

SRG Response to  
SHANNON WALL CENTRE RENTAL APARTMENTS LIMITED PARTNERSHIP INFORMATION REQUEST 1

**Abbreviations**

BCUC	British Columbia Utilities Commission
CRF	Capital Replacement Fund
ERF	Emergency Repair Fund
FAES	FortisBC Alternative Energy Services Inc.
IR	Information Request
SEFC	Southeast False Creek Neighbourhood Energy Utility
SETES	Shannon Estates Thermal Energy System
SRG	Shannon Ratepayers Group
SWCRA	Shannon Wall Centre Rental Apartments Limited Partnership

**1. Reference: Cover letter to EES Consulting Final Submission**

- 1.1 Is the EES Consulting submission tendered as argument in support of SRG's position, or is it tendered as independent expert opinion evidence?

**Response:**

It is expert opinion evidence filed to present and support SRG's position.

- 1.2 Please explain why the document is described in the cover letter as a "Final Submission" on behalf of SRG?

**Response:**

The reference is to the cover letter from Ms. Tabone to SRG. It is intended to reference the fact that it is the final, rather than a draft, submission to SRG. It was not intended in reference as a final submission to the Commission in this proceeding.

**2. Introduction and Background (p.1)**

- 2.1. Please confirm or explain otherwise, that in preparing its Final Submission EES Consulting reviewed the complete evidentiary record of the BCUC's proceeding up to and including the documents SWCRA provided in the hearing process as Exhibit B-20 dated March 23,2017.

**Response:**

Confirmed.

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- 2.1.1. If confirmed, please explain why the EES Consulting Final Submission references the FAES Final Submission dated July 11, 2016 and describes that “SWCRA did not address the inadequacies pointed out by FAES” but does not refer to SWCRA’s subsequent filings which include submissions addressing the FAES statements and further responses to IR’s.

**Response:**

The statement is intended to point out that the rates proposed in the Updated Application did not address the inadequacies pointed out by FAES. While SWCRA may have attempted to explain or justify its proposal with respect to the inadequacies pointed out by FAES, it is SRG’s position that the inadequacies still exist.

- 2.2. Please confirm or explain otherwise, that the amended SETES rates application includes a change to the mechanisms for recovery of capital replacement costs and emergency repair costs, and a revised tariff in addition to the request for a regulatory costs deferral account and rate rider.

**Response:**

Confirmed.

**3. Ratemaking Guidelines for SETES (p.1-2)**

- 3.1. Please enumerate the “specific components of the Guidelines” the EES Consulting Final Submission is analyzing SETES’ rates against.

**Response:**

EES Consulting considered all components of the Guidelines when reviewing the proposed rates.

- 3.2. Please explain why the proposed rates are not transparent when SWCRA has provided a rates schedule which includes among other things, the rate for space heating, space cooling, domestic hot water heating, the monthly metering charge, the service start charge, and the monthly capacity levy. Furthermore, as set out in BCUC orders G-77-16, G-77-16A, G-161-16, G-161-16A, G-193-16 and G-52-16; please explain EES’s position of lack of transparency as all intervenors were provided fair opportunity to file information requests.

**Response:**

The lack of transparency exists due to the fact that the rates contain a hybrid of rates from two separate utilities and that further analysis was required to determine whether the proposed rates were reasonable. With the hybrid approach, it is not possible to directly compare the total rates for SETES with the total rates for either BC Hydro or SEFC to determine appropriateness. The analysis conducted on behalf of SRG, which relied on confidential information, was required to adequately review the proposed rates.

#### 4. Rate Competitiveness (p. 2- 3)

- 4.1. Please confirm or explain otherwise that rate competitiveness relative to other utilities is not a factor that determines whether the utility's rates are unjust or unreasonable under the B.C. *Utilities Commission Act*.

**Response:**

Not confirmed. It is typical for utilities in B.C. to examine the rates of other utilities as part of their rate application, and the rates of other utilities are often the subject of Information Requests filed by the Commission. We therefore believe that the Commission does consider that a factor in its determination of whether rates are unjust or unreasonable.

- 4.2. Please explain why "it is natural to compare the rates to these two alternatives, SEFC and BC Hydro, in their entirety" to SETES given that SETES offers different services, and has different facilities and a different customer base.

**Response:**

The approval of rates for TES projects is relatively new and does not have a long historic period with which to make comparisons. One way to check the reasonableness of the proposed rates is to compare them to other TES rates. Another way is to compare them to alternative energy rates. Ratepayers should not be subject to rates that are unreasonable just because the owner of the project made investments in facilities.

- 4.2.1. Please include in your discussion: what kinds of energy products are provided by SETES, SEFC, and BC Hydro; the current (or most currently known) number of customers of SETES, SEFC, and BC Hydro; the number of customers at full-buildout of SETES, SEFC, and BC Hydro (or for BC Hydro the number of customers in 5-years); capital investment to date by SETES, SEFC, and BC Hydro.

**Response:**

SRG has not conducted a full comparison of those factors between the different utilities. SWCRA also did not provide such a comparison when it chose to use the rates of BC Hydro and SEFC as a basis for its own rates. SRG is not proposing that rates be set equal to the total rates for either BC Hydro or SEFC but that a comparison to those rates is one factor in determining whether the rates proposed by SWCRA are reasonable.

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4.2.2. Please provide from historical data or estimate the ratio of revenue attributable to heating of spaces / domestic hot water and space cooling.

	Fraction of Energy Sales	Creative Energy	Corix	SWCRA	SEFC
Revenue attributable to heating of spaces / domestic hot water	[%]				
Revenue attributable to cooling of spaces	[%]				

**Response:**

SRG has not collected this information for the utilities in question as it does not believe that this information is necessary to allow for a comparison of the rates for each.

4.3. Please confirm or explain otherwise, that BC Hydro supplies electricity and not thermal energy and that persons converting electricity to thermal energy will need to own, operate, and maintain equipment to do so.

**Response:**

Confirmed.

4.4. Please confirm or explain otherwise, that Creative Energy in downtown Vancouver, Corix in UBC, and SEFC do not provide space cooling.

**Response:**

SRG did not review the offering of this service by other utilities as part of its review and analysis.

**5. Determination of SWCRA Earnings (p.3-4)**

5.1. Please confirm or explain otherwise, that the EES Consulting Final Submission has been prepared in accordance with the financial model submitted to Mr. Dean Thomas Fox on December 6, 2016 – the rate riders are zero because they are not being collected in the financial model and the earnings (or internal capital) are being used to pay for capital replacement.

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**Response:**

It is confirmed that the financial model is as stated and that the rate riders are zero. It is not confirmed that earnings are being used to pay for capital replacement. While the financial model does not contain rate riders, the language in the application appears to allow for rate riders when capital replacements are needed. If SWCRA does not intend to collect capital replacement through rate riders in the future then the tariff language related to rate riders, as provided in the Amended Application, should be eliminated.

- 5.2. Please confirm or explain otherwise, that the EES Consulting Final Submission reflects an understanding of the CRF and the ERF which is inconsistent with what SWCRA is requesting in the amended SETES rate application.

**Response:**

EES Consulting's understanding of the CRF and ERF are based on the language used in the Amended Application. If SWCRA believes that EES Consulting misunderstood the language included in the Amended Application, we would be happy to reconsider our position if the SWCRA can more fully explain the CRF and ERF and describe how it differs from what EES Consulting described.

- 5.2.1. If confirmed, please update paragraph 4 of section "Determination of SWCRA Earnings", Page 3 of "EES Consulting Final Submission" report.

**Response:**

Not applicable.

- 5.2.2. If confirmed, please provide your updated understanding and any updated calculations including for profit/revenue/IRR.

**Response:**

Not applicable.

- 5.3. Please explain how the "carrying cost of 3% on \$4.3 million in debt" was derived, which entity is offering to borrow that quantity of money at that rate, what type of entity may access this borrowing rate, and how SWCRA compares to the types of entity who may access this borrowing rate.

**Response:**

The 3% interest rate was based on the assumed cost of debt included in the weighted cost of capital calculations. The 3% rate is consistent with long-term Canadian bond rates as published by the Bank of Canada. WFC, as a publicly traded corporation has access to the Canadian financial markets and could readily secure long-term funding while pledging the SETES assets as security, if required.

**6. Issues with Specific Assumptions (p. 4-6)**

- 6.1. Please confirm or explain otherwise, that SWCRA also stands to “lose” if actual earnings are lower than forecast based on its current submission as it does not have a load forecast deferral account or related structure. SWCRA’s reply to BCUC Panel IR-1.2.6 has established advantages and disadvantages to the load forecast deferral account.

Please provide calculations to demonstrate that SWCRA’s estimates of loads are conservative. Please include references to documents, technical manuals and codes used as the basis for assumptions used in these calculations. Factor in SETES IR response to BCUC Panel IR 1.4 when normalizing data from the latter half of 2016 to future years.

**Response:**

It is confirmed that SWCRA stands to “lose” if actual earnings are lower than forecast. However, it should be noted that SWCRA is the sole source of data for the assumptions used in the financial model and SWCRA has an inherent interest in providing conservative estimates to avoid losing money. The calculations showing that the estimate of loads are conservative are based solely on a comparison to the actual 2016 loads so no additional calculations are provided.

- 6.2. Please calculate, the revenue for the sale of thermal energy provided in response to SRG assuming all invoices were fully paid at the interim rate.

**Response:**

SRG has not calculated this revenue as part of its review of the proposed SETES rate and it has no knowledge as to whether or not SWCRA customers fully paid their invoices.

- 6.3. Please calculate, the individual revenue ratio of space heating / domestic hot water heating / space cooling to the collective revenue of space heating / domestic hot water heating / space cooling with the same assumptions as 6.2.

**Response:**

SRG has not performed these calculations as part of its review of the proposed SETES rate.

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6.4. Please provide calculations on how ratios for recorded sales vs. predicted were determined.

**Response:**

The average kWh use per month for the 7 months in 2016 was divided by the average use per month estimated for 2016 in the financial model. The formulas can be found in the SRG tab of the financial model provided by SRG.

6.5. Please explain whether, and if so why, EES Consulting believes that the historical 2016 sales and purchases are a valid basis for forecasting all future years of SETES operation. Please include in your response the rationale for extrapolation of 6 months of usage data over 25 years, include the major driving factors for thermal energy consumption.

**Response:**

Typically when we do load forecasting for any utility our results are dependent on historical actual consumption as it is the best indicator of future consumption. In this case, with only 6 months of data available, we recognize that there is a great amount of uncertainty associated with assuming this level going forward. At the same time, it does provide the best comparison between estimated use and actual use that is available and therefore it is reasonable to consider actual usage. Weather is typically the largest driving factor in usage, with customer behavior, number of persons per household, square footage, income levels and rate levels also contributing factors.

In this case, actual usage was as high as three times the estimated usage. Given our experience in load forecasting for utilities, we would not expect to see that much variation resulting from weather conditions alone and therefore concluded that there was a fundamental error in the estimated values. With only 6 months of data available, it would be impossible to do the necessary regression analysis to weather normalize the 2016 actual data. For that reason, we used the actual results as the high case, the original estimates from SWCRA as the low case, and created a medium case that was the mid-point between the low and high cases. If we had more years of data we would have been able to weather normalize the results to reflect normal weather conditions and would have based the medium case on that weather normalized actual data.

6.6. Please provide the calculations used to derive COP of electricity and natural gas. Specify whether this COP includes pumping and transmission energy.

**Response:**

The COP estimate for the high case was based on the 2016 actual kWh or GJ sales divided by the 2016 actual kWh or GJ purchased. These results were for the high case only and the medium case was the mid-point between the low case (original estimate by SWCRA) and the high case. By taking the mid-point, the medium case results reflect deviations related to other energy required as well as weather variations.

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- 6.7. Please provide the types of solar installations the 0.5% average degradation factor was found to apply and how those types of solar installations compare to the SETES thermal energy plant.

**Response:**

We did not do a comparison between solar installations and the SETES plant. As stated by SWCRA, the installed plant is an unconventional system not common to residential systems in Vancouver. This led us to believe that the estimates associated with the plant, including the degradation factor, were largely untested and therefore uncertain. The solar installation factor was the only data readily available to use for comparison purposes. Given SWCRA's inherent interest in providing conservative estimates, we looked at the degradation factor as one item that could potentially be different between the actual value and the estimate.

- 6.8. Please confirm or explain otherwise, that the 0.5% proposed average degradation factor also includes the effects of climate change, human behavior, and building envelope degradation.

**Response:**

While the envelope degradation would likely impact the degradation factor, we believe the effects of climate change and human behavior would have an impact on sales. Any impact related to these factors would therefore be related to the change in the sales levels, not a direct impact that affected only the degradation factor. These factors would need to result in changes to both the sales levels and the degradation factors at the same time.

- 6.8.1. If not confirmed, please provide an alternate proposal to account for the combined effect of equipment change, climate change, human behavior, and building envelope degradation which is applicable to SETES.

**Response:**

Not applicable.

- 6.9. [Reference Paragraph 4 of page 5 with respect to BC Hydro rate escalation] Please provide rationale SRG's estimation on BCH rate escalation. Provide evidence to substantiate claims that BCH is resorting to "more expensive generating resources" while facing reducing load. Please elaborate if reduction in average use per customer has translated into reduced forecasted electrical demand for the province. How does SRG's estimates compare to BC Hydro's own estimates for demand (such as BCUC proceeding "BC Hydro F2017-F2019 Revenue Requirements" filing B-1-1 section 1.3.4)

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**Response:**

Our estimates are based on our experience working for FortisBC, who is both a customer of and competitor with BC Hydro, as well as other electric utilities. During the course of our work for FortisBC we have reviewed the LRMC estimates used by BC Hydro and have knowledge of the future resources under consideration in the Province. We have also seen very recent downward trends in use per customer for the majority of our clients regardless of rate structure, and know that BC Hydro and Fortis have both seen declining use per customer as a result of their inclining block rates. Given our experience in ratemaking throughout North America, we understand that declining use per customer will lead to higher per unit rates to account for the large amount of fixed cost associated with any utility.

- 6.10. Please provide the calculations used to determine the 3.2% per year increase which is specific to the SEFC monthly capacity levy. Appendix A (SEFC NEU 2017 Customer Rates) of Exhibit B-17 indicated a "3.2% increase is to be achieved by increasing the Fixed Capacity Levy by 2.7% and the Variable Energy Charge by 4.0%."

**Response:**

Based on the information contained in Appendix A, we used an incorrect escalation factor for the SEFC rate and should have used a 2.7% increase rather than the 3.2% increase for 2017.

- 6.11. Please explain why the 8% CCA Alternative is applicable to SWCRA including any assumptions related to the Income Tax Act and Canada Revenue Agency regulations, and why this is appropriate for rate setting.

**Response:**

Please refer to the response to BCUC IR 5.1.

- 6.12. Table 1 of the EES Consulting Final Submission provides a single figure for earnings under each of the Low, Medium and High cases posited by EES Consulting. Does EES Consulting believe that SWCRA would earn the identified ROE each and every year of the modelled period, or are these figures averages over a period of time? Please explain what period of time the ROE figures in Table 1 have been calculated for.

**Response:**

The figures are based on the IRR over 30 years and therefore represents a 30-year time period. We recognize that earnings will be different in each year under this approach.

- 6.13. Please calculate and provide the Low, Medium, and High case ROEs for each year of 2016 to 2026 and calculate the average ROE over each of the period 2016 to 2022 and the period 2016 to 2026. Please explain what type of mathematical average was calculated.

**Response:**

Please see the requested results in the table below, along with the results for 2016-2035 and 2016-2045 to better illustrate the variation in earning results over time. The IRR over the listed time period was used in each case. The earnings per year are not provided as an IRR approach does not provide annual results. When looking at earnings, it is important to look at the earnings over the life of the assets, not just in the initial years when the capital was expended.

**Earnings Based on Rates Proposed by SWCRA  
Return on 42.5% Equity Using Generic Cost of Capital Approach**

	Low	Medium	High
2016-2022	-17.6%	-7.3%	1.4%
2016-2026	0.7%	9.2%	16.4%
2016-2035	10.3%	16.8%	22.6%
2016-2045	12.5%	18.2%	23.5%

**7. Issue with Avoided Capital Cost (p.6-7)**

7.1. Please provide the detailed calculation of the \$4.95 million figure identified in the EES Consulting Final Submission at page 6.

**Response:**

Please refer Exhibit C-4-2 for an explanation of this number. The estimated costs per unit provided by Mr. Duffy were based on various published resources from reputable heat pump manufacturers and discussions with local contractors.

7.2. Please explain the basis for the claim that “the sales price likely reflects the market value of alternative units that did include the cost of space and water heating appliances”? Please define the term “likely” as used in the statement. Please provide all evidence considered in forming this opinion.

**Response:**

Please refer to BCUC IR.1.6.2. In this case “likely” means having a high probability of occurring or being true.

7.3. Please explain, with specific reference to regulatory principles (e.g., extracts from texts by James Bonbright, Alfred Kahn, etc.) and regulatory decisions (by BCUC or other regulators), the basis for the claim that “it is not appropriate for SWCRA to then earn profit through rates on the full \$7.5 million cost of the SETES”. Please provide any references to provisions of the B.C. *Utilities Commission Act* that provide for the treatment proposed by EES Consulting in relation to “avoided capital costs”. If EES Consulting is not able to identify any regulatory principles, decisions or statutory provisions supporting its opinion, please clearly state that for the record.

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**Response:**

Because the situation for a TES is quite different than that of a typical electric or natural gas utility, we do not have any specific examples from regulatory decisions that would apply in these unique circumstances. However, it is standard utility practice for utilities to subtract from rate base any contributions in aid of construction (CIAC) paid for by the customer or governmental grants used to offset capital costs. If the customer contributed to the cost of the TES through the purchase price, then that would act as a CIAC and should be subtracted from the capital cost of the TES.

- 7.4. Please confirm or explain otherwise that EES Consulting's proposed treatment in relation to "avoided capital costs" would deny the SWCRA utility the opportunity to recover costs it reasonably and actually incurred to construct the thermal energy system and provide thermal energy service to customers.

**Response:**

We do not believe this would deny SWCRA the opportunity to recover costs it incurred if those costs were already collected as part of its sales price for the units.

- 7.5. Please confirm or explain otherwise, that space conditioning equipment (e.g. fan coils) and water supply and return lines for space conditioning and domestic hot water are included in the strata buildings and are the property of the strata unit / strata corporation as the case may be.

**Response:**

Confirmed that the fan coils and water supply lines are included in the strata unit dwellings and are the property of the unit owners. We assumed that the cost of this equipment is included in the \$3.0 million that has been allocated to the "piping distribution" amount outlined in SETES total capital of \$7.5 million.

- 7.6. [Reference Line 2 of "Issue with Avoided Capital Cost, Page 6] For real estate in Vancouver, BC: Please elaborate on what HVAC/service water heating equipment should be considered "traditionally" included in the purchase price of a home, specifically for a condominium in an area serviced by a district energy system.

Please quantify the effect on the sale price of a unit in \$/area of having in-suite heating/cooling/service water heating equipment vs. thermal transfer stations with individual metering. Please explain the basis for assumptions used for the calculation.

Please explain the extent to which the presence or absence of heating/cooling/service water heating equipment inside the unit vs. district energy is a significant factor on the purchase price over other factors such as location, age, quality and time of purchase? Please clearly identify the facts and assumptions supporting the response.

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**Response:**

Whatever equipment the developer chooses to provide, heating/cooling and hot water are the "traditional" expectations of an owner when purchasing a condo unit, whether supplied by a DES or a conventional system.

If the thermal transfer station operates as a utility and there is a contract between the unit owner and the utility, there may well be a difference in the sale price of the unit depending upon the details of the contracts between the relevant parties. Other TES projects have been designed with parallel legal agreements; one between the developer and the unit purchaser, and, the second between the utility and the unit purchaser.

The answer to the 3<sup>rd</sup> part of the question is dependent on the contract details between the parties.

- 7.7. Please explain whether, and if so how, the \$4.95 million "avoided capital costs" accounts for the cost borne by the developer to provide space conditioning equipment and domestic hot water supply lines to the strata units and common areas.

**Response:**

The cost borne by the developer (WFC) to provide space conditioning equipment (fan coils) and hot water supply lines is not included in the estimated "capital avoided costs" of \$4.95 million.

- 7.8. Please provide the area in square feet that would have had to be used for the installation of the space, water heating and cooling appliances suggested in the proposed \$4.95 million of equipment. Please include in your response the area used for manufacturer recommended service and operational clearances.

**Response:**

There was no detailed engineering done when estimating the estimated "avoided capital costs". However, there is adequate space in the units to accommodate a hot water tank and a heat pump. The currently installed "fans coils" take up space and this space, located in ceilings/attics and cupboards, could be used to accommodate conventional equipment.

- 7.9. Please provide the ratio of assessed value of the strata units for the 2016 and 2017 years to the strata unit area (as in any strata corporation / purchase agreement) in dollars per square foot.

**Response:**

We do not have access to this information.

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7.10. Please provide the dollar value for the area which would be used in the strata property for space, water heating and cooling appliances on the basis of the responses to 7.8 and 7.9 for the 2016 and 2017 years.

**Response:**

Given our responses to 7.8 and 7.9 this is not relevant.

7.11. Please explain whether, and if so how, the \$4.95 million “avoided capital cost” accounts for any measures the developer installed to address risks related to refrigerant exposure.

**Response:**

This was not addressed and is not relevant to conventional CSA approved conventional equipment.

7.12. Please explain whether, and if so how, the \$4.95 million “avoided capital cost” accounts for the cost of energy meters necessary to report to the City of Vancouver for Performance Monitoring and Reporting as outlined in the development permit conditions.

**Response:**

The only energy used in the conventional HVAC and hot water system is electric energy. The consumption of this electric energy is captured on each unit’s BC Hydro meter. There is no need for any additional meters.

7.13. How are rental units reflected in the \$4.95 million calculation?

**Response:**

200 rental units and 400 resident owned condo units were assumed for the calculation. Actual numbers may be slightly different, as there are slight variations in the different documents provided by SWCRA.

7.14. Please provide calculations and engineering documentation or explain otherwise that the \$4.95 million of equipment proposed would have actually been realizable in the Shannon Estates development.

**Response:**

There was no detailed engineering performed. The \$4.95 million is an estimated cost based on published data of reputable heat pump manufacturers (Lennox, Carrier, Trane) and local hot water tank installers. The estimated costs were calculated to be \$8250 per residential unit on average. The units vary in square footage and the equipment varies accordingly; 2-3 ton heat

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pumps and 40 to 80 USG electric hot water tanks. Quoted installed prices range for the heat pumps from \$5,000 to \$9,000 and the hot water heaters installed from \$1200 to \$1500.

7.14.1. Please include in your calculations and engineering documentation on the proposed solutions ability to meet the Vancouver Building Bylaw, development requirements including meet building code and development requirements to meet “optimize energy performance points.”

**Response:**

Whether the guidelines are met or not by using conventional equipment is irrelevant because we have not actually proposed using conventional equipment. Our proposal simply suggests that the avoided cost of conventional equipment be reflected in the financial results.

**8. SRG Proposal for SETES Rates (p. 7-8)**

8.1. Please confirm or otherwise explain, that to “ensure that the ROE is no more than 9.5%” measures like those described in SWCRA’s response to BCUC Panel IR-2.6 would have to be used.

**Response:**

The comment was intended to refer to the projected results over time as established in the financial model, not to the actual results in any given year.

8.1.1. Please explain fully the basis of any objections and discuss the advantages and disadvantage of such a variance deferral account.

**Response:**

SRG is not opposed to such deferral accounts, but has not proposed that they be required. The advantages are that there is a periodic review of actual results. The disadvantage is that it would require additional regulatory expense that would be passed on to ratepayers.

8.1.2. Please estimate the cost if EES Consulting was to undertake the data collection, data processing, preparation and submission of filings to the BCUC, and response to BCUC and intervener inquiries as would be necessary to maintain and/or verify a constant ROE each year for at least the period spanning 2016 to 2026.

**Response:**

SRG has not proposed verification in each year and as such has not prepared cost estimates to provide that verification.

8.1.2.1. Please relate the cost to provide these services on a per customer basis from 2016 to 2026.

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**Response:**

Not applicable.

- 8.2. Please compare the cost of providing energy service in 2016 to the potential space heating / space cooling / domestic hot water heating revenue in 2016. Please recalculate the cost of providing energy service in 2016 to the rates proposed in the SRG Proposal for SETES Rates paragraph 2. Please compare if the variable rates will recover the variable costs in either case.

**Response:**

The revenues as proposed by SWCRA and those with the reductions proposed by SRG are compared to variable expenses for the year 2016 in the following table. In nearly all cases the SRG proposed revenues are greater than the variable costs.

	Low	Medium	High
SWCRA Revenues	\$171,255	\$215,131	\$259,008
SRG Proposed Revenues without Reduced Capital	\$126,729	\$126,928	\$134,684
Revenues Proposed Revenues with Reduced Capital	\$107,891	\$114,020	\$124,324
Variable Expenses	\$97,627	\$111,815	\$125,348

- 8.3. Please explain the process of establishing the capacity levy to achieve the ROE of 9.5% recommended and whether it is established on a yearly-basis or if over a period of time, and the averaging method applied.

**Response:**

The process would be to adjust the proposed capacity levy to an amount that would yield the 9.5% ROE within the financial model using the IRR calculation.

- 8.4. Please confirm or explain otherwise, that EES Consulting understands SWCRA proposes to charge rate riders only in the circumstances repeated in SWCRA question 4.3.

**Response:**

As question 4.3 does not refer to rate riders we are unsure what is meant by this question and therefore cannot provide a response. Our understanding of the rate riders is based on what was provided in the Amended Application.

- 8.4.1. If confirmed, please provide any amendments necessary to the paragraph in SRG Proposal for SETES Rates starting with "As the variable rate is set to recover variable..."

**Response:**

Not applicable.

**9. Regulatory Costs (p.8-9)**

9.1. EES Consulting suggests that regulatory costs for rate setting should have been included in the CPCN application project cost estimate.

9.1.1. Please explain where in the BCUC's Order G-27-15 Guidelines it says that the CPCN application project costs should include the costs of future regulatory proceedings to determine rates.

**Response:**

One page 21 of Appendix A to Order G-27-15, it states that "In addition to addressing the CPCN Guidelines, Applicants should also address the following:" which includes item "vi. Annual operating budget specifying major cost components." The CPCN Guidelines are contained in Order G-20-15. On page 8 of Appendix A of that Order, the list of items to provide in the cost estimate includes item "(g) Any legal, regulatory and other project costs, including costs associated with First Nations and public consultation and accommodation."

9.1.2. Please explain where in the BCUC's Order G-20-15 CPCN Application Guidelines it says that the CPCN application project costs should include the costs of future regulatory proceedings to determine rates.

**Response:**

Refer to the response to 9.1.1 above.

9.1.3. Please provide copies of any CPCN applications EES Consulting has worked on where the project costs included the costs of future regulatory proceedings to determine utility rates.

**Response:**

EES Consulting has not prepared any CPCN applications as they are typically completed by the utility requesting approval for a project.

9.1.4. Please confirm or explain otherwise that a utility will have to incur regulatory costs for rate setting regardless of project design at the certification stage.

**Response:**

Confirmed.

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- 9.2. Please further explain the following statement at page 8 of the EES Consulting Final Submission: “...as the SEFC fixed cost is being used as a proxy to cover the capital costs of the SETES project, SWCRA should not be allowed to recover the fixed charges from SEFC and then start adding costs to it.” Does the statement mean that, in EES Consulting’s view, as SEFC’s fixed charge is sufficient to recover SEFC’s fixed costs for the services SEFC provided to its customer base, then this charge, unmodified, should be sufficient for SWCRA to recover its fixed costs for the services it provides to its customer base? Please explain.

**Response:**

SWCRA proposed the use of SEFC rates to set its capacity levy to ensure regulatory efficiency. If it wishes to set its rates on the basis of its costs, then the proposed rates should reflect the costs and not the rate for SEFC. As it was SWCRA’s choice to peg its rates to SEFC, then it should be satisfied that the rate is sufficient to cover its costs.

- 9.3. Please explain why SWCRA should not be allowed to recover costs incurred which are essential to the utility’s operations such as the regulatory costs.

**Response:**

As SWCRA has pegged its rates to SEFC and BC Hydro rates, both of which already contain the cost for regulatory or other approvals, we do not believe it is appropriate to add regulatory costs on top of those rates.

- 9.4. Please explain why irregular operating costs (such as regulatory costs for rate setting) should not be recovered through a deferral account and rate rider, and how this relates to the fixed charge which is for typical, predictable costs.

**Response:**

Refer to the response to 9.3 above.

- 9.5. Please calculate the interest paid to maintain the regulatory deferral account over a 60-month period and over a 120-month period (10 years) assuming the applied for regulatory account amount is approved and recovered from customers over such time period.

**Response:**

SRG has not calculated these amounts as part of its submission.

## 10. Summary and Conclusions (p.9)

- 10.1. Please confirm or explain otherwise, that neither the TES guidelines nor the Utilities Commission Act require any utility in the province to have the same rates as BC Hydro or any other utility.

**Response:**

Confirmed.

- 10.2. Please confirm or explain otherwise, that SWCRA provided additional calculations for return on equity according to means relevant to BCUC ROE calculations and the confidential financial model provided no assurances that the earnings calculation were intended for BCUC ROE relevant calculations.

**Response:**

Confirmed.

- 10.3. Please confirm or explain otherwise, that SWCRA has indicated that “SWCRA has no expectation that the calculated returns will be achieved over the 30 years presented and there is no reason to assume that either BCUC or SWCRA would not take action if the rates and costs become too misaligned.”

**Response:**

Confirmed.

## 11. Financial model submitted confidentially

- 11.1. Please confirm or explain otherwise that in EES’s financial model, thermal energy demand is an extrapolation of the reported energy consumption from the period of June – December 2016.

**Response:**

Not confirmed. Thermal energy use is adjusted by one-half of the percent difference between forecast use and reported energy use for 2016 in the medium case.

- 11.1.1. If confirmed, please discuss why EES feels it is appropriate to extrapolate 25 years of consumption from the initial 6 months of operation. Please include factors such as occupancy, resident composition, plant and distribution expansion, short and long term weather.

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**Response:**

Not applicable.

11.1.2. Please explain what if any corrective factors were applied when extrapolating the usage data. If corrective factors were used, specify the technical manual or studies cited.

**Response:**

Not applicable.

11.2. Please confirm or explain otherwise that the rate reductions recommended in the report is derived from calculations based on extrapolated usage.

**Response:**

Not applicable.

11.3. Please confirm or explain otherwise that no capital replacement costs have been included in EES's financial model.

**Response:**

Confirmed. This is based on our understanding that capital replacement costs will be recovered in future rate riders, as proposed in the Amended Application.

11.4. Please confirm or explain otherwise that no depreciation of capital was included in EES's financial model; given that the claimed Capital Cost Allowance was 8%.

**Response:**

Please refer to the response to BCUC 3.3.

11.4.1. Please explain why it is reasonable or likely that SETES can claim or be granted an 8% CCA.

**Response:**

Please refer to the response to BCUC IR 5.1.