



ERICA HAMILTON
COMMISSION SECRETARY
Commission.Secretary@bcuc.com
web site: <http://www.bcuc.com>

SIXTH FLOOR, 900 HOWE STREET, BOX 250
VANCOUVER, BC CANADA V6Z 2N3
TELEPHONE: (604) 660-4700
BC TOLL FREE: 1-800-663-1385
FACSIMILE: (604) 660-1102

Log No. 47075

VIA EMAIL

bhydroregulatorygroup@bchydro.com

July 25, 2014

Ms. Janet Fraser
Chief Regulatory Officer
British Columbia Hydro and Power Authority
333 Dunsmuir Street
Vancouver, BC V6B 5R3

Dear Ms. Fraser:

Re: British Columbia Hydro and Power Authority
Application to Amend Rate Schedule 1289 for Net Metering Service

Further to your February 28, 2014 filing of the above noted Application, enclosed please find British Columbia Utilities Commission's Decision.

Yours truly,

A handwritten signature in black ink, appearing to read "Erica Hamilton".

Erica Hamilton

/nd

Enclosure

cc: Registered Interveners



IN THE MATTER OF

BRITISH COLUMBIA HYDRO AND POWER AUTHORITY

**AMENDMENT TO RATE SCHEDULE 1289
NET METERING SERVICE**

DECISION

JULY 25, 2014

BEFORE:

B.A. Magnan, Panel Chair / Commissioner
C.A. Brown, Commissioner
I.F. MacPhail, Commissioner

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COMMISSION ORDER G-104-14

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EXECUTIVE SUMMARY

The Net Metering program was approved in 2004 by Order G-26-04, which established Rate Schedule 1289 (RS 1289). The Net Metering program allows eligible British Columbia Hydro and Power Authority (BC Hydro) residential or commercial customers who have installed on-site generating capability to sell electrical energy to BC Hydro, reducing their electricity bill to their ‘net consumption.’

In 2011, BC Hydro filed an application to amend RS 1289 (2011 Application). In that proceeding, several Interveners challenged the 50 kilowatts (kW) generator capacity limit. In its decision (Order G-57-12), the British Columbia Utilities Commission (Commission) directed BC Hydro, amongst other issues, to consider and report on the RS 1289 generator size limits. BC Hydro prepared the 2013 Net Metering Evaluation Report, and subsequently, has filed this Application.

On February 28, 2014, BC Hydro filed an Application pursuant to sections 58 to 61 of the *Utilities Commission Act* (UCA) to Amend Rate Schedule 1289 – Net Metering Service (Application). BC Hydro has three requests:

1. to increase the nameplate capacity limit for a Generating Facility from 50 kW to 100 kW;
2. to amend RS 1289 to allow it to recover incremental costs incurred as a result of the larger generator size; and
3. to amend RS 1289 to clarify that synchronous generators and customers taking service at a primary potential are only required to pay the incremental costs caused by their generators.

In its deliberations, the Commission Panel also considered the need for a future report on the progress of Net Metering and the proposed micro-Standing Offer Program (micro-SOP).

The Commission Panel determines that the definition of “Generating Facility” in RS 1289 be revised to increase the nameplate rating in paragraph (b) from “fifty (50) kilowatts” to one hundred (100) kilowatts.

The Panel approves BC Hydro’s request that synchronous generators and customers taking service at a primary potential are only required to pay the incremental costs caused by their generators.

The Commission Panel also approves BC Hydro’s request to amend RS 1289 to recover incremental costs associated with the installation of generators between 50 kW and 100 kW.

The Panel considered questions surrounding the inclusion of Distributed Generation (DG) interconnection requirements within RS 1289 and determined that, within 120 days, BC Hydro must make an application to remove any interconnection related terms from RS 1289 and provide (i) an updated RS 1289 excluding interconnection conditions and (ii) a stand-alone Distributed Generation (DG) Interconnection Policy for generators up to 100 kW to be submitted to the Commission.

The Panel also recognizes that a proper evaluation of the DG programs would provide an indication of their efficacy and be instructive for the future direction of DG and Net Metering's role in it. Therefore, the Panel directs BC Hydro to provide a progress report on micro-SOP and Net Metering in April 2017 with due regard for the suggested issues to be addressed.

1 INTRODUCTION

The Net Metering program was approved in 2004 by Order G-26-04, which established Rate Schedule 1289 (RS 1289). The Net Metering program allows eligible British Columbia Hydro and Power Authority (BC Hydro, the Applicant) residential or commercial customers who have installed on-site generating capability to sell electrical energy to BC Hydro, reducing their electricity bill to their 'net consumption.' If the amount of self-generation exceeds the customer load on an annual basis, BC Hydro pays the RS 1289 customer for the net annual excess generation at a price approved by the British Columbia Utilities Commission (Commission).

RS 1289 provides the price for energy purchased from customers and also incorporates the distributed generation (DG) interconnection policy which specifies how much a self-generator has to pay towards the cost of their interconnection. RS 1289 also refers to the Net Metering Interconnection Requirements (NMIR/50) which contains the technical requirements for generator owners connecting generators to the BC Hydro distribution system when the BC Hydro service voltage is 600 V or less. While Commission Order G-26-04 stated that BC Hydro may change NMIR/50 without approval from the Commission, the Commission has jurisdiction to respond to any customer complaints that utility conditions are unreasonable or unjustified.

As of March 31, 2013, BC Hydro had 228 projects installed receiving the Net Metering service. The majority of RS 1289 generation is used to net against the customer's own retail purchases of electricity. In fiscal 2012, BC Hydro purchased 529 MegaWatt hours (MWh) from 13 Net Metering customers (Exhibit A2-1, pp. 10, 12). More than 95 percent of Net Metering customers purchase more electricity than they deliver to BC Hydro in any given year (Exhibit B-1, p. 1).

In 2011, BC Hydro filed an application to amend RS 1289 (2011 Application). In that proceeding, several Interveners challenged the 50 kilowatts (kW) generator capacity limit. In its decision (Order G-57-12), the Commission directed BC Hydro to consider and report on the RS 1289 generator size limits. BC Hydro prepared a Net Metering Evaluation Report (Exhibit A2-1) in 2013, and subsequently, has filed this Application.

2 THE APPLICATION

2.1 Orders Sought

On February 28, 2014, BC Hydro filed an Application pursuant to sections 58 to 61 of the *Utilities Commission Act* (UCA) to Amend Rate Schedule 1289 – Net Metering Service (Application). BC Hydro has three requests:

1. to increase the nameplate capacity limit for a Generating Facility from 50 kW to 100 kW;
2. to amend RS 1289 to allow it to recover incremental costs incurred as a result of the larger generator size; and
3. to amend RS 1289 to clarify that synchronous generators and customers taking service at a primary potential are only required to pay the incremental costs caused by their generators. (Exhibit B-1, cover letter)

2.2 Legislative and Regulatory Context

2.2.1 Utilities Commission Act (UCA)

The Applicant requests that the Commission approve revisions to RS 1289 as a rate, pursuant to sections 58 to 61 of the UCA. The following sections of the UCA are relevant:

- A public utility must not make, demand or receive an unjust, unreasonable, unduly discriminatory or unduly preferential rate for a service provided by it in British Columbia (s. 59(1)(a));
- A public utility must not as to rate or service, subject any person or locality, or a particular description of traffic, to an undue prejudice or disadvantage (s. 59(2)(a));
- A public utility must not extend to any person a form of agreement, a rule or a facility or privilege, unless the agreement, rule, facility or privilege is regularly and uniformly extended to all persons under substantially similar circumstances and conditions for service of the same description (s. 59(2)(b));
- The commission may, by regulation, declare the circumstances and conditions that are substantially similar for the purpose of subsection 59(2)(b);
- It is a question of fact, of which the commission is the sole judge, (a) whether a rate is unjust or unreasonable, (b) whether, in any case, there is undue discrimination, preference, prejudice or disadvantage in respect of a rate or service, or (c) whether a service is offered or provided under substantially similar circumstance and conditions (s. 59(4));

- In setting a rate under this Act ... the Commission must have due regard to the setting of a rate that ... encourages public utilities to increase efficiency, reduce costs, and enhance performance (s. 60(1)(b)(iii)); and
- In setting a rate under this Act, if the public utility provides more than one class of service, the commission must (i) segregate the various kinds of service into distinct classes of service, (ii) in setting a rate to be charged for the particular service provided, consider each distinct class of service as a self-contained unit, and (iii) set a rate for each unit that it considers to be just and reasonable for that unit, without regard to the rates fixed for any other unit (s. 60(1)(c)).

The Commission Panel notes, section 71 approval, which deals with energy supply contracts, is not required because RS 1289 acquired energy is not within the UCA's definition of "energy supply contract": "energy supply contract" means a contract under which energy is sold by a seller to a public utility or another buyer, and includes an amendment of that contract, but does not include a contract in respect of which a schedule is approved under section 61 of the UCA.

2.2.2 Clean Energy Act

The *Clean Energy Act* (CEA) was introduced on April 10, 2010 by the Provincial Government of British Columbia. The press release of that date announced the following:

"British Columbia's new Clean Energy Act sets the foundation for a new future of electricity self-sufficiency, job creation and reduced greenhouse gas emissions, powered by unprecedented investments in clean, renewable energy across the province. Bill 17 builds upon British Columbia's unique heritage advantages and wealth of clean, renewable energy resources."

The CEA received Royal Assent on June 3, 2010. It advances 16 specific energy objectives to help achieve British Columbia's energy vision, including new measures to promote electricity efficiency and conservation. One of these efficiency and conservation objectives is to "foster the development in British Columbia of innovative technologies that support ... the use of clean and renewable resources" (CEA, 2(d)). Another objective is to "ensure the authority's rates remain among the most competitive rates charged by public utilities in North America" (CEA, 2(f)). In the Panel's view, this supports a focus on economic efficiency criteria in the design of the Net Metering rate and a reduction of any unnecessary economic barriers to the program.

Distributed Generation can also support the following Clean Energy Objectives to:

- 2(k) encourage economic development and the creation and retention of jobs
- 2(l) foster the development of First Nation and rural communities through the use and development of clean or renewable resources
- 2(g) GHG [Greenhouse Gas] reduction targets
- 2(h) encourage fuel switching to cleaner fuels
- 2(j) reduce waste by encouraging the use of waste heat, biogas and biomass
- 2(n) to be a net exporter of electricity from clean or renewable resources

2.2.3 Energy Plan

Prior to the introduction of the CEA, the provincial government's emphasis on the promotion of energy efficiency was articulated in both the 2002 and 2007 Energy Plans. The 2007 Energy Plan is subtitled: "A Vision for Clean Energy Leadership" and lays out a "Key Policy Objective" to "Make small power part of the solution through a set purchase price for electricity generated from projects up to 10 megawatts." Portions of the Energy Plan relevant to this Application include the following Policy Actions:

- | | |
|--------------------|---|
| Policy Action #2: | Ensure a coordinated approach to conservation and efficiency is actively pursued in British Columbia. |
| Policy Action #4: | Explore with BC utilities new rate structures that encourage energy efficiency and conservation. |
| Policy Action #10: | Ensure self-sufficiency to meet electricity needs. |
| Policy Action #11: | Establish a standing offer for clean electricity projects up to 10 megawatts. |
| Policy Action #21: | Ensure clean or renewable electricity generation continues to account for at least 90 percent of total generation. [The CEA now sets the percentage at 93 percent.] |
| Policy Action #25: | Ensure the procurement of electricity appropriately recognizes the value of aggregated intermittent resources. |
| Policy Action #26: | Work with BC Hydro and parties involved to continue to improve the procurement process for electricity. |

The 2007 Energy Plan also states:

“Net Metering allows customers to lower their environmental impact and take responsibility for their own power production. It helps to move the province towards electricity self-sufficiency and expands clean electricity generation, making BC’s electricity supply more environmentally sustainable”;

“Government’s goal is to encourage a diverse mix of resources that represent a variety of technologies”; and

“To close [the] electricity gap ... will require an innovative electricity industry and the real commitment of all British Columbian’s to conservation and energy efficiency.” (2007 Energy Plan, pp. 9-10, 26)

2.3 Previous Commission Orders

2.3.1 2012 Net Metering Decision

Capacity Limit (Order G-57-12, Reasons for Decision, para. 4.2, pp. 38–45)

BC Hydro originally proposed the 50 kW limit in the 2003 Net Metering hearing. At that time it submitted that 50 kW is consistent with the maximum amperage and voltage at which most residential customers and many commercial customers take electric service. Further, it stated that this is the size of project that is: best suited to a process; doesn’t result in costly interconnection improvements; was not anticipated to result in safety concerns; and ensured that the volume of intermittent energy coming onto the grid could be effectively managed. It submits that this rationale was accepted by the Commission and that led to the establishment of the Net Metering program. (2011 Application, BC Hydro Final Submission, pp. 15-18)

However, when the Commission originally approved the project capacity limit in RS 1289 it also stated: “Further, and more importantly to net metering tariff design from a regulatory perspective, limits to system size are intended to reduce the potential magnitude of cost-shifting to non-participating customers.” (Reasons for Decision, Order G-26-04, p. 5)

2012 Net Metering Decision - Commission Determination

This section reviews the 2012 Net Metering Decision and the Commission determination section of that Decision as it relates to participant comments respecting the 50 kW limit on the direct

generation capacity. BC Hydro states that the original intent of the Net Metering program was to allow individual customers to meet all or part of their electricity demand and to that end, the 50 kW limit is consistent with the maximum amperage and voltage that most residential and commercial customers take service. The 2012 Commission Panel had concerns about the BC Hydro rationale for the 50 kW limit. An underlying assumption appeared to be that since a residence does not require any greater capacity than 50 kW to meet its own consumption needs, then the owner does not need to purchase and install generating equipment with a capacity greater than 50 kW. The 2012 Commission Panel agreed that this made sense in an example of a backup diesel generator — why pay for a larger piece of equipment than will be required? However, the 2012 Commission Panel felt that the economics of the Net Metering program and the clean, small power installations that it comprises were fundamentally different. In this regard, the 2012 Commission Panel noted the situation of Zdenek Los. He submitted that he had sufficient resources — i.e. water licences and water pressure — to build a 90 kW plant. While it is true that this may far exceed his own domestic power requirement, it is presumably more economically efficient for him to install larger generation capability and sell the excess power back to BC Hydro, thus making his installation more cost effective and reducing the payback period on his capital investment.

Implementing new generation capacity is an expensive endeavour, either for BC Hydro when it is building dams and powerhouses, or for a residential consumer installing distributed generation equipment. To this end, the 2012 Commission Panel noted that in its Final Submission, BC Hydro stated that the key barrier to participation in RS 1289 was the cost of technology. However, in the case of the distributed generation equipment typical in the Net Metering program, none of the capital costs are borne by BC Hydro or its ratepayers. As can be seen in Zdenek Los' case, by allowing for a larger capacity limit, the Net Metering program could possibly be made more attractive and more accessible to potential customers, which would benefit BC Hydro and its ratepayers. The 2012 Commission Panel was of the view that the capacity of a Net Metering installation should be driven by considerations of economically available clean energy and not by the theoretical maximum capacity a homeowner may require. Further, given the emphasis placed on electrical self-sufficiency and clean electricity generation by BC energy policy and legislation, the 2012 Commission Panel was of the opinion that encouraging participation by lowering barriers should be of primary importance.

In this Commission Panel's view, the original policy driver was to support a clean energy goal, and the 2012 Commission Panel stated that support was conditional on it not incurring any substantial cost to the utility or imposing any inordinate barrier to ratepayers seeking to net meter. Thus, in the view of this Commission Panel, the most important reason for the 50 kW cap was to reduce the potential magnitude of cost-shifting. The potential for cost shifting is greatest when the Energy Credit is greater than the cost of comparable energy purchased by BC Hydro under the Standing Offer Program (SOP). Minimizing the amount of energy that a Net Metering customer is able to generate reduces the amount that they can potentially sell at the Energy Credit rate. This Commission Panel acknowledges the potential effectiveness of this approach. However, the Panel also notes two mitigating circumstances. First, at the time the Net Metering rate was originally approved, the Energy Credit received by Net Metering residential customers was 6.05 ¢/kWh (the residential energy charge in the Electric Tariff), which was higher than BC Hydro's estimate of the avoided cost of comparable green power generation (the 5.4 ¢/kWh Energy Price). Now, however, the reverse is true. Second, the 2012 Commission Panel stated that limited cost shifting was warranted to support the implementation of Net Metering. This Commission Panel is of the view that BC Hydro should demonstrate that increasing the cap would result in a substantial cost on the utility and its ratepayers, not just that it would result in more exports to the grid.

BC Hydro was required to report on this trade-off in its Net Metering Evaluation Report, but failed to do so. Accordingly, the 2012 Commission Panel was of the view that BC Hydro should reconsider the rationale for the limit to the Net Metering program. As with the case of the primary service customers and customers with synchronous generation, the 2012 Commission Panel's principal concern was that customers would potentially "slip through the cracks" between BC Hydro's Net Metering and the SOP. It is in the public interest for the Applicant to consider both of these programs together, in light of the BC Energy program key policy objective to "make small power part of the solution" (BC Energy Plan, p. 4).

While the 2012 Commission Panel agrees with the 2012 Interveners that the current limit may be too low, BC Hydro was not seeking any increase to the Net Metering Generation limit of 50 kW at that time. In addition, there was insufficient evidence provided for what a new upper limit should be and how, or even if, extraordinary connection costs for larger capacity plants should be assessed to new program participants. The 2012 Commission Panel directed BC Hydro to further consider

the issue of capacity limit. BC Hydro was directed by the 2012 Commission Panel to consult with affected market participants to identify connection related barriers to entry for small-scale clean DG of less than 2 megawatts (MW), develop and evaluate options to address those barriers and provide the results of the consultation in the next Net Metering Monitoring and Evaluation Report.

2.4 BC Hydro Integrated Resource Plan (IRP)

The Government of British Columbia approved BC Hydro's IRP on November 25, 2013. In the IRP (page 3-80), BC Hydro states that:

"...based on feedback received during the development of the Net Metering Evaluation Report No. 3, coupled with a review of current DG processes, it has identified gaps in its existing processes and has developed an approach on how to bridge those gaps with a seamless suite of offers. BC Hydro states that next steps include increasing the Net Metering cap from 50 kW to 100 kW for commercial, institutional, industrial, municipal and First Nations customers, provided there will be no adverse cost impacts on non-participating ratepayers; and beginning the design of a streamlined acquisition process that supports small-scale DG projects (50 kW to 1 MW) under the umbrella of the current Standing Offer Program."

BC Hydro states on page 1 to 2 of its IRP that it modified the August 2, 2013 draft IRP in response to the Minister's request to "support the clean energy sector in BC and promote clean energy opportunities for First Nation communities." (BC Hydro November 2013 IRP, p. 8-1)

In the IRP Consultation Section, BC Hydro responded to comments received for the IRP as follows:

"BC Hydro also received extensive feedback from IPPs and First Nations regarding the lack of opportunities for the clean energy sector. Coupled with this feedback was a request from the Minister of Energy and Mines for a strategy to support a healthy and diverse clean energy sector. In response, BC Hydro is proposing recommended action (Number 10) that will advance a set of actions with the objective of maintaining a healthy, diverse clean energy sector and promoting clean energy opportunities for First Nations' communities. This will include, among other actions, broadening opportunities through the Standing Offer Program and the Net Metering Program, and highlighting potential need for energy acquisitions as part of the IRP contingency resource plans." (BC Hydro November 2013 IRP, p. 7-87)

2.5 Regulatory Process

BC Hydro proposed a written proceeding process whereby all Interveners from the previous 2011 Application to Amend Rate Schedule 1289 would be notified. By Order G-30-14, dated March 12,

2014, a written hearing process was established with one round of Information Requests (IRs), a BC Hydro Final Submission, Intervener Final Submissions and a BC Hydro Reply Submission. The BC Hydro Reply Submission was filed as per the regulatory schedule, on Wednesday, May 14, 2014.

The following Interveners registered:

Intervener	Abbreviation
Eric Redmond, P.Eng. d.b.a. Micro Green Hydro	MGH
Ethan Werner, M.Sc. d.b.a. CH Four Biogas	CH4
British Columbia Pensioners' and Seniors' Organization, <i>et al.</i>	BCPSO
Zdenek Los, d.b.a. Copper Dome Power	CDP
BC Sustainable Energy Association and the Sierra Club of Canada, BC Chapter	BCSEA
Matt Dickson, MRM BC Agricultural Research and Development Corporation	BCAC

The following parties provided Letters of Comment:

Party	Abbreviation
Nadleh Whut'en Indian Band	Nadleh
Nak'azkli Band	Nak'azkli
Kanaka Bar Indian Band	Kanaka Bar
BC First Nations Energy and Mining Council	BCFNEMC
Burns Lake Band	Burns Lake
Seabird Island Band	Seabird
Tk'emlúps te Secwépemc	Tk'emlúps

3 INCREASING THE NET METERING CAPACITY

BC Hydro, in its Application, requests that the Commission Panel approve an amendment to RS 1289 to increase the nameplate rating for a Generating Facility from 50 kW to 100 kW.

The Net Metering Service was first approved by the Commission in 2004 by Order G-26-04 which led to the approval of RS 1289. The 50 kW limit was originally proposed by BC Hydro in 2003 and subsequently approved by the Commission as part of that Order. The Commission Panel was satisfied that the 50 kW capacity limit was appropriate “at this time.” BC Hydro noted that the 50 kW capacity limit capacity limit was consistent with the maximum amperage and voltage at which most residential customers and many commercial customers take electric service.

In 2011, BC Hydro applied for approval for certain amendments to RS 1289 and the Commission issued Order G-57-12 with respect to the 2011 Application. The 2011 Application did not include any request to change the 50 kW capacity limit. The Commission Panel in that proceeding expressed concerns about the rationale for the 50 kW limit. The 2012 Commission Panel noted on page 43 that the capacity of a Net Metering installation should be driven by considerations of economically available clean energy and not by the theoretical maximum capacity required. The 2012 Commission Panel directed BC Hydro to further consider the issue of capacity limit. The 2012 Commission Panel also directed BC Hydro to consult with affected market participants to identify connection related barriers to entry to small-scale clean DG less than 2 MW, develop and evaluate options to address those barriers and provide the results of this consultation in the next Net Metering and Evaluation Report.

3.1 Increasing the Maximum Net Metering Level to 100 kW

The 2012 Commission Panel noted that it was unable to evaluate some of the 2011 proposed changes to RS 1289 in the absence of a clearly articulated strategy in BC Hydro’s 2011 Application. To assist with the evaluation of meeting energy policy objectives in an economically efficient manner, the 2012 Commission Panel adopted the following framework for the purpose of the 2011 Application (Order G-57-12, Appendix A, p. 21):

1. RS 1289 should not impose any unnecessary economic or other barriers to ratepayers seeking to install small-scale clean DG.
2. RS 1289 should not incur any substantial cost on the utility.
3. Interconnections must be safe, but interconnection rules must not be excessive or burdensome.

BC Hydro noted that participating customers and other stakeholders appear to agree that a significant benefit of RS 1289 is the simplicity of the rate, it is inexpensive for BC Hydro to implement and administer, the Net Metering Interconnection Requirements are straightforward, and the RS 1289 customer application process is low cost, efficient and timely. In that context, BC Hydro also has considered the impact of increased generator size on the “simplicity” of RS 1289. (Exhibit B-1, pp. 4, 5)

BC Hydro also noted that an increase in the allowable generator size to 100 kW may lessen the barriers for some customers seeking to take service under RS 1289 by allowing for improved economies of scale for net metering installations. The proposed 100 kW capacity size may benefit some customers with larger premises, such as municipalities, government agencies, and First Nations communities. It may also increase the opportunities for some technologies, such as small-scale hydro, to access RS 1289. BC Hydro submits it is unlikely that the increase in generator size will have much impact on customers installing solar projects, which represent the vast majority of RS 1289 projects, because project-rated capacity is generally limited by the size of rooftops on a customer’s premises. Most residential and commercial solar projects are quite small, well below 50 kW. (Exhibit B-1, p. 5)

BC Hydro acknowledges that some larger customers, including local governments and First Nations, would like the opportunity to install generators larger than 100 kW to offset more of their electricity consumption and potentially sell any surplus electricity under RS 1289. Customers seeking to install clean or renewable DG may apply to participate in the SOP where the nameplate capacity of the project is 15 MW or less. The 2013 Net Metering Evaluation Report (2013 NM Report) identified customer concerns with the SOP, which tended to focus on the complexity and associated costs, particularly interconnection costs.

In the 2013 NM Report, BC Hydro proposed two actions to address the issues raised by customers: First, increasing the maximum capacity of an eligible Generating Facility in RS 1289 from 50 kW to 100 kW; and second, the creation of a streamlined and simplified “micro-SOP” for projects of 1 MW or less within the existing SOP. These action items were ultimately included in BC Hydro’s 2013 IRP, which was approved by the Government of British Columbia.

BC Hydro submits that this Application addresses the first action item. BC Hydro is currently working on the micro-SOP and plans to launch it later in 2014. BC Hydro expects that the implementation of these two actions will address most of the concerns raised in respect of small-scale DG opportunities in BC Hydro's service area. (BC Hydro Final Submission, pp. 2, 3)

BC Hydro states that it would hold a workshop on the proposed micro-SOP in June 2014 and plans to launch the micro-SOP in the fall of 2014. (BC Hydro Reply Submission, p. 5) (Note that BC Hydro held a workshop in Vancouver on June 9, 2014 and a webinar on June 10, 2014 to seek input into the development of the micro-SOP).

3.2 Intervener Comments

Micro Green Hydro (MGH)

MGH does not object to the Application's request to increase the capacity limit to 100 kW but, although not objecting to the increase, MGH states that "there is clearly room to increase the project limit to 250 kW, or preferably even 500 kW" (MGH Final Submission, p. 1). MGH submits that Interveners, First Nations and stakeholders have agreed that an increase to the program would be beneficial and that moving to a 100 kW net metering capacity would not move BC to the higher end of the net metering programs in Canada. MGH submits that there is no reason that the micro-SOP and net metering cannot overlap and raises concern that, after more than one year after proposing the micro-SOP, there has not been any concept presented to stakeholders. (MGH Final Submission, p. 2)

Copper Dome Power (CDP)

CDP also expressed support for increasing the capacity limit to 100 kW but stated a preference for a capacity limit of 250 kW. (CDP Final Submission, p. 2)

British Columbia Pensioners' and Seniors' Organization *et al.* (BCPSO)

BCPSO supports the Application with respect to the increase to the 100 kW capacity limit. (BCPSO Final Submission, p. 5)

BC Sustainable Energy Association and the Sierra Club of Canada (BCSEA)

BCSEA also supports the Application with respect to the increase to the 100 kW capacity limit.

BCEA stated that “it is likely that there should be overlap between the net metering maximum and the lower threshold for the ‘micro-SOP.’ Different DG projects of the same generating capacity may be better suited for one program rather than the other.” (BCSEA Final Submission, p. 2)

Other

No comments regarding increasing the capacity limit to 100 kW were received from CH Four Biogas or BC Agricultural Research and Development Corporation.

In addition to the Intervener submissions, seven Letters of Comment were received, all from BC First Nation Communities. The general theme was that an increase in the Net Metering program cap to 100 kW is insufficient, and a more appropriate cap would be at least 250 kW, and preferably 500 kW.

3.3 Commission Determination

The Commission Panel determines that the definition of “Generating Facility” in RS 1289 be revised to increase the nameplate rating in paragraph (b) from “fifty (50) kilowatts” to one hundred (100) kilowatts. This increase is generally consistent with BC Hydro’s IRP (approved by the Government of British Columbia on November 25, 2013) and was not opposed by Interveners. The Panel agrees with BC Hydro and Interveners that the increase in allowable capacity limit will reduce barriers to ratepayers seeking to install small-scale clean DG while not incurring any substantial cost on the utility.

The Commission Panel, however, considers it premature to make a determination in this Decision regarding whether the capacity limit should be increased further, as suggested by some Interveners and in Letters of Comment from First Nation Communities. Net metering beyond the approved 100 kW limit may have potential for small to medium sized commercial operations that are significant users of electrical power and may find it economically reasonable to invest in DG including payment of the interconnection costs. These business customers may also see this as an opportunity to promote their positive environmental position resulting from investing in a green

energy project such as DG. However, there is insufficient evidence available within this Application that supports a capacity increase above 100 kW.

The Panel recognizes the interest from many stakeholders in increasing the nameplate rating beyond 100 kW for a Generating Facility under RS 1289, but it is also aware of BC Hydro's proposal to create a streamlined and simplified micro-SOP with a scheduled launch in the fall of 2014. While the micro-SOP is unlikely to address all of the concerns of DG customers, the Panel considers the Commission would be in a better position to make a determination of the benefit to a future increase in the nameplate rating beyond 100 kW under RS 1289 after the evaluation of the impact of the micro-SOP and its integration with the SOP and RS 1289 DG programmes.

The Panel also reaffirms the 2012 Decision that, in undertaking this future evaluation, BC Hydro should demonstrate that increasing the RS 1289 cap would result in a substantial cost to the utility and its ratepayers, not just that it would result in more exports to the grid.

4 INTERCONNECTION ISSUES

As well as setting the price Net Metering customers receive for outflows of electricity from the customer's generator to BC Hydro, RS 1289 also includes terms related to interconnection of a customer's generator to BC Hydro's grid. Special Condition 1 and Special Condition 2 in RS 1289 provide for specific interconnection terms.

Special Condition 1 requires that a customer who utilizes a synchronous generator, or takes service at a primary potential, will be required to pay all associated costs of their interconnection. BC Hydro requests that the Commission panel approve an amendment to Special Condition 1 to allow it to also recover incremental costs associated with the installation of generators larger than 50 kW. In addition, BC Hydro is requesting approval to amend RS 1289 to clarify that synchronous generators and customers taking service at a primary potential are only required to pay the incremental costs caused by their generators, consistent with current BC Hydro practice. (Exhibit B-1, p. 16)

BC Hydro's requested changes to Special Condition 1 are provided below:

“A Customer who utilizes a synchronous generator or is a Customer taking service at a primary potential will be required to pay all ~~associated~~ incremental costs incurred by BC Hydro for interconnecting their Generating Facility where ‘incremental costs’ means the additional costs incurred by BC Hydro relative to typical non-synchronous generator and/or typical Customer who is taking service other than at a primary potential.

A Customer who utilizes a Generating Facility with a nameplate rating greater than fifty (50) kilowatts will be required to pay all incremental costs incurred by BC Hydro for interconnecting their Generating Facility where ‘incremental costs’ means the additional costs incurred by BC Hydro relative to a typical Generating Facility with a nameplate rating of 50 kW or less.” (Exhibit B-1, Appendix B, p. 7)

BC Hydro’s requested changes to Special Condition 2 are provided below:

- “4. Customers shall design, install, operate and maintain the Generating Facility, and all ancillary facilities on the Customer’s side of the Point of Delivery in accordance with all governmental laws and regulations from time to time applicable, and BC Hydro’s NMIR/50 or other interconnection requirements applicable to the Generating Facility. Customers shall obtain and maintain any governmental authorizations and/or permits required for the installation and operation of the Generating Facility. The Generating Facility shall meet all applicable safety and performance standards, including the codes and standards identified in BC Hydro’s NMIR/50 or other interconnection requirements applicable to the Generating Facility. BC Hydro, acting reasonable, may from time to time prescribe additional requirements which in its judgement are required for the safety of its system.” (Exhibit B-1, Appendix B, p. 8)

BC Hydro intends that incremental costs would include: technical review costs, study costs and system upgrade costs (Exhibit B-1, p. 7). BC Hydro submits that interconnection costs are not sufficiently homogenous for projects over 50 kW such that there would be a net benefit from the use of a fixed interconnection fee because there are many variables that determine which upgrades are required. However, BC Hydro anticipates that under the micro-SOP program, a flat fee for a high level screen could be used to provide the proponent and BC Hydro with a view of the anticipated interconnection costs for that project. If the project met all of the associated technical screens, there would be no further study required. (Exhibit B-4, BCUC IR 1.7.2.1)

BC Hydro also submits that the interconnection requirements and costs for generators interconnecting to BC Hydro’s distribution system apply to anyone who interconnects a generator of a certain size or voltage, independent of RS 1289 or the SOP. BC Hydro considers that these requirements are very important and have been developed to ensure that generators connecting

to BC Hydro's system do so safely and without adversely affecting system reliability. (BC Hydro Final Submission, p. 5)

BC Hydro concedes that even very small generators (50 kW) could require system upgrades if the generator is in a poorly suited location. However, BC Hydro is of the view that location is much less likely to be a major issue for generators of 100 kW and less because of their small size and typical impact on the system. (BC Hydro Reply Submission, p. 4)

RS 1289 Special Conditions 1 and 2 also refer to BC Hydro's Net Metering Interconnection Requirements (NMIR/50). NMIR/50 sets out the technical standards for generators up to 50 kW. Commission Order G-29-04 states that BC Hydro may change NMIR/50 without approval by the Commission, although the Commission has the jurisdiction to respond to any customer complaints that the utility requirements are unreasonable or unjustified. BC Hydro requests in its Application that references to NMIR/50 are changed to "NMIR/50 or other interconnection requirements applicable to the Generating Facility." (Exhibit B-1, p. 9)

BC Hydro submits that the NMIR/50 may be applied to generators up to 100 kW without significantly increasing risk to BC Hydro and other customers, and that if the 100 kW capacity increase limit for RS 1289 is approved, BC Hydro expects to issue a revised NMIR/50 applicable to all generators up to 100 kW approximately 90 days after the Commission decision. (Exhibit B-1, p. 9)

BC Hydro also includes in its Application the key reasons why BC Hydro proposes that the generator capacity size does not exceed 100 kW. These concerns are related to (i) due diligence and commercial risk associated with the procurement of power from distributed generators, and (ii) interconnection and technical considerations to ensure interconnections do not negatively impact the safety and reliability of its system. (Exhibit B-1, pp. 10-14)

4.1 Intervener Arguments

BCPSO

BCPSO suggests that BC Hydro's proposal to recover incremental costs for generators larger than 50 kW under RS 1289, is reasonable. BCPSO supports the 100 kW capacity limit as larger

generators can trigger additional interconnection requirements and costs and may result in more surplus sales to BC Hydro. (BCPSO Final Submission, pp. 4-6)

BCPSO further states:

“Interconnection requirements, in terms of the technical review/study required and system upgrades, are independent of whether or not the customer takes service under a particular tariff and are generally dependent upon physical factors such as the size and location of the generator. Their purpose is to ensure that the interconnection is safe and does not adversely affect the reliability of the distribution system. However, in general, smaller the generators require less study and review.” (BCPSO Final Submission, p. 4)

BCSEA

BCSEA also supports BC Hydro’s proposal to recover incremental costs for generators larger than 50 kW. BCSEA supports the 100 kW generator cap at this time to avoid interconnection risks to the system and support simplicity. However, BCSEA encourages the Commission to require BC Hydro to undertake a review in 2015 or 2016 of the effectiveness of both the Net Metering program and the anticipated ‘micro-SOP.’ (BCSEA Final Submission, pp. 1-3)

MGH

MGH submits in its Final Submission:

“BC Hydro has proposed a 100kW limit to reduce the risk that a project will have substantial system impacts and require major upgrades. However, this limit does not take location into account. (In a poor location, even a 50kW project could require expensive grid upgrades.) It is likely that many projects up to 250kW, likely even most projects, would not be in locations that would trigger major interconnection upgrades. Unfortunately, BC Hydro has elected to limit all opportunities across the grid. This seems to ‘throw the baby out with the bath water’ and create an unnecessary barrier to micro projects.” (MGH Final Submission, p. 3)

MGH submits that, as upgrades required for a project are mostly dependant on project location, BC Hydro should instead develop fixed interconnection fees which could vary based on location. MGH submits that this would be beneficial to project developers by creating cost certainty.

Alternatively, MGH submits that BC Hydro adopt the approach used in Alberta to only charge for “extraordinary costs” where a project triggers major upgrades. MGH considers that BC Hydro has

not demonstrated that projects over 100 kW would create substantial commercial risk. (MGH Final Submission, p. 3)

No comments were received regarding interconnection requirements and costs for generators from CH Four Biogas, Copper Dome Power or BC Agricultural Research and Development Corporation.

4.2 Commission Determination

The Panel approves BC Hydro's request to clarify that synchronous generators and customers taking service at a primary potential are only required to pay the incremental costs caused by their generators. This is consistent with the intent of the 2012 Decision, consistent with BC Hydro's current practice, and has not been opposed by Interveners. However, for the purpose of clarity, **the Panel directs that the proposed wording of "all incremental costs" in Special Condition 1 be replaced with "all associated incremental costs."**

The Commission Panel also approves BC Hydro's request to amend RS 1289 to recover incremental costs associated with the installation of generators between 50 kW and 100 kW.

This is consistent with the recovery of costs from primary service customers and synchronous generators approved by the Commission in the 2012 Decision, and BC Hydro submits that system upgrades are much less likely to be a major issue for generators 100 kW and less because of their small size and typical impact on the system.

The Panel notes that BC Hydro's concerns regarding further increases in the generator cap are related to (i) due diligence and commercial risk, and (ii) interconnection and technical requirements. The Panel agrees with MGH that there is a risk that setting a capacity cap at too broad a level may create unnecessary barriers to micro projects. For example, a higher cap with no regional differentiation may be acceptable when considering BC Hydro's due diligence and commercial risks but may not be acceptable when considering interconnection and technical requirements. The Panel also notes that interconnection issues apply to all forms of DG, be they Net Metering, micro-SOP or SOP.

The Panel considers that this raises the question of whether inclusion of DG interconnection requirements within RS 1289 is making identifying the optimum RS 1289 capacity cap even more complex than it already is. Specifically, if RS 1289 was focused on setting the price customers receive for outflows of electricity, while a separate DG interconnection policy was focused on simplifying generator interconnection where appropriate, eligibility cut-off levels could then be optimised for each purpose.

The Panel therefore determines that, on or before November 25, 2014, BC Hydro must make an application to the Commission to remove any interconnection related terms from RS 1289 to be replaced by (i) an updated RS 1289 excluding interconnection conditions and (ii) a stand-alone DG Interconnection Policy for generators up to 100 kW. This policy would form a part of a larger set of policies related to interconnection for all Distributed Generation.

The Commission Panel considers this interconnection policy will not include technical requirements, but rather it will include details of how net metering customers' interconnection costs will be determined. The amounts customers will be required to pay towards generator interconnection will be no different from that approved in this decision (i.e., synchronous generators, generators at primary potential and generators over 50 kW will be required to pay all associated incremental costs incurred by BC Hydro for interconnecting their generating facility). The interconnection policy can be included within BC Hydro's Electric Tariff Terms and Conditions (similar to distribution extensions), or be a separate Tariff Supplement (similar to transmission extensions).

The Panel is supportive of further efforts by BC Hydro and market participants to ensure BC Hydro's small-scale clean DG interconnection policies (i) do not impose any unnecessary economic or other barriers to ratepayers seeking to install small-scale clean DG, (ii) do not incur any substantial cost on the utility, and (iii) are safe, but interconnection rules are not excessive or burdensome.

5 DG STRATEGY AND REPORTING

In the 2012 Decision, BC Hydro was directed to submit a report on the Net Metering program for fiscal 2012, and that this report should specifically address certain issues, including a DG strategy. The 2012 Decision stated that the DG strategy should show how BC Hydro aims to help integrate

clean electricity into BC Hydro's grid at customer sites. The strategy should also demonstrate coordination of BC Hydro's differing DG related initiatives. (2012 Decision, pp. 20-22) BC Hydro filed the 2013 Net Metering Report (2013 NM Report) with the Commission on April 30, 2013 (Exhibit A2-1).

BC Hydro states that it has no plans at this time to undertake work to identify and mitigate market barriers to efficient investment in distributed generation in BC for generators up to 2 MW (Exhibit B-4, BCUC IR 1.3.2.1). BC Hydro further submits that it completed a robust consultation to inform the development of the 2013 NM Report and questions the value of another evaluation report at this time (Exhibit B-5, BCSEA IR 1.7.1).

5.1 Barriers to Net Metering

Commission Order G-57-12 directed BC Hydro to file a Net Metering Evaluation Report to address issues raised in the 2012 Commission Decision accompanying the order and to report on the progress of net metering. The 2013 NM Report, dealt with many issues among them being 'Barriers to Developing Small-scale DG (Direct Generation) Projects' namely those sized less than 1 MW. This included addressing issues surrounding interconnection rules and possible costs. Section 8.2 of the 2013 NM Report laid out the identified barriers and possible solutions. In addition, Appendix E of the 2013 NM Report showed a comparative analysis of the various DG options up to 15 MW. The table evaluated issues of concern to DG and was broken down as follows:

- RS 1289 Net Metering (current <50 kW)
- RS 1289 Net Metering (proposed <100 kW)
- Proposed Micro-SOP (50 kW to 1 MW)
- Existing SOP (50 kW to 15 MW)

During the current Application process, BC Hydro extended the proposed 100 kW net metering limit to both residential as well as to General Service customers.

5.2 Projects Greater than 100 kW

Commission Order G-57-12 ordered BC Hydro to consult with stakeholders about identifying connection related barriers to entry by small scale clean DG less than 2 MW.

As indicated previously, BC Hydro identified the potential barriers and proposed the development of a micro Energy Purchase Agreement (EPA) program as an alternative to extending the net metering tariff to deal with those customers who are prepared to establish a 50 kW to 1 MW operation. Such operations would be classified as micro-SOPs and the purchase of any energy would be through an energy purchase agreement and not be subject to the net metering rate. BC Hydro also indicated in section 8.3 of the 2013 NM Report that there are issues beyond the scale of the project including project location, technology and existing BC Hydro interconnection equipment.

Section 9 of the 2013 NM Report outlines the DG strategy BC Hydro undertook including running some small DG generation demonstration projects covering:

- Municipal project
- Small commercial customer using waste heat
- Small industrial customer utilizing biomass
- Industrial project utilizing waste hydrogen
- First nations community project targeting small hydro development
- Anaerobic digester on a mid-sized dairy farm

Of these projects, only three were completed in time for evaluation in the 2013 NM Report. Five of the six proposed projects were under 2 MW.

BC Hydro admits that it was directed by the Commission “to consult in respect to a program with a limit up to 2 MW.” BC Hydro set an upper limit of 1 MW for the micro-SOP as it “aligns with BC Hydro’s distribution interconnection requirements.” Furthermore, BC Hydro indicated it “may consider increasing the upper limit to 2 MW at a later date depending on the experience with the 1MW limit.” (2013 NM Report, footnote 11, p. 46)

Subsequently, BC Hydro determined it would develop a small project stream under the SOP for projects between 50 kW and 1 MW. Being under the SOP stream, the projects would not be subject to RS 1289 and would be exempt from Commission regulation. As stated in its response to BCSEA IR 1.4.2, the proposed micro-SOP will be a component of the existing SOP (up to 15 MW) that is mandated under the CEA. Under section 7(1)(h) of the CEA, BC Hydro or anyone entering into an SOP energy supply contract with BC Hydro is exempted from section 71 of the UCA in respect of SOP energy supply contracts.

5.3 Letters of Comment

All Letters of Comment came from First Nations with an interest in building DG greater than 100 kW. Suggested size ranged from 250 to 500 kW. The letters also suggested it be part of the Net Metering rate as did several of the Interveners.

5.4 Final Submissions

The only Intervener to address the issue of DG strategy and future reporting was BCSEA. In its Final Submission, BCSEA suggested that “a net metering limit higher than 100 kW is an essential requirement for implementation of DG projects in that size range” (BCSEA Final Submission, p. 2). They also stated that “it is likely that there should be overlap between the net metering maximum and the lower threshold for the micro-SOP. Different DG projects of the same generating capacity may be better suited for one program rather than the other.” (BCSEA Final Submission, p. 2)

BCSEA also concluded that it “support[s] Commission approval of the present application and encourage[s] the Commission to require BC Hydro to undertake a review in 2015 or 2016 of the effectiveness of both the net metering program and the anticipated ‘micro-SOP,’ with revision of both programs as necessary.” (BCSEA Final Submission, p. 3)

5.5 BC Hydro Reply Submission

In its Reply Submission, BC Hydro again reiterated its position of not increasing RS 1289 beyond 100 kW. BC Hydro indicated that the micro-SOP being developed for implementation in the fall of 2014

for 100 kW to 1 MW would respond to interconnection concerns and issues and provide an alternative for those looking to build DG projects between 100 kW and 1 MW.

BC Hydro will notify the Commission and Interested Parties when the micro-SOP is formally launched later this year. In addition, BC Hydro proposes an update on the micro-SOP for information purposes to the Commission and Interested Parties, which will include information on the number of micro-SOP applications and awarded EPAs and the size, location and type of generators. An update is unlikely to be of value to the Commission and Interested Parties until at least two full years after the launch of the micro-SOP because it will take time for project developers to apply and be awarded EPAs. Therefore, BC Hydro proposes submission of the micro-SOP information update in April 2017.

BC Hydro also addresses the issue of submitting an additional Net Metering Report. Given its view of the comprehensiveness on the 2013 NM Report and the small number of RS 1289 customers and the small amount of power generated, BC Hydro questions the need for an additional report. However, it also indicated that should the Commission ask it to do so, BC Hydro would be prepared to submit such a report in conjunction with the one on the micro-SOP progress in April 2017. (BC Hydro Reply Submission, p. 3)

5.6 Commission Determination

The Panel considers that an ongoing focus by BC Hydro to identify and mitigate market barriers to small-scale DG is consistent with commitments made by BC Hydro in its 2013 IRP. The Panel also notes that BC Hydro's 2013 IRP was modified in response to the Minister's request to "support the clean energy sector in BC and promote clean energy opportunities for First Nation communities." (BC Hydro November 2013 IRP, p. 8-1)

However, the Panel considers that a focus only on RS 1289 would be too narrow in scope. The Panel recognizes any contracts signed under the proposed micro-SOP are excluded from regulation under section 7(1)(h) of the CEA. However as the micro-SOP can also be used to reduce market barriers to small-scale clean DG, it is difficult to review RS 1289 in isolation of the proposed micro-SOP. The Panel also recognizes the work done for the 2013 NM Report in conducting some demonstration projects around increasing the ceiling for Net Metering beyond 100 kW.

A proper evaluation of the DG programs would, however, provide an indication of their efficacy and be instructive for the future direction of DG and Net Metering's role in it. **Therefore, the Panel directs BC Hydro to provide a progress report on the micro-SOP and Net Metering in April of 2017.**

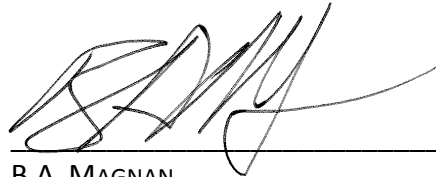
This report should include all the issues listed as requirements for the 2013 NM Report in the 2012 Decision. In addition, the Panel expects that the report clearly articulates BC Hydro's DG strategy in a manner consistent with the Minister's request cited above. It is anticipated that BC Hydro would also address the issue of the potential move to a 2 MW limit for the micro-SOP. It should also address the possibility of extending the Net Metering program for commercial customers where such cases are potentially viable.

6 SUMMARY OF DIRECTIVES

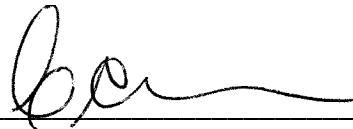
This Summary is provided for the convenience of readers. In the event of any difference between the Directions in this Summary and those in the body of the Decision, the wording in the Decision shall prevail.

	Directive	Page
1.	The Commission Panel determines that the definition of “Generating Facility” in RS 1289 be revised to increase the nameplate rating in paragraph (b) from “fifty (50) kilowatts” to one hundred (100) kilowatts. The Commission Panel, however, considers it premature to make a determination in this Decision regarding whether the capacity limit should be increased further.	13
2.	The Panel approves BC Hydro’s request to clarify that synchronous generators and customers taking service at a primary potential are only required to pay the incremental costs caused by their generators.	18
3.	The Commission Panel also approves BC Hydro’s request to amend RS 1289 to recover incremental costs associated with the installation of generators between 50 kW and 100 kW.	18
4.	The Panel therefore determines that, on or before November 25, 2014, BC Hydro must make an application to the Commission to remove any interconnection related terms from RS 1289 to be replaced by (i) an updated RS 1289 excluding interconnection conditions and (ii) a stand-alone DG Interconnection Policy for generators up to 100 kW. This policy would form a part of a larger set of policies related to interconnection for all Distributed Generation.	19
5.	Therefore, the Panel directs BC Hydro to provide a progress report on the micro-SOP and Net Metering in April of 2017.	24

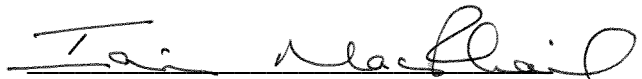
DATED at the City of Vancouver, in the Province of British Columbia, this 25th day of July 2014.



B.A. MAGNAN
PANEL CHAIR/COMMISSIONER



C.A. BROWN
COMMISSIONER



I.F. MACPHAIL
COMMISSIONER



**BRITISH COLUMBIA
UTILITIES COMMISSION**

**ORDER
NUMBER** G-104-14

TELEPHONE: (604) 660-4700
BC TOLL FREE: 1-800-663-1385
FACSIMILE: (604) 660-1102

SIXTH FLOOR, 900 HOWE STREET, BOX 250
VANCOUVER, BC V6Z 2N3 CANADA
web site: <http://www.bcuc.com>

IN THE MATTER OF
the Utilities Commission Act, R.S.B.C. 1996, Chapter 473

and

An Application by British Columbia Hydro and Power Authority
To Amend Rate Schedule 1289 for Net Metering Service

BEFORE: B.A. Magnan, Panel Chair/Commissioner
C.A. Brown, Commissioner July 25, 2014
I.F. MacPhail, Commissioner

O R D E R

WHEREAS:

- A. British Columbia Hydro and Power Authority (BC Hydro) filed an Application (Application) dated February 28, 2014, with the British Columbia Utilities Commission (Commission), pursuant to sections 58 to 61 of the *Utilities Commission Act* (UCA) for approval to amend Rate Schedule 1289 – Net Metering Service (RS 1289);
- B. The Application stated that, under RS 1289, eligible customers who install a generating facility are billed for electricity service based on the net amount of metered energy. To be eligible to participate in RS 1289, a customer must use a generator with a nameplate rating of not more than 50 kilowatts (kW). Special Condition 1 of RS 1289 includes interconnection terms for generating facilities under 50 kW connecting to BC Hydro's network;
- C. The Application proposes to:
 - i. increase the RS 1289 nameplate capacity limit for a Generating Facility from 50 kW to 100 kW;
 - ii. amend RS 1289 to allow it to recover incremental interconnection costs incurred as a result of the larger generator size; and
 - iii. amend RS 1289 to clarify that synchronous generators and customers taking service at a primary potential are only required to pay the incremental interconnection costs caused by their generators.
- D. The Commission established a written hearing process to review the Application by way of Order G-30-14 and Commission letter dated April 22, 2014. The Proceeding included one round of Commission and Intervener Information Requests with final written submissions.
- E. The Commission has reviewed the Application, supplementary information and submissions from Interveners and considers the Application to be in the public interest.

BRITISH COLUMBIA
UTILITIES COMMISSION

ORDER
NUMBER G-104-14

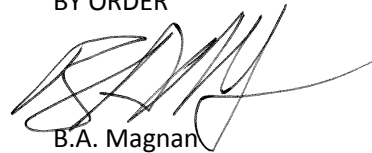
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NOW THEREFORE, pursuant to sections 58 to 61 of the *Utilities Commission Act*, the Commission orders as follows:

1. The Rate Schedule 1289 – Net Metering Service (RS 1289) nameplate capacity limit for a Generating Facility of up to 100 kW is approved effective the date of this Order.
2. Amending RS 1289 to allow it to recover from customers incremental costs incurred by BC Hydro for interconnecting generating facilities with a nameplate greater than 50 kW (where incremental costs are additional costs relative to a typical generating facility with a nameplate rating 50 kW or less) is approved effective the date of this Order.
3. Amending RS 1289 to clarify that incremental interconnection costs for synchronous generators and customers taking service at primary potential means additional costs relative to a typical non-synchronous generator and/or a typical customer taking service at other than primary potential is approved effective the date of this Order.
4. BC Hydro is directed to replace ‘incremental costs’ in RS 1289 Special Condition 1 with ‘associated incremental costs’.
5. BC Hydro, on or before November 25, 2014, must make an application to the Commission to remove any interconnection related terms from RS 1289 and to be replaced by (i) an updated RS 1289 excluding interconnection conditions and (ii) a stand-alone Distributed Generation Interconnection Policy for clean generators up to 100 kW.
6. BC Hydro is directed to provide a progress report on RS 1289 and the micro-Standing Offer Program (SOP) by no later than April 30, 2017. The progress report must include all the issues listed as requirement for the 2013 Net Metering Evaluation Report in the 2012 Net Metering Decision, in addition to the requirements included in the Decision attached to this Order.
7. BC Hydro is to comply with other determinations in this Decision attached to this Order.

DATED at the City of Vancouver, in the Province of British Columbia, this 25th day of July 2014.

BY ORDER



B.A. Magnan
Panel Chair/Commissioner

LIST OF ACRONYMS

2011 Application	2011 Application by British Columbia Hydro and Power Authority to Amend Rate Schedule 1289
2013 NM Report	2013 Net Metering Evaluation Report
Application	Application by British Columbia Hydro and Power Authority to Amend Rate Schedule 1289 – Net Metering Service
BCAC	BC Agricultural Research and Development Corporation
BCFNEMC	BC First Nations Energy and Mining Council
BC Hydro, Applicant	British Columbia Hydro and Power Authority
BCPSO	British Columbia Pensioners' and Seniors' Organization <i>et al.</i>
BCSEA	BC Sustainable Energy Association and the Sierra Club of Canada
BCUC, Commission	British Columbia Utilities Commission
Burns Lake	Burns Lake Band
CDP	Copper Dome Power
CEA	<i>Clean Energy Act</i>
CH4	CH Four Biogas
DG	Distributed Generation / Direct Generation
EPA	Energy Purchase Agreement
GHG	Greenhouse Gas
IR	Information Request
IRP	Integrated Resource Plan
Kanaka Bar	Kanaka Bar Indian Band
kW	Kilowatts
MGH	Micro Green Hydro

LIST OF ACRONYMS

MW	Megawatts
MWh	Megawatt hours
Nadleh	Nadleh Whut'en Indian Band
Nak'azkli	Nak'azkli Band
NMIR/50	Net Metering Interconnection Requirements
RS 1289	Rate Schedule 1289
Seabird	Seabird Island Band
SOP	Standing Offer Program
Tk'emlúps	Tk'emlúps te Secwépemc
UCA	<i>Utilities Commission Act</i>

LIST OF EXHIBITS

IN THE MATTER OF
the Utilities Commission Act, R.S.B.C. 1996, Chapter 473

and

British Columbia Hydro and Power Authority
Application to Amend Rate Schedule 1289 for Net Metering Service

EXHIBIT LIST

Exhibit No.

Description

COMMISSION DOCUMENTS

- | | |
|-----|---|
| A-1 | Letter dated March 12, 2014 – Order G-30-14 Establishing a Regulatory Timetable for the review of the British Columbia Hydro and Power Authority Application to Amend Rate Schedule 1289 for Net Metering Service |
| A-2 | Letter dated March 19, 2014 - Appointing the Commission Panel for the review of the British Columbia Hydro and Power Authority Application to Amend Rate Schedule 1289 for Net Metering Service |
| A-3 | Letter dated March 31, 2014 – Commission Information Request No. 1 to British Columbia Hydro and Power Authority |
| A-4 | Letter dated April 22, 2014 – Commission approving extension to Regulatory Timetable |

COMMISSION STAFF DOCUMENTS

- | | |
|------|--|
| A2-1 | Letter dated March 31, 2014 – Commission staff filing British Columbia Hydro and Power Authority – Net Metering Evaluation Report No. 3 (April 30, 2013) |
|------|--|

Exhibit No.	Description
<i>APPLICANT DOCUMENTS</i>	
B-1	BRITISH COLUMBIA HYDRO AND POWER AUTHORITY (BCH) Letter dated February 28, 2014 – Amend Rate Schedule 1289 for Net Metering Service Application
B-2	Letter Dated March 17, 2014 - BCH Submitting Compliance with Order G-30-14 Directive 2
B-3	Letter Dated April 16, 2014 - BCH Submitting Extension Request for filing its responses to BCUC and Intervener Information Request No. 1
B-4	Letter Dated April 23, 2014 - BCH Submitting Responses to BCUC Information Request No. 1
B-5	Letter Dated April 23, 2014 - BCH Submitting Responses to Interveners Information Request No. 1
<i>INTERVENER DOCUMENTS</i>	
C1-1	MICRO GREEN HYDRO (MGH) Letter dated March 13, 2014 – Request for Intervener Status by Eric Redmond
C1-2	Letter Dated April 3, 2014 – MGH Information Request No. 1 to BC Hydro
C1-3	Letter Dated April 16, 2014 – MGH Submitting Comments regarding BCH Extension Request
C2-1	CH FOUR BIOGAS (CHFOUR) Letter dated March 14, 2014 – Request for Intervener Status by Ethan Werner
C3-1	BRITISH COLUMBIA PENSIONERS’ AND SENIORS’ ORGANIZATION (BCPSO ET AL) Letter dated March 18, 2014 – Request for Intervener Status by Sarah Khan
C3-2	Letter Dated March 17, 2014 – BCPSO Information Request No. 1 to BC Hydro
C3-3	Letter Dated April 16, 2014 – BCSEA Submitting Comments regarding BCH Extension Request

Exhibit No.	Description
C4-1	COPPER DOME POWER (CDP) Letter dated March 19, 2014 – Request for Intervener Status by Zdenek Los
C4-2	Letter dated April 9, 2014 – CDP Submitting Comments
C5-1	BC SUSTAINABLE ENERGY ASSOCIATION AND THE SIERRA CLUB OF BRITISH COLUMBIA (BCSEA) Letter dated March 25, 2014 – Request for Intervener Status by William J. Andrews and Thomas Hackney
C5-2	Letter Dated April 3, 2014 – BCSEA Information Request No. 1 to BC Hydro
C5-3	Letter Dated April 16, 2014 – BCSEA Submitting Comments regarding BCH Extension Request
C6-1	BC AGRICULTURAL RESEARCH AND DEVELOPMENT CORPORATION (BCAC) Letter Dated April 8, 2014 – Request for Late Intervener Status by Matt Dickson

LETTERS OF COMMENT

E-1	Nadleh Whut'en Indian Band Letter of Comment Dated April 16, 2014
E-2	Nak'azdli Letter of Comment Dated April 16, 2014
E-3	Mitchell, P Letter of Comment Dated April 17, 2014
E-4	BC First Nations Energy and Mining Council Letter of Comment Dated April 17, 2014
E-5	Burns Lake Band Letter of Comment Dated April 23, 2014
E-6	Seabird Island Band Letter of Comment Dated April 23, 2014
E-7	Tk'emlúpste Secwépemc Letter of Comment Dated April 23, 2014