

MICRO-SOP Program Rules

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Micro-Standing Offer Program ("Micro-SOP") Rules

March 2016

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Table of Contents

1.	Introduction	3
2.	Eligibility Requirements	3
3.	Energy Price	9
4.	Application Process and Review	. 10
5.	Interconnection	. 18
6.	Electricity Purchase Agreement	. 20
7.	Additional Rules	. 20
8.	Further Information	. 22
9.	Reference Documents	. 22
Glossary – Micro-SOP Rulesi		



Micro-SOP Rules

1. Introduction

BC Hydro implemented the Standing Offer Program ("SOP") in April 2008 to encourage the development of small and clean electricity projects throughout British Columbia, as directed by the <u>BC Energy Plan</u>. Under the 2010 <u>Clean Energy Act</u>, BC Hydro is directed to maintain the SOP to acquire electricity from eligible generation facilities with a maximum nameplate capacity of 15 <u>MW</u>.

BC Hydro has developed the Micro Standing Offer Program ("<u>Micro-SOP</u>") as a component within the SOP to enable small-scale clean energy projects in British Columbia over 100 kW up to and including 1 MW (1,000 kW), particularly those developed by First Nations and communities. The Micro-SOP is designed to provide a more streamlined process within the SOP, including a more simplified <u>Electricity Purchase Agreement</u> ("EPA").

These Rules explain the eligibility requirements, energy price, <u>Application</u> review and contracting process and interconnection requirements for the Micro-SOP. Additional information about the Micro-SOP, including Frequently Asked Questions ("FAQs") on a number of topics, can be found at <u>www.bchydro.com/microsop</u>.

2. Eligibility Requirements

To apply under the Micro-SOP, the <u>Developer</u> and the <u>Project</u> must meet both the key eligibility requirements and the standard eligibility requirements outlined below. If an Application is submitted without meeting the key eligibility requirements, it will be rejected immediately. The Developer must meet the standard eligibility requirements before the <u>Application Review</u> process is completed in order to receive an EPA for the Project.

KEY ELIGIBILITY REQUIREMENTS

2.1 Generation Technology

- a) The generation technology meets the requirements to be considered either <u>Commercial Operation Generation Technology</u> or <u>Completed Prototype Generation</u> <u>Technology</u>; and
- **b)** The generators are new. Projects with existing generation are not eligible to apply under the Micro-SOP.

2.2 Eligible Energy

Energy delivered to BC Hydro under the **EPA** must be <u>Clean Energy</u> generated from a <u>Clean or Renewable Resource</u>.



2.3 Location

- a) Projects must be located in British Columbia, which includes Canadian and British Columbia territorial waters;
- b) Projects must not be located in a Protected Area; and
- c) Projects must be located within BC Hydro's service area. Projects located within another utility's service territory or jurisdiction, such as the FortisBC service area, are not eligible for the Micro-SOP.

2.4 Project Size

The generators must have a combined total <u>Nameplate Capacity</u> over 100 <u>kW</u> up to and including 1 MW (1,000 kW). For a Project with multiple generating units, the aggregate Nameplate Capacities of all of the generators must not exceed 1 MW.

BC Hydro may request any additional information it requires to assess the reasonableness of a Project's Nameplate Capacity or expected annual energy volume as specified in the Application, including verification by a qualified B.C. registered professional engineer.

Project clusters and common generation facilities (as defined in the SOP Rules) are not eligible under the Micro-SOP.

2.5 First Nations or Community Involvement

Eligible Projects must have First Nations or community involvement.

a) First Nations – A First Nation(s) wishing to apply under the Micro-SOP must provide evidence to BC Hydro that it has significant beneficial ownership and will actively participate in the development, construction, or operation of the Project in a meaningful way. BC Hydro will not consider royalties and other financial benefits a First Nation(s) may expect to receive from a developer as involvement in the Project.

First Nations means any of the First Nations bands or tribal councils representing aboriginal communities located in British Columbia and any development corporation solely owned and operated by one or more First Nations bands or tribal councils.

b) Community Groups – A community group wishing to participate in the Micro-SOP must provide evidence to BC Hydro that it has at least 50 per cent control and beneficial ownership of the Project.

Eligible community groups include:

- Municipality city, town, village, district or township
- Not-for-Profit Group housing cooperatives, neighbourhood associations, or other non-profit and charitable community or cultural associations

- Public Sector school, college, university or medical care facility
- Agricultural Sector biomass facility using organic waste

First Nations and community group proponents can partner with private sector independent power producers ("IPPs") for the purpose of developing a project that is submitted to the Micro-SOP.

BC Hydro may request any additional information or evidence it requires to assess if a Project meets the First Nations or community involvement requirements..

2.6 Interconnection

All Projects must be directly interconnected to the Distribution System.

A valid <u>Interconnection Study</u> is required for all Projects. See <u>Section 5</u> of the Rules for further details.

2.7 BC Hydro Incentives

A Project is not eligible for the Micro-SOP if the Project has received funding or has a reasonable expectation of receiving funding from BC Hydro through a <u>Load</u> <u>Displacement</u> or <u>Demand Side Management</u> program. Projects that have been subject to BC Hydro funding other than through a Load Displacement or Demand Side Management program may be eligible for the Micro-SOP at the discretion of BC Hydro.

2.8 Permits, Site Control and Zoning

The <u>Application Form</u> identifies the permits, site control and evidence of zoning that are key or standard eligibility requirements that must be satisfied by the Project.

2.8.1 Permits – The Developer must have obtained the permits specified in the Application Form to the extent required for the Project under applicable laws.

Where the Project consists of a Completed Prototype Generation Technology, BC Hydro reserves the discretion to identify the permits that are required prior to an offer of an EPA following a review of the Project.

- **2.8.2** Site Control The Developer must demonstrate that it has obtained the right to use the Project site (including, unless otherwise acceptable to BC Hydro in its discretion, all areas where the generating facility and related access roads, transmission lines and other Project facilities will be built) for a period generally consistent with the <u>Term</u> of the EPA or such shorter period as otherwise acceptable to BC Hydro in its discretion.
- **2.8.3 Zoning** If local government land use requirements apply to all or any part of the Project site (including areas where the generating facility and related access roads, transmission lines and other Project facilities will be built), that part of the Project site must be appropriately zoned for the applicable Project use. Please



refer to section 121 of the *Utilities Commission Act* and the *Public Utilities Regulation*.

2.9 Public Utility Status

If a Developer is a "public utility" for purposes of the *Utilities Commission Act* it must have an exemption from regulation as a public utility under Part 3 of the *Utilities Commission Act* with respect to the sale of energy to BC Hydro under the EPA (e.g., Minister's Order No. M-22-0205). A Developer that is otherwise a public utility and may actively be serving customers is not eligible to apply under the Micro-SOP.

2.10 Target Commercial Operation Date

The <u>Target Commercial Operation Date</u> ("Target COD") submitted by the Developer in the Application must be:

- a reasonable estimate of the date on which the Project is expected to achieve <u>COD</u> with considerations for the Micro-SOP Application Review process, interconnection process and any implications there may be on the Project maintaining its generator interconnection queue position determined by BC Hydro's Distribution Generator Interconnections;
- **b)** in a year where there is sufficient room available for the Project's annual energy volume in BC Hydro's <u>Energy Volume Target</u> at the time of application; and
- c) within three years, but not earlier than six months, after signing the EPA.

Developers are expected to review the Micro-SOP website for available annual energy volumes and use this information to select their Project's Target COD year. BC Hydro does not represent or warrant that the available volume posted on the SOP/Micro-SOP website will be or remain available at the time developers submit an Application. Developers are encouraged to contact BC Hydro prior to submitting an Application to verify the energy volume expected to be available in their Target COD year.

The Target COD selected by a Developer for a Project will be eligible for registration in the corresponding COD year once BC Hydro has determined, in its discretion, that the Developer and Project have met the key eligibility requirements described in Section 2 of these Rules. Target CODs will be registered on a first-come first-served basis upon determination that the Application is complete and meets the key eligibility requirements of the Micro-SOP.

BC Hydro may request any additional information it requires to assess the reasonableness of the Project's Target COD or the Project's expected energy specified in the Application. If BC Hydro determines, in its discretion, that the Target COD is not achievable, BC Hydro may reject the Application.

If the Developer's selected Target COD year has insufficient room in the Energy Volume Target to allow for the Project's annual energy, BC Hydro will give the Developer the opportunity to postpone their Target COD to the next year with sufficient available energy volume. If the Developer declines to postpone their Target COD, BC Hydro may reject the Application.

BC Hydro may, at its discretion, allow a Project to exceed the available energy volume in its Target COD year. In determining whether to allow a Project to exceed the available energy volume in the Target COD year, BC Hydro may consider:

- the extent to which all or part of the Project's energy exceeds the available energy volume in the Target COD year;
- if a majority of the Project's energy is available in its Target COD year;
- if BC Hydro's available energy volume is already expected to be exceeded by other projects registered in the Target COD year;
- if the available energy volume was exceeded in the year before the Target COD year; and
- if there is available energy volume in the year following the Project's Target COD year to apply any excess energy to.

STANDARD ELIGIBILITY REQUIREMENTS

2.11 Projects Behind a BC Hydro Customer Load

Projects located <u>Behind a BC Hydro Customer Load</u> are eligible for the Micro-SOP. However, BC Hydro will only purchase energy from such Projects on a <u>Net-of-Load</u> basis.

2.12 Previous, Current and Future EPAs with BC Hydro

If BC Hydro signed an EPA with respect to a Project, that Project is eligible for Micro-SOP, provided that (i) the Project did not achieve commercial operation while the original EPA was in effect, and (ii) the original EPA has been terminated in accordance with its terms and all other post-termination conditions and restrictions in that EPA have been satisfied.

BC Hydro may determine in its discretion whether or not a Project submitted to the Micro-SOP constitutes the same project as a project for which an EPA was previously signed with BC Hydro. Factors BC Hydro may consider include, but are not limited to, the location, permits, licenses and site tenure, and the Developer (including ownership structure) of the Project submitted to the Micro-SOP, relative to the prior project.

2.13 Environmental Attributes

All <u>Environmental Attributes</u> for the energy delivered to BC Hydro under the EPA must be transferred to BC Hydro. The value of the Environmental Attributes is included in the price paid for energy delivered under the Micro-SOP and is not paid separately to the Developer. For Projects where Greenhouse Gas ("<u>GHG</u>") emissions can be reduced in the process of methane capture and combustion, such as biogas, landfill gas control systems, and other similar projects, Environmental Attributes excludes any rights associated with GHG reductions arising from the methane capture and combustion process for those Projects. Those rights will be retained by the Developer. For biomass Projects, Environmental Attributes excludes rights derived from the harvest, collection or delivery of fuel to the Project. Those rights will be retained by the Developer.

2.14 EPAs with Third Parties

The Project must not be subject to any agreements with a party other than BC Hydro for the purchase and sale of electricity from the generator.

2.15 Conflicts of Interest

The Developer must not be in or have the potential to be in an actual, apparent or deemed conflict of interest as a result of entering into an EPA with BC Hydro. The Developer must inform BC Hydro, by completing and submitting a Conflict of Interest Statement form, of any disclosures required under BC Hydro's Contractor Standards for Ethical Conduct and any potential conflicts of interest it may have with BC Hydro or BC Hydro's directors, officers or employees. The Conflict of Interest Statement form and BC Hydro's Contractor Standards for Ethical Conduct can be found on the Documents page of the Micro-SOP website at www.bchydro.com/microsop.

If the Developer has any directors, officers, owners (with 20 per cent or more direct or indirect ownership in the Developer or its affiliates), or Project team members who have been employed by BC Hydro or its subsidiaries at any time in the two years preceding the submission of the Application, BC Hydro will deem there to be a conflict of interest.

BC Hydro will review the Conflict of Interest Statement form and determine, in its discretion, whether there is any actual, apparent or deemed conflict of interest.

2.16 First Nations

BC Hydro will assess the adequacy of First Nations consultation before it makes a decision to offer an EPA for the Project. In its assessment, BC Hydro will consider a number of factors, which may include:

- information on how the Developer determined which First Nations to consult;
- the extent to which the Project has gone through the B.C. permitting and land tenure processes and any permit(s) or licence(s) of occupation issued for the Project. BC Hydro will consider the issuance of land tenure, permits and licenses to indicate that a Crown agency has completed First Nations consultation. Permits and tenures issued by the Ministry of Forests, Lands and Natural Resource Operations will also indicate that the Crown agency has considered the impacts of the sale of electricity to BC Hydro in its consultation process;
- information on the potential impact from the Project on asserted Aboriginal rights and title, and information on how the Developer reached this impact assessment; and



• information on the level of consultation as evidenced by consultation reports, logs, letters of support, correspondence and any other material submitted demonstrating consultation with First Nations for the Project.

For a Project being developed by one or more First Nations, BC Hydro will also consider:

- The consultative boundaries of other First Nations overlapping with the Project area. Depending on the circumstances of the Project, BC Hydro may require the First Nation(s) to consult with other First Nations whose consultative boundaries include the Project area.
- Where a Project is being developed by a company owned by First Nation(s),_the First Nation(s) must provide information about how its Chief and Council is kept informed of the Project development, including the Project ownership information provided in section 1.3 of the Application.

BC Hydro strongly encourages all Developers to contact their local FrontCounter BC office to confirm they have all of the necessary permits or permit amendments in place and to obtain information on any First Nations consultation that may be required in relation to the Project. FrontCounter BC is the Provincial government's "single window service" within the Ministry of Forests, Lands and Natural Resource Operations for natural resource authorizations and permits. Developers should include any information obtained from FrontCounter BC in their Application.

3. Energy Price

To determine the price BC Hydro will pay for energy delivered under an EPA, the Micro-SOP uses a base price in 2016\$ determined by the region of the <u>Point of Interconnection</u> ("POI") for the Project. The base price is set out in the table below.

Region of POI	Base Price <u>(2016\$/MWh)</u>
Vancouver Island	110.01
Lower Mainland	111.56
Kelly/Nicola	104.39
Central Interior	106.80
Peace Region	102.06
North Coast	103.47
South Interior	106.50
East Kootenay	109.94

Figure 1 – Base Price

One hundred percent of the base price will be escalated at <u>CPI</u> annually up to the year in which an EPA is signed; escalation will be effective as of January 1st in each year. If CPI data is not available when the EPA is signed, the EPA will provide for a base price adjustment when the CPI data is released. After the EPA is signed, 50 per cent of the escalated base price is further escalated annually at CPI effective as of January 1st in each year.

The price described above applies to the quantity of energy delivered at the POI.

The price per MWh described above is the only amount payable by BC Hydro. There is no additional payment for Environmental Attributes, for environmental certification (as defined in the <u>Standard Form EPA</u>) or any other expenses. The price will apply for one non-renewable EPA term of the duration selected in the Application.

Developers should note that BC Hydro is currently reviewing SOP and Micro-SOP energy pricing, including escalation and adjustments. BC Hydro expects that new pricing will take effect for Projects with Target CODs beginning in 2020.

4. Application Process and Review

4.1 **Pre-Application Meeting and Preliminary Assessment**

Potential applicants to the Micro-SOP are strongly encouraged to request a meeting or conference call with BC Hydro at any time prior to submitting an Application. The purpose of the pre-application meeting is to review the Micro-SOP Rules, the Application process, the Standard Form EPA, the interconnection requirements and study costs, First Nations consultation requirements and other matters required to facilitate the Application process, such as available annual energy volume, basic interconnection information and other topics that may be the subject of a preliminary assessment.

To arrange a pre-application meeting or conference call, Developers should submit:

- a completed Pre-Application Meeting form, available on the Documents page of the Micro-SOP website at <u>www.bchydro.com/microsop</u>; and
- a scanned copy of the completed Confidentiality and Compliance Agreement signed by the Developer, also available on the Documents page of the Micro-SOP website at www.bchydro.com/microsop.

by email to the Micro-SOP Administrator at micro.sop@bchydro.com.

Potential applicants to the Micro-SOP may also request a preliminary assessment of whether the Developer and/or the Project meet certain eligibility requirements of the Micro-SOP. To request a preliminary assessment of specific eligibility requirements for the Micro-SOP, Developers should submit:

- a written request for a preliminary assessment of one, or more, specific eligibility requirements for the Micro-SOP including a description of the Developer and the Project; and
- a scanned copy of the completed Confidentiality and Compliance Agreement signed by the Developer, available on the Documents page of the Micro-SOP website at <u>www.bchydro.com/microsop</u>.

by email to the Micro-SOP Administrator at micro.sop@bchydro.com.

A preliminary assessment is based on the information provided to BC Hydro in the request for the preliminary assessment and the Micro-SOP Rules in effect at the date of the preliminary assessment. A preliminary assessment is not binding on BC Hydro. Any variance between the information contained in a request for a preliminary assessment and the information contained in a Micro-SOP Application or actual Project conditions may result in a final decision that is different from the preliminary assessment. As set out in Section 7.5 of the Rules, BC Hydro may amend the Micro-SOP Rules at any time. A change in the Micro-SOP Rules may also result in a final decision that is different from the preliminary assessment.

4.2 Submitting an Application

To apply for the Micro-SOP, the Developer must submit the following:

- a scanned copy of a completed Micro-SOP Application Form signed by the Developer, with applicable exhibits and appendices, in electronic form; and
- a scanned copy of the completed Confidentiality and Compliance Agreement signed by the Developer (if not previously submitted with a pre-application meeting or preliminary assessment request);

by email to the Micro-SOP Administrator at micro.sop@bchydro.com or delivered on one (1) disk or USB flash drive to:

BC Hydro Micro-SOP 17th Floor, 333 Dunsmuir Street Vancouver, BC V6B 5R3 Attention: Micro-SOP Administrator

The Application Form, applicable appendices and Confidentiality and Compliance Agreement are available on the Documents page of the Micro-SOP website at www.bchydro.com/microsop.

4.3 Review and EPA Process

4.3.1 Application Review

- a) **Completeness Review** Upon receipt of the Application, BC Hydro will provide the Developer with a written acknowledgement and will perform a completeness review to ensure that it has all the information required to proceed with the Application Review. At a minimum, the Developer should have submitted:
 - a signed Application and applicable appendices;
 - all exhibits marked for inclusion by the Developer; and
 - a signed Confidentiality and Compliance Agreement.



In order to commence the Application Review, the Confidentiality and Compliance Agreement must be valid – that is, it must be with the appropriate entity which needs to be in good standing.

In the event the Application is incomplete, BC Hydro may request additional information or clarification from the Developer. Depending upon how much information is missing from the Application, BC Hydro will either (1) keep the Application and request submission of the missing information subject to Section 4.6 of the Rules or (2) reject the Application.

BC Hydro will notify the Developer in writing upon completion of the completeness review.

b) Initial Eligibility Review and Application Review – BC Hydro will perform an initial eligibility review and the Application Review.

An initial eligibility review assesses whether the Developer and the Project meet the key eligibility requirements as described in Section 2 of the Rules. BC Hydro will reject an Application that has not met the key eligibility requirements upon submission of the Application.

Once BC Hydro determines that the Developer and Project meet the key eligibility requirements, the Application Review continues with the assessment of whether the Developer and the Project meets all eligibility requirements.

In the event BC Hydro is unable to confirm the Project's eligibility under the Micro-SOP, BC Hydro may request additional information or clarification from the Developer. Depending upon how much information is missing from the Application, BC Hydro will either (1) keep the Application and request submission of the missing information subject to Section 4.6 of the Rules or (2) reject the Application.

BC Hydro will notify the Developer in writing of the result of the Application Review and if the Application is retained or rejected following completion of this step. If retained, BC Hydro will advise the Developer on the status of registering the Project's energy volume under its Target COD year.

c) Registration Under the Energy Volume Target – For each Application that is retained following completion of the steps described in Section 4.3.1 b) of the Rules, BC Hydro will register the Project's energy volume under its Target COD year as described in Section 2.10 of the Rules. BC Hydro will notify the Developer in writing upon completion of the registration.

4.3.2 Review of Interconnection Study

a) For each Application that is retained following completion of the steps described in Section 4.3.1 of the Rules, BC Hydro will request that the Developer begin the Interconnection Study. The Developer must file a complete application with BC Hydro Generator Interconnections for the



Interconnection Study and pay the applicable study fees within 28 <u>Days</u> after the request, or the Application may be rejected.

- b) If the Developer submits an Interconnection Study application with a <u>Plant</u> <u>Capacity</u> and Nameplate Capacity or other material information that is not the same as the Plant Capacity and Nameplate Capacity or other information described in the Application, the Application will be rejected.
- c) Upon completion of the Interconnection Study, BC Hydro will review the Interconnection Study to determine whether BC Hydro is ready to support the Project's interconnection to the Distribution System. BC Hydro may reject an Application if the Interconnection Study indicates that the proposed interconnection and <u>Interconnection Network Upgrades</u> are not capable of being completed at least 90 Days prior to the Target COD specified by the Developer in the Application, or it indicates Interconnection Network Upgrade Costs that are not acceptable to BC Hydro.
- **d)** The Developer must be capable of signing an <u>Interconnection Agreement</u> with BC Hydro for the interconnection of the Project within 60 Days of signing an EPA.

Developers should note that an Interconnection Study may become out-of-date and invalid if further studies or further steps are not commenced within the time required by BC Hydro Generator Interconnections.

4.3.3 EPA Preparation

a) For each Application that is retained following completion of the steps described in Section 4.3.2 c) of the Rules, BC Hydro may advise the Developer of required changes to the Standard Form EPA based on a review of the Application.

BC Hydro then expects to provide the Developer with a draft EPA for the Developer's review and comment. If required, BC Hydro may also provide subsequent drafts to the Developer for further review. Once BC Hydro sends a draft EPA to the Developer, the Developer is expected to provide its response and comments to BC Hydro within a commercially reasonable period of time. Failure to do so may result in rejection of the Application.

- b) Following completion of the steps described in Section 4.3.3 a) of the Rules:
 - i) BC Hydro will request that the Developer completes and submits a <u>Statement of Project Changes</u> that identifies any changes to any information in the Application; and
 - **ii)** BC Hydro will prepare a final draft EPA and present it to the Developer for review and comment.



The Developer is required to submit a Statement of Project Changes and provide comments on the final draft EPA within a commercially reasonable period of time or the Application may be rejected.

4.3.4 EPA Offer and Acceptance

- a) After completion of the process described in Section 4.3.3 of the Rules including the filing of required documents and information, BC Hydro will send the Developer either an offer of an EPA or a notice of rejection of the Application.
- b) If the Developer wishes to accept the offer of an EPA, the Developer must sign the EPA and deliver it to BC Hydro at the address specified in Section 4.2 of the Rules. If the Developer has not delivered the signed EPA within a commercially reasonable period of time, BC Hydro's offer of an EPA will be withdrawn.
- **c)** Subject to Section 4.3.4 d) of the Rules, BC Hydro will send a fully signed EPA to the Developer after receipt by BC Hydro of the signed EPA from the Developer.
- **d)** BC Hydro may withdraw an offer of EPA, without liability, at any time prior to delivery of the fully-signed EPA to the Developer.
- e) The signed EPA will be conditional on the Developer signing an Interconnection Agreement with BC Hydro within 60 Days of signing the EPA.
- **4.4 Amending Applications** Developers may amend an Application at any time prior to delivery of an EPA offer by BC Hydro to the Developer. Any such amendment may extend BC Hydro's Application Review and EPA offer timelines.

Developers should note that any amendments that may result in a change to an interconnection queue position or the Interconnection Study as determined by BC Hydro's Distribution Generator Interconnection practices may invalidate the interconnection queue position or the Interconnection Study. If the interconnection queue position or Interconnection Study become invalid prior to execution of an EPA by both BC Hydro and the Developer, the Application may be rejected.

- **4.5** Withdrawing Applications Developers may withdraw a submitted Application, without liability, by providing written notice to BC Hydro at any time prior to signing an EPA.
- **4.6** Request for Further Information/Meetings BC Hydro may, but is not required to, request further information, clarification or verification concerning an Application or other communication received from a Developer. Failure to respond to such a request within 28 Days after the date of the request may result in rejection of an Application. BC Hydro may telephone or meet with any Developer or group of Developers at any time prior to or following the submission of any Application(s).

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- **4.7 Due Diligence and Consultation** BC Hydro may, but is not required to, undertake any investigation or inquiries and/or undertake any consultation with any governmental or regulatory authority or any other person or group as BC Hydro considers necessary in its discretion with respect to a Developer, a Project, and/or an Application and may, in reviewing an Application, consider any information received as a result of such investigation, inquiry and/or consultation.
- **4.8 Rejecting Applications** BC Hydro may accept or reject any Application and may decide to offer or not to offer an EPA to a Developer at its discretion. BC Hydro may reject an Application at any stage in the Application Review process notwithstanding any prior decisions by BC Hydro. Reasons for rejection of an Application and/or a decision not to offer an EPA to a Developer may include, but are not limited to:
 - i) an incomplete Application;
 - ii) an Application that does not meet the eligibility requirements set out in Section 2 of the Rules;
 - failure to respond to a request by BC Hydro for additional information, failure to respond to or accept Project-specific EPA changes requested by BC Hydro and/or failure to file an Interconnection Study or Statement of Project Changes within the required time limits;
 - iv) a generator interconnection queue position (as determined by BC Hydro's Distribution Generator Interconnection practices) or Interconnection Study that becomes invalid at any time prior to execution of an EPA by both BC Hydro and the Developer;
 - v) a generator interconnection queue position (as determined by BC Hydro's Distribution Generator Interconnection practices) or Interconnection Study indicating that the proposed interconnection and Interconnection Network Upgrades are not capable of being completed at least 90 Days prior to the Target COD specified by the Developer in the Application;
 - vi) the Developer not signing an Interconnection Agreement with BC Hydro within 60 Days of signing the EPA;
 - **vii)** an Application for a Project that BC Hydro determines requires material Standard Form EPA amendments;
 - viii) an Application for a Project that will result in Interconnection Network Upgrade Costs that are not acceptable to BC Hydro;
 - ix) an Application in respect of which any of the information included in the Application is not satisfactory to BC Hydro in any respect;
 - **x)** an Application in respect of which BC Hydro determines that the Developer has, or by entering into an EPA, would have, an actual, apparent, or deemed conflict of interest; or



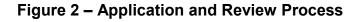
xi) an Application in respect of which BC Hydro determines that the Project and/or the Developer are unsuitable for the Micro-SOP or BC Hydro determines in its discretion that it would not be in the public interest to offer an EPA for the Project or to the Developer.

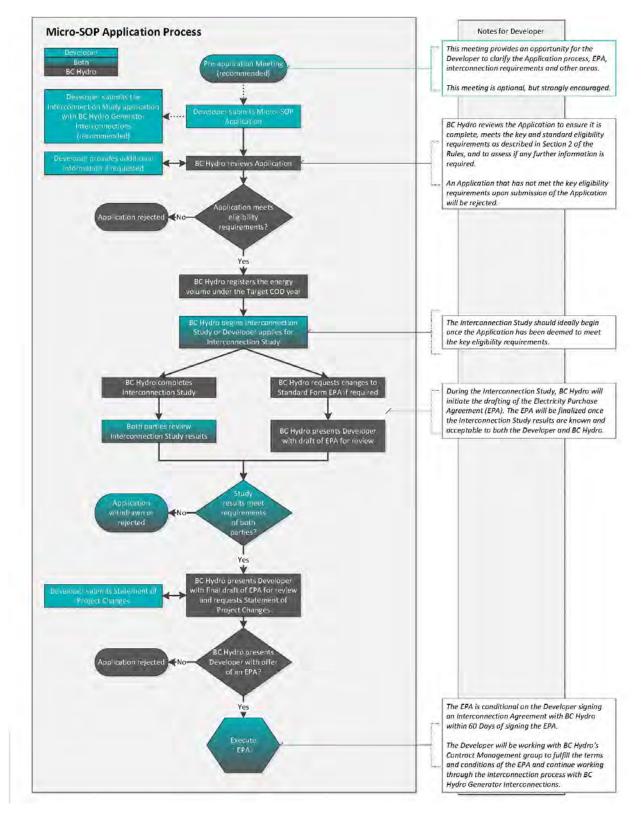
If the Application is rejected, the Developer can request an information meeting with BC Hydro to discuss the reasons for the rejection.

A rejected Application can be resubmitted at a later date provided the deficiencies or issues noted as reasons for rejection have been addressed. A rejected Application will have its Target COD deregistered.



A schematic of the Micro-SOP Application and review process is shown in Figure 2 below.





5. Interconnection

INTERCONNECTION REQUEST PROCESS

The interconnection process will be conducted by BC Hydro Generator Interconnections. All inquiries should be directed to <u>distribution.generators@bchydro.com</u>.

- **5.1** Interconnection Requirements All generators connected to BC Hydro's Distribution System are required to meet BC Hydro's technical interconnection requirements. In order to determine these requirements and assess the impacts to BC Hydro's system from the proposed interconnection for the purpose of identifying the required network upgrades, technical studies must be performed in order to provide cost estimates.
- 5.2 Interconnection Study A valid Interconnection Study is required for all Projects that are directly interconnected to the Distribution System. For Projects that are over 100 kW up to and including 1 MW (1,000 kW) in size, the Developer must obtain a <u>Screening Study</u> which provides a conceptual level estimate of the interconnection requirements for the Project. If the Project does not pass the Screening Study tests, as determined by BC Hydro's Generator Interconnections, the Project will require a <u>System Impact Study</u> which provides a planning level estimate of the interconnection requirements.
- **5.3 Interconnection Agreement** Prior to BC Hydro offering an EPA for the Project, all studies required to interconnect the Project to the Distribution System must have been completed, and the Developer must be capable of signing an Interconnection Agreement with BC Hydro for the interconnection of the Project within 60 Days of signing an EPA.
- **5.4 Early Contact** Developers are encouraged to contact BC Hydro Generator Interconnections early in the planning process to discuss the interconnection concept and feasibility for their Project.

As previously noted, an Interconnection Study may become invalid if further studies or further steps are not commenced within the time required by BC Hydro Generator Interconnections. Accordingly, BC Hydro recommends Developers file their Interconnection Study application with BC Hydro Generator Interconnections at the time they submit their Application to the Micro-SOP.

5.5 Interconnection Issues – For questions related to interconnection process and Interconnection Study, please contact BC Hydro Generator Interconnections at:

BC Hydro Generator Interconnections 6911 Southpoint Drive, Edmonds B03 Burnaby, B.C. V3N 4X8 Email: <u>distribution.generators@bchydro.com</u>

Complete details regarding the interconnection process can be found at <u>www.bchydro.com/distributiongenerators</u>.

RESPONSIBILITY FOR COSTS

- **5.6** Interconnection Study Costs The Developer will be responsible for the costs of all studies required for the interconnection of the Project to the Distribution System.
- **5.7 Transmission Costs** The Developer will be responsible for the cost to transmit power sold under the EPA to the POI. BC Hydro will be responsible for the cost to transmit power acquired under the EPA from the POI to BC Hydro's <u>Integrated System</u>.
- **5.8** Interconnection Costs Interconnection costs refer to the cost of any modifications or additions to the Distribution System or <u>Transmission System</u> arising from the direct interconnection of the Project to the Distribution System. An estimate of these costs will be provided in the Interconnection Study. The Interconnection Study will (a) identify those costs that are the responsibility of the Developer and (b) provide an estimate of Interconnection Network Upgrade Costs ("INU Costs").
- 5.9 INU Costs and INU Threshold Unless the EPA is terminated prior to 90 Days after COD, BC Hydro is responsible for all INU Costs incurred after the effective date of an EPA up to the <u>INU Threshold</u>. The INU Threshold will be escalated at CPI annually up to the year in which an EPA is signed, effective as of January 1st starting in 2017. BC Hydro will also be responsible for INU Costs in excess of the INU Threshold resulting from a change in the <u>Base Case</u> after the effective date of the EPA, but excluding any changes to the Base Case caused by the Developer or the Project. The Developer is responsible for all costs in excess of the INU Threshold, except as described above.
- **5.10 Transmission Network Upgrade ("TNU")** Costs BC Hydro is responsible for <u>TNU</u> <u>Costs</u>, except for TNU Costs that arise as a result of any Project changes made by the Developer relative to the information provided as part of the Application, including the Interconnection Study.
- 5.11 Network Upgrade Security After receipt by the Developer of the Interconnection Study, and prior to entering into any agreement for the design, engineering or construction of Interconnection Network Upgrades with BC Hydro Generator Interconnections, the Developer must deliver the <u>NU Security</u> to BC Hydro for 100 per cent of the INU Costs as estimated in the Interconnection Study.

The required amount of NU Security may change from time to time to reflect the full amount of INU Costs estimated plus any TNU Costs that are the responsibility of the Developer due to Project changes made by the Developer relative to the information provided as part of the Application, including the Interconnection Study.

The required form of NU Security can be found on the Documents page on the Micro-SOP website. The NU Security will be returned to the Developer within 15 Days after the date that is 90 Days after COD after deducting any outstanding amounts payable by the Developer for INU Costs and Base Case liabilities, as prescribed by BC Hydro Generator Interconnections.

5.12 Revenue Meters – Developers are required to have a revenue class <u>Revenue Meter</u> for the Project which is sealed and approved for revenue purposes by Measurement Canada. Smart meters will be used for Micro-SOP Projects wherever possible.

The Revenue Meter must be leased from BC Hydro and its installation must be in accordance with BC Hydro's revenue metering requirements. After signing an EPA and in advance of the Target COD, Developers should contact BC Hydro Generator Interconnections to make arrangements for the location, installation and testing of the Revenue Meter, with a copy to BC Hydro's Contract Management group at: <u>ipp.contract@bchydro.com</u>.

6. Electricity Purchase Agreement

6.1 Standard Form EPA – The Standard Form EPA for the Micro-SOP is available at <u>www.bchydro.com/microsop</u>. Developers are encouraged to carefully review the Standard Form EPA prior to submitting an Application.

The Standard Form EPA will be comprised of two main components:

- (a) Term Sheet
- (b) General Terms and Conditions

The Standard Form EPA assumes that the Project has a direct and independent interconnection to the Distribution System and will have a Revenue Meter that measures output only from the Project and no other electricity generators. The Standard Form EPA also assumes that the Developer is a corporation.

- **6.2 EPA Changes** The Micro-SOP is intended to be a simplified program and therefore changes to the Standard Form EPA should be minimal. However, BC Hydro may require changes to the Standard Form EPA with respect to any Application where BC Hydro considers in its discretion that changes are required based on the information in the Application. For example, unique Project configurations may result in the need for special terms and conditions in the Term Sheet portion of the EPA.
- **6.3 EPA Term** The EPA will have a term of 5 to 40 years, as selected by the Developer, commencing on the Commercial Operation Date of the Project.

After the term of the EPA expires, BC Hydro will determine whether it is prepared to enter into negotiations with the owner of the Project regarding a new EPA for the Project. BC Hydro's determination will be based on its need for the electricity, prevailing market conditions, energy price, and power procurement practices at the time. If BC Hydro wishes to enter into a new EPA for the Project, BC Hydro expects that the price it offers for energy will assume that all initial capital costs for the Project have been recovered.

7. Additional Rules

7.1 Costs – Developers are responsible for all costs incurred by them in connection with the Micro-SOP, including the costs of preparing an Application and any other submission required under the Micro-SOP, all Interconnection Study costs and the execution and delivery of any EPA.

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- **7.2** Nature of Process The Micro-SOP is *not* a Call for Tenders. No legal offer, legal contract or legal duties or obligations of any kind whatsoever, whether express or implied, are intended to be created by or under the Rules, or by the filing of an Application, or the acceptance of an Application for review, or the review of an Application, or in any other manner whatsoever under or in connection with the Micro-SOP except for those arising under an EPA that has been signed and delivered by both the Developer and BC Hydro.
- **7.3 Waiver** BC Hydro may waive any provision of these Rules, including any of the eligibility requirements, where BC Hydro determines in its discretion that such waiver would be consistent with the objectives of the Micro-SOP or is otherwise in the public interest or the interest of BC Hydro's ratepayers.
- **7.4 Program Suspension/Cancellation** BC Hydro may cancel or suspend the Micro-SOP at any time without any liability to any Developer or to any other person.
- **7.5 Program Amendments** BC Hydro may amend the Micro-SOP Rules, the Application Form, the Standard Form EPA and any <u>Reference Documents</u> in any respect in whole or in part at any time, provided that any such amendments shall not affect any EPA that has been offered to a Developer prior to the amendment. Any amendment will apply to all EPAs offered after the amendment.
- **7.6 No Liability** BC Hydro (including, its affiliates, and their respective directors, officers, employees, contactors, subcontractors, consultants, agents and representatives), incurs no liability of any nature or kind whatsoever to any person in connection with the Micro-SOP or the administration of the Micro-SOP, or information provided with respect to, or in the course of, the Micro-SOP, or the acceptance, rejection, or review of any Application, or any other decision, assessment, determination, statement, act or omission whatsoever, whether negligent or not, relating to the Micro-SOP or its administration.
- **7.7 Unsolicited Information Not Considered** BC Hydro is not required to consider any information with respect to an Application that is not contained in the Application, or any written response to a request from BC Hydro for further information, clarification or verification.
- **7.8 Ownership of Documents** All Applications and all documents filed with an Application and all other submissions by a Developer under or in connection to the Micro-SOP will be retained by, and become the property of, BC Hydro, provided however that BC Hydro does not thereby acquire any ownership interest in intellectual property embedded therein.
- **7.9** Other BC Hydro Power Procurement Processes BC Hydro may at any time reject an Application for a Project that is the subject of a submission in any other BC Hydro power procurement process.
- **7.10** Filing Requirements If the last day for completing any action required or contemplated under the Rules falls on a day that is a Saturday, Sunday or other day recognized as a statutory holiday in British Columbia, the time for completing that action

will be extended to the next day that is not a Saturday, Sunday or other day recognized as a statutory holiday in British Columbia.

8. Further Information

Developers should direct any questions regarding the Micro-SOP in writing to the Micro-SOP Administrator as follows:

by email to:	micro.sop@bchydro.com
or by mail to:	BC Hydro Micro-SOP 17 th Floor, 333 Dunsmuir Street Vancouver, BC V6B 5R3 Attention: Micro-SOP Administrator

Any questions submitted and subsequent answers may be posted at <u>www.bchydro.com/microsop</u>.

To avoid any potential misunderstandings and for administrative ease, Developers must not contact any BC Hydro director, officer or employee on any matter pertaining to the Micro-SOP except as set out above or, in the case of inquiries with respect to the interconnection process, as set out in Section 5 of the Rules.

Communication from Developers should originate from the contact person(s) specified in the Application. Contact persons can be changed by notice to the Micro-SOP Administrator. Developers should communicate in writing (which may include email).

9. **Reference Documents**

- A. Pre-Application Meeting Form
- B. Application Form
- C. Statement of Project Changes Form
- D. Standard Form EPA
- E. Conflict of Interest Statement Form
- F. BC Hydro's Contractor Standards for Ethical Conduct
- G. Confidentiality and Compliance Agreement



Glossary – Micro-SOP Rules

All references to section numbers are to sections of the Micro-SOP Rules, not the Application Form or Standard Form EPA, unless otherwise expressly stated.

- 1. **Application** means the Application Form for a Project as submitted by the Developer to BC Hydro together with all amendments thereto and all supporting documents and information filed by the Developer with BC Hydro with respect to the Project, including the Interconnection Study or Studies. [back]
- 2. **Application Form** means the form titled "Application Form" available at <u>www.bchydro.com/microsop</u>. [back]
- 3. **Application Review** means the review process conducted by BC Hydro once a completed Application has been received, as outlined in Section 4.3.1 of the Rules. [back]
- 4. **Base Case** means the base case power flow, short circuit, and stability data models used as the basis for the Interconnection Study. [back]
- 5. **BC Energy Plan** means the document titled "The BC Energy Plan: A Vision for Clean Energy Leadership" published by the B.C. Ministry of Energy in 2007. [back]
- 6. **BC Hydro** means British Columbia Hydro and Power Authority.
- 7. **BC Hydro Customer** means a customer of BC Hydro as defined in the BC Hydro Electric Tariff. However, the following are not customers for the purpose of the Micro-SOP: a public utility, as defined in the *Utilities Commission Act*; including any affiliates; an entity that has as its primary business or purpose generation and sale of electricity, including independent power producers ("IPPs"); an entity that takes only back-up or start-up electricity service from BC Hydro.
- 8. **Behind a BC Hydro Customer Load** means a Project with an indirect interconnection through a customer facility that purchases power from BC Hydro. [back]
- 9. Clean Energy means energy that is generated from a <u>Clean or Renewable Resource</u>.
- 10. **Clean Energy Act** means the *Clean Energy Act* enacted on June 3, 2010, as amended from time to time. [back]
- 11. **Clean or Renewable Resource** has the meaning given in the *Clean Energy Act* and regulations as they may be from time to time, which at the date of publication of the Rules include biomass, biogas, geothermal heat, hydro, solar, ocean, wind biogenic waste, waste heat and waste hydrogen have been designated by regulation as additional prescribed resources.
- 12. Commercial Operation Date ("COD") has the meaning given in the Standard Form EPA. [back]
- 13. **Commercial Operation Generation Technology** means that the generation technology is readily available in commercial markets and in commercial use (not demonstration use only), as evidenced by at least one generation plant (which need not be owned or operated by the



Developer) generating energy for a period of not less than one year, to a standard of reliability generally required by Good Utility Practice (as defined in the Standard Form EPA). [back]

- 14. **Completed Prototype Generation Technology** means that the generation technology has completed a program of testing, with satisfactory results, using a sub-scale or full-scale prototype of the technology to simulate real-world conditions, which sufficiently demonstrates technical viability and safe performance of the technology at full-scale and under real-world conditions, as evidenced by the certification of a professional engineer (or equivalent engineering designation) registered or licensed in a jurisdiction that regulates the practice of engineering. [back]
- 15. **CPI** means the British Columbia Consumer Price Index, All Items (Not Seasonally Adjusted) as published by Statistics Canada or any successor agency thereto. [back]
- 16. **Day** means any calendar day including Saturday, Sunday or British Columbia statutory holiday. [back]
- 17. **Demand Side Management** means actions that modify customer demand for electricity, helping to defer the need for new energy and capacity supply additions. [back]
- 18. **Developer** means the developer or owner of a Project that submits an Application under the Micro-SOP. [back]
- 19. **Discretion** (whether or not capitalized) means sole, absolute and unfettered discretion unless the Rules expressly state otherwise.
- 20. **Distribution System** means the distribution, protection, control and communication facilities in British Columbia that are or may be used in connection with, or that otherwise relate to, transmission of electrical energy at 35 <u>kV</u> or less and that are owned and operated by BC Hydro, and includes all additions and modifications thereto and repairs and replacements thereof. [back]
- 21. **Energy Volume Target** means the target in GWh that BC Hydro will set from time to time for the annual amount of energy to acquire from the SOP and Micro-SOP. [back]
- 22. Environmental Attributes has the meaning given to that term in the Standard Form EPA. [back]
- 23. EPA means an electricity purchase agreement. [back]
- 24. **Greenhouse Gas (GHG)** means: (i) one or more of the following gases: carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons and sulphur hexafluoride; and (ii) any other gas that is identified as having significant global warming potential and is added, at any time before the expiry of the EPA, to Schedule 1 to the *Canadian Environmental Protection Act, 1999*, or to the *Greenhouse Gas Reduction Targets Act* (British Columbia), or to any other regulation(s) governing the emission of the gases noted in (i) from the Project. [back]
- 25. **Integrated System** means BC Hydro's Transmission System and Distribution System, both within British Columbia, excluding the Fort Nelson service area and certain remote areas where electricity supply is provided by local generation which is isolated from the provincial transmission system. [back]
- 26. **Interconnection Agreement** means an agreement between Developer and BC Hydro for the interconnection of the Project to the BC Hydro Distribution System. [back]



- 27. Interconnection Network Upgrades ("INU") means those additions, modifications and upgrades to the Transmission System or Distribution System identified in the Interconnection Study (and as further refined in subsequent Interconnection Studies) determined by BC Hydro to be "interconnection network upgrades" under the applicable policies of BC Hydro or under the <u>OATT</u> in effect from time to time. [back]
- 28. **Interconnection Network Upgrade Costs ("INU Costs")** means all costs for the design, engineering, procurement, construction, installation and commissioning of Interconnection Network Upgrades. See Section 5.7 of the Rules. [back]
- 29. Interconnection Network Upgrade Threshold (or "INU Threshold") means \$157.59 (2016\$) per kilowatt of Plant Capacity as defined in the EPA. [back]
- 30. **Interconnection Study** means a Screening Study or a System Impact Study, as applicable. [back]
- 31. **kV** means kilovolt. [back]
- 32. **kW** means kilowatt. [back]
- 33. **Load Displacement** means a reduction in electricity sales by the electricity provider to the customer due to conservation or customer self-generation, although the customer's pattern of peak and off-peak periods (load shape) may not have changed. [back]
- 34. **Micro-SOP** means the Micro Standing Offer Program as described in these Rules and on the BC Hydro's website located at <u>www.bchydro.com/microsop</u>.
- 35. **Micro-SOP Administrator** means the person appointed by BC Hydro to act as the Micro-SOP Administrator as referenced in Section 4 of the Rules.
- 36. MW means megawatt. [back]
- 37. MWh means megawatt-hour. [back]
- 38. **Nameplate Capacity** means the aggregate of the nameplate capacities of all the generators included in the Project. For each generator, nameplate capacity is expressed in MW and consistent with the equipment manufacturer's maximum rated generating capacity. Where the nameplate capacity is expressed in MVA, the nameplate capacity will be multiplied by the power factor stated on a generator's nameplate to determine the nameplate capacity in MW. [back]
- 39. **Net-of-Load** means that, in a given hour, only the generation (MWh) produced by a Developer (including a BC Hydro Customer) that is in excess of the energy consumed (MWh) by a BC Hydro Customer during the same hour will be eligible for sale to BC Hydro under the EPA at the prevailing SOP price (\$/MWh). [back]
- 40. Network Integration Transmission Service Study has the meaning given in the OATT. [back]
- 41. **Network Upgrade Security (or "NU Security")** means a letter of credit in the amount described in Section 5.11 of the Rules, in the form found on the Documents page of the Micro-SOP website. [back]

- 42. **Open Access Transmission Tariff ("OATT")** means the tariff that governs both wholesale transmission services and generator interconnection services offered by BC Hydro to its customers. [back]
- 43. **Plant Capacity** means the Nameplate Capacity of the generators for a new project or a portion of the Nameplate Capacity of the generators that is allocated to the SOP where a new generator is added to existing project, expressed in MW. [back]
- 44. **Point of Interconnection ("POI")** means the point at which the Project interconnects with the Distribution System. [back]
- 45. **Project** means an electrical generation facility and includes all land and interests in land, buildings, equipment and material related to the generation facility as required for the generation and delivery of electrical energy to the point of delivery under the EPA. In the case of a Project that consists of incremental new generation, the "Project" for the purposes of the Micro-SOP consists of the new generator(s) and related facilities that are added to an existing generating facility. [back]
- 46. **Protected Area** has the meaning given in British Columbia's *Clean Energy Act* which at the date of publication of the Rules is: (a) a park, recreation area, or conservancy, as defined in section (1) of the *Park Act*; (b) an area established under the *Environment and Land Use Act* as a park or protected area, or (c) an area established or continued as an ecological reserve under the *Ecological Reserve Act* or by the *Protected Areas of British Columbia Act*. [back]
- 47. Reference Documents means the documents listed in <u>Section 9</u> of the Rules. [back]
- 48. **Revenue Meter** means a meter that measures energy output and/or consumption for purposes of calculating payments under an EPA and that meets the requirements specified in the EPA. [back]
- 49. **Rules** has the meaning given in Section 1 of the Micro-SOP Rules.
- 50. **Screening Study** means a high-level technical review of the interconnection impacts of a Project which provides a conceptual or first-cut estimate of the interconnection costs and Interconnection Network Upgrades. [back]
- 51. **Standard Form EPA** means the Standard Form Electricity Purchase Agreement for the Micro-SOP available at <u>www.bchydro.com/microsop</u>. [back]
- 52. **Standing Offer Program ("SOP")** means the Standing Offer Program which is described on BC Hydro's website located at <u>www.bchydro.com/standingoffer</u>.
- 53. Statement of Project Changes has the meaning given in Section 4.3.3 of the Rules. [back]
- 54. **System Impact Study** means a detailed interconnection study which evaluates the impact of a proposed Project on the reliability of BC Hydro's system and provides a planning-level estimate of the interconnection costs and Interconnection Network Upgrades. [back]
- 55. **Target Commercial Operation Date (or "Target COD")** means the date when the Developer expects the Project to achieve COD as specified by the Developer in the Application. [back]
- 56. Term means the term of the EPA as specified by the Developer in the Application. [back]



- 57. **Transmission Network Upgrades ("TNUs")** means those additions, modifications and upgrades to the Transmission System identified in the <u>Network Integration Transmission Service Study</u> as determined by BC Hydro. [back]
- 58. **Transmission Network Upgrade Costs (or "TNU Costs")** means all costs incurred by BC Hydro after an EPA is entered into for the design, engineering, procurement, construction, installation and commissioning of Transmission Network Upgrades. [back]
- 59. **Transmission System** means the transmission, substation, protection, control and communication facilities (transmitting energy at voltages greater than 35 kV) owned and operated by BC Hydro in British Columbia, and includes all additions and modifications thereto and repairs or replacements thereof. [back]