



VIA EFILE

August 3, 2016

**SHANNON ESTATES THERMAL ENERGY SYSTEM
RATE APPLICATION EXHIBIT A-6**

Mr. Joseph Chow
Sterling, Cooper Consultants Inc.
608 – 1166 Alberni Street
Vancouver, BC V6E 3Z3

Dear Mr. Chow:

Re: Shannon Wall Centre Rental Apartments Limited Partnership
Rate Application for the Shannon Estates Thermal Energy System

Further to your May 24, 2016 filing of the above noted application and the Regulatory Timetable revised in British Columbia Utilities Commission Order G-118-16, enclosed please find Commission Information Request No. 2. In accordance with the Regulatory Timetable, please file your response electronically with the Commission on or before Friday, August 12, 2016.

Yours truly,

Original signed by:

Laurel Ross

CMcM/dg
Enclosure

BRITISH COLUMBIA UTILITIES COMMISSION
INFORMATION REQUEST NO. 2
TO SHANNON ESTATES RENTAL APARTMENTS LIMITED PARTNERSHIP

Shannon Estates Thermal Energy Systems Rates Application

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A. DEFINITIONS/TERMS AND CONDITIONS – SECTIONS A AND B

**23.0 Reference: Definitions/Terms and Conditions
Exhibit B-1 (Application), Appendix A, Terms and Conditions
Customer Agreement**

- 23.1 Please confirm or explain otherwise that it is expected that a Customer Agreement will be entered into between the Shannon Estate Thermal Energy System Utility (SETES or the Utility) and each residential tenant that is to receive Energy Services.
- 23.2 Does SETES intend to enter into a Customer Agreement the Utility each strata building?
 - 23.2.1 If yes, for what services?
 - 23.2.2 If yes, how will the individual strata owner be billed?
 - 23.2.2.1 If the individual owner are billed through the strata please confirm, or explain otherwise that the individual strata owners are not customers of the SETES and are not subject to the Thermal Energy Service Tariff Schedules (Appendix A).
- 23.3 Does SETES intend to enter into a Customer Agreement between the Utility and each individual strata owner?
 - 23.3.1 If not, please explain.
- 23.4 Does SETES intend to enter into a Customer Agreement with each individual strata building as well as each individual strata owner?
 - 23.4.1 If yes, please explain how this would be possible.

**24.0 Reference: Definitions/Terms and Conditions
Exhibit B-1, Appendix A, Section B (10) and Section D; Exhibit B-2, BCUC IR 1.1, 1.3
Emergency Service Reconnections – Section B, section 10**

In response to BCUC information request (IR) 1.1, SETES stated the following:

1.1 What is the rationale for setting 12 months as the maximum duration for charging a fee for restoring energy services?
[SETES: Within 12 months, SETES has already included for the disconnection in its operations analysis. Outside of 12 months, SETES would adjust its operation analysis to exclude the now unconnected Building.]

- 24.1 The IR response provided addresses to how the Utility has accounted for the expected costs. The question was meant to ask why 12 months was determined to be an appropriate time period. Please respond accordingly.

Section B, section 10, set out the Terms and Conditions (T&C) for Energy Services Reconnection and require a customer to pay the following to reconnect:

- (c) the costs that the Utility estimates it will incur in reconnecting the Building's Building System to the Thermal Energy System or restoring Energy Services to such Customer; and
- (d) the Basic Charge that such Customer would have paid had Energy Services continued during the period between the date of discontinuance or disconnection (as applicable) and the date of such reapplication.

- 24.1 Please explain why 10(c) refers to "estimated costs" rather than "actual costs."
- 24.2 Please explain why SETES needs to recover both the 'costs the Utility estimates it will incur' and the Basic Charge.
- 24.3 Similar to Dockside Green Energy LLP (s9) and River District Energy (s2.1.8), please explain why it would not be appropriate for the reconnection charge to be the greater of the costs incurred or the Basic Charge.
- 24.4 Is SETES aware of any other utility regulated by the Commission that allows such a charge for reconnection?

In response to BCUC IR 1.3 SETES provided the following regarding section 10(c):

1.3 In section 10 of the T&C what factors is SETES considering when estimating the costs it will incur in reconnecting the Building's Building System to the Thermal Energy System (TES) or restoring energy services to the customer?

[SETES: Costs may include technician access to, inspection of, and replacement of meters and shutoffs, third-party meter calibration services, recommissioning charges, distribution inspection, and capacity analysis.]

1.3.1 For each factor that SETES considers, please provide the corresponding calculation of the cost estimate to determine approximately how much a customer will be charged.

[SETES:

All Service charges based on \$100.00 per technician and administrator hour

Service start charge: \$50-half hour planned service

Service restart charge during business hours: \$125- 1hr15min unplanned service and travel time

Service restart charge during off hours: \$312- 1hr15min unplanned service and travel time, at 2.5 times rate for off hours service

Service stop or termination: \$125-1hr15min unplanned service and travel time

]

1.3.2 How and why, does this amount differ from the service restart charge set out in the Standard Fees and Charges schedule in the Tariff?

[SETES: The charges in Section 10 and the Standard Fees differ in the applicability. Section 10 applies where service has been interrupted for more substantial periods of time or for more extensive disconnect requests. The Standard Fees and Charges applies where service has been continuously maintained or with minimal interruption for a single, individual dwelling unit.]

- 24.5 Other than for meter testing, does SETES have to physically travel the customer's unit to disconnect or reconnect service?
- 24.5.1 If not, why does the "service restart" charge and the "service stop or termination" charge include an allowance for travel time?
- 24.6 Please explain the difference between the costs to reconnect a customer under the two circumstances identified in response to BCUC IR 1.3.2.
- 24.7 Will the categories and corresponding charges applied to the customer for costs incurred under section B.10 be the exact same as the ones under Standard Fees and Charges schedule in the Tariff?
- 24.7.1 If not confirmed, please provide a list of the categories and corresponding charges SETES expects to incur under section B.10.
- 24.8 Where in the Thermal Energy Service Tariff Schedules are the two difference circumstances identified?
- 24.9 Is SETES opposed to clarifying the Standard Fees and Charges schedule in the Tariff under Section D to indicate the same fees and charges apply for costs incurred under section B.10?

Section D - The Standard Fees and Charges Schedule sets out the following fees:

SERVICE START STOP RESTART CHARGES	
Service Start Charge:	\$50.00
The Service Start Charge is a single initial service start charge payable by each Applicant for Energy Services.	
Service Restart Charge: (During business hours)	\$125.00
Service Restart Charge: (After business hours, weekends, or statutory holidays)	\$312.00
The Service Restart Charge is a per occurrence charge payable by each Applicant for Energy Services.	
Service Stop or Termination Charge:	\$125.00
The Service Stop or Termination Charge is a per occurrence service stop or service termination charge payable by each Applicant for Energy Services.	

In response to BCUC IR 1.3 SETES provided the following responses regarding section 10:

1.3.2 How and why, does this amount differ from the service restart charge set out in the Standard Fees and Charges schedule in the Tariff?

[SETES: The charges in Section 10 and the Standard Fees differ in the applicability. Section 10 applies where service has been interrupted for more substantial periods of time or for more extensive disconnect requests. The Standard Fees and Charges applies where service has been continuously maintained or with minimal interruption for a single, individual dwelling unit.]

- 24.10 Commission staff are still unclear as to what exactly the Service Restart Charge of \$125 or \$312 (as applicable) relates to and why it does not represent the cost the utility estimates it will incur to reconnect energy service to a customer as set out in section 10(c). Please clarify.

24.11 If the Commission was to require SETES to qualify the estimated costs referred to in section 10(c) and include that amount in the Standard Fees and Charges Schedule what is SETES best estimate for that costs?

**25.0 Reference: Definitions/Terms and Conditions
Exhibit B-1, Appendix A, Section B.16
Refusal to provide energy services and discontinuance of energy services**

Section 16 of the T&C states the following:

The Utility may refuse to provide Energy Services to any Applicant, or the Utility may, without having to give any notice, discontinue providing Energy Services to any Customer, who:

(h) stops consuming Thermal Energy in the Building(s).

25.1 What duration of time would need to have passed for the Utility to refuse to provide service?

25.1.1 Would SETES consider amending the T&C to state the duration of time?

**26.0 Reference: Definitions/Terms and Conditions
Exhibit B-1, Appendix A, Section B.19, p. 13
Term of Customer Agreement**

Section 19 of the T&C states the following:

The Customer Agreement will thereafter automatically be renewed from year to year unless:

26.1 Please confirm, or explain otherwise, that a rental agreement normally renews on a month to month basis after the initial one year term expires?

26.1.1 If confirmed, please explain why it would be appropriate to renew the Customer Agreement from year to year for customer in the rental building?

26.1.1.1 Would SETES be willing to amend section 19 of the T&C for rental customers from 'year to year' to 'month to month'?

**27.0 Reference: Definitions/Terms and Conditions
Exhibit B-1, Appendix A, Section B.20; Exhibit B-2, BCUC IR 6.2
Termination of Customer Agreement**

Section 20 of the T&C states the following:

A Customer may, following the initial term specified in Section 19, terminate the applicable Customer Agreement by giving at least twenty-four (24) hours of written notice to the Utility at the address specified in the most recent bill rendered to the Customer.

The Customer is not released from any previously existing obligations to the Utility by terminating the Customer Agreement.

The Customer acknowledges and agrees that if it terminates the Customer Agreement pursuant to this Section, the Utility may charge the Customer the full cost of all infrastructure associated with the provision of Energy Services to the Customer if the Utility determines that such charge is necessary to ensure other Customers on the Thermal Energy System are not adversely impacted by such termination.

- 27.1 Does section 20 of the T&C apply to a customer whose Customer Agreement has automatically been renewed in accordance with section 19 of the T&C?
- 27.1.1 If not, would SETES be willing to amend section 20 to clarify this point?
- 27.2 Please confirm, or explain otherwise, that section 19 only applies to customers during the initial term specified in section 19?
- 27.2.1 If not, please explain who section 19 applies to.
- 27.2.2 Would SETES be willing to amend section 19 to clarify who it applies to?
- 27.3 Please explain what “any previously existing obligations to the Utility means” and why a customer is not released for these obligations when the Customer Agreement is terminated?
- 27.4 Please confirm, or explain otherwise, that the third paragraph in section 19 does not apply to rental building customers?
- 27.4.1 If not, please explain.
- 27.4.2 If confirmed, would SETES be willing to amend section 19 to clarify that it does not apply to rental building customers?
- 27.5 Does the third paragraph of section 19 apply to the strata building and not individual strata unit owners?
- 27.5.1 If not, please explain?
- 27.5.2 If confirmed, would SETES be willing to amend section 19 to clarify?

In response to BCUC IR 6.2, SETES stated the following:

6.2 Please confirm, or explain otherwise, that for any customer wishing to disconnect service a \$125 fee is required.

[SETES: We confirm any customer wishing to disconnect will pay the disconnect fee as set out in the approved schedule, currently \$125. A disconnection fee is not applicable when the term of the contract is reached.]

- 27.6 Would SETES be willing to amend the first paragraph in section 20 of the T&C to clarify that the disconnection fee does not apply after the initial term of the contract is reached?
- 27.6.1 If not, please explain.

**28.0 Reference: Definitions/Terms and Conditions
Exhibit B-1, Appendix A, Section B.23, p. 17; Exhibit B-2, BCUC IR 4.1
Curtailement of energy services**

In response to BCUC IR 4.1, SETES stated the following:

4.1 Are there penalty fees applied to a customer who has failed to comply with any requirements in section 23 of the T&C?

[SETES: The set relief for SETES is via the fees described in Section D. A Service Stop Charge is applicable, currently \$125.00. A Service Restart Charge is applicable, currently \$125.00 during business hours and \$312.00 after business hours, weekends, or statutory holidays.]

28.1 Would SETES be willing to amend section 23 of the T&C to clarify that the “Service Stop and Termination Charge” and the “Service Restart Charge” as set out in the Standard Fees and Charges Schedules apply to a customer that does not comply with section 23 but otherwise would not apply to the curtailement of energy service at the request of the Utility as set out in section 23?

**29.0 Reference: Definitions/Terms and Conditions
Exhibit B-1, Appendix A; Exhibit B-2, BCUC IR 1.2
Fixed Charges/Basic Charges**

In response to BCUC IR 1.2, SETES confirmed that the Fixed Charges set out in Subsection C1 make up the Basic Charge as defined in Section A.

29.1 Would SETES consider amending the title of Subsection C1 to “Fixed Charges/Basic Charges” and referencing Subsection C in the definition of Basic Charge in Section A?

29.1.1 If not, please explain.

**30.0 Reference: Definitions/Terms and Conditions
Exhibit B-1, Appendix A; Exhibit B-2, BCUC IR 2.2
T&C Matters – Section B.16**

Section 16 of the T&C states the following:

The Utility may refuse to provide Energy Services to any Applicant, or the Utility may, after having given 48 hours of prior written notice, discontinue providing Energy Services to any Customer, who:

(a) fails to fully pay for any Energy Services provided to any Building(s) on or before the due date for such payment; or

(b) fails to provide or pay by the applicable date required any security deposit, equivalent form of security or guarantee or any requisite increase thereof.

In response to BCUC IR 2.2.1 SETES stated the following in regards to the above noted portion of section 16 of the T&C:

2.2 Does SETES considered the following to be a more reasonable term and condition: “The Utility may refuse to provide Energy Service to any Applicant, or the Utility may reserve the right to discontinue providing Energy Services to any customer, if the account in arrears remains unpaid for 10 days after providing written notice.”

[SETES: See response in 2.2.1.]

2.2.1 If not, please explain.

[SETES: We agree to implement the proposed alternative of 2.2 for the original Section 16.a. 16.b would remain however, the period would match the proposed alternative for 16.a. SETES intends through 16.b to have the discretion to provide a customer the option of a security deposit / equivalent in lieu of full payment.]

30.1 To ensure that the T&C does not allow the Utility to refuse to provide energy service without adequate notice would SETES consider amending section 16 (a) and (b) as follows:

“The Utility my refuse to provide Energy Service to any Applicant who fails to provide, or pay by the applicable date required, any security deposit, equivalent form of security or guarantee or any requisite increase thereof.

If an account in arrears remains unpaid for 10 days after providing written notice, the Utility may discontinue providing Energy Service to the Customer.”

30.1.1 If not, please explain.

**31.0 Reference: Definitions/Terms and Conditions
Exhibit B-1, Appendix A; Exhibit B-2, BCUC IR 7.1
T&C Matters – Section B.18**

In relation to section 18 of the T&C, SETES provided the following response to BCUC IR 7.1:

Section 18 of the T&C states that: “When a change of Customer occurs, an account charge, as set out in the Standard Fees and Charges Schedule, will be paid...”

7.1 Please reference where in the Standard Fees and Charges Schedule the change of customer fee is set out.

[SETES: The Service Start Charge from Section D is applicable, currently \$50.]

31.1 Would SETES be willing to amend the section 18 of the T&C to replace “‘account charge’ with ‘Service Start Charge’”?

31.1.1 If not, please explain.

**32.0 Reference: Definitions/Terms and Conditions
Exhibit B-1, Appendix A; Exhibit B-2, BCUC IR 3.1 and 8.2
T&C Matters – Section B.19**

In relation to section 19 of the T&C, SETES provided the following response to BCUC IR 3.1:

Section 19 of the T&C states: “The initial term of the Customer Agreement will be as follows: (a) where a new Service Connection is required to provide Energy Services, one year;...”

3.1 Please confirm whether this would not apply to a customer in the rental building or an owner of a unit in the strata building.

[SETES: The one year would not be applicable to a customer in the rental building and instead would be the shorter of their contract or one year. It is intended for the owner of a unit in the strata buildings would be committed for one year.]

32.1 Would SETES be willing to amend the section 19 of the T&C to clarify this distinction?

In response to BCUC IR 8.2 SETES stated the following:

8.2 Please confirm, or explain otherwise, that any metered potable water or any other common city utility charges will be billed to the customer separately and not as part of SETES energy bill. If not, please explain why it would be appropriate to include them with the customer’s energy bill.

[SETES: If the Commission understanding is it does not regulate metered potable water and other common City Utility charges, these will be removed from the energy service tariff.]

32.2 Would SETES be willing to amend the Subsection C4 to include a note clearly stating that Domestic Hot Water Heating does not include the City of Vancouver’s metered potable charges and only relates to heating the water – not the supply of the actual water itself?

32.2.1 If not, please explain.

B. STANDARD FEES AND CHARGES SCHEDULE – SECTION D

**33.0 Reference: Standard Fees and Charges Schedule
Exhibit B-1, Appendix A, Section D, p. 1; Exhibit B-2, BCUC IR 6.2
Service stop or termination fee**

In response to BCUC IR 6.2, SETES stated the following:

6.2 Please confirm, or explain otherwise, that for any customer wishing to disconnect service a \$125 fee is required.

[SETES: We confirm any customer wishing to disconnect will pay the disconnect fee as set out in the approved schedule, currently \$125. A disconnection fee is not applicable when the term of the contract is reached.]

6.2.1 If confirmed, please explain why a disconnection fee is necessary.

[SETES: The disconnection fee applies to customers who terminate their contract early. Utility expenses are made on assumptions of ongoing consumption. The Utility would then need to support the costs of the customer who terminated early with impacts to the remaining customers.]

33.1 Did the response to BCUC IR 6.2 mean to read “The disconnect fee is not applicable when the initial term of the contracted is reached”? If not, please explain.

- 33.2 Would SETES be willing to update the Standard Fees and Charges Schedule “Service Stop or Termination Charge” to clarify that it does not apply when the term of the initial contract is reached and to reference the sections of the T&C which “Service Stop or Termination Charge” applies to (for example section 23)?
- 33.3 Please explain why it would be appropriate to have a disconnect fee applicable to rental customers given the low vacancy rate?
- 33.4 Under the assumption of low vacancy rates, what are the actual impacts to other customers?
- 33.5 In response to BCUC IR 6.3 please confirm that for the utilities regulated by the BCUC none of the examples provided have a fee to terminate service and only have a reconnection fee?

In SETES Final Submission it states that “other BCUC-regulated utilities have charges in their terms and conditions where an equivalent to the disconnect and reconnect fees are isolated into the reconnection fee.”

- 33.6 Please explain how SETES came to the conclusion that in the examples provided the disconnect and reconnect fees are isolated into the reconnection fee?

C. RATE SCHEDULES – FIXED CHARGES/BASIC CHARGES – SUBSECTION C1

**34.0 Reference: Fixed Charges
Exhibit B-1: Appendix A, Subsection C1; Exhibit B-2, BCUC IR 14.2
Monthly Capacity Levy**

- 34.1 Please confirm, or explain otherwise, that the Monthly Capacity Levy set out in Subsection C1 is pegged at SEFC’s “Class 1 – SEFC residential or mixed use residential building” rate and will increase by the same percentages as the increase in the Class 1 rate and not the overall South East False Creek’s (SEFC) rate increase (if different).

34.1.1 If not, please explain.

In response to BCUC IR 14.2, SETES provided the following conversion for the Monthly Capacity Levy:

14.2 Please tie the SETES monthly capacity levy of \$0.0489 set out in Appendix A, p. 1, to the relevant schedule in Appendix C, City of Vancouver Energy Utility System By-Law, making sure an appropriate conversation is made in order to compare the units.

[SETES: The SETES monthly capacity levy of 0.0489 [\$/sqft-month] is equal to 0.526 [\$/sqm-month] as listed in Schedule C, Part 2, Class 1 for CoV Bylaw 9552 (See a copy of this in response 14.1). See the calculation below:

$$0.0489 \left[\frac{\$}{\text{sqft-month}} \right] \cdot \left(\frac{1 \text{ ft}}{12 \text{ in}} \right)^2 \cdot \left(\frac{1 \text{ in}}{25.4 \text{ mm}} \right)^2 \cdot \left(\frac{1000 \text{ mm}}{1 \text{ m}} \right)^2 =$$

$$0.5263552 \left[\frac{\$}{\text{sqm}} \right], \text{ truncated at the 4th decimal place, it is } 0.526 \left[\frac{\$}{\text{sqm-month}} \right].]$$

- 34.2 To be consistent with SEFC and for efficiency and transparency purposes did SETES consider using “square meters” rather than “square feet” for the Monthly Capacity Levy unit measurement?

34.2.1 If not, why not?

34.2.2 Would SETES be willing to use square meters as the unit measurement for the Monthly Capacity Levy?

D. RATE SCHEDULES – VARIABLE CHARGES: SPACE COOLING/HEATING/DOMESTIC HOT WATER – SUBSECTIONS C2, C3 AND C4

**35.0 Reference: Variable Charges
Exhibit B-1, Appendix B, CPCN Application, p. 26
Compared to SEFC**

In the SETES's Certificate of Public Convenience and Necessity Application (CPCN) Application the floor space ratio of the project is forecast to be 63,172 square meters or 679,977 if converted to feet.

35.1 To the best of SETES knowledge what is the floorplate or floor space ration in square feet and square meters for SEFC?

E. RATE SCHEDULES - SUSTAINMENT CAPITAL FUND RATE RIDER – SUBSECTION C5

**36.0 Reference: Sustainment Capital Fund
Exhibit B-1, Section 3.1, p. 5; Exhibit B-2, BCUC IR 16.2
Capital Reserve Fund – Balance**

In response to BCUC IR 16.2, SETES stated the following:

16.2 Please provide a calculation showing how \$50,000 for the CRF was reached.
[SETES:
Using earlier pricing, \$50,000 was the largest single expenditure for any single component with the exception of the cooling tower or sewage heat recovery system with a life expectancy less than 50 years.

With the latest available data, the CRF maximum value should be \$2,750,000 in today's dollars. Please confirm increase in CRF maximum value is acceptable.

36.1 Given the very significant difference between \$50,000 and \$2,750,000 please provide a detailed rationale as to why \$2,750,000 is now required and why SETES was satisfied that \$50,000 was sufficient at the time it filed the CPCN and this Application?

36.2 Please confirm, or explain otherwise, that the Capital Reserve Fund (CRF) is not for repairs or maintenance but to recover costs for future capital asset replacements?

36.3 Please confirm, or explain otherwise, that SETES understands that under a cost of service methodology a utility is not normally allowed to recover the cost of capital assets in advance of the asset being used and useful (going into service).

36.4 Please confirm, or explain otherwise, that SETES understand that under a cost of service methodology a utility recovers the cost of capital assets (Plant in Service) through depreciation and is entitled to be compensated for a Commission approved debt and equity return on the undepreciated capital asset balance.

36.4.1 Please explain why the Commission should allow SETES to recover expected costs for future replacement in advance of the assets being in service?

36.5 If the Commission were to deny the CFR what would the impact be to SETES?

**37.0 Reference: Sustainment Capital Fund Rate Rider
Exhibit B-1, Section 3.1, p. 5; Exhibit B-2, BCUC IR 16.4
Capital Reserve Fund– Developer Contribution**

In response to BCUC IR 16.4 SETES stated the following:

Page 5 of the Application states: that the developer will contribute \$50,000 for the initial balance of the CRF within seven days of this rates filing.

16.4 Please confirm, or explain otherwise, that the developer has made the \$50,000 contribution.

[SETES:
The developer has not made the \$50,000 contribution to the CRF as an initial balance.
The developer has instead, funded the entire capital cost for Phase 1 and Phase 2.
Please confirm if this is sufficient or otherwise.

37.1 Please confirm, or explain otherwise, that the developer was funding the entire \$7.5 million capital investment with or without the \$50,000 contribution to the CRF.

37.2 Given that the developer committed to contributing \$50,000 to the benefit of ratepayers why would it now be appropriate to allow the developer to back out of that commitment?

**38.0 Reference: Sustainment Capital Fund Rate Rider
Exhibit B-2, BCUC IR 18.2
Emergency Reserve Fund – Deferral Account Option**

In response to BCUC IR 18.2 SETES stated the following:

18.2 Please confirm that the first \$26,000 of emergency repairs or costs to sustain the TES will come out of the annual operating budget collected from customers through the variable and fixed portion of the rate and any amount in excess of that will be taken from the Sustainment Capital Fund and collected from the customer through the rate rider.

[SETES: We confirm, SETES agrees to the process described in 18.2 to the extent it is available and not already used to pay SETES' expenses such as its utility costs, taxes and permits, labour costs, carrying costs, and other costs related to the utility's operation.]

18.2.1 If confirmed, how will the \$26,000 be tracked to ensure that it is not charged to the Sustainment Capital Fund?

[SETES: The expenses for activities qualifying as emergency repairs will be tracked and when their cumulative cost exceeds the \$26,000 before the CRF can be accessed for emergency repairs.]

SETES provided the following data regarding Contract Work as part of the non-confidential model

	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Contract work - Metering / Maintenance	\$ 17,600	\$ 26,928	\$ 27,467	\$ 28,016	\$ 28,576	\$ 29,148	\$ 29,731	\$ 30,325	\$ 30,932	\$ 31,550
Contract work - Metering collection	\$ 15,675	\$ 31,977	\$ 32,617	\$ 44,883	\$ 73,668	\$ 75,142	\$ 76,644	\$ 78,177	\$ 79,741	\$ 81,336
Contract work - Administration / Accounting	\$ 24,000	\$ 48,960	\$ 49,939	\$ 50,938	\$ 51,957	\$ 52,996	\$ 54,056	\$ 55,137	\$ 56,240	\$ 57,364

38.1 Which line item is the \$26,600 emergency repair forecast recorded in?

38.2 In addition to the \$26,000 emergency repairs forecast are any other non-emergency repairs and maintenance costs included in the forecast annual operating costs?

38.2.1 If yes, which line item?

38.2.2 If not, please explain?

38.3 Please confirm, or explain otherwise, that SETES understands that in order for the Commission to consider approving an Emergency Repair Fund (ERF) SETES will have to commit to how it intends to fund the first \$26,000 of emergency repairs. Please note that an 'if available' strategy is not a commitment.

It would be unusual for the Commission to allow funds to be collected in advance for emergency repair or any other expenditure of that nature. Typically if a utility wants protection from variances between a forecast expense and an actual expense, approval for a deferral account is requested by the utility.

38.4 Similar to British Columbia Hydro and Power Authority's (BC Hydro) Deferral Account Rate Rider, would SETES be open to having an Emergency Repair Deferral Account that captures difference between the annual forecast emergency repairs of \$26,000 and the actual after the fact annual emergency repairs up to a maximum balance of \$50,000 instead of its proposed ERF. The deferral account would accrue an interest carrying cost rate at SETES's short term interest rate and the balance in the deferral account would be recovered through the rate ride as set out in Subsection C2. The significant difference between this approach and the one put forward by SETES is that the funds are collected after the expense has occurred and not in advance. A balance greater than \$50,000 would require further Commission consideration and approval.

38.4.1 If not, please explain why not.

38.5 What is SETES's short term interest rate?

F. UTILITY COMPARISON

**39.0 Reference: Business as Usual
Exhibit B-2, IR 21 series
British Columbia Hydro Authority rate comparison - kWh hours**

39.1 Please explain why in response to the BCUC IR 21 series SETES used 106 and 453 kWh for space cooling in the BC Hydro example and 2770 and 6111 kWh in the SETES example for the 775 and 2000 square foot units respectively.

39.2 In response to the BCUC IR 21 series, please explain why the kWh for Heating, Cooling and Hot water used in the updated examples provided by SETES did not use the data provided in the Application on page 6.

39.2.1 Was the data in the Application incorrect? If yes, please explain.

39.3 If the same kWh should have been used please update all the tables provided in response to BCUC IR 21 for the correct data.

**40.0 Reference: Business as Usual
Exhibit B-2, IR 21.4
Rate comparison – Other Utilities**

In response to BCUC IR 21.4, SETES stated the following:

21.4 Please provide a table comparing what SETES proposed rate for a 775 square foot unit and a 2000 square foot unit would be under the SEFC rates and at least two thermal energy systems utilities regulated by the Commission.

[SETES: Along with SEFC, Corix DES at UBC and Creative Energy were considered. Note: These regulated utilities supply energy at the building level, do not take into account individual metering, and do not supply cooling.

Monthly			
	SEFC	Corix	Creative
775 sq ft	\$ 81	\$ 74	\$ 58
2000 sq ft	\$ 145	\$ 136	\$ 64
Annual			
	SEFC	Corix	Creative
775 sq ft	\$ 972	\$ 884	\$ 695
2000 sq ft	\$ 1,746	\$ 1,629	\$ 770

*Creative energy does not have a capacity charge]

40.1 For comparative purposes please add a column to the table provided in response to BCUC IR 21.4 for SETES excluding its meter charge and the space cooling charge.

**41.0 Reference: Business as Usual
Exhibit B-2, IR 21.3; SETES Reply Submission
British Columbia Hydro Authority rate comparison**

In response to BCUC IR 21.3 SETES provided the following summary table.

Monthly		
	SETES	BC Hydro
775 sq ft	\$ 158	\$ 118
2000 sq ft	\$ 243	\$ 162
Annual		
	SETES	BC Hydro
775 sq ft	\$ 1,897	\$ 1,419
2000 sq ft	\$ 2,911	\$ 1,942

In its Reply Submission, SETES provided the following table:

Monthly		
	SETES	BC Hydro (BAU)
775 sq ft	\$ 147	\$ 132
2000 sq ft	\$ 216	\$ 180
Annual		
	SETES	BC Hydro (BAU)
775 sq ft	\$ 1,763	\$ 1,579
2000 sq ft	\$ 2,595	\$ 2,161

- 41.1 Please explain why the summary table provided in the Reply Submission does not agree to the detailed calculation provided in response BCUC IR 21.3?
- 41.2 With regards to the changes between the table in the IR response and the table in the Reply Submission, please explain why SETES’s costs are lower while BC Hydro’s have increased?
- 41.3 If the table in the Reply Submission has been adjusted for improvements in the building envelope please explain how the adjustments were made and provide detailed calculations.

G. FINANCIAL MODEL

**42.0 Reference: Financial Model
Exhibit B-2, BCUC IR 11.1; Confidential Reply Submission, model
Floor Space Ratio**

BCUC IR 11.1 stated the following:

In the CPCN Application the floor space ratio of the project is forecast to be 63,172 square meters or 679,977 if converted to square feet.

11.1 Please confirm, or explain otherwise, that when taking Phase II into consideration and SETES is serving 800 customers it would take approximately 18.8 years to recover the \$7.5 million capital cost of the TES approved in the CPCN from the monthly capacity levy without consideration of an interest on the balance. [(\$7.5 million / (679,977 square feet X \$0.0489 per square foot/month X 12 months)]
[SETES: There will be 582 units at full buildout; otherwise correct.]

- 42.1 In the confidential model SETES provides the forecast square footage on line 14 of the Analysis Per Year tab; however, the total square footage, although close, never reaches the full 679,977 square feet. Please explain.
- 42.2 In the confidential model, line 15 of the Analysis Per Year tab, SETES shows forecast units slightly greater than 582 units as indicated in response to BCUC IR 11.1. Please explain.
- 42.3 In the confidential model SETES provides the forecast number on units on line 15 of the Analysis Per Year tab; however, the number of units is slightly greater than 582. Please explain.

**43.0 Reference: Financial Model
Non-Confidential Reply Submission, model; Exhibit B-2, BCUC IR 15.1 and 15.2
Forecast Sales and Purchases**

Using the 5 year data for electricity and natural gas sales and usage provided in the non-confidential financial model, the following can be seen for the total annual sales and total usage:

		2016		2017	2018	2019	2020	2021
		Half a year						
		[Unit]	Qty.	Qty.	Qty.	Qty.	Qty.	Qty.
Sales	Space Cooling - kWh	[kWh]	73,959	73,959	73,959	200,080	326,200	326,200
	Space Heating - kWh	[kWh]	535,644	1,071,287	1,071,287	2,221,720	3,372,153	3,372,153
	Domestic Hot Water - kWh	[kWh]	100,225	200,450	200,450	326,567	452,684	452,684
TOTAL SALES		[kWh]	709,828	1,345,697	1,345,697	2,748,367	4,151,036	4,151,036
Purchases	Electricity - Energy	[kWh]	236,609	453,097	457,673	944,165	1,440,438	1,454,988
	Natural Gas - Energy	[kWh] = [GJ] * 277.777kWh	578,061	1,167,800	1,179,596	2,387,530	3,619,747	3,656,310
TOTAL USAGE		[kWh]	814,670	1,620,897	1,637,269	3,331,695	5,060,184	5,111,297
Purchases in Excess of Sales			104,842	275,200	291,572	583,328	909,148	960,261
RATIO	Total Sales / Total Purchases		87%	83%	82%	82%	82%	81%

- 43.1 Under what rate schedule will SETES be purchasing Natural Gas from FortisBC?
- 43.2 Is 100 percent of the electricity referring to electricity purchased from BC Hydro under the Large General Service rate tier?

- 43.3 Please confirm if SETES agrees with the calculations shown in the table above:
 - 43.3.1 If not, please provide an updated table showing forecast Total Sales and Total Usage for each year from 2016 – 2021.
- 43.4 Please provide a rationale on why Total Usage of energy is consistently higher than Total Sales of energy for each year from 2016 – 2021, especially considering SETES is expected to use energy sources other than just energy from BC Hydro and Natural Gas (for example).
- 43.5 Please explain the reason for the ratio between Total Sales and Total Purchases declining over the initial 6 years.

In response to BCUC IR 15.1 and 15.2 SETES stated the following:

On page 26 of the CPCN Application the annual heating load is forecast to be 3,348 MWh [3,348,000 KWh] and the annual cooling load is expected to be 358 MWh [358,000 KWh].

15.1 Please confirm that this forecast is still accurate. If not, please update.
 [SETES: Yes, this calculation was based on actual constructions and 30 year mean weather data. We expect yearly variations, especially in El Nino/ El Nina years.]

15.2 Does the annual heating load include both space heating and domestic hot water heating?
 [SETES: Yes, the estimated heating load includes DHW heating.]

- 43.6 Please explain why the IR response states that the annual heating load is forecast (including heat and hot water) to be 3,348,000 kWh and the cooling load is expected to be 358,000 kWh while the non-confidential model in 2026 shows 3,824,837 kWh for heating and 326,000 kWh for cooling?

**44.0 Reference: Financial Model
 Reply Submission, p. 7; Non-confidential Reply Submission, model; Exhibit B-2
 BCUC IR 13.2
 Cost of Energy**

In response to BCUC IR 13.2 SETES stated the following regarding the costs for electricity and natural gas:

13.2.2 Is this value still accurate? If not, please update and explain the reason for the variance.
 [SETES: Based on real utility data, the feed costs are estimated to be \$126,000 per year for phase 1 only. Previous projections based on simulation.]

13.2.3 Is this estimate based on full occupancy after Phase II is completed?
 [SETES: Current estimate based on phase 1 only.]

In the non-confidential model (simulation) SETES shows forecast the following costs for Electricity and Natural Gas:

	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Electricity Expense	19,458	40,519	42,220	78,324	121,219	125,837	130,633	135,615	140,789	146,162
Natural Gas Expenses	14,512	29,597	30,178	59,890	90,792	92,608	94,460	96,350	98,278	100,244

Please explain the reason for the difference in the information provided in response to BCUC IR 13.2.2 and the data provided in the non-confidential model?

In its Reply Submission on page 7, SETES states that "...the actual economic COP of the plant itself (i.e. energy sales versus utility purchases) and efficient operation is unknown."

44.1 In consideration of the statement in the Reply Submission and the conflicting data in the IR response, how certain is SETES that the purchases for electricity and natural gas as set out in the non-confidential model is an accurate forecast?

**45.0 Reference: Financial Model
Non-confidential Reply Submission, model; Exhibit B-2, BCUC IR 13.3
Operating Costs**

The Non-confidential model shows the following forecast expenses:

			2016	2017	2018	2019	2020
Expenses							
	Revenue Generating	Electricity Expense	19,458	40,519	42,220	78,324	121,219
		Natural Gas Expenses	14,512	29,597	30,178	59,890	90,792
		Maintenance Expenditures (Not Labour) - Contingency Fund Withdraw	-	-	-	-	-
X		Capital Expenditures (from CRF)	1,700	2,540	3,717	5,318	7,430
		Subtotal	35,670	72,656	76,114	143,532	219,441
	Overhead	Contract work - Metering / Maintenance	\$ 17,600	\$ 26,928	\$ 27,467	\$ 28,016	\$ 28,576
		Contract work - Metering collection	\$ 15,675	\$ 31,977	\$ 32,617	\$ 44,883	\$ 73,668
		Contract work - Administration / Accounting / Legal / Engineering	\$ 24,000	\$ 48,960	\$ 49,939	\$ 50,938	\$ 51,957
		Insurance (CGL, etc.)	\$ 2,150	\$ 2,193	\$ 2,237	\$ 2,282	\$ 2,327
		Permits, Property, and Utility Taxes (Percentage of original plant)	\$ 2,500	\$ 2,550	\$ 2,601	\$ 2,653	\$ 2,706
		BCUC Thermal Energy Tax	\$ 32	\$ 62	\$ 63	\$ 132	\$ 204
		Subtotal	61,957	112,670	114,924	128,903	159,438
	Overall	Total	97,627	185,326	191,038	272,436	378,879

In response to BCUC IR 13.3 SETES reported the following:

13.3 Please confirm or explain otherwise that on page 28 of the CPCN Application included as Appendix B to this application annual operating costs of \$186,000 with \$26,000 per year going to the sustainment capital fund.

13.3.1 Is this amount accurate? If not, please update.
[SETES: Revised values in 13.3.2.]

13.3.2 Does this amount include both variable and fixed operating costs? If yes, please separate between variable and fixed.
[SETES:
Variable costs - Estimated \$126,000 for Phase 1 only.
Fixed costs - Estimated \$65,000
Sustainment capital fund contribution - \$70,000 to \$140,000. Escalates by year 2020 as full build-out is achieved.]

13.3.3 Does this amount include meter reading costs? If not, why not?
[SETES: Meter reading costs included in the variable costs.]

45.1 Which line item in the non-confidential model are the variable costs of \$126,000 captured in?

45.2 Which line item in the non-confidential model are the fixed costs of \$65,000 captured in?

45.3 Which line item in the non-confidential model are the Sustainment Capital Fund Contributions of \$70,000 to \$140,000 captured in?

**46.0 Reference: Financial Model
Non-confidential Reply Submission, model; Exhibit B-2, BCUC IR 11.2
Rate Base**

On the basis of the information provided in the CPCN and the non-confidential model, tab Acc. Summary, line 18, staff prepared a high level Rate Base calculation under a Cost of Service methodology.

	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Rate Base (Plant in Service) Calculation										
Opening Rate Base	5,000,000	4,919,172	4,759,379	4,606,037	4,459,355	4,319,627	4,187,215	4,062,535	3,946,034	3,838,161
Forecast Capital Expenditures	1,700	2,540	3,717	5,318	7,430	10,136	13,499	17,563	22,346	27,844
Sub Total	5,001,700	4,921,712	4,763,096	4,611,354	4,466,785	4,329,762	4,200,713	4,080,098	3,968,380	3,866,005
Depreciation Expense (30 years at 3.3%)	82,528	162,333	157,060	151,999	147,159	142,548	138,178	134,064	130,219	126,659
Closing Rate Base	4,919,172	4,759,379	4,606,037	4,459,355	4,319,627	4,187,215	4,062,535	3,946,034	3,838,161	3,739,346
Mid-Year	4,959,586	4,839,276	4,682,708	4,532,696	4,389,491	4,253,421	4,124,875	4,004,285	3,892,098	3,788,753

46.1 Please confirm, or update as necessary, that on a high level the table above fairly forecasts what SETES’s mid-year rate base is expected to be over the next 10 years?

In response to BCUC IR 11.2, SETES stated the following:

11.2 What is the forecast useful life of the TES?
 [SETES: Major plant components have a forecasted life of 25 years, while distribution has an expected life on the order of 50+ years. Minor components have expected replacement intervals of 3-5 years. With scheduled repairs and preventative maintenance, the lifespan of the TES can be extended indefinitely. The TES was designed and built with a sufficient degree of redundancy and serviceability that will allow major components to be repaired/replaced without compromising the ability of the TES to supply space heating, cooling and DHW]

46.2 For simplicity the staff Rate Base calculation assumed an average 30 year life and a corresponding 3.3 percent depreciation rate. Please confirm that this assumption is reasonable or update as necessary.

46.3 What is the forecast depreciation expense for financial reporting for the next 10 years?

46.4 What is the forecast Capital Cost Allowance (CCA) for the next 10 years?

H. GENERAL

**47.0 Reference: General
Exhibit B-2, BCUC IR 22.2
Debt Rate**

47.1 What is SETES’s weighted average cost of debt (WACD), weighted average cost of capital (WACC)?

47.2 In response to BCUC IR 22.2 SETES stated that it expects an annual debt carrying costs of \$50,300 on the \$7.5 million investment approved in the CPCN. Please provide the calculation.

47.3 Under the assumption that that 60 percent of the \$7.5 million is financed through debt and SETES’s WACD is 4 percent, would the debt carrying costs not be closer to \$180,000? If not, please explain.

**48.0 Reference: General
Exhibit B-1, Appendix A
Potential changes to the T&C**

48.1 For any agreed to changes identified in IR No.1 or No. 2, please update and file the Thermal Energy Service Tariff Schedules (Sections A-D). Please include both a black lined version and clean version.

**49.0 Reference: General
Exhibit B-1, Section 1, p. 1
Legal Structure**

49.1 Is the SETES a division of Shannon Wall Centre Rental Apartments Limited Partnership (SWCRA) or is its own legal entity?

49.1.1 If not, please provide details of the legal structure.

49.2 Will the SETES be filing a T2 tax return for the SETES on a standalone basis or will it be consolidated with SWCRA?