

July 11, 2016

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

Attention: Ms. Laurel Ross, Commission Secretary and Director

Dear Ms. Ross:

**Re: Shannon Wall Centre Rental Apartments Limited Partnership Rate Application
for the Shannon Estates Thermal Energy System
FortisBC Alternative Energy Services Inc. Final Submission**

1 INTRODUCTION

1.1 Overview

On April 21, 2016, by Order C-4-16, the British Columbia Utilities Commission (Commission) granted a Certificate of Public Convenience and Necessity (CPCN) for Shannon Wall Centre Rental Apartments Limited Partnership (SWCRA) to own and operate a thermal energy system located at 7199 Granville Street, Vancouver, British Columbia (the SWCRA System). SWCRA's CPCN application was made under the Commission's Thermal Energy System Regulatory Framework and Guidelines (the TES Framework) as a Stream B TES project on the basis that SWCRA's previous application for Stream A treatment had been rejected. In this proceeding, SWCRA seeks approval of rates for the SWCRA System as a Stream B TES project pursuant to the TES Framework (the Application).

FAES is a public utility regulated by the Commission and specializes in providing thermal energy services to customers and as such FAES has a direct and substantial interest in how the Commission regulates TES projects, including the System and associated rates that are the subject of the Application. FAES's primary reason for intervening in the Application has been to monitor, review, and provide input into the manner in which the Commission's rate setting principles and requirements for Stream B thermal energy systems are applied. As an

active market participant, FAES has a strong interest in ensuring that all applicants in this market are subject to the same rigorous regulatory standards as FAES.

FAES' position is that the Application does not meet the Stream B requirements as they pertain to rate setting and that there is no basis for the Commission to conclude that the proposed rates are just and reasonable. For this reason, FAES submits that the Application should be rejected.

1.2 Legal and Regulatory Framework for the Application

The SWCRA System is a thermal energy system, and as a result SWCRA, as the owner/operator of the SWCRA System, will be a TES Provider as defined in the TES Framework. The TES Framework defines four categories of TES, each of which is subject to different regulatory requirements under the TES Framework. The SWCRA System has previously been determined to be a Stream B TES, and it is therefore subject to the regulatory requirements set out in section 2.4 of the TES Framework for Stream B TES. The CPCN for the SWCRA System has already been granted, and the Application is limited to the review of the rates for the System. As a result, the relevant principles and requirements for the Application are outlined in sections 2.4.3 and 2.4.4 of the TES Framework.

Because the SWCRA System is a Stream B TES, pursuant to sections 59-61 of the *Utilities Commission Act (UCA)*, SWCRA requires the Commission's approval of the rates that SWCRA will charge its customers for the thermal energy service provided by the SWCRA System. These provisions provide that the Commission may only approve rates that are determined by the Commission to be "just and reasonable".

As further set out below, FAES submits that the Application does not meet the requirements under sections 2.4.3 and 2.4.4 of the TES Framework, and there is no basis for the Commission to conclude that the applied for rates are just and reasonable.

2 THE TES FRAMEWORK SHOULD BE CONSISTENTLY APPLIED

Since 2011 the Commission has pursued, at considerable effort, a better understanding of the emerging TES industry in British Columbia. It has convened multiple proceedings to determine the appropriate framework under which non-traditional utilities should be regulated, having regard to the overall regulatory framework established by the UCA and the public interest mandate it confers on the Commission.

In 2011, the Commission initiated the *Inquiry into the Offering of Products and Services in Alternative Energy Solutions and Other New Initiatives* (the AES Inquiry),¹ which culminated the following year in the AES Inquiry Report.² The AES Inquiry was intended to provide guidance to the Commission and utilities dealing with "new business activities outside of the traditional gas distribution utility business",³ including TES, and to provide clarity on the

¹ Order G-95-11 (May 24, 2011).

² Decision G-201-12, In the Matter of Fortis BC Energy Inc: Inquiry into the Offering of Products and Services in Alternative Energy Solutions and Other New Initiatives (December 27, 2012).

³ AES Report at 2.

Commission's views on the proper application and structure of regulation applicable to alternative energy solutions.

The AES Inquiry attracted broad participation, including ratepayer groups, traditional public utilities, potential competitors in the emerging AES industry, business and industry groups, and parties representing the Provincial Government, organized labour and environmental groups.⁴

The outcome of that proceeding was the Commission's affirmation that fundamental economic and regulatory principles would guide the regulation of TES utilities in British Columbia.

The Commission also determined that a regulatory framework should be developed to "establish the form of regulation required, in accordance with the Principles and Guidelines" set out in the AES Inquiry Report.⁵ That direction led to the initiation of consultations on draft TES Guidelines in 2013, the publication in 2014 of a new regulatory framework applicable to all TES developments in British Columbia,⁶ and the release of the current version of the TES Guidelines on March 2, 2015.⁷ These consultations were similarly robust and attracted many of the same parties as the AES Inquiry.

A TES Provider that wishes to develop a Stream B TES, like the SWCRA System, is subject to full regulatory oversight, including the requirements for a CPCN and rate approval by the Commission.

The TES Framework establishes a cogent and complete regime that, coupled with the Commission's conclusions in the AES Inquiry and the regulatory regime established by the UCA, provide a complete roadmap for the requirements that a project proponent must satisfy and the regulatory steps it must take to implement a project. FAES submits that it is important for the Commission to apply the TES Framework to market participants in a fair, consistent and equitable way. The Commission should not accept or approve applications that do not consider each of the rate setting principles and requirements included in the TES Framework. Doing so will only promote uncertainty in the TES market, and create advantages for those utilities who are given differential treatment.

3 THE APPLICATION DOES NOT MEET THE TES FRAMEWORK

It is against the backdrop of these multiple generic proceedings, which led to the development and implementation of the TES Framework, that the Commission should review the merits of the Application. There is no dispute that the TES Framework applies in this case and the rates must meet the Stream B TES Framework requirements.⁸ FAES submits

⁴ AES Report, Appendix C at 4.

⁵ AES Report at 77.

⁶ Order G-127-14, Thermal Energy Systems Regulatory Framework (August 28, 2014).

⁷ Order G-27-15, Thermal Energy Systems Regulatory Framework Guidelines (March 2, 2015).

⁸ The CPCN Application for the SWCRA System appended to the Rates Application is labelled "a TES Stream B CPCN registration form for the Shannon Estates development" and section 9 of that CPCN application addresses each of the Stream B CPCN application requirements outlined in the TES Guidelines. See Exhibit B-1, Appendix B1, CPCN Application, cover page and pages 25-34.

that the rates applied for, and the Application supporting them, do not meet the applicable rate setting principles and requirement. FAES further submits that there is no basis for the Commission to conclude that the proposed rates are just and reasonable.

As set out above, the applicable TES Framework for a Stream B TES with respect to rates are sections 2.4.3 and 2.4.4. In the following sections, FAES addresses the inadequacies of the Application with respect to each of the rate setting principles and requirements.

3.1 TES Framework – Section 2.4.3 – Rate Setting Principles

Section 2.4.3 of the TES Framework provides that all Stream B applicants are required to consider the following rate setting principles when designing rates for a TES:

1. provide an equitable balance of risk and cost (such as forecast load and cost risk) between the utility and the ratepayer or generation of ratepayers;
2. use the least deferral mechanisms possible;
3. restrict the ability of the utility to pass controllable costs onto ratepayers;
4. use the least amount of regulatory oversight to protect the ratepayer (minimize the regulatory burden and costs on the utility, ratepayers and the Commission); and
5. avoid rate shock (>10 percent change in rates per annum is generally considered “Rate Shock”).⁹

FAES submits that the rates applied for by SWCRA do not properly address these principles. In particular, principles 1, 3 and 5 have not been addressed by SWCRA.

3.1.1 SWCRA does not Provide an Equitable Balance of Risk and Cost between the Utility and the Ratepayers

Principle 1 of Section 2.4.3 requires the applicant to develop rates that provide “an equitable balance of risk and cost (such as forecast load and cost risk) between the utility and the ratepayer or generation of ratepayers”. In FAES Information Request (IR) 1.6.1, FAES asked SWCRA to explain how the proposed rate design addresses this principle. The response, *in its entirety*, was the following:

The rates follow accepted convention in striking a balance between risk and cost.¹⁰

FAES submits that this is a woefully inadequate response. The Applicant’s inability to provide any meaningful discussion of the balancing of risk and cost demonstrates that the principle is not adequately addressed by the proposed rates. SWCRA proposes a fixed/variable rate design with a single rate class. The fixed and variable components of the rate are proposed to be “pegged” to other utilities’ rates.¹¹ Therefore, the proposed rates

⁹ Section 2.4.3, TES Guidelines at 22.

¹⁰ Exhibit B-3, FAES IR 1.6.1.

¹¹ Application at 7.

have no relationship to the underlying costs, cost structure and risk of the System. As a consequence, there is no basis for the Commission to apply the mandatory considerations set out in section 59 and 60 of the UCA.

In the Application, SWCRA states that:

Electric resistance coefficient-of-performance approaches unity. As such, the energy component cost of creating the heat is approximately equal to the end-usage delivered heat. On the basis of providing an equal scenario to what is typically available to customers, the electric cost has not been adjusted for a different coefficient-of-performance. Additionally, providing a price advantage based on the efficiency of the plant would be inconsistent with the SEFC's concept of an energy conservation price signal...

... Potential coefficient-of-performance advantages of recovering waste heat or using solar thermal energy are only available on the scale of a TES but any cost savings in direct energy are balanced by an increased cost and risk due to the higher complexity of integrating multiple temperature sources / multiple energy sources for single delivery of space heating / domestic hot water / space cooling to customers.¹²
(Emphasis added)

In response to IRs, without providing the actual coefficient of performance (COP) of the SWCRA per the question, SWCRA nonetheless confirmed that the SWCRA coefficient of performance (COP) is greater than one under most circumstances with that of solar being infinite.¹³ While the COP of natural gas is below one, SWCRA confirmed its intent to operate without boilers on a frequent basis.¹⁴ Again, without actually quantifying the “cost savings in direct energy” per the question, SWCRA nevertheless confirmed that it will achieve cost savings through decreased electrical use due to the higher COP of the SWCRA's equipment.¹⁵

On the one hand, SWCRA customers have to pay for TES equipment that is more costly but more efficient than the alternatives of electric resistance or natural gas boilers¹⁶ through the fixed component of the rate.¹⁷ On the other hand, they will not benefit from the TES' higher efficiency as cost savings achieved through a higher COP will not be passed through to them, even in part, through a variable charge lower than the electric alternative. SWCRA relies on the increased technological risk of the system to justify this approach.¹⁸ However, SWCRA's own risk analysis,¹⁹ quoted by FAES in the preamble to FAES IR 1.5.1, shows that the technology risk has been mitigated to the point it would not entail additional risk beyond that of a common high-rise building in Downtown Vancouver, whereas fuel cost and availability are not anticipated to be of substantial risk to the TES. In response to IRs, SWCRA confirms that the plant has redundancy built in to mitigate risk.²⁰

¹² Application at 8.

¹³ Exhibit B-3, FAES 1.3.1.

¹⁴ Exhibit B-2, BCUC 1.14.1.

¹⁵ Exhibit B-3, FAES 1.5.1.

¹⁶ Exhibit B-3, FAES 1.3.1 and 1.5.1.

¹⁷ Exhibit B-2, BCUC 1.11.1.

¹⁸ Application at 8.

¹⁹ Exhibit B-1, Appendix B1, CPCN Application, pages 25-34.

²⁰ Exhibit B-3, FAES IR 1.5.2; Exhibit B-2, BCUC IR 1.11.2

Furthermore, SWCRA's own risk analysis, quoted by FAES in the preamble to FAES IR 1.5.3, confirmed that risks related to customer base, property development, developer/customer connection and load forecast, as well as financial risks are all low due to numerous risk mitigation strategies.

In summary, SWCRA has declined to provide:

- an explanation for how the SWCRA's proposed rate design and rates reflect the low risk nature of the project;²¹ and
- a meaningful discussion of how the SWCRA's proposed rate design and rates provide an equitable balance of risk and cost between the utility and the ratepayers.²²

As a result, there is no basis for the Commission to conclude that the proposed rates are just and reasonable, and the Application should be rejected.

3.1.2 No Transparent Treatment of Controllable Costs

Principle 3 of section 2.4.3 requires consideration of whether the utility is appropriately restricted from the ability to pass controllable costs onto ratepayers. The proposed rates include both variable and fixed charges, but the Application does not provide an itemization of the cost items that make up or drive the various charges. As a result, it is unclear whether SWCRA will be passing on controllable operation costs to its customers through the fixed and variable charges or not. In the absence of evidence from SWCRA regarding the costs that make up the proposed charges, the Commission is in no position to determine whether the proposed rates are just and reasonable.

3.1.3 Potential for Rate Shock Not Adequately Addressed

Principle 5 of section 2.4.3 requires consideration of whether the proposed rates avoid rate shock, which is defined as >10 percent change in rates per annum. SWCRA has not provided a forecast of the proposed rates in the Application. In order to address this deficiency, FAES asked SWCRA to provide a forecast of rates over the next 20 years, and at a minimum for the next five years, for each of the variable (BC Hydro) and fixed (SEFC) rate components.²³ SWCRA's responses were vague and unhelpful. With respect to the SEFC rate, SWCRA stated that it will increase "a few % per year". It provided the same unhelpful response with respect to BC Hydro's rates. In the absence of the requested (and refused) rate forecasts, the Commission has no basis to assess whether the proposed rates will result in rate shock to the System's customers.

²¹ Exhibit B-3, FAES IR 1.5.3.

²² Exhibit B-3, FAES IR 1.6.1.

²³ Exhibit B-3, FAES IRs 1.2.2 and 1.2.3.

3.2 TES Guidelines – Section 2.4.4 – Application Information Requirements

Section 2.4.4 of the TES Framework sets out mandatory information requirements for a Stream B TES rate application. FAES submits that the Application does not meet the requirements set out in section 2.4.4(i) of the TES Framework.

Section 2.4.4.(i) of the TES Framework state that:

A Stream B rate Application and calculations must include:

- i. Description and details of the proposed rates (at minimum) for the initial five years for all rate classes. Include information on:
 - a. The rate design (i.e. fixed/variable component, single/multiple rate classes, etc.);
 - b. How rate increases will be determined; and
 - c. Why the rate(s) and rate design is fair and reasonable.²⁴

Despite the TES Framework minimum requirement, the SWCRA has failed to include in its Application a description and details of the proposed rates for the initial five years of service. Given that SWCRA proposes to peg the fixed and variable components of its rate to other utilities' rates, such as SEFC and BC Hydro, FAES submits that SWCRA ought to have provided a forecast of the SEFC and BC Hydro rates for the first five years of service. Rather than providing full disclosure of its expected rate increases over the next five years, the SWCRA only states that these rates will increase at a few percent per year.²⁵

In responses to IRs, SWCRA has been less than forthcoming to rectify the aforementioned shortcomings and made no attempt to satisfy the TES Framework requirements.²⁶

4 RATES ARE HIGH COMPARED TO BAU

In FAES IR 1.7.0, FAES sought to compare the competitiveness of the SWCRA with BC Hydro, which is touted by SWCRA as being the business-as-usual (BAU) low-carbon alternative in Vancouver. In response, SWCRA referred to its response to BCUC IRs for detailed rates estimation.²⁷

In response to BCUC IR 1.21.1 and 1.21.2, SWCRA has recalculated the monthly bills of a customer occupying respectively a 775 and 2,000 square feet unit and taking service from BC Hydro, assuming a thermostat setpoint of 25 degrees Celsius. In response to BCUC IR 1.21.3, SWCRA has recalculated the monthly bills of these same customers but this time taking service from the System, also assuming a thermostat setpoint of 25 degrees Celsius.²⁸ However, SWCRA failed to include the Rate Rider charges in the monthly and annual

²⁴ Section 2.4.4, TES Guidelines at 22.

²⁵ Exhibit B-3, FAES IR 1.2.2 and 1.2.3.

²⁶ Exhibit B-3, FAES IR 1.2.2, 1.2.3, 1.5.1, 1.5.2, 1.5.3, 1.6.1, 1.8.1, 1.8.2.

²⁷ Exhibit B-3, FAES IR 1.7.1, 1.7.2, 1.7.3, 1.7.4, 1.7.5 and 1.7.6.

²⁸ Exhibit B-2.

SWCRA bills. In the following table, FAES has recalculated the monthly SWCRA bills taking into account the maximum amount for the Rate Rider. FAES submits that this inclusion is sound based on the SWCRA's significantly increased amount for the Capital Reserve Fund, now assessed at \$2,750,000 instead of \$50,000.²⁹

	775 sq ft	2000 sq ft	Reference
SETES	Monthly Bill	Monthly Bill	
Total before Rate Rider	\$ 158.00	\$ 243.00	BCUC IR 1.21.3
Rate Rider	\$ 16.67	\$ 16.67	Exhibit B-1, Table 1, p. 6
TOTAL	\$ 174.67	\$ 259.67	
BC Hydro	\$ 118.00	\$ 162.00	BCUC IR 1.21.3
SETES/BC Hydro	148%	160%	

The above table shows that, based on SWCRA's own calculations and assumptions, a customer occupying a 775 square feet unit would have to pay an average monthly bill that is 148% higher than the BAU option of electric baseboard heaters. Likewise, a customer occupying a 2,000 square feet unit would have to pay an average monthly bill that is 160% higher than the BAU electric alternative.

5 NO BASIS TO FIND THAT RATES ARE JUST AND REASONABLE

FAES submits that the Application, as a whole, is deficient and does not provide a proper or any basis for the Commission to conclude that the rates applied for are just and reasonable.

Sections 60(1)(a) and (b) of the UCA sets out matters that the Commission *must* consider in setting rates under the Act:

60 (1) In setting a rate under this Act

(a) the commission must consider all matters that it considers proper and relevant affecting the rate,

(b) the commission must have due regard to the setting of a rate that

(i) is not unjust or unreasonable within the meaning of section 59,

(ii) provides to the public utility for which the rate is set a fair and reasonable return on any expenditure made by it to reduce energy demands, and

(iii) encourages public utilities to increase efficiency, reduce costs and enhance performance,

²⁹ Exhibit B-2, BCUC IR 1.16.2.

Section 59(5) of the UCA provides:

- 5) In this section, a rate is "unjust" or "unreasonable" if the rate is
- (a) more than a fair and reasonable charge for service of the nature and quality provided by the utility,
 - (b) insufficient to yield a fair and reasonable compensation for the service provided by the utility, or a fair and reasonable return on the appraised value of its property, or
 - (c) unjust and unreasonable for any other reason.

FAES submits that the Application does not provide the information that the Commission requires to consider the mandatory items set out in sections 59 and 60 of the Act.

The Application should be rejected.

6 INACCURATE DESCRIPTION OF FAES PROJECT

In BCUC IR 1.6.3 the Commission asked SWCRA to provide examples of other public utilities regulated by the Commission that have a disconnection charge. In its response, SWCRA provides the example of FAES's Marine Gateway TES Agreement.³⁰ FAES does not agree with SWCRA's characterization of the Marine Gateway TES Agreement as having a "disconnection charge". FAES confirms that its terms and conditions of service do not include a disconnection charge. Rather, the terms and conditions under the Marine Gateway TES Agreement provide that the customer shall pay the utility's costs for restoring or reconnecting thermal energy service which was disconnected for certain enumerated reasons, such as a breach of the service agreement. This is in contrast to the SWCRA, which proposes to charge a disconnection charge at \$125 (Exhibit B-1, T&Cs, Section D - Service Stop or Termination Charge) as well as a reactivation charge at \$125 during business hours and at \$312 after business hours, weekends, or statutory holidays (Exhibit B-1, T&Cs, Section D – Service Restart Charge).

7 CONCLUSION

FAES respectfully submits that the Application has not met the TES Framework requirements, there is no basis for the Commission to conclude that the rates are just and reasonable, and the Application should be rejected. Approval of an application such as this will create uncertainty in the TES market as it will signal to market participants that the Commission is not intent on enforcing the TES Framework, and encourage further deficient applications.

³⁰ Exhibit B-2, BCUC IR 1.6.3.

If you require further information or have any questions regarding this submission, please contact Julie Tran at (604) 443-6567.

Sincerely,

FORTISBC ALTERNATIVE ENERGY SERVICES INC.

Original signed:

Julie Tran
Senior Business Development and Regulatory Affairs Manager