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November 24, 2015

Via Email
Original via Mail

British Columbia Utilities Commission
6th Floor, 900 Howe Street
Vancouver, BC
V6Z 2N3

Attention: Ms. Erica M. Hamilton, Commission Secretary

Dear Ms. Hamilton:

Re: FortisBC Energy Inc. (FEI or the Company)

***Utilities Commission Act* (UCA) - Section 71 Filing - Biomethane Purchase Agreement Between FEI and the City of Surrey (the Application)**

On September 16, 2015, FEI and City of Surrey (Surrey or the City) entered into a Biomethane Purchase Agreement (the Agreement), whereby Surrey will supply biomethane to FEI for injection into FEI's existing natural gas distribution system. With this Application, and as detailed in section 1 below, FEI seeks the necessary acceptance/approval from the British Columbia Utilities Commission (the BCUC or Commission) in order to implement the Agreement. The supply project, together with the Agreement, supports FEI's Biomethane program approved by Order G-210-13 and the accompanying Commission Decision on FEI's 2012 Biomethane Application (the 2013 Biomethane Decision).

1. APPROVALS SOUGHT AND REGULATORY PROCESS

In this Application, FEI seeks the following from the Commission:

1) pursuant to section 71 of the Utilities Commission Act (UCA), acceptance of the Agreement, under which biomethane is sold by Surrey to FEI, as being in the public interest; and

2) pursuant to sections 59-61 of the UCA, approval of a monthly facility fee (Facility Fee) as set forth in Schedule D of the Agreement, a charge payable by Surrey to FEI as being just and reasonable.

A draft order seeking both items is attached as Appendix F.

Confidentiality Request

FEI also requests that the Agreement, the cost of service model (fully functional Excel model) and the purchase scenarios, attached as Appendices A, B and C respectively, be held confidentially in accordance with the BCUC Practice Directive related to Confidential Filings. The Agreement contains commercially sensitive terms and negotiated rates, the disclosure of which will potentially impede FEI's negotiations with other potential Biomethane suppliers in seeking the best possible terms for FEI's customers. The confidential treatment is also consistent with previous practices with respect to Biomethane supply agreements.[1] The terms of the Agreement contemplates that FEI make such request.[2]

FEI does not object to customer group interveners such as the British Columbia Public Interest Advocacy Centre representing the British Columbia Old Age Pensioners' Organization, Active Support Against Poverty, Disability Alliance BC, Council of Senior Citizens' Organizations of BC, and the Tenant Resource and Advisory Centre *et al.* (BCOAPO) and the Commercial Energy Consumers Association of British Columbia (CEC) and environmental interveners such as the BC Sustainable Energy Association (BCSEA), who are not competitors of FEI or potentially negotiating with FEI for Biomethane supply projects, being provided with these appendices upon executing standard form undertakings of confidentiality.

1.1 PROPOSED REGULATORY PROCESS

FEI proposes the regulatory process and timetable set out in Table 1-2 below. Although the Agreement contains specific provisions resulting from negotiations with Surrey, FEI believes that a condensed review process is sufficient for this Application because, as explained in section 5.1 below, the Agreement satisfies all of the criteria established in the 2010 Biomethane Decision as expanded by Order G-45-13, and all interconnection costs are recovered through the negotiated Facility Fee as discussed in section 6 below.

FEI respectfully requests a Commission decision on the Application by end of January 2016 in order to support Surrey's construction schedule of its biofuel processing facility.

[1] See Order E-13-13 (keeping confidential the supply agreement and the live working financial model).
[2] The Agreement, Clause 16.2.

Table 1-2: Proposed Regulatory Timetable

ACTION	DATE (2015)
Commission Issues Procedural Order	Friday, November 27
Commission Information Request (IR) No. 1 (if required)	Friday, December 11
	DATE (2016)
FEI Response to IR No. 1	Monday, January 11

2. REGULATORY BACKGROUND

In December 2010, FEI received approval for a two-year pilot biomethane program. Order G-194-10 along with the accompanying decision (the 2010 Biomethane Decision), among other things, established certain criteria for evaluating biomethane supply agreements.

In December 2012, FEI filed "Biomethane Service Offering: Post Implementation Report and Application for Approval for the Continuation and Modification of the Biomethane Program on a Permanent Basis" (2012 Biomethane Application). By the 2013 Biomethane Decision, the Commission approved FEI's biomethane program on a permanent basis. In regard to biomethane supply and supply agreements, the 2013 Biomethane Decision largely reaffirmed the 2010 Decision. More specifically, for biomethane supply contracts,

> *The Commission Panel directs FEI to revise the contract templates to ensure a minimum supply requirement sufficient to ensure potential stranding of FEI interconnection capital costs is avoided. In the case where FEI owns the upgrader the contract template should also include a minimum supply requirement sufficient to ensure potential stranding of FEI upgrader capital costs is avoided.*[3]

In the 2013 Biomethane Decision, the Commission also increased the supply cap to 1,500,000 GJ annually.

Subsequent to the 2013 Biomethane Decision, FEI asked for clarification, among other things, of whether the minimum supply requirement in the cited paragraph above applies to a potential supply agreement with Surrey. The Commission clarified:

> *The Commission Panel does not intend that a minimum supply requirement is inapplicable for these two supply contracts. In the Decision, "FEI is directed to fully describe in each application for section 71 acceptance any departures from the appropriate template." The intent is that FEI include in each section 71 application sufficient rationale for departing from a standardized template. This standard template would be understood to include a minimum supply requirement as per the directives*

[3] 2013 Biomethane Decision, page 105.

on page 105 of the Decision. As noted by the Commission Panel in the Decision, the expectation is that the Commission uses the criteria, including contract templates, as a reasonable starting point and the Commission retains the discretion to take into account other factors. The Commission Panel is of the view that review of the supply contracts for both the City of Vancouver and the City of Surrey would appropriately include examination of the potential for stranding of both interconnection and upgrader capital costs and the means by which the respective supply contracts address that risk.[4]

In compliance with the 2013 Biomethane Decision, FEI also established an interconnect test that is applied to supply projects, which is approved by the Commission by Order G-159-14.

3. PROJECT DESCRPTION

This section provides a high level description of the biofuel processing project undertaken by Surrey and the forecast biomethane supply resulting from this biofuel processing facility, followed by a discussion of FEI's facilities that are required for interconnecting the biofuel processing facility to FEI's natural gas distribution system. A discussion of the forecast capital and O&M costs for FEI's facilities is also included in this section.

3.1 *SURREY FACILITY*

Surrey will be constructing, owning, and operating a biofuel processing facility, which will be used to generate, capture, purify and upgrade biogas to pipeline quality biomethane and to deliver the biomethane to FEI's facilities (the Surrey Facility). As described by Surrey (see Appendix D), the Surrey Facility is an organic waste processing facility and is located on Surrey owned land at the Port Kells Industrial Park. The Surrey Facility will accept both the City's residential organic waste as well as organic waste from the private sector. Organic feedstock will be processed at the Facility through a combination of anaerobic digestion (AD) and in-vessel compost, and will produce biogas and compost products. The raw biogas will be captured and upgraded onsite, prior to delivery to FEI's Interconnection Facility (discussed in section 3.3 below) and injection into FEI's natural gas distribution system.

The City is developing the Surrey Facility as a public-private partnership (PPP), and to this end has selected Orgaworld Canada as the PPP partner responsible for designing, constructing, financing, operating and maintaining the Surrey Facility for a 25-year term.

Construction of the Surrey Facility commenced in April, 2015 and is scheduled for completion in late 2016, with initial operation expected in early 2017.

[4] Letter L-10-14 dated February 18, 2014.

A brochure prepared by Surrey, providing a summary of the Surrey Facility and including the site location and plan for the Surrey Facility, is attached as Appendix D.

3.2 *PROJECTED SUPPLY*

Based on information provided by Surrey (see Appendix E), the Surrey Facility will be capable of processing up to 115,000 tonnes of organic waste per year. Organic feedstock will consist primarily of source separated organic waste (food waste) and yard and garden waste, with some liquid organic waste (fats, oils and greases). As mentioned above, the majority of feedstock will be sent through the dry Anaerobic Digestion (AD) system, to ensure adequate levels of biogas production. The post-AD digestate product will then be blended with fresh organic waste in the in-vessel compost tunnels to produce finished compost with anticipated biogas production volumes of 30,000 tonnes per year.

Once fully operational, the Surrey Facility is anticipating average annual raw biogas production of approximately 5.5 million cubic meters, which will amount to roughly 3.1 million cubic meters of refined biomethane or approximately 119,000 GJ.

However, as FEI understands it, the upper design limit of the Surrey Facility would allow Surrey to produce as much as 160,000 GJ of refined biomethane annually. That is, if Surrey is able to successfully operate the Surrey Facility at its optimum capacity, it may produce as much as 160,000 GJ of biomethane annually.

3.3 *FEI INTERCONNECT FACILITY*

3.3.1 Physical Equipment/Facilities

In order to monitor the quantity and quality of the biomethane supplied to FEI from the Surrey Facility and to inject the supplied biomethane into FEI's natural gas distribution system, FEI will construct, own, and operate facilities on Surrey's land (Interconnection Station), at the northwest edge of the Surrey Facility property, including equipment that serves the following basic functions:

- Gas Composition analysis (Methane, Oxygen, Carbon Dioxide, Hydrogen Sulphide)
- Biomethane Flow measurement
- Pressure Regulation
- Safety shutoff and return to customer flow
- Odorizing
- Communications
- Automatic control

FEI will also install, own and operate approximately 30m of 114mm PE interconnection pipe, which will connect the FEI Interconnect Station to an existing FEI distribution main located immediately in front of the Surrey Facility on 192nd Street in the City of Surrey (collectively Interconnection Facility or Interconnection Facilities). The following Figure 4-2 shows the proposed approximate location of the tie-in location to the FEI natural gas distribution system.

Figure 4-2: Surrey Biofuel Facility Interconnection Location

FEI will base the design of the Interconnection Station on its previous biomethane interconnect facilities. Similar to the previously designed interconnection facilities, FEI will place the Interconnection Station on a skid to ensure that the station is portable and can be easily re-deployed if necessary.

3.3.2 Costs for Interconnection Facilities

The estimated capital cost of the Interconnection Facilities is $850 thousand (before AFUDC).[5] A breakdown of the capital cost is provided in Figure 4-3 below.

[5] The forecast capital cost is $876 thousand including AFUDC in Appendix B, Schedule 6, Column D, Line 21.

Figure 4-3: Estimated Capital Cost of Interconnection Facilities[6]

Particulars		Cost ($,000)
Year in Service (Target)	2017	
472 - Structures & Improvements		80
475 - Distribution Mains		62
477 - Distribution Measuring & Regulating Equipment		700
478 - Meters		8
Total Capital Investment		850

The capital cost estimate was developed after completing the preliminary design of the Interconnection Facility and was based upon cost estimates for FEI's most recently constructed facility. As mentioned above, FEI will use a design consistent with the previous interconnection facilities. However, the design will also take into account field installation experience, operational experience and updated company policy related to facility design and safety.

There are two modifications to the Interconnection Station in comparison to other recent biomethane supply interconnection stations that make a difference in the cost estimate:

- Firstly, FEI has modified the design of the Interconnection Station based upon changes to standard design practices. Specifically, FEI has separated certain instrumentation for improved access and to better align with FEI's policy regarding hazardous locations. This results in adding a second telemetry hut to the design, which costs approximately $55,000.

- Secondly, at the request of Surrey, FEI has added a return meter. FEI will use this meter to provide Surrey with a means of tracking the volume of gas that is returned to Surrey either due to failure to meet the specified biomethane quality or excess biomethane volume. The second meter, with associated components, adds approximately $59,000 of cost to the Interconnection Facilities.

The annual operating and maintenance cost for the Interconnection Facilities is approximately $11 thousand and has been inflated yearly in the forecast cost of service as provided in Schedule 2 of Appendix B.

[6] Appendix B, Schedule 6

4. THE AGREEMENT SUMMARY

The Agreement is a twenty five year agreement that allows Surrey to sell biomethane to FEI and enables FEI to recover the costs of the Interconnection Facilities. FEI will purchase the biomethane from Surrey at two different prices which are referred to as a Net Sale Rate and A Net Recovery Rate. In this respect, the Agreement is similar to other biomethane supply agreements that FEI has with Dicklands Farm and Seabreeze Farm. However, the Agreement has two features that are specific to the City of Surrey and the Surrey Facility: the Facility Fee payable to FEI by Surrey and Surrey's intent to participate as a customer of FEI's Biomethane program. The key terms and these two aspects of the Agreement will be discussed below.

4.1 *KEY TERMS OF THE AGREEMENT*

The Agreement sets out terms that govern the ownership of respective facilities, access and use of Surrey land, biomethane delivery quantities and qualities, relevant prices and fees, termination and insurance requirements. Some of the key terms include:

- The term of the Agreement is 25 years (Clause 2.1).
- FEI will purchase from Surrey up to 160,000 GJ per year of biomethane at the Net Sale Rate or the Recovery Rate (defined as the existing biomethane rate; i.e., the BERC rate), whichever is applicable (Schedule D, Clause 1 and 2). The Net Sale Rate and its applicability are explained in sections 4.2 and 4.3 below.
- Surrey will pay FEI a monthly Facility Fee, expected to be in the range of $10,460 and $14,030 per month[7] (Clause 6.2; Schedule D, Clause 3). The Facility Fee is not tied to volume to be produced by the Surrey Facility and as such Surrey pays the Facility Fee regardless of whether or not the Surrey Facility delivers biomethane to FEI. The Facility Fee is designed to recover the full capital and operating cost of the Interconnection Facilities and the costs associated with the administration of this Agreement. This fee is discussed in section 6 below.
- Surrey will fully pay the undepreciated costs of the investment in the Interconnection Facilities if the Agreement is terminated prematurely (Clause 10.2).

Table 4-1 below provides a summary of some key data and terms regarding the Agreement, including price and volume.

[7] Final fee depends upon actual completed costs of facility.

Table 4-1: Surrey Agreement Highlights

Item	Amount	Contract Clause	Comment
Contract Term	25 Years	Clause 2.1	The Agreement is not subject to automatic renewal.
Maximum Volume	160,000 GJ	Schedule D, Clause 1.1	This represents the maximum biomethane volume FEI agrees to purchase annually from the Surrey Facility.
Minimum Volume	N/A	Clause 6.2	Contract has a monthly Facilities Fee payable to FEI regardless of biomethane volume supplied from the Surrey Facility.
Price ("Recovery Rate")	Current BERC	Schedule D, Clause 2	The Recovery Rate is applicable to RNG purchased from Surrey by FEI. Where that volume purchased from Surrey is equal to the volume consumed by Surrey. This is further explained in sections 4.2 and 4.3 below.
Price ("Net Sale Rate")	Fixed rate + inflation $ per GJ	Schedule D, Clause 2	This price is applicable to the volume of RNG purchased from Surrey that is greater than the volume consumed by Surrey.
Inflation Factor on price	1.0%	Schedule D	Applicable to Net Sale Rate only
Facility Fee	$10,460 - $14,030	Clause 6.2; Schedule D, Clause 3	Estimated range provided in Agreement, final Fee will be based upon actual costs

4.2 *SURREY TO PRODUCE AND CONSUME ITS OWN RNG*

Surrey has expressed intent to consume (or re-purchase) the Renewable Natural Gas (RNG) the Surrey Facility produces and delivers to FEI. In Appendix E, Surrey describes in more details its plan as a consumer of the RNG as follows:

> *The City's vision has always been to fuel its CNG waste collection fleet with renewable biomethane produced from the organic waste being collected by the trucks themselves. To this end, the City will be operating one of the only "closed-loop" waste collection systems in the world. This vision aligns with key City of Surrey policy documents, including the Sustainability Charter, the Corporate Emissions Action Plan and the Community Energy and Emissions Plan.*
>
> *Upon selection of Orgaworld Canada as their PPP partner, the City realized that the Facility would be producing volumes of biomethane that exceed twice the annual demand of the waste collection fleet. Accordingly, City staff began to seek out other internal corporate demand opportunities. On the basis of these discussions, the City*

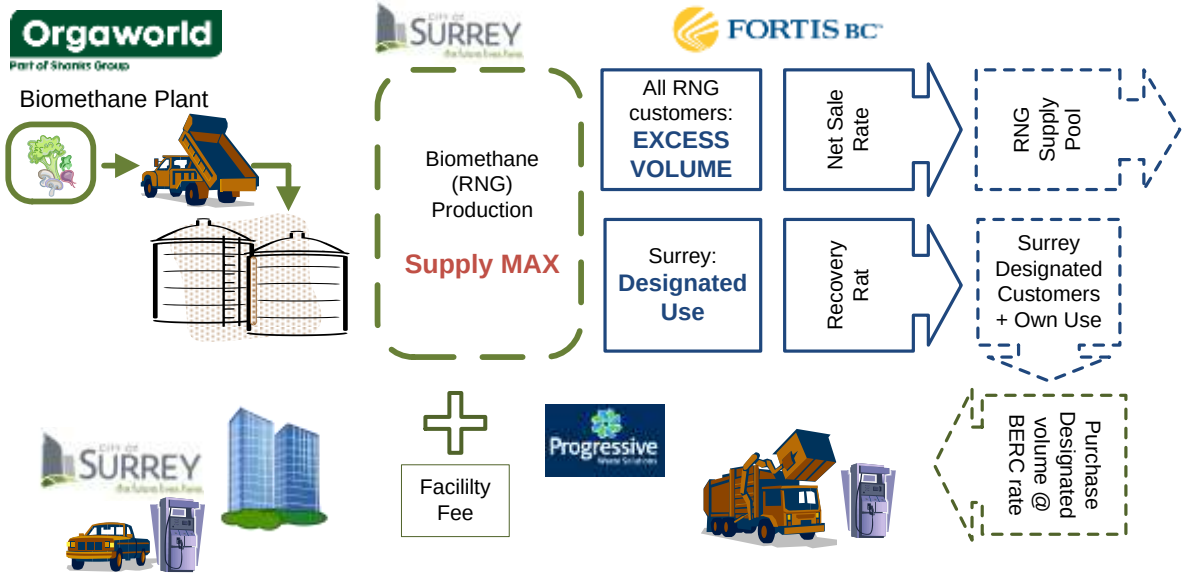
has developed a Corporate RNG Demand Portfolio that includes corporate affiliates and third party contractors who will displace traditional natural gas with RNG within their respective operations. Currently, the Portfolio includes the City's waste collection fleet of 40+ NG trucks, the City's fleet of 40+ light duty commercial trucks, and the Surrey District Energy Utility's NG boilers.

On the basis of the current Corporate RNG Demand Portfolio, the City should be capable of using 100% of the biomethane generated at the Facility. In the event that the City does not use 100% of the gas, the residual gas will be sold to FEI.

In order to facilitate Surrey's achievement of the above plan, FEI and Surrey have negotiated and structured the Agreement to enable Surrey either to consume by the City itself certain amount of biomethane that the Surrey Facility produces or, to require, through contractual obligations, that its affiliates or its service providers (the Designated Customers) purchase RNG from FEI. That is, the City itself and its Designated Customers may sign up for FEI's biomethane service under FEI's existing applicable biomethane rate schedules. For example, Surrey may opt to purchase RNG for one of its buildings under an existing applicable FEI rate schedule. Through such means, Surrey will be meeting its GHG reduction goals. The Agreement provides FEI with the ability to verify a Designated Customer's status (please refer to Clause 7.2 of the Agreement).

A schematic of the Agreement concept is shown below in Figure 4-1.

Figure 4-1: SURREY Agreement Concept



Although the Agreement contains clauses governing Surrey's intent to repurchase the RNG from FEI as FEI's customer, this provision does not change the fundamental nature of the Agreement, which, at its heart, is a biomethane supply agreement that includes a mechanism for the recovery of the costs of FEI's Interconnection Facilities from Surrey. This is further discussed in section 4.3 below.

4.3 *SURREY PURCHASE SCENARIOS*

In order to accommodate Surrey's plan to both produce and consume RNG, FEI and Surrey constructed mechanisms in the agreement that accommodate the variance between the amount of biomethane produced each year from the Surrey Facility and the amount consumed by the City itself or its Designated Customers.

To accommodate the variance in volumes, there are two rates: (1) Recovery Rate, which is the then current BERC rate, applied to the volume of biomethane purchased by FEI from the Surrey Facility, and (2) Net Sale Rate, applied to the volume that represents the difference between what is supplied by the Surrey Facility and what is consumed by the City or its Designated Customers.

The discussion below describes the mechanics of FEI's purchase of biomethane from Surrey and the re-sale of biomethane (or RNG) to Surrey in three illustrative scenarios. In each scenario, Surrey continues to pay the monthly Facility Fee, regardless of the volume of biomethane that the Surrey Facility supplies to FEI or the volume of RNG that Surrey purchases from FEI. Details of the scenarios are contained in Appendix C, which is confidentially filed.

4.3.1 Surrey Uses Substantial Amount of Supply

In this scenario, Surrey produces and delivers to FEI approximately 120,000 GJ of biomethane annually at the Surrey Facility, while Surrey's own use (or use by its Designated Customers) is approximately 70,000 GJ.

FEI will pay Surrey the current BERC rate for all 120,000 GJ produced from the Surrey Facility. In the agreement this is referred to as the Recovery Rate. Payments to Surrey for the biomethane supplied to FEI occur on a monthly basis, as do payments to FEI from Surrey for the Facilities Fee. Surrey or its Designated Customers, which will consume 70,000 GJ over the year under this scenario, will pay FEI for this volume of RNG at the applicable BERC rate under existing rate schedules.

To avoid a monthly true up between produced and consumed biomethane, which may add administrative costs, FEI and Surrey have agreed that a yearly true up is reasonable an efficient way to reconcile any difference in biomethane volumes supplied and repurchased.

Thus, under this scenario, due to the fact that there is a difference between the volume consumed by Surrey and the volume supplied by the Surrey Facility, a true up is required. On a yearly basis, FEI has already paid Surrey for 120,000 GJ of biomethane at the applicable BERC rate (the Recovery Rate in the Agreement); however, FEI should only be paying for 70,000 GJ (the amount that Surrey consumes) at the BERC/Recovery Rate and for 50,000 GJ (difference between 70,000 consumed and 120,000 supplied) at the Net Sale Rate. Therefore, Surrey must refund FEI for the monetary difference between the BERC rate and the Net Sale Rate for the 50,000GJ.

As mentioned above, Surrey is obligated to pay the monthly Facility Fee, and the Facility Fee can be used to offset the amount owed by FEI to Surrey. The example in Appendix C demonstrates the in and out nature of payments.

4.3.2 Surrey Uses All Biomethane

This scenario contemplates the possibility that Surrey may purchase an amount of biomethane equivalent to the amount that is supplied to FEI from the Surrey Facility. As a result, FEI does not retain any volume of biomethane for its general RNG customer pool because the demand from Surrey is equal to the new biomethane supply from the Surrey Facility. In this case, FEI will pay Surrey the Recovery Rate (BERC rate) for RNG produced, and Surrey or its Designated Customers pay FEI for consumed RNG at the BERC rate via existing rate schedules. Surrey will also pay FEI the monthly Facility Fee.

4.3.3 Surrey Purchases No Biomethane

This scenario contemplates the possibility that neither Surrey nor its Designated Customers will purchase any RNG from FEI. The Agreement is designed such that in the event Surrey purchases no biomethane from FEI, the Agreement functions as a typical supply agreement, similar to other existing supply agreements. It is this scenario that underpins the agreement and sets up the requested approvals noted in Section 1 of the Application.

In this scenario, FEI retains all of the biomethane supplied from the Surrey Facility for its general RNG customer pool. In this case, FEI will effectively pay the Net Sale Rate for all of the biomethane. That is, FEI will pay to Surrey the BERC rate on all biomethane supplied from the Surrey Facility, and Surrey will refund FEI the monetary difference, calculated by the entire volume supplied multiplied by the price difference.

5. COMPLIANCE WITH BIOMETHANE SUPPLY CRITERIA

In the 2013 Biomethane Decision (at page 105), the Commission agreed that a pre-set of criteria for evaluating the biomethane supply agreements is "reasonable starting point for the minimum requirements in a review process…. "The Commission retains the discretion to depart from the proposed criteria…." This section demonstrates that the Agreement complies with the established criteria for determining that supply agreements meet the requirements of section 71 of the UCA. Any deviations of this Agreement from the established supply contract template are discussed in section 5.2 below.

5.1 *COMPLIANCE WITH SUPPLY AGREEMENT CRITERIA*

The Agreement satisfies all of the criteria established in the 2010 Biomethane Decision and expanded in the 2013 Biomethane Decision. Table 5-1 sets out the established criteria for biomethane supply contracts and the corresponding clauses in the current Agreement that meet the criteria.

Table 5-1: Contract Criteria Surrey

Criteria	Contract Clause	Comment
The supply contract is at least 10 years in length.	Clause 2.1, 2.3	The Agreement is a 25 year contract.
FEI has, by agreement, retained final control over injection location.	Clause 3.2 Clause 3.7 Clause 5.1	These clauses together define that FEI owns the Interconnection Facilities, and has control over the quality of biomethane when injected into FEI's natural gas distribution system.
FEI is satisfied that the selected upgrader is sufficiently proven.	N/A	In this case, FEI relies upon Surrey to ensure that it selects appropriate and proven equipment for the operation of its Surrey Facility.
FEI has, by agreement, reserved the right to refuse gas if customer safety or asset integrity is at stake.	Clause 5.2	Biomethane must meet specification specified in the Agreement prior to being accepted. FEI may reject the biomethane that does not meet specifications and return it to Surrey.
The partner is a municipality, regional district or other public authority or is a private party with a track record in dealings with FEI or that posts security to reduce the risk of stranding.	N/A	Surrey is a municipality.

Criteria	Contract Clause	Comment
The total production of biomethane for all projects undertaken does not exceed an annual purchase of 1.5 PJ.	Clause 5.1, Schedule D Clause 1.1 (a)	The Agreement sets the maximum volume of biomethane to supply to FEI from the Surrey Facility is 160,000 GJ annually. Added this amount to current contracted supply from all supply projects, the total annual GJ is 589,250.
The price for delivered biomethane is below $15.28 per GJ.	Schedule D, Clause 2.1 (a) and (b)	The biomethane rate paid by FEI is either the current BERC rate or the Net Sale Rate (+ 1% inflation). The Agreement contemplates that the Net Sale Rate with inflation will not exceed the then current BCUC approved maximum rate for FEI's delivered biomethane.

5.2 *DEVIATIONS FROM THE STANDARD TEMPLATE*

In the 2013 Biomethane Decision, FEI was directed to fully describe, with reasons, in each application for section 71 acceptance any departures from the appropriate contract template. The Agreement deviates from the standard template in few minor ways. Each of those items is summarized below along with the relevant Agreement clause reference and a brief reason for deviation.

Table 5-2: Deviations from Template

Departures	Contract Clause	Comment
Milestones	Clause 3.3	The Agreement contains target dates for various activities, including the targeted filing dates for this Application, for the expected approval from the BCUC, and for the completion of the Interconnection Facilities. The Agreement provides target dates for the Interconnection Facilities to ensure that these facilities would be in-service at the same time as the Surrey Facility (January 2017).
Facility Fee	Clause 6.2	The Facility Fee is designed for FEI to recover the costs associated with the design, construction, operation and maintenance of the Interconnection Facilities and the operation and administration of the Agreement. FEI is seeking approval to charge this Fee. Please see the discussion in section 5.1 below for more detail.

Departures	Contract Clause	Comment
Re-purchase of Biomethane	Clauses 7.1 – 7.3	As described in section 4.3 of this Application, the Agreement was structured to facilitate and accommodate Surrey's intent and plan to purchase from FEI biomethane produced from the Surrey Facility. The Agreement also contains provisions for rates and accounting mechanism associated with the repurchase by Surrey. However, it is important to note that Surrey will be a customer of FEI's RNG program and will purchase biomethane under the applicable biomethane rate schedule.
Greenhouse Gas	Clauses 8.1-8.3	Surrey has the ability to retain GHG benefits for biomethane it re-purchases. FEI retains the GHG benefits for biomethane that is not consumed by Surrey and is allocated to the RNG pool.
Termination Payment	Clause 10.2	Surrey will pay costs associated with removing facilities and unrecovered net book value of the Interconnection Facilities.
Additional Equipment at Interconnection Facilities	Schedule C	Surrey has requested the addition of a return meter. See the discussion in section 3.3 of this Application for more detail.
Minimum Volume	Clause 6.2	FEI has negotiated and agreed to a payment of the Facility Fee Please see discussion in section 6 below for more details on how this Fee provides sufficient protection for FEI ratepayers

FEI has used the standard contract template (as provided to the BCUC as part of the 2012 Application) as a starting point and has provided reasons for deviating from the template contract. Some of the additional provisions are required to meet the specific requirements of Surrey, and some are negotiated to ensure that no additional risks are added or shifted to FEI ratepayers. In FEI's view, the Agreement should be reviewed under the proposed regulatory process, be evaluated against the established criteria and accepted as being in the public interest under section 71 of the UCA.

6. FACILITY FEE

As mentioned above, FEI and Surrey have agreed that Surrey pays FEI a monthly Facility Fee. The payment of the Facility Fee is independent of the maximum supply amount of 160,000 GJ from the Surrey Facility and of Surrey's intent and plan to repurchase biomethane.

6.1 *FACILITY FEE COMPONENTS*

The Facility Fee is designed for FEI to recover the costs associated with the design, construction, operation and maintenance of the Interconnection Facilities and the operation and administration of the Agreement. The Facility Fee consists of the following components:

1. A levelized charge (over the contract period) that accounts for the capital, cost of capital, undepreciated capital cost at the end of the contract term and operating and maintenance costs of the Interconnection Facilities, including income taxes;[8]

2. FEI's costs directly related to developing the supply project and this Agreement;[9]

3. Expected costs associated with administering this Agreement;[10]

4. Forecast costs of $75 thousand associated with the filing of this Application; and[11]

5. A negotiated incremental fee designed to provide incremental benefits to other RNG customers.[12]

The details of these components are contained in Appendix A, and Appendix B, Schedule 10 filed confidentially. Further, as shown on Schedule 1 of Appendix B, the forecast net costs of the interconnection facilities are offset by the Facility Fee paid by Surrey.[13]

6.1.1 Facility Fee, Minimum Volume and Interconnection Test

In Order G-159-14 and accompanying decision, the Commission determined a methodology for determining an Interconnect Test. The Interconnection Test is designed to fairly allocate interconnection costs between the biomethane supplier and FEI and thus considers the cost to connect the supplier and the contractual minimum amount of biomethane supplied over the life of the contract. The test is to be applied to all supply projects. The Interconnection Test is similar in concept to a main extension test whereby revenues and costs are reviewed to determine whether a contribution from the customer is required in order for the main to be constructed. The difference in the Interconnection Test is that there is an established rate per GJ based upon costs for interconnection piping and a minimum supply in volume in the contract. It also considers a maximum allowed spend on an interconnection station. FEI is required to ask for a Contribution in Aid of Construction (CIAC) in the event that either the Interconnection Station Cost or the cost per GJ is above a threshold.

In negotiations with Surrey, the concept of minimum supply requirement was discussed as well as the Interconnection Test and the recovery of interconnection costs. A specific rate per GJ of biomethane supply was considered as a means of ensuring that Surrey covered the costs of the Interconnection Station.. It was noted that if the volumes of biomethane produced by Surrey increase, or become greater than the volume used as part of the Interconnection Test, then Surrey would be paying more than their costs for the interconnection. As a result, it was proposed to recover the interconnection costs on a

[8] Appendix B, Schedule 10
[9] Embedded in forecast capital costs provided in Appendix B, Schedule 6
[10] Appendix B, Schedule 10
[11] Appendix B, Schedule 2
[12] Appendix B, Schedule 10
[13] Appendix B, Schedule 1, Line 19

monthly basis irrespective of the volume of biomethane that Surrey produced and FEI purchased.

The parties agreed to the monthly Facility Fee as a way to recover the interconnection costs. The fee is paid to FEI monthly irrespective of any production of biomethane by Surrey. As there is no minimum volume, it is not possible to calculate the Interconnection Test in the manner it was designed. However, since Surrey is paying for all of the interconnection costs as part of the monthly Facility Fee, FEI believes that the intent of the Interconnection Test has been satisfied and as such a CIAC is not required.

Therefore, FEI believes that the Facility Fee, together with the agreement for Surrey to pay the full costs associated with any assets (unrecovered net book value) in the event of an early termination of the Agreement, provides fulsome protection for FEI and its customers and is just and reasonable.

7. RISKS AND MITIGATION

As with other approved biogas or biomethane projects, the risks associated with FEI's capital investment in the Interconnection Facilities are low, and key risks have been addressed by contractual provisions in the Agreement. FEI addresses the key risks below.

7.1 *Operation and Cost Recovery of FEI Facilities*

As discussed above, the Facility Fee payment and the early termination provisions together mitigate the risk of the potential for unrecovered capital costs.

In addition:

- FEI has the full control of the interconnection facilities and will maintain full access to these facilities.
- The above ground equipment at the Interconnection Facility will be designed to maximize the ability of FEI to relocate, be removed and be used for other projects if circumstances require.
- The contract term is of 25 years, which provides reasonable period over which to recover equipment costs.
- The biomethane supplier is a municipal government.

7.2 *The Biofuel Project is Viable*

FEI believes that the biofuel supply project to be developed by Surrey is viable. The City Council of Surrey has approved the development of the biomethane facility, the project has

been awarded to Orgaworld, and construction of the Surrey Facility is already underway. The risk with respect to the Surrey Facility has been managed by Surrey through its contracts with Orgaworld, as described by Surrey (see Appendix E):

> *The City is the owner of the Facility and Orgaworld Canada is the City's PPP Partner. The City and Orgaworld have entered into a 25-year contract, to this end, with a hand back provision at the end of the term. Along with successfully designing, building, maintain and operating the Facility, Orgaworld has also taken on contractual risk with regards to producing guaranteed annual volumes of biomethane, which must meet or exceeds FEI's grid specifications. The City has retained the contractual risk for delivering guaranteed volumes of organic feedstock, as well as the risk of managing the refined biomethane.*

8. CONCLUSION

As the Commission determined in Order G-194-10 and in Order G-45-13, a biomethane supply agreement that meets the criteria established in the 2010 Biomethane Decision and expanded in the 2013 Decision is generally considered to be in the public interest under section 71 of the UCA. As explained above, the Agreement satisfies the established criteria. Additionally, FEI has explained how the Agreement departs from a standard contract template and how such departures sufficiently protect FEI and its ratepayers. Accordingly, FEI respectfully requests the Commission's acceptance of the Agreement under section 71 of the UCA.

FEI also respectfully requests that the Commission approve the proposed monthly Facility Fee as just and reasonable as the Fee is designed to fully recover FEI's capital investment for the Interconnection Facilities.

If you require further information or have any questions regarding this submission, please contact Scott Gramm, Manager Renewable Gas and Mid-size Commercial Accounts (604) 576-7242.

Sincerely,

FORTISBC ENERGY INC.

Original signed by: Michelle Carman

For: Diane Roy

Attachments

cc (email only): 2012 Biomethane Application Registered Parties

Appendix A

FEI-CITY OF SURREY BIOMETHANE PURCHASE AGREEMENT

FILED CONFIDENTIALLY

Appendix B

FINANCIAL SCHEDULES

ALSO REFER TO LIVE SPREADSHEET MODELS

Provided in electronic format only

FILED CONFIDENTIALLY

(accessible by opening the Attachments Tab in Adobe)

Appendix C

PURCHASE SCENARIOS

ALSO REFER TO LIVE SPREADSHEET MODELS

Provided in electronic format only

FILED CONFIDENTIALLY

(accessible by opening the Attachments Tab in Adobe)

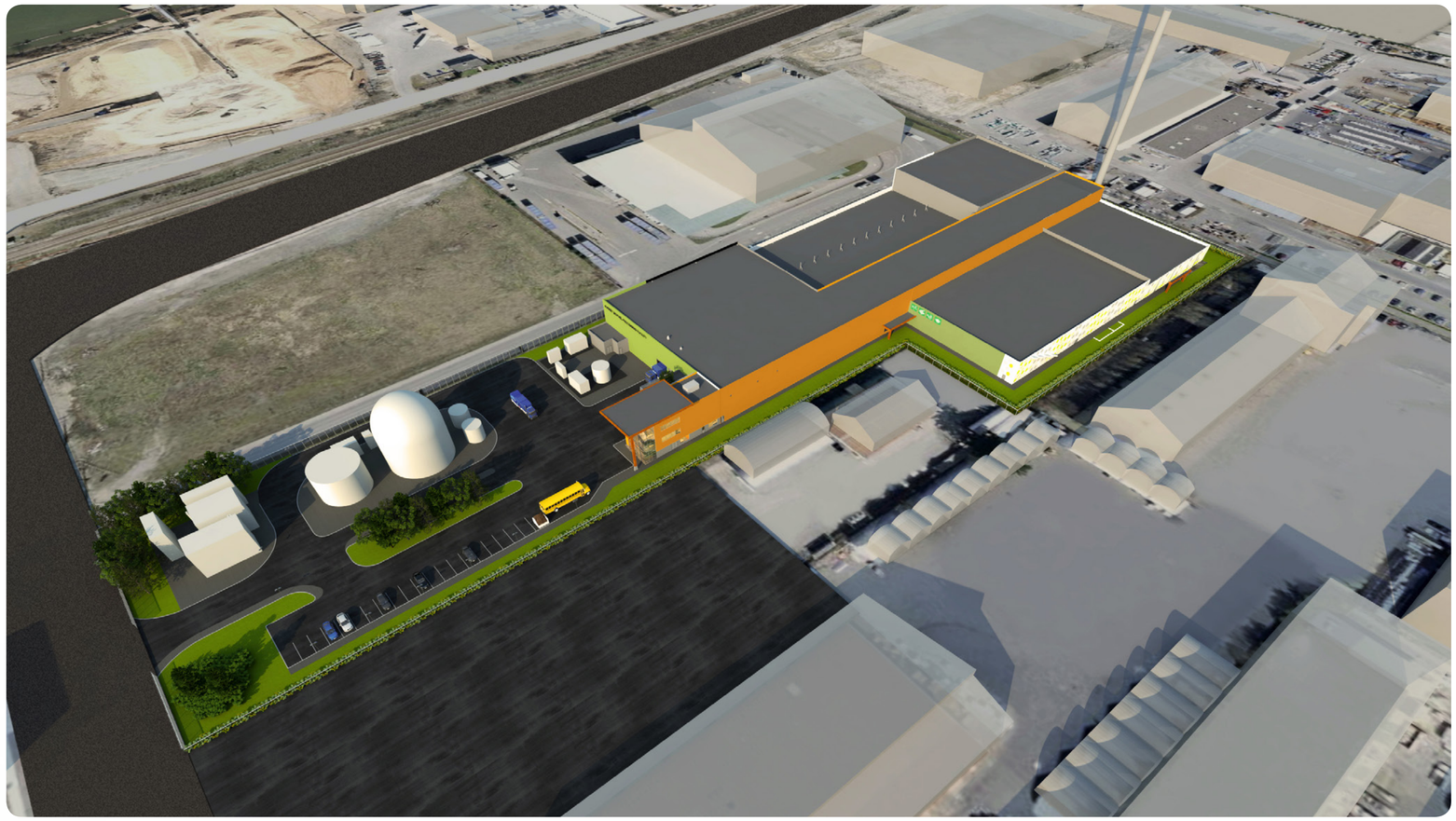
Appendix D
SURREY BIOFUEL FACILITY PROJECT BROCHURE

PROJECT OVERVIEW

SURREY SUSTAINABILITY CHARTER

In 2007, when Surrey wrote their Sustainable Charter, they set a high mandate creating a 'comprehensive framework for implementing a progressive, long term, 50 year vision to be a champion of sustainable cities'. Our design for the Surrey Biofuel Facility builds on and aligns the values, innovative thinking and communication strategy that Surrey has committed to as it provides public education about Green Infrastructure Pilot Projects for residents.

Through the building design, we convey and connect visually the communication strategy Surrey undertook to gain consensus before undertaking an innovative project of this nature. The "Rethink Waste Collection Program" mail out to Surrey residents carried a message that was featured throughout the communication strategy on billboards, advertising, websites and stories on the City news.



14,323
gross building area in square metres

80,000
tonnes per year of Surrey Residential Organics waste processed

+25,000
tonnes per year of Industrial, Commercial & Institutional waste processed

Early 2017
service commencement

35,000
tonnes of Class A compost produced per year

+20
waste trucks at peak site capacity

+/-3,000,000
cubic metres of gas produced per year (55% methane)

PROJECT PARTNERS

The City of Surrey is developing the facility as a Public-Private Partnership and has engaged **Orgaworld Surrey Ltd.** to undertake the design, build, finance, maintenance and operation of the Facility.

Orgaworld Surrey Ltd. has engaged:

- **Orgaworld Canada Ltd.** to work on the Design-Build and Services contract for the Facility.
- **Stantec Architecture Ltd.** to work with Orgaworld Canada on the Design-Build services.
- **Smith Bros. & Wilson (B.C.) Ltd.** to prepare the Site, procure the equipment and materials, construct infrastructure and building components and install the equipment required.

CONTEXT

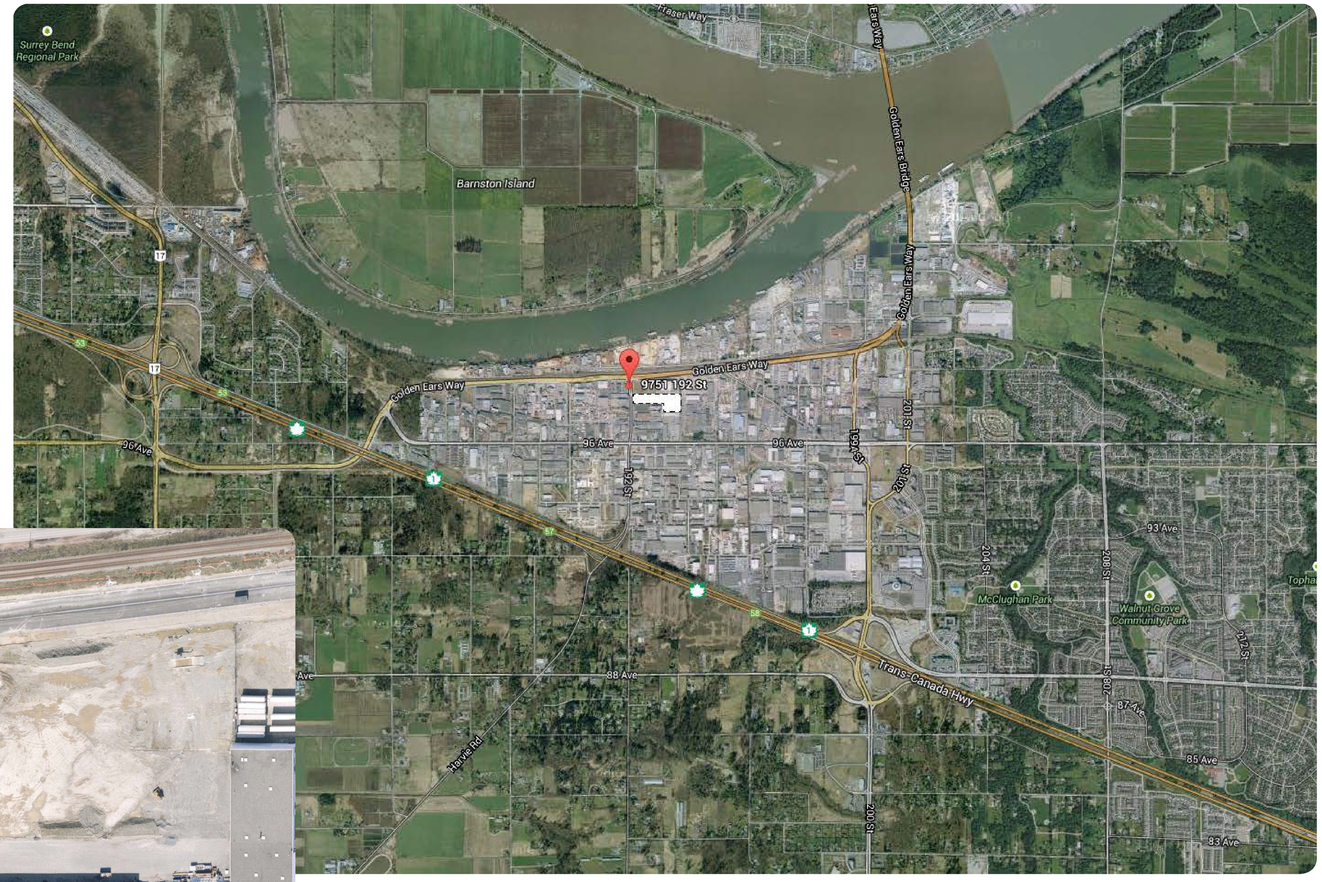
SITE CONTEXT

PROJECT LOCATION

The proposed development site is located at 9752 192nd Street. This property, in its present state, consists of temporary storage, truck parking and some natural grass area.

The project involves construction of an organic waste processing facility, a truck turning area as well as a passenger vehicle parking lot. It is expected that the site will be utilized by City garbage trucks, large oil/chemical semitrailer trucks, small passenger vehicles and occasional visitor buses.

The main vehicular access to the site will be provided from 192nd Street through a new entrance.



SITE LAYOUT

Site configuration, operational movement, and building design has been tailored to suit the current site and aligns with its strong north-south direction and its main site entry from the west.

The efficiency of the building footprint, as illustrated on the drawing, shows how we fully utilize the current site, including landscape scope beyond requirements, and does not require the optional additional site area. The white hatched area in the site plan indicates the building foot print for the biofuel processing facility.

As you move from east to west, the majority of the building is toward the east end of the site with the west end taken up by the process equipment, tanks, waste truck queuing and staff/visitor parking.

From a safety perspective, we have separated the operational movement of vehicles from the employee and visitor vehicular movement. Parking stalls have been created for employees, visitors, a school bus (for educational purposes) and a barrier-free stall and an additional area for selling compost to the community.

DESIGN
FACILITY DESIGN

FUNCTIONAL PROGRAM

The Facility

The Surrey Biofuel Facility has two primary components:

- Primary biofuel process area which covers most of the building foot print.
- Secondary administrative area which is at the building entry

Biofuel Processing Area

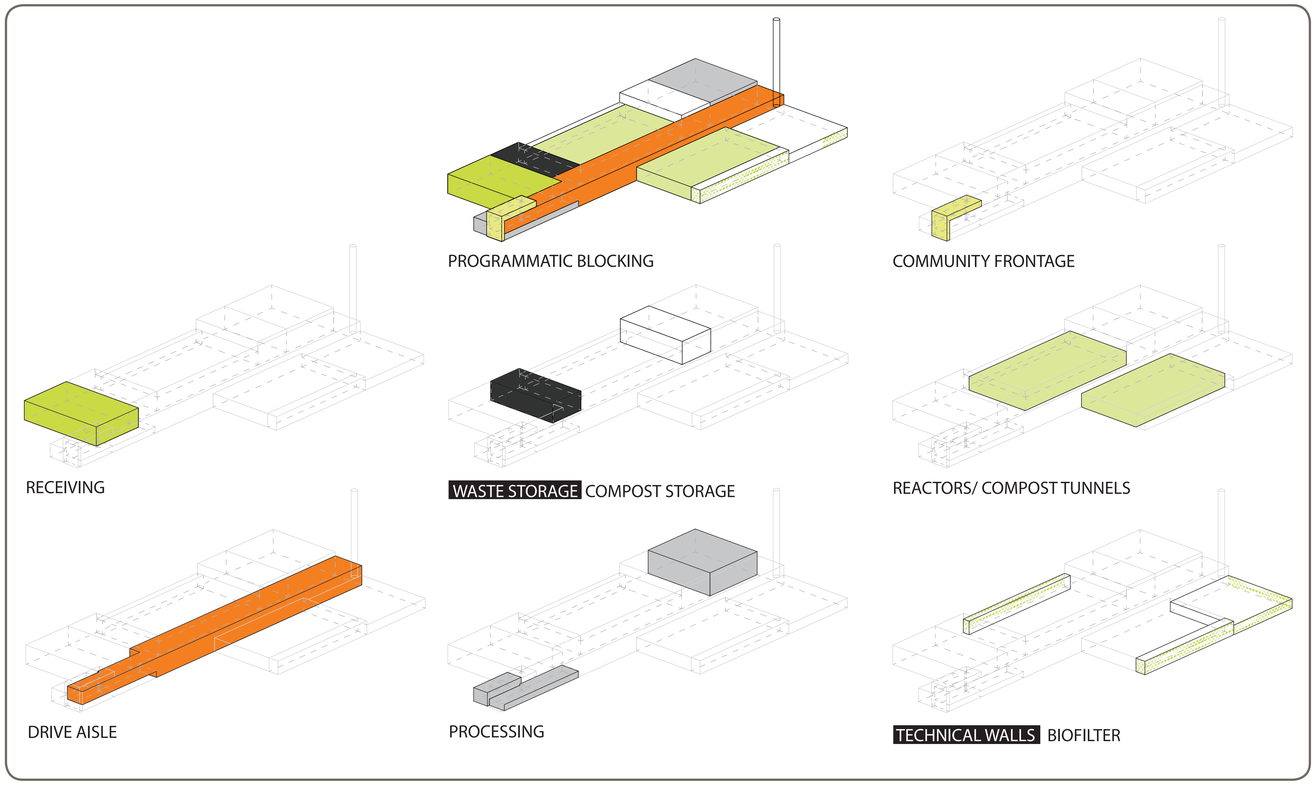
The primary biofuel process area is on the main floor with the floor to floor heights ranging from 4 to 12 metres, as required for the various Biofuel processes within the facility.

The broad outlines of spaces within the primary biofuel processing component are the following:

- Receiving Area
- Drive Aisle
- Storage Bays
- Shredder Area
- Anaerobic Digestor Reactors
- Hybrid Reactors
- Composting Tunnels
- Screening Halls
- Compost Storage
- Biofilters

To state the broad functional outline of the facility, the organic waste from the City arrives at the facility on trucks from the west entry and is then stored, shredded, processed (to produce gas), composted, screened and shipped out from the north exit.

Equipment in the facility entry helps shred the waste with loaders transporting the waste within the facility, the storage bays, reactors, composting tunnels and the compost storage bays. Equipment in the screening halls sorts the compost and is then moved via the overhead conveyors into the composting storage areas. This compost is shipped out through the secondary building entry to the north. Biofilters are at the east end of the building.



Administration Area

The administrative area is a 3-floor component at the west end of the building. This area has two broad purposes:

- Serves as the administrative wing for the facility.
- Provide visitor facilities for public education on biofuel production.

The following are the spaces provided within this wing:

- Entry Vestibule
- Plant Manager
- Office Rooms (2)
- Staff Lunch Room
- Public Viewing Gallery Area
- Lobby/Reception
- Supervisor's Office
- PPE Storage
- Conference Room
- Restrooms
- Service Rooms

The lobby/reception serves as the entry point for staff and public and the main level houses most of the office rooms and the laboratory.

The second level serves as the staff amenities floor, with lockers, restrooms and a lunchroom.

The third level serves as the visitor facility with the conference room, visitor gallery and a roof garden for educational purposes.

Appendix E
SURREY BIOFUEL FACILITY SUMMARY

Received by email from Surrey, 18th September 2015 – cut and pasted from email. Item 1, "Site location Map" is included as Appendix D of Application

1. Site location map

   See attached

2. Summary of project

   a. General description

      The Surrey Biofuel Facility (Facility) is an organic waste processing facility owned by the City of Surrey. The Facility is located on City owned land in Surrey's Port Kells Industrial Park. The Facility will accept both the City's residential organic waste, comprised of food and yard waste, as well as organic waste from the private sector. Surrey's residential organic waste is currently collected by the City at curbside by a fleet of compressed natural gas (CNG) garbage trucks. Organic feedstock will be processed at the Facility through a combination of anaerobic digestion (AD) and in-vessel compost, and will produce biogas and compost products. The raw biogas will be captured and upgraded onsite, prior to delivery to the FEI Interconnection Facility and subsequent grid injection. The compost material will be sold to the market for agricultural and landscaping applications.

      The City is delivering the Facility as a public-private partnership (PPP), and to this end selected Orgaworld Canada as the PPP partner responsible for designing, constructing, financing, operating and maintaining the Facility for a 25-year term. Construction on the Facility commenced in April, 2015 and is scheduled for completion in late 2016, with Service Commencement in early 2017.

   b. Brief high level technical description (e.g. inputs, process, outputs)

      The Facility will be capable of processing up to 115,000 tonnes of organic waste per year. Organic feedstock will consist primarily of source separated organic waste (food waste) and yard and garden waste, with some liquid organic waste (fats, oils and greases). The majority of feedstock will be sent through the dry AD system, to ensure adequate levels of biogas production. The post-AD digestate product will then be blended with fresh organic waste in the in-vessel compost tunnels to produce finished compost with anticipated production volumes of 30,000 tonnes per year.

      Once fully operational, the Facility is anticipating average annual raw biogas production of approximately 5.5 million m^3, which will amount to roughly 3.1 million m^3 of refined biomethane or ~119,000 gigajoules.

   c. General arrangement with Orgaworld

      The City is the owner of the Facility and Orgaworld Canada is the City's PPP Partner. The City and Orgaworld have entered into a 25-year contract, to this end, with a hand back provision at the end of the term. Along with successfully designing, building, maintain

and operating the Facility, Orgaworld has also taken on contractual risk with regards to producing guaranteed annual volumes of biomethane, which must meet or exceeds FEI's grid specifications. The City has retained the contractual risk for delivering guaranteed volumes of organic feedstock, as well as the risk of managing the refined biomethane.

3. Summary of Surrey's plan to use "biofuel"

The City's vision has always been to fuel its CNG waste collection fleet with renewable biomethane produced from the organic waste being collected by the trucks themselves. To this end, the City will be operating one of the only "closed-loop" waste collection systems in the world. This vision aligns with key City of Surrey policy documents, including the Sustainability Charter, the Corporate Emissions Action Plan and the Community Energy and Emissions Plan.

Upon selection of Orgaworld Canada as their PPP partner, the City realized that the Facility would be producing volumes of biomethane that exceed twice the annual demand of the waste collection fleet. Accordingly, City staff began to seek out other internal corporate demand opportunities. On the basis of these discussions, the City has developed a Corporate RNG Demand Portfolio that includes corporate affiliates and third party contractors who will displace traditional natural gas with RNG within their respective operations. Currently, the Portfolio includes the City's waste collection fleet of 40+ NG trucks, the City's fleet of 40+ light duty commercial trucks, and the Surrey District Energy Utility's NG boilers.

On the basis of the current Corporate RNG Demand Portfolio, the City should be capable of using 100% of the biomethane generated at the Facility. In the event that the City is unable to use 100% of the gas, the residual gas will be sold to FEI.

Appendix F
DRAFT ORDER

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

BRITISH COLUMBIA UTILITIES COMMISSION

ORDER NUMBER E-xx-15

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

DRAFT ORDER

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

and

Filing by FortisBC Energy Inc.
For Acceptance of the Biomethane Purchase Agreement Between
FortisBC Energy Inc. and the City of Surrey and Approval of the Monthly Facility Fee

BEFORE:

[Date]

WHEREAS:

A. On November 24, 2015, FortisBC Energy Inc. (FEI) filed with the Commission an application (Application), under section 71 of the *Utilities Commission Act* (UCA), for acceptance of an executed Biomethane Purchase Agreement between FEI and the City of Surrey dated September 16, 2015 (the Agreement);

B. In the Application, FEI represented that the Agreement complies with the criteria for new biomethane purchase agreements established in Order G-194-10 and expanded by Order G-45-13;

C. In the Application, FEI further requested the Agreement, the financial model, and purchase scenario illustrations appended to the Application as Appendices A, B, and C respectively, be held confidential due to their commercially sensitive nature;

D. The Commission has considered the Application, evidence and submissions received.

NOW THEREFORE the Commission orders as follows:

1. Pursuant to section 71 of the *Utilities Commission Act,* the Commission accepts the Biomethane Purchase Agreement between FortisBC Energy Inc. and the City of Surrey as being in the public interest.

2. Pursuant to sections 59-61 of the *Utilities Commission Act*, the Commission approves the monthly facility fee as set forth in Schedule D of the Agreement, subject to actual initial capital costs and project development costs, a charge payable by Surrey to FEI as being just and reasonable.

3. The Commission will keep confidential the Agreement that is Appendix A to the Application and the live working financial models included with Confidential Appendices B and C, that is Exhibit B-1-1.

DATED at the City of Vancouver, In the Province of British Columbia, this day of <MONTH>, 2015

BY ORDER