

26 March 2021

Via E-filing

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

Dear Mr. Wruck:

**Re: British Columbia Utilities Commission (BCUC, Commission)
Creative Energy Vancouver Platforms Inc. (Creative Energy)
2021 Long-term Resource Plan (LTRP) – Redacted Confidential Appendix A**

Creative Energy writes in reply to your email, dated March 24, 2021, to file a redacted public version of Appendix A to the LTRP.

In your email, you note that information into the decarbonization project described in Appendix A to the 2021 LTRP, filed confidentially in its entirety with the BCUC, is available in the public domain. You set out the following request:

The BCUC requests that Creative Energy review Appendix A of the LTRP, and refile a public version of the document as soon as reasonably practicable, which includes all publicly available and/or non-sensitive information contained in Appendix A, with redactions as applicable to any non-public, commercially sensitive information. Creative Energy may also wish to provide an explanation for why it is requesting any remaining redactions are warranted.

We acknowledge that in support of our customer and stakeholder engagement into the decarbonization we have publicized information regarding the project on our website for a limited time and that we refer also in public materials that the project will involve electrification of steam generation in collaboration with BC Hydro.

We accept that most of Appendix A can now be made publicly available, subject however to redacting information into project costs and development expenditures. The actual and

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forecast expenditures to review the technical and economic feasibility of the project and the high-level costs to construct have not been disclosed publicly, and this is intentional. That information if disclosed publicly may harm our competitive position in advance of a City of Vancouver (**City**) Request for Proposals (**RFP**) for low carbon energy, as we have explained in Exhibit B-2, and as we summarize below:

- The City has updated Creative Energy that its expecting timing to issue the RRP is April 2021.
- The redactions in Appendix A are of the project costs and expenditures in specific regard to the decarbonization project, which are therefore of a commercially sensitive nature that would otherwise harm Creative Energy's competitive position if made publicly available during the intervening period while the City's RFP for low carbon energy proceeds.
- The pending RFP presents an emergent opportunity for Creative Energy and its current and future customers to further leverage development of a decarbonization project.
- Public disclosure of the redacted information in Appendix A while the RFP process is ongoing will risk significant and undue harm to our competitive position among proponents to the City's process.

We believe that for these reasons the test for keeping the redacted content in Appendix A confidential is met and that the parties to this proceeding can continue to reasonably advance their inquiry and submissions into the requested approvals on that basis.

For further information, please contact the undersigned.

Sincerely,



Rob Gorter
Director, Regulatory Affairs and Customer Relations

Enclosure.

Creative Energy Long Term Resource Plan

REDACTED

Appendix A

Boiler Electrification Project and Expenditure Schedule

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Electronic Attachments

- Appendix A - Attachment 1 - BC Hydro System Impact Study Report
- Appendix A - Attachment 2 - BC Hydro Confirmation Letter re: Murrin Substation Decommissioning

1 Overview

In consideration of the policy environment and the expectations of existing and potential new customers, as reviewed in the LTRP, Creative Energy is studying a low carbon steam generation solution. This concept focuses on adding electric steam boilers to supplement the current natural gas boilers. The electric steam plant is expected to be located adjacent to the existing steam plant at Beatty, but Creative Energy is investigating alternate locations which might prove technically and/or economically superior.

At this time, Creative Energy has requested the City of Vancouver (**City**) to conditionally certify the steam plant as a Type 2(b) LCES in connection with the boiler electrification project plant as a low carbon energy system in accordance with its policy (as reviewed in the LTRP). This demonstrates an expected advantage of the boiler electrification project for Creative Energy and its customers and potential customers. The boiler electrification project will allow all steam generated by Creative Energy to be considered as low carbon under the LCES, as opposed to only that portion produced by the electric boilers. The aggregate system will fall within a Type 4 certification when the boiler electrification project is complete.

As noted in the cover letter to this Appendix A, the City is soon to embark on a process to issue a Request for Proposals (**RFP**) for low carbon energy. This is a significant emergent opportunity for Creative Energy and its current and future customers to further leverage development of a low carbon energy project. Based on our understanding of a prior City request for qualifications, the City seeks to procure between 3,000 MWh/year and 42,000 MWh/year of low carbon energy over a 10-year period beginning in 2023/2024, to serve residential and commercial development in the Northeast False Creek area of Vancouver.

2 Project Description

This project is only feasible when supplied by electricity from BC Hydro at transmission voltage and transmission service rates, which necessitates a 10MW+ scale. It is not feasible to only build for committed new customers as the lead time for a boiler electrification project is fairly long. Therefore, Creative Energy will approach existing customers and new developments with a low carbon offering.

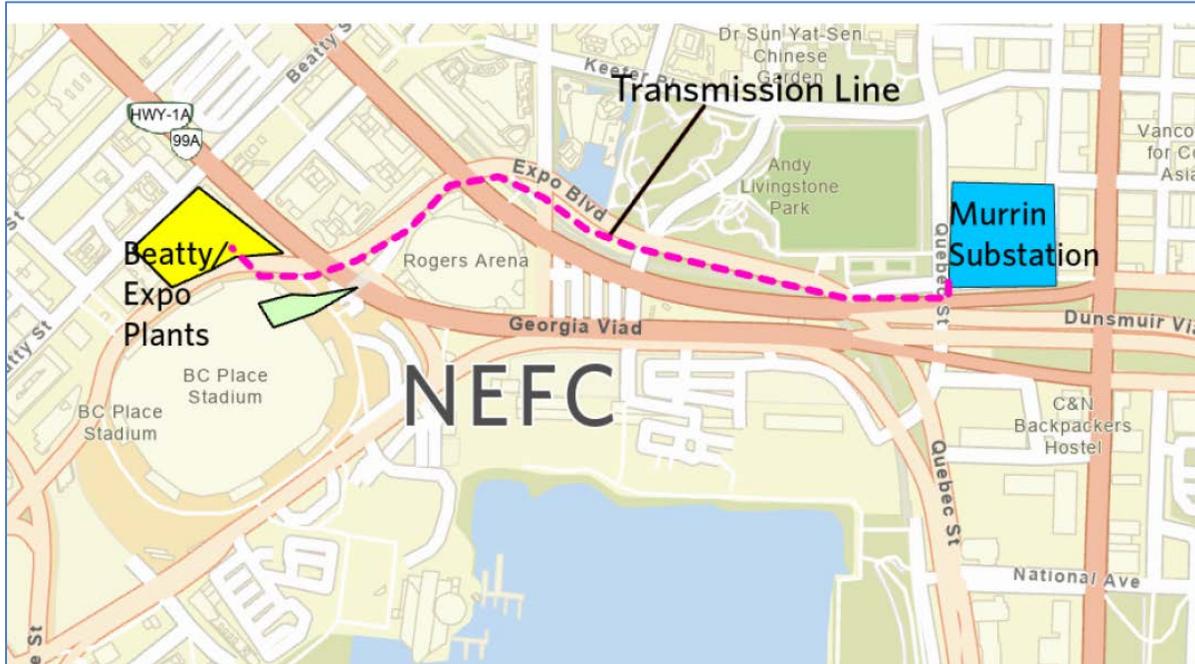
The project is contemplated in two stages: (i) the installation of a 10MW anode electric boiler with an in-service date of January 2024 and peak electrical load demand of 10MW; and (ii) the installation of a further 10MW anode electric boiler with an in-service date of June 2027 and peak electrical load demand of an additional 10MW; however, any final project staging will be informed by further evaluation.

Creative Energy also expects existing buildings will voluntarily subscribe to a portion of the production capacity (10MW, ~85,000MWh/year at the plant gate) with the unsubscribed capacity being a 'fuel switch' for existing customers (a reduction in GHG emissions and reduction in overall bill). These blended low-carbon thermal energy rates are expected to be the lowest rates for low-carbon thermal energy in the Lower Mainland.

BC Hydro, at Creative Energy's request, has undertaken a System Impact Study ("SIS") to identify the requirements for interconnecting the contemplated new electric steam boilers to the BC Hydro system. The SIS confirms that it is technically feasible for BC Hydro to serve the contemplated electric boilers loads, and provides a cost estimate to a conceptual level of accuracy (+100%/-35%). Please refer to Attachment 1.

A new dedicated 60kV transmission circuit from the Murrin substation to Creative Energy's Beatty Plant site would be required. The point-of-interconnection ("POI") is assumed to be a 60kV line position at the Beatty Plant.

Figure A - 1: Proposed Transmission Line



The Regional Transmission System has sufficient capacity to accommodate Creative Energy's boiler electrification project loads. The interconnection of the electric boiler(s) requires the construction of a new dedicated 60kV position at Murrin Substation and a 1.2km transmission circuit to Creative Energy's Beatty Plant, along with required Protection & Control and Revenue Metering equipment. If the project is undertaken in stages, the load addition can be accommodated without further requirements.

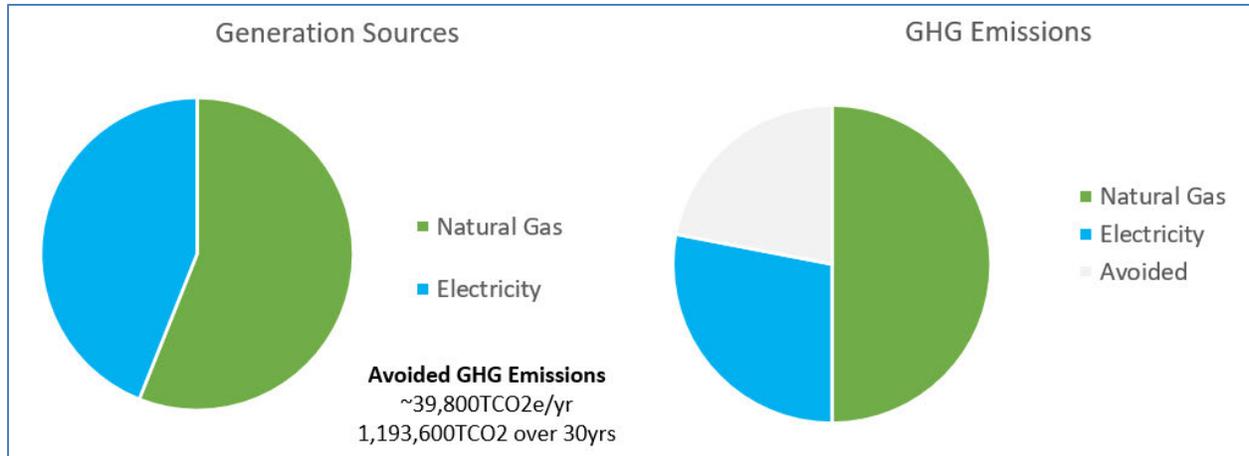
BC Hydro is planning to decommission the Murrin Substation, and Creative Energy's transmission service would be reconfigured when the existing 60kV system in the area is decommissioned, which is anticipated to be after 2030. BC Hydro advised of this plan prior to initiating the SIS and in their SIS Report.

Further to the SIS report, BC Hydro has indicated that there is sufficient load in the downtown core of Vancouver to maintain transmission voltage supply of electricity long-term and that BC Hydro will be responsible for covering future costs to reconnect Creative Energy if and as required when the Murrin substation is decommissioned. Please refer to Attachment 2.

3 Emissions Reduction

The electrification project would reduce existing emissions by approximately 40,000 t CO₂e/yr and would provide 100 percent low carbon energy for approximately 12,000,000 ft² of new development (all downtown development for foreseeable future).

Figure A - 2: GHG Emission Reductions



4 Cost Estimate

The estimated capital cost is [REDACTED] (including the boilers and transmission line) at a conceptual level of accuracy.

BC Hydro's Tariff Supplement No. 6 ("TS No. 6") identifies how costs for the transmission line and system upgrades required to interconnect the new load to the transmission system are allocated. Creative Energy has requested BC Hydro to build the transmission line for this load interconnection request and is responsible for all the costs associated with Creative Energy's facilities. BC Hydro will construct, own and operate the Basic Transmission Extension and Creative Energy will pay for all costs associated with the design and implementation of the Basic Transmission Line. Finally, BC Hydro will construct, own and operate the System Reinforcement but a revenue offset is applied toward these costs in accordance with TS No. 6.

The conceptual level cost estimate for the BC Hydro system requirements for interconnection of Creative Energy’s load is provided below.

Table A - 1: Cost Estimate for Boiler Electrification Interconnection

Estimate Description	Cost Estimate (\$M)	Estimate Accuracy Range	
		+100% (\$M)	-35% (\$M)
Conceptual Project Costs			

5 Next Steps

Creative Energy has requested BC Hydro to commence SIS Step 2- Conceptual Design. In BC Hydro’s study process, once the SIS report has been accepted by the customer, the next step is to proceed to the SIS Step 2 – Conceptual Design. The scope of SIS Step 2 - Conceptual Design includes assessing project risks, conducting high-level constructability review, desktop properties and environmental assessments, assessing First Nations consultation and engagement needs, and will further support the development of a project plan and Class 3 cost estimate to be included with an application for a Certificate of Public Convenience and Necessity (“CPCN”).

Following the completion of the SIS Step 2 – Conceptual Design, the next step would be a BC Hydro Facilities Study. The Facilities Study would confirm the preferred interconnection option, and would identify more detailed technical requirements for the preferred interconnection option. BC Hydro will initiate feasibility design and conduct more detailed risk assessment, First Nations engagement, environmental studies, and other types of studies or activities as required.

At the completion of the Facilities Study, BC Hydro will provide a project plan which includes a refined Implementation cost estimate, typically in the order of +15/-10%. A detailed project implementation schedule will be prepared during the Facilities Study that will confirm whether BC Hydro would be able to meet Creative Energy’s requested in service date.

The costs of a Facilities Study are not included in the Expenditure Schedule shown in Table A-3, but may be in the range of [REDACTED] based on a high-level BC Hydro estimate. We note that Facilities Study costs are of the same nature as the component costs included in the Expenditure Schedule as necessary to investigate the technical and economic feasibility of the boiler electrification project and would provide a level of refinement in the cost estimate that would exceed the requirement under the Commission’s CPCN guidelines. However, the length of time required to complete a Facilities Study (9-12 months) would significantly delay a CPCN filing and impede the planned project implementation schedule shown in Table A-2. A Class 3 cost estimate can be developed on the basis of the BC Hydro SIS Conceptual Design. We are thus proceeding from the standpoint that the Facility Study is not necessary for a CPCN application even though our expectation is that a Facilities Study could commence prior to a CPCN decision to support the ongoing assessment of project feasibility and implementation requirements. Following the completion of the BC Hydro Conceptual Review, we would intend to seek further refinement of a Facilities Study cost estimate and will explore funding options, and we may therefore seek the Commission’s consideration of future Facility Study expenditures in a separate filing at a later date.

Table A - 2: Indicative Project Timetable

Timetable	
Action	Date (2020)
Consultation	January – March 2021
CPCN filed	Quarter 2 2021
Regulatory Process and Approvals	2021
Detailed Design	Late 2021 - mid 2022
Construction of Transmission Line	2022-2023
Construction of Electric Steam Plant	2022-2023
Start of Service	Early 2024

Table A - 3: Predevelopment Expenditure Schedule

Year	Description	Amount
[Redacted Content]		