

22 July 2019

Via e-Filing

Mr. Patrick Wruck
Commission Secretary
BC Utilities Commission
Suite 410, 900 Howe Street
Vancouver, BC V6Z 2N3

Dear Mr. Wruck:

**Re: Creative Energy Vancouver Platforms Inc. (Creative Energy)
British Columbia Utilities Commission (BCUC, Commission)
Application for a Certificate of Public Convenience and Necessity for
Beatty-Expo Plants and Approval of Corporate Reorganization (Application)
Project No. 1598962**

Further to Exhibit A-31 in the above noted proceeding, please find attached Creative Energy's responses to the Commercial Energy Consumers Association of British Columbia (CEC) Specified Scope Information Requests (SS IRs) 11.9 and 11.10.

Yours sincerely,



Rob Gorter
Director, Regulatory Affairs and Customer Relations

Enclosure

Cc: Registered Intervenors

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Creative Energy Vancouver Platforms Inc.
Application for a Certificate of Public Convenience and Necessity for
the Expo and Beatty Plant Project and Approvals Related to Reorganization

CREATIVE ENERGY RESPONSES TO CEC SS IRs 11.9 and 11.10

11. Reference: Exhibit B-23, Appendix 4, PDF page 177/393

For the purpose of comparing the Proposed Project to the Alternative (an in-situ replacement of the end-of-life components of the Beatty Street plant), the Application used a baseline against which to compare both projects. This baseline assumed that the Clear Sky economizer has been removed by 2023 at no cost to Creative Energy (in accordance with the agreement with Clear Sky) and has not been replaced.⁶ This assumption provides for a common and reasonable baseline as at 2023 against which to compare the Proposed Project to the Alternative, as follows:

- The Clear Sky economizer is located on the roof of the building housing the Creative Energy plant and office space. The plant, building and office space are all in need of upgrade or replacement as described in the Application⁷.
- The Proposed Project includes removal and replacement of the existing building structure housing the Beatty plant, and the economizer must be removed before this work can begin. The

baseline for evaluating the costs and benefits of the Proposed Project assumes that Creative Energy takes advantage of Clear Sky's obligation to remove the economizer at its cost such that the unit is removed by 2023.

- The Alternative includes in-situ replacement of boilers and seismic upgrades to the building structure at Beatty⁸ which would also require removal of the economizer to enable that work. The baseline for the Alternative also assumes that Creative Energy takes advantage of Clear Sky's obligation to remove the economizer at its cost such that the unit is removed by 2023. While it is confirmed that the life of the Clear Sky unit could be extended from a technical point of view, there would be additional cost to maintain it and it is not known at this time whether Creative Energy could keep the economizer and still rely on Clear Sky's commitment in the expiring agreement to remove the unit at Clear Sky's cost. If the baseline for the Alternative was to assume that the economizer remains in place indefinitely, this would require different baselines for the Proposed Project vs. the Alternative, and the additional cost of maintaining the economizer and the cost of its eventual removal would have to be included in the cost of the Alternative increasing its cost and present value cost relative to the estimates in section 14 of the Application.
- Given the need to replace the oldest boilers at Beatty and address the seismic risk associated with the sub-standard building, it would not be reasonable to invest in a new economizer until after those matters have been addressed. The baseline used in the Application to compare the Proposed Project to the Alternative does not include investment in a new economizer (estimated at \$1.4 million⁹) because both projects include major upgrades or replacement of the building structure.
- A new economizer is included in the costs and benefits estimated for both the Proposed Project and the Alternative.

For the above reasons, Creative Energy considers that it is reasonable to assume that the economizer unit has been removed by 2023 at no cost to Creative Energy for the purpose of using a common baseline as at 2023 for comparing the costs and benefits of the Proposed Project to those of the Alternative.

11.9 Please calculate the NPV of purchasing a new economizer independently of the proposed Project.

RESPONSE:

Creative Energy notes, as stated in the section of Exhibit B-23 quoted above, that given the need to replace the oldest boilers at Beatty and address the seismic risk associated with the sub-standard building, it would not be reasonable to invest in a new economizer until after those matters have been addressed. Nevertheless, to respond to this question Creative Energy provides below a NPV calculation for the hypothetical scenario where Creative Energy purchases and installs a brand new secondary economizer on the roof of the existing Beatty Street building, replacing the Clear Sky unit. This analysis reflects the costs and benefits of this “Purchase New Economizer” scenario relative to the baseline used to calculate the NPVs shown in our previous analysis. As stated in the Application, the baseline:

“... assumes the existing plant operates indefinitely with no increase in sustaining capital and no replacement of end-of-life equipment. The status quo is not a realistic scenario, but the analysis is intended to illustrate the NPV of costs and benefits from the Project even before accounting for future capital replacement.”¹

This baseline is not a realistic path for Creative Energy to follow, but served as a fixed scenario against which Creative Energy could compare the Proposed Project as well as the Alternative. The Purchase New Economizer scenario is very similar to the baseline; the only difference between the Purchase New Economizer scenario and the baseline is that the Purchase New Economizer scenario includes purchasing and installing a brand new secondary economizer on the roof of the Beatty Street building, replacing the Clear Sky unit. It includes no other capital replacement costs. As Creative Energy has stated:

“Doing nothing (i.e., waiting for a catastrophic failure of boilers or other equipment in excess of 50 years old) is not prudent given the consequences of a catastrophic failure for Creative Energy’s customers. The Alternative project represents the bare minimum which Creative Energy would do to address these concerns. The Alternative is already conservative because it does not fully address the issues with the building and office spaces, so some additional costs are likely.”²

Because the Purchase New Economizer scenario only reflects installing a new secondary economizer, and does not include replacing any aging boilers, upgrading the building, or making other necessary investments in the facility, it is not prudent and Creative Energy does not consider it to be a realistic scenario.

This analysis is based on the assumption that Creative Energy purchases the equipment itself, and receives all efficiency improvements provided by the equipment. Other procurement models are possible but would not change the underlying costs and benefits of the project. Creative Energy has used the following assumptions in calculating the NPV for the Purchase New Economizer scenario:

¹ Exhibit B-1, S. 13.5, pp. 72-73.

² Exhibit B-5, response to BCUC IR 46.5, p. 87.

Item	Value	Note
Cost of New Secondary Economizer	\$2.055 million	Based on \$1.37 million equipment cost + 50% installation cost
Annual Maintenance	1.5% of capital	
New Beatty Plant Gate Efficiency	83.1%	

In the Order G-38-19 Decision, the Commission requested further explanation of Creative Energy’s efficiency assumptions for the baseline. In response, Creative Energy provided further discussion of the baseline as well as information on the 2023 rate impacts relative to an alternate baseline³. In the below table, Creative Energy has provided a 30-year NPV calculation for the Purchase New Economizer scenario relative to the baseline efficiency used in the Application as well as the alternate baseline efficiency shown in Exhibit B-23.

	Purchase New Economizer (2020 Completion)
30 Year NPV Relative to Baseline Efficiency Used in Application (80.4% at Plant Gate)	(\$4.0 million)
30 Year NPV Relative to Alternate Baseline Efficiency (81% at Plant Gate)	(\$2.6 million)

11.10 Please calculate the NPV of extending the term of the Clear Sky agreement independently of the proposed Project assuming no project is undertaken for the next five, ten, and twenty years, and provide the ratepayer impact.

RESPONSE:

In the below table, Creative Energy provides NPV calculations for the scenarios where the term of the Clear Sky agreement is extended for the requested time frames. The question above does not specify what assumptions Creative Energy is to use for the NPV calculations, and so Creative Energy has used the following assumptions:

- that the Clear Sky unit will continue to operate for up to 20 years
- that no major capital replacement costs will be incurred
- that Creative Energy’s maintenance costs for the Clear Sky unit do not change
- that the performance of the Clear Sky unit does not degrade further
- that Creative Energy and Clear Sky Energy Ltd. agree to extend the agreement on the same payment terms as currently apply.

³ Exhibit B-23, Appendix 4.

Although the above assumptions have been used for the calculations, Creative Energy notes that the assumptions are not realistic. The Clear Sky unit is reaching the end of its useful life and is unlikely to be able to operate for 20 additional years.

All values shown are the NPV of costs and benefits from the continued operation of the Clear Sky unit over the requested timeframes, relative to a baseline where the Clear Sky unit has been removed (this is the same baseline used in all previous analysis and in the response to CEC SS IR 11.9). Note that because these NPVs are for timeframes of 5, 10 and 20 years, they are not comparable to the NPVs generated by Creative Energy to compare the Proposed Project and the Alternative. Because the baseline efficiency used in the Application is the Beatty Plant efficiency with the Clear Sky equipment removed, the impact of extending the Clear Sky agreement (with the unrealistic assumptions that the Clear Sky equipment continues to operate without any deterioration in performance and with no increase in capital or maintenance costs) is to produce savings relative to the baseline.

The table also provides NPVs relative to the alternate baseline efficiency used in Exhibit B-23 and in the response to CEC SS IR 11.9. Because this alternate baseline efficiency is the same as the current efficiency with the Clear Sky unit installed, all NPVs are zero.

	Extend Clear Sky Agreement for 5 Years	Extend Clear Sky Agreement for 10 Years	Extend Clear Sky Agreement for 20 Years
NPVs Relative to Baseline Efficiency Used in Application (80.4% at Plant Gate)	(\$0.3 M)	(\$0.6 M)	(\$0.9 M)
NPVs Relative to Alternate Baseline Efficiency (81% at Plant Gate)	\$0	\$0	\$0

Regarding ratepayer impacts, all existing materials in this proceeding have shown rate impacts as of 2023. If the Proposed Project does not proceed and the Clear Sky agreement is extended on the same terms as the current agreement, there will be no impact on rates in 2023.