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May 10, 2011

British Columbia Utilities Commission
Sixth Floor
900 Howe Street
Vancouver, B.C.
V6Z 2N3

Attention: Ms. Alanna Gillis, Acting Commission Secretary

Dear Ms. Gillis:

Re: FortisBC Energy Inc. ("FEI") and FortisBC Energy (Vancouver Island) Inc. ("FEVI") (collectively the "Companies")

Energy Efficiency and Conservation ("EEC") Natural Gas Vehicle ("NGV") Incentive Review

Response to the British Columbia Utilities Commission ("BCUC" or the "Commission") Information Request ("IR") No. 1

On March 31, 2011, the Companies filed the EEC 2010 Annual Report as referenced above. In accordance with Commission Order No. G-70-11 setting out the Regulatory Timetable for the NGV Incentive Review, the Companies respectfully submit the attached response to BCUC IR No. 1.

If there are any questions regarding the attached, please contact Mark Grist, Manager, Business Development at (604) 592-7874.

Yours very truly,

FORTISBC ENERGY INC.
FORTISBC ENERGY (VANCOUVER ISLAND) INC.

Original signed by: Shawn Hill

For: Diane Roy

Attachment

cc (e-mail only): Registered Parties

1.0 Reference: Exhibit A2-1, Excerpts from the 2010 Energy Efficiency and Conservation Program - 2010 Annual Report, Section 10.2, p. 203

EEC Stakeholder Group

"As a result of a recent EEC Stakeholder Group held March 15, 2011, FEI has received letters from multiple members of the Stakeholders Group supporting FEI has followed the established process in the use of EEC funding."

1.1 What is the "established process" for the use of EEC funding? Please describe the specific steps and approvals FEI/FEVI believes it must achieve to meet the established process.

Response:

This response also contains information referenced in our responses to BCUC IRs 1.2.1, 1.3.1, 1.3.2, 1.4.2, 1.4.2.1, 1.6.2, and CEC IRs 1.2.0 and 1.6.1. In this response, the FEU outlines its view of the "established process", or in other terms, its understanding of the existing regulatory framework for the use of EEC funding.

The FEU's understanding of the Commission-approved framework relevant to this process is depicted in the table below:

Annual Funding Envelope

2010: Expenditure Schedule Accepted: $31.0 million (includes FEI+FEVI)

2011: Expenditure Schedule Accepted: $35.3 million (includes FEI+FEVI)

Program Areas

Scope of Expenditure Schedule Approval Defined by Expressly Approved Program Areas

Residential	Commercial	High Carbon Fuel Switching	Conservation for Affordable Housing	Innovative Technologies	Joint Initiatives	Industrial
(G-36-09, G-140-09, G-141-09)	(G-36-09, 140-09, G-141-09)	(G-36-09, G-140-09)	(G-140-09, G-141-09)	(G-140-09,G-141-09)	(G-36-09, G-140-09, G-141-09)	(G-36-09, G-141-09)

Programs or Initiatives

The FEU has flexibility to develop programs or initiatives within approved Program Areas and reports in the EEC Annual Report and EEC Stakeholder Committee meetings

Residential	Commercial	High Carbon Fuel Switching	Conservation for Affordable Housing	Innovative Technologies	Joint Initiatives	Industrial
ENERGY STAR® Heating System Upgrade	Spray N'Save 2010 Program*	Switch 'N' Shrink	REnEW*	Solar Water Heating PSECA Program	LiveSmart BC	Energy Audit Funding Agreement*
Furnace Service "TLC"*	Efficient Boiler Program		Energy Savings Kit*	Commercial NGV Demonstration Program*	Washer Rebates*	Heat Exchanger Program*
Domestic Hot Water Heaters	Light Commercial ENERGY STAR® Boiler Program		Ministry of Energy Low Income Partnership Grant	Solar Air Heating PSECA Program	City of Vancouver Weatherization*	
EnerChoice Fireplace	Efficient Commercial Water Heater Program			SolarBC Schools Incentive		
	Energy Assessment Program					
	PSECA Initiative*					
	Fireplace Timers Pilot*					
	Radiant Tube Heaters Pilot*					
	Spray N'Save Program*					
	Commercial Custom Design Program*					

*Indicates the program was added after the NSA (G-140-09, G-141-09)
This table does not show the Conversation Education and Outreach Program Area
Programs "in development" are not included in list of programs and initiatives

The FEU's understanding of the elements of the existing EEC framework established by the Commission, which elements are reflected in the above table, is as follows:

(a) Only the Commission has the ability to accept EEC expenditures pursuant to section 44.2. An EEC expenditure schedule accepted under section 44.2 is defined as:

- a total funding envelope for EEC activity (the expenditure schedules accepted were for $31,049 million for 2010 and $35,301 million for 2011),
- comprised of Program Areas that have been expressly accepted by the Commission.

(b) While the amount of the expenditure schedule reflects the sum of the Companies' budgets for the individual approved Program Areas (as may be modified by the Commission), the FEU retain the flexibility to re-allocate funding within the overall portfolio of Program Areas with the objective of improving the benefits achieved by the overall EEC portfolio.

(c) While the budget for an approved Program Area may reflect the sum of the Companies' budgets for individual programs or initiatives that are included within an approved Program Area, the FEU retain the flexibility to add or discontinue or modify programs within a Program Area and to re-allocate funding with the objective of improving the benefits of the overall EEC portfolio.

(d) The Company's engagement with stakeholders, and the EEC Annual Report must include reporting on the new programs or initiatives added and how the envelope of funding has been re-allocated among approved Program Areas. For clarity, the stakeholder engagement is a consultation exercise, not an approval process. The EEC Annual Report is compliance reporting. Neither the mere consent of the EEC stakeholder group, nor the inclusion of information in a compliance report to the Commission, can alter the scope of an accepted expenditure schedule as defined above.

As noted in the table above, the FEU has developed a number of new programs since the NSA approvals in almost all Program Areas - Residential, Commercial, Affordable Housing, Innovative Technologies, Joint Initiatives, and Industrial. These activities and their funding allocations have been reported in the EEC Annual Reports and presented in EEC Stakeholder Group meetings.

The FEU believe that the EEC Annual Reports and EEC Stakeholder Group meetings meet the accountability mechanisms for the use of EEC funding for individual programs or initiatives. Program Area approvals were established in the EEC Decision and the NSA, and the FEU believes no further Commission approvals are required to develop new programs, discontinue underperforming programs, or refine existing programs in order to have them be covered by the existing expenditure schedules.

In retrospect, the Company acknowledges that the way the Innovative Technologies activities were described in the 2010-2011 RRA – i.e. it described a list of individual programs - when viewed on its own could have been reasonably understood to present a complete list of initiatives that we would be undertaking. Those were in fact the initiatives that were top of mind, and upon which the budget was developed. The move to develop NGV related programs really occurred in the months following the resolution of the RRA as market developments occurred.

However, it was implicit in the NSA that the FEU would have to develop new programs within the Innovative Technologies Program Area. Order G-141-09, Item 12 (e)) stated:

> *"However, Innovative Technology programs will be managed by TGI as a separate segment of the overall portfolio to have a weighted average TRC of 1.0 or more. TGI will consult with the stakeholders on the practical application of the weighted average TRC through the EEC Advisory Committee."*

The TRC of the listed programs outlined in the RRA was below 1.0. Stipulating that the TRC had to be 1.0 or more for the Innovative Technologies Program Area in the NSA meant that the programs within that Program Area would have to change to meet that criteria. The inclusion of the NGV in the portfolio of Innovative Technology supports the other programs because it has a strong TRC.

In developing those NGV-related programs within the Innovative Technologies Program Area, the Companies had in mind the broader definition of the program area used in the 2008 EEC Application which definition was more geared to the purpose being served by the programs, and not a specific list of programs. The FEU have understood since the EEC Decision that they had the flexibility to develop programs that were complementary to the broader definition of the Program Area. The Companies have taken this approach with a number of Program Areas, not just Innovative Technologies. The FEU were transparent in doing this, as it is really in the Companies' best interest to have a section 44.2 expenditure schedule covering all of our EEC activity because it helps support the prudence of such expenditures in future Revenue Requirements Applications when the Companies will seek to recover in rates forecast amortization expense related to past EEC activities. A change in how program development occurs within approved Program Areas so as to require individual approvals for each and every new program or change in programs would result in the administrative burden that the EEC framework was seeking to avoid. Also, the additional financial risk to the FEU that this would represent in respect of expenditures incurred to date, would necessarily cause a disruption in EEC activities pending such approvals, given that so many of the current programs have been introduced on the understanding that this was permissible. It is thus of critical importance to the

FEU and customers to have the uncertainty as to the scope of the expenditure schedule approval determined in this process.

1.2 In any of the following proceedings: 2008 EEC proceeding; 2010/2011TGI/TGVI RRA; Terasen Utilities 2010 Long Term Resource Plan; and FortisBC Energy's (formerly TGI) Service Agreement for Compressed Natural Gas Service, did any Interveners raise the question of whether FEI/FEVI has approval to use EEC Funding for NGV purchase incentive grants? If so, what questions did they raise and how did FortisBC Energy respond?

Response:

The 2008 EEC proceeding and its Decision by Order No. G-36-09, the Innovative Technology program area, which included NGV, was not approved. In the 2010-2011 RRA, the Innovative Technology program funding was reapplied for and approved as part of the 2010-2011 NSA.

Since the Innovative Technology program funding approval in the 2010-2011 NSA, no other proceedings thereafter have questions been raised by interveners on whether or not the Companies have approval to use EEC incentives for NGV.

2.0 Reference: Exhibit A2-1, Excerpts from the 2010 Energy Efficiency and Conservation Program - 2010 Annual Report, Section 10.2.3.1, pp. 205-11

2008 EEC Application and Decision (Order G-36-09)

2.1 Please confirm that "NGV-Natural Gas Vehicle Projects" was not part of the "Innovative Technologies" program area in the 2008 EEC Application.

Response:

Not Confirmed. Please refer to Section 6.9 of the 2008 EEC Application (page 69). Funding for NGV initiatives was sought under the category of "Innovative Technologies, NGV and Measurement Program Area". The Program Area budget was established at $3 million. The Program Area was further detailed into sub categories under 6.9.1 through 6.9.6:

- 6.9.1 – Innovative Technologies
- 6.9.2 – Fuel Substitution Initiatives
- 6.9.3 – NGV Projects
- 6.9.4 – Stationary Power Generation
- 6.9.5 – Measurement
- 6.9.6 - Other – Other Innovative Technologies

The use of the title "Innovative Technologies" in the sub-section 6.9.1 is somewhat confusing but it is clear from the structure and the heading under 6.9 that the $3 million ask was for the overall Program Area including NGV.

Funding for the "Innovative Technologies, NGV and Measurement Program Area" was not approved for the following reason:

> *"The Commission Panel finds that there is insufficient evidence with respect to the nature and scope of the proposed program and accordingly rejects the Innovate Technologies, NGV and Measurement program at this time. Terasen may wish to bring forward projects in this program area for consideration as they become more fully developed."* (EEC Decision p.26)

FEI has subsequently brought forward this program area as the program areas were more fully developed and progressed them according to FEI's understanding of the accountability measures for EEC expenditures, which accountability measures are discussed the response to BCUC IRs 1.1.1 and 1.4.3.

2.2 Please confirm that "NGV- Natural Gas Vehicle Projects" in the 2008 EEC Application was asking for vehicle incentive grants for customers that would not otherwise be eligible for grants under Rate 6. Please also confirm that Rate 26 did not exist at the time of the 2008 EEC Application proceeding.

Response:

Both statements are confirmed by FEI.

2.2.1 Does FortisBC Energy offer NGV purchase incentive grants under Rate Schedules 6 or 26 to the customers it has offered EEC NGV purchase incentive grants? If not, why not. If yes, why has the customer elected for NGV purchase grants from EEC funding rather than grants under Rate 6 and Rate 26?

Response:

The Contribution Agreement used in NGV purchase incentive program does not allow the stacking of grants or incentives. This applies both to other FEI programs such as provided under Rate Schedule 6 and to any other support programs that may become available.

The NGV purchase incentive program is directed at heavy users of fuel in heavy duty transportation markets. One characteristic of these accounts is that they also have flat consumption profiles that do not have significant seasonal fluctuations. Heavy consumers with this demand profile are generally best served under Rate Schedule 25. Delivery rate savings associated with Rate Schedule 25 versus Rate Schedule 6 or Rate Schedule 26 are greater than the incentives that are available under Rate Schedule 6 or Rate Schedule 26. Hence Rate Schedule 6 and Rate Schedule 26 incentives are not useful to these customers. To initiate market transformation in the key target market segment FEI developed the NGV vehicle incentive program.

3.0 Reference: Exhibit A2-1, Excerpts from the 2010 Energy Efficiency and Conservation Program - 2010 Annual Report, Section 10.2.3.1, p. 206

2008 EEC Application and Decision Accountability Mechanisms

"While the specific request for Innovative Technology funding was denied, the Decision established important principles and framework as to how FEI should evaluate EEC programs (primarily the TRC test, on a portfolio basis), and established a specific regulatory mechanism for overseeing the Company's use of EEC funding (the EEC stakeholder committee)." (Exhibit A2-1, p. 206)

3.1 Please point out the specific sections and wording in the EEC Application and Decision that established a "specific regulatory mechanism for overseeing the Company's use of EEC funding (the EEC stakeholder committee)."

Response:

Please see our response to BCUC IR 1.1.1 for our understanding of the Commission-approved EEC framework. The FEU note that we understand the EEC stakeholder committee to be a consultation mechanism, which has the purpose of building a common understanding among stakeholders as to the specific programs on which the FEU are spending EEC funds. The stakeholder committee does not have the power to approve or accept expenditures, as this power rests with the Commission.

3.2 Was it ever expressly requested that the EEC Stakeholder Committee was intended to have the authority to approve programs that typically are approved by the Commission or to re-instate approval for programs the Commission has expressly denied? If not, where does FEI believe the EEC Stakeholder Committee gained the authority to re-instate programs that had been specifically denied by the Commission?

Response:

No, the EEC Stakeholder Committee was not requested to perform such as a role. Please see our response to BCUC IR 1.1.1, which states our understanding that the expenditure schedules approved by the Commission pursuant to section 44.2 were defined in terms of the total envelope and specific Program Area, leaving the Companies free to develop specific programs within the scope of that accepted expenditure schedule. The FEU disagree that the Commission "typically approved" EEC programs; their approvals have been directed to Program Areas, not the programs within each area.

It appears that implicit in the question is the premise that the Companies would have been acting improperly should the Commission determine in this proceeding that the NGV-related expenditures fell outside the scope of Innovative Technologies Program Area, and thus fell outside the scope of the accepted expenditure schedule. The section 44.2 approval was an optional approval, which the Companies sought because it helps in the context of seeking cost recovery for EEC expenditures in a future revenue requirements application to have a determination that the expenditures are in the public interest. In other words, the Companies are free to undertake whatever EEC funding they sees fit as part of their everyday operations, but they are subject to greater financial risk in doing so without the section 44.2 acceptance. There are many types of expenditures that are recovered in rates without prior acceptance under section 44.2. Thus, the FEU had every intention of undertaking EEC activities within Program Areas that the Commission determines form part of an accepted expenditure schedule because to do so manages our financial risk exposure. The Companies also value stakeholder input in the allocation of funding, as it is beneficial to have a common understanding among stakeholders as to what is the most appropriate use of funding.

3.3 Does the EEC Stakeholder Committee have a Terms of Reference or another document that discusses the mandate, authority and/or regulatory mechanism for overseeing the Company's use of EEC funding of the Committee? If so, please provide.

Response:

On November 13, 2009 the FEU sent an invitation letter to representatives from the following areas:

- Provincial, municipal, and First Nation governments
- Non-Governmental Organizations
- Consumer advocates, representing residential customers
- Affordable housing advocates
- Commercial customers
- Trade organizations
- Equipment manufacturers
- Other utilities

Recipients of the letter were invited to join the EEC Stakeholder Committee and were advised of the mandate, role and accountability mechanisms associated with future consultation meetings. The FEU have provided a copy of this invitation letter in Attachment 3.3.

In this letter, the FEU described the mandate and role of the EEC Stakeholder Committee:

> *"Terasen Gas recognizes the need for accountability for the approved funds and believes that engaging an <u>EEC stakeholder group would be beneficial to guide and inform EEC activity</u>". [Emphasis added].*

Also in the letter, the FEU stated:

> *"To add transparency and accountability to our EEC portfolio, we intend to hold bi-annual EEC workshops with stakeholders, at which we will present updates on program progress and monies allocated. The one-day workshops would also <u>act as a forum for stakeholder input on developing new programs and refining existing programs</u>."[Emphasis added].*

The above underlined text is consistent with the Commission approved accountability mechanisms in the EEC Decision at page 41.

Thus, the FEU considers the EEC Stakeholder Committee to be an element of our stakeholder consultation. It does not accept expenditure schedules or determine cost recovery, which is the exclusive role of the Commission. The role of Committee members through consultation meetings is to provide input and oversight to EEC programs and the monies allocated within each program area.

3.3.1 If a Terms of Reference or other document(s) exists, who were they approved by? Were these Terms of Reference or other document(s) provided to EEC Stakeholder Committee members and to the Commission? If so, please clarify the exact date and method by which these Terms of Reference or other document(s) were provided.

<u>Response:</u>

The EEC Stakeholder Group does not have a formal Terms of Reference. The invitation letter in Attachment 3.3 did not require any approvals other than the approval of the Companies' management team prior to or after its distribution. This letter was sent to a broad list of individuals, many of whom accepted the invitation and joined the EEC Stakeholder Committee. Members of the Commission were also sent the invitation letter via email on November 13, 2009, but not for the purposes of obtaining approval for it. Stakeholder consultation is an area that falls within the purview of the Companies' management, and thus the Companies considered that they did not require approval for terms of reference.

4.0 Reference: Exhibit A2-1, Excerpts from the 2010 Energy Efficiency and Conservation Program - 2010 Annual Report, Section 10.2.3.1.3, pp. 206-211, and

Exhibit A2-2 Terasen Gas Inc./Terasen Gas (Vancouver Island) Inc. – Energy Efficiency and Conservation Programs Application dated May 28, 2008, pp. 88-9, and

Exhibit A2-3, BCUC Decision on the Terasen Gas Inc./Terasen Gas (Vancouver Island) Inc. – Energy Efficiency and Conservation Programs Application, p. 41

Accountability Mechanisms

"The Companies recognize the need for accountability for the funds approved for EEC programs...The Companies believe that engaging an EEC stakeholder group to guide and inform the Companies' EEC activities will be a key success factor...The Companies intend to hold annual EEC workshops with stakeholders, at which the Companies would present updates on program progress. The workshops would also be a forum for stakeholder input on developing new programs and refining existing programs, as well as providing some opportunity for oversight and comment by the Stakeholders on the Companies' EEC activity." (Exhibit A2-2, pp. 88-9) [Emphasis added]

"...the Companies have indicated their intention to hold annual EEC workshops with stakeholders, at which the Companies would present updates on program progress and obtain stakeholder input on new programs and refinements to existing programs." (Exhibit A2-3, p. 41) [Emphasis added]

"...the Decision established important principles and framework as to how FEI should evaluate EEC programs (primarily the TRC test, on a portfolio basis), and established a specific regulatory mechanism for overseeing the Company's use of EEC funding (the EEC stakeholder committee)." (Exhibit A2-1, p. 206) [Emphasis added]

"While this direction does not authorize spending outside of Commission-approved Program Areas, it does speak to the use of funds within those approved areas being managed by the Companies, with accountability to the EEC Stakeholder Group regarding the funding decisions as part of the annual reporting. Once the 2010-2011 RRA NSA was in place, with its recognition of funding for Innovative Technologies, FEI proceeded to design incentive programs and used EEC incentives in line with the approved tests. The oversight of those decisions occurred in the context of the EEC Stakeholder Group, in the same manner as with all other EEC spending. For the

Commercial NGV Demonstration program, the EEC Stakeholder Group was consulted on three occasions." (Exhibit A2-1, p. 210) [Emphasis added]

"...the Commission...approved the proposed accountability mechanisms to oversee the use of funds for approved Program Areas, including annual report to the Commission and consultation with Stakeholder groups, for development of new programs and refinement to existing programs." (Exhibit A2-1, p. 211) [Emphasis added]

4.1 Please confirm that Section 6.14 (pp. 88-9) of FEI/FEVI's 2008 EEC Application contains the complete description of the EEC Stakeholder Group and the EEC Annual Reports that was contained in the 2008 EEC Application. If this cannot be confirmed, please specify where else in the Application or in the proceeding the EEC Stakeholder Group and EEC Annual Reports are described.

Response:

Section 6.14 of the 2008 EEC Application contains a description of the EEC Stakeholder Group and the EEC Annual Reports within the 2008 EEC Application. As quoted above in the question, the EEC Decision (Exhibit A2-3, p. 41) also contains a further description the EEC Stakeholder Group. In addition to Section 6.14, the EEC Stakeholder Group and Annual Reports are also mentioned elsewhere within the EEC Application evidence. The Companies have underlined some aspects of the evidence below that identify where it was expressly contemplated that they would be introducing new programs within accepted program areas as part of optimizing the portfolio. FEI believes that it was a consistent theme in the 2008 EEC Application (filed as Exhibit A2-2) evidence that the Companies were retaining flexibility at the level of individual programs. The relevant excerpts from Exhibit A2-2 follow:

Page E-5:

"The Terasen Utilities have proposed mechanisms in Section 6.14 to permit the Commission and stakeholders to review how the money has been spent and ensure accountability."

Page 9:

"The Companies are seeking Commission approval for the overall incremental expenditures in Table 1.4.1 based on the contemplated program areas and funding summarized in Table 1.4.1a and described in Section 6. This approach preserves the Companies' ability to subsequently redirect funds from one program area to another program area that the Companies conclude is generating more favorable results based on the assessment criteria outlined in this Application. The Terasen Utilities have proposed mechanisms in Section 6.14 to permit the Commission and stakeholders to review how the money has been spent, and to ensure accountability."

Page 49:

"14. To ensure value creation and alignment with the market, the Companies will establish and engage an EEC stakeholder group, comprised of governments, industry, trades, manufacturers, NGOs, advocacy groups, other utilities and customers to provide it with advice on effective program design and implementation, as well as some oversight of the Companies' EEC activity and expenditure. Consideration may be given by the Companies to consolidate the Terasen Utilities' EEC Stakeholder activity with stakeholder activity currently being undertaken by other utilities in order to reduce potential "stakeholder fatigue"."

As far as the 2008 EEC proceeding as a whole is concerned, the EEC Stakeholder Group is described in the responses to Information Request from the 2008 EEC proceeding. These include the responses to BCUC IR No. 1 (Exhibit B-2), IRs 1.6.1 and 1.33.5, responses to BCOAPO IR No. 1 (Exhibit B-6), IRs 1.11.1, 1.31.1 and 1.41.3, and the response to BCUC IR No. 2 (Exhibit B-3), IR 2.17.1. The EEC Stakeholder Group is also discussed in the Companies' Final Submissions (dated November 19, 2008) all of which are excerpted below.

Response to BCUC IR 1.6.1:

"6.1 The Companies state that 2010 expenditures would not exceed $56.6 million unless otherwise approved by the Commission. Absent such approval, how would the Companies ration expenditures were demand to exceed $56.6 million?

<u>Response:</u>

Absent Commission approval for expenditure over $56.6 million, the Companies would allocate available funds based on Total Resource Cost results, while ensuring that all Residential and Commercial customers were able to access Energy Efficiency and Conservation activity, based on the Companies' own judgment and input from the Stakeholder Group. The Stakeholder Group is outlined in section 6.14.2. However, if demand from the marketplace for EEC activity by the Terasen Utilities were strong enough that the entire budget of $56.6 million was to be consumed prior to 2010, the Companies would propose to bring forth another Application prior to the timeline outlined in the Application."

Response to BCUC IR 1.33.5:

"33.5 Could Terasen conceptually examine programs in this area and, if an effective program could be developed, apply for funding? If not, why not?

Response:

Conceptually this is an option; however the Companies see this as being inferior to the option proposed with the Application. As noted on page 51 of the Application, in order to reduce the administrative burden and eliminate the need for a further application, the Companies are proposing that the Commission approve the overall expenditure level by utility, rather than approving the funding by program area or by individual program initiative. This maximizes value for ratepayers by keeping the administrative costs associated with regulatory filings down. The initiatives being proposed for the Innovative Technologies, NGV and Measurement program area could be pilot programs, of a limited duration, which typically require fairly quick turnaround times. These would be developed in conjunction with various market actors, including suppliers, installers and builders and developers. These market actors are busy with their core businesses; getting their attention to assist with developing a program that may or may not come to fruition dependent on whether funding was approved or not would be challenging.

The Terasen Utilities have included in the Application accountability mechanisms that make the approach outlined in the question unnecessary. The Companies propose to report out on EEC activity yearly. Further, the Companies propose to engage an EEC stakeholder group; one of the roles for that group would be to ensure that programs that are developed have value for ratepayers. Please refer to pages 88 and 89 of the Application for more discussion on the role of the Stakeholder group."

Response to BCAOPO IR 1.11.1:

"11.1 What procedure do the Companies propose they will engage in before redirecting funds from one program to another?

Response:

The Companies intend to monitor the relative performance of programs on a monthly basis in order to ensure that the overall portfolio TRC is maintained at 1.0 or higher. If the Companies see the potential to redirect funds from one program area to another, the Companies would bring forward a recommendation to the Stakeholder Group outlined in Section 6.14.2 of Exhibit B-1, as well as detailing any changes in the Annual Report proposed in Section 6.14.1 of Exhibit B-1"

Response to BCAOPO IR 1.31.1:

"31.1 Do the responses given in respect of support for audits and their co-funding (or lack thereof) indicate that approval of the Application amounts to giving the Companies a blank cheque, at least to some extent? If not, please explain why not.

Response:

No, approval does not amount to giving the Companies a blank cheque. The Companies have developed certain program areas and budgets for specific activities within those program areas. The Companies have proposed that the portfolio of EEC activities made up by the different program areas must maintain an overall portfolio level TRC of 1.0 or greater, which will ensure that the Companies engage in activities that provide an overall benefit. As outlined in Section 6.14.2, the Companies are proposing to engage a Stakeholder group to give it advice and input on program design. The following is an excerpt from page 89 of Exhibit B-1:

> *"The Companies propose to hold annual EEC workshops with stakeholders, at which the Companies would present updates on program progress. The workshops would also be a forum for stakeholder input on developing new programs and refining existing programs, as well as providing some opportunity for oversight and comment by the Stakeholders on the Companies' EEC activity." [emphasis added]*

Also, as outlined in Section 6.14.1, the Companies propose to provide an Annual Report to the Commission. And finally, as noted in the response to BCOAPO IR 6.1, the Companies intend to submit future requests for EEC expenditures in future years, as outlined on page 50 of Exhibit B-1. Presumably if the Companies are prudent in managing any EEC expenditures approved as a result of Exhibit B-1, the Application, future EEC Applications will not be successful. It is for all these reasons that approval of the Application as written does not amount to giving the Companies a blank cheque."

Response to BCAOPO IR 1.41.3:

41.3 Please confirm that if the Companies receive the approval they are seeking, once new codes, standards, or regulations come into effect, the Companies will be able to justify a higher spending on market transformation programs than they would be otherwise able to justify. If not, please explain why not.

Response:

"To some degree, this is correct – higher benefits from counting savings from the introduction of utility-supported codes, standards and regulations could potentially support higher expenditures leading up to the introduction of codes, standards or regulations. However, the Companies are deeply aware of the upward pressures that higher EEC expenditures would place upon rates, and would rely on the input of the Stakeholder Group outlined in Section 6.14.2 of Exhibit B-1, to provide the Terasen Utilities with directional advice as to the appropriate levels of EEC expenditure, and the appropriate balance between expenditures on EEC activity and rate impacts from same."

Response to BCUC IR 2.17.1:

"17.1 Please describe in detail the authority the Stakeholder group would have to direct Terasen to amend or terminate unproductive programs.

Response:

The Companies are proposing that they hold an annual workshop for Stakeholders at which the previous year's activities and results, and activities and results for the upcoming year would be presented and discussed. It is the Companies' intent to engage in a consultative process with stakeholders, rather than one in which stakeholders feel the need to direct the Companies one way or another. It is the Companies' view that it is in the Companies' best interest to take it upon themselves to amend or terminate unproductive programs, defined as those that would bring the overall portfolio TRC down below 1.0. It is the Companies' intent to monitor the portfolio TRC on a monthly basis. Further, the Companies intend to bring forward an Application for EEC funding beyond 2010, and in order to be successful in obtaining funding approval for future EEC activity, the Companies will need to be able to prove that the funding being requested in the current Application has not been spent on unproductive programs, so it is again in the Companies' best interest take it upon themselves to amend or terminate unproductive programs."

From the Companies' Final Submission:

"9. The Companies recognize the need for accountability for the funds approved for EEC programs, and have accordingly proposed reporting mechanisms on EEC programs, which include an annual EEC report to be filed with the Commission and program progress reports at annual EEC workshops with stakeholders."

"23. The Companies' evidence is that the proposed approach based on approval of the overall expenditure for the Funding Period will allow them to respond quickly to changes within initiatives and to new opportunities that might arise. For example, if a particular initiative within the EEC program area has a higher than expected number of participants and a strong cost-benefit ratio, the Companies would assess whether it is appropriate to shift funds from another underutilized program area. The Companies will allocate available funds based on TRC results of individual program areas or individual measures, while ensuring that all residential and commercial customers are able to access EEC programs, based on the Companies' own judgment and input from the Stakeholder Group."

"112. In this Application, the Companies have recognized the need for accountability for the funds approved for EEC programs. First, any funds not spent will not be charged to the regulatory asset deferral account. Second, the Companies intend to monitor the portfolio TRC on a monthly basis, and have proposed to file an Annual EEC Report with the Commission by the end of the first quarter every year. The Report will detail program activity, expenditures, and cost-benefit results for the previous year, as well as describe program activity and provide forecasts for the upcoming year. Third, in the event that the relief sought is granted, the Companies would form and engage an EEC stakeholder group with membership representing a broad cross section of stakeholders identified in the Application. <u>Fourth, the Companies have indicated their intention to hold annual EEC workshops with stakeholders, at which the Companies would present updates on program progress and obtain stakeholder input on new programs and refinements to existing programs." (emphasis added)</u>

4.2 Please confirm that the specific activities for the annual EEC workshops with stakeholders, listed in the 2008 EEC Application ("present updates on program progress", be a "forum for stakeholder input on developing new programs and refining existing programs, as well as providing some opportunity for oversight and comment by the Stakeholders on the Companies' EEC activity") did not expressly request the EEC Stakeholder Committee to:

(i) be a "specific regulatory mechanism for overseeing the Company's use of EEC funding";
(ii) provide oversight of funding decisions; and
(iii) oversee the use of funds for approved Program Areas...for development of new programs and refinement to existing programs.

Response:

The FEU note that our term "regulatory mechanism" is ambiguous. For clarity, the FEU believe that the stakeholder group is a consultation body that was contemplated in the EEC Application regulatory process, but it is not a regulatory mechanism in the sense that it is a body that confers regulatory approvals.

The FEU believes that the specific activities for the annual EEC workshops with stakeholders do include items (i), (ii) and (iii) as quoted in the question. Please see our response to BCUC IR 1.4.1 where the relevant evidence from the EEC Application is set out, including references to the FEU adopting new programs and discussing them with stakeholders. BCUC IR 1.1.1 includes a discussion on our understanding of the Commission-approved EEC framework.

4.2.1 Why did FEI/FEVI change the description of the activities of the EEC Stakeholder Committee from those described in the 2008 EEC Application and Decision to those described in the 2010 EEC Annual Report?

Response:

The FEU do not believe a substantive difference exists between the descriptions of the EEC Stakeholder Group activities in the 2008 EEC Application compared to the description in the 2010 EEC Annual Report. The response to BCUC IR 1.4.1 includes references to other evidence where the EEC stakeholder committee is described. The FEU believes that it has acted in good faith in describing the specific activities of the EEC Stakeholder Group and has not changed the description of these activities.

Please see our response to BCUC IR 1.1.1 for our understanding of the Commission-approved EEC framework.

4.3 Does the use of the phrase "[t]he Companies recognize the need for accountability for the funds approved for EEC programs" in the 2008 EEC Application indicate the accountability mechanisms are to be used for EEC programs that have been approved by the Commission?

Response:

The Companies intended this verbiage to indicate that the Companies recognize the need for accountability for EEC activity in general. The Companies chose to apply for an expenditure schedule for all of its contemplated EEC activities, and had intended to only undertake activities that were covered by an expenditure schedule accepted by the Commission. While the Companies legally have the ability to pursue EEC activities without a section 44.2 approval and still seek recovery of those expenditures in rates (just as is routinely done with small capital projects and O&M), the financial risk associated with this approach in the case of EEC expenditures is too great and the Companies do not wish to proceed on that basis. As such, the phrase above had been stated in the context of the assumption that the programs discussed at the EEC Stakeholder Group Committee would have all had prior acceptance under section 44.2.

The accountability mechanisms were proposed and subsequently put in place to establish a forum for stakeholders to ensure that EEC funds are being expended in an appropriate way, that is, in accordance with the guidelines laid out in the Application such as the Program Principles, and in accordance with the Commission's Decision associated with Order No. G-36-09, which states on pages 41 and 42:

> *"Terasen summarises its proposal for accountability mechanisms as follows:*
>
> > *"In this Application the Companies have recognized the need for accountability for the funds approved for EEC programs. First, any funds not spent will not be charged to the regulatory asset deferral account. Second, the Companies intend to monitor the portfolio TRC on a monthly basis, and have proposed to file an Annual EEC Report with the Commission by the end of the first quarter every year. The Report will detail program activity, expenditures, and cost-benefit results for the previous year, as well as describe program activity and provide forecasts for the upcoming year. Third, in the event that the relief sought is granted, the Companies would form and engage an EEC stakeholder group with membership representing a broad cross section of stakeholders identified in the Application. Fourth, the Companies have indicated their intention to hold annual EEC workshops with stakeholders, at which the Companies would present updates on program progress and obtain stakeholder input on new programs and refinements to existing programs. Fifth, the Companies are proposing to develop many of the programs for the commercial sector and the DSM for Affordable Housing sector in conjunction with stakeholder advisory groups." (Terasen Argument, p. 39)*

<u>*Intervenor Positions*</u>

BCSEA-BCSC states that they: ". . . support this [funding] approach, noting that the proposed accountability mechanisms are designed to be more effective and efficient than having on-going Commission involvement in decision-making within the portfolio during the Funding Period" and "BCSEA-SCBC acknowledge and support the additional accountability mechanisms proposed by Terasen in [Terasen Argument] paragraph 112." (BCSEA-SCBC Argument, pp. 5, 20)

BCOAPO argues that, should the Application be approved, an independent audit process should be required with respect particularly to free ridership, attribution and redirection of funds. (BCOAPO Argument, p. 14)

Commission Determination

The Commission Panel <u>accepts Terasen's accountability undertakings</u>, [emphasis added] *and considers that, while the proposal to evaluate the EEC project using the TRC test at the Portfolio level has been accepted, TRC calculations for each program area, initiative and measure should also be included in the accountability reporting as a means of assessing the components of the Project and their ongoing effectiveness.*

Commission Panel directs that the annual EEC Report include the following:

- *TRC, RIM, UC, and Participant test calculations of DSM at the Program Area initiative and individual measure levels in addition to the total Portfolio level reporting. Reporting of the Residential & Commercial EE program areas should also be made at the New Construction and Retrofit levels.*
- *any inter and intra Program Area initiative funding transfers, with supporting rationale, and the impact of such transfers on the transferor and transferee Program areas, initiatives, and measures as the case may be.*
- *data for fuel switching programs should be tracked in a manner which allows for reporting types of fuels replaced by natural gas, including estimated GHG impacts.*

The Commission Panel also directs Terasen to include in its annual EEC Report to the Commission a discussion of its internal data gathering, monitoring and reporting control processes. The discussion should include a description of how these processes ensure that funds expended and the statistical results of the programs implemented are completely and accurately recorded and monitored, including any related internal check and audit processes. The report should also discuss how Terasen has measured or estimated the results of the EEC expenditure initiatives."

The EEC Stakeholder Group Committee is a consultative body, and the EEC Annual Reports are compliance reports only. The framework leaves the development of new programs and refinement of existing programs to the discretion of the FEU, but they must achieve the objectives of approved Program Areas in order to remain covered by the existing public interest approval. The accountability mechanisms ensure transparency and stakeholder input.

5.0 Reference: Exhibit A2-1, Excerpts from the 2010 Energy Efficiency and Conservation Program - 2010 Annual Report, Section 10.2.3.3.3, p. 219; and

Exhibit A2-2 Terasen Gas Inc./Terasen Gas (Vancouver Island) Inc. – Energy Efficiency and Conservation Programs Application dated May 28, 2008, pp. 88-9

2009 EEC Annual Report

"Firstly, the 2009 EEC Annual Report, filed on March 31, 2010, states the Innovative Technologies Program Area includes NGVs. The suggested framework of the Innovative Technologies Program Area was described on Page 115:

TGI and TGVI restructured the existing portfolio list of Innovative Technologies to include Solar Thermal Hot Water, NGV for Commercial Vehicles, Hydronic and Combination Space Heating Systems, Residential GSHP and Commercial and Industrial GSHP Systems. TGI and TGVI will treat NGV fuel switching from diesel as part of our normal course of EEC activities." (Exhibit A2-1, p. 219)

"It is anticipated that the Companies' Executive Team will approve the EEC activity for the upcoming year early in that year, permitting the Companies to file an Annual EEC Report with the Commission by the end of the first quarter every year. The Report would detail program activity, expenditures, and cost-benefit results for the previous year, as well as describe program activity and provide forecasts for the upcoming year." (Exhibit A2-2, p. 88)

5.1 Please confirm that the Annual EEC Report is a compliance filing required by Order G-36-09. If not, why not? If yes, what authority or precedence does FortisBC Energy have for changing the scope of an approved program through a compliance filing?

Response:

Confirmed. The Annual Report is a compliance filing. The Companies are not changing the scope of an approved program; rather the Companies are adding a program (in this case the Commercial NGV Demonstration Program) within an approved Program Area: Innovative Technologies. The creation of new programs within approved Program Areas, as well as the discontinuance of programs, and modification of programs, was contemplated in FEU's evidence in the EEC Application proceeding. The FEU believed, and still believes, that it has the flexibility to manage EEC expenditures at a program level while remaining within the scope of an accepted expenditure schedule.

5.2 What regulatory process took place around the 2009 EEC Annual Report? Was the report ever approved by the Commission?

Response:

The Commission, in its EEC Decision, by Order No. 36-09, directed the Companies to file annual EEC reports on all of the EEC initiatives and activities, expenditures and results. The Companies have subsequently filed the 2009 and 2010 EEC Annual Reports in order to satisfy the requirements of the EEC Decision. These reports are compliance reports, and there was no formal regulatory process that took place around the 2009 EEC Annual Report. The Commission does not normally approve or not approve compliance reports.

In terms of consultation, the Companies shared their preliminary findings and results from the 2009 Annual Report in the March 11, 2010 meeting with EEC Stakeholder Group and provided updates in the subsequent meetings.

The 2009 EEC Annual Report and the related consultation that occurred in 2010 are important in the current context, not because the FEU believes that they extended section 44.2 acceptance to NGV incentives that had been excluded from the scope of the accepted expenditure schedule in the 2009 EEC Decision, but because it reflects that the FEU emerged from the NSA under the impression that the expenditure schedule that had been accepted by the Commission in the 2010-2011 RRA would cover programs directed at promoting innovative technologies regardless of whether the programs pre-dated or post-dated the NSA or whether they had been expressly identified in the evidence in the RRA. The FEU believed that this was part and parcel of having the flexibility within the portfolio, and sought to keep stakeholders informed.

5.3 Please confirm that the description of the Annual EEC Report in the 2008 EEC Application did not expressly request restructuring existing program portfolios or changing the scope of programs in the Report.

Response:

Confirmed. The Annual Report is intended to report out on completed program activity for the year previous, and planned program activity for the year upcoming. The Companies believe that they have been clear about their view that refining, adding and discontinuing programs should be within the purview of the Company, should not require Commission approval for individual programs, and that refinements, additions and discontinuation of programs would be presented to stakeholders for input, and reported upon in the EEC Annual Report. The following is an excerpt from the Commission's Decision associated with Order No. G-36-09 (page 41) referencing the Companies' Final Submission in the EEC proceeding:

> *"Terasen summarises its proposal for accountability mechanisms as follows:*
>
> > *"In this Application the Companies have recognized the need for accountability for the funds approved for EEC programs. First, any funds not spent will not be charged to the regulatory asset deferral account. Second, the Companies intend to monitor the portfolio TRC on a monthly basis, and have proposed to file an Annual EEC Report with the Commission by the end of the first quarter every year. The Report will detail program activity, expenditures, and cost-benefit results for the previous year, as well as describe program activity and provide forecasts for the upcoming year. Third, in the event that the relief sought is granted, the Companies would form and engage an EEC stakeholder group with membership representing a broad cross section of stakeholders identified in the Application. Fourth, the Companies have indicated their intention to hold annual EEC workshops with stakeholders, at which the Companies would present updates on program progress and <u>obtain stakeholder input on new programs</u> and refinements to existing programs. Fifth, the Companies are proposing to develop many of the programs for the commercial sector and the DSM for Affordable Housing sector in conjunction with stakeholder advisory groups." (Terasen Argument, p. 39)"* [emphasis added]

The Commission Panel has accepted the Companies' accountability mechanisms and the Companies believe in good faith that they have complied with the mechanisms put forth.

5.4 Please confirm that section 5.12 "Innovative Technologies" of the Report contains the first written instance of FEI changing the scope of the Innovative Technologies program to include "natural gas transportation" within the suite of technologies included in the Innovative Technologies program area provided to the Commission.

Response:

The first written instance of the Companies adding NGV programs within the Innovative Technologies Program Area was in fact provided in a presentation that was given to the EEC Stakeholder Group meeting on March 11, 2010 which was subsequently circulated to all members of the EEC Stakeholder Group, including the Commission, with a request for specific comment on the proposed programs within the Innovative Technologies portfolio. That email which was sent along with the Innovative Technologies presentation from the meeting is included as Attachment 5.4. There was one response received to this email, from a stakeholder other than the Commission, regarding the treatment within the TRC of partner incentives.

5.5 Please confirm that neither the Report's cover letter nor the "Report Overview" section contained a reference to the restructuring of the portfolio list of Innovative Technologies to include "NGV for Commercial Vehicles."

Response:

It is confirmed that neither the cover letter nor the report overview contained reference to any programs that were added to any of the program areas.

6.0 Reference: Exhibit A2-1, Excerpts from the 2010 Energy Efficiency and Conservation Program - 2010 Annual Report, Section 10.2.3.2, p. 211 and

Exhibit A2-4, Terasen Gas Inc. – 2010 and 2011 Revenue Requirements and Delivery Rates Application, p. 234

2010-2011 TGI/TGVI Revenue Requirements

"...the Companies expressed its intent to use different sources of incentive funding to overcome the high fleet conversion costs and limited number of OEM vehicles, including grants already available and "all available funding opportunities," a reference to using EEC funding that had been proposed. For example, in response to BCUC IR 1.34.2 in the RRA proceeding, FEI stated:

TGI intends to meet the other potential obstacles by providing grants, and ensuring that all available funding opportunities are used." (Exhibit A2-1, p. 211)

"Thus, what was withdrawn by FEI only related to natural gas vehicle rate offerings (compression and fueling service). However, the use of EEC funds for NGVs was not withdrawn as part of the NSA; FEI was given express approval to pursue initiatives targeted at Innovative Technologies. When developing the Innovative Technologies programs, which the Companies believe that NGVs are to be part of, and have expressly stated so in 2008 EEC Application and the 2009 EEC Annual Report, the Companies would still have to adhere to the principles contained in Order No. G-36-09 as outlined above to use EEC funds for NGVs." (Exhibit A2-1, p. 214)

"TGI has since evaluated the market and need for innovative technologies. This Section of the Application provides an overview of EEC initiatives we intend to pursue through the use of innovative technologies. TGI's proposed programs are in the interests of customers and therefore should be approved." (Exhibit A2-4, p. 234)

6.1 Please confirm that the Innovative Technologies subsection of the Energy Efficiency and Conservation Programs section of the 2010/2011 RRA did not include Natural Gas Vehicle purchase subsidies or grants or related programs.

Response:

This is confirmed. The Innovative Technologies subsection within the RRA did not make reference to using EEC funds for incentives for customers to buy down incremental costs for Natural Gas Vehicles over conventionally fuelled vehicles. The Companies added NGV programs to the Innovative Technologies Program Area later on, just as it added new programs in a variety of other Program Areas, based on the belief that it retained the flexibility at the program level to introduce new programs directed at innovative technologies to optimize the portfolio and still remain within the approved Program Areas .

6.1.1 In the 2010/2011 RRA Application or responses to Information Requests, did FEI/FEVI expressly state it would use vehicle purchase incentives from EEC funds for NGVs? If so, please confirm where this is stated.

Response:

No, it was not stated as such. The Companies indicated in the response to BCUC IR 1.34.2 in the TGI RRA proceeding that "all available funding opportunities" are to be used "to meet the other potential obstacles such as fleet conversion costs and the limited number of OEM vehicles".

In retrospect, the Company acknowledges that the way the Innovative Technologies activities were described in the 2010-2011 RRA – i.e. it described a list of individual programs - when viewed on its own could have been reasonably understood to present a complete list of initiatives that we would be undertaking. Those were in fact the initiatives that were top of mind, and upon which the budget was developed. The move to develop NGV related programs really occurred in the months following the resolution of the RRA as market developments occurred.

The need to introduce new programs into the Innovative Technology program area was implicit in the NSA (Order No. G-141-09, Item 12 (e)) states:

> *"However, Innovative Technology programs will be managed by TGI as a separate segment of the overall portfolio to have a weighted average TRC of 1.0 or more. TGI will consult with the stakeholders on the practical application of the weighted average TRC through the EEC Advisory Committee."*

Given this requirement, it was implicit in the NSA that new programs would need to be introduced since the TRC of the listed programs outlined in the RRA had TRC that were below 1.0. Stipulating in the NSA that the TRC had to be 1.0 or more for the Innovative Technology Program Area in the NSA meant that the programs within that Program Area would have to change to meet that criteria. The inclusion of the NGV in the portfolio of Innovative Technology supports the other programs because it has a strong TRC.

The Companies added NGV programs to the Innovative Technologies Program Area later on, just as programs were added in a variety of other Program Areas, based on the belief that it retained the flexibility at the program level to introduce new programs within the approved Program Areas to optimize the portfolio.

In developing those NGV-related programs within the Innovative Technologies Program Area, the Companies had in mind the broader definition of the Program Area used in the 2008 EEC Application, which definition was more geared to the purpose being served by the programs, and not a specific list of programs. The FEU have understood since the EEC Decision that they had the flexibility to develop programs that were complementary to the broader scope of the Program Area while still remaining within the scope of the accepted expenditure schedule. The Companies have taken this approach with a number of Program Areas, not just Innovative Technologies.

6.2 In the 2010/2011 RRA Application, please indicate which specific EEC initiatives FEI/FEVI intended to pursue through the use of innovative technologies as quoted on page 234 of the Application (Exhibit A2-4).

Response:

The technologies described in the Innovative Technologies section of the RRA were the following:

- Hydronic Based Heating Systems
- Integrated Energy Systems (or Combination Systems)
- Solar Thermal
- Ground Source Heat Pumps

A reworking of the technologies in the Program Area was implied by the stipulation in the NSA that the Innovative Technologies area had to meet a TRC test equal or greater than one, which the initially proposed programs did not. The Companies added NGV programs to the Innovative Technologies Program Area later on, just as it developed new programs in a variety of other Program Areas, based on the belief that it retained the flexibility at the program level to introduce new programs within the approved Program Areas to optimize the portfolio. The inclusion of the Commercial NGV demonstration project within the Innovative Technologies program area contributed to a positive TRC for Innovative Technologies. Please see the responses to BCUC 1.6.1.1 and 1.1.1

6.3 In the 2010/2011 RRA Application, why did FEI/FEVI not ask for NGV incentives from EEC funding as it did in the 2008 EEC Application?

Response:

In retrospect, the Company acknowledges that the list of programs included in the 2010-2011 RRA as being part of the Innovative Technologies program area when viewed on its own could have been reasonably understood to present a complete list of initiatives that we would be undertaking. Those were in fact the initiatives that were top of mind, and upon which the budget was developed. The move to develop NGV related programs really occurred in the months following the resolution of the RRA as market developments occurred.

The need to introduce new programs into the Innovative Technology program area was implicit in the NSA (Order No. G-141-09, Item 12 (e)) states:

> *"However, Innovative Technology programs will be managed by TGI as a separate segment of the overall portfolio to have a weighted average TRC of 1.0 or more. TGI will consult with the stakeholders on the practical application of the weighted average TRC through the EEC Advisory Committee."*

Given this requirement it was implicit that new programs would need to be introduced since the TRC of the listed programs outlined in the RRA had TRC that were below 1.0. By stipulating that the TRC had to be better than 1 for the Innovative Technology program area in the NSA it meant that the programs within that program area would have to change to meet that criteria. The inclusion of the NGV in the portfolio of Innovative Technology supports the other programs because it has a strong TRC.

In developing those NGV-related programs within the Innovative Technologies program area, the Companies had in mind the broader definition of the program area used in the 2008 EEC Application and understood that it had the flexibility to develop programs that were complimentary to the broader definition of the program area. The Companies have taken this approach with a number of program areas, not just Innovative Technologies. The FEU were transparent in doing this, as it is really in the Companies' best interest to have a section 44.2 expenditure schedule covering all of our EEC activity. It is thus of critical importance to have the uncertainty as to the scope of the expenditure schedule approval determined in this process.

7.0 Reference: Exhibit A2-1, Excerpts from the 2010 Energy Efficiency and Conservation Program - 2010 Annual Report, Cover Letter, p. 2

EEC Incentive Grants for NGVs

"It is important that the Companies and the Commission reach concurrence on this issue in a timely manner, so that we can move forward on new projects that provide benefits to existing natural gas customers and fleet owners while helping to meet the energy objectives of the provincial government."

7.1 What is the total amount of EEC grants FEI/FEVI has committed for NGVs purchase incentives to date?

Response:

As described on page 191 of the 2010 EEC Annual Report, FEI has committed a total of $5.587 million in incentives for NGVs to date. These incentive expenditures were incurred during 2010. FEVI has not committed any incentives for NGVs to date.

7.1.1 What is the total amount of future commitments?

Response:

As described on page 192 of the 2010 EEC Annual Report, the future commitments[1] for FEI are expected to be $3.780 million. There are no future commitments for FEVI at this time. As noted in the Report, the FEU are expecting additional CNG and LNG projects will be developed in the future but these have not been explicitly identified at this time. Once the funding issue in this proceeding is resolved, it is the FEU's intent to proceed with an open 'call for expressions of interest' for additional projects.

The Companies have put further EEC incentive awards for NGVs on hold until this proceeding has concluded. Prolonged delays in resolving this matter will likely delay the delivery rate benefits obtained by existing non-bypass customers associated with building cost effective load, delay the benefits achieved by new NGV customers from reduced transportation costs, and delay GHG emissions reductions in BC. Moreover, any further delays could potentially derail the

[1] In the context of this response, the FEU defines future commitments as those projects where: 1) the customer has submitted an EEC Application to the FEU, 2) the TRC test has met the required threshold, and 3) no definitive EEC funding agreement has been executed with the customer at this time.

future committed projects (i.e. $3.780 million) and our NGV initiatives (and its associated benefits) completely.

Project partners such as the City of Vancouver, Wastech Services, and the City of Surrey have invested substantial time and resources in proposing projects for NGV incentive funding and are awaiting resolution of this issue. In the event that funding is not available for these projects it is unlikely that the transition to natural gas will occur for these fleets and the public interest benefits referenced in the response to BCUC IR 1.7.4 will not be achieved. It is important that the EEC incentives for NGVs continue to be in place into the future to allow that market transformation process that has begun to continue. To this end, FEU has requested as part of 2012-2013 RRA that was filed with the BCUC on May 4, 2011, a funding request for $10 million per year for NGV incentives as part of the Innovative Technology program area.

Hence, it is important that this proceeding clarify the EEC framework and determine whether the contemplated NGV-related expenditures are in the public interest.

7.2 Please provide a table showing the following:

Customer Receiving NGV Incentive	Incentive Amount or Future Amount in Negotiation	Date of Agreement for EEC Incentive Funding	Estimated Fuel Savings to Customer ($)	Net Present Value of project to the Customer ($)	Project Payback period for the Customer	Customer Estimated Avoided Diesel (L)	Customer Estimated GHG Reductions (tonnes)	Estimated Revenue to FortisBC Energy ($)

Response:

The FEU have provided the table below, however we are not able to provide two categories of the table. The requested information in the categories: 1) Net present value of the project to the customers, and 2) Project payback period for the customer; contain commercially sensitive information not available (or required for EEC reimbursement) from the customer.

The net present value of the project to the customer is calculated based on total costs incurred by the customer. This includes commercially sensitive information held by the customer. Each fleet operator, depending upon their individual operational practices, may incur incremental training and staffing costs and/or incremental operations and maintenance costs related to their fleet of NGVs. If a fueling station has been installed at their premises, customers would also responsible for the upgrading their facilities to be "gas safe".

The project payback is calculated using the same information as stated above. FEI does not have access to commercially sensitive operational cost information for each customer.

NGV customers can also be compared based on the TRC test, which considers the EEC incentive expenditures shown in the table. The FEU have added a column which shows the TRC test result for each customer. The Commercial NGV Demonstration program has made a significant contribution to ensuring that the overall TRC for the Innovative Technologies portfolio has exceeded 1.0. The calculation of this number is provided in our response to BCSEA 1.1.

Customer Receiving NGV Incentive	Total Incentive Amount ($)	Date of Agreement for EEC Incentive Funding (MM/DD/YYYY)	Estimated Fuel Savings to Customer ($ per year)	Customer Estimated Avoided Diesel (L per year)	Customer Estimated GHG Reductions (tonnes per year)	Estimated Revenue to FortisBC Energy ($ per year)	Total Resource Cost (TRC) Test Ratio
City of Surrey	$ 26,700	9/15/2010	$ 18,566	34,000	13	$ 5,611	1.7
Kelowna School District	$ 363,286	3/17/2011	$ 17,587	95,436	120	$ 21,888	1.1
Waste Management	$ 803,560	12/3/2010	$ 202,651	468,000	214	$ 38,728	1.4
Vedder Transport	$ 4,393,300	12/10/2010	$ 1,877,989	3,582,850	3,754	$ 548,460	1.4

Notes:

FEI has used a diesel price of $1.00 per litre to calculate the estimated fuel savings to customer

Estimated Revenue was calculated using approved 2011 delivery rates

In compliance with Commission Order No G-6-11, the WM Agreement was resubmitted, however the initial EEC commitment was exectued on December 3, 2010.

7.3 Please justify why all ratepayers should bear the cost of EEC NGV purchase incentive grants.

<u>Response:</u>

The issue of cost recovery is addressed at the time rates are set (a revenue requirements application), and will turn on the Commission's reasonable assessment as to whether the forecast expenditures (the forecast amortization of EEC expenditures) are prudent and thus should be reflected in rates. There will be overlap between the factors considered in assessing the prudence of the expenditures and in the public interest considerations that are addressed in a section 44.2 application for acceptance of an expenditure schedule.

All ratepayers should bear the cost of EEC NGV programs for the same reasons that all ratepayers pay for all other EEC programs. The rationale and strategy for the overall EEC program was detailed in the FEI and FEVI Energy Efficiency and Conservation Programs Application of May 2008, and was approved subject to certain adjustments, in Commission order G-36-09 of April 16, 2009.

As noted in Section 1 of the EEC Application, "EEC Activity is a term that describes what has been referred to in previous Regulatory filings as Demand Side Management ("DSM") activity. "EEC" and "DSM" are used interchangeably throughout this document; both terms refer to activities undertaken by the Companies that have the goal of affecting customers' use of natural gas, either through conservation activity or through load-building/fuel switching activity."[2] The EEC NGV program is consistent with the stated goal in that the incentives enable fuel switching from high carbon diesel fuel to natural gas. This in turn generates reductions in greenhouse gases of 20 – 30%. In addition the fuel switch builds load which provides economic benefits to all non-bypass customers in the form of lower delivery rates. Furthermore, because NGV load does not fluctuate seasonally, FEIs customers benefit from increased system utilization.

The use of EEC NGV purchase incentives is a key enabling element of transitioning the market for heavy duty transportation from diesel fuel to natural gas. FEI's business plan has targeted natural gas market penetration of the BC Motor Fuels market at 30 PJ by 2030 (~6% projected share). The load-building benefits to all rate payers from this level of penetration are estimated to be approximately $83 million per year as detailed in Section 3.1 and Appendix A1 (p. 32 and 33) of FEI's Application for Approval of a Compressed Natural Gas Service Agreement (Dec 2010). Hence there are direct and strong economic reasons why all customers should bear the cost of the EEC NGV purchase incentives.

Most of the other EEC program areas result in load reduction which leads to upward pressure on delivery rates. The NGV EEC program helps to counter such delivery rate pressure through the addition of new customers with heavy loads with a demand profile that is flat over the course of the year. As all non bypass customers benefit from the load additions it is reasonable for all customers to pay for the incentives.

It is also important to note that the EEC NGV incentive program is designed to be a transition measure rather than a permanent subsidy program. At present FEI is providing incentive funding of up to 100% of the premium cost of the NGV versus the diesel vehicle. It was necessary to go to this level to get the program started as the levels of NGV penetration in the heavy duty transportation sector in BC was close to zero. The strategy behind the EEC NGV incentive program is to engage the leading players in each sector and get them to commit to NGVs for long term time periods. Once the leading players are using NGVs and enjoying the resulting savings, the perceived risk of adopting NGVs declines. We also expect that early adopters will make full use of the advantages of their NGVs in promoting their businesses,

[2] Energy Efficiency and Conservation Programs Application, Page 1

providing additional pressure on other players in their markets to follow their lead. This dynamic means that that it will be possible to wean the market off the use of incentives over time. This while the costs of the NGV EEC program are one time expenditures, the load building benefits from market transformation carry forward.

Unlike many emerging technologies, the economic business case for NGV adoption has a reasonable expected payback period. Incentives are needed to kick-start the market, but should not be required once a reasonable level of market penetration has been achieved. FEI's strategy is to gradually ramp down the percentage of the premium covered by the incentive. Our first round provided 100% funding. Our second round will likely provide 80% funding depending on program uptake. The third may be 60%. An intentional consequence of this funding design is that we will create a degree of urgency amongst our customer base to be among the first projects funded, else they risk having a lower funding level.

It should also be noted that the premiums between NGVs and their diesel counterparts have been declining as NGV production increases. The premium for a garbage truck has fallen from $60 thousand to $45 thousand in the BC market. Hence both the premium and the percentage of that premium that needs to be funded should decline over time, while the benefits to all customers does not decline. The ramp down of funding is expected to be an effective strategy is making sure that the incentive program funds are deployed in the most effective manner possible and to ensure that they initiate market transformation in the shortest time period that is practical. Exact timing of the changes in the funding program have not been determined as there is a need to monitor the success of the program and the rate of market transformation.

In summary, EEC vehicle purchase incentives should be treated consistent with all other EEC programs with funding being provided by all ratepayers. The argument is further strengthened by the substantial benefits that accrue to all ratepayers from the load additions that are stimulated by the incentive program. Hence, there are direct and strong economic reasons why all customers should bear the cost of the EEC NGV purchase incentives. Public interest considerations are also discussed in the response to BCUC IR 1.7.4.

7.4 Please justify why the EEC NGV incentive grants are in the public interest.

<u>Response:</u>

EEC NGV incentive grants are in the public interest for the following reasons:

1. The grants will initiate transformation of the heavy duty transportation market in BC from high carbon diesel fuel to lower carbon natural gas resulting in GHG reductions of 20 – 30%. The NGVs incented in the 2010 Innovative Technologies Program Area are

expected to produce between 20 - 30% fewer GHG emissions than their diesel counterparts. At this time, FEI estimates that the vehicles under the 2010 program expenditures represent annual GHG savings of approximately 4,100 tonnes of CO2e per year, which is the equivalent to taking 800 passenger vehicles off the road.

2. The addition of NGV load on FEI's system will help keep natural gas delivery rates low for the benefit of all users. FEI's most recent Resource Plan, the 2010 Terasen Utilities Long-Term Resource Plan ("LTRP"), reiterated the Company's concern about declining throughput, attributable in part to declining use per customer rates, which increases upward pressure on delivery rates and also represents a long-term stranding risk for the distribution system assets as a whole. NGVs represent one of the best opportunities to mitigate the adverse delivery rate impact on existing customers flowing from this declining throughput. (Benefit is estimated to increase to $83 million per year by 2030) The addition of cost-effective NGV load on the FEI distribution system favourably affects customer delivery rates in two ways: First, delivery costs are shared over more GJs of natural gas, thus reducing the delivery charge per GJ; and second, adding NGV load is one of a few means available to FEI to combat declining throughput that, left unchecked, will continue to contribute to a higher cost of capital over time.

3. The development of further markets for BC's vast resources of natural gas will generate economic benefits from natural gas production, processing and transmission.

4. The development of further markets for BC's vast resources of natural gas will generate economic benefits to the Provincial treasury in the form of increased production royalties.

5. The increased adoption of NGV's will yield improvements in local air quality due to the clean burning characteristics of natural gas versus diesel fuel.

6. Lower costs of providing trucking services achieved from the reduction in fuel pricing, will help to improve the competitive position of products produced in BC.

7. Lower costs of providing public transportation services (e.g. transit and/or school bus service) assists transit agencies and school districts in providing such services.

8. NGV incentive program projects typically have relatively high results under the TRC test. Inclusion of NGV projects in the portfolio of projects will allows other Innovative Technologies projects which have lower TRC test results (such as solar thermal demonstrations) to proceed.

9. The NGV program supports the Provincial Governments objectives with respect to the Environment and climate change concerns.

10. In addition to benefits to existing non-bypass customers addressed above, EEC funding also benefits the owner of NGVs. The benefits include: operating cost savings due to favourable natural gas costs relative to diesel and gasoline; reduced fuel cost volatility as compared to diesel and gasoline; and reduced GHG emissions. The comments in support of the FEU providing incentives for NGVs, which are included with the 2010 EEC Report, underscore the benefits to customers.

FEU believes that the section 44.2 acceptance covering NGVs came with the Commission's approval of the NSA. The FEU believe that, regardless of the scope of the existing expenditure schedules, the NGV initiatives are in the public interest and section 44.2 acceptance should be extended to them.

8.0 Reference: Exhibit A2-1, Excerpts from the 2010 Energy Efficiency and Conservation Program - 2010 Annual Report, Appendix F, p. 2

Stakeholder Letter from Commercial Energy Consumers (CEC)

"The CEC believes that the current uncertainty may arise as from a perspective on a technicality with regard to FEI's ability to provide funding for the NGV programs. The CEC believes that substance should trump technicality, although the CEC with respect supports FEI's efforts to review the issues."

8.1 In FEI/FEVI's opinion, what is the technicality CEC refers to in its letter?

Response:

FEI/FEVI is not able to answer this question as it would require the companies to speculate on what CEC is referring to.

9.0 Reference: Exhibit A2-1, Excerpts from the 2010 Energy Efficiency and Conservation Program - 2010 Annual Report

General Question

9.1 If NGV purchase incentive funding is found to be inappropriately included in the Innovative Technologies program, should incentive payments already made by the Companies be eligible for cost recovery from rate payers in whole or part?

Response:

Yes, the NGV purchase incentive funding should be eligible for cost recovery in full because the expenditures were still prudent and beneficial for ratepayers.

The Companies wish to address the use of the word "inappropriately" in the question. Unlike a CPCN required under section 45 for plant extensions, the section 44.2 approvals obtained by FEU in respect of EEC expenditures were optional. The acceptance of an expenditure schedule under section 44.2 is thus not an authorization to undertake activity, rather it represents a determination that the expenditures in question are in the public interest. And similarly, the issue of whether or not the expenditure schedule accepted as part of the 2010-2011 RRA NSA included NGV related activities is an issue of relevance to future cost recovery, and not one of compliance with a Commission order.

The relevance of the Commission's acceptance of an expenditure schedule to cost recovery is as follows. The UCA requires that rates be set to recover the forecast costs for the test period that the Commission reasonably considers will be prudently incurred. A prior public interest approval of an expenditure schedule is evidence in a rate-setting proceeding that it was prudent for the utility to engage in the type of past activities contemplated in an accepted schedule (and thus assists the utility in being able to recover in rates the forecast amortized cost of those activities occurring during the test period as prudent forecast costs of service). However, a determination in this proceeding that the approved Innovative Technologies Program Area did not include NGV-related expenditures does not in any way mean that the activities were imprudent; rather, it just means that the FEU have not obtained an optional section 44.2 order. For capital expenditures under the CPCN threshold, and for O&M generally, it is less common to have section 44.2 approval than to proceed to a revenue requirements proceeding without one. In the absence of a section 44.2 acceptance, the prudence of EEC expenditures must still be determined in the context of rate setting with reference to the costs and benefits associated with the activities. The FEU believe that the NGV-related expenditures to date, which have a relatively high TRC and confer delivery rate reductions (all else equal) and environmental benefits, are prudent. When the time comes for the FEU to seek recovery of those expenditures in rates, they should be recoverable.

Attachment 3.3

Terasen Gas

16705 Fraser Highway
Surrey, B.C. V4N 0E8
Tel: (604) 576-7000
Fax: (604) 576-7220
Toll Free: 1-800-773-7001
www.terasengas.com

November 13, 2009

Dear Stakeholders and Interested Parties:

Re: Terasen Gas - Energy Efficiency & Conservation Stakeholder Group

This year Terasen Gas Inc. and Terasen Gas (Vancouver Island) Inc. (collectively "Terasen Gas") received approval from the British Columbia Utilities Commission ("BCUC") for an expanded Energy Efficiency and Conservation ("EEC") portfolio to provide customers with enhanced tools and incentives to manage their natural gas consumption, reduce their energy costs, and lower their greenhouse gas emissions. The newly approved $41.5 million portfolio includes rebates and incentives on a number of energy efficient appliances, equipment and systems, as well as educational and outreach initiatives for residential and commercial customers, and those customers in the affordable housing sector.

Terasen Gas recognizes the need for accountability for the approved funds and believes that engaging an EEC stakeholder group would be beneficial to guide and inform EEC activity. We are seeking representation from the following areas:

- Provincial, municipal, and First Nation governments
- Non-Governmental Organizations
- Consumer advocates, representing residential customers
- Affordable housing advocates
- Commercial customers
- Trade organizations
- Equipment manufacturers
- Other utilities

To add transparency and accountability to our EEC portfolio, we intend to hold bi-annual EEC workshops with stakeholders, at which we will present updates on program progress and monies allocated. The one-day workshops would also act as a forum for stakeholder input on developing new programs and refining existing programs.

The first stakeholder meeting proposed will be either **Tuesday December 8** or **Wednesday December 9, 2009** in Vancouver.

We respectfully invite your participation in Terasen's EEC Stakeholder Group. Please contact me via email at jenny.chia@terasengas.com or via phone 604.592.7645 if you are interested in joining the Terasen EEC Stakeholder Group or if you have any questions. If you require financial and booking assistance with travel arrangements from outside the Lower Mainland, we would be pleased to assist you with those. Please confirm your participation in the Terasen EEC Stakeholder Group by **Monday November 23, 2009.**

Regards,

Jenny Chia

Jenny Chia
Terasen Gas Inc. and Terasen Gas (Vancouver Island) Inc.

Attachment 5.4

From: Tufts, Douglas
Sent: Friday, March 19, 2010 8:39 AM
To: mgordon@bcaoma.com; steve.hobson@bchydro.com; Alison.Richter@bcuc.com; jennifer.richards@vancouver.ca; dwcraig@allstream.net; joan.huzar@gmail.com; dpasacreta@crosbypm.com; Warren, Mark (Fortis BC); bpurdy@fraserbasin.bc.ca; amy@gvhba.org; kbm@ibcboiler.com; erik.kaye@gov.bc.ca; nkushnir@nee.ca; Elizabeth.Westbrook@NRCan-RNCan.gc.ca; nina@newclimate.ca; alkemp@romsbc.com; cstern@tseshaht.com; jfisher@udi.org; wayne.lock@safetyauthority.ca
Subject: EEC Innovative Technologies Follow-up
Importance: High

Thank you for attending the Terasen Gas EEC Stakeholders Meeting in downtown Vancouver on March 11, 2010.

My name is Doug Tufts and accompanied by Arvind Ramakrishnan we presented the Energy Efficiency and Conservation Innovative Technologies portfolio attached herein. During the presentation I discussed the funding Terasen requested for Innovative Technologies in our Revenue Requirement Applications for Terasen Gas Inc (TGI) and Terasen Gas Vancouver Island (TGVI).

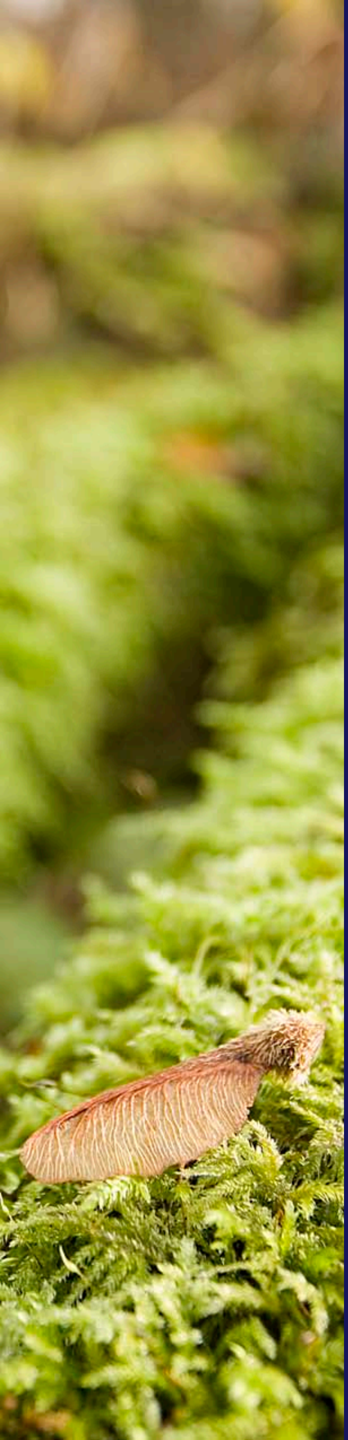
We would like to follow up on any questions or feedback you may have on the proposed programs to be included in the Innovative Technology portfolio or how partnership costs will be treated in the Total Resource Cost test for these programs.

Please provide me with your comments on or before March 26, 2010. Jenny will be sending you the full presentations and meeting minutes early next week.

Thank you again and we look forward to delivering these Innovative Technology solutions to our customers.

March11EECMeeting Attachment.p...

Doug Tufts
Manager, Technical Sales Support
Terasen Gas
T 604-592-7642
C 604-992-9611

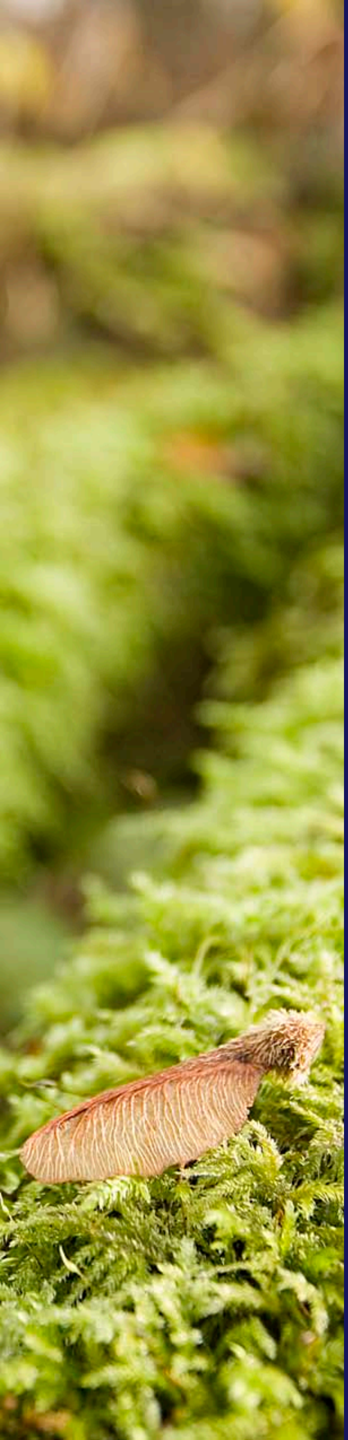


Burn blue. Save green.

Terasen Gas

Energy Efficiency and Conservation Innovative Technologies

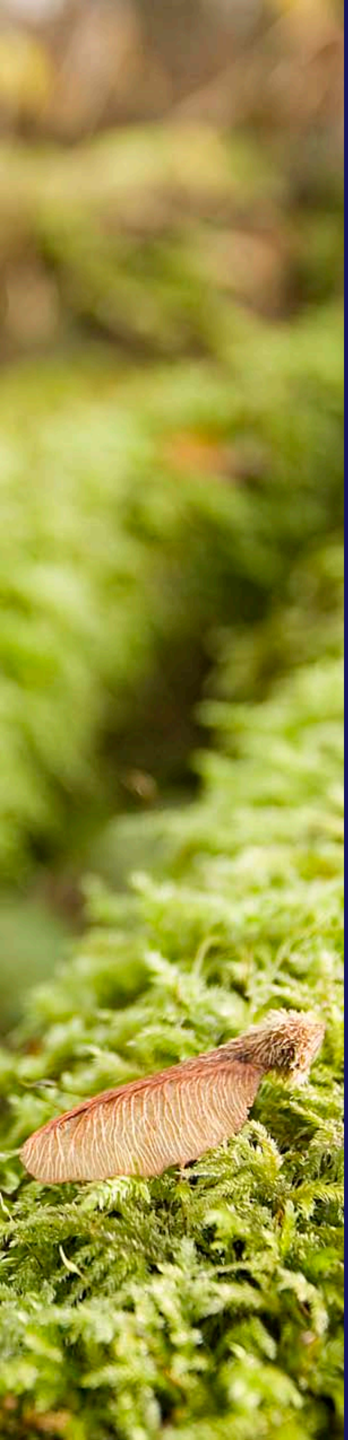
Doug Tufts
Arvind Ramakrishhan



Innovative Technologies

Background

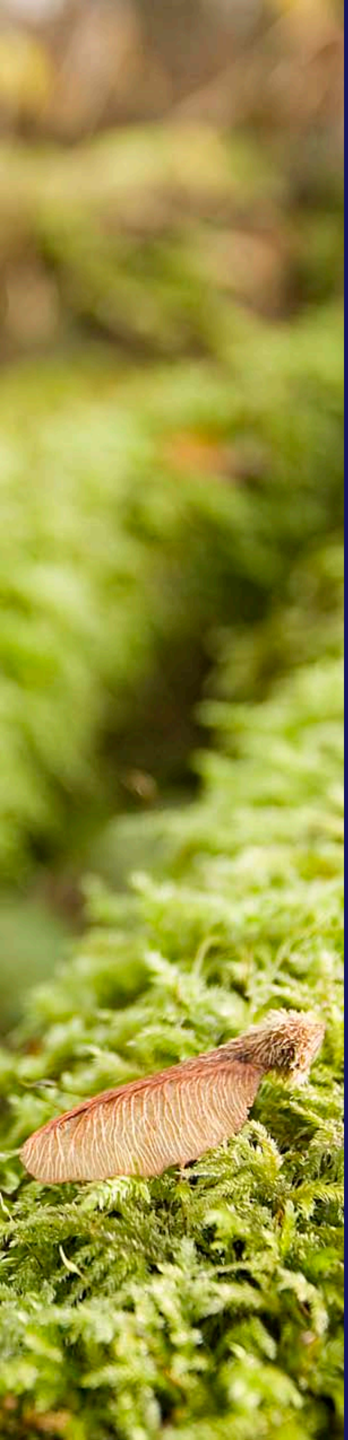
- TGI and TGVI Energy Efficiency and Conservation Application
  - requested $3 million for Innovative Technology Programs
  - filed on May 28, 2008
- TGI 2010 and 2011 Revenue Requirement Application
  - requested $7.003 million
  - filed on June 15, 2009
- TGVI 2010 and 2011 Revenue Requirement Application
  - requested $1.434 million
  - filed June 29, 2009
- TGI and TGVI Received a Negotiated Settlement on November 13, 2009
  - funding for Innovative Technologies approved



Innovative Technologies

Approved Funding
for Innovative Technologies ($000)

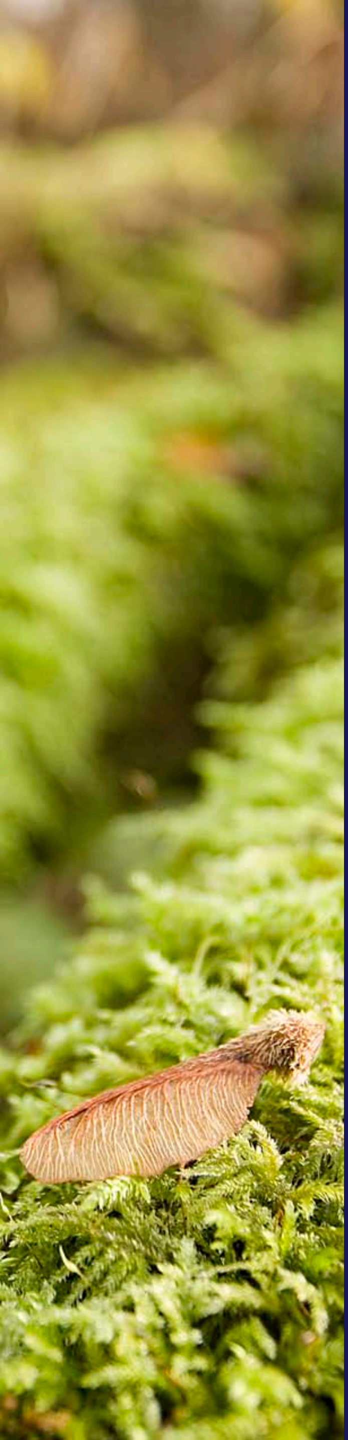
	2010	2011	Total
TGI	2,334	4,669	**7,003**
TGVI	0,478	0,956	**1,434**
Total	**2,812**	**5,625**	**8,437**



Innovative Technologies

Terms of the Negotiated Settlement TGI & TGVI

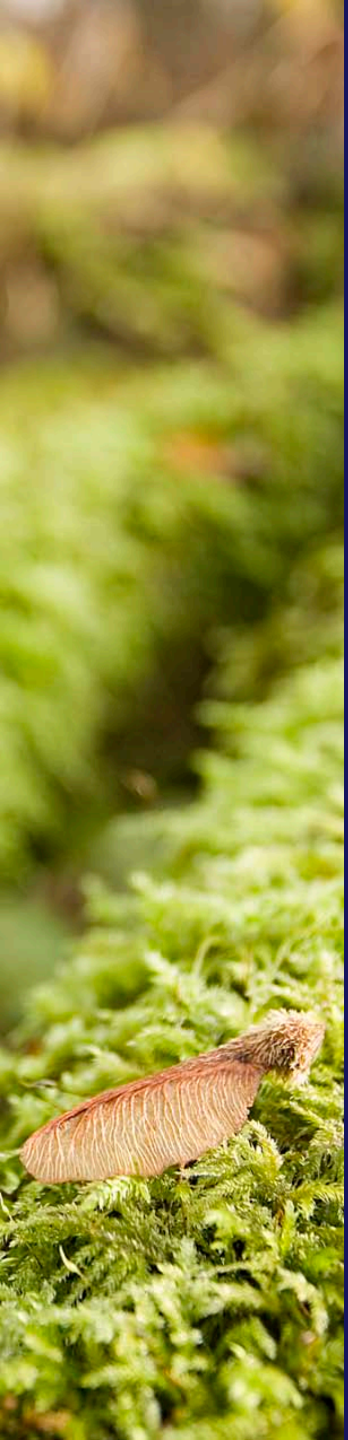
- That Innovative Technologies be managed as a separate portfolio from our other EEC Programs
- That Innovative Technologies portfolio have a Total Resource Cost (TRC) weighted average of 1.0 or greater
- That Terasen will consult with stakeholders on the practical application of the weighted average TRC through the EEC Advisory Committee



Innovative Technologies

Proposed Program Costs, TGI

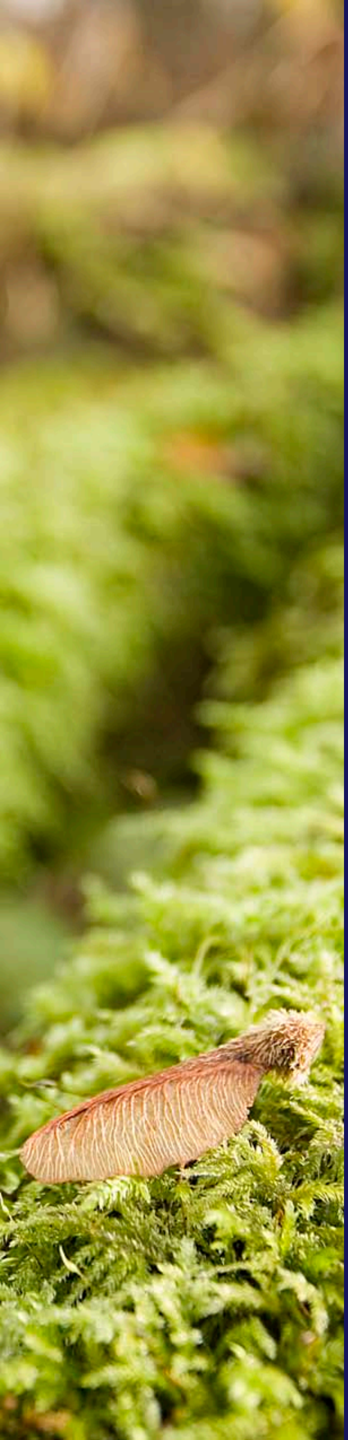
TGI	2010	2011	Total
Solar Thermal	288,000	576,000	**$864,000**
Commercial NGV	808,000	1,616,000	**$2,424,000**
Hydronic Heating Systems	120,000	280,000	**$400,000**
Residential GSHP Systems	107,000	213,000	**$320,000**
Alternative Energy Systems	605,500	1,210,500	**$1,816,000**
Total	**$1,928,500**	**$3,895,500**	**$5,824,000**



Innovative Technologies

Proposed Program Costs, TGVI

TGVI	2010	2011	Total
Solar Thermal	60,000	120,000	**$180,000**
Commercial NGV	160,000	340,000	**$500,000**
Hydronic Heating Systems	25,000	50,000	**$75,000**
Residential GSHP Systems	22,500	44,500	**$67,000**
Alternative Energy Systems	126,000	254,000	**$380,000**
Total	**$393,500**	**$808,500**	**$1,202,000**

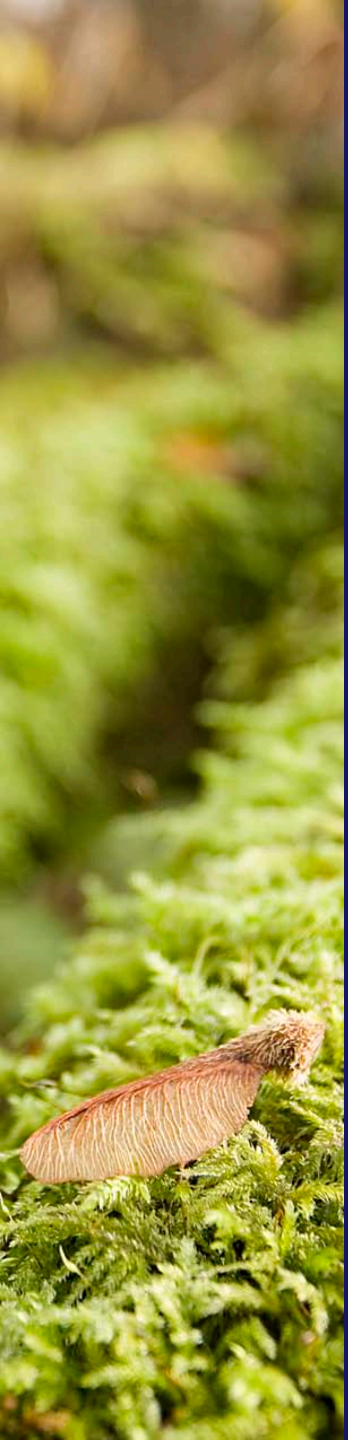


Innovative Technologies

Natural gas reductions for TGI and TGVI for the measured life of the programs.

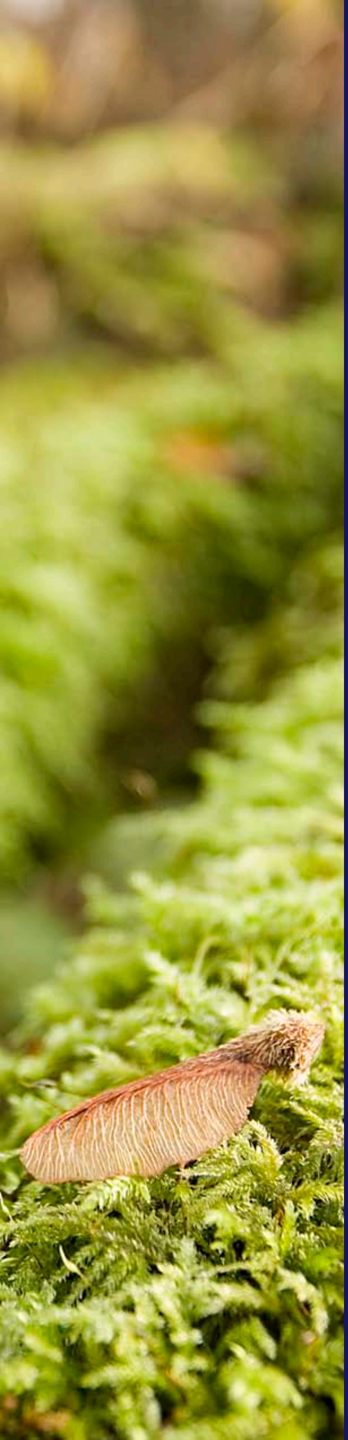
- **A reduction of 577,000Gj**
- **A reduction of 505,000 tonnes of C02**

	Gigajoules	Alternative energy savings (Diesel liters)	Tonnes of C02
Hydronic heating Systems	24,000		1,325
Alternative energy systems	369,000		20,295
Commercial NGV	-896,000	22,689,000	473,361 (net C02)
GSHP systems	47,514		2,613
Solar thermal hot water	137,154		7,543



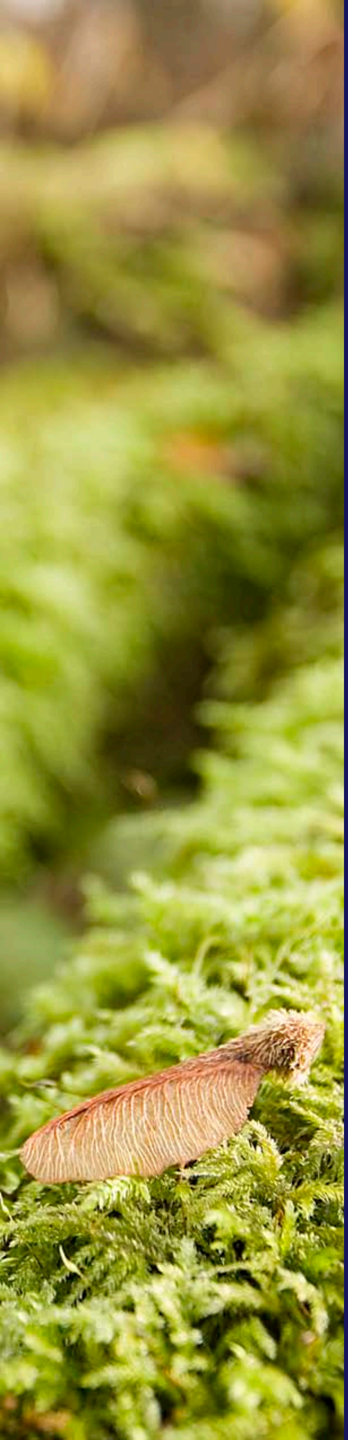
California Standard Protocol Tests

Cost Test	Key Question Answered	Approach
TRC	Is the overall economy better off with DSM?	All costs & benefits regardless of who accrues them
SCT	Is the society, Nation better off as a whole?	Includes non energy benefits
PCT	Will the participant benefit over the measure life?	costs & benefits to the program participant
UCT	Will Utility bills rise over time?	costs & benefits that accrue to the Utility system
RIM	Will Utility rates increase over time?	Takes lost revenue as cost & attempts to measure rate impact to all customers.



Proposal for Innovative Technologies

- Conventional EEC Programs
- Innovative Technologies Portfolio
  - Partner Contributions netted out of incremental cost

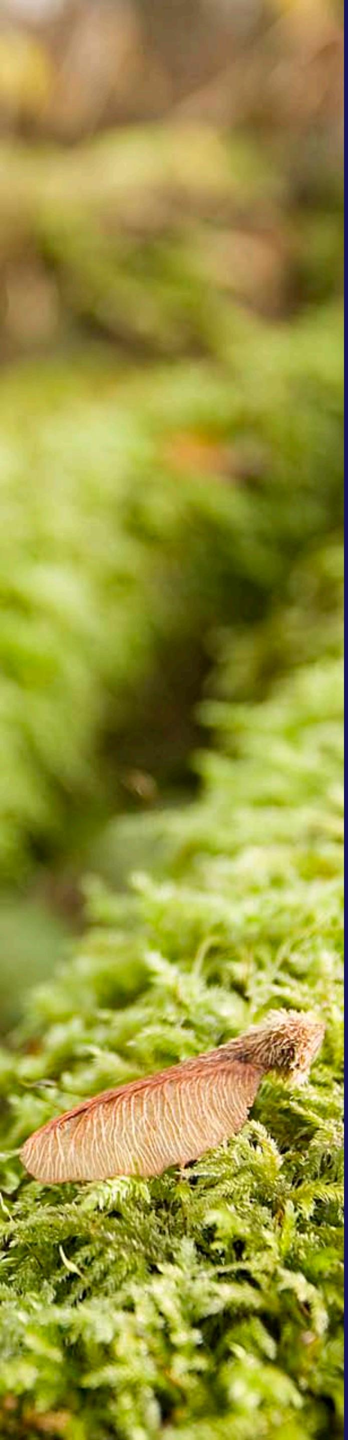


Example with Solar Thermal – City of Vancouver

Total incremental cost-$5,700(Solar ready bylaw)

- Partner Incentive-$3,375
- Utility Incentive proposed-$1000
- Participant cost-$1,325

System cost into the model = $2,325



Proposed Innovative Technologies

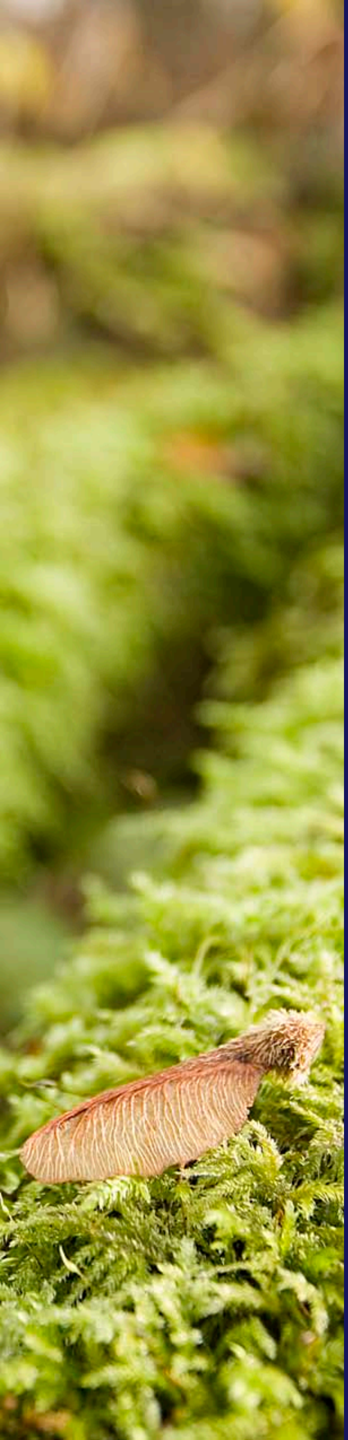
TGI

Programs	TRC Ratios		Program costs		
	2010	2011	2010	2011	Total
Solar Thermal	0.8	0.8	288,000	576,000	$864,000
Commercial NGV	1.5	1.5	808,000	1,616,000	$2,424,000
Hydronic Heating Systems	0.4	0.4	120,000	280,000	$400,000
Residential GSHP Systems	0.2	0.2	107,000	213,000	$320,000
Alternative Energy Systems	1.0	1.1	605,500	1,210,500	$1,816,000
Portfolio level-TGI	1.2	1.2	$1,928,500	$3,895,500	$5,824,000

Proposed Innovative Technologies

TGVI

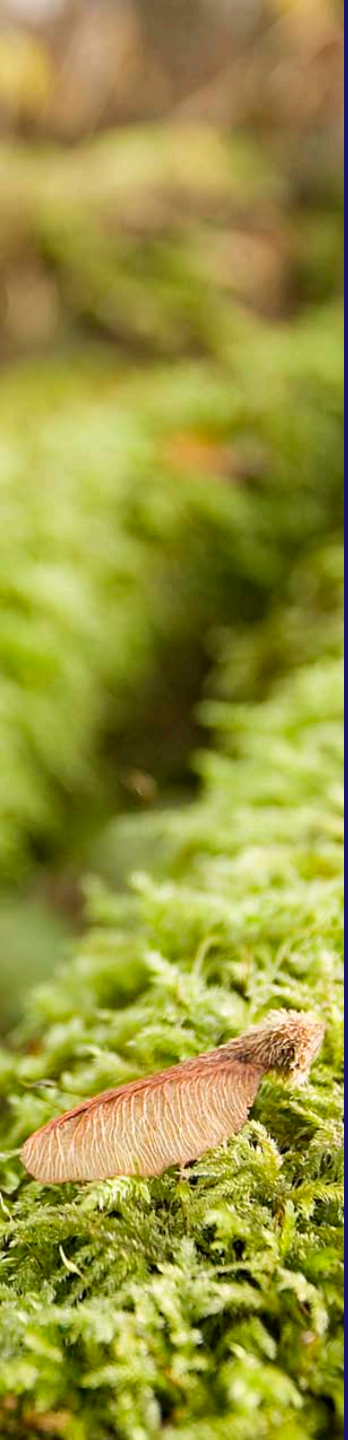
Programs	TRC Ratios		Program costs		
	2010	2011	2010	2011	Total
Solar Thermal	0.8	0.8	60,000	120,000	$180,000
Commercial NGV	1.4	1.4	160,000	340,000	$500,000
Hydronic Heating Systems	0.4	0.3	25,000	50,000	$75,000
Residential GSHP Systems	0.2	0.2	22,500	44,500	$67,000
Alternative Energy Systems	1.1	1.1	126,000	254,000	$380,000
Portfolio level-TGVI	1.2	1.2	$393,500	$808,500	$1,202,000



Proposed Innovative Technologies

Portfolio Level summary (TGI , TGVI)

company	Portfolio level TRC	Program Costs($)		
		2010	2011	Total
TGI	1.2	1,928,500	3,895,500	5,824,000
TGVI	1.2	393,500	808,500	1,202,000
Total		2,322,000	4,704,000	7,026,000



Innovative Technologies - Summary

Application of the Weighted Average TRC

- Program portfolio of activities

- Remove the partner incentive costs from the total incremental cost