K2.3

UNION GAS LIMITED

EB-2012-0337 Argument-in-Chief Compendium

INDEX

be utilized on incremental program expenses only. This option is meant to allow the natural gas utilities to aggressively pursue programs which prove to be very successful.

Budget flexibility will also be provided by the proposed funds re-allocation provisions described in section 3, regarding the re-allocation of funds for new DSM programs and re-allocation of funds amongst Board approved programs.

Actual DSM spending will be tracked in the DSMVA at the rate class level and will be used to "true-up" any variances between the spending estimate built into rates and the actual spending. The natural gas utilities should make an annual application for disposition of the balance in their DSMVA account, as further detailed in section 14.

The overall DSM budget flexibility will also be guided by expected funding levels for the three generic DSM program types as described below.

8.1 Budget for Resource Acquisition Programs

Resource acquisition programs should maintain the largest share of the natural gas DSM budget and its allocated budget should be sufficient to support the increased focus on deep measures. The natural gas utilities should consult with their stakeholders to determine appropriate budget levels for resource acquisition programs over the term of the plan.

8.2 Budget for Large Industrial Programs

The Board is of the view that large industrial customers possess the expertise to undertake energy efficiency programs on their own. As a result, ratepayer funded DSM programs for large industrial customers are no longer mandatory. If any are proposed, they will be considered on their merits. The Board defines large industrial gas customers as those in rate classes 100 and T1 for Union, and rate class 115 for Enbridge.

8.3 Budget for Low-Income Programs

The Board is of the view that the low-income DSM budget should be funded from all rate classes, to be consistent with the electricity conservation and demand management framework, as well as the LEAP Emergency Financial Assistance program.

The annual low-income DSM budget shall be no less than 15% of the natural gas utilities' total DSM budgets. Accordingly, the minimum low-income budgets for 2012 will be $4.2 million[20] and $4.1 million[21] for Enbridge and Union respectively. The natural gas utilities' total DSM budgets may be increased by up to 10%, provided the funds are solely used to support low-income programs.[22] This means the total DSM

[20] Enbridge's total DSM budget $28.1M*0.15 = $4.2M
[21] Union's total DSM budget $27.4M*0.15 = $4.1M
[22] This is would represent an incremental amount to the natural gas utilities total DSM budgets of 1.5%

1. OVERVIEW

Natural gas demand side management ("DSM") is the modification of consumer demand for natural gas through various methods such as financial incentives, education and other programs. While the focus of DSM is natural gas savings and the reduction in greenhouse gases emissions, it may also result in the saving of a number of other resources such as electricity, water, propane, and heating fuel oil.

1.1 Background

In 2006, the Ontario Energy Board (the "Board") conducted a generic proceeding (the "2006 Generic Proceeding") to address a number of issues related to natural gas utility DSM activities (EB-2006-0021). The Board's Decisions in this proceeding were issued in three phases:

- The Phase I Decision, issued on August 25, 2006, dealt with a large number of issues relating to DSM and set out a framework for a multi-year DSM plan;
- The Phase II Decision, dated October 18, 2006, approved the input assumptions for the DSM plans of Union Gas Limited ("Union") and Enbridge Gas Distribution Inc. ("Enbridge"); and
- The Phase III Decisions, released January 26, 2007 and April 30, 2007, approved Union and Enbridge's respective three-year DSM plans (i.e., for 2007, 2008 and 2009).[1]

The Board expected the framework established through the 2006 Generic Proceeding to result in significant regulatory savings for all parties involved.

In anticipation of the expiry of both Enbridge and Union's DSM plans at the end of 2009, the Board initiated a consultation process in October 2008 to review the DSM framework and establish through guidelines a revised DSM framework to be used by natural gas utilities in developing their next generation of DSM plans (EB-2008-0346). The first step in this consultation process was meetings led by Board staff with natural gas utilities and interested stakeholders representing ratepayer and environmental interests in November 2008.

On January 26, 2009, the Board issued its initial draft DSM guidelines for comment along with a Board staff discussion paper. On February 6, 2009, the Board also issued a draft report on "Measures and Assumptions for Demand Side Management (DSM) Planning" prepared by Navigant Consulting Inc. ("Navigant") for stakeholder comment.

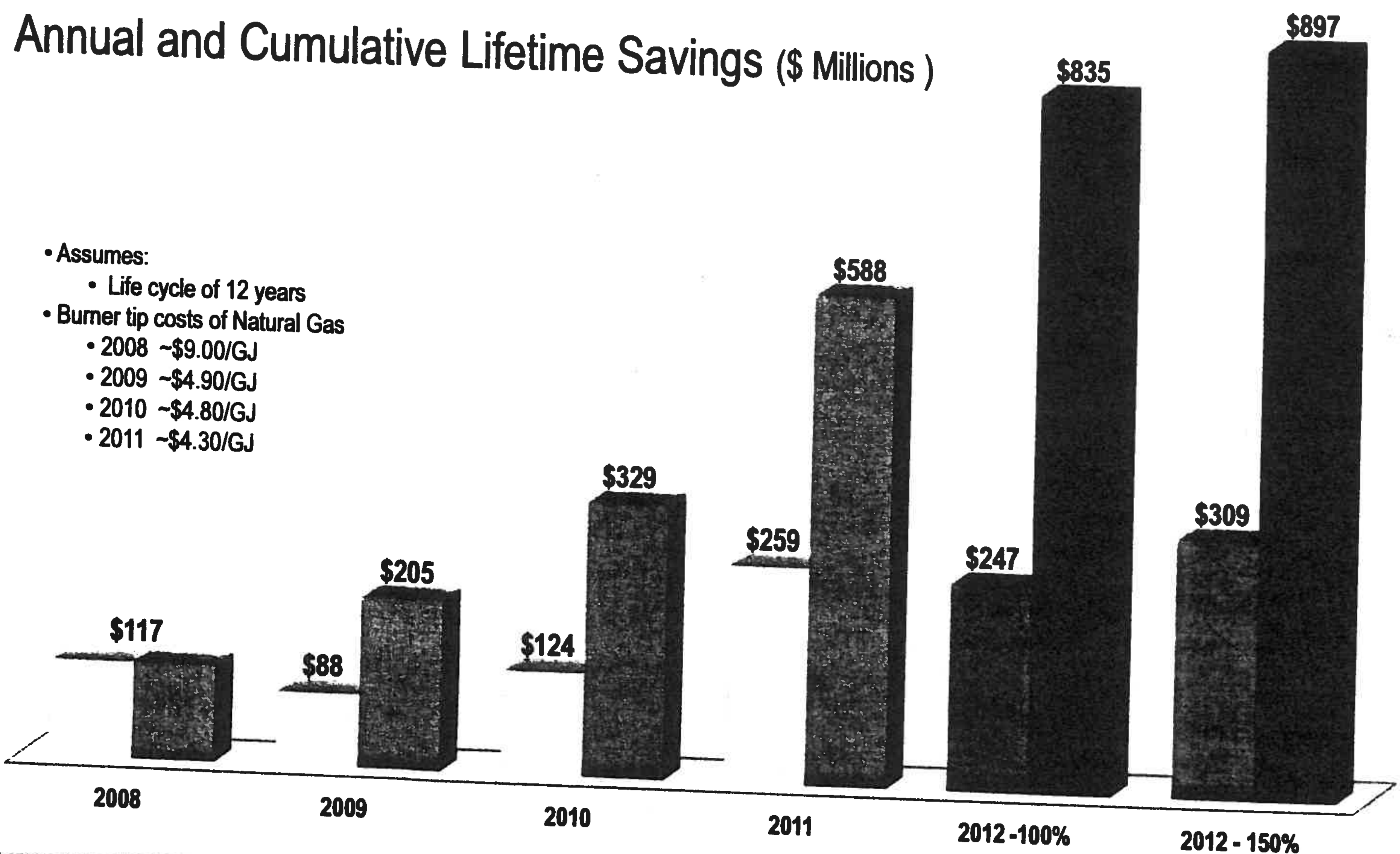
On February 23, 2009, Bill 150, *An Act to enact the Green Energy Act, 2009, and to Build a Green Economy, to repeal the Energy Conservation Leadership Act, 2006 and the Energy Efficiency Act and to Amend Other Statutes*, ("the Green Energy Act") was introduced. On April 14, 2009, the Board issued a letter advising natural gas utilities

[1] Natural Resource Gas Limited ("NRG") has not filed any DSM plans with the Board.

T1 Customer Energy Savings

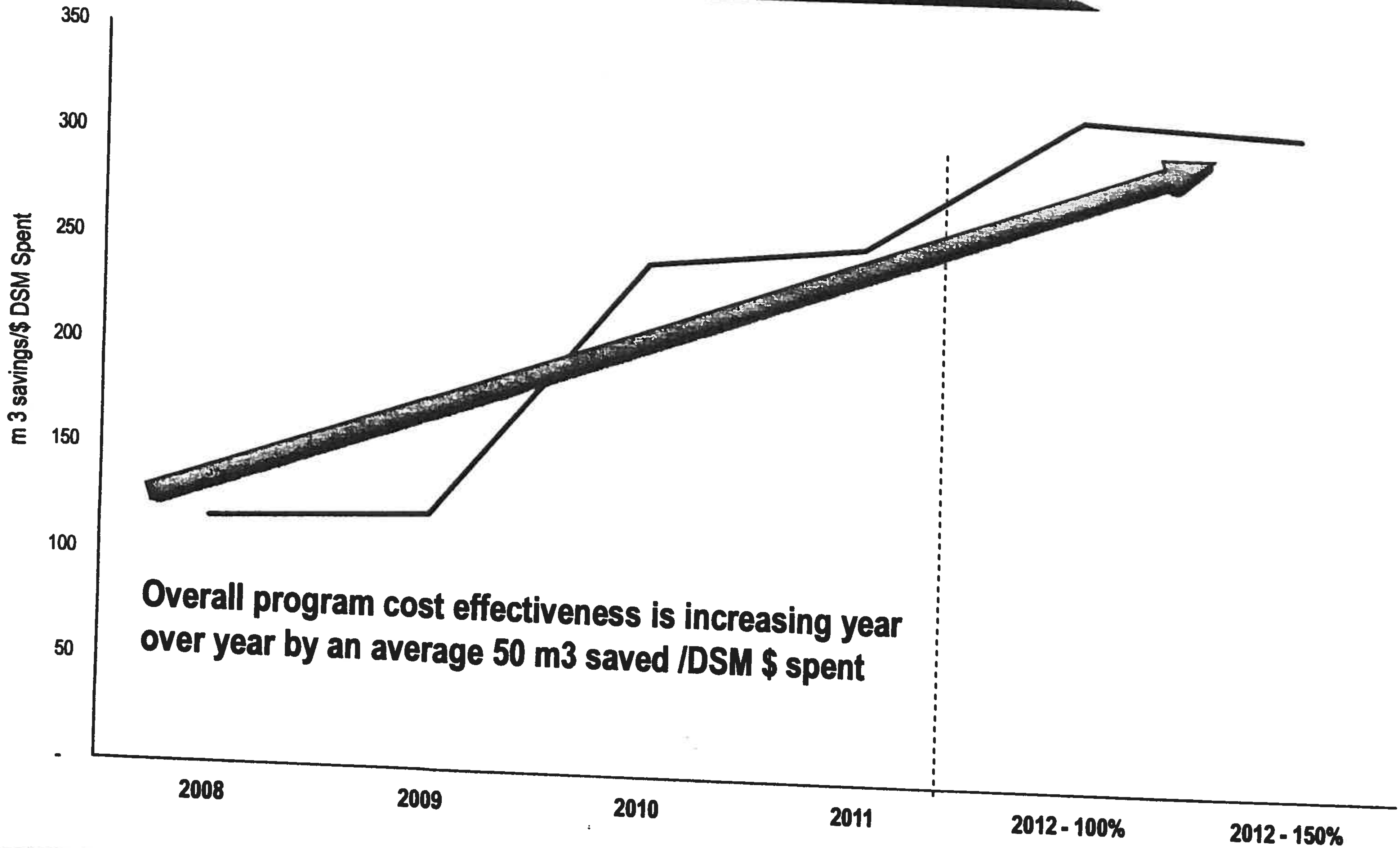
uniongas
A Spectra Energy Company

Annual and Cumulative Lifetime Savings ($ Millions)



T1 DSM Program: Cost Effectiveness

uniongas
A Spectra Energy Company

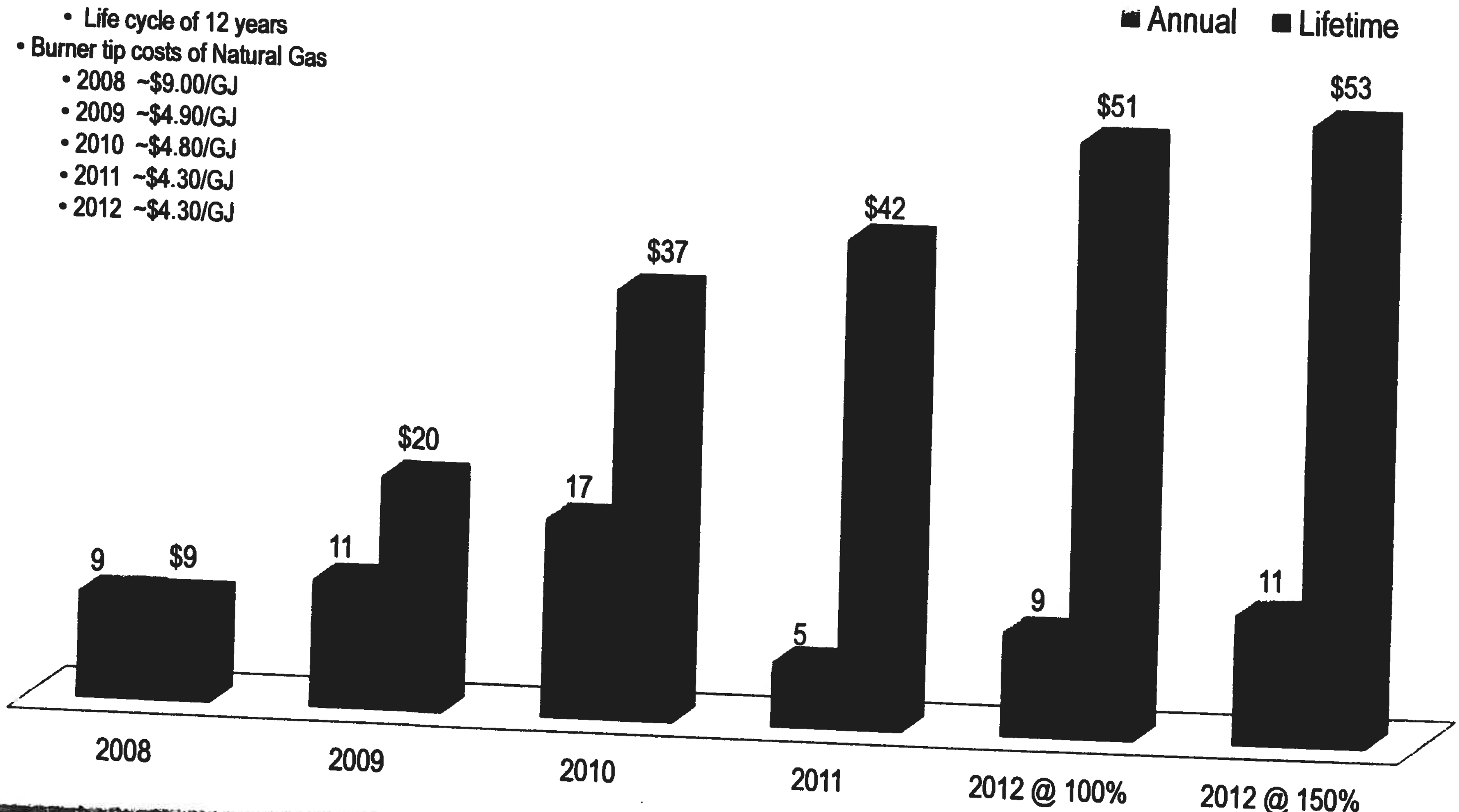


R100 Customer Energy Savings

uniongas
A Spectra Energy Company

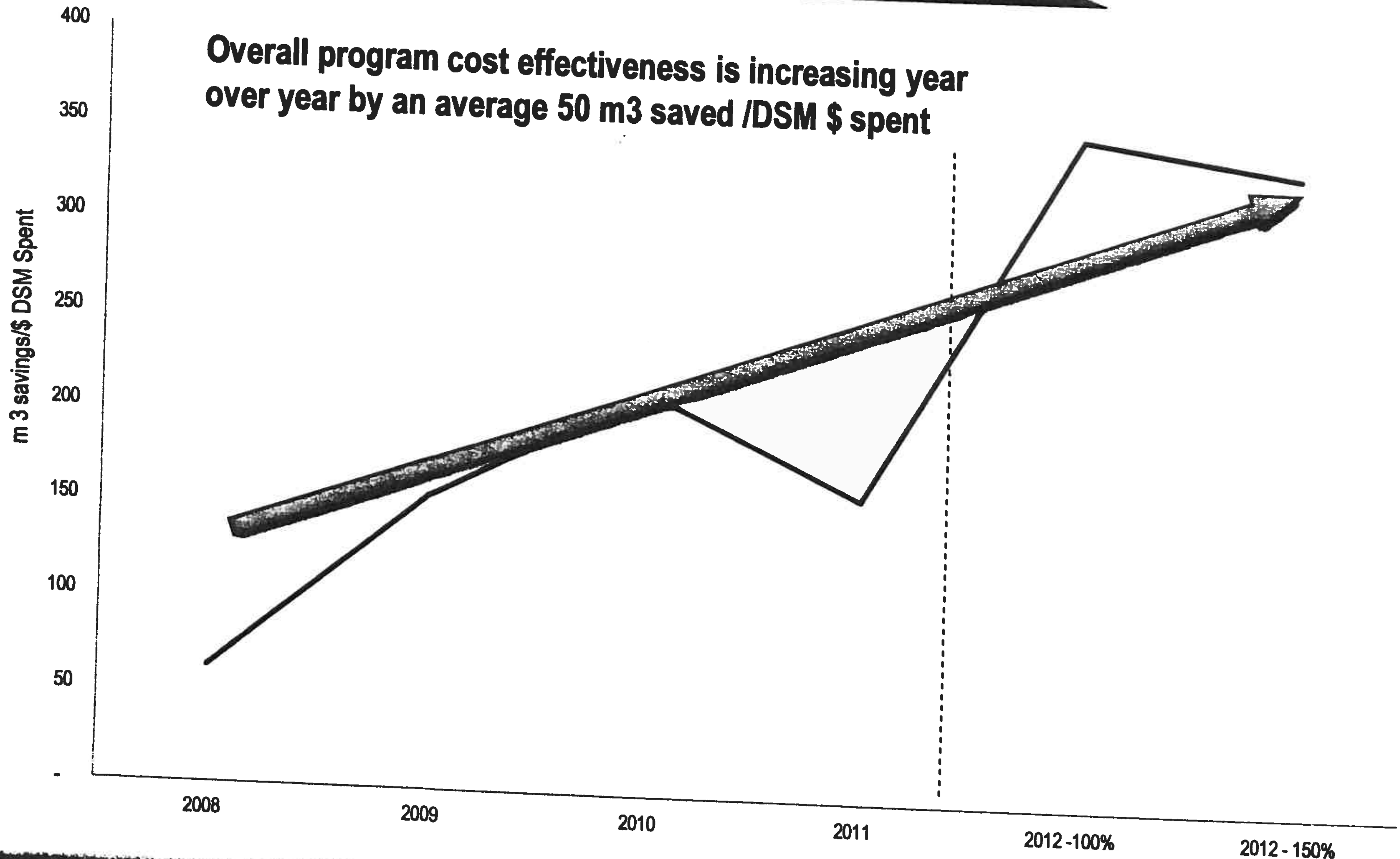
Annual and Lifetime Savings ($ Millions)

- Assumes:
  - Life cycle of 12 years
- Burner tip costs of Natural Gas
  - 2008 ~$9.00/GJ
  - 2009 ~$4.90/GJ
  - 2010 ~$4.80/GJ
  - 2011 ~$4.30/GJ
  - 2012 ~$4.30/GJ



R100 DSM Program Cost Effectiveness

unionGas
A Spectra Energy Company



5

UNION GAS LIMITED

Answer to Interrogatory from
Association of Power Producers of Ontario ("APPrO")

Reference: Exhibit A, Tab 1, Section 1.2, page 8

Preamble: Union indicates that:

> *"Although some customers, such as power producers, have indicated that they would like to opt-out of the Plan, significant economically feasible efficiency opportunities remain in the province that large volume customers have not undertaken to-date".*

APPrO would like to better understand this position.

a) Please provide the basis for this statement.

b) Please explain the underlying assumptions used to make this statement.

c) Please provide the total number of the new Clean Energy Supply (CES) plants that are situated in Union's Southern franchise region.

d) Is it Union's view that new state of the art CES plants require significant energy efficiency programs?

Response:

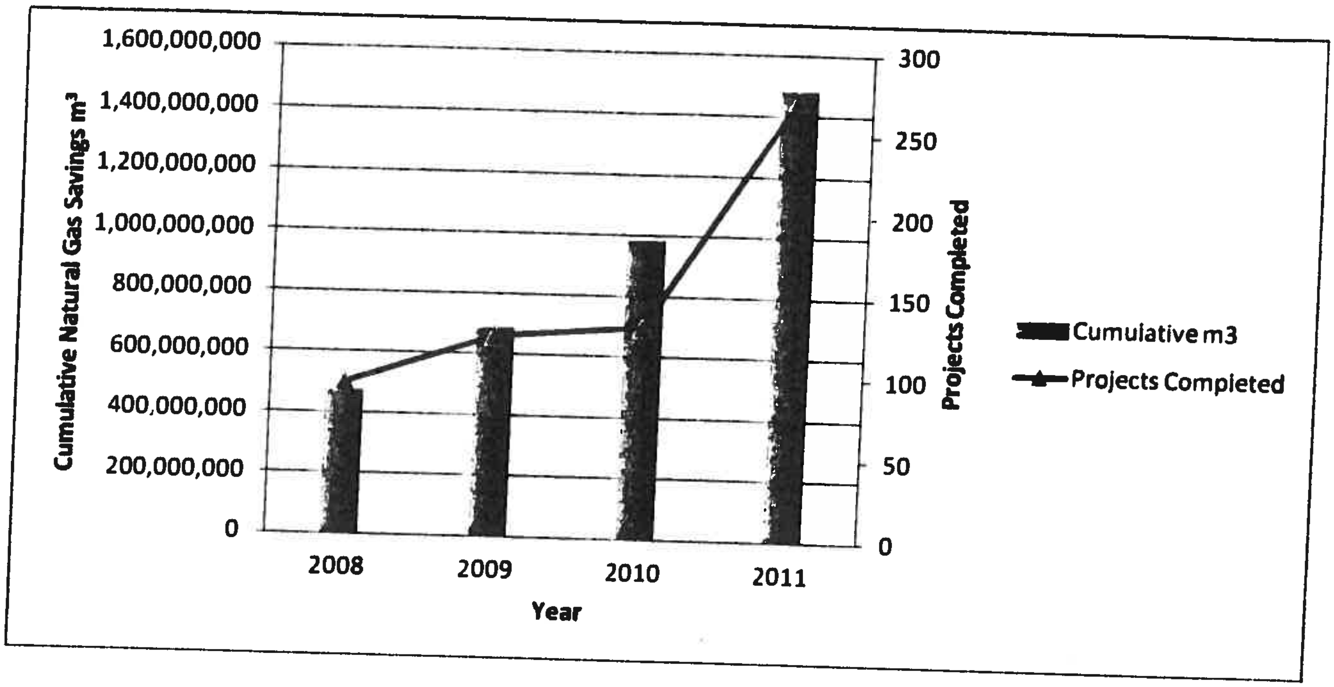
a) Union has been actively promoting and delivering energy efficiency programs to its large volume customers since 1997. During this time Union has developed valuable insight into its customers and their operations' use of natural gas to fuel their processes. Based on this experience, Union believes that economically feasible energy-efficiency opportunities are still abundant in large volume customer facilities.

Furthermore, a review of two recent Ontario studies[1] indicated that there still exists a large economic potential for natural gas savings in the industrial sector. A study conducted by Marbek Resource Consultants Ltd, confirmed "the existence of significant cost-effective DSM potential within all sub sectors of Union's Industrial

[1] ICF Marbek. *Natural Gas Energy Efficiency Potential, Summary Report – Update 2011. July 2011 (EB-2011-0327,Exhibit A, Appendix K)* and Canadian Manufacturers & Exporters in Associate with Stantec Consulting, Marbek, and ODYNA. *Advancing Opportunities in Energy Management in Ontario and Manufacturing Sector: Final Report, March 31, 2010, Revision 2.*

sector"[2].

In addition, Union considered its success in delivering energy efficiency programs to its large volume customers. As shown in the graph below, from 2008 through 2011, Union saw an increase, year over year, in cumulative natural gas savings and projects completed. Union's large volume program will continue to ensure customers focus their attention on energy-efficiency and the achievement of these savings.



b) Please see the response at Exhibit B5.6 a).

c) The number of natural gas fired generation plants that were constructed in Union's franchise area is the following:
2004 - 2 plants
2009 - 2 plants
2010 - 1 plant

d) As is the case for any new facilities in any industry, the opportunity to undertake energy efficiency initiatives will be fewer in new CES plants. However, even in new state of the art CES plants there will be energy efficiency opportunities.

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 2 projects in

[2] Marbek Resources Consultants Ltd, *Natural Gas Energy Efficiency Potential, Industrial Sector, Final Report – March 24, 2009, Page 100.*

2008 to 25 projects in 2011 and this activity has driven a cumulative 230 million m^3 of natural gas savings. Through our work specifically with the power plants that have been constructed since 2004 we have identified and implemented energy savings projects that include:

- Steam system upgrades, repairs and maintenance
- Power plant feed-water improvements
- Insulation repairs and upgrades
- Controls and sequencing improvements
- Condenser optimization
- Turbine inlet cooling
- Upgraded aero derivative gas turbines
- Gas turbine overhauls
- Gas turbine power mapping
- Unit air pre-filter upgrades
- Gas turbine compressor washing
- Vacuum pump improvements
- Gas bath heater improvements
- Water treatment improvements
- Blow down heat recovery
- High-efficiency steam boilers
- Gas heating via HRSG loop
- Start-up time optimization

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.

CUSTOMER FEEDBACK SUMMARY

Key points heard from today's session:

- Cost recovery & Deferral charge:
  - Customers supported Union's DSM program, then were subsequently embarrassed by the potential 2011 Deferral billing.
  - Put costs into rates (going forward, recovery of past year's costs),
  - Spread cost recovery out over longer period of time.
  - Provide advance notice of one-time charges as soon as possible.
- Some customers indicated that they were completing their own energy efficiency initiatives and would like the option to not participate in Union's DSM program.
- Strong value expressed for Union's technical resource expertise and assistance.
- Larger customers expressed an interest in more flexibility / larger incentives for larger projects.
  - Provide a fund and let the customer determine how to spend it.

VERBATIM LIST – CUSTOMER FEEDBACK

Note: customer feedback has been grouped into several themes to keep similar items together.

Cost Recovery & Deferral Accounts

- I'd like to see the deferral amount embedded into rates, instead of after the fact deferral bills. That would mean putting 2011 deferral amounts into rates going forward for a year or more, extends the payback period.
- Embed Union Gas incentives into rates going forward, rather than a deferral charge retroactively.
- I'm wondering about the time value of money relating to deferral amounts if embedded into rates (either as charges or credits) – how to match this to "lifetime" savings, when savings would be calculated on current rates.
- How would 2011 deferral amounts translate into rates going forward, instead of one time charges?
- Potential 2011 large one-time deferral charge amount has left a bad taste.
- There's a big shadow associated with DSM now because of the potential deferral hit, it will take a while for this shadow to go away – we're almost afraid to look at DSM because of the fear of a potential retroactive hit.
- Questioning net value of DSM incentive or gain when we have to pay another lump sum amount afterward.

AGENDA

- Welcome and introductions
- T1/R100 Enersmart DSM Program Presentation
- Customer Feedback

CUSTOMER FEEDBACK SUMMARY

Key points heard from today's session:

- Strong value expressed for Union's technical resource expertise and assistance
- Some differences in opinion regarding cost/benefit of DSM programs
- Appreciation of the flexibility of Union's programs
- Some thought the potential incentives don't really factor in to which projects/initiatives move forward

VERBATIM LIST – CUSTOMER FEEDBACK

Note: customer feedback has been grouped into several themes to keep similar items together.

Program Cost

- Q. On slide 6 (R100: DSM program Cost/GJ) – why have DSM costs dropped by about 50% in 2011 and 2012?
  - ANS. The 2011 DSM R100 program costs reflect actual DSM activity in 2011. The 2012 R100 DSM projected average cost reflect changes made to the DSM program for 2012. As part of the 2012 R100/T1 DSM Settlement Agreement the R100/T1 DSM program budget and Union incentive have been capped. The net result is a significant reduction (vs. prior years) in potential DSM costs to R100 customers.
- I appreciate that Union is very forthcoming to talk about these things and in particular its DSM program. Many APPrO members have the view that they are paying a lot of money vs. the benefit they receive and have reservations about the cost benefit associated with Union's DSM program. We are concerned about rate shock as Union is currently proposing in its 2013 rate case to increase the R100 rate by about 19% for 2013.

minute, Mr. Neme's suggestion that you move to a two-year period for this direct access program.

I will give you a chance to address those issues in a minute, so don't feel you need to shove everything into your answer right now, but just on this narrow point about the ability to utilize the 15 percent and manage it in a way.

If we did go to a two-year period and if we did increase the tail part of that period, after you get your plans from your T2 Rate 100 customers and you're into the implementation phase, if we increase the number of months there, that is the period when you would take any unallocated funds and reallocate them amongst projects in the industrial sector.

If we extended that period, I take it that would ease -- to some extent, ease this concern you have about utilizing the 15 percent planning for the spend of that 15 percent?

MR. MacEACHERON: Our concern with respect to the 15 percent and what we heard loud and clear from our customers in the consultation sessions that we had was, We don't want to see a deferral account like 2011 again, ever.

And so we heard loud and clear, Give us predictable costs, minimize the volatility of that DSMVA. They wondered: What is this strange thing that visited these large costs on them? So minimize where you can, Union, the DSMVA.

And the 15 percent, one of the reasons associated with

6.5 Program Offerings

Consistent with the 2012 Program, Union will continue to encourage the adoption of energy-efficient equipment, technologies and actions through direct customer interaction. The program offerings have been developed to ensure customers have access to education and awareness initiatives, technical assistance and financial incentives, supporting the continuous improvement approach (Plan/Do/Check/Act) to active energy management.

The following are the Program offerings:

1. Customer Engagement: Communication and Education
2. Engineering Feasibility and Process Improvement Studies
3. Operation and Maintenance Practices
4. New Equipment and Processes
5. Energy Management

These offering are further outlined below.

1. Customer Engagement: Communication and Education

Union will provide education, training and technical expertise to Rate T1, Rate T2 and Rate 100 customers. Customers will be offered a wide variety of materials aimed at building an increased awareness of energy-efficiency opportunities and benefits. Union's targeted and connected set of initiatives afford Rate T1, Rate T2 and Rate 100 customers the opportunity to incorporate continuous energy management into their operations.

2. Engineering Feasibility and Process Improvement Studies

This offering will support studies to identify and quantify potential energy savings measures. Furthermore, the offering will support comprehensive process improvement studies to determine and assess financial costs and benefits of energy-efficiency opportunities, supporting the customer's internal decision making process.

3. Operation and Maintenance Practices

Union provides financial incentives to support operation and maintenance actions and practices which result in saving natural gas, and which may also increase energy-efficiency and/or improve productivity of customers' operations. These incentives are available for customers, with or without an engineering feasibility or process improvement study.

4. New Equipment and Processes

Union provides financial incentives to support the installation of new equipment and processes which result in saving natural gas, and which may also increase energy-efficiency and/or improve productivity of customer's operations. These incentives are available for customers, with or without an engineering feasibility or process improvement study.

5. Energy Management

Financial incentives support the installation of energy meters, monitoring and management systems, allowing customers to manage the energy intensity of their operations actively and continuously.

Market Delivery

The Large Volume Rate T1/Rate T2/Rate 100 Program is delivered directly to customers by dedicated Union Gas Account and Project Managers; energy experts who are knowledgeable about individual customer's businesses, operations and processes.

Collaboration with key organizations, original equipment manufacturers, vendors, suppliers and consultants is required to expand the reach of Union's program offerings, educate customers and encourage the adoption of energy-efficiency best practices. Furthermore, these collaborations develop customer's capacity to make informed energy-efficiency decisions while helping to promote the investigation and implementation of energy-efficiency projects.

2012 Enersmart Program Elements

uniongas
A Spectra Energy Company

Program Element	Incentive
Engineering Feasibility Study	50% of the cost, up to $10,000
Process Improvement Study	66% of the cost, up to $20,000
Steam Trap Survey	50% of the cost, up to $6,000
New Equipment	8 cents per m^3, up to $40,000 per project
Operations & Maintenance	8 cents per m^3, up to $20,000 per project
Boiler Tune-Up	$250 per boiler
Meters – Gas/Steam/Hot-water	50% of the cost, up to $1,000
Infrared Polyethylene – IR Poly	$400 per growing acre
Demonstration of New Technologies	25% of the cost, up to $75,000
Customer Education	Various

versus a two-year plan and everything could -- all of the money could flow between the two years.

MR. POCH: All right. I think I understand.

If you just turn to page 10, you did say there -- we asked you: Are the offerings significantly different for the industrial customers? Your answer was: No, the offerings are a continuation of the program.

A minute ago you just said, to the extent you're going to be letting them do more studies, if you turn to page 11 of our materials, you've been funding studies throughout the last five years, have you not, it says, in the circled column there?

MR. MacEACHERON: That's correct.

MR. POCH: So has anything else changed, or is it you're just going to be a little more liberal about funding studies that have -- that are for longer-term projects?

MR. MacEACHERON: Well, perhaps it would be helpful to turn to Exhibit A, tab 1, appendix B.

While you are looking for it, I will describe what you're looking for. It is our PowerPoint presentation that we provided and used in support of our discussion with our customer group when we were developing the program concept.

On slide 8 -- on slide 8, we presented this, again, at all of our customer consultation sessions. Our program elements are documented on that slide. So I thought it might be helpful with this questioning to see our program elements.

And on the right-hand side, you will see "incentives", and you will see engineering feasibility study 50 percent of the cost up to $10,000. So it is capped.

And process improvement studies on row 2, 66 percent of the cost up to 20,000. So we have caps.

And the flexibility that we are proposing to provide our direct access customers is eliminating the caps, and then allowing them to undertake larger studies with a meaningful incentive from us.

And that's what I was referring to when I mentioned incentives being used for studies, and that would affect -- while in the long run that would be helpful from an energy efficiency perspective, in that given year it would decrease our cost-effectiveness.

MR. POCH: It's a good investment for everybody to do. It is just we have this problem if we're one-year cycle, the results in the first year may not come -- be present for your score card. In subsequent years, presumably they would show up.

I take it at some point you will get credit for them?

MR. MacEACHERON: And it's not -- I would say that the kind of studies that would require more investment would require significant capital investment from the customer, likely not going to be executed within a two-year time frame.

I can see them doing a study in 2013 and executing that project in 2014 or 2015 or 2016. They have to integrate it into their plant. They have to go through their corporate approvals for it. So it could be way out

6.3 Program Goals

Program goals for the Large Volume Rate T1/Rate T2/Rate 100 program consist of the following:

- Provide customers (Rate T2/Rate 100) with direct access to their associated incentive funds for a set period of time, allowing these customers the planning certainty to incorporate energy-efficiency incentives into their operations and providing flexibility for these customers to align funds with corporate initiatives.
- Provide all Large Volume customers with the tools, expertise and support to incorporate energy-efficiency into their everyday operations and practices through continuous improvement.
- Promote the identification of energy saving measures through proper analysis techniques.
- Encourage the procurement and utilization of energy-efficient equipment and processes.
- Encourage the adoption of operations and maintenance actions and process improvements that support a continuous focus on energy management.
- Generate long-term and cost-effective energy savings for customers, to enable increased competitiveness in the global economy.

6.4 Program Strategy

To achieve these program goals, Union will provide dedicated technical expertise to assist customers in obtaining value from the identification, adoption and implementation of energy-efficient actions throughout their sites, facilities and operations. Union will engage customers to increase awareness surrounding the positive benefits achieved through active energy management. Customers will be provided financial incentives and education/training initiatives that are value-added; this will encourage customers to focus on continuous energy management as an integral part of their operations and practices.

be any corresponding decrease to the overall DSM budget for those that are left remaining?

MS. LYNCH: No. Our expectation is the overall budget would remain the same.

MS. DULLET: Okay. Would there be any reduced DSM services?

MS. LYNCH: No. The program would still need to continue for those who are remaining in the program. We would still have the costs related to portfolio cost, evaluation cost, program promotion costs.

The difference would be in the customer incentive that people would be -- that customers would be opting out of participating in.

MS. DULLET: Can you explain that, the customer incentive? And...

MS. LYNCH: So under our direct access budget model, for incentives, each customer would receive a customer incentive equivalent to 68 percent of what they pay in rates.

So again, depending on design of how an opt-out program would work, our expectation is that we would need to continue all of the components, portfolio portion of the program, but it would only be that incentive piece for those who opted out that we would then look to reallocate to other customers.

MS. DULLET: Would you -- would the customers who do not opt out, is it plausible that they would be paying more for DSM services?

MS. LYNCH: Yes. It would be possible.

MS. DULLET: And would the portion of their rates linked to DSM materially increase?

MR. TETREAULT: They could, yes, if you're recovering the DSM budget over a smaller group of customers.

MS. DULLET: Just to clarify, just to understand, I'm just going to put a brief example to you.

So in a scenario where the rate class is allocated a DSM budget of $1 million, and there are 10 customers in that rate class, each of whom are allocated $100,000, and then nine of those 10 customers opt out, how much would the one remaining customer pay in DSM expenses -- sorry, be allocated of that budget? Would it be the $100,000 or $1 million?

MR. TETREAULT: In your example, it would be a million dollars recovered from the one remaining customer.

MS. DULLET: Okay. Now, are you able to address, either here today or by way of undertaking, for the Board's consideration, any potential negative consequences for ratepayers who do not opt out?

MR. TETREAULT: I think the main negative consequence -- and there could be others -- the main one is the one we just spoke about, that being essentially a cross-subsidy within a rate class, where the remaining customers in a class pick up all the DSM budget costs that have been allocated to that class, because certain customers have chosen to opt out of paying costs that have been allocated to the rate class.

There could be other consequences. That is -- from a ratemaking standpoint, that is the main one, the cross-subsidy issue.

MS. DULLET: Okay. Thank you.

The other area that I will just briefly take you to that we're interested in asking you some questions about is the effect of the multi-year budget access proposal on rates. So this is from Mr. Neme's report.

So the CME would like to understand how a multi-year direct access budget would be by ratepayers.

So, for example, if a two-year proposal was adopted, can you confirm whether a customer could access the entire budget at any point over the two years?

MS. LYNCH: Yes, they could.

MS. DULLET: So if customers can access the entire two-year budget in one year, how would that amount be funded in rates?

For example, would it be recovered in the year accessed? Or spread out between the two years equally, regardless of when it was accessed?

MR. TETREAULT: It would depend on how the DSMVA was structured. I think it could work either way.

You could look to true up the DSMVA in the first year, and also do it again in year 2, which is not unlike what we do on an annual basis for deferral accounts today.

Or you could -- you could wait until the end of year 2 to do the true-up in the DSMVA.

The issue with trueing up at the end of year 2 is the customers opted out. Was that the assumption made?

MS. LYNCH: Our expectation is that the overall budget would remain the same, and the incentive piece would be reallocated for customers who opted out.

MR. FRANK: Okay. But if the Board so directed, there would be no impediment to removing prorated amounts for customers who opted out, based on an appropriate formula?

MR. TETREAULT: If the -- yeah, if the Board ordered us to reduce the DSM budget in rates for a particular class, we would do so. There's no impediments to that, from a mathematic standpoint.

MR. FRANK: Thank you.

And I understood you to say earlier -- I believe it was you, Mr. Tetreault -- that if that was removed, that would remove the main cross-subsidy cost?

MR. TETREAULT: Yes. When I was referring to earlier in the cross from CME was the fact that if -- and in her example -- there was one customer remaining in the class, that customer would pay -- would pay all the DSM costs allocated to that class at that point.

MR. FRANK: Right. But if the incentive piece was removed -- the $900,000 in that example -- such that that customer remained responsible only for $100,000, as it had been previously, then there would be no impact as a result of the opt-out, on that portion at least?

MR. TETREAULT: Yes, that's fair. Recognizing of course that any type of opt-out for any customer of costs that had been allocated to the -- to any particular rate class, is violating the fundamental principle of class ratemaking, whereby all customers in the class pay the same rates.

MR. FRANK: Well, we will certainly get to that argument but, again, the question remains: From a rate impact perspective, that if the Board so ordered, the incentive piece could be removed; correct?

MR. TETREAULT: Yes, it could.

MR. FRANK: And I take it if there were fewer customers within a rate class that were being served by a DSM program, that Union could take steps to adjust its overheads, determining whether the number of personnel involved, it was appropriate that they stay the same, or other overhead costs, there is no impediment to that, is there?

MR. MacEACHERON: You know, that is an interesting question, because if there is an opt-out provision, I guess it implies that there is an opt-in provision, and therefore what resources do we maintain to serve the customers in that rate class?

And in customer consultation sessions, I heard the comment: Well, if there is an opt-out provision, heck, I'll opt out this year because I'm not planning on doing anything, and next year I'm going to opt in.

And to that, we said: Whoa, what if everyone took that approach? What would we have to offer in the next year?

And the customer said: Well, you know, in this case it would make business sense for me to -- if I'm not planning to do anything this year, it would make business sense for me to do that.

So we have to be careful that opt-out also means the ability to opt in, and we have to keep a critical resource base to staff and manage the program.

MR. FRANK: Sure, but it would be no different than other opt-in services that Union offers, such as storage or other services, where reasonable and appropriate conditions for opting in or opting out could be mandated by the Board in advance, or discussed between the parties and presented to the Board on agreement?

MR. TETREAULT: I can't agree with the storage analogy --

MR. FRANK: I think your microphone is...

MR. TETREAULT: Sorry. I can't agree with the storage analogy.

T1 customers, specifically, have the ability to choose to contract for storage or not from Union. That's clear.

But what they don't have the option to do is they don't have the option to opt out of any cost that's been allocated to the rate class.

So this takes me back to my earlier point, which -- it is very different to opt out of a service, rather than opt out of a cost that's been allocated to the class and needs to be recovered from everybody in the class.

DSM itself, those costs are a secondary cost associated with the provision of distribution service, and need to be, by the principles of class ratemaking, recovered from all customers in a class.

So I'm differentiating a cost associated with a service from another service itself that may be optional to customers.

MR. FRANK: I'm going to suggest to you -- I'm not going to argue with you here, but I'm going to suggest to you that the definition of making it mandatory as opposed to having an opt-out is the only reason why the DSM program is what you're calling a cost that has to be spread across the class, as opposed to one that could be opted in or opted out of.

Do you not agree with that?

MR. TETREAULT: I'm sorry, can you repeat the question? I'm -- to make sure I followed it properly.

MR. FRANK: You're suggesting that the DSM program is one that is a cost that is spread across the class.

And I'm suggesting to you that's only the case because that's the way the program's been set up. If it had an opt-out, it would be similar to other services where customers could opt in or opt out, again, recognizing that that may require appropriate terms.

MR. TETREAULT: No, I -- I can't agree with you. I don't consider DSM to be a service in the same way storage, transmission and distribution may be services.

DSM costs themselves are part of Union's provision of distribution service to customers. I think that is a very -- a very clear distinction from the case where a customer can choose or choose not to buy a storage service from Union.

MR. FRANK: Just so we can kind of complete the tedious kind of number review, if I could take you to -- there was a cross-examination compendium that was forwarded to all parties and copies were made available for the Board, from APPrO.

If I could ask that we have copies of that for the Panel, for the Board Panel and the witness panel?

MR. MILLAR: This will be Exhibit K1.7.

EXHIBIT NO. K1.7: APPRO COMPENDIUM

MR. MILLAR: It's the APPrO compendium.

MR. FRANK: Thank you.

And I apologize. What I forgot to put in the compendium, to start, is Exhibit K -- Exhibit B5.6, which will lead me to some questions about some documents in the compendium.

And so this is a question from APPrO that makes a reference to Union evidence, and the quotation excerpted states:

> "Although some customers such as power producers have indicated that they would like to opt out of the plan, significant economically feasible efficiency opportunities remain in the province that large-volume customers have not undertaken to date."

And the first question, question (a), is to provide a basis for the statement. And if I could then direct you to 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 budget cap on large volume.

And my question is this. Given the customer reaction that you saw to the deferrals in 2011 and APPrO's reaction to that, how do you think APPrO members would react to that proposal; namely, the proposal of simply upping the budget on large volume?

MR. MacEACHERON: They would not want their budget -- I would fully expect that they would not want the budget upped on their large volume accounts.

MR. SMITH: Thank you. Third point, this has to do with the proposition that state-of-the-art energy facilities may have lower scope for improving or for capturing conservation than other facilities.

And my question is: Do you have any examples of state-of-the-art facilities that had that sort of low-hanging fruit opportunity? Can you think of any examples?

MR. MacEACHERON: Yes, I can. The example that I cited earlier in the day where a significant steam leak was observed and a thermal blanket was thrown over that leak largely to prevent the plume from spreading all over the room, that was in a new state-of-the-art CES plant.

I can also talk about insulation observed, and when asked, What is all of this insulation doing? That insulation, the reply was, is going to be used up on the roof to replace what was there before. It's no good.

And that, again, was in a new CES plant.

MR. SMITH: Those are my questions. Thank you.

MS. CONBOY: Thank you very much. We are going to break until 3:30, and then we will be ready for Mr. Neme.

And I think, based on the time allocations that we have been given, we should be able to finish with that panel this afternoon.

So today's Union panel is excused, with the Board's thanks.

And we will sit again at 3:30. Thank you.

--- Recess taken at 3:10 p.m.

--- On resuming at 3:34 p.m.

MS. CONBOY: Thank you. Please be seated.

Thank you. We are ready for -- well, I guess first I should ask if there are any preliminary matters? If not, we are ready to proceed with the Green Energy Coalition expert witness panel. Do you want to be sworn in?

MR. POCH: Madam Chair, I would ask that Christopher Neme be sworn.

GREEN ENERGY COALITION - PANEL 1

Christopher Neme, Sworn

EXAMINATION-IN-CHIEF BY MR. POCH:

MR. POCH: Mr. Neme, you prepared Exhibit C1 in these proceedings and the interrogatory responses to interrogatories directed to GEC; is that correct?

MR. NEME: Yes, that's correct.

MR. POCH: And you adopt them as your evidence in this proceeding?

MR. NEME: I do.

MR. POCH: And your curriculum vitae is appendix A to C1, and let me just quickly put a few points to you for

And, yes, it may be the use-it-or-lose-it feature in that given year would go against the ability to take those funds and apply it to a project in a future year, but it really works well for encouraging energy efficiency activity in the current year.

MR. POCH: But one advantage of the two-year approach is you would have a double or nothing on the use-it-or-lose-it; right? You would up the ante even more for these customers?

MR. MacEACHERON: Yeah, there is the potential to double up, absolutely, if you carry it over to the next year.

But then that's -- you know, it does allow the customer also the opportunity to say, I'll revisit this file next year. I've got production problems coming out of nowhere here. Energy efficiency is not on my thing. If I'm not going to lose my funds this year, tell you what? Let's talk about it next January.

MR. POCH: Okay, I hear your concern. Your concern is about procrastination. Let me just ask about the mechanics.

If we went to a two-year proposal, nothing about budgeting has to change; right? You would still -- we would still have the same budget in rates as you're proposing either with or without this 30 percent, and so on. Leave that aside. We'd still have the budget you propose in 2013, the budget you propose in 2014.

What we would need, though, is an enabling to use the

DSMVA to settle things after two years, not after one year, for that component of your portfolio?

MS. LYNCH: For that component, you would need to settle it over a two-year period. However, that wouldn't be in alignment with the rest of the plans that we have and with the direction we have to clear our accounts on an annual basis.

MR. POCH: Sure. Understood.

The Board would have to allow that, and we are here, in fact, of course looking at two years.

And because the DSMVA attracts interest or grants or receives interest, it wouldn't affect the bottom line. It wouldn't hurt the company or the customers, that delay, per se?

MS. LYNCH: What it would add would be a level of -- additional level of complexity, because even how our portfolio budget is allocated amongst spending that was done in an individual year, there would then be a challenge of how we would true that up between 2013 and 2014.

MR. POCH: Right. We've already obviously allocated what portion of your budget goes to this rate group for program, at the program level. What you're saying is there's some portfolio expenses that aren't allocated by program that you would ordinarily true up in one year?

So you would just need to earmark some percentage of that and include it in this portion that's going to be cleared after two years instead of cleared after one year; correct?

MS. LYNCH: You could earmark it based on the budget amount.

MR. POCH: Sure. Just proportionally you could do it on budget.

MS. LYNCH: Correct.

MR. POCH: Okay, fair enough.

And, similarly, for the shareholder incentive, we would obviously wait until the end of the two-year period to clear that, and, similarly, you would -- the company would have the opportunity to earn the cost of carrying on half of it, the half that was delayed by going to two years instead of one if we didn't want to change the amounts?

MS. LYNCH: It would come back to sort of the complexity of the interrelationship of this, so how your targets are set from one year to the next, how you're earning the incentive from one year to the next, and, again, the potential deferral impact of having that carried over to your second year, which is again what we're trying to avoid.

MR. POCH: But the principle is pretty clear. We could simply enunciate what the principle would be at this point. The math wouldn't be hard for you to do after the fact?

MS. LYNCH: No.

MR. POCH: Okay. Thank you. Any other administrative changes that would be made, just on the regulatory front. If the Board were to be persuaded to suggest this, would they have to deal with anything else in their decision?

/E

MR. MacEACHERON: I'm sorry, could you explain that question? Commitment date?

MR. POCH: To the extent that your incentive to your customers is in part tied on them finishing the study or implementing an actual project --

MR. MacEACHERON: Mm-hmm?

MR. POCH: -- you could give them a longer period to do that. You could, instead of -- right now, I think you've got a commitment date of August 1st and they have to get stuff finished by December 31st.

I'm imagining something like you give them 15 months before they have to finalize their plans, and that would leave them with - whatever -- nine months instead of three to implement?

MR. MacEACHERON: There is a bit of a delicate balance in there.

When I met with the customers to review our draft at that time, direct access concept, the August 1st date was discussed extensively with the customers. They said: Well, this is different.

And I said: Well, we're going to give you sole access, dedicated to you, for the amount of incentive dollars you pay in rates. But if you don't use it or have it earmarked for a project by August 1st, you will lose it.

And they thought: Okay, August 1st was fair.

And what I thought was really interesting -- and I'm recalling one customer presentation with two of my largest industrial customers, looking at one another and saying:

Well, if you're not going to spend your dollars by August 1st, I'm going to.

[Laughter]

MR. MacEACHERON: And the other guy says: I can see what Union's doing here. With this August 1st deadline, you're trying to encourage us to do things sooner rather than later.

And I said: Hey, that's a great idea. Sooner rather than later is in everyone's best interest.

And then the customer number one replied: You're not getting my incentive dollars. I will be doing things sooner rather than later.

So there is the trade-off. Between allowing them to pool funds to another year, you miss an opportunity, brought on by the use-it-or-lose-it kind of concept, that really did strike home with the customers as far as a motivational feature of the program.

MR. POCH: You could -- I'm not suggesting you do away with the use-it-or-lose-it concept. Let's be clear. I think we all agree that is a great motivator.

All I'm suggesting is by giving a more extended period -- and you could choose a different commitment date. You could say by the end of the first year they have to commit, and by the end of the second year they have to have performed.

That would give the customers, obviously, a bigger sum of money to work with. They could go after bigger projects.

19

MR. MacEACHERON: Well, the thought -- as I understand the thought process behind the two-year plan is a customer could then take their funds, their incentive funds, from year 1, combine them with the incentive funds from year 2 and apply that toward a big project.

The assumption I think being made is that big projects can have big savings, and that may be the case, but there is no certainty to that.

And if they've taken that money from year 1 and applied it as I just said, that money is no longer available in year 1 to undertake energy efficiency on what would otherwise maybe be small projects. And some of the smaller projects, the large volume customers - "small" from the point of view of a capital expenditure, and so when we're talking large and small, I'm talking capital expenditure - small capital projects can sometimes yield significant energy savings.

And you just picture a steam leak, and with the steam blowing five, ten feet in the air, that is a lot of energy being wasted and it is a very simple, low-cost fix, just as an example.

So banking money to invest in a large capital project, in my mind, there is no certainty that that will generate more savings. In fact, I would be inclined to suggest it would be equal to, or less than -- probably more likely less than, once you get into the smaller projects.

MR. SMITH: Thank you. Second point, this has to do with the notion, let's call it, of simply raising the budget cap on large volume.

And my question is this. Given the customer reaction that you saw to the deferrals in 2011 and APPrO's reaction to that, how do you think APPrO members would react to that proposal; namely, the proposal of simply upping the budget on large volume?

MR. MacEACHERON: They would not want their budget -- I would fully expect that they would not want the budget upped on their large volume accounts.

MR. SMITH: Thank you. Third point, this has to do with the proposition that state-of-the-art energy facilities may have lower scope for improving or for capturing conservation than other facilities.

And my question is: Do you have any examples of state-of-the-art facilities that had that sort of low-hanging fruit opportunity? Can you think of any examples?

MR. MacEACHERON: Yes, I can. The example that I cited earlier in the day where a significant steam leak was observed and a thermal blanket was thrown over that leak largely to prevent the plume from spreading all over the room, that was in a new state-of-the-art CES plant.

I can also talk about insulation observed, and when asked, What is all of this insulation doing? That insulation, the reply was, is going to be used up on the roof to replace what was there before. It's no good.

And that, again, was in a new CES plant.

MR. SMITH: Those are my questions. Thank you.

MS. CONBOY: Thank you very much. We are going to

20,

VERESEN

Veresen Inc.
Suite 440, Livingston Place
222 – 3rrd Avenue S.W.
Calgary, Alberta T2P 0B4

Tel (403) 296-0140
Fax (403) 213-3648
www.veresenInc.com

October 11, 2011

Via Electronic Mail

John Pickernell
Board Secretary
2300 Yonge Street, 27th Floor
Toronto ON M4P 1E4

Atten: Board Secretary

**Re: Demand Side Management Guidelines for Natural Gas Utilities
Issuance of DSM Guidelines**

Further to the Ontario Energy Board's (OEB) letter dated June 30, 2011, regarding the Demand Side Management (DSM) Guidelines for natural gas utilities, Veresen Inc., (Veresen) wishes to express its views. Veresen is a publically traded energy infrastructure company that holds energy assets in Ontario consisting of natural gas fired electricity generation facilities including district heating, cogeneration and peaking generation, ranging in size from 15 MW to 400 MW.

Two of Veresen's facilities, the East Windsor Cogeneration Centre (EWCC) and our London District Energy (LDE) facility currently hold Union's T1 service contracts and thus are subject to the T1 rate class methodology. Both of these facilities have participated in the DSM programs offered through Union Gas with very good success. Veresen's position regarding this program is that it has played an important role in achieving increased energy effeciency at these facilities. In our view, eliminating these programs is not in the best interest of T1 shippers and importantly, may result in a reduction in DSM initiatives by generators such as ourselves. EWCC and LDE are not large industrials, and therefore the view's expressed by others such as IGUA or CME regarding the DSM program, are not representative of our position.

Veresen strongly encourages the Board to continue the DSM program as currently structured to further facilitate achivements in DSM in Ontario.

Yours truly,

J Ciccaglione

Julia Ciccaglione
Vice President, Regulatory & Government Affairs
Veresen Inc.

Cc: Paul Eastman, VP Operations - East, Veresen Inc.