

Diane Roy

Director, Regulatory Services

Gas Regulatory Affairs Correspondence Email: gas.regulatory.affairs@fortisbc.com

Electric Regulatory Affairs Correspondence Email: <u>electricity.regulatory.affairs@fortisbc.com</u> **FortisBC**

16705 Fraser Highway Surrey, B.C. V4N 0E8 Tel: (604) 576-7349 Cell: (604) 908-2790 Fax: (604) 576-7074

Email: diane.roy@fortisbc.com

www.fortisbc.com

January 19, 2016

<u>Via Email</u> Original via Mail

Commercial Energy Consumers Association of British Columbia c/o Owen Bird Law Corporation P.O. Box 49130
Three Bentall Centre 2900 – 595 Burrard Street Vancouver, BC V7X 1J5

Attention: Mr. Christopher P. Weafer

Dear Mr. Weafer:

Re: Project No. 3698858

FortisBC Energy Inc. (FEI)

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

Response to the Commercial Energy Consumers Association of British Columbia (CEC) Information Request (IR) No. 1

On November 24, 2015, FEI filed the Application referenced above. In accordance with Commission Order G-3-16 setting out the amended Regulatory Timetable for the review of the Application, FEI respectfully submits the attached response to CEC IR No. 1.

FEI and the City of Surrey have entered into an Amending Agreement to the Biomethane Purchase Agreement (the Amending Agreement), a redacted version of which can be found in Attachment 4.1a, provided in response to BCUC IR 1.4.1. In accordance with Directive 2 of Order G-3-16, FEI has also provided a blacklined redacted version of the original Agreement, showing the changes reflected in the Amending Agreement also as part of Attachment 4.1a. The Amending Agreement has been filed on a confidential basis with the Commission in Confidential Attachment 4.1.

The Amending Agreement contains three changes to the Agreement:

January 19, 2016 British Columbia Utilities Commission FEI Biomethane Purchase Agreement Between FEI and City of Surrey FEI Response to CEC IR1 Page 2



- 1. The method of calculating the monthly payments for biomethane produced from the Surrey Facility and the annual true up in Schedule D of the Agreement has been amended so that it will produce the correct result if there is more than one BERC rate or if the BERC rate changes during the year. Please refer to the response to BCUC IR 1.4.1.
- 2. The term over which the City will pay the Facility Fee in clause 6.2 of the Agreement has been amended to reflect the intention of FEI and the City that the City would begin paying the Facility Fee after the in-service date of the facilities. Please refer to the response to BCUC Confidential IR 1.5.1.
- 3. Clause 7.2 of the Agreement has been amended to clarify that the Designated Customers must acknowledge that the City has retained the environmental attributes of the Re-Purchased Biomethane. Please refer to the response to BCUC Confidential IR 1.1.1.

If further information is required, please contact Scott Gramm, Manager Renewable Gas and Mid-size Commercial Accounts (604) 576-7242.

Sincerely,

FORTISBC ENERGY INC.

Original signed by: Ilva Bevacqua

For: Diane Roy

Attachments

cc: Commission Secretary
Registered Parties (e-mail only)



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FortisBC Energy Inc. (FEI or the Company)

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Page 1

1. Reference: Exhibit B-1, Pages 5 and 9

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.

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.

1.1. When does FEI anticipate the Surrey Facility will be fully operational?

Response:

- 7 The City of Surrey provides the following response.
- The City's biofuel processing facility is scheduled to commence commissioning in October, 2016, and to be fully operational on January 1, 2017.

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1.2. Is there a minimum level of annual production of refined biomethane that can reasonably be expected by FEI?

Response:

The City has informed FEI that the terms of the contract between the City and Orgaworld (the City's contractor to design, construct and operate the City's biofuel processing facility), including any terms related to minimum biomethane production, are confidential. FEI thus does not have information on expected biomethane volumes beyond what is provided in the Application.



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1 FEI believes that the lack of a minimum level of production does not pose an additional risk of 2 recovery from the perspective of FEI. The Facilities Fee is designed to recover the costs 3 associated with the design, construction, operation and maintenance of the Interconnection 4 Facilities and the operation and administration of the Agreement irrespective of the volume of 5 RNG produced at the Surrey Facility. 6 7 8 9 1.2.1. If yes, please provide the minimum quantity that can be expected, 10 expressed in cubic meters and in GJ. 11 12 Response: 13 Please refer to the response to CEC IR 1.1.2. 14 15 16 17 1.2.2. If no, please explain why not. 18 19 Response: 20 Please refer to the response to CEC IR 1.1.2.



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1 2. Reference: Exhibit B-1, Page 6

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.

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2.1. Is FEI able to re-utilize any of equipment or facilities in this facility? Please explain why or why not.

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Response:

7 Please refer to the response to BCUC IR 1.8.1.1.

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2.2. Has FEI been able to re-utilize any of its skid mounted equipment in the past?

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Response:

- 14 FEI has not had the need to re-deploy or re-utilize any of its previously constructed skid-
- mounted, biomethane interconnection equipment.
- However, in general, FEI has re-utilized and re-deployed equipment, regardless of the end-use,
- when it can be done in a safe manner.

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21 2.2.1. If no, please explain why not.

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Response:

24 Please refer to the response to CEC IR 1.2.2.



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1 3. Reference: Exhibit B-1, Page 7

Figure 4-3: Estimated Capital Cost of Interconnection Facilities⁸

Particulars		Cost (\$,000)
Year in Service (Target)	2017	
472 - Structures & Improvements		80
475 - Distribution Mains		62
477 - Distribution Measuring & Regul	ating 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.

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3.1. Please provide a quantitative comparison to the capital costs that FEI has experienced for its other interconnection facilities and provide an explanation for any significant variances.

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Response:

- Please note that in this response and the response to CEC IR 1.3.2, FEI has not considered facilities such as the Kelowna Biogas and Salmon Arm Biogas plants as both the generation facility and the interconnection facility in those two projects are owned by FEI, and single ownership of both facilities provides a different technical design and cost framework, which, in FEI's view, does not provide a meaningful comparison.
- A comparison between the Surrey Interconnection Station and the actual costs of the Seabreeze and Fraser Valley interconnection stations is provided below.



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FEI **Surrey Application - Biomethane Interconnection Capital Cost Comparision**

				Fr	aser		
Line	Particulars	Sı	ırrey	Va	alley	Sea	breeze
		For	ecast	A	ctual	Α	ctual
	Direct						
1	Interconnection Station Cost (\$000)	\$	788	\$	430	\$	792
2	Mains		62		99		605
3	Total Interconnection Station Cost (\$000)		850		529		1,397

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The cost estimated for the Surrey Interconnection Station is most comparable to the actual cost experienced for the Seabreeze interconnection station, which is most similar in design. As noted in the Application, the Surrey project requires a return meter, which was not included in the Seabreeze interconnection station and increases the cost of the Surrey Interconnection Station by approximately \$59 thousand compared to the Seabreeze interconnection station. This increase is offset, however, by savings due to the City of Surrey agreeing to conduct site

8 preparation work at its own cost.

> There are several differences between the Surrey and Fraser Valley interconnection facilities that account for the greater cost estimated for the Interconnection Facilities for the Surrey project. As noted in the Application, the Surrey project requires two telemetry huts and a return meter, which account for approximately \$114 thousand in costs that were not included in the Fraser Valley Interconnection Facilities. Along with these additional costs, FEI has improved the quality of the measurement equipment compared to the design for the Fraser Valley Biogas interconnection facility and has included higher costs for labour in the estimate due to the experience at the Seabreeze project. Based on its experience from the Seabreeze project, where site-specific conditions impacted the costs, FEI has included a larger contingency compared to the Fraser Valley Biogas facility.

Mains which connect the facilities to the FEI system are site-specific in costs and can vary significantly from project to project, in part due to the distance from the interconnection station to FEI's existing infrastructure and the size of the pipe that is required. As an example, the costs for the interconnection piping at Seabreeze were significantly greater than that for the Salmon Arm project because it was a higher pressure (steel) line, was of a greater distance, and involved more complicated road excavation conditions and crossings.

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25 FEI notes that the Facilities Fee will be updated to recover the actual interconnection costs as 26 specified in Schedule D of the Agreement.



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Please provide a comparison of the estimated total capital investment that FEI

used for its previous interconnections with the actuals that FEI ultimately

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Response:

3.2.

9 The following table provides a comparison of forecast and actual cost for the Fraser Valley and 10 Seabreeze facilities.

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- 11 For the Fraser Valley facility, the overall project is under budget and within 10% of the estimate.
- The Seabreeze facility was approximately 17.5% over budget with the increase due to 12
- 13 unforeseen challenges during the construction. Please refer to the response to CEC IR 1.3.1
- 14 for a discussion of the projects.

FEI **Surrey Application - Biomethane Interconnection Capital Cost Comparision**

experienced for those facilities.

Line	Particulars		aser alley					Sea	breeze				
		Actual		ual Forecast Variand		riance	e Actual		Forecast		: Variance		
	Direct												
1	Interconnection Station Cost (\$000)	\$	430	\$	360	\$	70	\$	792	\$	582	\$	210
2	Mains		99		228	\$	(129)		605		607		(2)
3	Total Interconnection Cost (\$000)		529		588		(59)		1,397		1,189		208

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3.3. Please provide a brief overview of the field installation experience and how it will influence the design and costs. Please provide quantification for the effect on the costs.



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1 Response:

- FEI has improved the design of the interconnection facilities based on its previous field experience. Feedback from earlier biomethane interconnection facilities was used to make the following improvements to the base design for this project:
 - Development of a standard "telemetry hut" design for instrumentation and key equipment housing. The first biomethane station did not anticipate the size requirements of sample gas and calibration gas canisters. As a result, while the first station is within safety and operational specifications, it is difficult to reach certain areas, and was not considered a best practice as a proposed design standard. This resulted in a requirement for additional space which is now used to more safely store critical spares and to allow operators to close the door while working in the instrumentation huts. FEI has indicated in the Application that this has added approximately \$55 thousand to the previously designed interconnection stations.
 - Improvements to measurement equipment. Feedback from field personnel indicated that some of the instruments would have difficulty operating or recording accurate measurements during periods when biomethane gas supply was not a constant pressure, temperature, or flow. Alternative instrumentation was sourced to allow for a more robust and reliable measurement system overall.

Please also refer to the response to CEC IR 1.3.4.

3.4. Please provide a brief overview of the operational experience and how it will influence the design and costs. Please provide quantification for the effect on the costs.

Response:

- Operational experience from earlier biomethane interconnection facilities was used to make the following improvements to the base design:
 - Standardization to a "2 building" design. Hazardous zone area definitions can vary depending on the expected pipe pressures of the local FEI system. This affects station configuration and equipment, which needs to comply with the current hazardous zone safety requirements. In order to transition to a standard design regardless of sitespecific pipe pressures, the building design was improved to separate critical spares and



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instrumentation sub-panels from the main station controls room, ensuring consistent hazardous location compliance.

• Increased footprint to maintain consistent compliance with electrical safety standards and operational vehicle standards. In some cases, due to the location of the supplier's inlet gas pipes, the station configuration had to be changed (not standard) in order to maintain prescribed fence distances to limit the risk of electrical shock. In other cases, the station configuration had to be changed to allow for safer vehicle maneuverability and better driver safety. As a result, the footprint of the station was expanded to address lessons learned and the standard design updated to ensure safety compliance requirements are met regardless of the location of the supplier's inlet pipe to the station.



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4. Reference: Exhibit B-1, Page 7

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 but 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.

4.1. Does FEI typically return gas to the supplier either because of failure to meet the specified biomethane quality or oversupply?

Response:

FEI returns gas to suppliers from time to time because of a failure to meet the specified biomethane quality, but is unable to provide an accurate account of how frequently this occurs as discussed in the response to CEC IR 1.4.1.1 below.

In its experience to date, FEI has not been required to return gas to the supplier due to supply of biomethane in excess of the maximum volume specified in the supply agreements. On occasion, at Fraser Valley Biogas (FEIs first biomethane supply project) FEI has been unable to accept biomethane due to low demand on the natural gas system. In these infrequent situations, FEI has had to return gas that may have met specifications. FEI has applied improved system analysis techniques learned from that early experience and included maximum hourly flow rates in Schedule D of the Agreement to help Surrey manage its supply to better match demand on the FEI system and therefore avoid this particular situation. Please also see the response to BCUC IR 1.9.1.

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Response:

4.1.1. If yes, please provide a brief explanation for how frequently the situation happens, why it occurs and the proportion of supply that is normally returned.



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- 1 FEI's primary objective is to ensure that the biomethane to be injected to the FEI system meets
- 2 specifications and to accurately record and account for how much biomethane ultimately is
- 3 injected into the FEI system from a particular biomethane production facility.
- 4 FEI measures the biomethane quality prior to measuring the volume of biomethane that will be
- 5 injected into the FEI distribution system. If the biomethane meets the specification, the *volume*
- 6 is then measured and the gas is injected into the system. If the biomethane does not meet the
- 7 specification, it is returned and the *volume* is not measured. Therefore, FEI does not have an
- 8 accurate estimate of the amount of off-specification biomethane returned to the suppliers.
- 9 FEI cannot provide an accurate account of how frequently it returns off-specification gas. This is
- due to the fact that if biomethane is not being injected into the system it may be the result of
- either the gas being off-specification or there being no supply from the supplier.
- 12 For details on the why FEI may return gas to the supplier, please refer to the response to BCUC
- 13 IR 1.9.1.

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Response:

4.1.2.

- FEI does not have any reason to expect that the biomethane from the Surrey Facility will not meet FEI's specifications.
- The City of Surrey provides the following response: No. The City's biofuel processing facility is being designed to produce biomethane that meets FEI's specifications.

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4.1.3. What, if any, are the costs to biomethane customers of returned gas?

If it does not typically happen, does Surrey or FEI have some reason to

expect that it will occur in this instance? Please explain.

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Response:

31 There are no direct costs. The returned gas is not purchased by FEI.

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4.1.4. Does FEI expect that it will be required to add a second meter to other suppliers, or is this an isolated instance? Please explain.

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Response:

- FEI does not anticipate including a return meter in its future interconnection stations. If future suppliers wish to have a return meter, FEI would expect that either the supplier would pay FEI to incorporate such a meter into the capital costs for the interconnection facility or the supplier would pay for and install its own meter.
- FEI understands from the City that it requested the return meter so that it will have the means to track the volume of gas, if any, that is returned for the purposes of the City's contract with Orgaworld. Therefore, this aspect of the configuration is due to the unique nature of the City's arrangement with Orgaworld.



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1 5. Reference: Exhibit B-1, Pages 8 and 16

- Surrey will pay FEI a monthly Facility Fee, expected to be in the range of \$10,460 and \$14,030 per month⁷ (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.
 - 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
 - FEI's costs directly related to developing the supply project and this Agreement;⁹
 - Expected costs associated with administering this Agreement;¹⁰
 - Forecast costs of \$75 thousand associated with the filing of this Application; and¹¹
 - 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

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5.1. Will the Facility Fee incorporate any allocation for FEI overhead or other indirect or fixed costs?

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Response:

The components of the Facilities Fee are described on page 16 of the Application and listed in Section 3 of Schedule D of the Agreement (Exhibit B-1-1, Appendix A) and Schedule 10 (Exhibit B-1-1, Appendix B). As indicated, the Facilities Fee will include an administrative fee which will recover the estimated costs of administering the Agreement and a Heritage Fee which will make a contribution to ongoing RNG program administration. FEI can confirm that the Facilities Fee does not include any allocation for any costs other than those described.

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5.1.1. If yes, please provide the allocation and how it was calculated.



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1	Response:	
2	Please refer	o the response to CEC IR 1.5.1.
3 4		
5 6 7 8	Response:	5.1.2. If not, please explain why not.
9	Please refer	o the response to CEC IR 1.5.1.
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12 13 14 15	5.2. Response:	Are there any charges that are normally included in a supply agreement that are not included in this agreement?
17	No.	
18 19	NO.	
20 21 22 23		5.2.1. If yes, please specify and provide approximate quantification of the charges.
24	Response:	
25	Please refer	o the response to CEC IR 1.5.2.



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6. Reference: Exhibit B-1, Page 9

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.

6.1. Is it typical that the supplier purchases a volume of the RNG from FEI?

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Response:

No. However, FEI notes that in one instance, Naturally Homegrown Foods Ltd. which is a RNG customer of FEI, is partially owned by the same owner of the Fraser Valley Biogas Facility.

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6.2. What is the expected volume that will be purchased by Surrey?

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Response:

- 14 It is expected that the City and its Designated Customers will purchase in the range of 100,000
- 15 GJ of RNG annually from FEI.
- 16 However, the actual amount is at the discretion of the City and the Designated Customers.
- 17 Please also refer to the response to BESEA IR 1.9.2 for a discussion on what is contemplated
- 18 under the Agreement with respect to the purchase of biomethane by the City and its Designated
- 19 Customers.



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7. Reference: Exhibit B-1, Pages 9 and 10

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.

7.1. Please confirm that the City of Surrey has demand from corporate affiliates and third party contractors and can be considered a municipal utility, and therefore not subject to BCUC regulation.

Response:

- The City of Surrey provides the following response.
- 10 The City believes that it is exempt from regulation under the *Utilities Commission Act* in respect 11 of the production and sale of biomethane to FEI pursuant to either paragraph (c) of the Act's 12 definition of public utility, Commission Order G-126-13, or both.

If not confirmed, please explain why not.

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18 Response:

19 Please refer to the response to CEC IR 1.7.1.

7.1.1.

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In the event that FEI does not receive any of the gas for re-sale, can FEI's role

be described as a supplier of facilities and infrastructure, rather than a purchaser

Page 16

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Response:

7.2.

9 No, FEI's role is as a purchaser of biomethane for resale. Under the Agreement, FEI will own

of biomethane for resale? Please explain why or why not.

- 10 the Interconnection Facilities as described in section 3.3.1 of the Application and will be a
- 11 purchaser of biomethane from the Surrey Facility as described in section 4.1 of the Application.
- 12 The City and its Designated Customers may purchase biomethane pursuant to FEI's RNG rate
- 13 schedules as described on page 10 of the Application (Article 7 of the Agreement). Even if the
- 14 City of Surrey and its Designated Customers consume an amount of biomethane equal to or
- 15 greater than the amount produced by the Surrey Facility, FEI will still be purchasing and
- 16 reselling the biomethane produced by the Surrey Facility.
- 17 Please also refer to the response to BCSEA IR 1.9.2 for a discussion of the intent of the
- 18 Agreement.

19

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7.3.

24 Response:

25 FEI interprets this question to ask how the City would manage the biomethane produced from

What would become of the biomethane if FEI did not develop the Facility?

- 26 its own facility in the event that FEI does not build the Interconnecting Facilities.
- 27 FEI does not anticipate this scenario occurring.
- 28 In the unlikely event this occurs, FEI understands from the City of the Surrey that the City would
- 29 consider alternative means of managing the biomethane, such that their fleet of natural gas
- 30 powered vehicles could still be fuelled by renewable biomethane. Alternatives could be
- 31 transporting biomethane by truck from the City's biofuel processing facility to existing off-site
- 32 fuelling stations, or construction and operation of an on-site fuelling station.



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8. Reference: Exhibit B-1, Pages 9 and 10

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).

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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.

3

8.1. Who declares a customer a 'Designated Customer'?

4 5 6

Response:

7 The City of Surrey designates a "Designated Customer" as set out in the Agreement.

8 9

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11 8.2. Please confirm that all ratepayers within the FEI service territory have the option to purchase RNG at applicable biomethane rate schedules.

13 14

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Response:

Not confirmed. More specifically, customers in Revelstoke are not eligible because they are on propane service and Fort Nelson customers are not eligible because of their bundled rate structure. With respect to all other customers within the FEI service territory, to the extent that a customer qualifies for service under Rate Schedules 1B, 2B, 3B, 5B or 11B, they will have the option to purchase RNG.

20



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1 2 8.2.1. If not confirmed, please explain why not and identify which customers 3 do not have the option to sign up for FEI's biomethane service under 4 FEI's existing applicable biomethane rate schedules. 5 6 Response: 7 Please refer to the response to CEC IR 1.8.2. 8 9 10 11 Please confirm that the designated customers will receive no different treatment 8.3. 12 when purchasing RNG from FEI than any other customer. 13 14 Response: 15 Confirmed. 16 The definition of a Designated Customer is provided in clause 7.2 of the Agreement. 17 difference between a Designated Customer and any other customers of FEI's RNG program is 18 that the Designated Customer must meet the definition under Article 7 of the Agreement and be 19 designated as such by the City as required by the Agreement. For instance, the Designated 20 Customer needs to have a written agreement with the City to purchase biomethane from FEI. 21 22 23 24 8.3.1. If not confirmed, please provide a detailed overview of the differences 25 including quantification of any price differences that a 'Designated 26 Customer' would receive. 27 28 Response: 29 Please refer to the response to CEC IR 1.8.3. 30 31 32 If yes, what constitutes the difference between a 'Designated Customer' 33 8.3.2.

and any other customer? Please explain.



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2	Dachanca
_	Response:

3 Please refer to the response to CEC IR 1.8.3.

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8.4. When calculating the volume that is applicable to the Net Sale Rate, what would be the volume 'purchased from Surrey' of its affiliates and service providers?

8 9 10

Response:

- 11 FEI assumes that the question meant to state: "...purchased from Surrey OR its affiliates....".
- 12 FEI notes that the referenced portion of the Application refers to volumes "purchased from
- 13 Surrey" only; FEI will not purchase volumes of biomethane from Surrey's affiliates or service
- 14 providers.
- 15 Please refer to the response to BCUC IR 1.4.1, where FEI has revised the payment terms in the
- 16 Agreement. Under the revised terms, the amounts paid to the City each month are calculated
- as the volume of biomethane produced at the Surrey Facility (P) multiplied by the Net Sale Rate
- 18 (NSR).

19 20

21 22

8.5. How is the 'net sale rate' expected to be priced relative to the BERC rate? Please provide quantification of the expected price difference.

232425

Response:

The Net-Sale Rate is confidential. Based on the current CCRA, if FEI's BERC Rate Methodology Application were approved, then the BERC would be approximately \$10.22 / GJ for Short term contracts.

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8.6. Please confirm the CEC's understanding that the City of Surrey may, through contractual arrangements designate certain affiliates or service providers as 'Designated Customers'. The Designated Customers will be required to purchase RNG from FEI at the BERC rate, which is the same as that for any other customer. FEI will be enabled to verify a Designated Customers' status.



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1 2	Response:		
3	Confirmed.		
4 5			
6 7 8 9	Response:	8.6.1.	If not confirmed, please provide a better understanding of the situation
		_	

10 Please refer to the response to CEC IR 1.8.6.



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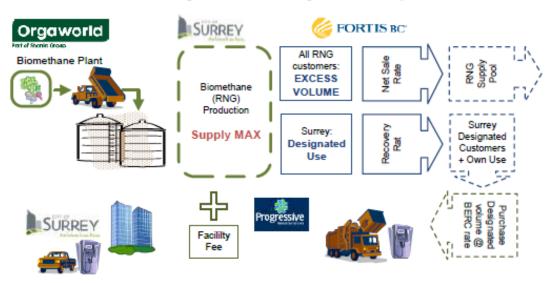
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9. Reference: Exhibit B-1, Page 10

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

Figure 4-1: SURREY Agreement Concept



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9.1. Are there any qualitative differences between the RNG that is physically produced by Surrey and that which will be in the RNG supply pool? Please explain.

5 6 7

Response:

8 No. All RNG purchased by FEI meets the same specification.

9 10

11

9.2. Please confirm that to the extent that a 'Designated Customer' is or could be an RNG customer, they will not be purchasing from the RNG supply pool, but would instead be purchasing from the Surry Designated Use pool.

15 16

Response:

- 17 Not confirmed.
- 18 FEI clarifies that all of the RNG produced from the Surrey Facility will go into the RNG supply
- 19 pool. The Designated Customer, like any other RNG customer, is purchasing RNG under
- 20 existing RNG rate schedules and is purchasing from the total RNG pool.



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The difference between a Designated Customer and other RNG customers is explained in the response to CEC IR 1.8.3.

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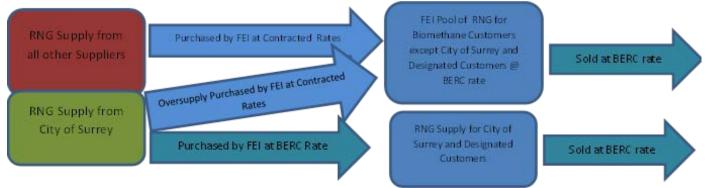
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9.3. The CEC has developed the following illustration for clarity. Please indicate if the illustration below is accurately reflective of the supply agreement and the FEI RNG pool, otherwise correct.



10 Response:

- 11 The illustration is not reflective of the supply agreement and the RNG supply pool.
- 12 The provided illustration shows two supply pools of RNG; however, there is only one supply
- pool of RNG. All RNG producers (including Surrey) who supply RNG to FEI do so into the same
- 14 pool and all customers who purchase RNG from FEI under existing Tariff purchase from that
- 15 same pool.
- Please refer to the response to CEC IR 1.9.2. Please also refer to the response to BCSEA IR 1.9.1 for a discussion of the contractual arrangement.

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9.4. Are any of the 'Designated Customers' current or expected customers of FEI's biomethane service?



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1 Response:

- 2 The City has not yet designated any customers under the Agreement. One of the conditions of
- 3 being a Designated Customer is that the customer cannot already be a biomethane customer or
- 4 if the customer already is a customer, it must purchase additional biomethane from FEI.
- 5 Please refer to the response to CEC IR 1.8.3.2 for a description of a Designated Customer.
- 6 Please also refer to the response to CEC IR 1.9.4.2 for the expected purchase amount from
- 7 Designated Customers. Based on the response provided by Surrey in CEC IR 1.9.4.2, FEI can
- 8 confirm that the Waste Collection Fleet, which is indicated as a future Designated Customer, is
- 9 not currently an RNG customer.
- Under clause 7.2(e) of the Agreement, FEI can verify that a person meets the requirements to be a Designated Customer.

12 13

14
15 9.4.1. If yes, please provide the volumes that the Designated customers currently purchase or would be expected to purchase under the normal

biomethane service.

17 18

19

Response:

20 Please refer to the response to CEC IR 1.9.4.

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9.4.2. What are the expected purchases from the City of Surrey and from the 'Designated Customers' from the City of Surrey supply? Please provide figures for each separately and combined.

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Response:

29 The City of Surrey provides the following response.



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NG Equipment	Approximate Volume (GJ/Year)
Waste Collection Fleet (Designated Customer)	65,000
Operations Service Fleet (City of Surrey)	10,000
District Energy (City of Surrey)	25,000
Total	100,000

9.5. Do the 'Designated Customers' serve to reduce the risk to the City of Surrey by effectively ensuring purchases of the supply provided by the City of Surrey? Please explain why or why not.

Response:

No. The City has business or other reasons for wanting to be both a biomethane supplier and a biomethane consumer and the Agreement is structured to reflect the City's intent of achieving this goal. FEI understands that the City agreed to the Designated Customer concept as a means of working within the existing RNG program structure and FEI's existing tariff. Please also refer to the response to BCSEA IR 1.9.2 for a discussion on the provisions of Agreement that facilitate the achievement of this dual goal.

9.6. If yes, please provide quantification of the risk that the City of Surrey will have reduced by designating certain customers as 'Designated Customers'.

Response:

23 Please refer to the response to CEC IR 1.9.5.

9.7. If the Designated Customers purchased supply from the normal RNG supply pool, would they reduce the risk to the other RNG customers? Please explain why or why not.



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- 2 Please refer to the response to CEC IR 1.9.2 for clarification regarding the RNG supply pool.
- 3 Please refer to the response to BCOAPO IR 1.1.7 for a discussion on the benefits to customers
- 4 from the Agreement.

5

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9.7.1. If yes, please provide quantification of any risk that the other RNG customers will have reduced if the Designated customers purchased from the normal biomethane supply.

10 11 12

Response:

13 Please refer to the response to CEC IR 1.9.7.

14 15

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9.8. If the Designated Customers purchased supply from the normal FEI pool of RNG, would FEI non-RNG customers experience any reduction in risk? Please explain why or why not.

19 20 21

Response:

22 Please refer to the response to CEC IR 1.9.7.

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26 27 9.9. If yes, please provide quantification of any risk that non-RNG customers would receive if the Designated customers purchased their RNG from the normal FEI pool of RNG supply.

28 29 30

Response:

31 Please refer to the response to CEC IR 1.9.7.



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1 10. Reference: Exhibit B-1, Page 13 and 14

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.



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10.1. Why does FEI indicate that satisfaction that the selected upgrader is sufficiently proven is Not Applicable, and reliant upon the City of Surrey's approval rather than its own?

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Response:

- FEI is relying upon the procurement process that Surrey went through to select an appropriate partner and subsequently an upgrader that is sufficiently proven.
- 8 Regardless, FEI believes that this criterion is not applicable because of the use of the Facilities
- 9 Fee in place of a minimum supply quantity. That is, the recovery of the capital costs of the
- 10 Interconnection Facilities is not dependent upon the production of RNG by the Surrey Facility.

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10.2. What, if any, would be the financial consequences to FEI if it were to reject any or all of the supply of biomethane? Please discuss and provide quantification where available.

16 17 18

Response:

FEI does not expect any financial consequences if it were to reject any or all of the supply of biomethane from the Surrey Facility. This is because the Facilities Fee is designed to recover all of the Interconnection Facilities costs, and the Facilities Fee is payable regardless of the level of biomethane production from the Surrey Facility.

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10.3. Please confirm or otherwise clarify that the additional 160,000 GJs being added by the City of Surrey would represents about a 37% increase in the existing supply of about 429,500 GJ.

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Response:

30 Confirmed.

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1 10.4. How much of the existing supply is being purchased by RNG customers at present?

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Response:

As provided in the 2015 Fourth Quarter Report on the Biomethane Variance Account and Biomethane Energy Recovery Charge, in 2015 the forecast biomethane sales are 150.1 TJ and forecast biomethane purchases for the year are 152.4 TJ.¹

8

10 11

10.5. Would FEI anticipate that the City of Surrey would purchase RNG from FEI if it did not create its own supply? Please explain why or why not.

12 13 14

Response:

- FEI understands that the purchase of RNG from FEI by the City or Designated Customers is connected to the fact that the City will be producing RNG, and that the majority of the RNG purchased from FEI will be consumed by the waste collection vehicles, collecting the organic waste that the City will process to produce the biomethane.
- FEI believes that as a result of this Agreement the City and Designated Customers will purchase RNG from FEI that it would otherwise not have been purchased.

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10.6. Please confirm that the 'current BERC rate' and the 'then current BERC rate' both refer to the BERC rate that is in place at the time under consideration, rather than a BERC rate that is in place at the time of the Agreement.

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Response:

FEI understands that the question is asking about the purchase pricing of biomethane from the Surrey Facility which has since been amended as described in the response to BCUC IR 1.4.1.

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¹ Please note that this forecast reflects ten months of actuals.



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1 2 10.6.1. If not confirmed, please provide further clarification. 3

4 Response:

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5 Please refer to the response to CEC IR 1.10.6.



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11. Reference: Exhibit B-1, Page 14

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.

2

11.1. Please explain in what way the 'Milestones' deviate from standard template.

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Response:

FEI currently has no other RNG supply agreements that have explicitly laid out milestones in cooperation with the supplier and therefore there is no "standard template" for milestones. The milestones outlined in the Agreement are to ensure mutual understanding of each party's project timelines. The Agreement requires the parties to use reasonable diligence to meet the milestones.

11 12

13 14

In what ways does the 'Facility Fee' deviate from the standard template? Please provide further clarification.

15 16 17

Response:

- 18 The standard template provided in Exhibit B-17 (Attachment 1.2) of the 2012 Biomethane
- 19 Application does not contemplate a facility fee.
- 20 FEI has no other RNG supply agreements in which a Facilities Fee is contemplated. The
- 21 Facilities Fee recovers the cost of the Interconnection Facilities over the life of the Agreement,
- 22 irrespective of the volume of RNG produced by the City and purchased by FEI.



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In the standard template, an Interconnection Test, and a Station threshold combined with a minimum volume and resultant CIAC is used to mitigate rate impacts and stranded asset risk. In this circumstance, Surrey and FEI agreed to a Facilities Fee as a reasonable and simple approach to mitigate the same risks. The Facilities Fee is based upon the actual capital cost of the station and interconnection pipe, is a fixed charge that does not vary by volume and is levelized over 25 years and paid monthly. In the opinion of FEI, the Facilities Fee is a simple mechanism that mitigates the same risks.

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12. Reference: Exhibit B-1, Page 15

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

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12.1. Please confirm or otherwise explain that neither Surrey nor its Designated Customers will be purchasing biomethane from the RNG provided by other suppliers, unless the RNG purchased exceeds that which is supplied by the City of Surrey.

5 6 7

8

Response:

- 9 Not confirmed.
- 10 Surrey and the Designated Customers will purchase the RNG through existing RNG tariffs and
- 11 therefore the same RNG pool from which all FEI RNG customers purchase RNG. Similarly, the
- 12 RNG produced from the Surrey Facility and delivered to and accepted by FEI will be part of
- 13 FEI's RNG pool.
- 14 Although it is Surrey's intention to purchase the equivalent amount/volume of biomethane as
- 15 produced from the Surrey Facility, there may be circumstances where the purchase of RNG by
- 16 Surrey or its Designated Customers may exceed the RNG produced from the Surrey Facility.

17



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1 2 12.2. Please confirm that customers of the RNG pool receive the GHG benefits for 3 biomethane purchases they make from the RNG pool. 4 5 Response: 6 Confirmed. 7 8 9 10 If not, why does the City of Surrey receive special treatment in this 11 regard? 12 13 Response: 14 Please refer to the response to CEC IR 1.12.2. 15 16 17 18 Do the Designated Customers also receive the GHG benefits from the 12.2.2. 19 biomethane it purchases, or are these received by the City of Surrey or 20 retained by FEI? Please explain. 21 22 Response: 23 Please refer to the response to BCUC Confidential IRs 1.1.1, 1.1.2 and 1.1.2.1. 24 25 26 27 12.3. Does the City of Surrey have either a maximum or minimum volume that it will 28 supply? 29 30 Response: 31 The contractual maximum is 160,000 GJ annually. There is no contractual minimum volume. 32



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1 2 12.3.1. If yes, please provide. 3 4 Response: 5 Please refer to the response to CEC IR 1.12.3. 6 7 8 9 12.3.2. If no, why not. 10 11 Response: 12 As described in section 6.1.1 of the Application, the Facilities Fee replaces the need for a 13 minimum supply quantity. A contractual minimum volume usually serves to minimize stranded asset risk and is used for the threshold calculation for the interconnect test. However, in this 14 15 Agreement, the Facilities Fee recovers the Interconnection Facilities costs regardless of the 16 volume of RNG produced and as such serves the intended purpose of the Interconnect Test. 17 18 19 20 12.4. Does the City of Surrey have either a maximum or minimum volume that it will 21 purchase? 22 23 Response: 24 No. 25 26 27 28 12.4.1. If yes, please provide. 29 30 Response: 31 Please refer to the response to CEC IR 1.12.4. 32



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1 2 12.4.2. If no, why not?

3 4 **Res**

Response:

Surrey is purchasing biomethane from FEI under the applicable approved rate schedules, which do not require a minimum purchase volume.



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1 13. Reference: Exhibit B-1, Pages 16 and 17

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

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.

13.1. Do other supply agreements result in suppliers paying more than their costs for the interconnection if the volume of supply exceeds that from which the interconnection supply agreement is derived? Please explain.

Response:

The Interconnection Test approved by the Commission determines if a Contribution in Aid of Construction (CIAC) is required based in part on a minimum contractual volume of biomethane supplied to FEI. In the event that a supplier produces more RNG than the volume of RNG that was used to determine the amount of the CIAC, in hindsight one might take the view that the

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1 supplier paid a greater CIAC than was necessary. However, the CIAC is always only a portion 2 of the total costs of the interconnection. Please see the response to CEC IR 1.13.2. 3 4 5 6 13.2. What is the maximum allowed spend on an interconnection station under the 7 Commission methodology? 8 9 Response: 10 The maximum allowed spend on an interconnection station by FEI is defined in a formula as 11 stated in Order G-159-14, the accompanying decision, and FEI's response to that Order. The 12 spend is \$550,000, which was based on the average costs of previously approved projects and 13 inflated yearly after 2014 by BC CPI. Any cost above that amount will be borne by suppliers in 14 the form of a Contribution in Aid of Construction (CIAC). 15 In the case of the interconnection pipe, FEI can spend a maximum of \$0.30 per GJ, which is

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based upon the initial capital cost of the interconnection pipe divided by the total minimum

contractual volume over twenty years. Any cost above that amount will be borne by suppliers in

18 the form of a Contribution in Aid of Construction (CIAC).

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Response:

As stated in the Application (pages 6 and 7), the estimated capital costs for the Interconnection Facilities (including interconnecting piping) is \$850 thousand.

If the anticipated spend on the interconnection station exceeds that of the

Commission threshold, what would normally be the CIAC that would be required?

13.3. What is the anticipated spend on the interconnection station in this instance?

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Response:

Please refer to the response to CEC 1.13.2 for the requirement to pay CIAC.



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1 If the interconnection test was used for the Surrey supply in place of the Facilities Fee, a CIAC 2 of approximately \$229 thousand would be calculated as shown in the table below for the 3 Interconnection Station.

Line	Particular	Reference
1	2015 Threshold	\$550
2	CPI Adjustment ¹	1.7%_ 2015 BC CPI, Stats Can
3	2016 Threshold	\$559 Line 1 x (1 + Line 3)
4		
5	Forecast Capital Cost	\$788 Exhibit B-1, Figure 4-3, Accounts 472, 477 and 478
6	Calculated CIAC	\$229 Line 5 - Line 3

http://www.bcstats.gov.bc.ca/Publications/Infoline.aspx?BlogTagID=de199665-2c6b-4a98-88b5-fbd51826b12d

However, as described on pages 16-17 of the Application, FEI does not believe that the Interconnect Test is applicable to this Agreement due to the fact that Surrey is paying the Facilities Fee.

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13.5. What is the anticipated cost per GJ?

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Response:

- 14 FEI assumes that this question is asking the anticipated cost per GJ of the interconnection pipe.
- 15 FEI notes that the interconnection test is not necessary as the Facilities Fee mechanism in this
- Agreement serves to ensure that FEI recovers its costs as discussed in section 6 of the 16
- 17 Application.
- 18 The interconnection pipe test is calculated by dividing the capital cost by the contractual
- 19 minimum volume over 20 years. That value must be below \$0.30 per GJ or a CIAC is required.
- 20 In this case, FEI cannot complete the calculation as there is no contracted minimum volume.
- 21 Given that there is no minimum volume to complete the calculation, and assuming the Facilities
- 22 Fee was not in place, the customer would pay for the full cost of the interconnection pipe which
- 23 is forecast at \$62 thousand (Figure 4-3, page 7 of Exhibit B-1). To achieve the minimum
- 24 threshold of \$0.30 per GJ and assuming \$62 thousand in costs, the contractual minimum
- 25 volume would need to be 10,333 GJ per year.²

 $^{^{2}}$ \$62,000 / (20 year x 10,333 GJ per year) = \$0.30 per GJ.



FortisBC Energy Inc. (FEI or the Company)

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1 2 3 4 13.6. What is the per GJ threshold which would require a CIAC under the 5 Interconnection Test? 6 7 Response: 8 Please refer to the response to CEC IR 1.13.5. 9 10 11 12 Please confirm or otherwise explain that the main extension test has a maximum 13 term under which revenues may be considered, which is currently 5 years. 14 15 Response: 16 FEI confirms that the forecast period for revenue in the MX Test is currently 5 years. 17 18 19 20 13.7.1. Please confirm that FEI has sought to extend this term to 10 years 21 under special circumstances. 22 23 Response: 24 Confirmed that FEI has proposed a 10 year customer addition horizon in some circumstances in 25 its 2015 System Extension Application. 26 27 28 29 13.8. Over how many years will the interconnection costs be recovered?



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1 Response:

In addition to the forecast annual operating costs, the Facilities Fee recovers the capital costs of the Interconnection Facilities from Surrey over a 25 year period. Please refer to Schedule 1 and 10 of Appendix B to the Application.

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13.9. Could the interconnection costs be recovered over a shorter time period? Please explain why or why not.

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Response:

- The Facilities Fee reflects a negotiated result with the City, which balances the recovery of FEI's costs with keeping the monthly fee reasonably low by spreading it over the term of the Agreement beginning with the in-service date of the facilities. FEI believes that it is unlikely that the City would agree to the recovery of the interconnection costs a period of time shorter than 25 years. The recovery of the interconnection costs over 25 years is less than the average life of the assets as shown in the response to BCOAPO IR 1.3.2, and is therefore favourable from a ratepayer perspective as the costs will be recovered before the expected end of average life of the assets.
- 20 It should be noted that the term of this Agreement matches the term of Surrey's contract with 21 Orgaworld (Section 7.2 of the Application), which helps to minimize the risk of an early 22 termination of the Agreement between FEI and Surrey.



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14. Reference: Exhibit B-1, Page 17

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.

3 14.1. Will FEI retain ownership of the interconnection facilities at the end of the 25 year term?

Response:

7 Yes.

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14.2. What is the depreciation period for the interconnection facilities?

13 **Response:**

14 Please refer to the response to BCOAPO IR 1.3.2.



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1 15. Reference: Exhibit B-1, Pages 17 and 18

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.

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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.

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15.1. Please confirm the CEC's interpretation that the Orgaworld contractual risk incorporates the production of a minimum annual volume of biomethane that meets or exceed FEI's grid specifications, whereas FEI does not have an agreement with the City of Surrey to deliver this minimum supply to FEI.

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Response:

- The City of Surrey confirms that the Orgaworld contractual risk incorporates the production of a minimum annual volume of biomethane that meets or exceed FEI's grid specifications.
- FEI confirms that the Agreement does not have a minimum supply provision. Please refer to the responses to CEC IRs 1.12.3 and 1.12.3.2.

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17 15.1.1. If confirmed, please explain why FEI did not negotiate for a minimum volume of supply?

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Response:

21 Please refer to the response to CEC IR 1.12.3.2.



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Please provide

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Response:

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FEI assumes that this information request is asking about the terms of the contract between the City and its contractor Orgaworld (the City's contractor to design, construct and operate the City's biofuel processing facility). The City has informed FEI that the terms of that contract, including the terms related to minimum biomethane production, are confidential.

15.1.3. What would be the advantages of having a minimum volume of supply

to either the RNG customers or the non-RNG customers? Please

15.1.2. What is the minimum volume of supply contracted?

under a confidential response if required.

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Response:

- In this case, FEI sees no benefit of having a minimum supply volume to either RNG or non-RNG customers.
- FEI understands that the minimum supply volume was established to mitigate stranded asset risk. With the Facilities Fee, FEI recovers the costs of the assets irrespective of any production.
- In addition, there are contractual provisions allowing FEI to recover stranded costs in the event of a default (Clause 10.2). As a result, there is no benefit to having a contract minimum volume.

15.2. What alternative uses could the City have for the supply if it were not delivered to

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Response:

Please refer to the response to CEC IR 1.7.3.

FEI?

explain.



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Please provide further discussion as to how the City has retained the contractual

risk for 'delivering guaranteed volumes of organic feedstock' as well as the risk of

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Response:

15.3.

9 The City has informed FEI that the terms of the contract between the City and Orgaworld are 10 confidential.

'managing the refined biomethane'.

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