs, which is key to ensuring we're getting reliable savings from the efficiency programs that are in the market.

MR. SMITH: Okay, thank you.

I would next ask you to turn to the Navigant report as originally filed on December 14th, and that's Exhibit C2.

And within that report, I would ask you to turn to page 9, which has the heading at the top of it "Summary and Conclusions", and I don't propose to take you through all of the summaries and conclusions. We can read those for ourselves, but I would ask you to go to the bottom of the page, that last sentence that reads at the end, and I am quoting now:

> "... most utility DSM initiatives are not designed to address the technologies and processes used in power generation."

And my question is simply: Do you agree with that statement?

MR. MacEACHERON: No, I do not.

MR. SMITH: Can you tell me why?

MR. MacEACHERON: Well, when we read that statement in their evidence and we asked an interrogatory to clarify that -- and I would turn to Exhibit D3, Union's interrogatory to APPrO, Exhibit D3, page 3 of 5 -- we asked the question: Which of the DSM program elements set out in table at appendix A, tab 1, appendix B, page 8 -- and what that is, it references a slide that we presented at our customer consultation sessions in the summertime. That slide depicted our program elements under our DSM program for large-volume customers.

And so we referred Navigant to that slide that depicted our program elements, and we asked them: Which of

these elements do not address the technologies and processes used in power generation?

And the response below is -- and I will take you to the second sentence:

> "Navigant expects that there are very limited cost-effective opportunities to improve the efficiency of the generation process at gas-fired generation electric facilities, many of which are new state of the art facilities."

I disagree with that statement completely. And I would turn to an interrogatory that we -- and I would turn you to Exhibit B5.6. This is an interrogatory that Union asked of APPrO, and it is a three-page interrogatory and I would refer you to page 2 of that response to APPrO in that interrogatory.

And in (d), part (d), it says, referring to Exhibit A, tab 1, page 9 of 36, table 1:

> "Union's DSM program involvement with gas-fired power generation customers has grown from --"

MS. CONBOY: Sorry, I need a second to find it again. I see you said B. It is in Exhibit D?

MR. MacEACHERON: B, B5.6. Union's response to an APPrO interrogatory.

MS. CONBOY: Okay. Thank you. Please go ahead.

MR. MacEACHERON: And in that interrogatory, we were asked a very similar question about what can we do for power generation customers, and we respond in part (d):

> "Union's DSM program involvement with gas-fired

power generation customers has grown from two projects..."

And then turning to page 3:

"... in 2008..."

At the top of page 3:

"... to 25 projects in 2011."

Over that four-year period, we've saved -- together with our APPrO member companies -- have saved over 230 million metres cubed of natural gas, and that is roughly the equivalent of what 100,000 homes would burn in a year.

And so we have also provided in that interrogatory response a list of project applications, and you can see the list below. There's 18 on that. The list could be much bigger than that, but we boiled it down to those 18 applications. And the first one you can see here is steam system upgrades, repair and maintenance, condenser optimization. So you can see that there are a number of programs that we can deliver to power generation customers.

I would like to pause there for a second, because the notion created by the statement -- and Navigant repeats it more than once in their evidence -- that our programs don't fit with gas-fired power generators, I would like to clarify.

A gas-fired power generator takes natural gas and burns it in a gas turbine, and that produces electricity. It turns a generator and produces electricity. Roughly about 35 percent efficient.

They then capture the waste heat out of the -- from the exhaust of the turbine. They put that into a waste heat recovery steam generator, and they make steam. And they use that steam for one of two purposes.

One, to put it in a steam generator and make more electricity, and thereby increase the electrical output of the facility and with the same unit of energy.

Or they take that steam and they give it to a host site for steam application, typically an industrial site, commercial building, what have you.

So that steam portion of a gas-fired generator's plant is identical to any steam system, high-pressure steam system that you would find in a large-volume industrial plant.

If you would like, I would turn to now APPrO's evidence, C2, part (b) and this is evidence filed by Mr. Sean Russell, an APPrO member company, a gas-fired generator located in London, Ontario, Veresen. So it is the very back. It is the last two pages of APPrO's evidence.

And if you would go to the first full written page of Mr. Russell's evidence, and about two-thirds of the way down that page there is a paragraph that begins with:

> "We are Self-Motivated to Seek Out Efficiencies"

And I'm just going to read one sentence from the middle part of that paragraph. And it reads:

> "...by reducing distribution system losses, we directly reduce the amount of steam that must be

produced, subsequently reducing the amount of natural gas required for the process..."

In his evidence he confirms what most, if not all, of our industrials do every day, and that's work with their steam systems to try and improve their efficiencies.

On page 2 of his letter, he then cites two energy efficiency projects that Veresen undertook recently, first one being the condensate return line. That is the -- that is the return line associated with a steam system. And he also refers to new steam traps. That is on page 2, the second page of his evidence.

Again, examples of energy efficiency activity undertaken by a power generator customer on their steam system, and that is what, I will submit, a bread-and-butter-type energy efficiency activity that we do every day with large-volume industrial customers.

MR. SMITH: Thank you.

Can you give me any examples of conservation deficiencies, at power generation facilities in particular, that Union has helped customers address through DSM projects?

MR. MacEACHERON: Yes. I won't take you back to that last IR -- I'll save you from going through the evidence package -- but there was a list, if you can recall, of about 18 projects, and at the top of that list was steam systems projects, condensate line returns.

As I mentioned before, there are a number of projects. And when we go into a power plant, some of them are -- are

glaringly obvious, you might say. We went in one power plant and we saw a steam leak. And you not only hear -- see steam leaks on these high-pressure systems; you actually hear them too. And we heard this steam leak, went over. There was a thermal blanket covering the leak. And we asked: What's going on here?

He said: Well, we're going to get to that. We're going to get to that.

That is another perfect example of an energy efficiency opportunity within a large gas-fired power generator customer.

MR. SMITH: Thank you.

I would like to go back to the Navigant study, and it's important to keep in mind, as we're flipping around, that there is the original Navigant study, and then that is supplemented by some corrections that appear in the IRs.

But what I would like to ask you now is: Does the Navigant survey include any information from respondents that you believe is incorrect?

MR. MacEACHERON: Yes.

MR. SMITH: Can you please point us to that information and tell us why you think it is incorrect?

MR. MacEACHERON: I would like you to turn to question 3 of the Navigant survey in Navigant's evidence -- or APPrO's evidence, C2, question 3.

I'm looking at page 16, page 16 of their survey. And I'm not talking now about that their amended surveys, but they didn't change this question. I'm actually in their

evidence and looking at the survey in their evidence.

MR. SMITH: So I take it you're referring to question 3 at the top of page 16, that table?

MR. MacEACHERON: That's correct. I'm referring to the table at the top of the page, column 6. Well, backing up a bit this is a table that Navigant put together, based on the survey, which documents spending on energy management for the past three years by APPrO members.

Eight members reported to that table, and three projects in the far right column were identified, three projects identified as -- that were incentives received from Union Gas. Then immediately to the left of that, under the "incentives received" column, is an amount of $29,667, implying that that is the amount of total incentives received over the past three years by these eight APPrO members.

And our records indicate that over that same time period, we have provided over $700,000 in incentives through our DSM program to APPrO member companies. And we've executed or worked closely with those companies to put together 60 projects under our DSM program, and, again, with incentives totalling over $700,000.

I was concerned when I saw the $29,000, because I thought that really -- that doesn't represent the level of activity that we have undertaken with power generator customers, and I thought that should be corrected.

MR. SMITH: So in order to reply to that evidence, you caused -- is it correct to say that you caused work to be

GREEN ENERGY COALITION INTERROGATORY #12

INTERROGATORY

Reference: Section 5.8.2, p. 83

Question:
Regarding large volume customers:

a. Is Synapse aware of any evidence from Ontario or any other jurisdiction to suggest that large volume customers will acquire all cost-effective savings on their own, without utility DSM program support? If so, please document the basis for the conclusion.
b. If not, is Synapse aware of any evidence from Ontario or any other jurisdiction to suggest that large volume customers typically do not acquire all cost-effective savings on their own, without utility DSM support? If so, please document the basis for that conclusion.
c. Is Synapse aware of any evidence from any jurisdiction to suggest that well-designed self-direct programs for large customers typically have very low NTG ratios (and/or high free ridership)? If so, please provide examples and references.

RESPONSE

a. Synapse is not aware of any evidence to suggest that large volume customers will acquire all cost-effective savings on their own.

b. Synapse is aware that large volume customers (often, from the industrial sector) typically do not acquire all cost-effective savings on their own. See, e.g.:
    - U.S. Department of Energy. 2015. Barriers to Industrial Energy Efficiency: Report to Congress.
    - State & Local Energy Efficiency Action Network. 2014. Industrial Energy Efficiency: Designing Effective State Programs for the Industrial Sector.
    - Chittum, Anna. 2011. Follow the Leaders: Improving Large Customer Self-Direct Programs. ACEEE report No. IE112.
    - Synapse Energy Economics. Commercial & Industrial Customer Perspectives on Massachusetts Energy Efficiency Programs. Prepared for the Massachusetts Energy Efficiency Advisory Council. April 3, 2012. Please refer to Exhibit M.Staff.GEC.12, Attachment 1.

c. The term "well-designed" was not defined in this interrogatory. For the purpose of answering this question, we assume that "well-designed" means maximizing public benefit as specified in

Witnesses: T. Woolf
K. Takahashi
E. Malone
J. Kallay
A. Napoleon

Chittum 2011 (Chittum, Anna. 2011. Follow the Leaders: Improving Large Customer Self-Direct Programs. ACEEE report No. IE112.) That is, a well-designed program focuses on energy savings and has adequate oversight, measurement and verification of savings (using the same M&V standards for other industrial programs), and follow up.

Synapse is not aware of any evidence from any jurisdiction to suggest that well-designed self-direct programs for large customers typically have very low net-to-gross ratios or high free ridership.

Witnesses: T. Woolf
K. Takahashi
E. Malone
J. Kallay
A. Napoleon