



**BRITISH COLUMBIA
UTILITIES COMMISSION**

**ORDER
NUMBER G-145-11**

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IN THE MATTER OF
The Utilities Commission Act, R.S.B.C. 1996, Chapter 473

and

FortisBC Energy Inc. and FortisBC Energy (Vancouver Island) Inc.
Energy Efficiency and Conservation Program
Natural Gas Vehicle Incentives Review

BEFORE: A.A. Rhodes, Panel Chair /Commissioner
D.A. Cote, Commissioner August 15, 2011
M.R. Harle, Commissioner

ORDER

WHEREAS:

- A. On March 31, 2011, FortisBC Energy Inc. and FortisBC Energy (Vancouver Island) Inc. (FEI/FEVI, the Companies) submitted their Energy Efficiency and Conservation (EEC) Program 2010 Annual Report as a compliance filing in accordance with British Columbia Utilities Commission (Commission) Order G-36-09. In the cover letter to the Report, FEI/FEVI request the Commission address the Companies' use of EEC funds as incentives for Natural Gas Vehicles (NGVs) at the earliest possible date;
- B. On April 18, 2011, the Commission issued Letter L-30-11 which indicated the Commission would initiate a regulatory process to review and determine the appropriateness of the Companies' use of EEC funds as NGV incentives (the Review Proceeding). The following specific questions were posed:
 1. Was it appropriate for the Companies to change the scope of the Innovative Technologies program to include NGV purchase incentives via the EEC Stakeholder Group and the EEC Program-2009 Report (filed March 31, 2010)?
 2. If the scope of the Innovative Technologies program was appropriately changed, does the associated NGV purchase funding become:
 - a. a Commission-approved expenditure; or
 - b. an approved EEC expenditure; or
 - c. an expenditure eligible for cost recovery from ratepayers in whole or in part?
 3. 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 ratepayers in whole or in part?
- C. By Order G-70-11 dated April 20, 2011, the Commission established a Regulatory Timetable for the written hearing of the Review Proceeding;

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- D. On June 3, 2011, following its receipt and review of the submissions of the Companies and Interveners, the Commission Panel sought further submissions from the parties on the additional issue of:
- the ability and appropriateness of the utility moving EEC funds among programs that meet the definition of “demand-side measure” in the *Utilities Commission Act* and programs that do not
- and established an amended Regulatory Timetable for that purpose;
- E. The written process for the Review Proceeding concluded with the filing of the Companies’ Reply Submission on June 16, 2011;
- F. The Commission Panel has reviewed the evidence and submissions of the Parties.

NOW THEREFORE for the Reasons attached hereto as Appendix A, the Commission:

1. Determines that, in answer to Question 1, it was not appropriate for the Companies to change the scope of the Innovative Technologies program to include NGV purchase incentives via the EEC Stakeholder Group and the EEC Program–2009 Report (filed March 31, 2010). It further determines that the NGV program is not a demand-side measure within the meaning of the *Clean Energy* and *Utilities Commission Acts*.
2. Directs that FortisBC Energy Inc. and FortisBC Energy (Vancouver Island) Inc. are to include only those expenditures meeting the definition of “demand-side measure” as found in the *Clean Energy* and *Utilities Commission Acts*, as determined by the Commission Panel in the attached Reasons for Decision, in the Energy Efficiency and Conservation category. Programs which do not meet the definition are to be kept separate. This applies as well to any funding for “technology innovation programs”.
3. Provides FortisBC Energy Inc. and FortisBC Energy (Vancouver Island) Inc. and Interveners the opportunity to file further submissions on the issue of the prudence of the NGV incentive expenditures, given the findings of the Commission Panel as set out in the Reasons attached hereto as Appendix A, in accordance with a timetable to be arranged.

DATED at the City of Vancouver, in the Province of British Columbia, this 15th day of August 2011.

BY ORDER

Original signed by:

A.A. Rhodes
Panel Chair/Commissioner

Attachment



IN THE MATTER OF

**FORTISBC ENERGY INC./
FORTISBC ENERGY (VANCOUVER ISLAND) INC.
ENERGY EFFICIENCY AND CONSERVATION
NATURAL GAS VEHICLE INCENTIVE REVIEW**

REASONS FOR DECISION

August 15, 2010

BEFORE:

A.A. Rhodes, Panel Chair / Commissioner
D.A. Cote, Commissioner
M.R. Harle, Commissioner

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1.0 INTRODUCTION

FortisBC Energy Inc. and FortisBC Energy (Vancouver Island) Inc. (the Companies) are related regulated public utilities engaged primarily in the distribution of natural gas through the provision of sales and transportation services to over 900,000 residential and commercial customers in over 100 communities in British Columbia, including Vancouver Island.

The Companies have recently significantly increased their spending of “Energy Efficiency and Conservation” funds (which are provided by ratepayers) to finance programs in the area of Natural Gas Vehicles (NGVs). This spending relates to the provision of incentive payments to select large customers to assist them to purchase Natural Gas Vehicles in lieu of vehicles fuelled by diesel.

This Review Proceeding was initiated to assess the appropriateness of this activity, in light of the history set out below.

Specifically, this Review Proceeding was initiated on April 18, 2011 to examine three questions:

1. Was it appropriate for the Companies to change the scope of the Innovative Technologies program to include NGV purchase incentives via the EEC Stakeholder Group and the EEC Program- 2009 Report (filed March 31, 2010)?
2. If the scope of the Innovative Technologies program was appropriately changed, does the associated NGV purchase incentive funding become: (a) a Commission-approved expenditure; or (b) an approved EEC expenditure; or (c) an expenditure eligible for cost recovery from rate payers in whole or in part?
3. 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 in part?

(Commission Letter L-30-11; FEI/FEVI EEC Natural Gas Vehicle Incentive Review Proceeding; Exhibit A-1)

2.0 BACKGROUND

The Companies have had programs in place relating to demand-side management and the promotion of energy efficiency for a number of years. Traditionally, expenditures for these programs have been assessed as part of the Revenue Requirements Applications. The Companies’ demand-side management activity was relatively constant from the late 1990s to 2007, involving total expenditures for both incentives and non-incentive expenses for both Companies of less than \$5.0 million per year over that time period.

2.1 Energy Efficiency and Conservation Programs Application

In May of 2008, the Companies filed their “Energy Efficiency and Conservation Programs” Application which sought approval of increased expenditures (of \$56.6 million for both Companies for three years) in support of an expanded energy efficiency and conservation (EEC) strategy. The Companies also sought to increase the amortization period for incremental EEC expenditures to 20 years [from 3 years for FortisBC Energy Inc. (FEI) and 1 year for FortisBC Energy (Vancouver Island) Inc. (FEVI)].

One area of proposed expansion in the EEC Application was “Innovative Technologies, NGV and Measurement Program Area” which requested a total of \$3.0 Million. The projects described in “NGV- Natural Gas Vehicle projects” included “utilizing liquefied natural gas in heavy-duty vehicle applications or utilizing renewable or hydrogen in combination with natural gas in specific transportation applications”. The notion of providing vehicle grants to customers not otherwise eligible for grants under Rate Schedule 6 through a vehicle grant fund was also raised. Other NGV projects identified in this section included: Hydrogen/Compressed Natural Gas blended projects (HCNG) and Biogas vehicles. (Exhibit A2-2, Terasen Gas Inc. and Terasen Gas (Vancouver Island) Inc. EEC Application, pp. 14-15; 75-76)

In its Decision on the EEC Application of April 16, 2009, (the EEC Decision) the Commission Panel rejected all proposed expenditures in this area. It found that “Innovative Technologies, NGV and Measurement programs can be appropriate vehicles for encouraging commercial development of technologies to reduce or replace natural gas consumption and related GHG emissions”. It also noted the acknowledgement of FEI that further refinement of the program was required and found that there was insufficient evidence as to the nature and scope of the proposed program. The Panel commented that FEI might wish to bring forward projects in this program area for consideration as they become more fully developed. (Exhibit A2-3, EEC Decision, p. 26)

2.2 2010-2011 Revenue Requirements Application

On June 15, 2009 FEI filed its 2010-2011 Revenue Requirements Application.

The Table of Contents and Headings within that Application are clear in their classification of Natural Gas Vehicle offerings within “Alternative Energy Solutions”, as separate and distinct from “Energy Efficiency and Conservation Programs” under which “Innovative Technologies” were shown as a subsection of “Industrial Energy Efficiency”. (Exhibit A2-4, Terasen Gas Inc. 2010-2011 Revenue Requirements Application, p. iii)

The technologies described in the “Innovative Technologies” subsection were:

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

(Exhibit B-1, BCUC IR 1.6.2)

The 2010-2011 RRA was determined by way of a Negotiated Settlement Process.

2.2.1 Negotiated Settlement Agreement

The Negotiated Settlement Agreement which was approved by Commission Order G-141-09 dated November 26, 2009, states the following with respect to Natural Gas Vehicles:

“14. Natural Gas for Vehicles (“NGV”)

The Commission Issue No. 2 in the Commission Panel’s “Issues of Particular Concern to the Commission Panel” stated:

“Natural Gas Vehicles (“NGV”) – if NGV is to proceed why should the natural gas ratepayer fund this initiative rather than Terasen’s non-regulated businesses or the competitive market?”

The Parties agree:

- (a) NGV Rate Schedule 26 – NGV Transportation Service should be approved as filed.
- (b) The marketing costs in support of NGV that are included in the revenue requirements Application are appropriately recoverable in 2010 and 2011 rates.
- (c) Upon acceptance of this Agreement by the Commission, TGI withdraws its request in this Application for the following:

- i. Rate Schedule 6C NGV Compression and Refueling Service and 6A NGV Refueling Service; and
- ii. the Compression Service (“CS”) Test; and
- iii. NGV non-rate base deferral account.

The Parties acknowledge that these requests are being withdrawn by TGI to facilitate a settlement on other issues presented in this Application. The Parties agree that TGI’s withdrawal of its requests regarding NGV is without prejudice to TGI’s right to bring forward similar requests in 2010 or 2011 or otherwise in the future. The Parties acknowledge that TGI intends to develop this area of business and that TGI anticipates it will bring forward applications on NGV projects to the Commission on a case-by-case basis during the term of this Agreement and in future years. The Parties agree that TGI is at liberty to do so.”

(Exhibit A2-5, Terasen Gas Inc. 2010-2011 Revenue Requirements Application, Negotiated Settlement Agreement, p. 9)

2.3 Application for Approval of Service Agreement for Compressed Natural Gas

On December 01, 2010 FEI applied to the Commission for, *inter alia*, approval of a draft agreement which it had made with Waste Management of Canada Corporation for compression and dispensing service for Compressed Natural Gas. It also applied for acceptance of the expenditures required to provide the service as well as approval of General Terms and Conditions for use in future contracts, for both CNG and LNG customers. FEI specifically stated that it was “not seeking approvals for Energy Efficiency and Conservation (EEC) funding, O&M funding for NGV business development, or any costs that are intended to be recovered from existing natural gas customers”. However, the Application did indicate that FEI had provided incentive funding to Waste Management to cover the incremental cost of purchasing 20 natural gas vehicles, as opposed to their diesel equivalents. This funding was in the approximate amount of \$803,000 or slightly more than \$40,000 per vehicle. (Application for Approval of Service Agreement for Compressed Natural Gas Exhibit B-1, p. 47; EEC Natural Gas Vehicle Incentive Review, Exhibit B-1, BCUC IR 1.7.2)

In its January 14, 2011 Reasons for Decision approving the Waste Management Agreement on an interim basis, the Commission Panel questioned whether FEI had approval to make the incentive payments to Waste Management outside those contemplated in existing Rate Schedules, given the explicit rejection of expenditures in that area in the EEC Decision as well as the withdrawal of requests relating to NGVs in the Negotiated Settlement Agreement (NSA).

2.4 Energy Efficiency and Conservation Programs 2010 Annual Report

During 2010 FEI committed a total of \$5.587 million in incentives for NGVs. Future commitments are expected to amount to a further \$3.78 million. (Future commitments are those where, *inter alia*, there has been an application by the customer, but no agreement with the customer has been signed.) (Exhibit B-1, BCUC IR 1.7.1; 1.7.1.1)

In their 2010 EEC Programs Annual Report, the Companies took the position that they had acted within the guidelines and approvals of past regulatory decisions for EEC funding for NGVs and sought Commission concurrence on the issue, in an expedited fashion, prior to the 2012-2013 Revenue Requirements Application. The Companies took the further position that the use of Innovative Technologies Program Area EEC funding for NGV initiatives is consistent with past Commission Orders. (2010 EEC Annual Report pp. 201-203)

It is not suggested that further stakeholder engagement or compliance reporting can alter the overall scope of an accepted expenditure schedule. As noted by the Companies, “[o]nly the Commission has the ability to accept EEC expenditures pursuant to section 44.2... For clarity, the stakeholder engagement process is a consultation exercise, not an approval process. The EEC Annual Report is a 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 overall scope of an accepted expenditure schedule”. (FEI and FEVI Final Submissions, pp. 5-6)

3.0 FEI/FEVI ENERGY EFFICIENCY AND CONSERVATION NATURAL GAS VEHICLE INCENTIVE REVIEW PROCEEDING

As noted previously, this Review Proceeding was initiated to examine three questions, the first of which is:

3.1 Question 1

Was it appropriate for the Companies to change the scope of the Innovative Technologies program to include NGV purchase incentives via the EEC Stakeholder Group and the EEC Program- 2009 Report (filed March 31, 2010)?

The Companies submit that the inclusion of additional spending in the area of NGVs was properly within their discretion as contemplated by the framework established in the EEC Proceeding. That framework contemplated the Companies' ability to re-allocate funds among approved program areas within the overall portfolio. (FortisBC Energy Utilities Submission, pp. 6-9)

The Companies admit that the programs identified in the "Innovative Technologies" section of the 2010-2011 RRA did not include NGVs. They further admit that in another program area, [Alternative Energy Solutions], certain specific requests with respect to NGVs were approved, but the other remaining requests were withdrawn. Notwithstanding these admissions, the Companies submit that NGVs share the same fundamental objectives and characteristics as the other programs within the Innovative Technologies area such that the approval of the Innovative Technologies Program Area was the only approval necessary. (FortisBC Energy Utilities Submission, pp. 10-11)

The Companies further submit that the scope of the Innovative Technologies Program Area approved in the NSA must be viewed in context, which context includes the EEC Application where the Companies described potential areas of opportunity and a broad range of types of initiatives having the same underlying characteristics:

- 1) Promoting the efficient use of natural gas through sustainable design,
- 2) Not being a mainstream technology,
- 3) Offering the potential for at least a 10% GHG reduction benefit.

The BC Sustainable Energy Association (BCSEA) supports the Companies' position. The BCSEA submits that the Commission accepted an overall expenditure envelope for EEC funding in its April, 2009 EEC Decision and therefore contemplated that the Companies would have the ability to move funding among program areas without additional Commission involvement. It further submits that approval of "Innovative Technologies" as a program area in the 2010-2011 RRA NSA contemplated that new programs would be added. (BCSEA Final Submission, pp. 4-6) BCSEA further submits that the Commission's approval of the Companies' 2010-2011 RRA NSA, (where the program area for Innovative Technologies was approved, without reference to NGVs) did "not imply anything negative about NGV incentive funding." (BCSEA Final Submission, p. 6) Further discussion of NGVs was with stakeholders, which BCSEA considers appropriate. (BCSEA Final Submission, pp. 6-7)

The Commercial Energy Consumers Association of British Columbia (CEC) also supports the Companies' position. The CEC argues that the scope of the Innovative Technologies Program Area is defined by the objectives of the program as opposed to by a list of specific initiatives within it. It submits that the initial rejection of the Program Area in the EEC Decision was temporary and notes the invitation of the Commission Panel for FEI, which was "to bring forward projects in this program area for consideration as they become more fully developed." (CEC Final Submission, p. 2; EEC Decision, p. 26) The CEC further submits "that the [Companies] have not changed the scope of the Innovative Technologies Program Area but have added the NGV Incentives funding program to the suite of programs in the Innovative Technologies Program Area. (CEC Final Submission, p. 5) It argues that the Companies have shown the NGV Purchase Incentive Funding is cost-effective, which supports the contention that this funding is in the public interest. It recommends that the Commission find the addition of the NGV Incentive Funding program to the Innovative Technologies Program Area was appropriate and met the objectives of that Program Area as well as EEC objectives generally. (CEC Final Submission, p. 6)

Commission Panel Determination

The Commission Panel finds that the Companies did not have approval to use EEC monies to provide incentives for NGVs.

The Commission Panel notes at the outset that the EEC Decision specifically rejected the entire area of “Innovative Technologies, NGVs and Measurement”.

Further, in the EEC application, although LNG in heavy-duty vehicle applications was mentioned, the Companies did not advance compressed natural gas vehicles as an “innovative technology”, as is now suggested. Rather, at that time, the Companies noted that “[u]nlike conventional Compressed Natural Gas (“CNG”) vehicles, new technology is emerging whereby hydrogen is blended at the pump with compressed natural gas...HCNG is one of the most promising near-term opportunities for utilizing hydrogen in vehicles and moving towards a more hydrogen driven economy. As hydrogen burns cleaner than natural gas, further emission reductions are gained and 10-20% GHG reductions over CNG can be achieved. Other HCNG initiatives may include fuel for trains, fleets and other vehicle applications.” (EEC Application, Exhibit B-1, pp. 75-76)

As well, in the Commission Panel’s discussion and subsequent rejection of this category of expenditure it indicated that “Innovative Technologies, NGV and Measurement programs can be appropriate vehicles for encouraging commercial development of technologies *to reduce or replace natural gas consumption...*” but that there was insufficient evidence of the nature and scope of the proposed program to warrant approval. (emphasis added). (EEC Decision, p. 26)

In the subsequent 2010-2011 Revenue Requirements Application, NGVs were again brought forward, this time as part of “Alternative Energy Solutions”. The Commission Panel specifically raised concerns about NGVs and requested that these concerns be addressed in the Negotiated Settlement Process. As a result, in the end, the NSA provided approval for two items, being new Rate Schedule 26 and recovery of what were described as “modest” marketing costs incurred in support of NGVs in 2010-2011 rates. The remaining items for which approval was sought, which included an NGV non rate base deferral account, were withdrawn.

New Rate Schedule 26, “NGV Transportation Service” which was approved as part of the NSA, included “Special Conditions” basically identical to the “Special Conditions” found in existing Rate Schedule 6 “Natural Gas Vehicle Service”. These Special Conditions contemplate a maximum incentive payment for the purchase of or conversion to a heavy duty natural gas vehicle of \$10,000.00 per vehicle. To the extent that it can be suggested that incentive grants were contemplated in that NSA, the amounts put forward were limited, and consistent with grant amounts already on offer.

The Compression Service Tariff, the request for approval of which was withdrawn as part of the NSA, contemplated capitalization of costs once a potential customer executed a contract for the provision of compression service, and deferral account treatment of those costs, as well as ongoing operating and maintenance costs related to the delivery of energy. (TGI 2010-2011 RRA Exhibit B- 4, BCUC IR 1.21.1)

The Commission Panel disagrees with the suggestion that approval of the Innovative Technologies Program area could in any way be considered approval of EEC funding for NGVs. In fact, in its answers to Information Requests in the 2010-2011 Revenue Requirements Application, FEI emphasized that its EEC requests were different than those relating to Alternative Energy Solutions. It stated that “...it is important to distinguish between the requests in this Application regarding EEC and those pertaining to Alternative Energy Solutions [under which approval was sought for NGVs]....EEC programs and expenditures primarily related to activities to reduce energy usage via incentives, education and audits etc. They do not include the ownership of alternative energy equipment.” (TGI 2010-2011 RRA, Exhibit B- 4, BCUC IR 1.21.1) FEI further confirmed that “...Innovative Technologies are an EEC program (i.e. not one of the Alternative Energy Solutions) whereby customers will receive incentives for Hydronic Heating Systems, Integrated Energy Systems, Solar Thermal and Ground Source Heat Pumps.” (TGI 2010-2011 RRA, Exhibit B-4, BCUC IR 1.23.1.2)

Moreover, in the Panel’s view, the Innovative Technologies Area as set out in the 2010-2011 Revenue Requirements Application did not share the same characteristics as the NGV area, as is now suggested by FEI. The Innovative Technologies put forward included measures to reduce natural gas consumption, not increase it, as is the case for NGVs.

Even if it could be argued that it was open to move/add program areas with similar objectives etc., which argument is not accepted given the specific rejection of NGVs in both applications— and particularly given the express concern of the Commission Panel – the underlying characteristics are not the same.

The Panel does not accept that the Companies were justified in assuming that approval of the Innovative Technologies category was a green light to proceed with NGV initiatives. FEI confirmed in its November 13, 2009 letter to the Commission responding to staff's comments on the NSA that it had an existing NGV tariff and the amount of the marketing costs in the revenue requirements for 2010 and 2011 [which were accepted in the NSA] were "very modest". It also confirmed that "[i]ssues relating to NGV have been deferred by the terms of the Settlement Agreement". (emphasis added) In the Panel's view, this latter statement indicated that FEI was proposing to make a further application to the Commission prior to committing EEC funds to NGV initiatives.

However, no other applications concerning EEC funding for NGV initiatives were made. In that regard, the Commission Panel agrees with the Companies that the stakeholder engagement process is a consultation exercise, not an approval process and the EEC Annual Report is a compliance reporting such that "[n]either the mere consent of the EEC stakeholder group, nor the inclusion of information in a compliance report to the Commission, can alter the overall scope of an accepted expenditure schedule". (FEI and FEVI Final Submissions, pp. 5-6)

Accordingly, the Commission Panel answers Question 1 "Was it appropriate for the Companies to change the scope of the Innovative Technologies program to include NGV purchase incentives via the EEC Stakeholder Group and the EEC Program- 2009 Report (filed March 31, 2010)?" in the negative.

3.2 Question 2

If the scope of the Innovative Technologies program was appropriately changed, does the associated NGV purchase incentive funding become: (a) a Commission-approved expenditure; or (b) an approved EEC expenditure; or (c) an expenditure eligible for cost recovery from rate payers in whole or in part?

It is not necessary to consider this question given the Panel's answer to Question 1.

3.3 Question 3

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 in part?

In response to Question 3, the Companies submit that the Commission must set rates so as to allow the utility to recover the forecast costs for the test period that the Commission reasonably considers will be prudently incurred. The Companies further submit that a finding that the NGV-related expenditures were not approved as part of the Innovative Technologies Program Area does not amount to a finding of imprudence, simply a finding that there has been no prior approval under s. 44.2 of the Act, which they argue is optional in any event. Finally, the Companies submit that, in the absence of a s. 44.2 acceptance, the prudence of the expenditure must still be determined, having reference to the costs and benefits associated with the activities. They submit that the NGV-related expenditures to date are in the public interest and the forecasted amortization expense associated with the expenditures should be eligible for recovery as a prudent expenditure.

3.4 Demand-side Measures

Given the above submissions on section 44.2 which states (in part):

- (1) A public utility may file with the commission an expenditure schedule containing one or more of the following:
 - (a) a statement of the expenditures on demand-side measures the public utility has made or anticipates making during the period addressed by the schedule;

- (b) a statement of capital expenditures the public utility has made or anticipates making during the period addressed by the schedule;...
- (2) The commission may not consent under section 61 (2) to an amendment or a rescission of a rate schedule filed under section 61(1) [which requires public utilities to file schedules showing all rates] to the extent that the amendment or the rescission is for the purpose of recovering expenditures referred to in subsection (1) (a) of this section [being expenditures on demand-side measures], unless
 - (a) The expenditure is the subject of a schedule filed and accepted under this section, or
 - (b) The amendment or rescission is for the purpose of setting an interim rate,

the Commission Panel requested additional submissions on the ability and appropriateness of the utility moving EEC funds among programs that meet the definition of “demand-side measure” in the *Utilities Commission Act* and programs that do not. (Exhibit A-6)

The definition of Demand-Side Measure is found in the *Clean Energy Act* SBC 2010 c.22 s. (1) (1) and means:

a rate, measure, action or program undertaken

- (a) to conserve energy or promote energy efficiency,
- (b) to reduce the energy demand a public utility must serve, or
- (c) to shift the use of energy to periods of lower demand,

but does not include

- (d) a rate, measure, action or program the main purpose of which is to encourage a switch from the use of one kind of energy to another such that the switch would increase greenhouse gas emissions in British Columbia, or
- (e) any rate, measure, action or program prescribed.

The Companies take the position that the NGV Program meets the definition of “demand-side measure” in the Act. They state that the NGV Program was undertaken to “promote energy efficiency”. The Companies submit that the term “promote energy efficiency” must be different than “conserve energy” and therefore the concept of “using the right fuel for the right activity” is relevant. The Companies submit that this broader concept includes a variety of perspectives such as system utilization, economics, and reduction of Greenhouse Gases.

FEI and FEVI further submit that because the definition of “demand-side measure” specifically excludes “programs which encourage a switch from one kind of energy to another such that the switch would *increase* GHG emissions in B.C.” the fact that this fuel-switching activity has the effect of reducing GHG emissions may qualify it as a demand-side measure.

They also argue that “[t]he NGV Program is efficient from the perspective of the use of energy resources and delivery systems in the province. ... As the NGV demand is a relatively flat year-round load, it increases natural gas use in the lower demand summer period,...” thereby shifting the use of energy to periods of lower demand. (Exhibit B-4, FEI/FEVI Submission on Exhibit A-6, pp. 2-3)

The BCSEA agrees with the Companies that the NGV Incentives Program meets the definition of a “demand-side measure” on the basis that the Program is undertaken to “promote energy efficiency”. It argues that the legislation does not require that such a program have the exclusive objective of conservation or energy efficiency and that there may be additional purposes. It also argues, as do FEI and FEVI, that, as the definition of “demand-side measure” does not specifically exclude fuel-switching programs that decrease GHG emissions, the legislation therefore contemplates DSM programs that can have GHG emissions benefits through fuel-switching. The BCSEA further takes the position that, as the reduction of GHG emissions is one of British Columbia’s energy objectives, and the Commission must consider British Columbia’s energy objectives in reviewing a demand-side measure expenditure, the fact that this program has a substantial purpose of

reducing GHG emissions increases its desirability as a demand-side measure. It further argues that what is important is the evaluation of the merits of a DSM program, not whether it meets the definition of the same, and that an inclusive approach to the definition does no harm, whereas applying the definition so that it serves a “gate-keeping” function serves no policy purpose. The BCSEA further argues that if the NGV program was not eligible for public interest acceptance under section 44.2 of the *Utilities Commission Act* (as either a demand-side measure or possibly a capital expenditure), there would be a gap, and there would be “no obvious way for such a program to be proposed by a public utility and the expenditures accepted (or not) by the Commission”. Finally, the BCSEA argues that it is important that all putative DSM programs be included in a DSM portfolio so that any benefits of a program in terms of maintaining a positive benefit-cost ratio not be lost.

The CEC supports the submissions of the BCSEA. It further supports the ability of the Companies to move EEC funds among programs in the interests of administrative efficiency. It confirms that, in its view, the risk of inappropriate or imprudent movement of funds between DSM and non-DSM programs is one the Company faces in subsequent prudency reviews and that ultimately, an improper or imprudent movement of funds will be a risk to the shareholder.

Commission Panel Determination

The Commission Panel finds that the NGV program is not a “demand-side measure” as defined in the *Clean Energy Act*.

Reduction in greenhouse gases, although a laudable goal, and a goal which is recognized in the *Clean Energy Act*, is not, in the Panel’s view tantamount to “conservation” or “energy efficiency”. The Commission Panel agrees with FEI that the terms “conservation” and “energy efficiency” must be accorded different meanings. However, in the Panel’s view, on a plain meaning, the term “conservation” implies using less [energy], and “energy efficiency” is a similar but different concept which implies doing the same task, while using less energy. For example, to conserve energy a person might turn off a light or turn down his/her thermostat. To be energy efficient, that same person might switch to a light bulb which, although providing equivalent light, uses less energy to do so, or switch to a furnace which uses less energy to produce the same amount of heat. Reducing GHGs is not one of the objects of the definition of a demand-side measure, but will often flow as a natural and inevitable consequence when demand-side measures are taken.

This meaning is also consistent with the greater context of both the *Clean Energy Act* and the *Utilities Commission Act*.

As noted above, the goal of reducing greenhouse gas emissions is recognized in a number of the specific energy objectives contained in the *Clean Energy Act*. However, the objectives relating to the reduction of greenhouse gases are separate and distinct from those relating to demand-side measures. In the Panel’s view, the legislature uses both terms and had it sought to include a measure designed to reduce greenhouse gases in its definition of demand-side measures it could and would have done so.

Further, under s. 44.1 of the *Utilities Commission Act* a public utility’s long-term resource plan must be filed and must include an estimate of the demand it expects to serve absent demand-side measures and how it expects to reduce that demand by taking cost-effective demand-side measures. This underscores the fact that demand-side measures are directed at reducing energy consumption, not building load.

In terms of energy efficiency, natural gas is not more energy efficient than gasoline or diesel. It is, in fact, less efficient than diesel by a factor of 10-20%. FEI used a 17% fuel efficiency loss in its economic analysis relating to the conversion of vehicles in the Waste Management fleet, a related application. (Application for Approval of a Service Agreement for Compressed Natural Gas Service and for Approval of General Terms and Conditions for Compressed Natural Gas and Liquefied Natural Gas Service Exhibit B-1, p. 50, FN 59; p. 51, FN 61; Exhibit B-8 BCSEA IR 2.3.1)

In the Panel’s further view, the definition is clear that demand-side measures relate to the use of “energy” itself and not the infrastructure used to deliver it.

The Panel also does not agree with FEI/FEVI or the Interveners that the specific exclusion of “a rate, measure, action or program the main purpose of which is to encourage a switch from the use of one kind of energy to another such that the switch would increase greenhouse gas emissions in British Columbia” as set out in subsection (d) of the definition of “demand-side measure” can be interpreted to allow for the inclusion of an item which was never included in the definition in the first instance. In the Panel’s view, the definition of “demand side measure” does not mean anything other than what is set out in subsections (a), (b), and (c) of the definition. Rather, excluded items (d) and (e), add clarity but do not, by implication, extend the definition beyond the measures contemplated in items (a), (b), and (c).

In the Panel’s view, item (d) would be relevant to a program which met the definition of “demand-side measure” as set out in either items (a), (b), or (c) in the first instance, but which then fell afoul of the exclusions. For example, a program designed to have electricity consumers in British Columbia switch from purchasing electricity from BC Hydro to heat their houses to purchasing natural gas for the same purpose would “reduce the energy demand that a public utility [BC Hydro] must serve’, but would then be excluded from the definition due to the fact that it would increase greenhouse gas emissions in British Columbia. Conversely, a program designed to have natural gas consumers in British Columbia switch from purchasing natural gas to heat their houses to purchasing electricity for the same purpose would “reduce the energy demand that a public utility [the natural gas provider] must serve, and would also decrease GHG emissions such that the exclusion would not apply.

The NGV program also fails to meet items (b) and (c) of the definition of demand-side measures.

Item (b) contemplates a reduction in the demand a utility must serve, and the NGV program does the opposite.

Item (c) contemplates shifting the use of energy to periods of lower demand. The Commission Panel does not accept FEI’s argument that an increased load on the delivery system during the summer months can be viewed as “shift[ing] the use of energy to periods of lower demand”. In the Panel’s view, meaning must be given to the word “shift”, which contemplates an equivalent reduction in load during periods of higher demand. In the Panel’s view, this definition contemplates a measure such as “Time of Use” pricing, whereby people may be encouraged to, for example, run an appliance at night instead of during the day, when demand on the electricity system is greater.

The Panel, further, finds no merit in the BCSEA’s suggestion that whether a program falls within the definition of a “demand-side measure” is of less importance than the merits of a particular program and that the definition should not serve a “gate-keeping” function. In the Panel’s view, the definition of “demand-side measure” is of critical importance. The nature of an expenditure on a “demand-side measure” is unlike other expenditures a utility may make in that the expenditure is aimed at reducing the amount of product the utility sells, either generally, or during a particular time period. Expenditures on demand-side measures are therefore often accorded different treatment so as to incent the utility to make expenditures which do not serve to further its business. With respect to the BCSEA’s argument that unless the NGV Program could be considered either a demand-side measure or a capital expenditure there would be a “gap” in expenditure schedules put before the Commission, the Commission Panel notes the comment of the Companies that “[f]or 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”. (Exhibit B-1 BCUC IR 1.9.1) In any event, the Panel does not find BCSEA’s arguments, which tend to simply extoll the virtues of the NGV Program, to be of particular assistance in determining the meaning of a “demand-side measure”.

The Panel therefore finds, for the reasons set out above, that the NGV Program, which is a load-building exercise, does not meet the definition of a “demand-side measure” as set out in the *Clean Energy Act* and used in the *Utilities Commission Act*.

3.5 Implications of Determination Regarding Demand-Side Measures

The Companies argue that the Commission’s acceptance of their “EEC funding envelope was made pursuant to s. 44.2 (a) which applies to “demand-side measures”” but that even if funds were spent on a program which was not a “demand-side measure”, this would only mean that there was no prior public interest approval, not that it was necessarily inappropriate for the expenditure to have been made. (FEI/FEVI Submission on Exhibit A-6, p. 5)

FEI/FEVI submit as well that section 44.2 acceptance is optional and that the Act does not prohibit utilities from engaging in EEC activities without prior approval from the Commission. They submit that “in the absence of a section 44.2 public interest determination, the Commission must assess the forecast amortization expenses relating to past NGV Program expenditures when setting rates for [the utilities]”.

Commission Panel Determination

The Commission Panel does not agree with the Companies that in the absence of a section 44.2 acceptance of a demand-side measure expenditure the Commission must assess the forecast amortization expenses when setting rates. In the Panel’s view, although filing an expenditure schedule with the Commission under section 44.2 is “optional” in that the word “may” is used [i.e. “[a] public utility *may* file with the commission an expenditure schedule...”], section 44.2 (2) suggests that if the utility is seeking to amend or rescind a rate schedule to recover expenditures referred to in subsection (1) (a) [i.e. expenditures on demand-side measures the public utility has made or anticipates making during the period addressed by the schedule], other than on an interim basis, the Commission may not consent to the amendment or rescission unless the expenditure is the subject of a filed and accepted schedule. It is only expenditures on demand-side measures which require this prior approval, as the other types of contemplated expenditures are not subject to section 44.2(2). As noted above, in the Panel’s view, expenditures on NGVs were never the subject of an accepted expenditure schedule.

However, the Commission Panel has determined that the NGV program expenditures are not demand-side measures, as defined in the *Clean Energy Act* (and carried over into the *Utilities Commission Act*). Therefore, section 44.2(2) does not apply.

3.6 Public Interest Considerations

FEI/FEVI further submit that regardless of whether the expenditures are demand-side measures, the expenditures were prudently incurred and are in the public interest and should be approved.

The Ministry of Energy and Mines - Electricity and Alternative Energy Division- intervened in support of the Companies’ position and submits that the incentive grants are in the public interest.

It argues that the incentive grants are initiating a transformation of the heavy duty vehicle market in British Columbia and that such market transformation supports British Columbia’s energy objectives of reducing greenhouse gas emissions and encouraging economic development and the creation and retention of jobs. The Ministry further submits that these expenditures are in the interests of the Companies’ current and potential customers. The Ministry argues that the incentive grants benefit the owners of NGVs and must logically “exceed the considerable risk to fleet operations of adopting an alternative fuel...” The Ministry also adopts the Companies’ position that there are long term benefits to all ratepayers through increased throughput and notes the Companies’ [reference case scenario] estimate that they will achieve market penetration in the order of 30 Petajoules per year by 2030, which would provide an estimated benefit of approximately \$83 million per year to all ratepayers. (Submissions of the Ministry of Energy and Mines, paras. 3, 12, 13)

The Ministry takes the position that “[a]s with most market transformation activities, some short term costs are necessary to facilitate long term benefits” and that “[s]haring of start-up costs across ratepayers is not new in the utility context.” (Submissions of the Ministry of Energy and Mines, para. 14)

The Ministry also supports the model of providing incentive funding for the full incremental cost of NGVs initially, and subsequently ramping the funding down. It notes that “new technologies often have high perceived risks” due to lack of information regarding performance and concerns around the long term availability of supporting infrastructure. It further notes that “financial measures either by government or utilities can be an important tool for overcoming these barriers in the NGV market.” (Submissions of the Ministry of Energy and Mines, para. 15)

The Ministry asserts that there is no other program in BC to provide incentives for heavy duty NGVs. It also expresses the view that the Companies are “filling a vital gap in the transition to widespread adoption of heavy duty NGVs”. The Ministry further asserts that the Companies are best-positioned to design and run NGV incentive programs due to their familiarity with their customers’ energy needs, their expertise in natural gas technology and their existing organizational capacity to run incentive programs. It submits that “the burden and opportunity of offering heavy duty NGV incentive grants should fall upon [the FortisBC Energy Utilities].” (Submissions of the Ministry of Energy and Mines, para. 16)

Commission Panel Discussion

The Commission Panel accepts that the NGV program provides benefits in that conversion of motor vehicle fleets from diesel to natural gas will reduce greenhouse gas emissions to some extent (as natural gas is not without greenhouse gas emissions) and that the reduction of greenhouse gas emissions is one of British Columbia’s energy objectives. It also accepts that there may be other benefits in terms of promoting local technology and the creation of jobs.

However, it is also relevant that FortisBC Energy Inc. had approximately 830,000 customers at the time of its RRA in 2009. (Exhibit A2-4, Terasen Gas Inc. 2010-2011 Revenue Requirements Application, p. 1) FortisBC Energy (Vancouver Island) Inc. added a further approximately 100,000 customers. It is questionable whether this small customer base should fund initiatives which benefit a few select large potential customers engaged in the transportation sector, as well as all British Columbians generally through the reduction in GHG emissions. It is arguable that the funds collected from ratepayers could provide more direct benefits to those ratepayers by being used in conventional demand-side management programs which may allow those ratepayers to reduce their own consumption and, hence, their bills and which would also have the additional outcome of reducing GHGs.

3.7 Benefit to Ratepayers from Increased Throughput

The Ministry specifically notes the approximate \$83 million annual savings for ratepayers which the Companies have estimated as a “long term benefit” if their “reference case scenario” market penetration comes to pass in 2030 [as expressed in 2030 dollars]. This figure has its source in the Companies’ CNG/LNG Service Application, and is based on an annual volume from CNG/LNG sales to the transportation sector of approximately 29.5 million GJs of natural gas in the year 2030. The Companies described this saving: “increased throughput from the NGV fuel[ing] service results in a favourable reduction in delivery rates for [FEI] existing natural gas customers, *all other things being equal.*” (emphasis added) (CNG/LNG Application, Exhibit B-1, pp. 24-25; Appendix A-1, pp. 32-33)

In its Reasons for Decision rejecting the Companies’ proposed General Terms and Conditions for CNG/LNG Service (as they failed to recover a sufficient proportion of the actual cost of CNG/LNG service from the CNG/LNG customer), the Commission Panel expressed concern as to the risks which were sought to be shouldered by FEI’s existing ratepayers. These risks included the risk that there might not, in fact, be a market for CNG/LNG in the absence of incentive funding. The Panel also noted FEI’s previous unsuccessful attempt to promote CNG as a transportation fuel, the costs of which were borne by its ratepayers. (CNG/LNG Application Reasons for Decision, p. 22, 30)

Aside from the uncertainty inherent in forecasts almost 20 years out, there is also considerable uncertainty surrounding the Companies’ projections themselves and the “all other things being equal” assumption noted above.

3.7.1 Increased Throughput Benefit Calculation

Volume

For example, the estimates used in the projected sales of natural gas to the transportation sector of 29.5 million GJs are derived from the following projections [for the “reference case scenario”], by rate schedule:

Annual Natural Gas Volume (GJs)	Year 2030
Rate Schedule 6	4,201,500
Rate Schedule 16	18,680,000
Rate Schedule 25	6,668,000
Total	29,549,500

There is also an estimated impact to Rate Schedule 25 Demand Volume, estimated in 2030 to be 22,826 GJs. (Source: CNG/LNG Application, Exhibit B-1, Appendix A-1, p. 34)

Delivery Rates

The incremental margin for delivery rates is calculated based on the volumes above and the delivery rates set out below:

Delivery Rates	(\$/GJ)
Rate Schedule 6	\$3.648
Rate Schedule 16	\$3.89
Rate Schedule 25-Delivery	\$0.645
Rate Schedule 25-Demand	\$15.943

(Note: The Delivery Rates which FEI used for its calculations are the existing approved rates for consistency and comparability with 2011 NSA calculations.)

(Source: CNG/LNG Application, Exhibit B-1, Appendix A-1, p. 34)

Incremental Margin at Existing Rates – 2030

The Incremental Margin is then calculated by multiplying the forecast volumes of natural gas sales in 2030 for the “reference case scenario”, for each rate schedule, by the delivery rate applicable to the rate schedule. The result is the total incremental margin from increased throughput.

Incremental Margin	
Rate Schedule 6	\$15,327,072
Rate Schedule 16	\$72,665,200
Rate Schedule 25-Delivery	\$ 4,300,860
Rate Schedule 25-Demand	\$ 364,074
Total Incremental Margin	\$92,657,206

(Source: CNG/LNG Application, Exhibit B-1, Appendix A-1, p. 34)

Net Annual Cost of Service Benefit

This incremental revenue margin of \$92,657,206 for 2030 is then reduced by the forecast cost of service of the EEC Incentive Funding (which is estimated to be \$10,206,000 for 2030) to arrive at the Net Annual Cost of Service Benefit, which as noted above, is calculated to be approximately \$83 million in 2030. (CNG/LNG Application, Exhibit B-1, Appendix A-1, p. 33)

3.7.1.1 Forecast Volumes of Natural Gas Sales

The forecast volumes for CNG/LNG sales in the amount of 29.5 million GJs must be considered in the context of the “all other things being equal” assumption.

Rate Schedule 6 has been in effect since November of 1996, a period of almost 15 years. It is applicable to the sale of natural gas for the purpose of compression and dispensing as a fuel for the operation of NGVs. (This schedule includes the offer of a grant for customers to purchase a factory built NGV or convert a vehicle to natural gas, to a maximum of \$10,000 per vehicle for a heavy duty truck.) (CNG/LNG Application, Exhibit B-1, Appendix C) The forecast volume under Rate Schedule 6 (for CNG vehicles) is 4.2 million GJs.

Rate Schedule 25 is a natural gas transportation tariff. It also relates to CNG Service and adds a further 7 million GJs to the forecast sales of natural gas for use in NGVs running on CNG. (CNG/LNG Application, Exhibit B-1, p. 24, Appendix C) Rate Schedule 25 does not offer any grant money.

Sales of LNG under Rate Schedule 16 make up 78% of the total incremental margin from the sale of natural gas to the transportation market in 2030 under the reference case scenario. (CNG/LNG Application, Exhibit B-11, BCUC IR 3.22.1.1) Rate Schedule 16 is applicable to LNG sales and dispensing service from the FEI LNG facility at Tilbury. Rate Schedule 16 was approved by the Commission as a five year pilot in 2009. This Rate Schedule defines "LNG Service" as "the interruptible service of the liquefaction, storage and Dispensing of LNG ..." This Rate Schedule is "interruptible" because the total quantity of LNG available for sale must be limited in order to avoid any potential negative impact on core customers. The maximum quantity available for sale to all LNG transportation customers is 1,040 GJs (or one tanker load) per day. Any one customer may only take delivery of 50% of the available LNG capacity in one month. The Rate Schedule contemplates that, in the event there is insufficient capacity on the FEI system to accommodate the customer's request for LNG Service, FEI may interrupt, or curtail, the LNG Service under the Schedule. (CNG/LNG Application, Exhibit B-1, Appendix C; Terasen Gas Inc. Application for Rate Schedule 16, pp. 4, 18)

As noted above, the assumption for sales of LNG under Rate Schedule 16 by the year 2030 is 18.68 million GJs in a year. This number is approximately fifty times greater than the annualized maximum daily quantity of LNG available for sale [1,040 GJs/day x 365 days/year=379,600 GJs/year] from Tilbury. The magnitude of this difference brings into question the capacity of Tilbury to accommodate even a fraction of the estimated demand for LNG in 2030 and refutes the reasonableness of the assumption "all other things being equal".

The Commission Panel is concerned that no amounts were included in the projected costs for the CNG/LNG Service Offerings for any expenditures associated with additional facilities or equipment required to provide the assumed volume of LNG. Rather, FEI took the position that "it is premature to define the extent and nature of the incremental investments in LNG assets that may be required over the next 20 years as part of [its CNG/LNG] [A]pplication". (CNG/LNG Application, Exhibit B-11, BCUC IR 3.21.4) The Commission Panel is of the view that this position serves to undermine the credibility of the Companies and their estimate of \$83 million in ratepayer benefits.

The Commission Panel notes that there is, however, a new LNG storage facility, Mt. Hayes, located on Vancouver Island, which can be used to provide some guidance into the order of magnitude of the potential investment required to support the estimated 18.67 million GJs of LNG required by the transportation sector by 2030.

The Mt. Hayes facility has a storage capacity of approximately 1.6 million GJs and a liquefaction rate of somewhere in the range of approximately 8,100 GJs per day, such that it takes approximately 200 days to fill the storage tank. The CPCN for this facility was granted, subject to certain conditions, on November 15, 2007. The P90 cost estimate for this facility, as applied for, was in the order of \$200 million dollars. (Terasen Gas (Vancouver Island) Inc. CPCN Application to enter into a Storage and Delivery Agreement and Terasen Gas Inc. Application to enter into a Storage and Delivery Agreement for the Mt. Hayes LNG Storage Facility (Mt. Hayes CPCN Application) Decision pp. 14-15, 21; Mt. Hayes CPCN Application, Exhibit B-1, p. 14)

The Mt. Hayes facility was constructed to provide back-up supply and peak shaving capability for the combined FEI/FEVI distribution system. It was not designed to provide direct physical supply and to do so would require the construction of a truck loading facility. FEI advises that "[t]he addition of Mt. Hayes has increased LNG storage capacity in the system by 250% and production capacity by 140%". It argues that the addition of Mt. Hayes is a factor which may warrant increasing the 1040 GJ/day limit for sales of LNG under Rate Schedule 16 currently in effect at Tilbury. (CNG/LNG Application, Exhibit B-6, BCUC IR 2.19.4)

In any event, from an order of magnitude perspective, assuming a liquefaction rate of 8,100 GJs per day, or approximately 3 million GJs per year at Mt. Hayes, and assuming Mt. Hayes could be used for LNG transportation (which, as noted above, it was neither designed nor is equipped to do), the Companies would need access to facilities with five times the liquefaction capability as Mt. Hayes, to supply the estimated 18.68 million GJs of LNG consumption by the transportation sector estimated for 2030 in the “reference case” scenario. This is not to suggest that any particular number of facilities would necessarily actually be required to be constructed or that the cost of a particular facility would equate to that of Mt. Hayes. Rather, the suggestion is that there are significant additional infrastructure requirements associated with the assumed volume of LNG consumption in 2030, the costs of which have been excluded from the analysis.

3.7.1.2 Contribution of LNG Delivery Charge

The incremental contribution of the delivery charge for the sale of a GJ of LNG to the estimated \$83 million benefit in reduced delivery costs for all ratepayers is also relevant and of concern. As noted above, FEI uses the rate of \$3.89 per GJ as the incremental revenue from the sale of LNG. This number is multiplied by the forecast volume of LNG sales under Rate Schedule 16 in 2030 (i.e. 18,680,000 GJs) to calculate the estimated incremental margin of \$72.665 million.

It is necessary to consider the inputs to the \$3.89 delivery charge per GJ of LNG to assess the validity of this critical factor input.

The \$3.89 rate for LNG was originally put forward in the 2009 Rate Schedule 16 Application.

The number is derived from the following components:

O&M Charge – Liquefaction, Storage and Dispensing	\$1.95 per GJ
Capital Recovery	.97 per GJ
Transportation from Huntingdon to Tilbury	.73 per GJ
Peaking Arrangement Cost	.08 per GJ
Total Variable Charge	\$3.73 per GJ

The \$3.73 number was subsequently increased to **\$3.89** in accordance with approved annual rate adjustments. (CNG/LNG Application, Exhibit B-6, BCUC IR 2.25.2)

However, as FEI explains, “[p]roduction of LNG at Tilbury will generate incremental O&M cost associated with increased production of LNG at Tilbury and this cost will partially offset the revenue benefit...this incremental cost is estimated at \$1.95/GJ or 52% of the rate.” It is only the remaining [48%] which represents a contribution to existing costs and would provide a benefit to all ratepayers. (CNG/LNG Application, Exhibit B-6, BCUC IR 2.25.2)

Therefore, the estimated contribution of \$72.665 million from LNG sales in 2030 is over-stated by a factor of more than 50%.

3.7.1.3 EEC Cost of Service

As also noted above, in order to arrive at the approximate \$83 million benefit in 2030, the total incremental margin in the amount of \$92.657 million is then reduced by the Cost of Service of the EEC incentive payments, which is estimated to be \$10.206 million.

The EEC Cost of Service calculation, in simplified form, is based upon the EEC NGV incentive payments made, adjusted for income tax. The incentive payments, net of tax, are then accumulated in a rate base deferral account, and amortized over ten years.

The assumed Gross Additions of EEC Funding (in thousands of dollars) in intervals up to 2030 are set out below:

2011	2012	2015	2020	2025	2030
\$1,100	\$1,100	\$2,816	\$5,082	\$7,062	\$8,316

These additions, (net of taxes, and assuming a 10% amortization of the existing balance), result in a deferral account balance of approximately \$33 million by 2030. This rate base deferral account is proposed to attract an earned return of 7.93% for FEI. (CNG/LNG Application, Exhibit B-1, Appendix A-1, p. 35)

The Cost of Service of the EEC Incentive Funding calculation is of concern in that the assumption regarding the “gross additions” of EEC funding, on which the cost of service impact is based, does not appear to align with the levels contemplated in this NGV Incentive Review.

In this NGV Incentive Review, as noted earlier, FEI’s evidence is that it has spent or committed to a total of \$9.367 million in incentives for NGVs for 2010 and 2011 - (\$5.587 million spent in 2010 with a further expected \$3.78 million in future commitments). The disparity between the assumed level of spending to calculate the cost of service (of no amount in 2010 and \$1.1 million in each of 2011 and 2012) and the actual brings the usefulness of this aspect of the analysis into question as well.

Commission Panel Determination

In the Panel’s view, the analysis provided by FEI to support the existence of a long term benefit to ratepayers from increased throughput on the distribution system is so flawed in terms of:

- the absence of any recognition of additional costs to provide LNG service
- the assumed contribution from the sale of LNG, and
- the assumed cost of service of the EEC incentive funding,

as outlined above, as to make the \$83 million in 2030 (in 2030 dollars) result so speculative as to be deserving of no weight. **The Commission Panel finds that long term benefits to existing customers from increased throughput on the delivery system have not been established.**

As no long term monetary benefits to the Companies’ existing ratepayers have been established, the Commission Panel is unable to conclude that the Companies’ existing ratepayers should be contributing millions of dollars in funding to this initiative. The primary beneficiaries of the NGV incentive program are readily identifiable. They are the NGV customers who receive incentives to purchase NGVs and stand to reduce their operating costs and the Companies, which will deliver more natural gas and earn a return on the related infrastructure.

Commission Panel Determination on Recovery

Given the Panel’s finding that the Companies had no prior approval to spend EEC monies on the Natural Gas Vehicle program, its finding that such expenditures are not “demand-side measures” within the meaning of the *Clean Energy Act* (and *Utilities Commission Act*), and its further finding that long term benefits to existing customers have not been established, the Commission Panel is unable to conclude that all of the expenditures in issue (totalling \$9.367 million) were or will be prudently incurred and recoverable from ratepayers.

However, the Commission Panel also notes that the issue of prudence may involve additional and/or different considerations from those relating solely to the public interest, and that the issue of prudence is relevant and has not been thoroughly canvassed. The Commission Panel is therefore prepared to entertain additional submissions on the issue of prudence in respect of some or all of the expenditures in issue. Any submissions should be premised on the findings already made by the Panel.

The Panel recognizes that this Review Proceeding was initiated as a separate process to provide guidance on the issue of the provision of incentive funding for NGVs on an expedited basis. However, the Panel is concerned that the issue of prudence of the expenditures in issue has not been the subject of comprehensive submissions and is of the view that it would be fair to allow for this additional process. The Commission Panel can, however, provide some guidance on the treatment of EEC funds in the future.

4.0 EEC FRAMEWORK GOING FORWARD

The Companies have asked that the Commission provide clarification generally of the EEC process in the event that the addition of the new NGV program did not meet the Commission's intent. (FEI Final Submission, p. 10)

4.1 Separation of Demand-Side Measures Programs from other Proposed Programs

As noted earlier, and for the reasons outlined above, the Panel has determined that incentive payments for NGVs do not meet the definition of "demand-side measures" in the *Clean Energy Act*. In the Panel's view, it is important to distinguish between those programs which involve expenditures on measures which meet the definition of "demand-side measures" and others which do not. In the Panel's view these programs have different drivers and may not be amenable to the same treatment.

The Panel therefore directs that only programs or measures which meet the definition of demand-side measures, as outlined above, be included in the EEC category. Programs or measures which do not meet the strict definition should be categorized under a separate heading to avoid confusion and any expenditures, proposed or incurred, applied for separately from EEC programs or initiatives. The Panel is of the view that load-building activities should not necessarily be accorded the same treatment as is accorded demand-side measures and that this issue will need to be considered in depth. As this proceeding is limited in nature, a better forum would be the Revenue Requirements Application for 2012-2013 which was recently filed.

As well, for clarification, initiatives in Innovative Technologies or elsewhere which do not meet the definition of "technology innovation program" in the Demand Side Measures Regulation which states:

““technology innovation program” means a program

- (a) to develop a technology, a system of technologies, a building design or an industrial facility design that is
 - (i) not commonly used in British Columbia, and
 - (ii) the use of which could directly or indirectly result in significant reductions of energy use or significantly more efficient use of energy,
- (b) to do what is described in paragraph (a) and to give demonstrations to the public of any results of doing what is described in paragraph (a), or
- (c) to gather information about a technology, a system of technologies, a building design or an industrial design referred to in paragraph (a).

should also be kept separate from those which do. Programs or initiatives which do not meet the definition of a technology innovation program can be included with other programs or initiatives which do not meet the definition of a "demand-side measure".