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Sent via email/eFile

CREATIVE ENERGY TES INTERIM RATES AT VANCOUVER HOUSE DEVELOPMENT EXHIBIT A-4

Mr. Rob Gorter
Director, Regulatory Affairs & Customer Relations
Creative Energy Vancouver Platforms Inc.
Suite 1 - 720 Beatty Street
Vancouver, BC V6B 2M1
rob@creative.energy; info@creative.energy

Re: Creative Energy Vancouver Platforms Inc. – Application for Interim Heating Rates for the Thermal Energy System at the Vancouver House Development – Project No. 1599048 – Information Request No. 1

Dear Mr. Gorter:

Further to your October 2, 2019 application of the above-noted matter, enclosed please find British Columbia Utilities Commission Information Request No. 1. Please file your responses by **Friday, December 20, 2019.**

Sincerely,

Original signed by:

Patrick Wruck
Commission Secretary

/aci
Enclosure



Creative Energy Vancouver Platforms Inc.
Application for Interim Heating Rates for the Thermal Energy System at the Vancouver House
Development

INFORMATION REQUEST NO. 1 TO CREATIVE ENERGY VANCOUVER PLATFORMS INC.

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A. GENERAL

- 1.0 Reference: GENERAL**
Thermal Energy Systems Regulatory Framework Guidelines, British Columbia Utilities Commission (BCUC) Order G-27-15
Thermal Energy Systems Requirements

Section 2.4.3 and 2.4.4 of the Thermal Energy Systems (TES) Regulatory Framework Guidelines (TES Guidelines) attached to BCUC Order G-27-15, outlines the rate setting considerations for applicants of Stream B TES utilities and the requirements for all Stream B TES rate applications.

- 1.1 Please provide a general discussion for considerations 1 -4 listed in Section 2.4.3 of the TES Guidelines as it pertains to the Vancouver House Development Heating TES proposed rates.
- 1.2 Please provide a discussion and evidence for each of the items listed in Section 2.4.4 of the TES Guidelines governing a Stream B TES rate application. If any items are non-applicable to the Vancouver House Development Heating TES proposed rates and rate design, please explain why.

- 2.0 Reference: GENERAL**
Exhibit B-1, Application for Interim Heating Rates for the Thermal Energy System at the Vancouver House Development (Application), Section 3, p. 3.
Occupancy Dates

On page 3 of the Application, Creative Energy Vancouver Platforms Inc. (Creative Energy) states:

Buildings 1 and 2 are due to be occupied by November, 2019, upon which heating service to the occupants of these buildings will commence. Buildings 3 and 4 are due to be occupied by February/March 2019 under current construction timelines.

- 2.1 Please confirm, or otherwise explain, that the occupancy dates remain unchanged from that

stated in the Application.

**3.0 Reference: GENERAL
Exhibit B-1, Application, Section 2, p. 2; Section 3, p. 4; Section 4, p. 4.
Timing of Applications**

On page 2 of the Application, Creative Energy states that rates are forecast over a 30-year term.

On page 4 of the Application, Creative Energy states it “has prepared this Application for interim rates assuming only a one-year test period for 2020.”

On page 4 of the Application, CE also states that it “expects that its heating rates application to be filed in 2020 would be for final rates spanning the four-year period 2020-2023, anticipating that the relocation of the boiler plant.”

- 3.1 Please explain what is meant by “assuming only a one-year test period for 2020.”
- 3.2 Please confirm, or explain otherwise, the levelized capacity fixed rate is calculated on a 30-year levelized term.
 - 3.2.1 If confirmed, please explain the significance of the one-year test period.
- 3.3 Please explain whether Creative Energy considered applying for a rate design and rates for the 30-year term and at the time of relocation, filing an evidentiary update with a request to revise rates. If not, please explain why not.

Creative Energy states on page 4 of the Application, “this Application for interim heating rates effective November 1, 2019 contemplates that final heating rates will be determined following Commission review of the final costs of the Heating TES.”

Further on page 4 of the Application, Creative Energy states:

The tables that follow present the build-up of the 2020 cost of service and revenue requirements for the Heating TES at the Vancouver House Development, which are the applicable annual inputs to the calculation of interim rates to be effective November 1, 2019. The pending application for final rates will propose rates for the four-year period 2020-2023.

- 3.4 Please confirm, or explain otherwise, whether the pending application for final rates will be filed as an evidentiary update to this Application, which include the adjustment for actual capital costs, or there will be a new rate application to be filed, with the potential for new rate design and rate structures.
 - 3.4.1 Please explain how Creative Energy will account for any difference between the approved interim rates and permanent (final) rates for the period between November 1, 2019 (interim approval) and the date of filing of the new application for final rates.

On page 4 of the Application, Creative Energy states:

Order C-1-19 also directs Creative Energy to file a CPCN application in respect of the anticipated move of the temporary containerized boiler plant of the Heating TES to a permanent location by the end of 2023. Creative Energy therefore expects that its heating rates application to be filed in 2020 would be for final rates spanning the four-year period 2020-2023, anticipating that the relocation of the boiler plant to a

permanent location will entail some change to the underlying costs supporting those rates, thereby demanding a future rates application for the period beginning 2024.

- 3.5 Please provide the term which rates will be forecast over in the future rates application for the period beginning 2024. How does this work considering the 30-year customer contract term?
- 3.6 Please comment on the expected timing of the Certificate of Public Convenience and Necessity (CPCN) application for the relocation of the containerized boiler system.
 - 3.6.1 Please also comment on the expected timing of the future rates application.

4.0 Reference: GENERAL
Exhibit B-1, Application, Section 3, p. 4;
Certificate of Public Convenience and Necessity Application for a Neighbourhood Energy System (NES) in the South Downtown area of Vancouver (CPCN NES Heating Application), Exhibit B-2, BCUC Information Request (IR) 4.1, 4.1.1, 4.3, 4.3.1.1, and 31.2.
Relocation of the Containerized Boiler System

On page 4 of the Application, Creative Energy states:

Order C-1-19 also directs Creative Energy to file a CPCN application in respect of the anticipated move of the temporary containerized boiler plant of the Heating TES to a permanent location by the end of 2023.

In response to BCUC IR 4.1 and 4.1.1 of the CPCN NES Heating Application, Creative Energy states it “entered into a Permit Letter agreement with the City [of Vancouver] to locate the containerized boiler plant on City-owned land” and that “the agreement term is until December 31, 2023.”

In response to BCUC IR 4.3 of the CPCN NES Heating Application, Creative Energy states, “[t]he relocation of the plant is not at Creative Energy’s discretion but rather is mandated by the Permit Letter issued by the City to be relocated by December 31, 2023.”

Creative Energy further stated in response to BCUC IR 4.3.1 of the CPCN NES Heating Application, it “will continue to engage with the City of Vancouver on a strategy and process for relocation.”

- 4.1 Please explain if there have been any changes to the existing agreement between Creative Energy and the City of Vancouver for the temporary location of the containerized boiler system.
 - 4.1.1 If changes have occurred, please describe the change(s), and provide the documentation supporting the amendment(s).
- 4.2 Please discuss any progress achieved in identifying a new location for the location of the containerized boiler system.
 - 4.2.1 Please comment on any developments with respect to the strategy and process for the relocation.
- 4.3 Please explain whether any possible relocation sites have been identified for the containerized boiler plant. If so, please provide the anticipated location(s).
- 4.4 Please discuss if, as part of the relocation, Creative Energy is considering alternative energy sources or changes in technology.
- 4.5 Please identify, with rationale, which assets will continue to be used and useful following the relocation of the containerized boiler plant, irrespective of the new plant location or energy source(s).

- 4.6 Please explain which assets risk no longer being used following relocation, with reference to the low carbon options under consideration. Please comment on any changes from the information submitted as part of the CPCN NES Heating Application.
- 4.7 Please provide details of the assets, including their capital cost and the expected accumulated depreciation at the time of relocation.
- 4.8 Please describe the financial risks to Creative Energy and/or its customers of the Vancouver House development as a result of the relocation of the containerized boiler plant. Please include assumptions used in this assessment.

In response to BCUC IR 4.3.1.1 of the CPCN NES Heating Application, Creative Energy states:

Creative Energy has engaged an expert consultant, Integral Group, to perform a study on the viable options and costs (class D) for the relocation of the containerized boiler plant, as well as additional customers that could be connected to offset relocation costs.

- 4.9 Please provide the status of the study and any preliminary findings.
- 4.10 Please provide a copy of the report if available or a date when it may be available.

In response to BCUC IR 31.2 of the CPCN NES Heating Application, where asked about the risks in the event the containerized boiler plant cannot be relocated to a permanent location on City-owned land, Creative Energy states:

In this unlikely case, Creative Energy would have to work with private landholders of existing and upcoming developments to find a location for a boiler plant to serve the existing load. This could entail risk of higher cost, which might then also entail a risk of an increase in rates to customers.

- 4.11 Please explain whether Creative Energy is currently exploring working with private landholders to find a location for the containerized boiler plant.
- 4.12 If so, please comment on the expected costs and the rate impact to customers associated with this option.

**5.0 Reference: GENERAL
Exhibit B-1, CPCN NES Heating Application, p. 36; Exhibit B-2, CPCN NES Heating Application, BCUC IR 17.5
Public Consultation**

On page 36 of the CPCN NES Heating Application, Creative Energy states:

Once the NES is operational, and buildings are occupied, Creative Energy intends to hold an open-house to provide information to the end-use customers.

- 5.1 Please explain if Creative Energy has held or still intends on holding an open-house to provide information to the end-use customers.
 - 5.1.1 If yes, please provide detailed information regarding the open-house, including number of attendees, date, type of information presented, and any feedback received from customers.
 - 5.1.2 If not, please explain why Creative Energy no longer intends to hold the open-house.

In response to BCUC IR 17.5, Creative Energy states:

Creative Energy remains engaged with the City of Vancouver to determine the optimal permanent location of the containerized boiler plant...Furthermore, Creative Energy has not received any complaints or concerns with respect to the location or operation of the containerized boiler plant. To the extent that any further consultation is necessary, Creative Energy submit that it would be more appropriate to engage in consultation in selecting a permanent location.

- 5.2 Please provide an update on whether Creative Energy has received any complaints or concerns with respect to the location or operation of the containerized boiler plant, including what these complaints or concerns have been.
- 5.3 Please provide an update on whether Creative Energy has engaged in consultation with respect to the anticipated move of the containerized boiler system.

B. HEATING TES COST OF SERVICE 2020

6.0 Reference: HEATING TES COST OF SERVICE 2020 Exhibit B-1, Application, Section 4.1, pp. 4, 5, Table 1; Attachment SoDo Heating Model (Model); Exhibit B-1, CPCN NES Heating Application, Schedule 2; Exhibit B-2, BCUC IR 6.2; Exhibit B-2-1, BCUC IR 1.1, Attachment 1.1 (Filed Confidentially); BCUC IR 1.2. Capital Costs of Service

In Table 1 on page 4 of the Application, Creative Energy provides the capital and development costs:

	Spend-To-Date	Cost-To-Complete	Total Cost
Predevelopment ('Development')	113,161	0	113,161
CPCN ('Development')	153,227	0	153,227
Engineering ('Development')	354,256	15,000	369,256
Boiler Plant	824,804	2,000	826,804
Distribution Piping System	820,563	100,000	920,563
Energy Transfer Station	611,275	51,000	662,275
Internal Management ('Development')	389,960	50,000	439,960
Total	3,267,246	218,000	3,485,246

In response to confidential BCUC IR 1.1 of the CPCN NES Heating Application, Creative Energy provided Attachment 1.1 which included a detailed listing of the Stream A costs with two cost columns, one column listing the cost spent to date and the other, the 2018 forecast costs.

- 6.1 Please provide a detailed breakdown of the capital and development costs in similar format to that provided in response to confidential BCUC IR 1.1, and include the following updates:
 - (a) Clearly separate the Stream A (NES Phase 1) costs from the NES Phase 2 costs;
 - (b) A column providing the original budget. Please ensure the Stream A (NES Phase 1) original budget totals agree to the budget figures provided in the summary table of confidential BCUC IR 1.2.
 - (c) A column for the costs spent to date;
 - (d) Remove the 2018 forecast costs and include a column for the total expected costs. If the total expected costs differ from that presented in Table 1 on page 4 of the Application, please add another column that breakdowns the costs in the "Total Cost" column presented

in Table 1;

- (e) Add a column for the total budget that aligns with the evidence presented in the CPCN NES Heating Application; and
- (f) Highlight those costs that are considered to be soft costs and/or overhead costs.

A suggested example of the requested format is provided below. If this information cannot be provided, please explain why. If it is necessary to file this information confidentially, please provide reasons with the request, including the specific harm that could reasonably be expected to result if the information was made publicly available and indicate whether all or only a part of the response is subject to the request for confidentiality.

Description	Original Budget	Spent-to-Date	Total Expected Costs	Total Cost (per Application) *	CPCN NES Heating Application Costs
Stream A (Phase 1)					
Phase 2					

**Include this column if the total costs as per the Application do not agree with the Total Expected Costs*

- 6.2 Please provide a detailed variance analysis for the differences between the original budget and the total expected costs for the Stream A (Phase 1) and Phase 2 of the project.
- 6.3 Please confirm, or explain otherwise, whether all capital costs have been incurred directly by Creative Energy.
 - 6.3.1 If not confirmed, please clarify the party(ies) that incurred the cost(s) and include a description of the project activity(ies), and the associated cost(s).

In response to confidential BCUC IR 1.2 presented in Exhibit B-2-1 and re-produced non-confidentially in Attachment 1 of Exhibit B-5 of the CPCN NES Heating Application, Creative Energy provided a table summarizing the differences in budget to actual of the Stream A (Phase 1) costs and included a variance analysis. The table and an excerpt from the variance analysis is provided below:

	Stream A	Actuals	Delta
Equipment	\$ 600,000	\$ 730,061	\$ (130,061)
Materials	\$ -	\$ -	\$ -
Engineering / Design	\$ 96,000	\$ 274,235	\$ (178,235)
Construction	\$ 1,097,000	\$ 1,100,601	\$ (3,601)
Financing	\$ -	\$ -	\$ -
Fees/Overhead	\$ 5,000	\$ 259,512	\$ (254,512)
Soft costs / Predevelopment	\$ 30,000	\$ 237,577	\$ (207,577)
Contingency	\$ -	\$ 51,221	\$ (51,221)
Total	\$ 1,828,000	\$ 2,653,207	\$ (825,207)

[...]

Fee's / Overheads

- This section refers to the cost of Internal Management.
- Upon accounting system reconciliation and upgrade, Creative Energy has confirmed that \$143,332 was spent prior to the time of filing the Stream A.

Soft Costs / Predevelopment

- This section refers to the cost of external consultants.
- Upon accounting system reconciliation and upgrade, Creative Energy has confirmed that \$198,991 had been spent prior to the time of filing the Stream A application.

- 6.4 Please explain why Stream A (Phase 1 NES) "Fee's / Overheads" and "Soft Costs / Predevelopment" are capitalized for this project.
- 6.4.1 Please explain why these are not expensed as a component of operating costs.
- 6.4.2 Please discuss whether Creative Energy's regulatory treatment of these costs differs from its accounting treatment. If so, please explain why they are treated differently.

In response to BCUC IR 6.2 presented in Exhibit B-2, Creative Energy states:

Creative Energy is discussing sharing trench costs with the site team, as they had concurrent activities and materials installed in the same trench. Allowance for civil costs will be held until this is resolved.

The cost of the works performed as part of the Phase 2 DPS connection are as follows:

Building 3 and 4 crossing – Granville street, May 2017: 35 meters of 8" pipe installed in an excavated trench

- Mechanical costs \$24,043
- Civil costs \$80,500

Creative Energy notes that \$60,500 of the cost associated with the Building 3 and 4 crossing is not likely to be attributed to Creative Energy's works as it was a common trench. Creative Energy has included the allowance in the event that these costs are attributed to Creative Energy's works and these potential costs would be split equally between heating and cooling systems.

Building 2 to Building 3 – Continental Street, July 2017: 42 meters of 8" pipe installed in an excavated trench

- Mechanical costs \$65,867
- Civil costs \$62,088

Creative Energy notes that the overall civil costs of the connection between Buildings 2 and 3 were \$77,000, however \$15,000 of this cost has been allocated to cooling works.

- 6.5 Please confirm, or explain otherwise, whether Creative Energy incurred any costs associated with the common trench work.
- 6.5.1 If confirmed, please provide the costs, and include support to justify Creative Energy's responsibility for these costs.
- 6.5.2 If not confirmed, please quantify the avoided costs and explain how the allowance was addressed.
- 6.5.2.1 Please identify the savings in the detailed cost breakdown provided in the response to 6.1 above.

- 6.6 Please confirm, or explain otherwise, whether any costs were allocated to the cooling works.
- 6.6.1 If confirmed, please provide the costs that were allocated to the cooling works. Please explain how the savings were addressed and identify these savings in the detailed cost breakdown provided in the response to 6.1 above.
- 6.6.2 If not confirmed, please explain, and comment on whether any cooling work was completed.
- 6.7 Please clarify the cost pressures the contingency addressed.

In Schedule 2 of the CPCN NES Heating Application Creative Energy provided the “Beach and Howe, Vancouver BC Low Carbon Energy Supply Feasibility Study” performed by Cobalt Engineering LLP in 2012 (the Cobalt Study) and prepared for Westbank.

- 6.8 Please provide the cost of the Cobalt Study and explain whether it is included in the Heating TES costs. If so, please explain why Cobalt Study is not considered to be the Developer’s (Westbank’s) responsibility.

In response to BCUC IR 14.1 of the CPCN NES Heating Application, Creative Energy states:

If the surrounding network opportunities grow to a significant enough size, then Creative Energy’s assessment of low carbon options can be revisited in accordance with the study. Please refer to the discussion of the low carbon assessment study in the response to IR 30.1.

- 6.9 Please explain whether Creative Energy’s assessment of low carbon options has been revisited or changed since the CPCN NES Heating Application.

Creative Energy states in response to BCUC IR 30.1 of the CPCN NES Heating Application:

The updated low carbon feasibility has not yet been completed. Creative Energy would be pleased to provide the BCUC with a copy of the report as soon as it is available. The report is expected in June 2019.

- 6.10 Please confirm whether the low carbon feasibility assessment for the current location has been completed. If available, please provide a copy of the updated report.

Creative Energy states on page of the Application, “total costs notionally categorized on a weighted basis to Plant, DPS and ETS as a simplifying model construct.”

Creative Energy included with the Application its regulatory model for the Heating TES (Model), which supports the revenue requirements build up and rate design. Cells G137 to G139 of the “Regulatory Model” tab the construction costs are presented.

- 6.11 Please explain the methodology of notionally categorizing total costs on a weighted basis to the Boiler Plant (Plant), Distribution Piping System (DPS) and Energy Transfer Station (ETS).
- 6.11.1 Please include a reconciliation of the total costs presented in Table 1 to the construction costs of the Plant, DPS and ETS presented in the Model (tab: “Regulatory Model”, cell G137 to G139).

In row 177 through 180 of the “Regulatory Model” tab of the Model, provides the total interest and fees during construction.

- 6.12 Please discuss any differences between the interest during construction as calculated in the

CPCN NES Heating Application and the model provided in the Application.

- 6.13 Please explain what is meant by “Commitment Fees” and why these are collected.
- 6.14 Please confirm that total interest and fees during construction is not incurred past August 2019. If not confirmed, please explain why there are no amounts entered after this date.

On page 5 of the Application, Creative Energy states, “[t]he projected costs to complete are known and final total costs are not expected to vary considerably from these estimates.”

- 6.15 Please provide the percentage completion of the construction of the DPS at the time at which the Application was written and at present.
- 6.16 Please confirm whether there is any remaining contingency or reserve to address unexpected project costs pressures.
 - 6.16.1 If confirmed, please provide the contingency and/or reserve remaining.
 - 6.16.2 Please explain how unexpected costs pressures will be addressed if there is no or insufficient contingency or reserve.
- 6.17 Please provide the estimated cost for decommissioning, dismantling and removing the asset at the end of its useful life.
 - 6.17.1 Please confirm, or otherwise explain, whether the estimated cost for decommissioning, dismantling and removing the asset are included in the capital costs of the Heating TES.
 - 6.17.1.1 If not confirmed, please discuss why not and explain how the costs will be recovered.
 - 6.17.2 Please discuss whether the estimated cost of decommissioning, dismantling and removing the asset are depreciated using the same rate and methodology as the Heating TES. If not, please provide the rate and methodology, and justify the difference.

On page 5 of the Application, Creative energy states:

Alignment with CPCN evidence: Total cost budget = \$3.39 million (updated Table 12, Response to Confidential BCUC IR 1.27.1.2, including Development costs totaling approximately \$0.96 million as compared to \$1.07 million in Table 1 above). The variance of approximately \$100,000 is explained by road restoration costs assigned by the City of Vancouver, which were not factored into the initial project budget.

- 6.18 Please confirm whether all road restoration work is completed and all associated costs with the work are known and included in the total costs presented in Table 1.
 - 6.18.1 If not confirmed, please discuss the remaining work and provide a breakdown of the remaining costs to be included.
- 6.19 Please discuss why road restoration costs were not factored into the initial project budget.
- 6.20 Please explain if there is potential that other costs may need to be factored into the total costs presented in Table 1.
 - 6.20.1 If so, please provide details of any such costs.
- 6.21 Please explain why road restoration costs are considered Creative Energy’s responsibility, rather than the responsibility of the City of Vancouver or the Developer.
 - 6.21.1 As applicable, please provide the construction agreement assigning these costs to Creative Energy and reference the relevant section of the agreement.

Creative Energy states on page 5 of the Application, “that forecast costs associated with the preparation and [BCUC] review of the pending final rates application have not yet been included for recovery in the total \$3.49 million of capital and development costs set out in Table 1.”

- 6.22 Please explain why the forecast costs associated with the preparation of the Application and BCUC review should be included in the capital and developments costs of this project.
 - 6.22.1 Please explain why these are not expensed as regulatory costs or a component of operating costs.
 - 6.22.2 Please discuss whether Creative Energy’s regulatory treatment of these costs differs from its accounting treatment. If so, please explain why they are treated differently.
- 6.23 Based on Creative Energy’s prior experience, please provide an estimate of the forecast costs associated with the preparation of this Application and BCUC review of the proposed pending final rates application.
- 6.24 Please confirm, or explain otherwise, whether forecast costs associated with the preparation of this Application and BCUC review of the Application for approval of rates on an interim basis have been included in the \$3.49 million estimate.
 - 6.24.1 If not confirmed, please provide a forecast based on Creative Energy’s prior regulatory experiences.

**7.0 Reference: HEATING TES COST OF SERVICE 2020
Exhibit B-1, Application, Section 4.1, p. 5, Table 2; Model; CPCN NES Heating
Application, Exhibit B-5, Attachment 1.
Fixed Operating Costs of Service – Operations and Maintenance**

In Table 2 on page 5 of the Application, Creative Energy provides the operations and maintenance costs for 2020:

	2020	Assumption
Maintenance	35,550	1% on total project cost in 2019 dollars
Operator Cost	25,500	1/4 of a full-time equivalent operator at \$100K in 2019 dollars
Insurance	5,286	0.11% of Net Book Value of Equipment and 0.25% of Revenues
Municipal Access Fee	6,881	1.25% of Revenue
Lease Payments	0	n/a
Administration	35,039	2.5% of \$1.485 million in allocable Creative Energy administrations costs per recommended application of the Massachusetts formula
Total	108,255	

- 7.1 For each of the operating cost components listed in the above table (maintenance, operator cost, insurance, municipal access fee and administration) please provide evidence and discussion to support the reasonableness for each of the assumptions for the forecasting of costs.
- 7.2 Please comment on whether the maintenance costs include a reserve to replace equipment essential to maintaining safe and reliable service during the course of the 30-years in which the levelized rate is calculated on. If not, why not.
- 7.3 Please explain whether emergency repair costs or sustaining capital have been considered for potential maintenance costs.
- 7.4 Please provide the responsibilities of the operator, explaining the tasks required to be completed and the frequency of the tasks.
- 7.5 Please provide a complete list of the costs that are included in the administration and allocated in accordance with the Massachusetts formula. Please explain if the costs are considered residual and cannot be directly assigned.
- 7.6 Please compare the Massachusetts formula for estimating and allocating administrative costs to Creative Energy's standard methodology for estimating and allocating these costs, and provide an explanation of any differences.
- 7.7 Please confirm, or explain otherwise, whether a Massachusetts formula has been used for previous energy projects operated by Creative Energy.
- 7.7.1 If confirmed, please provide the energy project(s).
- 7.7.2 If confirmed, please explain whether the formula has been reviewed and/or updated to reflect ongoing changes related to the addition of new projects.
- 7.7.2.1 If so, please describe the changes.
- 7.7.2.2 If not, why not.
- 7.8 Please confirm, or explain otherwise, whether the same Massachusetts formula proposed for this project has been accepted by the BCUC for previous energy projects operated by Creative Energy.
- 7.8.1 If not confirmed, please explain if this is an update to a methodology that has been previously accepted.
- 7.8.2 If confirmed, please reference the filing where this methodology was accepted by the BCUC.
- 7.9 Please provide and explain the calculation of the estimated allocable overhead under the Massachusetts formula.

Creative Energy included with the Application its Model, which supports the revenue requirements build

up and rate design. In cell M132 on the “Project Inputs” tab of the Model it states, “2.45% of allocable Overhead under Massachusetts formula.”

7.10 Please explain whether 2.5% or 2.45% will be used as the basis of allocation.

7.10.1 Please comment on why the basis for allocation was selected and why it is considered reasonable. Please discuss how the basis of allocation compares with other energy projects operated by Creative Energy.

7.11 Please comment on how the \$1.485 million in allocable administration costs was determined.

In cell K132 on the “Project Inputs” tab of the Model the administrative costs are stated to be “34,352” calculated using the formula “=35039/1.02.”

7.12 Please explain how the administrative costs of \$34,352 and the supporting formula presented in cell K132 reconciles with the \$1.485 million in allocable administration costs and the percent basis of allocation confirmed in 7.10 above.

Cell K62 to K64 on the “Project Inputs” tab of the Model states the annual forecast rate of inflation for operating, electricity and fuel costs is 2.0%.

7.13 Please comment on why the forecast inflation rate for operating, electricity and fuel costs is 2.0%. And please explain why it is considered reasonable.

In cell E19 and E20 on the “Summary Tables” tab of the Model the Insurance costs and Municipal Access Fee for 2020 are provided. The Insurance costs are \$5,375 and the Municipal Access Fee is \$7,329.

7.14 Please explain why the Insurance costs and Municipal Access fee provided in the Model do not agree with Table 2.

7.14.1 Please provide an updated Table 2 or Model, as necessary.

On page 5 of the Application, Creative Energy states:

Alignment with CPCN evidence: Total O&M of \$86,000 (refer to updated Table 22, response to BCUC IR 2.41.1). The key cost variance relates to the application now of the Massachusetts formula to allocate administration costs, which largely explains the increase to the indicative estimate provided during the CPCN filing. [Emphasis added]

7.15 Apart from the key cost variance in administration costs due to the application of the Massachusetts formula, please clarify the other cost components that increased and why (i.e. is the change related to the increase in capital costs or another reason).

Further, Creative Energy states:

Given the improved estimate of administration costs and noting that the remaining assumptions underpinning O&M expenses are consistent with the factors tested during the CPCN proceeding, Creative Energy submits that the total of projected operating and maintenance costs summarized in Table 2 are appropriately included in the cost of service for the determination of interim rates. [Emphasis added]

In response to confidential BCUC IR 4.1, presented in Exhibit B-2-1 and re-produced non-confidentially in Attachment 1 of Exhibit B-5 of the CPCN NES Heating Application, Creative Energy states:

Creative Energy submits that both assumptions of 5% in the model and 10% in the narrative are incorrect and therefore the updated model reflects a better estimate of

the administration cost based on a refined Massachusetts formula, as discussed below.

The Massachusetts formula is used to allocate overhead between different asset classes consistent with the Commission’s recommendation. However, under the circumstances of a small NES such as the South Downtown NES, it may not be fair to allocate a disproportionate amount of administration cost based on the relative asset base in comparison to our Core system, which has more than 200 customers.

Therefore, Creative Energy recommends a formula that only includes two factors to allocate costs to projects: revenue and operating cost. Applying this formula leads to an administration cost for South Downtown Heating of \$21,000 per year, which represents 30% of the South Downtown NES operating cost and approximately 1.50% of Creative Energy’s total administration costs. The updated model reflects this approach.
[Emphasis added]

In response to confidential BCUC IR 27.1, presented in Exhibit B-2-1 and re-produced non-confidentially in Attachment 1 of Exhibit B-5 of the CPCN NES Heating Application, Creative Energy states:

The major change to costs are driven by improved estimation of administration costs using a refined Massachusetts formula, as discussed in the response to IR 4.1. [Emphasis added]

- 7.16 Please confirm, or explain otherwise, whether the two factor Massachusetts formula discussed in the CPCN NES Heating Application is different from the Massachusetts formula presented in the interim rates Application.
- 7.16.1 If confirmed, please explain the differences between the formulas and comment on why the formula was revised. As part of your response, please provide the refined Massachusetts formula used in the CPCN NES Heating Application and the Massachusetts formula presented in this Application.
- 7.17 Please confirm, or explain otherwise, whether the inputs into the two factor Massachusetts formula discussed in the CPCN NES Heating Application is different from the inputs for the Massachusetts formula presented in the Application’s interim rates.
- 7.17.1 If confirmed, please explain the differences between the inputs and comment on why the inputs were revised. As part of your response, please provide the inputs used in the CPCN NES Heating Application and the inputs used in the Application’s interim rates.
- 7.18 If neither the formula or the inputs of the two factor Massachusetts formula have changed, please provide rationale for the increased administration costs.
- 7.19 Please explain whether the operating costs of service (including maintenance, operator, insurance, municipal access and administration costs) recovered will be based on the estimates provided or actual costs.
- 7.19.1 If recovery will be based on actual costs, please explain how actual costs will be determined for each of the cost components (maintenance, operator, insurance, municipal access and administration costs).
- 7.20 Please explain how Creative Energy proposes to track and credit/recover differences between actual and estimated (forecast) costs for the Heating TES.

**8.0 Reference: HEATING TES COST OF SERVICE 2020
Exhibit B-1, Application, Section 4.1, Table 2, p. 5; Exhibit B-1, Application, Section 4.1, Table 3, p. 6; Exhibit B-2-1, CPCN NES Heating Application, BCUC IR 24.1 and 24.1.1**

Fixed Operating Costs of Service – Depreciation

In Table 3 on page 6 of the Application, Creative Energy provides the rate base and depreciation:

Total Project Cost (Capital and Development)	3,485,246
Interest During Construction	86,011
Cost of Equity During Construction	119,182
Starting Ratebase 2020	3,690,439
Annual Depreciation Charge	123,015

Further on page 6, Creative Energy states, “[a]nnual depreciation assumes that the project cost is amortized over the 30-year term of analysis and is consistent with the evidence reviewed during the CPCN proceeding.”

- 8.1 Please explain whether depreciating the Heating TES assets over the life of a contract is consistent with Creative Energy’s existing accounting practice and describe any differences. Please include the applicable depreciation rates by asset class.
 - 8.1.1 Please provide the undepreciated balance of the Heating TES assets at the end of the term of the contract.
- 8.2 If the Heating TES assets are no longer used and useful at the end of the contract term, please provide the proposed regulatory accounting treatment for the undepreciated plant balance of the Heating TES, and the average annual rate impact of this treatment for Creative Energy’s existing ratepayers.
- 8.3 Please provide the accounting framework Creative Energy operates within.
- 8.4 Please identify the relevant factors from Creative Energy’s perspective that should be considered in determining the useful life of an asset for regulatory rate setting purposes. How does this differ from Creative Energy’s accounting framework as identified above?
 - 8.4.1 Please explain whether Creative Energy considers that setting depreciation rates using contract terms as the basis for useful life is permitted under the above-mentioned accounting framework.
- 8.5 Please confirm, or otherwise explain, whether Creative Energy will review the depreciation method and estimated useful life of the Heating TES on a regular basis.
 - 8.5.1 If not confirmed, please explain why not.
 - 8.5.2 If an event occurs, and the amortization method or estimated useful life of the Heating TES assets needs to be revised, please explain how this will be addressed, in consideration of the 30-year customer contract term.

In response to confidential IR BCUC IR 24.1 and 24.1.1 presented in Exhibit B-2-1 and reproduced non-confidentially in Attachment 1 of Exhibit B-5 of the CPCN NES Heating Application, Creative Energy states:

The service agreement assumes 25 years beginning in 2018.

The estimated useful life of the Project referred to above is conservative, and the actual useful plant life should be segmented as follows:

- Plant: 25 years – it is expected that the boilers will need to be replaced after 25 years.
- DPS: 50 years – the buried pipe is expected to be useful for 50 years before it needs to be repaired / replaced.
- ETS: 50 years – the majority of the costs associated with installing an ETS involve

installation of pipework, which will have a long useful life. The other components of an ETS, such as control valves (~\$2,000 each) and the Heat Exchangers (~\$4,000 each) would need to be replaced every 10 – 15 years, however they represent a much smaller percentage of the overall installed cost (\$675,000) and can be managed through Creative Energy’s annual maintenance allowance.

This useful life of this equipment will not be impacted by the planned relocation as the same equipment will be used once a permanent location is found.

- 8.6 Please explain why the service agreement term was changed from 25 years to 30 years.
- 8.7 Please explain why the CPCN NES Heating Application proposed to depreciate the Heating TES over the actual useful lives for each component whereas the current Application proposes to depreciate the Heating TES over the 30-year customer contract term.
- 8.8 Please provide the useful lives of the Heating TES assets. Please discuss any changes in useful lives from that presented in the CPCN NES Heating Application.

**9.0 Reference: HEATING TES COST OF SERVICE 2020
Exhibit B-1, Application, Section 4.2, Table 5, p. 7; Model; Exhibit B-2, CPCN NES Heating Application, BCUC IR 6.3.1 and 11.1.
Energy Consumption Cost of Service (Variable Fuel Costs)**

In Table 5 on page 7 of the Application, Creative Energy provides the energy costs:

	2020
Total customer energy demand (MWh)	4,028
System Efficiency	92.1%
Natural Gas production (MWh)	4,373
Electricity Demand (MWh)	81
Variable Natural Gas Costs (\$/MWh)	\$20.87
Demand Cost and Basic Charge (\$)	\$8,365
Variable Electricity Costs (\$/MWh)	\$98.74
Demand and Basic Charge (\$)	\$9,310
Natural Gas Costs (\$)	\$99,614
Electricity Costs (\$)	\$17,264
Total Energy Costs (\$)	116,878

- 9.1 Please provide the supporting calculations for the indicated energy charges.

Creative Energy included with the Application its Model, which supports the revenue requirements build up and rate design. In cell K99 on the “Project Inputs” tab of the Model, Creative Energy provides the “Daily Peak in a month (Natural Gas)” of “1.50x” and states in cell M99 it uses the assumption that monthly peak is 50% above the monthly average.

- 9.2 Please explain how the Daily Peak in a month (Natural Gas) of 1.50x was established and why it is considered to be reasonable.

Row 87 through 99 of the “Forecast Inputs” tab of the Model provides the demand by month and the total period demand. Row 99 shows demand reaching 4,028 MWh in 2020 and remaining at this level through to 2049.

9.3 Please confirm, or explain otherwise, whether the demand is consistent with that presented in the CPCN NES Heating Application for all periods.

9.3.1 If not confirmed, please discuss the differences.

In response to BCUC IR 6.3.1 presented in the CPCN NES Heating Application, Creative Energy states:

One-hundred percent of expected load will not be achieved until all four buildings reach complete occupancy. This will not likely occur until late 2019 or early 2020 as tenants continue to move into the tower (Building 2) and as businesses move into the retail and commercial spaces (Buildings 3 and 4).

9.4 Please explain whether complete occupancy for all four buildings is expected to be realized by January 1, 2020. If not, please discuss why demand for 2020 has not been adjusted to reflect occupancy expectations.

In response to BCUC IR 11.1 presented in Exhibit B-2, Creative Energy states:

The containerized boiler plant is expected to serve the NES for a period of up to 5 years. There are a number of developments that are expected to reach occupancy in the immediate vicinity of the system in that timeframe, and we are seeking to ensure that there is an option to increase the capacity of the boiler plant to serve those developments, if they agreed and it made good economic sense for the NES.

Please discuss if there are existing plans to increase the capacity of the boiler plant to address demand in the immediate vicinity.

In cell K103 to K114 on the "Project Inputs" tab of the Model, Creative Energy provides the monthly seasonal demand for each month.

9.5 Please clarify the methodology for determining the monthly seasonal demand and why the monthly demand is considered to be reasonable.

In cell G215 on the "Forecast Inputs" tab of the Model, Creative Energy provides the monthly peak demand of 138.83 calculated using the formula " $=1666/12$ ".

9.6 Please explain how the peak demand was determined and why it is considered reasonable.

C. PROPOSED RATE DESIGN

**10.0 Reference: PROPOSED RATE DESIGN
Exhibit B-1, Application, Section 5.1, pp. 2, 8-11; Model
Capacity Charge**

On page 2 of the Application, Creative Energy states:

Creative Energy applies for approval of the following interim rates for 2020:

1. Capacity Charge per kilowatt (kW) per month: \$11.80 / kW / month
2. Variable Charge per megawatt hour (MWh)(indicative): \$29.00 / MWh

In row 21 and 22 on the "Project Inputs" tab of the Model, Creative Energy provides "Fixed Rate per m2" and the "All-in Rate per m2."

In rows 79 to 111 of the “Regulatory Model” tab of the Model, Creative Energy provides the “Fixed Charge Revenue Build-up” which adjusts based on the deferral scenario selected. Row 87 and 92 presents the “Revenue Build-up Implied Fixed Charge” and the “Revenue Deferral Fixed Charge (Nominal)” respectively, both as Annual \$ / m2.

On page 9, Creative Energy states:

Creative Energy acknowledges that in the Heating TES CPCN proceeding it set out indicative fixed charges on a \$/m2 basis, the regulatory model continues to compute certain results also using that metric.

- 10.1 Please explain why the fixed capacity charge is quoted on a \$/kW/month in the Application, whereas the Model quotes the fixed charges on an Annual \$ / m2 basis.
- 10.2 Please provide any other results, not mentioned above, from the regulatory model that continue to use a \$/m2 basis.
 - 10.2.1 Does Creative Energy have any concerns about the consistency of the regulatory model if certain results are using a \$/m2 basis, but the capacity charge is based on \$/kW? Please explain why or why not, including why Creative Energy chose to continue to compute certain results using the \$/m2 basis.
 - 10.2.2 Please provide and explain the impact on rates that results from using \$/m2 for certain results instead of using a \$/kW for those same results.

On pages 8-9 of the Application, Creative Energy states:

The capacity charge will recover the capital and fixed operating costs of the Heating TES [Thermal Energy System] on a \$/kW basis, determined on the basis of the design peak demand of each building. The capacity charge will recover all costs that do not vary with energy consumption; that is, the cost of service excepting variable fuel costs. In that regard, these costs re considered ‘fixed’ and therefore should not be recovered on a \$/MWh basis.

The level of the capacity charge will be set equal to the total capital and fixed operating costs of service divided by the total design peak demand of the Vancouver House Development – i.e. the total design peak in kW – which is equal to the sum of the design peak demands for each building. Total design peak demand accounts for the diversity of peak demand for space heating and domestic hot water in Buildings 1 and 2. That is, total design peak for Buildings 1 and 2 reflects entirely space heating load based on the diversity and timing of use between space heating and domestic hot water services. Creative Energy service to Buildings 3 and 4 will be space heating only.

The level of the capacity charge is set based on total design peak demand. Correspondingly, the billing determinants for the allocation of capital and fixed operating costs to each building are the individual total design peak demand in kW of each building in the Vancouver House Development.

- 10.3 Please discuss, and list, if Creative Energy is aware of any other comparable peer companies that use \$/kW, determined on the basis of the design peak demand, to recover the total capital and fixed operating costs similar to Creative Energy’s proposal.
- 10.4 Is Creative Energy aware of any other comparable peer companies that recover 100 percent of capital and fixed operating costs entirely through fixed charges, instead of a portion through

both fixed and variable charges? If yes, please discuss and provide examples and references.

On page 10, Creative Energy provides the Implied Peak Demand Intensity for each Building, and states:

Compared to a \$/m² fixed charge, the proposed \$/kW fixed capacity charge improves the overall fairness in the allocation of cost recovery between the building customers because it more fairly assigns total capital and fixed operating cost recovery to each building in closer alignment to the relative demand intensity and efficiency of each building. The \$/kW capacity charge better aligns with Creative Energy's costs, which are driven by the amount of capacity and distribution we need to build, operate, and maintain the Heating TES...As Table 8 illustrates, a fixed charge levied on a \$/m² basis would unfairly increase the cost recovery burden to the Residential Strata at Building 2 despite its relative peak design efficiency as compared to the other buildings in the Vancouver House Development, which are more uniquely designed and less efficient.

10.5 Please explain if Creative Energy is presenting "Implied Peak Demand Intensity" as a measure of the efficiency of each Building. If not, please explain what "Implied Peak Demand Intensity" is meant to measure.

10.5.1 Please explain if "Implied Peak Demand Intensity" is a commonly used industry metric, and in what context it is typically used for.

On page 10, Creative Energy states, "Total monthly and annual costs collected from each building customer will not vary by usage under a \$/kW capacity charge and the building customers will therefore be indifferent to the underlying billing determinant as far as understanding their expected total bills for budgeting purposes."

10.6 Please clarify and explain what consultation Creative Energy has had with building customers on the usage of \$/kW for a capacity charge. Please providing supporting evidence to indicate that "building customers will therefore be indifferent"?

10.7 Please provide an excerpt from the disclosure statement given to individual unit buyers (i.e. the end users) that discusses the heating rate and how it is charged.

10.8 Please discuss the capability of Creative Energy's billing system if the proposed rate design and rate structures is not approved as proposed. How will differences between approved rates and collected rates be collected/refunded from customers?

**11.0 Reference: PROPOSED RATE DESIGN
Exhibit B-1, Application, Section 5.2, p. 11
Variable Charge**

On page 11, Creative Energy states:

The Variable Charge will recover on a flow-through basis the actual fuel costs for the natural gas and electricity used to operate the Heating TES.

Actual fuel costs will be based on the metered usage for natural gas and electricity and the applicable rates for the associated service provided by Fortis Energy Inc. and BC Hydro, respectively. Creative Energy will determine the \$/MWh variable charge each month as the sum of natural gas and electricity costs divided by the total metered energy consumption for heating of all buildings (in MWh). Creative Energy will invoice the building customers accordingly based on their individual building's metered energy use.

The alternative approach for the recovery of fuel costs would be for Creative Energy to seek approval of both 1) a variable charge set on a forecast basis and 2) a fuel cost stabilization account to record the difference between actual and forecast fuel costs to be reviewed periodically and amortized when necessary over a one-year period, consistent with the Commission's Guidelines for Setting Gas Cost Recovery Rates. As compared to that alternative, Creative Energy has proposed a monthly flow-through of actual fuel costs as an administratively simple approach that aligns with the scale of the Heating TES and recognizes that the Variable Charge is entirely comprised of FortisBC and BC Hydro charges regulated by the Commission and updated from time to time.

- 11.1 Please discuss, and provide a list in that case, if Creative Energy is aware of any other comparable peer companies that determines the \$/MWh variable charge each month based on actual fuel costs.
- 11.2 Please confirm, or explain otherwise, that the \$/MWh variable charge will be different every month under this proposal.
 - 11.2.1 Please explain in further detail Creative Energy's claim that this proposal is "administratively simple" compared to a \$/MWh variable charge that would not change each month. In other words, how is changing the \$/MWh rate each month simpler than keeping it the same and reviewing periodically under the alternate approach?
 - 11.2.1.1 Notwithstanding the answer to the above, considering the alternative approach used by other public utilities such as FortisBC Inc. (FBC), why does Creative Energy believe the alternative approach is not appropriate for this project?
 - 11.2.2 Please discuss if Creative Energy has considered if \$/MWh variable charge that is different each month may be confusing to customers. Why or why not?
 - 11.2.2.1 Has Creative Energy had any consultations with customers regarding the variable charge?
 - 11.2.2.2 Has Creative Energy considered what communication, if any, would accompany the monthly bills to explain the change in the monthly variable charge? Please explain in detail.

**12.0 Reference: PROPOSED RATE DESIGN
British Columbia Hydro and Power Authority (BC Hydro) Residential Inclining Block Rate Re-Pricing Application, Order G-45-11, p. 5
Bonbright Principles**

The BCUC stated in its Decision on BC Hydro's Residential Inclining Block Rate Re-Pricing Application (page 5 of the Reasons for Decision for Order G-45-11):

In any rate design application review, including the 2008 Residential Inclining Block Decision, the Commission is guided by the eight “Bonbright Principles” which can be described as follows:

- Principle 1: Recovery of the revenue requirement;
- Principle 2: Fair apportionment of costs among customers (appropriate cost recovery should be reflected in rates);
- Principle 3: Price signals that encourage efficient use and discourage inefficient use (consideration of social issues including environmental and energy policy);
- Principle 4: Customer understanding and acceptance;
- Principle 5: Practical and cost-effective to implement (sustainable and meet long-term objectives);
- Principle 6: Rate stability (customer rate impact should be managed);
- Principle 7: Revenue stability; and
- Principle 8: Avoidance of undue discrimination (interclass equity must be enhanced and maintained).

Source: James C. Bonbright, *Principles of Public Utility Rates*, Columbia University Press, 1961

- 12.1 Please evaluate Creative Energy’s proposed levelized capacity charge (based on \$/kW) against the above Bonbright principles. Please state your assumptions.
- 12.2 Please discuss whether Creative Energy has considered any other alternative rate design (% fixed / % variable). Why or why not?
 - 12.2.1 If yes, please evaluate this / these rate structure option(s) against the above Bonbright principles.
- 12.3 Please explain how much weight the utility has placed on Principle 1 (recovery of the revenue requirement) and 7 (revenue stability) in its proposed levelized rate design, compared to other principles.

**13.0 Reference: PROPOSED RATE DESIGN
BCUC Decision with Order G-60-14, p. 55;
BCUC Decision with Order G-67-14, pp. 13-15
Efficiency Principle/Clean BC**

On page 55 of its Decision with accompanying Order G-60-14, the BCUC states:

Efficiency benefits can be described as promotion of: (i) efficient customer consumption and investment decisions, (ii) efficient utility investment and operational decisions and (iii) innovation. The Panel also considers any effect on British Columbia social issues, including environmental and energy policy.

On page 13 and 15 of its Decision with accompanying Order G-67-14, the BCUC states:

The Panel also considers that in measuring BC efficiency benefits there are two broad types of customer behaviours – short term operational decisions (such as whether to take on another order) and long term investment decisions (such as when to replace equipment) ...

...FortisBC has already acknowledged that the consultation process did not follow the usual path due to the circumstances, but assured the Panel that there has been ample opportunity for customers to provide input into the rate design. In light of the lack of customer engagement, the Panel finds it difficult to conclude that the FortisBC stepped rate will have efficiency benefits in the absence of adequate evidence on the price responsiveness of FortisBC's Industrial customers.

The Clean Energy Act includes as BC energy objective 2(b) "to conserve energy" and 2(i) to encourage communities to reduce greenhouse gas emissions and use energy efficiently.

- 13.1 Please describe the consultation process Creative Energy undertook in proposed rate design, including whether it included existing and potential future customers.
 - 13.1.1 Please discuss how Creative Energy considers existing and potential future customers will respond to its proposed rate design.
- 13.2 Please explain how the proposed rate design supports the BC energy objectives 2(b) and 2(i).

D. PROPOSED RATES

**14.0 Reference: PROPOSED RATES
Exhibit B-1, Application, Section 4.1, p. 4; Model.
Financing Cost**

On page 6 of the Application, Creative Energy states, "the basis of projected financing cost is Creative Energy's approved deemed capital structure of 57.5 percent debt and 42.5 percent equity and a corresponding approved cost of debt of 4.5% and allowed return on equity (ROE) of 9.5%."

- 14.1 Please provide the calculations to support the stated rate for the cost of debt.
- 14.2 Please confirm, or explain otherwise, that Creative Energy's core steam and North East False Creek (NEFC) system reflect the same debt/equity structure as the one proposed for the Vancouver House Development.

Creative Energy included with the Application its Model, which supports the revenue requirements build up and rate design. In cell K150 on the "Project Inputs" tab of the Model, Creative Energy provides a deemed cost of debt of 4.0%.

- 14.3 Please explain why the cost of debt provided in the Model (4.0%) does not agree to cost of debt stated in the Application (4.5%).
 - 14.3.1 Please provide an updated Table 2 or Model, as necessary.

**15.0 Reference: PROPOSED RATES
Exhibit B-1, Application, Section 6.1, p. 12; BCUC Generic Cost of Capital Stage 1
Decision, p. 101
Levelized Capacity Charge**

On page 11 of the Application, Creative Energy states:

Creative Energy proposes that the capacity charge be determined on a levelized annual basis as compared to the alternative of setting rates annually based strictly on full recovery each year of the capital and fixed operating cost of service.

The levelized capacity charge will be determined such that the ROE over the 30-year

term of analysis is equal to the allowed ROE of 9.5% under an annual cost of service - based rate structure over the same 30-year period.

On page 101 of the BCUC Generic Cost of Capital (GCOC) Stage 1 decision (GCOC Stage 1 Decision), the BCUC stated the following:

...the small size factor should further be considered in the Stage 2 proceeding, but only as one of the many business and financial risks small utilities or projects are exposed to. Utilities are encouraged to use other methodologies or approaches to justify their risk differential in relation to the benchmark...

...The Panel notes that the Commission developed a risk matrix that has been used in various small TES utilities proceedings to evaluate overall risk of a given project. The "size" factor is one of the risk factors included in the matrix. The Panel recommends that the small utilities use this risk matrix attached as Appendix B to Order G-1-13 of the TELUS Garden Decision in the Stage 2 proceeding and for future projects to justify their case for the appropriate capital structure and risk premium over and above the benchmark ROE. For convenience, the risk matrix is attached in Appendix E of this decision.

- 15.1 Please confirm, or explain otherwise, that Creative Energy's cores steam and NEFC systems have an approved Return on Equity (ROE) of 9.5%.
- 15.2 Please complete the risk matrix referenced in the above preamble (and attached as Appendix E to the GCOC Stage 1 Decision for the Vancouver House Development). Please include FEI and Creative Energy's NEFC, as well as Creative Energy's Core Steam as a comparison in the matrix. If available, please also include, River District Energy, Corix BMDEU, and Corix UBC NDES, or any other similar peers as a comparison in the matrix. Please also provide each of the aforementioned utilities' risk premium (above the benchmark utility, FEI).

**16.0 Reference: PROPOSED RATES
Exhibit B-1, Application, Section 6.3, pp. 13-14
Benchmark Rate Comparison**

On page 13, Creative Energy states:

Table 9 sets out the proposed Levelized Capacity Charge (shaded) in comparison to both a Levelized Flat and a Annual Cost of Service approach for recovery of capital and fixed operating costs. For context, indicative rates for 2021-2023 are also provided.

- 16.1 Please provide an updated Table 9, including what the proposed Levelized Capacity Charge would have been if a fixed-capacity levied on a \$/m2 basis, as proposed in the Heating TES CPCN, was used instead of a \$/kW basis.

On page 13 Creative Energy states:

As reported in Table 10, Creative Energy's proposed interim rates are competitive and lower cost compared to other district energy utility systems when factoring in the relative energy intensity of the associated buildings served by those utilities. This basis of comparison recognizes that City of Vancouver policy and other building code standards, such as BC Step Code, are pushing performance to meet stricter standards.

- 16.2 Please explain in further detail the concept of “Energy Intensity” and why Creative Energy believes using this to calculate an “equivalent all-in rate” is an appropriate measure to compare rates with other district energy utility systems.
- 16.2.1 Please explain if “Energy Intensity” is a commonly used industry metric and if it is commonly used to produce equivalent all-in rates for comparison purposes. If yes, please provide examples of where it has been used.
- 16.3 Please provide an updated Table 10 and provide what the Levelized Annual rates would be if the proposed rate design from the Heating TES CPCN was used instead of the rate design proposed in this Application.

In the notes to Table 10, Creative Energy states, “Building energy intensity based on internal engineering estimates.”

- 16.4 Please provide the source reports of the internal engineering estimates that Creative Energy used to produce the energy intensity values, as presented in the table. Please also indicate if any of these engineering estimates were verified through a third-party and provide any associated documentation.

E. REVENUE DEFICIENCY DEFERRAL ACCOUNT

- 17.0 Reference: REVENUE DEFICIENCY DEFERRAL ACCOUNT
Exhibit B-1, Application, Section 2.1, p. 2; Model.
Recovery using the Revenue Deficiency Deferral Account (RDDA)**

On page 2 of the Application, Creative Energy states:

Creative Energy therefore also applies for approval of a Revenue Deficiency Deferral Account (RDDA) to record annual revenue deficiencies or surpluses resulting from the difference between annual revenue at the approved rates and the annual cost of service. The balance in the RDDA would attract interest at Creative Energy’s weighted average cost of capital and, looking ahead to the approval of final rates for future years, the account balance would be reduced to zero within the 30-year term over which rates are forecast.

Creative Energy included with the Application its Model, which supports the revenue requirements build up and rate design. In cells B6:R28 on the “Project Inputs” tab of the Model, Creative Energy provides a sensitivity analysis for the deferral account under different scenarios, and row 20 provides the (over)/under recovery of the RDDA.

- 17.1 Please provide the RDDA balance for each scenario at the end of the 30-year term.
- 17.2 Please explain why under the “Flat”, “2% Escal.” Or “Capex (-)” scenario, the RDDA balance does not appear to reduce to nil over the 30-year term.
- 17.3 Please explain how over or under recovery in the RDDA will be addressed.
- 17.4 Please explain the purpose of the Capex (-) deferral scenario that is presented in the Model.
- 17.4.1 Please explain why this scenario is not discussed in the Application.
- 17.4.2 Please discuss the incremental over-recovery of the RDDA and the final balance of the RDDA under this scenario.

F. CUSTOMER SERVICE AGREEMENT

- 18.0 Reference: CUSTOMER SERVICE AGREEMENT (CSA)
Exhibit B-1, Application, p. 3; Appendix 1, pp. 6-7
Standard Assignment Provision**

On page 3, Creative Energy states:

The proposed CSA is the same as the CSA that the Commission approved for Creative Energy's North-East False Creek (NEFC) customers, by Order G-42-17. The proposed CSA at Appendix 1 includes the addition of a standard Assignment provision, and identical provision to that provided in the NEFC connection agreement, also approved under G-42-17.

- 18.1 Please explain why Creative Energy has included a standard assignment provision in the CSA for this application, when it was not part of the approved CSA for NEFC.

Section 3.1 of the Customer Service Agreement states:

A Customer may not assign a Customer Service Agreement or any of its rights or obligations thereunder without the prior written consent of the Utility, such consent not to be unreasonably withheld. The Utility may, subject to BCUC approval, assign a Customer Service Agreement or any of its rights or obligations thereunder (including, without limitation, by way of the sale of the majority of its shares or business or its material assets or by way of an amalgamation, merger or other corporate reorganization) to any of its Affiliates or to any other Person without the consent of the Customer, provided such Affiliate or Person is duly qualified to carry out the Customer Service Agreement and enters into a written agreement with the Customer to be bound by the provisions of this Agreement in all respects and to the same extent as the Utility is bound.

- 18.2 Please confirm that if Creative Energy were to undergo a corporate level reorganization, section 3.1 of the CSA would require the sign off of all Customers via the "written agreement" with the Customer.
- 18.2.1 If confirmed, would customers bear the expense of obtaining customer sign off for a corporate level reorganization?
- 18.2.2 What would be the implication of this clause if written agreement with the Customer is not received?
- 18.2.3 If not confirmed, please explain the nature of and approvals required for the "written agreement".

- 19.0 Reference: CUSTOMER SERVICE AGREEMENT
Exhibit B-1, Application, Appendix 1 and Appendix 2
Standard Fees and Charges**

On page 5 of Appendix 1, Creative Energy defines Standard Fees and Charges as:

the standard fees and charges which may be charged to the Customer by the Utility and set out in the Tariff.

Tariff is then defined as:

Rate Schedule No. 1, which sets out the rates for Energy Services and certain related terms and conditions, as amended from time to time by the Utility with the approval of, as filed with, the BCUC to the extent required by the BCUC.

Appendix 2 then provides the Rate Schedule, which sets out the capacity charge per kW per month, and the variable charge per MWh.

The CSA then refers to the standard fees and charges, as set out in the tariff, in several sections (for example, Section 7 – Meter Testing and Section 10 – reconnection charge, Section 13 – late payment and collection charge, Section 14 – returned cheque charge, Section 17 – account charge).

- 19.1 Please provide reference as to where these standard fees and charges can be found in the Application. If these standard fees and charges were not included, please provide a copy and confirm that Creative Energy is also seeking BCUC approval of these charges.
- 19.2 Please confirm, or explain otherwise, that the standard fees and charges are the same as those contained in the NEFC CSA. For any differences, please identify and explain.