IN THE MATTER OF

FORTISBC ENERGY INC.

AMENDMENT TO RATE SCHEDULE 16 ON A PERMANENT BASIS

DECISION

June 4, 2013

Before:

A.A. Rhodes, Commissioner/Panel Chair
B.A. Magnan, Commissioner
D.M. Morton, Commissioner

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EXECUTIVE SUMMARY

Application

Rate Schedule 16 is a pilot rate, put into place on a test basis in 2009, to allow FortisBC Energy Inc. to sell limited quantities of Liquefied Natural Gas, or LNG, in that form, from its liquefaction facility on Tilbury Island. The Tilbury liquefaction facility was built in 1971 to provide needle peaking supply for core natural gas distribution customers.

FortisBC Energy (Vancouver Island) Inc. constructed an additional liquefaction facility on Vancouver Island, near Ladysmith, at Mt. Hayes. The Mt. Hayes liquefaction facility became operational in 2011. It was built not only for the purpose of supplying peaking gas, but also for the purpose of providing storage capacity and to postpone the need to reinforce the Coastal and Vancouver Island gas transmission systems. FortisBC Energy Inc. has access to approximately two thirds of the Mt. Hayes storage tank pursuant to an agreement between those parties.

Both these liquefaction facilities were constructed to service the needs of core natural gas distribution customers and the costs of these facilities have been, and are currently, included in rates for those customers.

FortisBC Energy Inc. is now applying to the Commission to increase the quantity of LNG available for sale from Tilbury, and, once Mt. Hayes has a tanker truck load-out facility, from that facility as well. In this application, FortisBC Energy Inc. states that it expects the Mt. Hayes tanker truck load-out facility to be operational by 2014.

Rate Schedule 16 currently allows for the sale of 1,040 GJs, or one tanker load, of LNG per day from Tilbury. This pilot rate schedule was put into place on a five year test basis (ending on December 31, 2014) to support the use of LNG as a fuel for transportation.

No sales of LNG were reported for 2010. Approximately 17,000 GJs of LNG were sold in 2011. Sales of LNG increased to approximately 172,000 GJs in 2012. LNG sales have not, as yet, reached the allowed volume under the current pilot rate schedule.

Under the current pilot rate schedule, Tilbury operation has not been affected. Tilbury basically runs liquefaction when necessary to refill the tank and to ensure a full tank at the start of the winter cold season. At the new levels requested, (3,200 GJs per day from Tilbury and 2,800 GJs per day from Mt. Hayes, when it is able to dispense LNG with a truckload-out) the Tilbury liquefaction facility would be required to operate on a more or less full time basis, which has never been done.

FortisBC Energy Inc. has the ability to provide grants to persons in British Columbia for the purpose of purchasing an "eligible vehicle," which runs on LNG, pursuant to the Greenhouse Gas Reduction (Clean Energy) Regulation dated May 14, 2012. FortisBC Energy Inc. is seeking clarity in this application on the amount of LNG it can make available to the commercial market to support this incentive program. In that regard, it has not only requested an increase in the volumes of LNG available to this market, but also that it be available on a firm basis, under a permanent tariff, with designated tank storage capacity. FortisBC Energy Inc. has also proposed a rate for what it refers to as the delivery component of the product, at the dispensing nozzle of the liquefaction facility, in addition to the commodity cost. In addition, FortisBC Energy Inc. is proposing that its tanker trailers be made available to transfer LNG from the liquefaction facility to the customers' premises, at a specified rate.

Alternative Energy Solutions Inquiry

The Commission conducted an Inquiry into the entry of FortisBC Energy Inc. into new areas of business which were beyond traditional natural gas distribution monopoly businesses. The Commission issued the Alternative Energy Solutions Inquiry Report in December of 2012. The sale of LNG from these peak shaving facilities was an issue in the Inquiry.

The Commission commented that the "extensive capital-intensive infrastructure" required for the liquefaction process made the risk of cross-subsidization "more acute" for LNG than for Compressed Natural Gas and noted the potential for a competitive market down the road. The Commission considered that the public interest would be best served by ensuring that all participants in the nascent LNG market did so as non-regulated entities so the existence of a dominant player and the additional costs flowing from regulation did not impede the development of a competitive market. The Commission also noted other public interest considerations included protecting traditional distribution customers from excessive rates due to cross-subsidization and from taking business risks which ought to be borne by participants in a competitive market. The Commission found that where there was excess capacity to provide LNG, it should be priced at the higher of market or the fully allocated cost of service.

In this Decision, the Commission Panel has relied upon the Alternative Energy Solutions Inquiry Report for guidance.

Determinations

The Commission Panel approves the increased supply of LNG from Tilbury and Mt. Hayes, in the amounts requested in the Application from each facility, on a daily basis. These amounts are hard caps, and are below the daily liquefaction capability of each facility, which the Commission Panel considers necessary to ensure protection of the core customer.

The Commission Panel further extends Rate Schedule 16 for a further term of approximately 7 years, to December 31, 2020. The Commission Panel finds that the current pilot rate schedule has not been fully tested, and has never been tested under circumstances requiring the liquefaction operation to run on anything approaching a full time basis. On the other hand, the Commission Panel accepts that Rate Schedule 16 customers require some certainty that the tariff will not cease to exist in a little over a year's time, as would otherwise be the case.

The Commission Panel does not approve the requested "firm" service, nor does it approve designated storage capacity for Rate Schedule 16 customers. The Commission Panel finds that to designate specific storage capacity for Rate Schedule 16 customers would be tantamount to switching the customers taking excess capacity from those customers taking service under Rate Schedule 16, to the core distribution customers, which is not consistent with the liquefaction facilities being core, rate base, assets.

The Commission Panel does not accept the position put forward by FortisBC Energy Inc. that its LNG customers require the additional certainty flowing from firm supply from designated storage to agree to accept incentives to purchase eligible vehicles. The Commission Panel has approved the increased supply of LNG. The Commission Panel finds that the monetary advantages flowing from the incentive payments and the lower cost to operate LNG vehicles should provide sufficient impetus for potential customers to adopt this fuel source. To the extent that there is less take up of incentive grants than forecast, the Commission Panel is of the view that FortisBC Energy Inc.'s requirement that customers receiving incentives agree to only purchase LNG from FortisBC Energy Inc. is a circumstance which may detract from the success of the incentive program.

The Commission Panel does not approve the requested delivery charge of $4.25 per GJ or the methodology put forward to arrive at that charge. The Commission Panel finds this charge underestimates both the cost and value of the LNG service. The Commission Panel sets this charge at $6.50 per GJ, applicable to sales from either Tilbury or Mt. Hayes, when Mt. Hayes becomes available to supply LNG in that form.

The Commission Panel approves the use of the two tankers owned by FortisBC Energy Inc. when excess capacity exits, at a cost of $249 per day. The Commission Panel does not approve the purchase of any additional tankers and finds that any additional tankers should be owned and operated by a Non-Regulated Business.

1.0 INTRODUCTION

FortisBC Energy Inc. (FEI or the Company) is applying to the British Columbia Utilities Commission (Commission) for the necessary approvals to provide both firm and spot Liquefied Natural Gas (LNG) Sales and Dispensing Service (Rate Schedule 16 Service) from existing utility assets under an amended permanent Rate Schedule 16 (the Application).

The current Rate Schedule 16 (RS 16) was approved by Commission Order G-65-09, effective June 15, 2009, as an approximate five-year pilot program, ending on December 31, 2014. The RS 16 Service under the current tariff refers to the interruptible service of the liquefaction, storage and dispensing of LNG from FEI's Tilbury Facility. (Exhibit B-1, p. 7)

FEI is proposing to amend the existing RS 16 tariff to address what it describes as the limitation and challenges under the current tariff, namely the "limitation on the quantity available for sale, the interruptible nature of the service, and the temporary duration of the tariff (which) present obstacles for FEI to fully pursue the commercial LNG market." (Exhibit B-1, p. 8) FEI cites recent government policy announcements that promote LNG as a transportation fuel as further support for the proposed amendments.

The recent Alternative Energy Solutions (AES) Inquiry Report provides guidelines regarding the entry of traditional utilities into new lines of business, including LNG. The Commission recommended that, for LNG activities outside the ambit of the beneficial use of existing utility assets and Prescribed Undertakings, "if the FEU wish to participate in this market, they do so through a separate Non-Regulated Business." (AES Inquiry Report, p. 61)

FEI is pursuing the development of the Natural Gas for Transportation (NGT) market utilizing the following strategic elements:

1. Targeting commercial, return-to-base heavy duty vehicles, to be fueled by Compressed Natural Gas (CNG) or LNG;

2. Providing incentives to help customers manage the additional capital cost of natural gas vehicles; and
3. Providing an end-to-end service offering to assist customers in using natural gas in their fleets.

(Exhibit B-1, p. 13)

FEI's current "end-to-end" service is illustrated in Figure 1.

FIGURE 1
FEI's Current LNG Service Offering

(Source: Exhibit B-1, p. 13)

FEI currently produces LNG at its Tilbury Peak Shaving Facility located in Delta, B.C. (Tilbury) and offers it for sale to transportation and other customers under RS 16, which is a temporary Rate Schedule. FEI also owns two LNG tankers which it can use to contain the LNG to be transported by truck, at the option of the customer. The LNG tanker is hauled by a third party carrier to a remote fuelling facility. LNG is then dispensed into vehicles for use as a fuel. (Exhibit B-1, pp. 13-14)

FEI has submitted an application to amend RS 16 and change it from a pilot project to a permanent rate. The Application requests an increase in the cap for sales from the current LNG Peak Shaving facility located in Delta, and to add sales from Mt. Hayes, a second LNG facility, on Vancouver Island (Mt. Hayes), owned and operated by FortisBC Energy (Vancouver Island) Inc. (FEVI). In

addition, FEI seeks approval of a methodology to calculate the relevant rate to be charged for the dispensing service, as well as approval of the rate itself.

FEI submits that "[t]he proposed amendments to RS 16 are designed to provide sufficient capacity to enable customers to introduce natural gas into their fleets, and to support [natural gas for transportation] NGT market growth through the year 2017." (Exhibit B-1, p. 14)

2.0 THE APPLICATION

2.1 Specific Approvals Requested

FEI seeks the following approvals in the Application:

- Approval of the proposed Amended RS 16 on a Permanent Basis;
- Approval to Provide Long-Term and Short-Term Firm LNG Service, and Spot Service on an as-available basis;
- Approval to increase the total volume of LNG available for sale from Tilbury from 1,040 GJs per day to 22,400 GJs per week;
- Approval to increase the total quantity of LNG available for sale to the LNG commercial market (as opposed to the core market) from the current 1,040 GJs per day available from Tilbury, to 42,000 GJs per week;
- Approval to use Mt. Hayes as an additional supply point for RS 16 sales, effective January 1, 2014 or upon completion of a tanker truck load out facility, whichever is later;
- Approval to establish the total quantity of LNG available for sale from Mt. Hayes at a level not to exceed 19,600 GJs per week, effective January 1, 2014 or upon completion of a tanker truck load out facility, whichever is later;
- Approval to allocate weekly capacity for sale at both Tilbury and Mt. Hayes, provided the total quantity of LNG for sales to all commercial customers does not exceed 42,000 GJs per week, and the needs of the core market are met;
- Approval to designate a specific quantity of LNG storage at both Tilbury and Mt. Hayes to service the RS 16 market on an ongoing basis: specifically 45,000 GJs for Tilbury, and 39,000 for Mt. Hayes - commencing in the year on-going LNG is withdrawn from Mt. Hayes;
- Approval to increase the maximum amount of LNG available to any one customer or project to 250,000 GJs per year, or 15 percent of available supply, whichever is greater;
- Approval to calculate the RS 16 Delivery charge using a “blended weighted cost” methodology, between Tilbury and Mt. Hayes;
- Approval of a Delivery Charge of $4.25 per GJ, effective the first month following Commission approval;
- Approval of a methodology to allocate operating and maintenance (O&M) and capital costs between RS 16 customers and core customers of FEI and FEVI;

- Approval of a new LNG Dispensing Service Agreement between FEI and FEVI to enable the supply of LNG to FEI from Mt. Hayes;
- Approval of an optional LNG Tanker Transportation Service Offering, with a Tanker charge of $249 per day, and approval of the methodology to charge actual third party tractor transportation costs, plus 15 percent;
- Approval to include the difference between RS 16 Delivery Charge revenues and incremental O&M for 2012 and 2013 as compared to the forecast recoveries and costs embedded in the 2012 and 2013 delivery rates, in the existing CNG and LNG Recoveries Deferral Account;
- Approval to include the regulatory costs of this Application in the NGV Application Deferral Account.

2.2 Procedure

On September 24, 2012, FEI filed its Application to amend RS 16 and to make it a permanent tariff.

The following seven parties registered as Interveners:

James Langley;

Commercial Energy Consumers Association of British Columbia;

Clean Energy Fuels Corp.;

British Columbia Pensioners' and Seniors' Organization*;* Active Support Against Poverty, BC Coalition of People with Disabilities, Council of Senior Citizens' Organization of BC and the Tenant Resource and Advisory Centre;

BC Sustainable Energy Association;

Ferus Inc. LNG Division;

Ledcor Resources and Transportation LP.

One party, Seaspan Ferries Corporation registered as an Interested Party.

Ten letters of comment were received.

By Order G-158-12 dated October 26, 2012, the Commission established a Preliminary Regulatory Timetable, which contemplated a written hearing process through one round of Information Requests with a Procedural Conference to consider further regulatory process in January 2013.

By letter dated October 31, 2012, FEI sought a variance of Order G-158-12 to shorten the timetable and to invoke the use of a Streamlined Review Process, arguing that the timeline proposed could frustrate FEI's ability to provide grants under the Greenhouse Gas Reduction (Clean Energy) Regulation (BC Reg. 102/2012 OC 295/2012) (GGRR) promulgated on May 14, 2012, pursuant to section 18 of the *Clean Energy Act*. [SBC 2010, c. 22.]

By letter dated November 5, 2012, the Commission advised that it would review the regulatory timetable, but that it considered a Streamlined Review Process to be inappropriate given the complexity and number of issues and the extensive list of approvals being sought.

By Order G-166-12 dated November 6, 2012, the Commission compressed the Regulatory Timetable for the first round of Information Requests and scheduled a Procedural Conference for December 10, 2012.

By letter dated November 28, 2012, Ferus requested a suspension of the proceeding until the Commission issued its Report on the AES Inquiry.

By letter dated November 29, 2012, the Commission sought comments on the request to suspend the proceeding pending the outcome of the AES Inquiry.

Having received comments from a number of Interveners, by Order G-186-12 dated December 7, 2012, the Commission postponed the Procedural Conference scheduled for December 10, 2012, pending the release of the AES Inquiry Report, but otherwise maintained the timetable for the first round of Information Requests.

On December 20, 2012, FEI amended its application "to adjust for discrepancies discovered during the course of responding to information requests in the proceeding." The amendments resulted in changes to a number of the cost calculations and resulting rate being sought.

The AES Inquiry Report was released on December 27, 2012.

By letter dated January 10, 2013, the Commission solicited comments from the parties on what further process they considered might be required in order to explore any remaining issues and any issues which may have arisen as a result of the AES Inquiry Report.

By Order G-14-13 dated January 25, 2013, the Commission provided a further Revised Regulatory Timetable including alternative dates depending on whether or not Intervener evidence was filed.

On February 19, 2013, one of the Interveners, Clean Energy Fuels Corp., purported to file Intervener evidence. FEI objected to its admissibility by letter dated February 21, 2013, arguing that Clean Energy's filing could not be characterized as "evidence" and should either not be accepted into the record for the proceeding or, if accepted, be treated as a letter of comment.

On February 21, 2013, FEI filed its responses to the second round of Information Requests from the Commission and Interveners.

The Commission agreed with FEI's position that Clean Energy's filing could not be construed as evidence but was more appropriately considered as a submission. Accordingly, by letter dated February 25, 2013, the Commission confirmed the applicability of the Regulatory Timetable where no Intervener evidence was filed and directed that the deadline for FEI's written submission would be February 28, 2013.

Intervener submissions were received on or before the deadline of March 7, 2013.

FEI's Reply submission was filed on March 14, 2013, marking the conclusion of the record of the proceeding.

2.3 Positions of the Parties

The B.C. Pensioners' and Seniors' Organization *et al.* (BCPSO) is generally supportive of FEI's Application to amend RS 16 on a permanent basis. "BCPSO recognizes the current application as an opportunity for FEI to make more efficient use of existing infrastructure to the benefit of residential rate payers, provided fair compensation is received for such use." (BCPSO Final Submission, p. 1)

The B.C. Sustainable Energy Association (BCSEA) also supports FEI's Application for approval of the proposed amendments to RS 16 (and related accounting treatments). BCSEA submits that the amendments will "provide a permanent basis for firm LNG service from both the Tilbury and Mt. Hayes facilities in order to meet the anticipated increase in demand for LNG mainly for transportation purposes in substitution for diesel." (BCSEA Final Submission, p. 1)

Clean Energy Fuels Inc. (Clean Energy) provides conditional support for FEI's Application arguing that "[a]s utilization of LNG in the transportation sector continues to grow, it is vital that an adequate and reliable supply of fuel is produced. Furthermore, permitting [FEI] to offer additional access to LNG will in itself attract private investment to expand its use in the transportation sector." Clean Energy proposes that the Commission consider a "qualified resellers" program for new LNG customers. (Clean Energy Final Submission, p. 1)

The Commercial Energy Consumers Association of British Columbia (CEC) recommends that the Commission approve all of FEI's specific requests, on the basis that they are in the public interest. The CEC also submits that "...conversion of the transportation markets in the coming years is one of the major defining strategic energy opportunities for the Province and that the Commission needs to provide and [sic] balanced decision but also one that is wise to the broader context of the decision." (CEC Final Submission, p. 16)

Ferus Inc. LNG Division (Ferus) supports the extension of RS 16 on a pilot basis to March 31, 2017, and proposes that service could be grandfathered under longer-term Prescribed Undertaking contracts as required. Ferus also supports consideration of FEI's role as "enabler," leaving marketing activities to the unregulated sector, and agrees with Clean Energy that FEI should sell all excess LNG from its utility assets to unregulated authorized resellers, who would be responsible for supplying both Prescribed Undertaking buyers and the general LNG marketplace. (Ferus Final Submission, pp. 29-30)

Ferus supports raising the Available LNG Capacity to the applied for level. It also supports designating two classes of service: Firm(Long-Term and Short-Term) and Spot. In its view, given that RS 16 Commercial Service is provided through utility assets, firm service should: have priority over Spot service; only be allocated up to the Available LNG Capacity from time to time (i.e. will not be over contracted); and be subject to the priority of Utility Service in extreme or emergency situations. Ferus also "... urges the Commission to make a strong policy statement in this proceeding endorsing and confirming the applicability of the [AES] framework to LNG services, including LNG tanker services. (Ferus Final Submission, p. 30)

Seaspan Ferries Corporation, a marine ferry service between Vancouver Island and the Mainland for rolling cargo transport, registered as an Interested Party and provided a letter of comment. Seaspan stated it is "committed to a fleet renewal program where we will evaluate and propose the use of LNG as fuel for our new vessels. The transition to LNG powered ships will reduce GHG and other environmental emissions from our operations, but to achieve these benefits the ships will need to be supplied with LNG from a reliable long term supply chain." (Exhibit D-1, p. 1)

In addition, Teekay Shipping (Canada) Ltd. (Teekay), Shell Canada Limited (Shell), Sutco Contracting Ltd. (Sutco), Bridgeway Transport Ltd. (Bridgeway), Westcan Bulk Transport Ltd. (Westcan), Bison Transport (Bison), Liquiline LNG Solutions Corporation (Liquiline), Prometheus Energy Group Inc., and Rolls-Royce Canada Ltd. (Rolls-Royce) provided letters of comment. Rolls-Royce submits that "[w]hile the proposed Fortis amendment to Rate Schedule 16 will not be sufficient to deliver

enough LNG for the marine market in the mid/longer term, it is an important step toward necessary supply security for the Pacific Northwest coast." (Exhibit B-9, p. 1) Rolls-Royce "strongly believe[s] that approval of FortisBC Application for Amendment to Rate Schedule 16 will benefit [the] marine transportation industry in BC." (Exhibit E-1, p. 3)

Sutco states that it "offers a full range of trucks for logging, wood chips, general freight and heavy hauling." In its view, the largest hurdle to the successful adoption of LNG as a transportation fuel is accessibility. It is very important to Sutco that fleets have confidence in the LNG supply chain. Sutco further submits an increase in the volume of LNG allotted to the transportation sector would instill this confidence. Further, "... there must be a plan put in place for the short-term fueling and long-term wide adoption." (Exhibit E-2, p. 2)

Bridgeway, a trucking company, states that it "... require[s] stability of LNG fuel supply and affordable pricing for the LNG. FortisBC, with their existing facilities in Lower Mainland and on Vancouver Island are the best positioned to provide both." (Exhibit E-4, p. 2)

Westcan, also a trucker, submits that FEI, with its existing facilities in the Lower Mainland, is best positioned to provide a stable LNG fuel supply and affordable pricing for the LNG. (Exhibit E-6, p. 1)

Another freight hauler, Bison, from Rocky View Alberta, advised that British Columbia is a "key location" for its operations and that its trucks cover over 400,000 miles each month in B.C. It strongly believes that approval of the Application will benefit the trucking and transportation industry in B.C. (Exhibit E-7, pp. 1, 2)

Liquiline is a "... newly formed company specializing in Liquid Natural Gas infrastructure distribution technologies." It also supports FEI's RS 16 Application in terms of providing liquefaction capacity and LNG into new markets. (Exhibit E-8, p. 2)

Prometheus Energy Group Inc. from Redmond, Washington, describes itself as "a leading supplier of liquefied natural gas (LNG) to the industrial sector for small and mid size businesses in North America." It submits that "[a]pproval of FortisBC Application for Amendment to Rate Schedule 16 will benefit the industrial sectors of Western Canada." (Exhibit E-10, pp. 1-2)

Shell is also supportive of FEI utilizing excess capacity of LNG assets to make LNG available for commercial market use. However, it also reiterates its support for a level playing field and cautions that LNG should be priced to "reflect an appropriate market based return." Shell also cautions against subsidization of LNG by past, present or future regulated customers. (Exhibit E-5, p. 1)

3.0 BACKGROUND

3.1 LNG Demand Projections

FEI submits that the current RS 16 service specifically states that it "… is a pilot program with a limitation on the total amount of supply, that the pilot program expires on December 31, 2014, and that FortisBC Energy will have no responsibility to provide LNG sales and dispensing service after that date." FEI states that it "is unable to finalize incentives under the GHG Reduction Regulation until there is assurance that there will be a reliable and continuous supply of LNG for customers to operate their vehicles. As FEI's Tilbury and Mt. Hayes LNG facilities are the only supply of LNG in the Province, supply from these facilities is necessary for FEI's NGT Incentive Program to succeed." (FEI Final Submission, pp. 2-3)

FEI submits that the recently enacted GGRR will be a key driver for the increase in LNG demand in the British Columbia market. (Exhibit B-1, p. 22)

TABLE 1
Expected LNG Demand Through 2022

LNG Demand	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
LNG Trucks	54	219	284	344	454	454	454	454	454	454	454
LNG Truck Demand (GJ)	150,000	843,000	1,116,000	1,368,000	1,830,000	1,830,000	1,830,000	1,830,000	1,830,000	1,830,000	1,830,000
LNG Marine Projects	-	-	1	2	3	3	3	3	3	3	3
LNG Marine Demand (GJ)	-	-	150,000	250,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000
Total NGT Demand (GJ)	150,000	843,000	1,266,000	1,618,000	2,180,000	2,180,000	2,180,000	2,180,000	2,180,000	2,180,000	2,180,000
*LNG truck demand is 4,200 GJ/year											
**LNG Marine demand at 150,000 GJ/year for Section 18 customer and 100,000GJ/yr/project (Based on Queen of Capilano - small ferry)											
***There is a 1 year lag between incentive payments and vehicle additions and load.											

(Source: Exhibit B-4-1, BCUC IR 1.8.3)

Table 1 shows FEI's demand forecast for the LNG supplied from FEI's Tilbury and Mount Hayes facilities, based only on the volumes which are stimulated by the vehicle incentives related to the Prescribed Undertaking. (Exhibit B-4-1, BCUC IR 1.8.3)

FEI submits the demand forecast shown in Table 1 above is reasonable. FEI has derived the "LNG Truck demand" by "considering the total amount of funding available each year and dividing that

amount by the projected funding provided per truck in each year. Then, the demand for LNG is estimated by multiplying the installed base of trucks in any year by the estimated amount of fuel consumed per truck." FEI also states that the estimate of "LNG Marine demand" is based on data collected from FEI's participation in the BC Ferries conversion study. (Exhibit B-1, pp. 22-23)

FEI initially argued that, given this demand forecast, the demand will outstrip the supply available under the pilot program from Tilbury in 2015, assuming all LNG is shipped from Tilbury. (Exhibit B-1, p. 22 Table 6, Exhibit B-1, p. 23)

FEI subsequently updated its demand forecast to reflect the response to its incentive grant awarding process and now projects that this same demand will outstrip the supply available under the pilot program in 2013. (Exhibit B-2, p. 4, Exhibit B-4-1, BCUC IR 1.8.3)

3.2 Existing FEI LNG Facilities

3.2.1 Tilbury

The Tilbury LNG needle peaking facility is located in Delta, British Columbia. It was constructed in 1971 to provide peak shaving supply and supply balancing for core natural gas customers, which also served to moderate the price of gas in the winter months. Typically, in the past, natural gas was liquefied and stored during the period from July to the end of October, in preparation for the winter cold season. (Exhibit B-1, Appendix A, p. 8)

Tilbury has a useable storage capacity of 606,500 GJs of LNG, a liquefaction capacity of 5,110 GJs per day, and a send out capability of 162,000 GJs per day, for the distribution system. (Exhibit B-1, p. 34) Given the liquefaction capacity, it takes approximately four months to fill the storage tank (when empty), whereas it can be emptied in approximately 3.75 days.

In October of 2009, FEI (then known as Terasen Gas Inc.), applied for a Certificate of Public Convenience and Necessity (CPCN) to purchase additional land adjacent to the Tilbury site, for the purpose of controlling its use and to provide a buffer area to ensure compliance with Canadian safety standard CSA Z276, which relates to LNG facilities. In that application, FEI noted the importance of the Tilbury facility to its operations, stressing its contribution to security of supply, reliability and operational flexibility. FEI also noted the value of the facility in terms of mitigation of gas supply costs, estimating that the cost to replace the Tilbury peaking supply would range from $9 to $11 million per year. FEI also noted that the Tilbury facility reduced the winter high-price risk at the Huntington-Sumas trading point as well as price volatility. In addition, the Tilbury facility also was put forward as offering significant send out capacity as well as providing support to the Coastal Transmission System, and its capacity obviated the need for other system upgrades. (Exhibit A2-1, pp. 21-22)

3.2.2 Mt. Hayes

The Mt. Hayes LNG facility is located near Ladysmith on Vancouver Island. The facility became operational in 2011. Mt. Hayes has useable storage capacity of approximately 1,615,000 GJs (approximately 2.66 times that of Tilbury), a liquefaction capacity of 8,200 GJs per day (1.6 times that of Tilbury), with the same send out capability of 162,000 GJs per day. (Exhibit B-1, p. 34) Based on Mt. Hayes' liquefaction capacity, it takes almost 7 months to fill the storage tank at Mt. Hayes (from empty), while it only takes approximately 10 days to empty it, based on its send out capability.

In its 2007 CPCN application to construct Mt. Hayes,FEVI [formerly Terasen Gas (Vancouver Island) Inc. (TGVI)] stated that the development of a 1.5 Bcf (approximality 1,600,000 GJ) LNG peak shaving facility on Vancouver Island is the major component of the preferred portfolio for meeting the requirements of FEVI and FEI over the 25 year planning period. The LNG Storage Facility was expected to provide both utilities with a peaking gas storage resource for which they would

otherwise have to contract for service at Huntingdon/Sumas. (TGVI - Mt. Hayes CPCN Application, Exhibit B-1, p. 5)

By virtue of its location on Vancouver Island, Mt. Hayes was also expected to provide FEVI with additional system capacity to serve core customers during cold weather events and allow FEVI to avoid or significantly defer the expansion of its system through construction of new compressor stations. FEVI also stated that "[t]he Project will also improve overall system reliability in the event of transmission system or upstream outages and provide other benefits." (TGVI - Mt. Hayes CPCN Application, Exhibit B-1, p. 5)

According to FEVI, "the LNG Storage Portfolio has benefits of avoided costs for storage downstream of Huntingdon/Sumas and avoided or deferred transmission system capacity expansion." FEVI submitted an economic analysis demonstrating a clear preference for the LNG portfolio over the Pipe and Compression Portfolio. "Having the LNG Storage Facility in the [FEVI] market area, and on Vancouver Island in particular, provides a number of other benefits to [FEVI] customers and to the region. Examples of these are improved [FEVI] system reliability, mitigation of upstream system and supply outages, and reduced price volatility in the region." (TGVI - Mt. Hayes CPCN Application, Exhibit B-1, pp. 5-6)

Under the terms of the proposed Storage and Delivery Agreement between [FEI] and [FEVI], storage services were to be acquired by [FEI] from [FEVI]. "Since [FEI] has the alternative of acquiring additional storage downstream of Huntingdon/Sumas, the charges from [FEVI] to [FEI] for LNG services are based on a forecast of the avoided costs of Huntingdon/Sumas market area storage. The primary value to [FEI] of the LNG Storage Facility will be avoided costs for storage downstream of Huntingdon/Sumas in its gas supply portfolio. The LNG Storage Facility on Vancouver Island also creates the potential benefit in deferring capacity expansion on the [FEI] [Coastal Transmission System]." FEVI submitted the chart shown in Figure 2 below, to illustrate its projected supply portfolio. (TGVI - Mt. Hayes CPCN Application, Exhibit B-1, pp. 5-6)

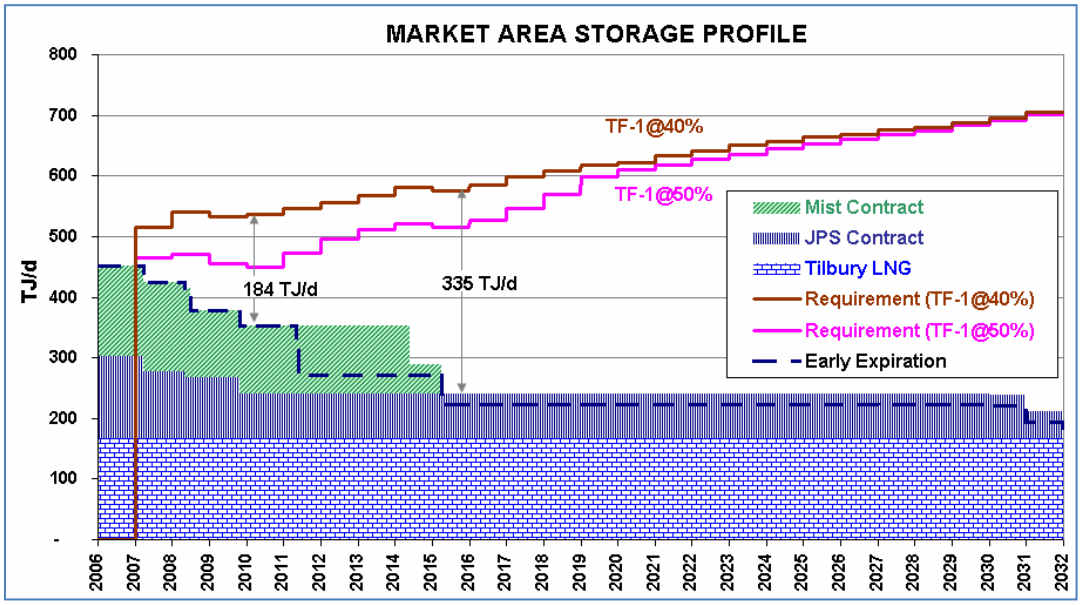
[FEVI] summarized the benefits of the Mt. Hayes facility as follows:

- Provides long term storage capacity to meet core market peak day growth on Vancouver Island and the Lower Mainland;
- Reduces dependence on storage facilities located in Washington and Oregon states to serve residential and commercial customers;
- Avoids transmission facility additions on the Vancouver Island transmission system and the Coastal Transmission System;
- On-System storage facility enhances reliability and security of supply;
- Allows the utilities to better manage future industrial and generation demand uncertainty (Island Cogen and Burrard Thermal).

(TGVI - Mt. Hayes CPCN Application, Exhibit B-2, p. 7)

With regard to reducing dependency on storage facilities in Washington State, FEI submitted "If competitively priced, the storage resource provided by the proposed LNG Storage Facility offers an alternative to meet the preference for shorter duration storage resources and would replace the incremental component of [Jackson Prairie]." (Exhibit A2-5, pp. 68-69)

FIGURE 2



(Source: Exhibit A 2-5, p. 70)

In FEVI's 2007 Mt. Hayes CPCN Application, the risk of potential recall of existing contract capacity with third party storage providers was given as a justification for the project. FEI was asked whether the liquefaction capacity at Mt. Hayes and Tilbury would be affected if FEI were unable to renew the contracts. It replied that it would "… seek firm replacement resources … if and when required," although "...the expected use and dependence on the Tilbury and Mt. Hayes facilities to meet design day system capacity and peaking supply requirements would not change." (Exhibit B-4-1, BCUC IR 1.28.4, 1.28.5)

The Mt. Hayes CPCN application also identified key challenges relating to procurement of long-term supply including: "…expected growth and changing nature of regional demand combined with a lack of reserve capacity in current natural gas infrastructure in the Pacific Northwest and longer lead times for large infrastructure projects." At the time, FEVI submitted that its position was supported by findings in the 2006 Northwest Gas Outlook Update, which identified constrained pipeline and storage capacity during extreme peak demand conditions and the need for incremental infrastructure to maintain long-term resource adequacy in the region. FEI's similar conclusions in its 2010 Long Term Resource Plan - that pipeline and storage deliverability along the I-5 corridor will become constrained during cold snaps - continues to be the view of the Northwest Gas Association as illustrated in Figure 14 on page 14 of its 2012 Gas Outlook. (TGVI - Mt. Hayes CPCN Application, Exhibit B-1, p. 61; Exhibit A2-2, p. 14)

The cost of the Mt. Hayes facility was approximately $190 million. FEI advises that the 2013 mid-year net book value of the capital assets (excluding vaporization assets) is approximately $156 million. (Exhibit B-1-1, p. 55) Mt. Hayes currently has no truck loading facility. FEI estimates that the addition of a truck loading facility at Mt. Hayes will cost approximately $3.5 million. (Exhibit B-1, p. 67) (The Greenhouse Gas Reduction Regulation contemplates a maximum expenditure of $4.0 million for a tanker truck load-out (GGRR ss. 3(b) (ii)).

FEI submits that "[u]nder the proposed Rate Schedule 16 application there is a mutually beneficial synergy between use of the storage facilities for peaking and market area storage and use of the

facilities to buffer smaller fluctuations in Rate Schedule 16 market demand. By allocating [100,000 GJs] of the [2,200,000 GJs] of useable storage to the Rate Schedule 16 service, additional Rate Schedule 16 sales can be made which generate $6.7 million/year in financial benefits to core customers, while preserving capability to service core requirements under all projected operating scenarios. FEI believes that is it prudent management to make efficient use of existing facilities prior to building new ones provided that a robust capability to meet reasonable requirements for core service is maintained." (Exhibit B-4-1, BCUC IR 1.23.3)

FEI expects that all Mt. Hayes supply for RS 16 customers will be disbursed from FEI's contracted share of Mt. Hayes LNG. Under the Storage and Delivery Agreement between FEI and FEVI, FEI "holds long term rights to two thirds of the deliverability and capacity (the 'Primary LNG Service'), and FEVI can also sell to FEI any additional storage and delivery capacity from the remaining one third that it does not need to preserve for its own system (the 'Supplementary LNG Service'). At this time, FEVI has elected to provide FEI with an additional [35,000 GJs/day] of Supplemental LNG Service for the 2012/13 and 2013/14 years commencing April 1st of each year. Therefore, the maximum amount of Mt. Hayes LNG storage and deliverability capacity that is currently available to FEI is [1,420,000 GJs] of capacity with [142,000 GJs/day] of maximum sendout or deliverability. The remaining [190,000 GJs] of capacity with [19,000 GJs/day] of maximum daily sendout for ten days has been retained by FEVI for its operational and peaking supply requirements for the 2012/13 and 2013/14 winter periods." (Exhibit B-4-1, BCUC IR 1.27.1)

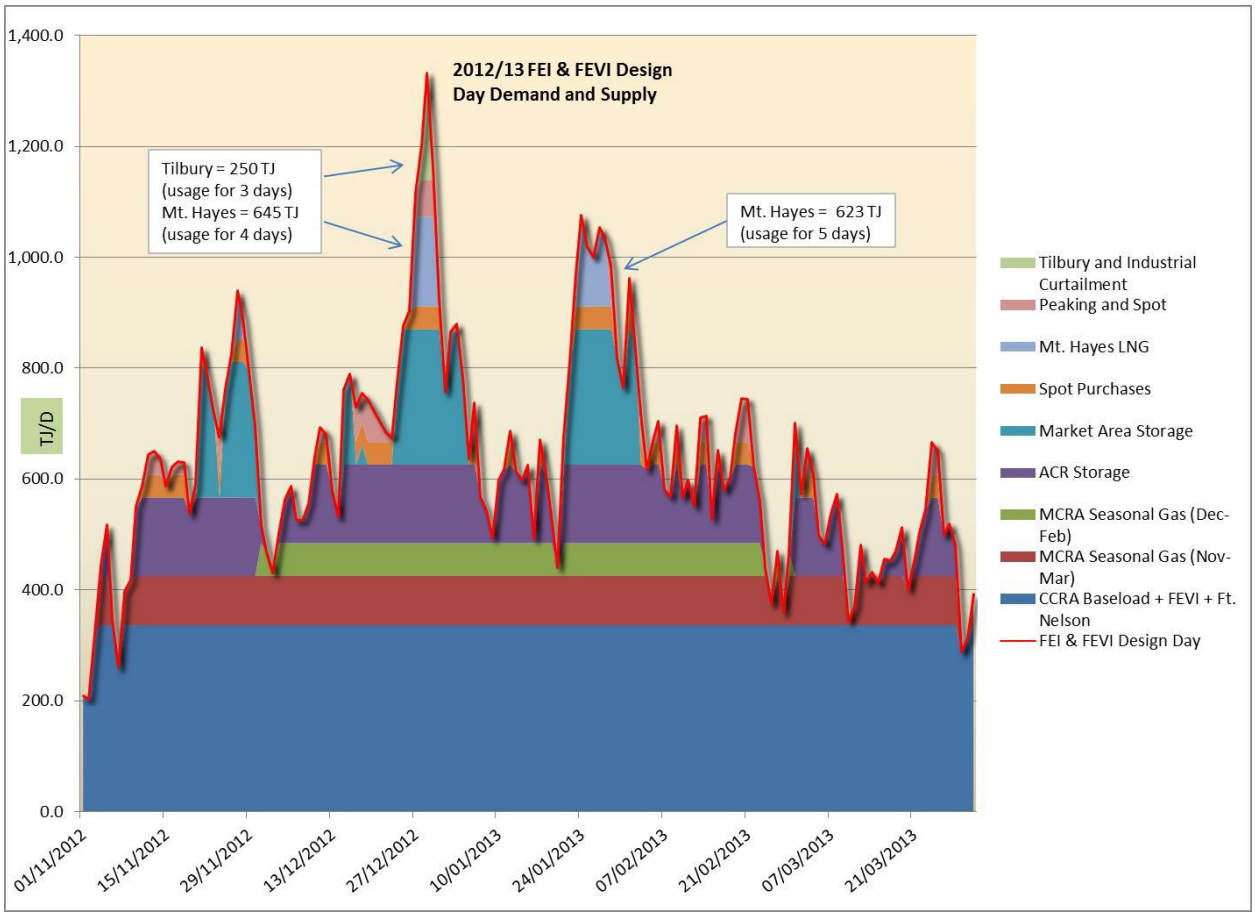
3.2.3 Excess Capacity at Existing LNG Facilities

Existing Operational Environment

Figure 3 below shows the modelled Design Day Demand and Resources Available for FEI and FEVI. Design day weather conditions are based on a statistical analysis, which provides an estimate of the cold weather conditions that would be expected to occur once in every twenty years. (Exhibit B-1, p. 35, FN 37)

FIGURE 3

FEI and FEVI Design Day Demand and Resources



(Source: Exhibit B-1, p. 36)

FEI submits that the LNG facilities were "built to serve an operating scenario that involves filling the tanks in periods of low demand with the objective of having full tanks by November at the start of the peak demand season." Therefore, FEI submits, "even in a year where the tank is being completely re-filled, there are several months when the LNG liquefaction capacity is not used for core service." (Exhibit B-1, pp. 34-35)

FEI maintains "… it is possible to make additional productive use of these assets by operating them throughout the year through appropriate scheduling of liquefaction to meet the needs of the emerging LNG market while maintaining capability to service the core market needs under a variety

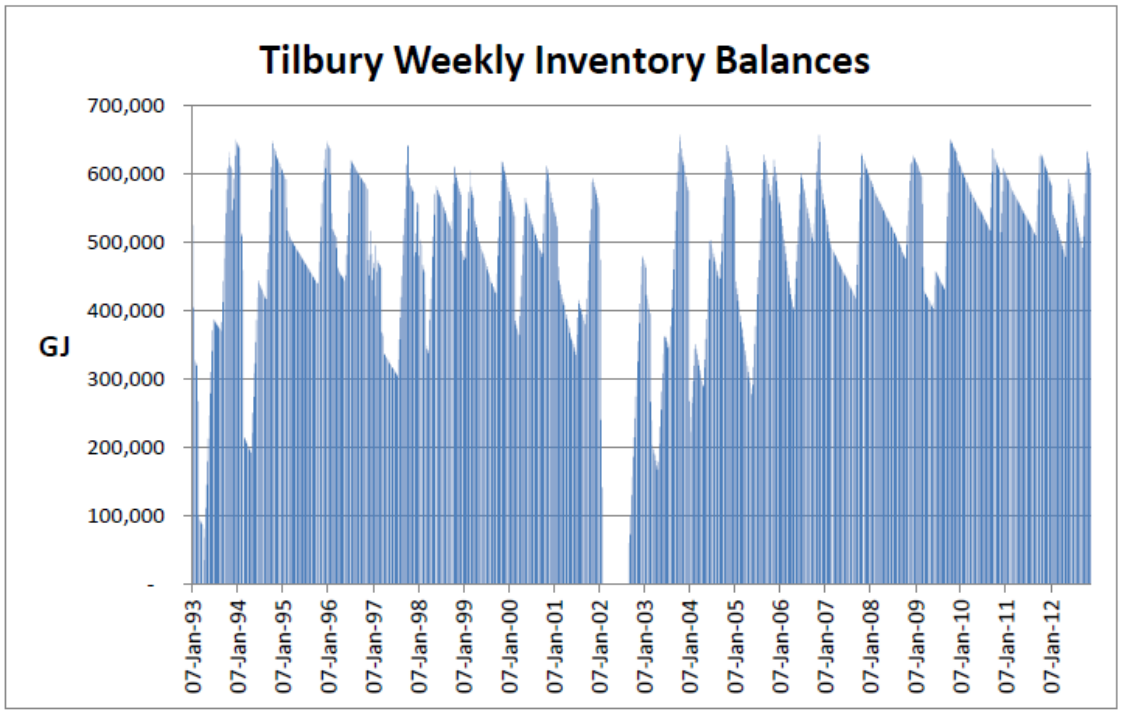
of scenarios." According to FEI, "[t]he liquefaction facilities generally remain idle during the winter months." It submits that "in most years the storage tank is partially or even mostly full at the end of the heating season, and therefore the amount of liquefaction that is required to fill the tank in preparation for the next winter season is reduced…the proposed allocation of liquefaction capacity to serve the Rate Schedule 16 customers allows higher utilization of existing liquefaction capacity while still ensuring that the storage tanks are full at the beginning of each heating season to meet core market peaking requirements as they unfold. By increasing the use of the liquefaction capabilities when not required for core market customers, the LNG facilities can be used to serve both core market and Rate Schedule 16 customers with the same overall capacity." (Exhibit B-1, p. 34; FEI Final Submission, p. 8)

FEI's Analysis of Excess Capacity

In its original design of the Mt. Hayes LNG storage tank, and in the current application, FEI utilizes the notion of demand on a "design day." Design-day demand is the maximum expected amount of gas in any one day needed by customers. Design-day demand is forecast using a statistical approach called Extreme Value Analysis, which provides an estimate of the coldest day weather event expected with a 1 in 20 year return period. (Exhibit B-1, p. 35, FN 37)

Given that the forecast design peak day scenario is based on only a 5 percent probability of occurrence, FEI believes that the probability of a more severe scenario resulting in full send out of the total capacity of both storage facilities is extremely unlikely. (Exhibit B-7, CEC IR 1.5.2, 1.5.3) FEI confirmed that "(u)nder normal winters and under the "colder than normal" scenario, no volumes are required from Tilbury for peak shaving service. ...(T)he "empty the tank" scenario implies send out levels that are more than double that required for the "design year" case. (Exhibit B-4-1, BCUC 1.32.1) It provided Figure 4 below, showing the weekly inventory balances reflecting the send out and replenishment activity at Tilbury for the past 20 years, noting that the tank was taken out of service in 2002 for the addition of an internal shutoff valve and liquid level gauge. (Exhibit B-7, CEC IR 1.5.2, 1.5.3)

FIGURE 4



(Source: Exhibit B-7, CEC IR 1.5.3)

In support of its position, FEI provided an analysis of the Design Day demand and the resources needed to meet that demand. FEI submits that "[u]nder the Design Day case, Tilbury supply is required to service needle peak demand for the three forecasted coldest days and total demand over this period is estimated at 250,000 GJs. Mt. Hayes is utilized to service two weather events for a total of 1,268,000 GJs." (Exhibit B-1, pp. 35-36)

However, in the Mt. Hayes CPCN Application, FEVI showed that in 1984, the coldest temperature that occurred was reached on three separate days during two separate cold weather spells. In addition, 1968 and 1971 each featured two extreme cold period peaks, with the second peak period lasting several days longer than the first, while 1985 was characterized by a sustained, early season peak in November, followed by a second cold peak much later in the season. FEVI submitted that "..[i]t is these multiple and/or extended cold weather events, combined with experiencing a near design day temperature that will put the greatest strain on the TGVI gas transportation system's ability to meet peak demand. Gas supply and storage portfolios need to be

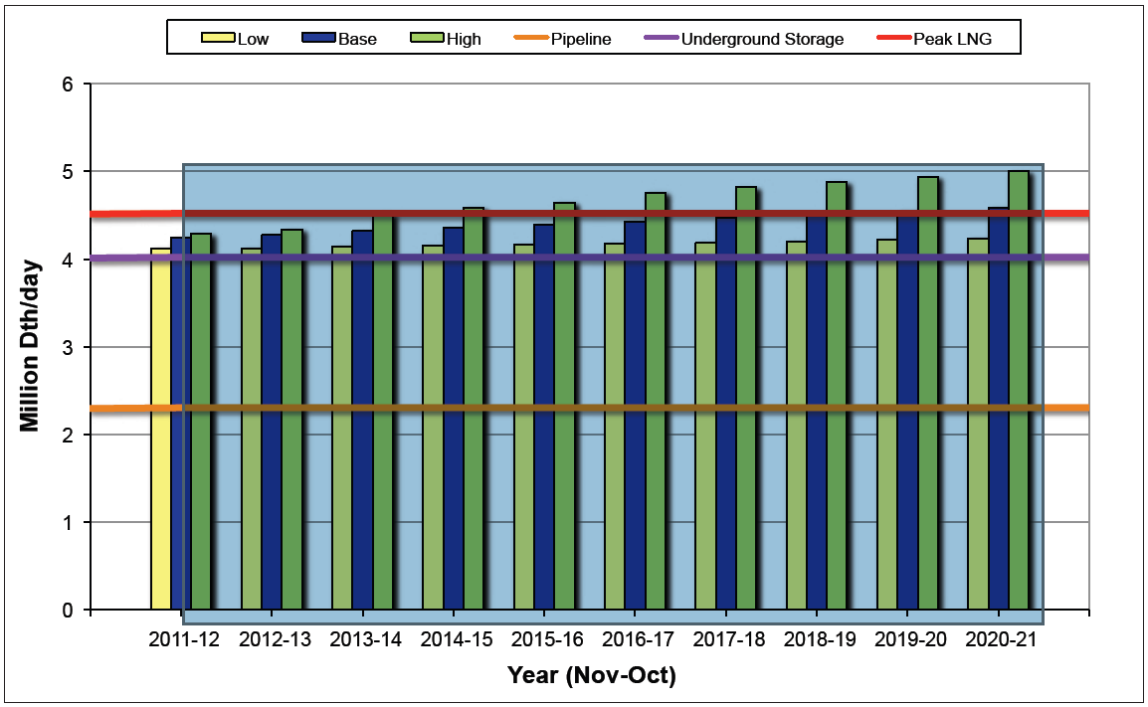
flexible enough to balance both the cost of resources and the ability to meet demand under a wide range of weather patterns that could affect the entire British Columbia and Pacific Northwest region." (TGVI-Mt Hayes CPCN Application, Exhibit B-1, p. 55)

FEI further argues that there has been "extensive analysis and study" of the proposed changes and that there is "robust evidence" in support of the proposed storage capacity allocations and maximum contract quantities requested. Various scenarios are in evidence that show the impact of supplying LNG to the NGV market on the ability of Mt. Hayes and Tilbury to meet peaking requirements. In normal weather conditions, FEI does not expect that send-out from the facilities will be required at all over the winter. FEI submits that "...the results show that, even under design peak day conditions, and with a higher utilization of liquefaction capacity throughout the year, there is sufficient storage capacity to serve both core and Rate Schedule 16 customers." (Exhibit B-4-1, BCUC IR 1.7.9, BCUC IR 1.32.1; FEI Final Submission, p. 8)

FEI submits that, as the LNG is dispensed in liquid form to the LNG transportation customers, "…the vaporization facilities are not used to serve these customers." FEI further argues that "[t]he processes required to dispense LNG to serve Rate Schedule 16 customers and to vaporize and inject gas into the transmission pipeline system are separate and distinct. As a result, it [sic] Mt. Hayes was unavailable to dispense LNG such that all of the LNG volumes to serve Rate Schedule 16 customers had to be served from Tilbury, the impact on FEI's ability to meet design day peak demand would be negligible, all else being equal." (FEI Final Submission, pp. 7-8; Exhibit B-4-1 BCUC IR 1.23.1)

Regional Natural Gas Demand

FIGURE 5
"I-5 Corridor" Peak Day Requirements through 2021



(Source: Exhibit A2-2, p. 14)

The availability and cost of gas depends upon demand from other customers in the Pacific Northwest. A forecast of peak day requirements prepared by the Northwest Gas Association is shown in Figure 5 above. These demand projections and design day forecasts include the Lower Mainland and Vancouver Island demand projections, which were provided by FEI and FEVI, respectively. (Exhibit B-4-1, BCUC IR 1.26.1, 1.26.2, 1.26.2.1)

Figure 5 shows that the high demand scenario will outstrip peaking LNG supplies by 2014-2015 and base demand will outstrip peaking LNG supplies by 2020-2021. However, this forecast does not include the following as yet un-quantified demand drivers:

- "The magnitude and nature of the growing use of natural gas to generate electricity in the region, both to serve growing power demand and balance electrical systems as more intermittent renewable energy resources come online.
- The possibility of new industrial loads due to sustained lower natural gas commodity costs. This may include new industry as well as fuel-switching by existing industry.
- The use of natural gas as a transportation fuel in a variety of applications."

(Exhibit A2-2, p. 10)

Commission Determination

Tilbury provides FEI's customers with needle peak shaving and gas supply balancing. The Mt. Hayes facility was built to also provide peaking gas supply for Vancouver Island and the Lower Mainland. In addition, Mt. Hayes was intended to reduce dependence on market area storage. At the time of the 2007 Mt. Hayes CPCN application, this was seen as particularly important given the possible reduction in the availability of other resource options available to FEVI. Given the likelihood of increased demand for natural gas from initiatives to develop an export market for LNG and the replacement of coal fired generation capacity with natural gas, the Panel finds it is reasonable to expect there will be an increased need to have these facilities available for their intended purpose in the future.

In the Commission Panel's view, the Tilbury and Mt. Hayes facilities can be characterized as an insurance policy. Generally, an insurance policy is purchased with the hope that it will never be used. However, this does not mean it is not needed. For example, just because there is no cold snap in a particular year, and the tank sits full of LNG, this does not necessarily imply there is excess capacity in fact. Excess capacity in this type of situation can only be actually determined after the fact, through hindsight. It is entirely consistent with the statistical nature of the forecast events that, for example, although statistically improbable, two extremely cold winter events could occur back-to-back. The LNG contained in the tanks – along with the ability to re-gasify it, and to liquefy gas into LNG to replenish the tanks - may be required if an unexpected event occurs at any time, including when an unexpected event has just previously occurred. Additionally, if FEVI or FEI is

unable to renew a market storage contract at favourable terms, the Mt. Hayes facility may be called upon to provide a substitute for that storage contract. This is the nature of the insurance purpose of these facilities.

The Panel accepts FEI's selection of the design day scenario and the analysis based on that criteria. This analysis shows that even under the design day conditions, there is sufficient product available. However, given the size of the Mt. Hayes facility, the design criteria was clearly based upon other considerations, in addition to that of a single occurrence of a design day event. For example, in an extremely cold winter, it may be possible for two or more design days to occur back to back, or in close proximity to each other. This could potentially result in a full use send out and an empty tank. Further, although the focus of the analysis in this proceeding appears to be on peaking supply, the provision of peaking supply was not the only justification for the Mt. Hayes project. Any capacity in excess of that required for peaking may be required to provide the additional benefits identified in the 2007 Mt. Hayes CPCN application.

In any event, the tanks, as presently sized, reflect the amount of insurance FEI and FEVI's ratepayers have purchased and which they are entitled to receive. **Given the nature of this insurance purpose, and in light of the fact that these facilities have never been used to the extent proposed, the Commission Panel finds FEI has not demonstrated, on a balance of probabilities, there is year round excess storage capacity in any particular given year.**

The Panel notes, from Figure 4, that FEI/FEVI's current strategy is to utilize a combination of peaking and spot purchases, industrial curtailment and LNG from both tanks in order to meet demand in excess of base-load and seasonal contracts, and contracted market area storage. If circumstances change, as is suggested in the demand projections and discussion in the NWGA report, the Panel is concerned this could potentially result in a change to the price of spot purchases and/or the availability of market storage. However, scenarios showing such changes to these underlying assumptions are have not been modelled. An increase in the spot price, for example, relative to the cost of utilizing LNG in a tank, could, in the Panel's view, potentially result

in a greater economic incentive to use LNG for peaking. If LNG is not available, core customers may incur a significantly greater cost for their natural gas. There may, however, be excess liquefaction capacity at both facilities from time to time, depending on the state of the tanks. If a tank is full, then basically all the liquefaction capacity is excess. However, if a tank is not full, there may or may not be excess liquefaction capacity, depending upon operational considerations.

The Commission Panel agrees with FEI that the issue of excess capacity with regard to regasification and injection into the system is less relevant as RS 16 customers take receipt of natural gas in its liquid form.

In the Panel's view, given the purpose of the storage facilities, to the extent that available storage capacity or liquefaction capacity is utilized by FEI or FEVI to provide LNG to the NGV market, this represents a re-purposing of these facilities. While this does not necessarily mean that gas for peak shaving, or as a substitute for market storage, will no longer be available to core customers, it does mean there may be an opportunity cost associated with this repurposing. Natural gas for peaking purposes may have to be purchased at potentially higher rates than has been done in previous years. Similarly, if required, alternative market area storage (if available) may have to be contracted at higher prices. In this regard, the Commission Panel notes FEI's estimate of $9-11 million per year to replace Tilbury's peaking supply and its payment of over $12 million per year to FEVI for two thirds of the storage capacity at Mt. Hayes. (Exhibit A2-1, pp. 21-22, Exhibit B-4-1, Attachment 30.4, p. 18)

3.3 History of Rate Schedule 16 – Pilot Project

RS 16 was originally approved as a five-year pilot project pursuant to Commission Order G-65-09 dated June 4, 2009. The pilot project was to run from June, 2009 to December 31, 2014. FEI was approved to sell 1,040 GJs (or one tanker load) per day from Tilbury, on an interruptible basis, with a per customer limit of 50 percent of available LNG capacity, on a monthly basis. The interruptible nature of the service was requested "to provide Terasen Gas with the flexibility to curtail the

service in the event that it is necessary to avoid negatively impacting core customers." (Exhibit B-1, Appendix A, pp. 4, 18)

In its 2009 RS 16 application, FEI stated that it believed:

- The development of the LNG market as a transportation fuel creates an opportunity to expand the use of the Tilbury Facility, which will benefit existing customers;
- RS 16 supports specific government and industry initiatives to promote the growth of LNG as a transportation fuel in British Columbia, reduce Greenhouse Gas emissions and improve local air quality; and,
- RS 16 reduces the uncertainty NGV industry participants face regarding the price and conditions of service.

(Exhibit B-1, Appendix A, pp.1-2)

By Order G-65-09, the Commission directed FEI to report on the RS 16 pilot program annually, including the following aspects:

- number of participants;
- total contract demand;
- annual sales volume;
- annual variable and gas charge revenues;
- number and duration of Rate Schedule 16 service interruptions;
- impacts on core market supply; and
- any related peaking supply arrangements or purchases.

FEI filed its 2010 Annual Report on February 4, 2011, which reported no LNG sales for the year ending 2010.

FEI filed its 2011 Annual Report on February 3, 2012. At December 2011, there were three customers receiving service under RS 16. Sales to these customers in 2011 are summarized in Table 2, below.

TABLE 2

LNG Sales under Rate Schedule 16 during 2011

Customer	Total Contract Demand (GJ/month)	2011 Sales Volume (GJ)	2011 LNG Delivery Sales ($)	2011 LNG Commodity Sales ($)	Total Sales ($)
Encana Corporation	spot supply	801	3,171	2,871	6,042
Vedder Transport	11,500	8,180	32,393	30,072	62,465
Westport Power	spot supply	8,353	33,076	29,730	62,806
Total	11,500	17,333	68,640	62,673	131,313

(Source: Exhibit B-1, Appendix C, p. 2)

FEI did not report any service interruptions, impacts on core market supply, or related peaking supply arrangements or purchases in its 2011 Annual Report. FEI forecast its total LNG sales for 2012 would exceed 140,000 GJs primarily based on the contractual commitment by Vedder Transport Ltd. (Vedder). (Exhibit B-1, Appendix C; 2011 Annual Report, p. 2)

FEI's 2012 Annual Report reported 171,994 GJs of LNG sales during 2012. The Report also stated that during 2012, three customers purchased LNG under RS 16. Two additional customers also entered Rate Schedule 16 agreements but had not purchased LNG from FEI as of December 31, 2012.

Table 3 below summarizes the LNG sales to all customers during 2012. (Exhibit B-10, 2012 Annual Report, p. 1)

TABLE 3
LNG Sales under Rate Schedule 16 during 2012

Customer	Total Contract Demand (GJ/month)	2012 Sales Volume (GJ)	2012 LNG Delivery Sales ($)	2012 LNG Commodity Sales ($)	Total Sales ($)
ATCO Gas	1,014	-	0	0	0
Encana Corporation	spot supply	8,774	35,535	26,606	62,141
Puget Sound Energy	spot supply	-	0	0	0
Vedder Transport	15,816	153,667	618,672	405,846	1,024,518
Westport Power	spot supply	9,553	38,366	24,188	62,554
Total	16,830	171,994	692,573	456,640	1,149,213

(Source: Exhibit B-10, p. 2)

FEI stated that it did not have any service interruptions, impacts on core market supply, or related peaking supply arrangements or purchases during 2012. (Exhibit B-10, p. 2)

In the 2012 Annual Report, FEI also noted the following:

- "FEI executed a Rate Schedule 16 agreement with ATCO Gas and Pipelines Ltd. on October 16, 2012 for firm contract demand of 1,014 GJ per month. The term of the agreement begins in Fall of 2013 and expires on December 31, 2014. FEI understands ATCO intends to use this fuel for trial at a power generation project.
- On October 31, 2012, Vedder increased its firm monthly LNG demand under Rate Schedule 16 from 11,500 GJ to 15,816 GJ. This increase is attributed to greater than expected fuel consumption from its fleet of 50 LNG tractors. Vedder's LNG demand during 2012 was delivered primarily through a temporary fueling station. The permanent LNG fueling station began operation in late December of 2012."

(Exhibit B-10, p. 2)

FEI advises that the existing firm contract demand of 16,830 GJs per month represents approximately 54 percent of the available monthly capacity under the current RS 16 limit (i.e. 31,200 GJS per month). (Exhibit B-10, p. 3)

Commission Discussion

The Commission Panel notes the increase in sales volume of LNG from 0 GJs in 2010 to 17,333 GJs in 2011 to 171,994 GJs in 2012. The Commission Panel further notes that, during that period, there were no service interruptions, impacts on core market supply, or related peaking supply arrangements or purchases. The Panel views this as an encouraging indicator. However, FEI is now seeking the ability to sell 2,184,000 GJs of LNG annually – more than 12 times the total volume of LNG delivered in 2012. The Panel is concerned that, given the magnitude of this increase, it may not be reasonable to assume that simply because there were no service or supply impacts in 2012, this experience will be repeated at the potential new level of production. Accordingly, the Commission Panel is of the view that it is important to approach this additional use of core utility assets with an abundance of caution.

3.4 The AES Inquiry Report

In the AES Inquiry Report, the Commission stated "[t]he risk of cross-subsidization for LNG Service is even more acute than for CNG because the liquefaction process requires extensive capital-intensive infrastructure. In the case of FEU, the Tilbury and Mt. Hayes facilities and the two LNG tankers were (or will be) paid for by the traditional utility ratepayers. LNG Service has three additional considerations beyond those relating to CNG Service. These are:

- the use of excess capacity of LNG supply from the Peak Shaving facilities;
- the use of FEU's two LNG tankers for the natural gas vehicle market; and
- the benefits of LNG sales to the traditional natural gas distribution utility ratepayers."

(AES Inquiry Report, p. 60)

The Commission determined that "the best protection against cross-subsidization and the least impediment to the competitive market is to have all industry participants do so as unregulated, non-utility entities." (AES Inquiry Report, p. 61)

The Commission recommended that, for LNG activities outside the ambit of the beneficial use of existing utility resources and Prescribed Undertakings, "if the FEU wish to participate in this market, they do so through a separate Non-Regulated Business." The Commission stated that it considered "the public interest will be best served by ensuring that all participants in the nascent LNG market (other than utility participants doing so as Prescribed Undertakings) be non-regulated entities so the existence of a dominant player and the additional costs which flow from regulation do not impede the competitive market." The Commission further found that "public interest considerations in respect of LNG include protection of the traditional natural gas distribution customer from excessive rates that may result from cross-subsidization and from taking business risks which ought to be borne by participants in a competitive market. The potential risks from LNG Service are exacerbated by the large capital investment required for LNG infrastructure."

The Commission further held: "[i]n all cases, if FEU have excess capacity to supply LNG and/or tanker service, the FEU should supply that LNG at the higher of the market price or the fully allocated cost of service." It also found that "LNG Activities which are done as a Prescribed Undertaking under the Greenhouse Gas Reduction Regulation are to be maintained as a Separate Class of Service with costs recoverable from the traditional gas utility ratepayers, to the prescribed limit." (AES Inquiry Report, p. 62)

Ferus submits that "[i]n the Inquiry Decision, the Commission clearly drew a distinction between general LNG activities (to be conducted through a Non-Regulated Business) and Prescribed Undertakings (to be conducted through the regulated utility but in a separate Class of Service). Ferus further submits that any amended RS 16 should be crafted taking into consideration:

- the core principle that LNG activities should be conducted through a Non-Regulated Business;
- the exception to the core principle relating to the use of excess capacity from utility LNG assets, specifically from LNG Peak Shaving facilities and LNG tankers; and

- the exception to the core principle relating to Prescribed Undertakings.

(Ferus Final Submission, p. 7)

In Reply, FEI argues that it is "complying with the directives in the AES Inquiry Report." It maintains that the scope of the present proceeding is limited to the use of excess capacity of FEI's existing assets (the Tilbury and Mt. Hayes Facilities and its two LNG tankers) as well as the potential for use of more LNG tankers for FEI's optional transportation service. (FEI Reply Submission, pp. 2-3)

Commission Determination

The Commission Panel adopts the recommendations of the AES Inquiry Report with regard to LNG service. Two key principles of the report are:

- only regulate where required, and
- regulation should not impede competitive markets.

Only Regulate where Required

This Application applies to excess capacity available from existing regulated assets. In this regard, the Commission Panel finds that it is appropriate that this service be provided by FEI and therefore regulated. However, the Application also requests approval of an optional transportation service which would require additional LNG tankers beyond those currently owned by FEI. The Commission Panel finds no evidence that additional tanker capacity is required by the core business. **Accordingly, approval for the purchase of additional tankers by the utility is denied**.

Regulation should not impede Competitive Markets

It is only where an entity engaged in the "petroleum industry" (which includes the retail distribution of LNG) is "otherwise a public utility" that the business of the retail distribution of LNG meets the definition of public utility, as found in the *Utilities Commission Act* (UCA*)*. Otherwise, LNG fuelling stations can be owned and operated by unregulated entities, thereby potentially

providing the public with a free market for this product offering. In the AES Inquiry Report, the Commission raised concerns about cross-subsidization and whether a regulated utility should be entering a potentially competitive market. The Commission Panel shares these concerns. The Commission Panel is of the view that in these limited circumstances of excess capacity, the use of the higher of full cost to provide the service or market pricing is the most effective way to ensure that the sale of excess LNG under RS 16 does not impede the development of a competitive market.

3.5 Clean Energy Act

Subsection 18 (1) of the *Clean Energy Act* [SBC 2012, c. 22] (CEA) provides for various projects, programs, contracts or expenditures which are in a class of projects, programs, contracts or expenditures "prescribed for the purpose of reducing greenhouse gas emissions in British Columbia" to be classified as "prescribed undertakings."

By subsection 18(3) of the CEA, the Commission must not directly or indirectly prevent a public utility which is carrying out a prescribed undertaking, from doing so.

3.5.1 The Greenhouse Gas Reduction (Clean Energy) Regulation

As noted above, the Greenhouse Gas Reduction (Clean Energy) Regulation (BC Reg. 102/2012 OC 295/2012) (GGRR) was promulgated on May 14, 2012 pursuant to section 18 of the *Clean Energy Act*. This regulation defines various classes of public utility undertakings, including, for example, the provision of grants or zero-interest loans to persons in British Columbia for the purchase of "eligible vehicles" (which run primarily on CNG or LNG) to be operated in British Columbia, as "prescribed undertakings," for the purposes of section 18 of the *Clean Energy Act*.

The GGRR limits the total expenditures which can be made on a particular prescribed undertaking, and provides sub limits for categories of expenditures, including, for example, expenditures on

administration and marketing. A point of note is that while the CNG fuelling stations are required to be within the service territory of the public utility, LNG fuelling stations are not subject to this restriction and are not required to be in the public utility's service area.

In the AES Inquiry, the Commission determined that: "LNG Activities which are done as a Prescribed Undertaking under the Greenhouse Gas Reduction Regulation are to be maintained as a Separate Class of Service with the costs recoverable from the traditional gas utility ratepayers, to the prescribed limit. In the Panel's view, the Regulation was put in place by Government to kick start the natural gas for transportation market. The Regulation allows for the subsidization by the traditional natural gas utility ratepayer of specific activities to support this market to a maximum amount for a period of approximately five years." The GGRR is repealed on April 1, 2017. (GGRR, s. 3)

Commission Discussion

The Commission Panel agrees with the AES findings that the GGRR is intended to kick start the NGT market, including the use of LNG for this purpose. One of the mechanisms for kick starting provides for subsidization from utility ratepayers for the purchase by fleet operators of "eligible vehicles," with the degree of subsidization declining each year of the Prescribed Undertaking, from 100 percent in year 1 to 40 percent in year 6. With demand for natural gas as a fuel secured, entities will be encouraged to provide the LNG service infrastructure required to supply this demand. This could, in turn, drive additional demand. The Panel does not consider that the GGRR necessarily requires FEI – or any other entity – to provide all the LNG service infrastructure required, or to supply all the LNG product. To the contrary, the Commission Panel considers that it is only through a healthy competitive market, with multiple avenues of supply, that using LNG as a fuel for transportation will become a viable option over the longer term.

3.6 Previous CNG/LNG Applications

3.6.1 Application for Approval of a Service Agreement for CNG Service and General Terms and Conditions for CNG and LNG Service

On December 1, 2010, FEI (previously Terasen Gas Inc.) brought an application for approval of a specific service agreement which it had made with Waste Management of Canada Corporation as well as for approval of General Terms and Conditions for the provision of CNG and LNG Service. In its Reasons for Decision attached to Order G-128-11 rejecting the General Terms and Conditions as proposed (CNC/LNG Decision), the Commission expressed its "overarching concern" that core customers be insulated from the costs and risks of the Natural Gas Vehicle program. (CNC/LNG Decision, p. 18) The Commission also expressed the view that "the public interest requires that, if FEI is to provide CNG/LNG services in its capacity as a public utility, it must do so without utilizing any potential economic leverage which it may have as a result of its status as a monopoly distributor of natural gas." (CNC/LNG Decision, p. 19)

The Commission further held that, "to the extent possible, none of the actual costs of the CNG/LNG service offerings be recovered from existing ratepayers." (CNC/LNG Decision, p. 24) The Commission expressed concern that the proposed cost recovery model did not adequately recover the actual, full cost of service from the customer. (CNC/LNG Decision, p. 28) The Commission also noted that the retail distribution of natural gas had no natural monopoly characteristics and expressed the view that: "the public interest would not be served by effectively providing FEI with a competitive advantage over other potential participants in the industry by allowing FEI to subsidize the costs of what would otherwise be an unregulated service, with existing ratepayer money." (CNC/LNG Decision, p. 29)

3.6.2 An Application by FortisBC Energy Inc. for a CPCN for Constructing and Operating a Compressed Natural Gas Refueling Station

On February 29, 2012, FEI applied for a CPCN to construct and operate a CNG refuelling station on the premises of BFI Canada Inc. as well as for approval of the proposed rate design and rates. It its Reasons for Decision attached to Order C-6-12 which granted the CPCN but declined to approve the fuelling charge rate sought of $4.66 per GJ, the Commission held "the presence of both regulated and unregulated competitors in a competitive market [to be] problematic," underscoring the need to ensure the absence of cross-subsidization by FEI's core customers. (Order C-6-12, Reasons for Decision, p. 11)

The Commission found that there were a "significant number of costs" which had not been included in FEI's Cost of Service calculation, and directed that "any amounts which relate to the BFI Project and are not borne by BFI are borne by the shareholder and not the ratepayer." (Order C-6-12, Reasons for Decision, p. 17) It found that FEI's proposed allocation of overhead and marketing costs on an incremental basis was inappropriate and required FEI to "structure its cost recovery of overheads proportionately." It noted that a proportionate allocation would alleviate concerns regarding cross-subsidization from distribution customers, which was important, particularly in the NGT market where "FEI is potentially competing with other unregulated organizations." It noted that "[g]enerally speaking, none of FEI's potential competitors has access to a large group of customers in a regulated monopoly market that is available to assume risk, cost over-runs and start-up costs of an NGT venture. To allow FEI access to its ratepayer base in this manner is neither just nor fair." (Order C-6-12, Reasons for Decision, p. 18) It directed that FEI establish separate classes of service for CNG and LNG. (Order C-6-12, Reasons for Decision, p. 19)

Specific directions included, among others:

> "3. FEI is directed to establish two new service classes, one for CNG Service and one for LNG Service.

> 5(a). All overhead and marketing expenses, including, without limitation, business development, customer education and all costs relating to the CNG/LNG Service program are to be determined using approved, fully allocated cost of service methodology and included in the cost of service.
>
> (b). Fortis is to recalculate the Operations and Maintenance charge in the BFI rate to reflect the cost of the CNG/LNG Service program using the figures of $569,396 for 2012 and $601,119 for 2013, to be allocated among CNG/LNG customers in a reasonable manner.
>
> ...
>
> (e). FEI is to include all other amounts paid by BFI for volumes in excess of the "take or pay" commitment in the existing rate base deferral account approved in the Waste Management Decision to capture incremental CNG and LNG Service recoveries received from actual volumes purchased in excess of minimum take or pay commitments, for refund to all non by-pass customers."
>
> (Order C-6-12)

3.6.2.1 Reconsideration of the CPCN Conditions

By Order G-150-12 dated October 17, 2012, the Commission varied Order C-6-12 to, among other things, direct a separate class of service for CNG only, and on an interim basis, pending the outcome of the AES Inquiry.

The Commission further varied Direction 5(b) (set out above) to require "the figures of $569,396 for 2012 and $601,119 for 2013,...to be allocated among CNG/LNG Service customers and non-bypass natural gas customers in a reasonable manner." In making this change, the Commission found that the Commission directions in both the Waste Management and the FortisBC Energy Utilities (FEU) 2012-2013 Revenue Requirements Decisions "clearly articulated the position that distribution rate class customers should be kept whole." It further found that this was a "marked" change in direction from the negotiated settlement of the 2010-2011 Revenue Requirements Application, where it had been agreed that NGV marketing costs could be recovered from distribution customers in rates. It clarified that "[a]ccordingly, any approval to recover a particular amount in the 2012-2013 FEU Revenue Requirements Application should not be construed as an approval to recover most or all of that amount from non by-pass customers." It noted, however, that when rates flowing from the Commission's Decision in the FEU 2012-2013 Revenue

Requirements Application were calculated, contrary to the direction in the Decision, most or all of the forecast CNG/LNG overhead costs identified were apparently included in rates for distribution customers. The Commission noted FEI's submission that, because the costs in issue were already included in the rates calculated for distribution customers, they could not be also allocated to BFI, and its further proposal to include an incremental allowance for overhead and marketing costs, representing a small portion of one manager's time. The Commission found the proposed allocation to be "entirely insufficient" and noted that the Panel in the BFI Application [resulting in Order C-6-12] was unclear as to "what amounts of what overheads are allocated to what customers; and what was intended to be and what was actually approved" in the FEU 2012-2013 Revenue Requirements Application. It therefore agreed to "consider an alternative allocation of forecast overhead amounts of $569,396 for 2012 and $601,119 for 2013, between the natural gas ratepayers and the customers taking service under GT&C 12B [the tariff which was approved for CNG and LNG Service] if FEI can provide a sufficient evidentiary basis for its proposed allocation."

Given that the Commission maintained CNG Service as a separate class, although on an interim basis, it agreed to vary Direction 5(e) to require the creation of a separate rate base deferral account to capture incremental CNG Service recoveries received from actual volumes purchase in excess of minimum take or pay commitments; disposition to be determined at a future date.

3.7 FEU 2012-2013 Revenue Requirements Application

In its 2012-2013 Revenue Requirements Application, the FEU sought to include a second LNG tanker and a mobile LNG refuelling unit (IMC 6000) as assets in service in rate base. FEU submitted that the second tanker was to be used primarily as a backup resource to the first tanker, for system reliability and integrity during unplanned outages as well as scheduled work. FEU also proposed to use the tanker, when available, to provide transportation service to LNG customers, with the incremental revenue received being used to offset the cost of service of the new tanker. In addition, FEU advised that it was necessary for them to purchase the second tanker in order to comply with Transport Canada requirements relating to FEI's Emergency Response Plan.

The Commission found that the FEU had established the need for the second LNG tanker as a standby tanker for core distribution customers and approved its inclusion in rate base. The Commission also specifically referenced the earlier CNG/LNG Decision, and reiterated the concern that "natural gas distribution ratepayers bear none of the costs of the NGV business." (FEU 2012-13 RRA Decision, p. 103)

In denying the inclusion of the mobile LNG refuelling unit in rate base, the Commission referred to the "message" reflected throughout the CNG/LNG Decision, to the effect that existing ratepayers not be responsible for any of the actual costs of the CNG/LNG Service offerings. The Commission found that the LNG refuelling unit was "not an asset which should in any way be for the account of the natural gas distribution ratepayer" and directed that, to the extent that the LNG refuelling unit had been included in rate base, any costs associated with it were to be removed. (FEU 2012-13 RRA Decision, p. 104)

4.0 ISSUES

4.1 Increasing the Supply Cap

FEI requests an amendment to RS 16 to allow an increase in the volume of sales of LNG from the existing limit of 1,040 GJs per day, which is the equivalent of one tanker load, from Tilbury to 42,000 GJs per week (the equivalent of 6,000 GJs per day) to be supplied from both Tilbury (22,400 GJs per week), and from Mt. Hayes (19,600 GJs per week) when FEVI's truck load-out facility has been completed. Tilbury only has a liquefaction capacity of just over 5,100 GJs per day and the entire storage tank can be emptied in under four days during a callout period. (Exhibit B-1, pp. 5, 34)

Mt. Hayes, the larger facility with greater liquefaction capacity, which cannot be used to dispense LNG until it has a truck load-out facility, is requested to be relied upon for no more than 19,600 GJs per week (2,800 GJs per day) commencing in January of 2014 or when it has a load-out facility, whichever is later. (Exhibit B-1, pp. 5, 34)

The table below summarizes the potential use of the two peaking/storage facilities and their liquefaction capacities. It compares the current time to fill the storage tanks with the time to fill them if the supply cap is increased as requested in the Application.

TABLE 4

	Tank Size (GJ)	Liquefaction Capacity (GJs per day)	Applied for (GJs per day)	% of Liquefaction Capacity Applied for	Current Time to Fill (days)	New Time to Fill (days)
Tilbury	606,500	5,110	3,200	63%	119	318
Mt. Hayes	1,614,8200	8,200	2,800	34%	197	299
Total	2,221,500	13,310	6,000			

(Source: Derived from Exhibit B-1, pp. 5, 34)

Commission Determination

The Commission Panel approves a maximum quantity of LNG for sale under RS 16 of 3,200 GJ per day from Tilbury. This is the daily equivalent of the requested weekly amount of 22,400 GJ, assuming a 7-day week. It represents more than triple the amount currently available, but is less than Tilbury's daily liquefaction capability**. The Panel also approves a maximum quantity of LNG for sale under RS 16 of 2,800 GJs per day from Mt. Hayes, once it has a tanker truck loading facility.** This amount is equivalent to the amount requested, but also calculated on a daily basis. This amount again, is less than Mt. Hayes' daily liquefaction capability. The Panel finds this is necessary to protect core customers. **These are hard caps applicable to each facility and cannot be combined.**

The Commission Panel is not prepared to modify the status quo from the existing calculation of available LNG, which is based on a daily limit, to a weekly limit. The Commission Panel is of the view that, given that the LNG liquefaction facilities have never been operated on a year round full time basis, using daily allotments, as is currently done, will assist in ensuring that the LNG supply is monitored closely. The Commission Panel notes that FEI makes ongoing operational decisions regarding management of its gas supply resources on a daily and sometimes hourly basis in any event. (Exhibit B-4-1, BCUC IR 1.30.8) The Commission Panel further notes that a daily allotment is also contemplated by the proposed LNG Dispensing Service Agreement between FEVI and FEI. (Exhibit B-1, Appendix M, section 4)

The Commission Panel also notes that FEI has been dispensing LNG pursuant to the Pilot Project for only approximately one and one half years. The Pilot Project also has over one and one half years remaining on its original term. The Panel considers that the results to date are insufficient to allow for a reasonable review of different operating scenarios. In other words, the results to date do not reflect a full range of operating circumstances, such as extreme weather events or upstream operational problems, upon which to base forecasts of the availability of liquefaction and storage capacity for RS 16 customers with a reasonable degree of confidence.

4.2 Permanent Rate Schedule

FEI submits that, as RS 16 has "already been in pilot mode since 2009," sufficient knowledge and experience have been acquired to warrant making the proposed amended RS 16 permanent. In FEI's view, RS 16, as amended, should be approved on a permanent basis. It submits that to extend it for a further test period would not provide customers with sufficient confidence that LNG supply will be available for the life of their vehicles. "This change will provide confidence to Rate Schedule 16 customers, who have invested or will be investing in long term assets such as heavy duty vehicles and fueling stations, that they will be able to receive long term LNG sales and dispensing service from FEI." (Exhibit B-4-1, BCUC IR 1.7.9; FEI Final Submission, p. 28)

BCSEA is of the view that "[s]ignificant greenhouse gas (GHG) emissions reductions benefits, as well as air pollution reduction benefits, will arise from the substitution of LNG for diesel fuel for heavy-duty and long-distance transportation, and potentially other purposes, that would be enabled by the establishment of a permanent LNG rate for firm LNG service." (BCSEA Final Submission, p. 1)

CEC submits that "[t]he competitive business value proposition of cost savings is sufficient to drive the need for approval of the permanent Rate 16 tariffs." (CEC Submission, p. 15)

Ferus LNG submits that "a reasonable extension to the pilot program would be to March 31, 2017 to coincide with the repeal of the GHG Regulation on April 1, 2017. That would provide for an appropriate time to review the amended RS 16 to determine whether its continuation and in what form is warranted." It further submits that "[t]o the extent the Commission determines contract terms for service related to Prescribed Undertakings need to extend beyond March 31, 2017, such service could be Grandfathered." (Ferus Submission, p. 11)

In its Reply Submission, FEI submits that "[i]t is not credible to suggest that potential LNG customers would be willing to purchase LNG assets that have a lifespan of 10 to 20 years without assurance of a fuel source beyond March 31, 2017. ...[t]he evidence is clear that a continuation of

Rate Schedule 16 on a pilot basis would be unacceptable to potential LNG customers taking incentives under the GHG Reduction Regulation and would undermine FEI's ability to optimize the use of existing LNG assets to the benefit of core customers." (FEI Reply Submission, pp. 5-6)

However, FEI also agrees "that there is a high likelihood that additional LNG supply will be added in Western Canada prior to 2017." It submits that "[t]he emergence of these facilities is expected and FEI expects that there will be many more LNG plants required to service growing demand for LNG. For example, looking solely at the BC market for motor fuels, if LNG were to take a 6 percent share of this market it would translate to a need for approximately 30,000,000 GJ of LNG (777 million diesel litre equivalent per year). The capacity requested under this Application is a small but important part of the LNG supply picture that will be key to help initiate the transition to LNG from diesel." (Exhibit B-4-1, BCUC IR 1.13.1; Exhibit B-16, BCUC IR 2.19.1)

FEI supplied the table below showing expected facilities to supply LNG for transportation in Western Canada.

TABLE 5
Western Canada LNG for Transportation

LNG Facility	Estimated In-Service Date	LNG Production GJ's per year	Diesel Litre Equivalent per year
FEI Tilbury – Existing	March 1, 2011	379,600	9.8 million
FEI Tilbury – Proposed	January 1, 2013	1,168,000	30.2 million
Encana Cavalier Plant	January 29, 2013	146,000	3.8 million
FEVI Mt. Hayes – Proposed	January 1, 2014	1,022,000	26.5 million
Shell – Jumping Pound	2013	14,600,000	378.1 million
Encana/Ferus – Grande Prairie	2014	1,825,000	47.3 million

(Exhibit B-16, BCUC IR 2.19.1)

Commission Determination

The Commission Panel is prepared to extend amended RS 16, as approved herein, for a further term of approximately seven years, to December 31, 2020. As FEI has forecast it will have no additional excess LNG capacity beyond 2016 (even with the proposed increased RS 16 supply – see Table 1, above), this period should provide sufficient certainty of supply in the near term and also allow all potential new customers a reasonable period of time to realize any benefits available from using LNG for transportation. The evidence of increasing demand during this period could incent other potential LNG suppliers to provide additional LNG infrastructure and/or supply, thereby resulting in the establishment of a robust competitive market. In the Panel's view this is the best way to ensure that a clean, competitively-priced alternative to diesel fuel is available beyond 2016, when FEI no longer has the ability to provide for the additional projected LNG demand. In the event that a competitive market does not emerge, FEI is free to apply to extend RS 16 for a further period.

The Commission Panel further disagrees with FEI that sufficient experience has been gained from the Pilot Project. RS 16 in its current form allows for the provision of one tanker load per day from the Tilbury facility. As the Panel has previously noted, the Pilot Project still has over 1.5 years remaining on its original term. The Panel considers that the results are incomplete and the Pilot Project has not been fully tested or understood. The proposed amendments will more than triple the volume to be provided from that facility and will require operation of the liquefaction process on a full time, or close to full time, basis, which has never been done.

Given that a goal of the GHG regulation is to try to kick start a market which may become competitive in the future, it may be necessary to revisit RS 16, depending on future market conditions, to price the service at market rates. The Panel finds that an extension to the temporary tariff will best facilitate this potential eventuality.

The Commission Panel is also of the view that modelling based on various assumptions is not a perfect substitute for testing in the field. The LNG facilities are critical core assets, built to protect the core customer. Continuing the Rate Schedule on a longer, but term basis will allow further testing and understanding of actual demand and supply scenarios.

4.3 Allocation of Storage Capacity

FEI submits that "the introduction of Rate Schedule 16 does not reduce FEI and FEVI's access to the Tilbury and Mt. Hayes facilities in meeting core market demand, in terms of capacity or daily deliverability. As such, to the extent capacity is permanently allocated to Rate Schedule 16 Customers at the Tilbury and Mt. Hayes facilities, this would not have the effect of reducing the capacity in the region...all else being equal." (Exhibit B-4-1, BCUC IR 1.26.6)

FEI submits that "[u]nder the proposed Rate Schedule 16 application there is a mutually beneficial synergy between use of the storage facilities for peaking and market area storage and use of the facilities to buffer smaller fluctuations in Rate Schedule 16 market demand. By allocating 0.1 PJ of the 2.2 PJ of useable storage to the Rate Schedule 16 service, additional Rate Schedule 16 sales can be made which generate $6.7 million/year in financial benefits to core customers, while preserving capability to service core requirements under all projected operating scenarios." (Exhibit B-4-1, BCUC IR 1. 23.3)

Ferus argues that given "RS 16 Commercial Service deals only with Excess Capacity from utility assets, it is important that any amended RS 16 preserve the utility's priority use of such assets for Utility Service." It submits that dedicating or allocating capacity from utility assets to RS 16 Commercial Service is contrary to the rationale for such assets being in rate base to begin with because the assets were only acquired as they were needed for Utility Service. (Ferus Final Submission, p. 9)

FEI, however, concludes that "the results show that, even under design peak day conditions, and with a higher utilization of liquefaction capacity throughout the year, there is sufficient storage capacity to serve both core and Rate Schedule 16 customers." (FEI Final Submission, p. 8)

Commission Determination

The Commission Panel agrees with Ferus and notes that allocating specific capacity to the NGT market, by necessary implication, causes the core to become the party with access to only excess capacity over the firm capacity allocated to RS 16 customers.

The Panel disagrees with FEI's contention that it is necessary to provide guaranteed storage capacity to enable LNG sales. The Panel has approved the use of sufficient liquefaction capacity to provide for sales to RS 16 customers and does not see firm storage capacity as necessary. RS 16 customers are entitled to access only excess capacity.

The Panel has previously found that there is no guaranteed excess year round storage capacity, particularly given the role of natural gas storage as an "insurance policy." Due to concerns over ensuring that core customers are adequately protected and the longer period of time required to fill the tanks with liquefaction being used in large measure to supply the NGT market, **the Commission Panel is not prepared to allocate any storage to RS 16 service at this time.** Although the probability of a significant call out during the winter season may be reasonably low, based on the past 20 years of historical data, and on the addition of Mt. Hayes storage to the system, the Commission Panel believes there remains a need to protect core customers, not only from unexpected extreme weather events, but also from potential changes in price and availability of spot supply and market storage.

In making this determination, the Panel recognizes that some tank storage capacity will necessarily have to be used in order to deliver the daily limit of LNG to RS 16 customers. What is at issue is that FEI is seeking to assure its LNG customers that they will have access to LNG even in a situation

such asan extreme weather event where FEI might normally call on that last 50 TJ of storage to satisfy the core market, instead of calling on its other peaking resources.

The need for storage arises because of a number of operational factors, including:

- Liquefaction rate may not match the dispensing rate; and
- Timing of liquefaction and procedures regarding tank filling may result in tank drawdown due to LNG sales.

The Commission Panel will not make any determinations with respect to these operational factors. However, FEI is expected to use its best efforts to ensure that the tank is, to the extent possible, kept reasonably close to full on an ongoing basis. The Panel expects that FEI will operate the facilities such that they remain as full as practical regardless of whether a portion has been allocated to the LNG market or not.

Given the untested additional demands on the liquefaction capacity at both facilities **the Commission Panel directs FEI to report on storage tank levels at each of Mt. Hayes and Tilbury on a quarterly basis, until further notice.**

The Commission Panel is of the view that FEI's customers should be encouraged to build their own buffer storage facilities to mitigate against the unlikely event that supply is not available. The Panel notes that BC Ferries has contemplated exactly this eventuality. (Exhibit B-1, Appendix D, p. 15)

4.4 Firm vs. Interruptible

FEI submits that "Rate Schedule 16 is interruptible, which is unacceptable for LNG customers that need a secure source of supply. To reflect the firm service, an allocation of storage capacity is also required." (FEI Final Submission, p. 3)

FEI confirmed that, in spite of the interruptible nature of RS 16, Vedder "was prepared to overlook the "interruptible" title on the tariff after consideration of the overall supply system capabilities and the low probability that supply would be interrupted," in actual fact. FEI did also indicate that other potential customers, such as BC Ferries "… have indicated that interruptible service is not acceptable to them." (Exhibit B-15, Ferus IR 2.13.7)

Ferus argues, citing section 4.2 of the current RS 16, that "'Firm' Contract Demand service is still classified by Type as "Interruptible." As such, FortisBC currently retains the ability to interrupt Firm Contract Demand service, subject to relief of minimum monthly charges for interruptions in excess of 72 hours." (Ferus Final Submission, pp. 11 – 12)

Ferus submits that "FortisBC's position is clear—RS 16 Commercial Service can be offered without any fear of impacting Utility Service." In Ferus' view, "the corollary to this position is that interruption of RS 16 Commercial Service in order to meet Utility Service needs is not a concern. FortisBC has presented significant evidence to establish that even under the proposed increase of LNG available for RS 16 Commercial Service, such service will not impact Utility Service. It follows, then, that the quality (lack of interruption) of RS 16 Commercial Service is projected to be extremely high and should not prevent commercial entities from committing to LNG."

Ferus notes that the RS 16 status quo – interruptible service – has been no barrier to LNG customers. It submits that parties have made commitments to LNG on the basis of the existing RS 16 terms and conditions. Further, in Ferus' view, while commercial interests may be important, they cannot trump the importance of core markets, since the interruption of commercial service does not generally have consequences as severe as those which may result from an interruption of core service. It also states that "most important, is the high quality of RS 16 Commercial Service regardless of retaining priority for Utility Service." It points out that Firm Contract Demand under RS 16 Commercial Service has never been interrupted since its introduction in 2009, and that FortisBC's application is replete with evidence to the effect that it can meet its RS 16 Commercial

Service projected requirements without affecting Utility Service. (Ferus Final Submission, pp. 11-12)

FEI submits that given the need of incentive-based customers for firm service, continuing RS 16 on an interruptible service would indirectly prevent FEI from carrying out prescribed undertaking No. 1 under the GHG Reduction Regulation, which would be contrary to section 18 of the CEA. (FEI Reply Submission, p. 5)

Commission Determination

The Commission Panel has previously found that there is no excess storage capacity and that allocating storage to LNG transportation customers would require repurposing the tanks. Accordingly, and to be consistent with the Commission Panel's previous decision concerning storage capacity, **the Panel is not able to approve firm service at this time**.

In making this determination, the Commission Panel notes that as a general rule, public utilities are not in a position to guarantee service 100 percent of the time, as any number of factors, including severe weather, may intervene resulting in an interruption of supply. In this case, it is also important to recognize the priority of the core distribution customer to these rate base assets, with Rate Schedule 16 customers entitlement limited to any excess supply. **The Panel approves removal of the "interruptible" title on RS 16, provided the Tariff contains a proviso ensuring that adequate excess capacity exists prior to any obligation on FEI to provide the product.** This language, in the Panel's view, will serve to preserve the priority of core customers to these rate base assets, while giving comfort to the NGT customers that the service is not intended to be interrupted, unless in an extreme situation. As the Panel has previously noted, LNG customers can mitigate against this unlikely event by providing their own storage facilities.

The Panel further notes that service stations offering diesel and gasoline for the trucking industry do not purport to offer "firm" fuelling service, but rather offer first come, first served service, when product is available.

The Panel will make further determinations on FEI's submission concerning the GHG regulation in section 4.7 of this Decision.

4.5 Tanker Service

In addition to the current dispensing service, FEI proposes to provide an optional LNG transportation service whereby customers can obtain their LNG using FEI's LNG tankers. FEI submits that this "proposed transportation service is required to ensure that LNG can be transported to FEI's incentive customers under the GHG Reduction Regulation." FEI further submits that "[t]here are no other tanker fleets based in BC to provide this service." However, FEI acknowledges that "Ferus and other parties may indeed be capable of providing this service in the BC marketplace." (Exhibit B-1, pp. 32-33; Exhibit B-15, Ferus IR 2.11.2; FEI Final Submission, p. 26)

FEI submits that "the transportation of LNG for wholesale distribution [as distinct from retail distribution], falls within the definition of "public utility" in the [UCA]." (FEI Final Submission, p. 25)

FEI takes the position that it should be able to pursue this LNG transportation service in its capacity as a public utility and that this transportation service "is a prudent way to increase the utilization of core rate base assets to the benefit of all customers." It states that "pursuit of a non-regulated option would lead to wasted resources, reduced use of FEI's existing regulated assets, lower revenues for existing customers and delay to the growth in the RS 16 market as a result of delays in securing replacement tankers. In contrast, FEI's proposed tanker service provides assurance that customers taking incentives will in fact have a reliable and secure transportation service available. The proposed transportation service is part and parcel of FEI's other regulated activities, and

necessary to carry out the prescribed undertakings. FEI therefore submits that it is appropriate that it be considered part of the public utility service." (FEI Final submission, p. 27)

Ferus submits that this argument is flawed, because it is based on an incorrect factual premise. It states that FortisBC appears to be under the impression that if it establishes a separate, non-regulated tanker business, then the two tankers already in rate base "...would not be able to be used." In Ferus' view, the existing two tankers in rate base will continue to be able to offer service to the extent they have excess capacity. Ferus further submits that the establishment of a Non-Regulated Business to provide general LNG tanker service will in no way impede FortisBC's ability to utilize its existing rate-base LNG tankers to generate revenue from excess capacity. "These tankers would, of course, have to compete for such service with the Non Regulated Business, but that is as it should be." (Ferus Final Submission, p. 21)

FEI disagrees with Ferus' position on a number of grounds, including:

- "Sales… which will be in bulk to customers who will or may be reselling the fuel, involves the wholesale sale of LNG and that the associated tanker transportation is part of the wholesale service. The delivery of LNG for wholesale purposes is regulated under the Act regardless of who is providing the service."
- "The existing two tankers would not have capacity to serve the market, making the proposed optional tanker service unworkable as an open tariff available to all customers."
- "Until there is a developed market for tanker service, it is essential that a transportation service be offered to facilitate the use of vehicles purchased with incentives under the GHG Reduction Regulation. As the optional transportation service is needed to facilitate prescribed undertakings, FEI submits that it is appropriate that it be a regulated service along with prescribed undertakings."
- "Allowing a regulated transportation service is efficient in these circumstances because it is supplemental to the use of existing regulated assets."
- "FEI's transportation service is optional and priced higher than the fully allocated cost of service and the market rates that FEI had available."

(FEI Reply Submission, pp. 8-10)

The CEC submits that "FEI has provided the evidence from the record, which supports the provision of optional transportation services and how that might work with the integrated public utility service and with the non-regulated service contemplated in the AES Inquiry. FEI describes the setup of an independent non-regulated service as a very inefficient approach to establishing the Business." It also states that "[e]fficient use of existing resources in new services which do not compromise the existing system in a significant way makes for a win-win value proposition for a new business concept. (CEC Final Submission, p. 11)

Commission Determination

The Panel has previously found that the purchase of additional tankers is not required by the core utility business. The Panel agrees with parties that argue for the continued use of excess capacity in the utility-owned tankers. **The Commission Panel affirms that this use of the excess capacity of the existing tankers can be included as a service under RS 16.** However, **the Commission will not approve the purchase of any additional tankers by FEI.** Tanker service from a non-regulated affiliate could be provided at the same rate as the tanker service from the utility assets. The Panel agrees that the provision of LNG to a retail reseller may indeed meet the definition of a "public utility" under the UCA. However, there is no evidence in this proceeding that businesses engaged in reselling LNG, are, or will, take any of the limited supply of LNG available under RS 16. The Commission Panel notes that LNG customers are for the most part taking LNG to fuel their fleets of trucks or other vehicles, or are otherwise end users of the product. Incentives are being provided to encourage customers in the transportation industry to convert their fleets of trucks to eligible vehicles running on natural gas, including LNG. It may be that some of these customers may on occasion attempt to resell their LNG in the event that they have excess supply. In the Panel's view, this incidental activity does not transform these customers into retail distributors of LNG, thereby conferring the status of wholesale distributor on FEI.

To the extent that a customer taking service under RS 16 becomes engaged in reselling, FEI can arrange its business affairs to utilize the excess capacity of the utility owned tankers. The Panel will

not approve the acquisition of additional tankers in the utility. The Panel will make further determinations on FEI's submission concerning the GGRR n in section 4.7 of this Decision.

The Panel approves the Tanker Charge of $249 per day for FEI's two existing tankers, and approves the proposed methodology of passing actual third party tractor transportation costs on to the customer, with a 15 percent mark up to cover administration costs.

4.6 Allocation of LNG to Customers and Projects

FEI is seeking approval of revised definitions in RS 16 which would restrict LNG sales to a Customer for a single Project of fifteen percent of the Available LNG Capacity or 250, 000 GJs per year. A Customer does not appear to be limited to any particular number of projects. (Exhibit B-4-2, p.1)

Commission Determination

The Commission Panel is concerned that the above revisions may unfairly result in a few customers taking all or substantially all of FEI's limited LNG supply, when "the intention of limiting the Contract Demand to one Customer or one project was to create some diversity in the LNG market." (Exhibit B-4-1, BCUC IR 1.16.1)

The Commission Panel approves the requested definition revisions but directs FEI to report on the volumes taken by customer and/or project on an annual basis.

4.7 Alignment with the Prescribed Undertaking

The GGRR essentially provides, among other things, authorization to public utilities:

- to provide up to $62 million for "eligible" natural gas vehicle funding; and

- to spend up to $30.5 million on LNG fueling stations and tanker truck load-out facilities, (including expenditures on administration and marketing).

(GGRR, ss. 1, 2)

FEI submits that amendments to RS 16 must be approved to permit FEI to carry out the prescribed undertakings under the GGRR. It maintains it "is unable to finalize incentives under the GHG Reduction Regulation until there is assurance that there will be a reliable and continuous supply of LNG for customers to operate their vehicles." It submits that "[a]s FEI's Tilbury and Mt. Hayes LNG facilities are the only supply of LNG in the Province, supply from these facilities is necessary for FEI's NGT Incentive Program to succeed." (FEI Final Submission, pp. 2-3, 32)

FEI states that its projection for LNG demand is linked to the NGT Incentive Program. However, it cites other factors that will also support forecasted demand growth. These factors include: alternative government policies that encourage reduction of GHG emissions in British Columbia; the pricing advantages of using natural gas versus diesel as a transportation fuel; and the availability of other LNG related service offerings, such as FEI's LNG fueling service offering. FEI thus expects that demand for LNG supply will continue to grow beyond the end date of the current NGT Incentive Program. It also submits that further development of LNG supply capacity and facilities is expected to be required to serve the continued demand growth beyond 2017. However, it notes that any projection based on such development is beyond the scope of this Application. FEI does confirm, however, that its intention is to promote the NGT market only if it is favourable to its customers. (Exhibit B-1, p. 9; FEI Reply Submission, p. 14)

FEI also agreed that "there is a high likelihood that additional LNG supply will be added in Western Canada prior to 2017" and that, although permitting and constructing a new LNG facility is a complex undertaking, "[i]t is possible that new facilities may be available as early as late 2014." FEI provided links to various presentations made by participants in the LNG industry, including Shell. According to this material, Shell is planning, in the 2013-2014 timeframe, 5 "Flying J" LNG dispensing facilities in BC, including two in the Greater Vancouver area and one in Kamloops. (Exhibit B-4-1, BCUC IR 1.13, 1.14.1)

In this Application, FEI also confirmed that: "FEI is pursuing the development of the NGT market to offset actual and projected declines in annual gas demand in order to keep delivery rates at competitive levels for all customers." FEI also provided this justification in its CNG-LNG for Vehicles application dated December 10, 2010. (Exhibit B-1, p. 13)

Commission Determination

The Commission Panel is of the view that the determinations contained in this Decision do not prevent FEI from carrying out any prescribed undertakings, either directly or indirectly. The GGRR provides for a public utility, such as FEI, to make expenditures in certain areas, which are defined as "prescribed undertakings." These prescribed undertakings allow FEI to, among other things:

1. provide grants or zero interest loans to persons in BC for the purchase of "eligible vehicles" to be operated in BC and to provide grants to implement safety practices or improve maintenance facilities to meet safety guidelines for operating and maintaining these vehicles;
2. construct or purchase, and operate tanker truck load-outs or LNG fuelling stations for the purpose of providing within BC, LNG fuel and fuelling services to owners of vehicles which operate on LNG.

None of these activities are directly the subject of this Application.

The Panel notes that the GGRR does not require FEI to be the sole provider of LNG supply infrastructure or the LNG commodity. The Commission Panel further notes that FEI's position is that only excess capacity from its existing LNG facilities should be made available to LNG transportation customers. The Panel considers that additional LNG demand, in excess of the approved RS 16 amounts, can better be met by unregulated businesses, as was found in the AES Inquiry Report.

The Panel is of the further view that the language of the GGRR is specific in terms of expenditures which are recognized as "prescribed undertakings." Nothing in the GGRR purports to suggest that

the position of core ratepayers should be compromised in terms of their access to natural gas. This Decision provides FEI with an increase in the supply of LNG available under RS 16 which is sufficient to meet the demand that it has projected through the period of the Regulation.

In determining the amount of LNG available to NGT customers as being subject to a daily limit, and also subject to capacity existing in the system, the Panel is not attempting to prevent, nor is it preventing FEI from carrying out any prescribed undertaking. The prescribed undertaking relating to the provision of grants and zero interest loans is separate and distinct from the prescribed undertaking relating to LNG fuelling stations. Grants and zero interest loans are available not only to vehicles fuelled by LNG but also to vehicles fuelled by CNG. There is no grant or loan amount specifically designated to be provided for either CNG or LNG fuelled vehicles. The GGRR contemplates the construction of fuelling facilities for both CNG and LNG vehicles. Further, the GGRR does not designate any particular LNG supplier.

The CEA signals the BC government's desire to promote the use of natural gas as a transportation fuel by enabling public utilities to pursue programs and make expenditures that advance Government objectives for medium and heavy duty fleet vehicles, buses and marine vessels. The main reason put forward by FEI in support of its need for firm capacity is that FEI is requiring customers who receive grants to agree to only buy LNG from FEI. This is not a requirement of the prescribed undertaking, and could, in the Panel's view, undermine its purpose, in that it will prevent other parties from potentially entering the arena. In the Panel's view, the GGRR should not be construed as granting a monopoly LNG dispensing franchise. On the contrary, given the UCA's exemption for persons engaged in the petroleum industry, the Panel considers the development of a competitive LNG dispensing market to be consistent with both the GGRR and the UCA. The AES Inquiry has previously found that all participants in the nascent LNG market (other than utility participants doing so as Prescribed Undertakings) should be non-regulated entities to ensure the existence of a dominant player and the additional costs which flow from regulation do not impede the competitive market. In this regard, the Panel notes the evidence in this proceeding that companies such as Shell currently have plans to develop LNG fuelling facilities in British Columbia.

It can only help to achieve the objectives of the CEA if there is a broader market available in British Columbia from which to purchase the LNG. In the Panel's view, LNG operators who receive funding for vehicles under the GGRR should not be prevented from purchasing from an alternate provider.

The Prescribed Undertaking does require LNG customers to enter a take or pay agreement for at least 80 percent of the energy provided at each fuelling station with a minimum term of five years. In the Panel's view, the purpose of this requirement is to recover the cost of the fuelling station. It does not require the customer to take energy from only that station.

For example, the Panel notes that Encana has indicated an intention to construct an LNG facility near Strathmore, Alberta to service, among other things, long haul trucking. (Exhibit A2-14) The Panel further notes Vedder's announced intention to transition its long haul flat deck fleet which runs into northern Alberta to natural gas. (Exhibit A2-15) To the extent that fleet transformations similar to the one announced by Vedder and noted above are dependent on incentive funding, they would be less likely to take place with a condition that all LNG needed to be provided by FEI.

With regard to FEI's position that "the optional transportation [tanker delivery] service is needed to facilitate prescribed undertakings," the Commission Panel does not agree that this necessarily implies that FEI must provide the tanker delivery service or increase its tanker fleet beyond what is required for the core. This service can be provided by any carrier, including an unregulated affiliate of FEI.

4.8 Application Costs

FEI proposes that the RS 16 Application costs should be treated the same as other tariff application costs, and recovered from all non-bypass customers through the NGV Application Deferral Account. In its view, this is "the only appropriate treatment of the Application costs, which should be approved." (FEI Final Submission, pp. 30-31) In support of this position, it submits:

"The Application costs are not for the actual provision of LNG storage and dispensing service, but are one-time costs of an application to determine and clarify the treatment of an existing natural gas delivery rate. The costs of tariff applications are regularly recovered from all non-bypass customers. Rate Schedule 16, like other FEI transportation tariffs, contributes to revenues (via margin). As non-bypass rate payers receive the delivery margin benefits, they should incur the application costs.

Non-bypass customers include Rate Schedule 16 customers, so they are bearing a portion of the Rate Schedule 16 Application costs. As non-bypass customers, Rate Schedule 16 customers will also bear a portion of all other application costs that are routinely recovered from all non-bypass customers. It would therefore be unfair to force Rate Schedule 16 customers to bear other application costs, but not have costs for Applications related to Rate Schedule 16 shared amongst customers.

FEI's proposed treatment is consistent with Commission Order G-161-12, which approved the recovery from all non-bypass natural gas ratepayers of the costs related to Prescribed Undertaking 1 and all revenues and costs related to fueling station costs, including application costs, for Prescribed Undertakings 2 and 3. Similarly, the AES Inquiry Report directed that the costs related to LNG activities undertaken as Prescribed Undertakings should be recovered from the traditional gas utility ratepayers.

Since the costs of this Application are necessary to carry out the prescribed undertakings, they should similarly be borne by all non-bypass natural gas customers.

The $4.25/GJ proposed delivery charge already includes a contingency amount above the cost to serve Rate Schedule 16 customers, as described in section 9.2.6 of Exhibit B-1-1. Including the Application costs in the calculation of the charge would therefore not impact the proposed Rate Schedule 16 delivery charge."

(FEI Final Submission, pp. 30-31)

Commission Determination

The Panel is of the view that these Application costs should not be included in the general NGV Application deferral account but should be maintained separately for greater clarity.

Accordingly, the Panel denies FEI's request to include the Application costs in the general NGV Application deferral account and directs that the Application Costs be placed in a new deferral account, attracting interest only, and amortized into rates over one year, beginning in the next revenue requirement period.

4.9 RS 16 Charges

FEI proposes an amended RS 16 delivery charge of $4.25 per GJ for LNG at the dispensing nozzle, in addition to the commodity cost. This is a blended rate covering the supply of LNG from both Tilbury, which is currently the sole source of supply, and Mt. Hayes, which cannot be used to supply LNG until it has a truck load-out facility.

The current delivery charge covers the to cost to transport natural gas from the delivery point at Sumas to the liquefaction facility at Tilbury through the transmission system pipeline, liquefy it, store it and dispense it into a tanker. As noted, this component of the rate is in addition to the commodity cost, which is based on the Sumas monthly Index Price, and will vary on a monthly basis. (Exhibit B-1, p. 48, 55)

The components of the current delivery charge are:

- Operations & Maintenance - (covering Liquefaction, Storage & Dispensing);
- Capital Recovery;
- Pipeline Transportation of Gas (from Sumas to Tilbury);
- Peaking Arrangement Costs.

Currently, all of the costs noted above, other than the Pipeline Transportation of Gas cost, which is based on Rate Schedule 22, and varies with changes to that rate, increase annually, at the rate of inflation as measured by the *British Columbia Consumer Price Index – All Items, Monthly Index*.

FEI proposes that subsequent adjustments to the RS 16 rate will be based on future Revenue Requirement Applications or other filings. (Exhibit B-1-1, pp. 63, 65)

Table 6 below sets out what FEI advises is the current Delivery Charge, by component.

TABLE 6

Delivery Component	Timing of Changes	Source for Change	Current Rate ($/GJ)
O&M (Liquefaction, Storage & Dispensing)	January 1, each year	BC CPI – All Items Monthly Index	$2.01
Capital Recovery	January 1, each year	BC CPI – All Items Monthly Index	$1.13
Transportation Sumas to Tilbury Delivery Rate	As Required	Change in RS 22	$0.83
Peaking Arrangement	January 1, each year	BC CPI – All Items Monthly Index	$0.08
TOTAL RS 16 DELIVERY RATE			$4.05

(Source: Exhibit B-1-1, p. 49)

The Delivery Component can be further broken down as follows:

TABLE 7

Component	Sub-Component	Current Methodology	Proposed Change	Rate
O&M	Liquefaction & Dispensing	O&M/Total Liquefaction Volumes	None	$2.01
	Storage	O&M/Total Liquefaction Volumes	O&M * % LNG tank storage used for Market LNG / LNG Transportation Volume	
Capital Recovery	Liquefaction & Dispensing	NBV Assets x RORB1,2 / Total Liquefaction Volume	[(Mid Year Average NBV Assets * RORB[1]) + Depreciation + Tax Expense] / Total Liquefaction Volume	$.1.13
	Storage	NBV Assets x RORB1,2 / Total Liquefaction Volume	[(Mid Year Average NBV Assets * RORB[1]) + Depreciation + Tax Expense] * % LNG tank storage used for Market LNG / LNG Transportation Volume	
	Property Tax	Not Included	Property Tax on Storage Tank * % LNG tank storage used for Market LNG / LNG Transportation Volume	$0
Transportation		Rate Schedule 22	(Rate 22A Demand Charge + Firm MTQ)	$0.83
Inventory & Peaking	Inventory	Not Included	Return on Rate Base & Tax on Cost of Gas for Storage of LNG Market Volume / LNG Transportation Volume	$0
	Peaking	Market premium for securing gas supply at the Huntingdon market	Market premium for securing gas supply at the Huntingdon market	$.0.08

Note: 1 RORB – Return on Rate Base

(Source: Exhibit B-1-1, p. 51; Exhibit B-4-1, BCUC IR 1.49.1, 1.50.1)

4.9.1 Scenarios

FEI modelled the following four scenarios for LNG production and sales under RS 16:

Scenario 1 assumes base operation production for the core market only, with no sales of LNG under RS 16. Base liquefaction operation for Tilbury is 932 GJs per day, base liquefaction operation for Mt. Hayes is 3,794 GJs per day. This scenario suggests LNG production volumes below the current level at Tilbury. (Exhibit B-1-1, pp. 52-53)

Scenario 2 assumes the volumes produced include the additional volume as currently approved for Tilbury under RS 16, for each of Tilbury and Mt. Hayes. Volumes are equal to the base operation production volume of 932 GJ per day for Tilbury, plus another 1,040 GJ per day, totalling 1,972 GJs per day. For Mt. Hayes, the volume is its base operation production volume of 3,794 GJs per day plus the additional 1,040 GJs per day currently approved for RS 16, totalling 4,834 GJs per day. (Exhibit B-1-1., pp. 52-53)

Scenario 3 assumes increased production beyond that modelled for scenario two. Scenario #3 assumes base operation for Tilbury of 932 GJ per day plus an additional 2,500 GJs per day for a total of 3,432 GJs per day. For Mt. Hayes, Scenario 3 assumes base operation production of 3,794 GJs per day plus an additional 2,000 GJs per day for RS 16, totalling 5,794 GJs per day. (Exhibit B-1-1., pp. 52-53)

Scenario 4 is the design scenario, which contemplates the maximum additional liquefaction available without compromising FEI's capability to meet core customer needs under design day peak requirements, and represents the volumes from each facility as requested in the Application. For Tilbury, this equates to the base operation production of 932 GJ per day plus an additional 3,200 GJ per day for RS 16 for a total of 4,132 GJs per day. For Mt. Hayes, this equates to its base operation production of 3,794 GJs per day plus an additional 2,800 GJs per day for RS 16, for a total of 6,594 GJs per day. (Exhibit B-1-1., pp. 52-53)

The four Scenarios are depicted in tabular form below.

TABLE 8
Production Scenarios

	TILBURY				MT. HAYES				TILBURY & MT. HAYES
SCENARIO	Base (GJ/Day)	Additional (GJ/Day)	Total (GJ/Day)		Base (GJ/Day)	Additional (GJ/Day)	Total (GJ/Day)		TOTAL (GJ/Day)
Scenario 1	932	0	932		3,794	0	3,794		4,726
Scenario 2	932	1,040	1,972		3,794	1,040	4,834		6,806
Scenario 3	932	2,500	3,432		3,794	2,000	5,794		9,226
Scenario 4	932	3,200	4,132		3,794	2,800	6,594		10,726

(Sources: Exhibit B-1-1, pp. 52-53)

4.9.2 Cost Allocation

As noted earlier, the foundation of RS 16 is the potential existence of excess capacity at Tilbury and Mt. Hayes. As these facilities were constructed for core market customers, the costs are/have been included in rates for non-bypass customers. It is therefore necessary to allocate a portion of these costs to RS 16 customers, for credit to the core.

FEI has identified the incremental variable costs associated with increased production at these facilities, and has looked at other fixed cost components for the purpose of allocating costs as between RS 16 customers and core market customers.

4.9.2.1 Operations & Maintenance - Liquefaction, Storage, Vaporization and Dispensing

4.9.2.1.1 Liquefaction and Dispensing

FEI proposes to allocate liquefaction and dispensing costs based on the volume of LNG produced for each market "because they vary with volume." FEI argues that "if a facility is operated 50% to service one market and 50% to serve another and the volumes produced and/or allocated to each market are the same, it is fair to have each market bear 50% of the cost." (Exhibit B-1-1, p. 58)

4.9.2.1.2 Storage

Storage costs are currently allocated as between RS 16 customers and the core by production volumes. FEI proposes to change this allocation methodology to use instead the amount of storage space allocated to each of the core market and RS 16 customers. FEI argues that, as RS 16 volumes are relatively stable in comparison to the core, where demand is seasonal, the core requires most of the storage capacity and should therefore bear most of these costs. For Tilbury, FEI submits that 7 percent of the cost of its storage capacity should be allocated to RS 16 customers, as opposed to the 77 percent which would be allocated under the current methodology. (Exhibit B-1-1, pp. 58-59, Exhibit B-4-1, BCUC IR 1.49.1.1.1)

4.9.2.1.3 Vaporization

FEI takes the position that, as RS 16 customers take LNG in its liquid state, vaporization costs are not relevant and should not be considered in determining RS 16 costs. It therefore proposes to base the allocation of vaporization costs on send-out volumes. As send-out of vaporized LNG will be restricted to the core, the result is no costs for vaporization will be allocated to RS 16 customers. (Exhibit B-1-1, p. 59)

Commission Panel Discussion

The Commission Panel agrees that it is reasonable to allocate variable liquefaction production costs in accordance with the volumes produced for each market.

However, the Commission Panel finds there to be a logical inconsistency in the argument that vaporization costs should be excluded from RS 16 costs, as these are 100 percent attributable to the core, whereas dispensing costs should be based on production volumes and shared as between RS 16 customers and the core on that proportionate basis. In the Panel's view, to the extent that the core obtains its natural gas through vaporization, the dispensing service will be used primarily by RS 16, and not the core. The Panel finds that, similar to vaporization costs, which are allocated by send-out volume, dispensing costs should be allocated in a consistent fashion, and based on volumes dispensed for core customers and RS 16 customers, respectively. Such an allocation would increase costs to RS 16 customers by a modest amount. (Exhibit B-16, BCUC IR 2.22.1)

The Commission Panel also disagrees with the proposed allocation of storage costs as based on allocated storage space, which would result in an allocation of 7 percent of the storage costs at Tilbury being borne by RS 16 customers. As noted earlier herein, the Panel has not approved the allocation of any storage capacity to RS 16. It does not follow that RS 16 customers should bear none of the costs associated with the storage facilities. It is not possible for RS 16 customers to obtain LNG other than from the storage tank. Thus, RS 16 customers are using the whole of the storage facilities, as are core customers.

As noted above, if FEI continued to use its current methodology to allocate storage costs, i.e. based on production volumes, RS 16 would be responsible for 77 percent of costs related to storage at Tilbury under Scenario 4. (Exhibit B-1-1, p. 58)

Another possible proxy for costing the use of a storage tank is the amount of storage necessary to cover RS 16 customers while the liquefaction process is out of service for planned maintenance.

Planned maintenance is estimated to require between 5 to 7 weeks shut down at Tilbury, depending on weather conditions and between 4-6 weeks shutdown at Mt. Hayes. (Exhibit B-1-1, p. 39) As demand from RS 16 customers tends to be constant throughout the year, those customers will require storage for up to 3,200 GJs per day for 42 days, assuming six weeks shutdown, which equates to 134,400 GJs. This represents 22 percent of Tilbury's tank capacity of 606,500 GJs. For Mt. Hayes, assuming a shutdown of 5 weeks, RS 16 customers will require storage for 98,000 GJs (2,800 GJs per day for 35 days). This represents 6 percent of the storage capacity of 1,613,820 GJs at Mt. Hayes.

The cost associated with the use of 22 percent of Tilbury's storage capacity would be in the range of $0.25, $0.14, and $0.12 per GJ for O&M under Scenarios, 2, 3, and 4, respectively. The capital cost of storage at Tilbury using 22 percent would be approximately $0.95, $0.55, and $0.46 under Scenarios 2, 3, and 4, respectively. (Exhibit B-1-1, Appendix N, pp. 1-4; Exhibit B-4-1, BCUC IR 1.49.1, 1.50.1)

A further proxy for a storage cost could be the cost to install a new storage tank. FEI advises that a 10,000 GJ capacity LNG storage tank costs approximately $1.5 million. (Exhibit B-4-1, BCUC IR 1.51.2.1)

It is also noteworthy that FEI currently pays a demand charge to FEVI for its use of the Mt. Hayes storage tank in the approximate annual amount of $12.031 million. Under this allocation, FEI has designated Firm Storage Capacity of 1.0 billion cubic feet (or approximately 1,055,000 GJs), which is two thirds of the tank. (Exhibit B-4-1, Attachment 30.4, pp. 5, 18)

4.9.2.2 Capital Recovery

FEI advises that the capital component of the rate recovers the shareholder's return on the net book value of capital assets, the return of capital through depreciation expense, as well as property

and income tax expenses. FEI further notes that these costs do not vary with the utilization of the facility.

FEI's model therefore proposes to allocate capital costs associated with each activity as between RS 16 customers and core market customers, on the same basis as other costs related to that activity (i.e. production/dispensing, storage and vaporization).

FEI has identified the following 2013 mid-year asset values for Tilbury and Mt. Hayes.

TABLE 9

Tilbury Capital 2013/2014 Average NBV

Activity	Mid-year Book Value	
Liquefaction	$	2,190,975
Storage (incl. Land)	$	27,117,346
Dispensing	$	540,074
Total	$	29,848,396

(Source: Exhibit B-4-1, BCUC IR 1.36.3)
(Note: The table above represents the third revision of Table 9-4)

TABLE 10

Mt Hayes 2013/2014 Average NBV

Activity	Mid-year Book Value	
Liquefaction	$	46,694,931
Storage (incl. Land)	$	107,080,690
Dispensing	$	-
Total	$	153,775,620

(Source: Exhibit B-4-1, BCUC IR 1.37.2)
(Note: The table above represents the third revision of Table 9-5)

As can be seen from Table 10 above, there is no value for dispensing assets at Mt. Hayes, as Mt. Hayes does not yet have a truck load-out facility. FEI estimates the truck load-out will cost $3.5 million.

The 2012 LNG facility replacement cost values for insurance purposes are shown for each facility in Table 11 below. The replacement cost values do not include land.

TABLE 11

2012 LNG Facility Replacement Costs for Insurance Purposes[7]

Mt Hayes LNG Facility Items	Replacement Cost		Tilbury LNG Facility Items	Replacement Cost
Storage - Tank	$ 55,000,000		Storage - Tank	$ 25,440,000
Liquification	52,000,000		- Piling	3,180,000
Vapourization	26,000,000		- High Dyke	7,950,000
Facility Infrastructure	30,000,000			
Gas in Storage - 1,500TJ**	5,640,000		Gas in Storage - 660TJ**	2,481,600
Fencing	100,000			
			Liquefaction	15,582,000
Off-Site Items			Vaporization	18,232,000
Pipelines	4,500,000			
Powerlines & Substation	5,000,000		Auxiliaries &	
			Civil & Misc.	20,500,000
TOTAL	**$ 178,240,000**		**TOTAL**	**$ 93,365,600**
****LNG replacement Sumas winter strip or $3.76 at February 3, 2012**				

(Source: Exhibit B-4-1, BCUC IR 1.37.4)

Tilbury land in fee simple is valued at $15,162,000. Land is not a depreciable asset and so reflects historical cost. Mt. Hayes land and land rights are valued at $1,689,000. (Exhibit B-4-1, BCUC IR 1.36.2; 1.37.2)

4.9.2.3 Transportation from Sumas to Tilbury

FEI submits that the cost to transport natural gas in the transmission pipeline from Sumas to Tilbury, which is currently calculated under RS 22 at $0.83 per GJ, should more properly be costed under RS 22A, which is a closed Rate Schedule applicable to high volume customers who receive gas directly from the transmission system, at $0.531 per GJ. FEI submits that RS 22 includes recovery for both transmission and distribution costs, as RS 22 customers receive gas from the

distribution system, whereas RS 22A is transmission only. As Tilbury receives gas directly from the transmission system, FEI submits that it is more appropriate to use RS 22A as a proxy for this cost.

4.9.2.4 Transportation from Sumas to Mt. Hayes

FEI submits that the cost to transport gas from Sumas to Mt. Hayes should be based on the delivery charge for gas from Sumas to the Island Cogeneration Plant of $0.858 per GJ plus a wheeling charge of $0.094 per GJ which would result in a rate of $0.95 per GJ. (Exhibit B-1, p. 55)

4.9.2.5 Peaking and Inventory Carrying Costs

FEI currently includes a charge for contracting for peaking gas supply for the RS 16 market. This charge is $0.08 per GJ currently, and no change is proposed.

FEI proposes to add a new charge for fixed inventory carrying costs, which it has determined to be the rate base return on and associated tax expense for perpetual gas inventory on hand. FEI proposes to allocate these costs based on the allocation of storage capacity as between RS 16 and the core market.

4.9.3 Delivery Charge- Blended Rate Methodology

FEI submits that it should use a single, blended delivery charge, applicable to the supply of LNG from either facility, as this will allow customers to be supplied from the different locations without creating price differences for those customers. FEI's proposed charge reflects a blended weighted average cost from both Tilbury and Mt. Hayes, assuming minimal contribution from Mt. Hayes in the early years. (Exhibit B-1-1, pp. 59-60)

TABLE 12

Line	Section 18 Plant Loading Assumption	Source	2012	2013	2014	2015	2016	2017
1	Tilbury (GJ)		150,000	321,875	693,065	1,031,161	1,168,000	1,168,000
2	Mt Hayes (GJ)		-	-	5,000	5,000	314,315	935,148
3	Total (GJ)	Line 1 + 2 (Table 6-1)	150,000	321,875	698,065	1,036,161	1,482,315	2,103,148
4								
5	Tilbury Delivery per Day (GJ)	Line 1 / 365	411	882	1,899	2,825	3,200	3,200
6	Tilbury Delivery Cost	Table 9-6	4.06	4.06	4.06	2.89	2.74	2.74
7	My Hayes Delivery per Day (GJ)	Line 2 / 365	-	-	14	14	861	2,562
8	Mt Hayes Delivery Cost	Table 9-6			5.98	5.98	5.98	5.02
9	Blended Weighted Average Cost	Lines: (1/3*6)+(2/3*8)	$ 4.06	$ 4.06	$ 4.07	$ 2.90	$ 3.43	$ 3.75

(Source: Exhibit B-1-1, p. 60)

Commission Panel Determination

The Commission Panel approves the use of a single rate for supply of LNG from either Tilbury or Mt. Hayes, as it agrees that this will facilitate sourcing options. However, the Panel does not approve the proposed blend as there is insufficient recognition of the importance of the facility at Mt. Hayes.

4.9.4 Costs Proposed to Be Allocated

FEI has modelled the forecast O&M costs at each of Tilbury and Mt. Hayes under the four scenarios described above.

The proposed costs to be used to calculate the relevant O&M for allocation from Tilbury and Mt. Hayes for the four scenarios are set out in Exhibit B-1, Appendix N and Exhibit B-1-1, Appendix N, pp. 5-8.

For Tilbury, the total O&M proposed to be allocated as between RS 16 customers and the core market under the four scenarios is as follows:

Scenario	Total O&M
Scenario 1	$1,868,807
Scenario 2	$2,171,669
Scenario 3	$2,735,979
Scenario 4	$3,123,729

(Exhibit B-1, Appendix N, pp. 1-4)

(Note: these amounts include $255,571 for vaporization, which, as noted above, is proposed to be allocated only to core customers)

FEI advises that the figure $1,868,807 (shown in Scenario 1 above) "represents the 2012 annual estimated *direct O&M costs* associated with the Tilbury LNG facility plus the cost of power and own use gas, based on 2011 actual operating experience for the Tilbury LNG facility only." The *fully allocated cost of service* for the Tilbury LNG facility, as used in the Amalgamation Working [Cost of Service Analysis] Model was $9,725,800, which is more than five times higher. Those costs include an allocation of costs from FEI's total cost of service, and include an allocation for items such as administration and general expenses. (Exhibit B-4-1, BCUC IR 1.38.1) [emphasis in original]

For Mt. Hayes, the total O&M proposed to be allocated between RS 16 customers and core market customers under each of the four scenarios is as follows:

Scenario	Total O&M
Scenario 1	$3,535,205
Scenario 2	$3,838,704
Scenario 3	$4,127,461
Scenario 4	$4,376,496

(Exhibit B-1-1, Appendix N, pp. 5-8; Exhibit B-4-1, BCUC IR 1.39.1)

(Note: these amounts include $157,371 for vaporization, which is proposed to be allocated only to the core.)

FEI advises that the $3.535 million for Scenario 1 above, represents the 2012 estimated annual *direct O&M costs* associated with the Mt. Hayes facility, plus the cost of power and own use gas, based on the seven months of actual operation in 2011. FEI advises that the *fully allocated cost of service* for the facility forecast for 2013 was $8.139 million. (This amount includes a credit of $18.039 million for "Other Operating Revenue"). (Exhibit B-4-1, BCUC IR 1.39.1)

FEI prepared a further Fully Allocated Cost of Service analysis, which resulted in approximately $0.50 per GJ being allocated to RS 16. This analysis was based on consolidated costs of Tilbury and Mt. Hayes (excluding the revenue credit to Mt. Hayes) and allocated to all customer classes largely based on "peak day demand." (Exhibit B-16, BCUC IR 2.28.1)

Commission Panel Discussion

The Commission Panel notes the change in allocation methodology as between the original allocation using direct O&M costs and the allocation methodology used to allocate full costs results in figures which are not comparable and, in the Panel's view, not useable.

The Commission Panel finds that an appropriate allocation would result in the full O&M costs being allocated using the same methodology as was used for the direct O&M costs. The Panel also finds that the exclusion of approximately $18 million in O&M costs for Mt. Hayes by way of a revenue credit understates actual costs for that facility by the same amount.

The Panel finds that the cost allocation used by FEI significantly understates the O& M costs which should be attributable to RS 16.

4.9.4.1 Capital Costs

FEI has calculated the capital cost per GJ of LNG produced, stored and dispensed from Tilbury. This calculation uses only the capital cost related to the physical asset itself, with no additional items

such as general and intangible plant and deferrals, along with earned return and taxes, as described above. Using this methodology, FEI arrives at a capital cost per GJ of $1.73 under Scenario 2, $0.87 under Scenario 3 and $0.71 under Scenario 4. (Exhibit B-4-1, BCUCIR1.50.1, 1.50.2)

Using the same methodology for Mt. Hayes results in a capital cost per GJ of $3.96 per GJ under Scenario 2, $2.99 under Scenario 3, and $2.53 under Scenario 4. (Exhibit B-4-1, BCUC IR 1.50.1, 1.50.3)

FEI also calculated the capital cost per GJ of LNG produced, stored and dispensed using a fully allocated cost approach. This approach results in a capital cost per GJ produced, stored and dispensed from Tilbury of $2.16 per GJ under Scenario 2, $1.09 per GJ under Scenario 3, and $0.89 per GJ under Scenario 4. (Exhibit B-4-1, BCUC IR 1.50.2)

For Mt. Hayes, using the same fully allocated approach, these costs increase to $4.45 per GJ, $3.37 per GJ, and $2.86 per GJ under Scenarios 2, 3, and 4, respectively. (Exhibit B-4-1, BCUC IR 1.50.3)

The Panel finds the methodology proposed for capital allocation again results in an understatement of the capital cost.

4.9.4.2 Transportation

As discussed earlier, FEI proposes to base the transportation charge for gas on the transmission system from Huntington/Sumas to Tilbury on existing, but closed RS 22A, at a cost of and from Huntington/Sumas to Mt. Hayes on the delivery charge to the Island Co-Generation Plant. These amounts are: $0.531 per GJ for Tilbury and $0.95 per GJ for Mt. Hayes, respectively.

Commission Panel Discussion

The Commission Panel notes the fact that RS 22A is limited to the twenty customers it currently serves and is closed to new customers. The Commission Panel also notes the fact that RS 22A serves FEI's Inland Service Area and no RS 22A customer is connected to the Coastal Transmission System from which Tilbury and Mt. Hayes initially, receive gas. (Exhibit B-16, BCUC IR 2.44.3, 2.44.4) The Commission Panel finds that, although RS 22 may include an amount to cover distribution, its customers are located in the relevant area and take service from the same system that serves Tilbury. The Panel sees no merit in changing the Rate Schedule from the existing RS 22 which is currently used to RS 22A which is located in another service area. **Accordingly, FEI's request to change the transportation component for LNG from Tilbury from RS 22 to RS 22A is denied.**

The Commission Panel finds that the use of an existing rate for Mt. Hayes may be appropriate as a proxy for the time being, but to the extent that new infrastructure is required for new customers, it may be necessary to revisit this proxy in the future.

4.9.4.3 Peaking and Inventory Carrying Costs

As discussed earlier, FEI proposes to use a charge of $0.08 per GJ for contracting for peaking gas supply for the RS 16 market, which amount is unchanged from the current tariff.

FEI proposes to include a new charge of $23,000 for inventory carrying costs at Tilbury and $17,000 for Mt. Hayes based on the cost of gas in the tank and allocated storage capacity at each facility in the amount requested (i.e. 45,000 GJs for Tilbury and 39,000 GJs for Mt. Hayes). (Exhibit B-1-1, p. 57) These amounts are then proposed to be divided by the transportation volumes for a charge on a per GJ basis.

Commission Panel Determination

The Commission Panel did not approve the storage volumes requested, hence the inventory carrying costs, which are based on these volumes, are not accepted. The Panel finds that any amount for inventory carrying costs must be increased to reflect what the Panel finds is the greater-than-modelled virtual storage applicable to RS 16 at each facility. **The Panel therefore finds the proposed charge for inventory carrying costs is insufficient**.

4.9.5 Market Pricing

As cited earlier in this decision, the AES Inquiry Report has suggested a move toward market pricing for CNG and LNG sold for transportation. FEI submits that any purported benefit from charging a "market rate" at this time is based on incorrect assumptions and that it would not be possible in any event. (FEI Final Argument, p. 19; Exhibit B-16, BCUC IR 2.91; 2.34.1)

FEI submits that if the price of LNG were to be tied to the price of diesel, with diesel at $0.773 per litre, at, for example, a 30 percent discount, the "price at the pump" for LNG, including the commodity cost, would be approximately $14 per GJ. (Exhibit B-16, BCUC IR 2.39.1)

In its Final Submission commenting on the possible use of market pricing, FEI argues that:

> "The first mistaken assumption is that there is in fact 'a market rate.' FEI's market rate intelligence has confirmed FEI's view that there is no single market rate. FEI has explained that there is no publicly available market price because (i) supply is provided under confidential commercial agreements, (ii) prices are negotiated based on the various costs and risks of the supplier and customer, so that there is no single price, and (iii) there is no published benchmark of pricing. With FEI currently having the only supply of LNG in B.C., these factors are not likely to change soon and there is no reason to believe that a transparent market rate will develop anytime in the near future. The consequence of this is that it would not be possible for FEI to comply with a direction to charge the 'market rate.'

> The second incorrect assumption is that cost based rates are inconsistent with a competitive market rate. Competitive market rates are based on the same economics as FEI's proposed rate, with competitors setting prices based on costs of production and their requirements for return on investment. It is in markets that are not fully competitive where there exists the potential for the market price to be substantially higher than the cost of production and required return. For this reason, cost based rates can be consistent with market based rates. FEI submits that there is no evidence on the record in this proceeding which would suggest that FEI's proposed rate is not in fact a 'market rate.' In fact, FEI's 'market rate' intelligence demonstrates that FEI's proposed rate is competitive with and within the range of prices offered for liquefaction services in other jurisdictions.
>
> The third mistaken assumption is that the 'market rate' will be higher than FEI's proposed rate, and that adopting this higher rate will be beneficial for existing customers. FEI submits there is again no evidence on the record in this proceeding to justify either of these views. First, as indicated above, the proposed rate is quite consistent with the range of pricing offered in the market today that FEI has been able to obtain. Second, FEI has made it clear that based on its discussions with LNG customers, raising the rate higher than proposed threatens the extent of take up of the service. The risks that potential LNG customers are taking in adopting a new fuel must be taken into account. If the potential benefits of adopting LNG are not high enough, LNG customers simply will stick with the reliable, known option."

FEI submits that a higher rate than that proposed is not a better rate. FEI states:

> "Offering a higher price than FEI has proposed could have unintended consequences on the LNG market in terms of reduced competition and higher prices for LNG customers. For instance, if a potential competitor was willing to price at $4, but knows that FEI must set price at $5, it would have no incentive to offer a lower price to the market. FEI does not believe it would be beneficial to the market or consumers to reduce the incentive of suppliers to offer lower prices.
>
> Offering a higher price would also not be beneficial to FEI customers as assumed in the question. Higher prices for LNG would be expected to slow down the rate of market adoption of LNG for transportation and other end user markets. Slowing down the rate of market adoption is not in the interests of FEI's customers. While FEI Customers would potentially achieve benefits from higher margins on the sale of LNG, slowing down market adoption would lead to fewer LNG sales. Consequently, there is no assurance that charging more would lead to higher benefits for core customers..." (FEI Final Submission, p. 20)

Ferus defers to the Commission and other interested parties who have expertise in ratemaking to establish the appropriate delivery charge for RS 16 Commercial Service. (Ferus Final Submission, p. 27)

Commission Panel Discussion

The Commission Panel does not agree that a higher price than proposed will slow down the rate of market adoption of LNG for transportation. The Commission Panel notes that the proposed delivery charge and forecast commodity cost result in a discount to diesel of some 56 percent and provide for a payback in 1.16 years at 2013 prices, assuming a cost differential of $ 91,000 per LNG engine with zero incentives. The payback scenario is reproduced below for ease of reference.

TABLE 13

	Diesel (including Carbon Tax and applicable taxes)	Natural Gas Price (including Carbon Tax)	Natural Gas DLE	Estimated Payback (years)
Current (Jan. 1, 2013)	$1.347	$4.84	0.59	1.16

(Source: Exhibit B-16, BCUC IR 2.37.1)

At the present incentive rate of 80 percent for the additional cost of a truck fuelled by LNG, the Panel calculates a payback period of a few months.

FEI argues that the scenario outlined in the table above is a "simplified picture" and does not take into account risks such as technology risk, fuel availability risk, and changes to operating and maintenance practices. FEI further argues that the analysis assumes that all fuel cost savings will be kept by the trucking firm and not passed on to customers through lower prices.

The Panel is of the view that even accepting the risks noted by FEI, the payback is such that there remains a significant incentive for persons engaged in the transportation industry to adopt LNG as a fuel.

Commission Determination

In light of the analysis above, **the Panel finds that the delivery charge of $4.25 requested understates both the cost and value of the proposed RS 16 LNG Service. The Panel notes that the cost elements examined and the methodologies proposed were invariably found to err on the side of understatement. The Panel further notes that no value was ascribed for the potential opportunity cost of using the liquefaction and storage facilities for RS 16 customers as opposed to core customers.**

In the result, the Panel finds that the evidence presented in the proceeding does not support the proposed delivery charge of $4.25.

In the interest of moving the RS 16 Application forward, the Panel will set what it considers to be a more reasonable delivery charge in all of the circumstances. The Panel finds a higher rate will more appropriately reflect the likely cost of using the existing facilities for RS 16 customers, in addition to the core market. Doing the best it can with the evidence on the record, the Panel sets what it considers to be a more reasonable delivery charge in all of the circumstancesof $6.50 per GJ and directs FEI to include that charge in RS 16. The Panel notes that this price remains significantly less that the price of the diesel it is intended to replace.

The Panel acknowledges that this delivery charge is different than that proposed. Should FEI wish to have this charge revised, it will need to reapply to the Commission with new evidence at a future date.

The Panel further directs FEI to file a report with the Commission within three years to explain why changes to RS 16 should be based on general Revenue Requirement rate adjustments and not move towards market pricing. The Panel finds that moving to market pricing is consistent with

the AES Inquiry Report and is the most effective way to encourage the entry of other potential LNG suppliers into this market.

4.10 Benefits to Core Customers

FEI projects a benefit of $7.2 million per year for ratepayers resulting from an increased volume of gas in the system "once projected demand is realized in 2017." (Exhibit B-1-1, p. 11)

BCPSO acknowledges that FEI assesses the value to core customers of Rate Schedule 16 sales at between $2.6 million and $7.2 million per year and considers that this represents a significant benefit to core customers. (BCPSO Final Argument, p. 1)

Commission Discussion

Core customers will only benefit in a material way if the price charged for the dispensing service provides a reasonable contribution to the cost of the asset being used. The higher this price, the greater the benefit to the core customer, assuming that the price to be charged is located on a relatively inelastic portion of the demand curve, such that it will not result in a reduction in demand.

As FEI takes the position that it is necessary to provide grants to companies to incent the switch from diesel to natural gas to kickstart the NGT market, any real benefits to core customers need to be viewed against the costs they are being asked to pay to achieve such benefits.

The Prescribed Undertaking provides for potential grants and expenditures on LNG facilities in the realm of $90 Million by 2017. These costs outweigh the benefits modelled substantially, and also place considerable risk on core market customers.

It does not appear to the Panel that the predicted benefits were viewed under the lens of a cost benefit analysis.

The Panel further notes that not all increases in system throughput are necessary beneficial. To the extent that such increases result in a need for additional infrastructure there may be no benefit whatsoever and ,in fact, a cost.

In the Panel's view, ratepayers will be best protected if their supply of LNG is secure in the event of an extreme winter, and any excess supply to be provided for transportation is priced as close to market as possible to allow core ratepayers to achieve the maximum benefit from whatever excess capacity exists. Pricing at the higher of fully allocated cost or market, as recommended in the AES Inquiry, will also allow for or promote possible additional participants in the market, which in the Panel's further view will best serve to protect the public interest in the long run. Further, at this juncture, FEI is the only LNG supplier in British Columbia, (FEVI is poised to also supply LNG once it has the necessary truckload-out infrastructure) so it will necessarily supply all LNG in the short term. In the Panel's view, it is important to maximize recovery for ratepayers over a shorter time frame while promoting a level playing field to allow the free market to work.

4.11 Vehicle Grant Incentive Contracts

FEI agrees that "[t]here is no section in the GGRR which requires vehicles to purchase LNG from FEI through Rate Schedule 16." FEI argues however, that the GGRR is "permissive" and "allows public utilities the discretion to incorporate such requirements into its [sic] programs. (Exhibit B-4-1, BCUC IR 1.6.2)

BCPSO supports providing the grants to parties who agree to purchase supply from FEI. It agrees with FEI that the net benefits to non-bypass customers will be reduced if FEI provides grants to parties that purchase LNG from third party suppliers. (BCPSO Final Submission, p. 2)

Ferus submits that "[t]o provide a balance between being able to market Excess Capacity and preserving the priority of Utility Service to such capacity, ... contracts for RS 16 Firm service, other than contracts for Prescribed Undertakings, should have terms not exceeding one year. FortisBC should retain the ability to review its Firm contract obligations annually to adjust for potential changes in Utility Service requirements. Doing so will also ease any transition to a Non Regulated Business in the future, should the LNG market be deemed to have been 'kick started.'" (Ferus Final Submission, pp. 19-20)

Ferus recognizes that longer-term commitments may be required for prescribed undertakings. As such, Ferus LNG believes that the contract term should be one that provides a reasonable return to the utility considering the incentive payment provided. Ferus LNG submits that the term need not necessarily extend for the service life of a vehicle, as proposed by FEI, and defers to the Commission as to the appropriate term in the circumstances. (Ferus Final Submission, pp. 19-20)

Commission Discussion

Although not an issue for determination in the Application, FEI's requirement that parties accepting incentive payments agree to use natural gas purchased from FEI is, in the Panel's view, an important factor which may influence potential customers' decisions to adopt LNG as a fuel for transportation.

In the Panel's view, this requirement results in an additional constraint on ability of a customer to manage its operations, as it is requiring a single source of supply. To the extent that take up of incentive payments and sales of LNG under RS 16 are less than predicted, the Panel sees FEI's contractual requirement that customers buy LNG from it as a likely cause. The Panel notes that there is no need for this provision in the short term, as Fortis is currently the only supply source available.

In the longer term, there is the potential for new market participants. However, there is little motivation for new participants to enter the market if customers are restricted in where they can purchase LNG.

The Panel is of the further view that it is not reasonable to restrict customers in terms of source of supply, particularly when the market is sought to be served by using excess capacity beyond that used by existing core customers.

Further, allowing customers to source alternate supply will help the customer mitigate any concerns regarding the risk of lack of supply.

Moreover, LNG is particularly beneficial for long haul trucking, and to suggest that a customer must purchase all LNG from Fortis will restrict the ability of the customer to travel longer distances and refuel at another facility, perhaps, for example, in Alberta. This provision, in the Panel's view, is detrimental to the potential for the market to be developed and is contrary to the stated purpose of the prescribed undertaking, which is to reduce greenhouse gas emissions in British Columbia, by promoting the purchase and use of "eligible vehicles." (Clean Energy Act, s. 18)

4.12 LNG Dispensing Services Agreement between FEI and FEVI

FEI seeks approval for the 'LNG Dispensing Service Agreement between FortisBC Energy (Vancouver Island) Inc. and FortisBC Energy Inc.' (LNG Dispensing Service Agreement), which is attached as Appendix M to the Application. FEI states that the Agreement "sets forth the terms and conditions for LNG supply, storage and dispensing services provided by FEVI to FEI for the benefit of FEI's customers under Rate Schedule 16." Specifically, Recital 'C' of the LNG Dispensing Service Agreement does state: "FEI is interested in contracting with FEVI for LNG supply, storage and dispensing services for the benefit of FEI's customers under its Rate Schedule 16 Liquefied Natural Gas Sales and Dispensing Service."

However, FEI and FEVI have an existing "Storage and Delivery Agreement" made January 10, 2008, as amended. This Storage and Delivery Agreement provides for the transportation of natural gas provided by FEI to FEVI at FEVI's Eagle Mountain Compressor Station to FEVI's LNG Storage facility at Mount Hayes, its liquefaction, storage, and subsequent vaporization and redelivery in gaseous form to either TGVI's Eagle Mountain Compressor Station or the interconnection between the TGI system and the Westcoast Energy Inc. system at Huntington, "for the benefit of FEI's core market customers." It also provides for, among other things, firm storage capacity for 1.0 Bcf, or approximately 1,055,000 GJs of LNG which represents approximately two thirds of the total storage capacity at Mt. Hayes of 1,613,820 GJs and a firm vaporization rate of 100 MMcfd or 105,500 GJs per day. FEI pays a demand charge for this primary storage and delivery service of $1,002,600 per month. There is also provision for supplementary service for an additional cost. (FEVI Tariff Supplement No. 4; Exhibit B-4-1, BCUC IR 1.30.4, Attachment 30.4; Exhibit B-1-1, p. 39; Exhibit B-4-1, BCUC IR 1.30.3)

Under the Storage and Delivery Agreement, in addition to providing the commodity, FEI also pays what are referred to as "commodity charges," for taxes payable by TGVI for gas delivered to it by FEI, a liquefaction charge, currently $0.46 per GJ (subject to adjustment from time to time to reflect changes in the applicable electricity rates) and a vapourization charge, currently $0.06 per GJ, also subject to adjustment for changes in the applicable electricity rate).

FEI suggests that the LNG Dispensing Service Agreement provides for FEVI to "supply LNG to FEI at a price which mirrors the Rate Schedule 16 delivery rate." The service charge proposed for the dispensing service is equal to the Delivery Charged proposed to be used in RS 16, and based on a blended delivery charge using costs for both Tilbury and Mt. Hayes.

FEI submits that this is more reasonable than to set the service charge to FEI at the Mt. Hayes fully allocated cost of service rate, as, among other reasons, this is the rate that FEI proposes to charge for LNG delivered at Mt. Hayes. (Exhibit B-1, Appendix M, pp. 68-69)

The Agreement is to commence on July 1, 2013, or other such date upon notification by FEI and expires when the Storage and Delivery Agreement, also between these two parties, expires. It will automatically extend for consecutive one year periods. The Agreement also provides additional terms, including terms relating to: conditions under which the LNG is to be dispensed; amounts of LNG to be dispensed; performance obligations; and billing requirements. (Exhibit B-1, Appendix M)

Commission Determination

The Commission Panel finds that the LNG Dispensing Service Agreement to be inherently inconsistent and confusing.

For example, the Agreement is entitled "LNG Dispensing Service Agreement." The recitals then refer to FEI seeking to contract with FEVI for "LNG supply, storage and dispensing services" for its RS 16 customers. The "Agreement" is then defined as "this Storage and Delivery Agreement." The only "Service" which appears to be contemplated in the body of the Agreement is "Dispensing Service." (LNG Dispensing Service Agreement, section 3) What is dispensed is "LNG" which is defined as "liquefied natural gas." "LNG Dispensing Service" is defined as FEVI dispensing LNG into cryogenic tankers, provided by either FEI or its customers. There is no mention of whether the LNG to be dispensed is from the LNG being stored by FEVI for FEI pursuant to the Storage and Delivery Agreement discussed above, and hence already purchased and delivered by FEI to FEVI, or whether the proposed charge purports to cover the cost of the commodity.

In the Panel's view, the LNG Dispensing Service Agreement should recognize and complement the Storage and Delivery Agreement, which provides for liquefaction and storage of gas belonging to FEI. It is unclear whether this is the case. Under section 2.2, the term of the LNG Dispensing Service Agreement is tied to the term of the Storage and Delivery Agreement. However, the LNG Dispensing Agreement service charge also purports to cover "FEVI's costs to transport commodity from Sumas, BC to the LNG Facility (being Mt. Hayes), costs incurred to process and liquefy the natural gas including any peaking gas supply costs, costs to store the liquefied gas including

inventory holding costs and costs to dispense the liquefied natural gas into FEI's customers' cryogenic tankers." (LNG Dispensing Service Agreement, section 7)

By section 8, the heading numbering ceases to correspond to the clauses being referenced. Further, by section 21 or 22.1, the LNG Dispensing Service Agreement purports to supersede all others between the parties relating to the subject matter contemplated by the LNG Dispensing Service Agreement.

The Panel is unable to discern "the subject matter contemplated by the LNG Dispensing Service Agreement."

Accordingly, the LNG Dispensing Service Agreement is not approved. If FEI/FEVI revise the Agreement to more precisely reflect the actual terms of the agreement between the parties, and correct the numerous errors contained in the document, the Panel will reconsider the approval of the Agreement.

4.13 Qualified Reseller Status

Clean Energy notes that in the Commission's AES Inquiry Report, "[t]he connection to the traditional natural gas distribution franchise ends at the nozzle of the LNG facility producing the product." It submits that anything beyond a production facility's nozzle should be handled by non-regulated businesses. (Clean Energy Final submission, p. 1)

In Clean Energy's view, "… in order to create a market place which can grow and prosper beyond the Greenhouse Reduction Regulation program, only "qualified resellers" that:

> have a proven history of growing the LNG transportation market;
> possess the experience to operate and maintain LNG refueling stations; and
> possess a tanker truck fleet to safely transport and distribute the fuel to market,

should be eligible to participate in the proposed program."

FEI replies that Clean Energy's proposal is inconsistent with the GHG Reduction Regulation, stating: "There is no accommodation under the GHG Reduction Regulation for a middle man to administer the incentives and own or operate the CNG and LNG stations. The GHG Reduction Regulation is also time limited, and FEI is not interested in setting up the proposed structure for the benefit of 'qualified resellers.' This would simply delay further the already delayed incentives that FEI wishes to dispense pursuant to the GHG Reduction Regulation." (FEI Reply Submission, pp. 11-12)

Commission Determination

The Panel finds no reason to establish a qualified reseller status at this time. However, the Panel notes that the Prescribed Undertaking does contemplate that any grants or zero-interest loans will be provided "through an open and competitive application process" which would not rule out the involvement of an independent third party.

4.14 CNG and LNG Recoveries Deferral Account

FEI is proposing to capture the revenues received and the incremental costs for 2012 and 2013 for RS 16, as compared to the recoveries and costs embedded in the 2012 and 2013 delivery rates, in the existing CNG and LNG Recoveries Deferral Account.

FEI submits that due to the GGRR and FEI's NGT Incentive Program, the costs and revenues under RS 16 are now forecast to be much different than those embedded in delivery rates for 2012 and

2013 as approved by the Commission. In particular, FEI is forecasting an increase in Rate Schedule 16 volumes and revenue margins. There is no existing mechanism to return the anticipated increase in margin to customers. FEI therefore submits that it is appropriate to capture these changes from the forecast in a deferral account. It submits that expanding the scope of the existing CNG and LNG Recoveries Deferral is an efficient and simple way to do this. (FEI Final Submission, pp. 29-30)

Commission Determination

The Commission Panel directs that a new deferral account be established for the purpose of capturing the revenues and incremental costs relating to RS 16 sales. This will allow for a more detailed review of specific amounts relating to the expansions of RS sales.

4.15 Reporting Requirements

FEI submits that "... annual reporting properly balances the need for the Commission to be kept informed, while not imposing too onerous a regulatory burden in the circumstances. In contrast, more frequent reporting, such as on a quarterly basis, would increase the level of reporting without any commensurate benefit....The reporting for Rate Schedule 16 is fundamentally a tariff compliance issue. .... Generally, it is not necessary for a review or monitoring process to be developed to oversee FEI's compliance with it tariffs." (FEI Reply Submission, p. 15)

Commission Determination

As previously directed by the Commission Panel, FEI is required to report on storage tank levels at each of Mt. Hayes and Tilbury on a quarterly basis, until further notice. **To the extent the tanks are not full, this quarterly reporting must include a timeline for refilling the storage tanks including the allocation of liquefaction capacity between RS 16 and refilling the tank over that timeline. The quarterly report should also include a description of any drawdown of the tank to serve the**

core customers and any outage or operational issues that impacted the liquefaction and/or LNG dispensing capacity. The Panel acknowledges that this requirement contemplates reporting more frequently than FEI considers necessary. However, as previously noted, given the lack of a track record of operating the facilities in this manner, this reporting regime will help both FEI and Commission to reach a better understand of the operational issues.

FEI is also directed to report on the volumes taken by customer and/or project under RS 16 on an annual basis and is also required to continue the previous annual reporting requirements for the original Pilot Project:

- **number of participants;**
- **total contract demand;**
- **annual sales volume;**
- **annual variable and gas charge revenues;**
- **number and duration of Rate Schedule 16 service interruptions;**
- **impacts on core market supply; and**
- **any related peaking supply arrangements or purchases.**

Amended RS Tariff

FEI is directed to file a revised black-lined Tariff which is consistent with the directions given and determinations made herein. The revised Tariff will be effective the first day of the month following the approval of the revised Tariff.

DATED at the City of Vancouver, in the Province of British Columbia, this 4th day of June 2013.

Original signed by:

_____

A.A. RHODES
PANEL CHAIR/COMMISSIONER

Original signed by:

_____

B.A. MAGNAN
COMMISSIONER

Original signed by:

_____

D.M. MORTON
COMMISSIONER

SIXTH FLOOR, 900 HOWE STREET, BOX 250
VANCOUVER, BC V6Z 2N3 CANADA
web site: http://www.bcuc.com

BRITISH COLUMBIA UTILITIES COMMISSION

ORDER NUMBER G-88-13

TELEPHONE: (604) 660-4700
BC TOLL FREE: 1-800-663-1385
FACSIMILE: (604) 660-1102

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

and

An Application by FortisBC Energy Inc.
for Approval to Amend Rate Schedule 16 on a Permanent Basis

BEFORE: A.A. Rhodes, Panel Chair/Commissioner
B.A. Magnan, Commissioner
D.M. Morton, Commissioner

June 4, 2013

O R D E R

WHEREAS:

A. The British Columbia Utilities Commission (Commission) issued Order G-65-09 dated June 4, 2009, establishing, as part of the Terasen Gas Inc., now FortisBC Energy Inc. (FEI), Gas Tariff, Rate Schedule 16 – Interruptible Liquefied Natural Gas Sales and Dispensing Service as an approximately five-year pilot for the period ending December 31, 2014;

B. Rate Schedule 16 as currently approved offers an interruptible Liquefied Natural Gas (LNG) sales and dispensing service at the FEI LNG peak shaving facility at Tilbury (Tilbury Facility). Under this Rate Schedule, the Available LNG Capacity is limited to 1,040 Gigajoules (GJs) per Day with the further limitation that an individual Customer's Contract Demand may not exceed 50 percent of the Available LNG Capacity;

C. On September 24, 2012, FEI applied to the Commission, pursuant to sections 59-61 of the *Utilities Commission Act* (UCA), for approval of an amended Rate Schedule 16 to provide LNG sales and dispensing service on a long-term and short-term firm basis and on a spot load basis (the Application);

D. In the Application, FEI proposes that the service under Rate Schedule 16 be amended to utilize FEI's Tilbury Facility and the Mt. Hayes LNG facility (Mt. Hayes Facility) operated by FortisBC Energy (Vancouver Island) Inc. (FEVI), through an "LNG Dispensing Service Agreement between FortisBC Energy (Vancouver Island) Inc. and FortisBC Energy Inc.";

…/2

E. FEI believes that services to be provided under the amended Rate Schedule 16 will not disrupt the LNG capacity required for peak demand and emergency back-up service to the core market;

F. The amended Rate Schedule 16 as proposed will include two charges for the sale and dispensing service:

1. A delivery charge, based on the blended cost of service from both Tilbury and Mt. Hayes Facilities, with a monthly take-or-pay volume for the liquefaction, storage, transportation and dispensing of LNG;
2. A cost of gas or commodity charge based on the Sumas monthly Index Price plus a market factor;

G. The amended Rate Schedule 16 as proposed by FEI also includes an optional LNG Transportation Service and two additional charges for this optional service:

1. An LNG Tanker Service Charge for the use of an FEI owned LNG tanker for LNG delivery service to a customer's site;
2. An LNG Transportation Service Charge based on a cost-plus rate structure for a third party trucking contractor to haul the LNG tanker;

H. In the Application, FEI requests the following items for approval to effect the proposed amendments to Rate Schedule 16 and to implement the services to be provided under Rate Schedule 16:

- Approval of the amended Rate Schedule 16 on a permanent basis;
- Provision of a Long-Term and Short-Term LNG Service on a firm basis and the provision of Spot Service on an as-available basis;
- Establishing the total quantity of LNG available for sale to all commercial LNG customers from the current 1,040 GJs per day to 42,000 GJs per week;
- Establishing the total volume of LNG available for sale from the Tilbury Facility from 7,280 GJs/week to 22,400 GJs/week effective January 1, 2013;
- Addition of the Mt. Hayes Facility, which is operated by FEVI, as an additional supply point to meet the LNG Service under Rate Schedule 16 effective January 1, 2014, or upon completion of truck-loading facilities at the Mt. Hayes Facility, whichever is later;
- Establishing the total quantity of LNG available for sale from the Mt. Hayes Facility at a level not to exceed 19,600 GJs/week, effective January 1, 2014, or upon completion of truck-loading facilities at the Mt. Hayes Facility, whichever is later;
- Allowing FEI to allocate weekly available capacity for sale at the Tilbury Facility and Mt. Hayes Facility, provided the total quantity of LNG available for sale to all commercial LNG customers does not exceed 42,000 GJs per week and the quantity of LNG needed to service the core market is met;

…/3

- Designation of a specified fraction of the available LNG storage at both Tilbury and Mt. Hayes to service the Rate Schedule 16 market on an on-going basis; specifically, the initial storage allocation of 50,000 GJs of LNG at Tilbury Facility commencing January 1, 2013, and a storage allocation of 50,000 GJs at Mt. Hayes Facility commencing in the year in which on-going LNG supply is drawn from Mt. Hayes;
- Increase in the maximum cap available to any single customer or project to 250 TJs/year or 15 percent of available supply, whichever is greater;
- Use of a "blended weighted cost" methodology between service from the Tilbury Facility and service from the Mt. Hayes Facility to set the delivery charge per GJ under Rate Schedule 16;
- Approval of a Delivery Charge of $4.05/GJ for the year beginning January 1, 2013;
- The allocation methodology to allocate operating and maintenance (O&M) and capital costs between customers receiving Rate Schedule 16 Service and FEI and FEVI's non-bypass (or core market) customers;
- A new LNG Dispensing Service Agreement between FEI and FEVI that will enable the supply of LNG to FEI from the Mt. Hayes Facility;
- Addition of an optional LNG Tanker Transportation Service, including an LNG Tanker Service Charge of $249 per day and approval of the LNG Transportation Service Charge methodology, which allows recovery of third-party transportation costs at cost, plus a 15 percent administration fee;
- Inclusion of the difference between the Rate Schedule 16 delivery charge revenues and incremental O&M for 2012 and 2013 as compared to the recoveries and costs embedded in the 2012 and 2013 delivery rates, in the CNG and LNG Recoveries Deferral Account; and
- Inclusion of the regulatory costs of this process in the NGV Application Deferral Account;

I. On October 26, 2012, by Order G-158-12, the Commission established a Written Hearing process and a Preliminary Regulatory Timetable setting a first round of Information Requests (IRs) and a date of January 14, 2013 for a Procedural Conference in which the nature and extent of further regulatory process would be determined. Draft regulatory timetables for the period beyond the Procedural Conference contemplated a second round of IRs with and without Intervener Evidence;

J. On October 31, 2012, FEI filed a Request for Variance of Order G-158-12 (Request for Variance). In the Request for Variance, FEI expressed concern that the length of the regulatory process established in Order G-158-12 for review of the Application would impede FEI's ability to implement Prescribed Undertakings under the Greenhouse Gas Reduction Regulation, which came into effect on May 14, 2012;

K. On November 6, 2012, the Commission issued Order G-166-12 confirming the proceeding as a Written Hearing and setting out a Revised Preliminary Regulatory Timetable for the first round of IRs and a date of December 10, 2012 for a Procedural Conference to determine the nature and extent of further process;

L. On November 28, 2012, Ferus Inc. LNG Division (Ferus LNG) submitted a request to the Commission to suspend the proceeding of the Application until the Commission released its Report in the Inquiry into FEI's Offering of Products and Services in Alternative Energy Solutions and Other New Initiatives (AES Inquiry) on the basis that the AES Inquiry Report could inform the parties with regard to the appropriate further process for the Application;

M. On December 7, 2012, after inviting and reviewing submissions from participants in the Application, the Commission issued Order G-186-12, postponing the Procedural Conference pending the release of the AES Inquiry Report, but maintaining all other aspects of the Regulatory Timetable established under Order G-166-12;

N. On December 20, 2012, FEI submitted an amended Application to adjust for discrepancies discovered during the course of responding to IRs (Amended Application). In the Amended Application FEI revised the requested storage allocation from 50,000 GJ per year at each facility to 45,000 GJ for the Tilbury Facility and 39,000 GJ for the Mt. Hayes Facility, and revised the requested rate from $4.05 per GJ to $4.25 per GJ to be effective the first month following approval by the Commission;

O. On December 27, 2012, the Commission issued the AES Inquiry Report and the associated Order G-201-12;

P. On January 25, 2013, after soliciting comments from FEI and Registered Interveners regarding the further process required to explore any remaining issues and any issues which may have arisen from the AES Inquiry Report, the Commission by Order G-14-13 established the further Regulatory Timetable including a second round of Information Requests and alternative dates depending on whether or not Intervener Evidence was filed;

Q. On February 19, 2013, Clean Energy Fuels Corporation, a Registered Interveners, made a submission it purported to be Intervener Evidence;

R. On February 25, 2013, the Commission issued a letter noting that Clean Energy's submission could not be characterized as evidence and the Regulatory Timetable to be followed would be the Revised Regulatory Timetable with No Intervener Evidence set out in Order G-14-13;

S. The Commission reviewed and considered the Application, the evidence and the submissions of the parties and determined the Amended Application should be approved in part.

NOW THEREFORE, for the reasons contained in the Decision to which this Order is attached, the Commission orders as follows:

1. Approval of the amended Rate Schedule 16 on a permanent basis is denied. The amended Rate Schedule 16, as approved below, is extended until December 31, 2020.

2. Provision of Long-Term and Short Term LNG Service on a firm basis is denied. However, the Commission approves deletion of the "interruptible" description in the amended Tariff provided the Tariff contains a proviso ensuring that adequate excess capacity exists prior to any obligation on FEI to provide the product.

3. A maximum quantity of LNG for sales under Rate Schedule 16 of up to 3,200 GJ per day from Tilbury and a maximum quantity of LNG for sales under Rate Schedule 16 of up to 2,800 GJs per day from Mt. Hayes (once it has an operational tanker truck loading facility) are both approved. These maximum quantities are separate hard caps applicable to each facility and are not to be combined.

4. Allocation of storage capacity specific to Rate Schedule 16 service is denied at this time.

5. The contract term restricting LNG sales to a Customer for a single Project of fifteen percent of the Available LNG Capacity or 250, 000 gigajoules per year is approved. FEI is directed to file a report with the Commission on the volumes taken by customers and/or projects on an annual basis. FEI is also directed to continue the previous annual reporting requirements for the original Pilot Project.

6. The Commission approves the use of a single rate for supply from either Tilbury or Mt. Hayes, as it agrees that this will be easier for sourcing supply. However, the Panel does not approve the proposed blend.

7. FEI's request to change the transportation component for LNG from Tilbury from Rate Schedule 22 to Rate Schedule 22A is denied.

8. The Commission finds the proposed charge for inventory carrying costs is insufficient.

9. Approval of the delivery charge of $4.25 for LNG Service is denied. A charge of $6.50 per gigajoule is approved. FEI may re-apply for a different rate if it chooses to do so upon filing new evidence.

10. FEI is directed to file a report with the Commission within three years to explain why changes to Rate Schedule 16 should be based on general Revenue Requirement rate adjustments rather than market pricing.

11. The use of excess capacity of the utility-owned tankers can be included as an optional service under Rate Schedule 16. However, approval for the purchase of additional tankers is denied.

12. The Tanker Charge of $249 per day for FEI's two existing tankers and the proposed methodology of passing actual third party tractor transportation costs on to the customer, with a 15 percent mark up to cover administration costs, are approved.

13. Approval of the LNG Dispensing Service Agreement, as filed, is denied. FEI is directed to file a revised LNG Dispensing Service Agreement consistent with the directions given and determinations made herein.

14. The Commission finds no reason to establish a qualified reseller status at this time.

15. The request to include the Application Costs in the NGV Application Deferral Account is denied. The Application Costs are to be placed in a new deferral account, attracting interest only, and amortized into rates over one year, beginning with the next revenue requirement period.

16. The request to use the CNG and LNG Recoveries Deferral Account for the purpose of capturing the incremental revenues received and the incremental costs for 2012 and 2013 for Rate Schedule 16 is denied. FEI is directed to establish a new deferral account for this purpose.

17. FEI is required to report on storage tank levels at each of Mt. Hayes and Tilbury on a quarterly basis, until further notice. To the extent the tanks are not full, this quarterly reporting must include a timeline for refilling the storage tanks including the allocation of liquefaction capacity between Rate Schedule 16 and refilling the tank over that timeline. The quarterly report should also include a description of any drawdown of the tank to serve the core customers and any outage or operational issues that impacted the liquefaction and/or LNG dispensing capacity.

18. FEI is directed to file a revised blacklined Tariff which is consistent with the directions given and determinations made in the attached Decision. The revised Tariff will be made effective the first day of the month following the approval of the revised Tariff.

DATED at the City of Vancouver, in the Province of British Columbia, this 4th day of June 2013.

BY ORDER

A.A. Rhodes
Panel Chair/Commissioner

List of Acronyms

AES	Alternative Energy Solutions
Application	Amendment to Rate Schedule 16 on a Permanent Rate
Bcf	Billion cubic feet
BCPSO	B.C. Pensioners' and Seniors' Organization *et al.*
BCSEA	B.C. Sustainable Energy Association
Bison	Bison Transport
Bridgeway	Bridgeway Transport Ltd.
CEA	*Clean Energy Act*
CEC	Commercial Energy Consumers Association of British Columbia
Clean Energy	Clean Energy Fuels Inc.
CNG	Compressed Natural Gas
Commission	British Columbia Utilities Commission
CPCN	Certificate of Public Convenience and Necessity
FEI or Company	FortisBC Energy Inc.
Ferus	Ferus Inc. LNG Division
FEU	FortisBC Energy Utilities
FEVI	FortisBC Energy (Vancouver Island) Inc.
GGRR	Greenhouse Gas Reduction Regulation
GHG	Greenhouse Gas
GJ	Gigajoule
Liquiline	Liquiline LNG Solutions Corporation
LNG	Liquefied Natural Gas

LIST OF ACRONYMS

NGT	Natural Gas for Transportation
NGV	Natural Gas Vehicle
NWGA	Northwest Gas Association
O&M	Operating and Maintenance
PJ	Petajoule
Rolls-Royce	Rolls-Royce Canada Ltd.
RS 16	Rate Schedule 16
Shell	Shell Canada Limited
Sutco	Sutco Contracting Ltd.
Teekay	Teekay Shipping (Canada) Ltd.
TGI	Terasen Gas Inc.
TGVI	Terasen Gas (Vancouver Island) Inc.
TJ	Terajoule
UCA	*Utilities Commission Act*
Westcan	Westcan Bulk Transport Ltd.

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

and

FortisBC Energy Inc.
Application for Approval to Amend Rate Schedule 16 on a Permanent Basis

EXHIBIT LIST

Exhibit No.	**Description**
COMMISSION DOCUMENTS	
A-1	Letter dated October 3, 2012 – Appointment of Commission Panel
A-2	Letter dated October 5, 2012 – Intervener, Interested Party Registration
A-3	Letter dated October 26, 2012 – Commission Order G-158-12 establishing a Preliminary Regulatory Timetable
A-4	Letter dated November 5, 2012 – Commission response to FEI Variance Request
A-5	Letter dated November 6, 2012 – Commission Order G-166-12 and Revised Preliminary Regulatory Timetable
A-6	Letter dated November 23, 2012 – Information Request No. 1 to FEI
A-7	Letter dated November 29, 2012 – Response to Ferus LNG's Request for Suspension of Proceeding
A-8	Letter dated December 7, 2012 – Commission Order G-186-12 Postponing Procedural Conference
A-9	Letter dated January 10, 2013 – Inquiry Report Request for Comments
A-10	Letter dated January 25, 2013 – Order G-14-13 and Revised Regulatory Timetable
A-11	Letter dated February 6, 2013 – Commission Information Request No. 2 to FEI
A-12	Letter dated February 25, 2013 – Intervener Evidence Response

Exhibit No.	Description
COMMISSION DOCUMENTS	
A2-1	Letter dated November 23, 2012 - Commission Staff Filing Terasen Gas Inc. Extract from October 28, 2009 Application for a CPCN for the Tilbury Property Purchase
A2-2	Letter dated November 23, 2012 - Commission Staff Filing Northwest Gas Association-2012 Gas Outlook
A2-3	Letter dated November 23, 2012 - Commission Staff Filing Extract from Fortis Utilities' 2010 Long-Term Resource Plan (pages 164-165)
A2-4	Letter dated November 23, 2012 - Commission Staff Filing FEI and FEVI-2012-2013 Annual Contracting Plans Executive Summary
A2-5	Letter dated November 23, 2012 - Commission Staff Filing Extract form FEVI Mt. Hayes LNG Storage Facility CPCN Application
A2-6	Letter dated November 23, 2012 - Commission Staff Filing United States of America Department of Energy Office of Fossil Energy -Order No. 2985 – July 18, 2011
A2-7	Letter dated November 23, 2012 - Commission Staff Filing FortisBC Utilities Common Rates, Amalgamation and Rate Design Application Exhibit B-4-Working COSA Model Spreadsheets
A2-8	Letter dated November 23, 2012 - Commission Staff Filing FortisBC Utilities – Common Rates, Amalgamation and Rate Design Application Extract from BCPSO Final Submission
A2-9	Letter dated November 23, 2012 - Commission Staff Filing FEI Application for Approval of Treatment of Expenditures under the Greenhouse Gas Reductions Regulation Extract from Exhibit B-2 Response to BCUC IR1.5.1
A2-10	Letter dated November 23, 2012 - Commission Staff Filing FortisBC Utilities 2012-2013 Revenue Requirements Extract from Exhibit B-22 Response to Supplemental BCUC IR1.6
A2-11	Letter dated November 23, 2012 - Commission Staff Filing FortisBC Energy Inc. Application for Approval of a Temporary Service Agreement for LNG Service Extract from Exhibit B-4 Responses to BCUC IRs

Exhibit No.	Description
A2-12	Letter dated November 23, 2012 - Commission Staff filing FortisBC Energy Inc. Application for Approval of a Temporary Service Agreement for LNG Service Extract from Exhibit B-7 Responses to BCUC IRs
A2-13	Letter dated November 23, 2012 - Commission Staff Filing Appendix A to Commission Order G-156-12 FortisBC Energy Inc. Application for Approval of a Temporary Service Agreement for LNG Service
A2-14	Letter dated February 6, 2013 – Commission Staff Filing News Release Encana Commissions First Liquefied Natural Gas Facility in Alberta
A2-15	Letter dated February 6, 2013 - Commission Staff Filing Truck News-Natural Gas Presenting New Opportunities for Vedder Transport
A2-16	Letter dated February 6, 2013 – Commission Staff Filing FEI- Rate Schedule 25
A2-17	Letter dated February 6, 2013 – Commission Staff Filing FEU-Common Rates, Amalgamation and Rate Design Application-APPENDIX J-3 Tab 1.1, Page 5
A2-18	Letter dated February 6, 2013 – Commission Staff Filing FEU-Common Rates, Amalgamation and Rate Design Application-APPENDIX H-5, Schedule 1
A2-19	Letter dated February 6, 2013 – Commission Staff Filing A2-19-FEU-Common-Rates-Amalg-and-Rate-Design-Application-APPENDIX J-2 Schedule 1

APPLICANT DOCUMENTS

B-1	**FORTISBC ENERGY INC. (FEI)** Letter Dated September 24, 2012 - Application for Approval to Amend Rate schedule 16 on a Permanent Basis
B-1-1	Letter Dated December 20, 2012 – FEI Submitting Amended Application
B-2	Letter Dated October 31, 2012 – FEI Submitting Request for Streamlined Process
B-3	Letter Dated December 4, 2012 – FEI Response to Ferus LNG Request for Suspension
B-4	**CONFIDENTIAL** - Letter Dated December 7, 2012 – FEI Submitting Confidential Response to Information Request No. 1

Exhibit No.	Description
B-4-1	Letter Dated December 7, 2012 – FEI Submitting Public Response to Information Request No. 1
B-4-2	Letter Dated December 14, 2012 – FEI Revised Response to BCUC IR No. 1, Question 16.1
B-5	Letter Dated December 14, 2012 – FEI Response to BCPSO IR No. 1
B-6	Letter Dated December 14, 2012 – FEI Response to BCSEA IR No. 1
B-7	Letter Dated December 14, 2012 – FEI Response to CEC IR No. 1
B-8	Letter dated January 14, 2013 – FEI Submitting Comments on Process
B-9	Letter dated January 22, 2013 – FEI Submitting Reply Comments on Process
B-10	Letter dated January 22, 2013 – FEI Submitting Rate Schedule 16 Pilot Program 2012 Annual Report
B-11	Letter dated February 21, 2013 – FEI Submission Regarding Clean Energy Intervener Evidence
B-12	Letter dated February 21, 2013 – FEI Response to BCPSO IR No. 2
B-13	Letter dated February 21, 2013 – FEI Response to BCSEA IR No. 2
B-14	Letter dated February 21, 2013 – FEI Response to CEC IR No. 2
B-15	Letter dated February 21, 2013 – FEI Response to Ferus IR No. 2
B-16	Letter dated February 21, 2013 – FEI Response to BCUC IR No. 2
B-16-1	**CONFIDENTIAL** Letter dated February 21, 2013 – FEI Confidential Response to BCUC IR No. 2 Attachment 48.1

INTERVENER DOCUMENTS

C1-1	**LANGLEY, JAMES (JL)** Online Registration and Letter dated October 10, 2012 – Request for Intervener Status by James Langley
C2-1	**COMMERCIAL ENERGY CONSUMERS ASSOCIATION OF BRITISH COLUMBIA (CEC)** Letter Dated October 16, 2012 – Request for Intervener Status by Christopher Weafer

Exhibit No.	Description
C2-2	Letter Dated November 30, 2012 – CEC Submitting Information Request No. 1
C2-3	Letter Dated January 15, 2013 – CEC Submitting Comments
C2-4	Letter Dated February 6, 2013 – CEC Submitting Information Request No. 2
C3-1	**CLEAN ENERGY FUELS CORP. (CE)** Letter Dated October 16, 2012 – Request for Intervener Status by Todd R. Campbell
C3-2	Letter Dated December 4, 2012 – CE Submitting Comments regarding Request for Suspension
C3-3	Letter Dated January 16, 2013 – CE Submitting Comments
C3-4	Letter dated February 19, 2013 – CE Submitting Comments
C4-1	**BRITISH COLUMBIA PENSIONERS' AND SENIORS' ORGANIZATION, ACTIVE SUPPORT AGAINST POVERTY, BC COALITION OF PEOPLE WITH DISABILITIES, COUNCIL OF SENIOR CITIZENS' ORGANIZATIONS OF BC, AND TENANT RESOURCE AND ADVISORY CENTRE (BCPSO ET AL.) -** Letter Dated October 17, 2012 – Request for Intervener Status by Tannis Braithwaite and James Wightman
C4-2	Letter Dated November 30, 2012 – BCPSO Submitting Information Request No. 1
C4-3	Letter Dated December 4, 2012 – BCPSO Submitting Comments regarding Request for Suspension
C4-4	Letter Dated January 16, 2013 – BCPSO Submitting Comments
C4-5	Letter Dated February 6, 2013 – BCPSO Submitting Information Request No. 2
C5-1	**B.C. SUSTAINABLE ENERGY ASSOCIATION (BCSEA)** Letter dated October 17, 2012 – Request for Intervener Status by William J. Andrews
C5-2	Letter Dated November 29, 2012 – BCSEA Submitting Comments regarding Suspension application by Ferus
C5-3	Letter Dated November 30, 2012 – BCSEA Submitting Information Request No. 1
C5-4	Letter Dated February 5, 2013 – BCSEA Submitting Information Request No. 2
C6-1	**FERUS INC.-LNG DIVISION (FERUS)** Letter dated October 12, 2012 – Request for Intervener Status by Blaire Lancaster

Exhibit No.	Description
C6-2	Letter Dated November 28, 2012 – Ferus Submitting Request for Suspension
C6-3	Letter Dated December 6, 2012 – Ferus Submitting Reply regarding Suspension Comments
C6-4	Letter Dated January 16, 2013 – Ferus Submitting Comments
C6-5	Letter Dated February 6, 2013 – Ferus Submitting Information Request No. 2
C7-1	**LEDCOR RESOURCES AND TRANSPORTATION LP (LEDCOR)** Letter Dated November 28, 2012 – Request for Late Intervener Status by Murray MacKinnon
C7-2	Letter Dated December 4, 2012 – Ledcor Submitting Comments regarding Request for Suspension

INTERESTED PARTY DOCUMENTS

D-1	**SEASPAN FERRIES (SEASPAN)** Letter dated October 22, 2012 – Request for Interested Party Status by Harly Penner

LETTERS OF COMMENT

E-1	**ROLLS-ROYCE CANADA LTD.** – Letter of Comment Dated November 14, 2012
E-2	**SUTCO** – Letter of Comment Dated December 4, 2012
E-3	**COALITION FOR RENEWABLE NATURAL GAS INC.** – Letter of Comment Dated December 4, 2012
E-4	**BRIDGEWAY TRANSPORT LTD.** – Letter of Comment Dated November 30, 2012
E-5	**SHELL CANADA LTD.** – Letter of Comment Dated December 7, 2012
E-6	**WESTCAN BULK TRANSPORT LTD.** – Letter of Comment Dated November 27, 2012
E-7	**BISON TRANSPORT** – Letter of Comment Dated December 4, 2012
E-8	**LIQUILINE NORTH AMERICA** – Letter of Comment Dated December 18, 2012

Exhibit No.	Description
E-9	**TEEKAY CORPORATION** – Letter of Comment Dated December 7, 2012
E-10	**PROMETHEUS ENERGY** – Letter of Comment Dated November 29, 2012