



ORDER NUMBER
G-17-16

IN THE MATTER OF
the *Utilities Commission Act*, RSBC 1996, Chapter 473

and

British Columbia Hydro and Power Authority
2015 Rate Design Application

BEFORE:

D. M. Morton, Commissioner/Panel Chair
D. A. Cote, Commissioner
K. A. Keilty, Commissioner

on February 9, 2016

ORDER

WHEREAS:

- A. On September 24, 2015, British Columbia Hydro and Power Authority (BC Hydro) filed with the British Columbia Utilities Commission (Commission) the first module of a rate design application (2015 RDA);
- B. Among the various approvals sought in the 2015 RDA, BC Hydro seeks approval for a new optional rate schedule (RS) 1892 Freshet Rate, which provides participating customers market pricing for incremental consumption during the freshet period on a pilot basis ending December 31, 2017. BC Hydro commits to file three evaluation reports of the RS 1892 Freshet Rate Pilot: two preliminary reports and one final report;
- C. BC Hydro proposed a Streamlined Review Process (SRP) to be held in January, 2016 for the RS 1892 Freshet Rate;
- D. By Order G-156-15 dated September 29, 2015 (amended on November 15, 2015), the Commission established an initial review process regarding the 2015 RDA, including an initial round of information requests (IRs), a procedural conference on January 12, 2016, and SRPs, if any, for the third week of January;
- E. By letter dated January 12, 2016, at the request of BC Hydro, the Commission rescheduled the Procedural Conference to take place on January 19, 2016. In this letter the Commission requested participants to address whether they will participate in an SRP on the Freshet Rate Pilot scheduled for the afternoon of January 25, 2016;
- F. On January 19, 2016, the Procedural Conference was held and participants provided comment on the proposed SRP for the Freshet Rate Pilot;
- G. By letter dated January 20, 2016, the Commission set the date for an SRP regarding the RS 1892 Freshet Rate for Monday, January 25, 2016;
- H. The SRP was held on January 25, 2016, with the Panel, staff and the following participants:

- The Association of Major Power Customers
 - BC Sustainable Energy Association and Sierra Club of British Columbia
 - British Columbia Hydro and Power Authority
 - British Columbia Ministry of Energy and Mines
 - British Columbia Old Age Pensioners' Organization, Active Support Against Poverty, B.C. Poverty Reduction Coalition, Council of Senior Citizens' Organizations of BC, Disability Alliance BC, Together Against Poverty Society and The Tenant Resource and Advisory Centre
 - Clean Energy Association of BC
 - Commercial Energy Consumers' Association of British Columbia
 - Dewdney Area Improvement District
 - FortisBC Energy Inc.
 - Movement of United Professionals
 - Non-integrated Area Ratepayers Group
- I. The Commission reviewed the submissions of the parties and considers approval of the RS 1892 Freshet Rate is warranted.

NOW THEREFORE pursuant to sections 58-61 of the *Utilities Commission Act* and as set out in the Reasons for Decision attached as Appendix A to this order, the British Columbia Utilities Commission orders as follows:

1. The Rate Schedule (RS) 1892 Freshet Rate as shown in the draft tariff sheets of Appendix F-1B of the 2015 Rate Design Application (2015 RDA) and further clarified in Exhibit B-13 is approved effective upon the date of this order.
2. The two-year freshet rate pilot program as proposed by British Columbia Hydro and Power Authority (BC Hydro) is approved with the rate being effective for the period extending from March 1, 2016 to October 31, 2017.
3. The evaluation criteria and agreed to reporting items, as proposed by BC Hydro, are accepted. BC Hydro is directed to file the three evaluation reports as described in section 7.3.4.6 of the 2015 RDA.
4. BC Hydro is also directed as part of the evaluation process to address, and where appropriate, evaluate the following:
 - a. Analysis of the costs/benefits to non-participating customers, including the \$0kWh floor price, and evaluating the appropriateness of sharing additional benefits with non-participating customers;
 - b. The Freshet Rate Pilot wheeling charges as compared to those that would have been collected had FortisBC Inc.'s standby rate charges been applied;

- c. The data, the calculations, the analysis and other considerations, if any, that went to determining each customer's baseline, each customer's freshet rate charges and each customer's RS 1823 charges;
 - d. Freshet rate engagement activities with commercial ratepayers and other ratepayer groups;
 - e. Detailed information as to the extent of the potential energy oversupply issue and BC Hydro's progress on other strategies it is pursuing to mitigate the issue;
 - f. All costs associated with the implementing the freshet rate pilot; and
 - g. An analysis of the impact of any load shifting including the actual monthly consumption for each pilot participant in comparison to the respective CBLs for each.
- 5. Prior to filing the final evaluation report on the freshet rate pilot, BC Hydro is further directed to consult with stakeholders on further process in the event there is a recommendation that the freshet pilot rate be made permanent.
 - 6. BC Hydro is directed to provide more clarity in its evaluations and provide more clarity as to the magnitude of the energy surplus during freshet and provide an estimate of its potential value.
 - 7. BC Hydro is directed to file tariff sheets regarding the RS 1892 Freshet Rate that include the clarifications described in Exhibit B-13 within 15 business days of the date of this order.

DATED at the City of Vancouver, in the Province of British Columbia, this 9th day of February 2016.

BY ORDER

Original signed by:

D. M. Morton
Commissioner/Panel Chair

Attachment

IN THE MATTER OF

**British Columbia Hydro and Power Authority
2015 Rate Design Application**

**REASONS FOR DECISION
Transmission Service Freshet Rate Pilot**

February 9, 2016

Before:

D. M. Morton, Commissioner/Panel Chair

D. A. Cote, Commissioner

K. A. Keilty, Commissioner

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1.0 BACKGROUND

On September 25, 2015, British Columbia Hydro and Power Authority (BC Hydro) filed its 2015 Rate Design Application (2015 RDA, Application) with the British Columbia Utilities Commission (Commission) pursuant subsection 58(1) (a) and section 61 of the *Utilities Commission Act* (UCA).

As part of the larger 2015 RDA, BC Hydro requested a final order approving the transmission service freshet rate pilot for a two-year period extending from March 1, 2016 to October 31, 2017. Identified as rate schedule (RS) 1892, this non-firm service is to be made available to transmission service customers presently taking service under RS 1823 who apply to BC Hydro for it. BC Hydro seeks Commission approval of the pilot to run for freshet periods from May to July 2016 and May to July 2017.¹ Approval of this pilot is requested by February 9, 2016, to allow it to be implemented in a timely manner.²

2.0 REGULATORY PROCESS

By letter of October 13, 2015, BC Hydro requested the Commission issue a process order with respect to the handling of the freshet rate pilot prior to the procedural conference for the 2015 RDA. BC Hydro stated that the issuance of a Commission decision after February 1, 2016, will increase the risk that the freshet rate pilot cannot be put in place prior to the 2016 freshet period.³ By Order G-175-15, the Commission approved a streamlined review process (SRP) for the freshet rate pilot to be held on January 19-20, 2016. The SRP was subsequently rescheduled to January 25, 2016, by letter of January 8, 2016, at the request of BC Hydro.⁴ This followed a first round of information requests (IRs), which were responded to on December 18, 2015.

In all, ten intervenor groups chose to intervene in this proceeding. The list of intervenors is as follows:

- The Association of Major Power Customers (AMPC)
- BC Sustainable Energy Association and Sierra Club of British Columbia (BCSEA)
- British Columbia Ministry of Energy and Mines (MEM)
- British Columbia Old Age Pensioners' Organization, Active Support Against Poverty, B.C. Poverty Reduction Coalition, Council of Senior Citizens' Organizations of BC, Disability Alliance BC, Together Against Poverty Society and The Tenant Resource and Advisory Centre (BCOAPO)
- Clean Energy Association of BC (CEBC)
- Commercial Energy Consumers' Association of British Columbia (CEC)
- Dewdney Area Improvement District (DAID)
- FortisBC Energy Inc. (FortisBC)
- Movement of United Professionals (MoveUP)
- Non-integrated Area Ratepayers Group (NIARG)

¹ Exhibit B-1, p. 1-12, p. 7-26.

² T2:354.

³ Exhibit B-2, p. 4.

⁴ Exhibit A-8.

The SRP was held on January 25, 2016. Participants were provided the opportunity to ask further oral IRs of a BC Hydro panel during the process. Oral arguments and BC Hydro reply argument followed the IR process.

3.0 BC HYDRO FRESHET RATE PILOT PROPOSAL

3.1 Freshet rate pilot description

BC Hydro states that the freshet rate is designed to provide a Mid-C market energy price signal to RS 1823 customers for incremental energy consumption above a predetermined baseline. BC Hydro explains:

Since Mid-C market prices during freshet periods are typically lower than RS 1823 Tier 1 rate, the freshet rate would provide an incentive for RS 1823 customers to increase electricity use from BC Hydro during each freshet period.⁵

The freshet rate pilot is designed to meet three objectives:

1. To respond to recommendations from the Industrial Electricity Policy Review (IEPR) task force to develop additional options for industrial customers.

Recommendation 13 of the IEPR states the following: “BC Hydro should work with its industrial customers and the Commission to develop options that take advantage of industrial power consumption flexibility.” As noted by BC Hydro, the BC Government responded to this by committing to launch a “rate design review process...to provide industrial customers with more options to reduce their electricity costs.”

2. Provide assistance to BC Hydro freshet oversupply management by providing the following options:
 - To increase the utility’s ability to import cheap electricity during low priced periods;
 - To reduce surplus energy volumes being forced to export markets; and
 - To reduce spill at the utility’s facilities.
3. To recover what might otherwise be obtained from export market sales with potential economic benefits for the province.⁶

BC Hydro states that its proposed freshet rate encourages customers to increase consumption of electricity during the freshet (May to July), a period where energy oversupply has been a long-term recurring issue. BC Hydro submits:

The issue associated with the freshet oversupply is related to the combination of the large volume of the surplus (non-flexible) energy passing through run-of-river projects with no or limited storage capability, low spring-summer system loads and depressed power market prices.⁷

⁵ Exhibit B-1, p. 7-27.

⁶ Ibid., pp. 7-27–7-28.

⁷ Ibid., p.7-29.

These factors, occurring coincidentally, can result in the utility being required to sell its surplus energy into power markets at what are often very low prices.⁸

BC Hydro reports there is a higher risk of minimum generation constraints during the freshet period. Minimum generation constraints could be a result of water use permit requirements, transmission reliability needs, and other factors.⁹ These requirements reduce BC Hydro's ability to import more energy from the U.S. and take advantage of low Mid-C prices especially during low load hours (LLH) and these minimum generation constraints may force BC Hydro to export energy depending upon the domestic load requirements. Additionally, the risk of spill due to the oversupply can be increased in those years where hydroelectric storage levels and inflows exceed normal conditions. Given these circumstances, BC Hydro states that "the purpose of the freshet rate is to encourage higher electricity use from customers during this period to help reduce any over-supply and mitigate, where possible, other possible impacts from minimum generation and spill risk."¹⁰

3.2 Freshet rate pilot proposal specifics

BC Hydro acknowledges there are uncertainties associated with offering a freshet rate. It considers the best way to explore this and yet limit the risk to non-participating customers is to run a pilot for a specified time and once complete, measure the results against predetermined evaluation criteria. BC Hydro states that stakeholders generally supported its position that a two-year pilot is needed to both test the sensitivity of incremental load to changing market prices and to promote take-up by providing customers with the potential for sufficient pilot benefits.¹¹

Highlights of BC Hydro's proposed freshet pilot program, RS 1892 are as follows:

- The rate is open to any RS 1823 customer but is not available to other rate classes.
- To take service under the freshet rate, the customer must notify BC Hydro by March 1, 2016 (for year 1) or March 1, 2017 (for year 2). BC Hydro proposes to work with all customer applicants to set baselines separating freshet rate electricity from RS 1823 energy and notify the customer no later than seven days prior to the start of the freshet period.
- The freshet rate will be available between May and July.
- All incremental electricity above predetermined energy and demand baselines is considered non-firm and will not be included in BC Hydro's load forecast. If BC Hydro does not have energy or capacity available to serve the incremental load it can interrupt customers.
- Billing for demand and energy will initially be under RS 1823 during the freshet periods up to the established baselines. After the customer's total electricity use has been reconciled and allocated between RS 1823 and RS 1892, metered energy above the energy baseline will be billed in August.
- There will be no demand charge above a reference demand baseline due to the energy being non-firm.
- A fixed wheeling fee of \$3 CAD per megawatt hour (MWh) is proposed as both a cost recovery mechanism (during times of import) and as a tool to protect non-participating ratepayers from risks associated with the freshet rate (the fee would benefit non-participating customers during times of export).

⁸ Ibid., pp. 7-26-7-29.

⁹ T2:297.

¹⁰ Exhibit B-1, p. 7-29.

¹¹ Exhibit B-1, p. 7-32.

- BC Hydro proposes a set a number of evaluation criteria and plans to issue three evaluation reports during and following completion of the freshet rate pilot. These criteria and the evaluation process will be discussed further in Section 4.1 of these Reasons for Decision.¹²

BC Hydro proposes to calculate the cost of energy for freshet rate pilot customers as follows:

- For both High Load Hours (HLH) and LLH periods the total volume of hourly energy above the average megawatt (MW) baseline is to be compared with the total volume of hourly energy below the MW baseline to determine the net volume of excess energy at the end of the freshet period. The corresponding ratio of net freshet energy to gross freshet energy has been described as the “Net to Gross ratio.” BC Hydro proposes that a Net to Gross ratio will be determined separately for both HLH and LLH. Use of the Net to Gross ratios will ensure that customers only receive the potential benefits when there is a net gain in consumption relative to baseline across the entire freshet period.
- It is proposed that freshet energy volumes be calculated hourly. This is to be done by calculating energy consumption in excess of each customer’s average MW (aMW) baseline determined in consultation with each customer. Both HLH and LLH periods will have separate aMW baselines. These will be determined by dividing the customer’s actual RS 1823 energy purchases during the 2015 freshet baseline period by the number of hours in that period. BC Hydro expects to use the 2015 data with no further adjustment as long as the 2015 freshet purchases are within +/- 10 percent of a customer’s historical load.
- Following the freshet period, the initial freshet volumes are to be multiplied by the HLH or LLH Net to Gross ratio. This will result in a final hourly freshet volume to be billed at the RS 1892 rate. Any remaining hourly excess energy is billed at RS 1823 rates.
- The RS 1892 energy charge equals the higher of the daily Intercontinental Exchange Inc. (ICE) Mid C Peak/Off Peak price or a \$0 per kilowatt hour (kWh) price floor plus a wheeling fee of \$3 CAD per MWh.¹³

BC Hydro expects that the most likely scenario is that three to five industrial customers will sign up for the program.¹⁴ BC Hydro estimates a range of 11 GWh/year to 66 GWh/year of incremental energy consumption from the freshet pilot. It states that this energy is associated with its estimates of a 5 aMW to 30 aMW takeup range.¹⁵ BC Hydro anticipates that there will be no incremental costs that arise from administering the freshet rate during the pilot period. Any costs related to developing and maintaining the freshet rate pilot are to be funded through the utility’s existing operating budgets and staff resources. Reporting costs will be dependent upon the criteria specified by the Commission and are not anticipated to exceed \$50,000.¹⁶

3.3 Freshet rate pilot issues

3.3.1 Pilot rate project risks

BC Hydro has identified a number of areas of risk relative to offering a freshet rate. Key uncertainties include the following:

¹² Exhibit B-1, pp. 7-33-7-35; pp. 7-43-7-44.

¹³ Exhibit B-1, pp. 7-35-7-39.

¹⁴ T2:206.

¹⁵ Exhibit B-5, BCUC 1.111.1.

¹⁶ Ibid., BCUC 1.101.3.

1. The uncertainty of whether or not customers will have incremental load increases during prescheduled trading. BC Hydro states that for the upcoming trial period, incremental industrial load under the freshet rate pilot are not expected to have a material impact on marketing or operational flexibility.¹⁷
2. Potential differences between the day ahead prescheduled market as relied upon for the freshet rate and the real time market. BC Hydro explained that any such differences are likely symmetric and thus can be expected to net out close to zero. Given the relatively small volumes ranging from 5 aMW to 30 aMW, BC Hydro does not consider this risk to be material.¹⁸
3. The potential for tie line constraints to limit the ability to import from the U.S. market. This may result in storage energy, which may have been used during a higher value period being used instead to supply incremental freshet load. BC Hydro states that while tie line limitations can occur during the freshet period, it does not consider them to be an issue as long as major system spills are neither anticipated nor occurring. BC Hydro states it will monitor tie constraints impact as part of the freshet pilot.¹⁹
4. The potential for load shifting. Load shifting occurs in those instances where customers are able to reduce RS 1823 energy in the non-freshet months and increase it during the freshet months. BC Hydro states that although shifting is a complex issue and there may be some negative impacts on non-participating customers, shifting loads from non-freshet to freshet periods should be eligible for the freshet pilot as long as there is incremental consumption during freshet. The primary risk of shifting is the loss by non-participating customers in the event the load reduction during the non-freshet period results in reduced revenue that is greater than offsetting export revenues. The potential financial impact was discussed during the SRP where BC Hydro acknowledged that a reduction in Tier 2 energy would result in a revenue loss of \$85 an hour with an offsetting gain in the export market of \$30 to \$35 a megawatt hour if in the winter.²⁰

BC Hydro considers the financial impact of the load shifting risk during the freshet pilot to be small. It states that based on the take-up range of 5 aMW to 30 aMW, the impact on non-participating ratepayers could range between \$200,000 and \$4.3 million. In addition, BC Hydro points out that the risk is much less “because the most likely users of the rate (chemical producers and some large forestry producers) are consuming, on average, very close to 90 percent of their respective Customer Base Lines (CBL) and would be at risk of a downward adjustment in their RS 1823 CBL if they shifted any more than ~1 to ~3 percent of their load into the freshet period.”²¹

BC Hydro outlined two scenarios where shifting could benefit non-participating customers. The first of these relates to the potential for the shifted amounts to be reflected as a reduction in its long-term load forecast. This could result in a long run marginal cost reduction that exceeds the RS 1823 revenue reduction. BC Hydro acknowledges that this is unlikely in the short term given that the freshet rate is a two-year pilot and any changes in customer behaviour are not likely to be reflected in the long-term load forecast. A second benefit could be where the load reduction in non-freshet months is in the winter and “there could be capacity benefits to BC Hydro and/or higher value (relative to other non-freshet periods) from additional energy not being

¹⁷ Exhibit B-1, p. 7-38; Exhibit B-5, BCOAPO IR 1.170.1.

¹⁸ Exhibit B-5, BCOAPO 1.170.1.

¹⁹ Exhibit B-1, p. 7-38; Exhibit B-5, BCOAPO 1.170.1; T2:253.

²⁰ Exhibit B-1, p. 7-42; Exhibit B-1, Appendix C-5B, p. 35; T2:206 and 253

²¹ Exhibit B-1, p. 7-42; Appendix C-5B, W.S. #10, pp. 35-37.

consumed.” BC Hydro states that the impact of shifting is difficult to identify but it will be considered in evaluating the freshet rate pilot.²²

Another potential area of risk is that of natural growth in consumption due to business expansion. This was explored to a degree within the SRP where Commission staff queried whether the recent Canadian dollar slide may be expected to result in increased production by pulp and paper companies. BC Hydro acknowledged “that there is an opportunity that potentially customers selling their goods into the states, they may be increasing production.”²³ A pulp and paper industry representative from AMPC (i.e. Catalyst Paper) observed that “[p]redicting paper prices is a mug’s game. Paper markets around North America are dropping 10 percent year over year.”²⁴

3.3.2 Need for the freshet rate pilot project

CEBC questioned whether there is a freshet problem and whether there is a need for a freshet rate pilot. In the SRP it posed a number of questions to BC Hydro with respect to the informational graphs presented by BC Hydro to demonstrate the surplus that exists during the freshet period. CEBC questioned whether these graphs actually demonstrated there was a significant surplus over the freshet period as claimed. Specifically, CEBC asked how many gigawatt hours of surplus electricity there is for customers to take. BC Hydro was unable to answer the question in precise terms due to the information presented being in monthly averages. However, it pointed out that in an average water year it can be expected that a surplus would exist for half the time resulting in exporting or spilling and for the other half the time there would be no surplus as water levels would be below the monthly average.²⁵

CEBC maintained that the surplus is a very small amount and estimates it to be around 50 average megawatts translating to about 36 gigawatt hours a year. It submits that when this is viewed in the context of BC Hydro’s delivery of 54 to 55,000 gigawatt hours, “it’s essentially not much more than a rounding error.” CEBC asserted that there is no freshet problem and no need for a tariff solution. A more appropriate solution would be to have BC Hydro enter into contracts with industrials willing to purchase any surplus amounts during freshet.²⁶

Commission staff also questioned the information on BC Hydro’s graphs and what they demonstrated. One question with reference to the graph on page 2 of Exhibit B-12 asked BC Hydro to “confirm that the potential freshet period energy oversupply is, on average, expected to be the very small area between the implied minimum generation average line, the red line, and the average load line, the black line?” BC Hydro responded that:

the graph was intended to show was for a monthly average what the average load would be against the average minimum generation. So it would be for that — yeah, the difference between those two, that small areas, would be on an average basis if you did it for the month when you’d be in a force generation period. What the graph isn’t showing is how that would change within the month or how it would differ between the high load hour period and the low load hour period.²⁷

²² Exhibit B-1, p. 7-42.

²³ T2:307.

²⁴ T2:306–307.

²⁵ T2:336; T2:217–220

²⁶ T2:336–337.

²⁷ T2:293.

3.4 Positions of the parties

Almost all of the interveners expressed support for BC Hydro moving forward with the proposed freshet rate pilot. The one exception to this was CEBC who, as noted in Section 3.3.2, have concern as to the need for a freshet rate and propose other alternatives in the event that BC Hydro has a surplus during the freshet period. In addition, MoveUP was cautious in its support for the pilot noting that it expects to participate vigorously in the evaluation process that follows and with any application to approve the freshet rate on a permanent basis.²⁸

None of the interveners raised concerns with regard to the methodology that BC Hydro proposes to employ to implement and manage the pilot. Nor were there any concerns raised with the proposal for billing as proposed by BC Hydro.

In spite of the support for the pilot project, a number of interveners made comments concerning various aspects of the BC Hydro freshet rate proposal. These are summarized as follows.

NIARG expressed the view that it should not be presumed that it is inevitable the freshet rate will become permanent. It submits that the permanency of the pilot rate is a determination based on an evaluation process not on the expectation going into it.²⁹ CEBC expressed agreement with NIARG noting that there should be no suggestion of automatic renewal and commenting “often what happens, things start off on a temporary basis become permanent”.³⁰ MoveUP held a similar view noting the importance of the evaluation process following the pilot.³¹

CEC advocated expansion of the freshet rate pilot program to include commercial customers and noted that it was encouraged by BC Hydro’s comments made during the SRP concerning pursuit of the opportunity to expand the program. Further, CEC asked the Commission to confirm that discussions are to occur in the short term and not wait till the end of the pilot.³²

BCOAPO noted that BC Hydro has acknowledged there are uncertainties with implementing the freshet rate. These include the incremental energy that may be used, uncertainties related to how customers may choose to use the rate and whether there will be a positive or negative impact on non-participating customers. BCOAPO noted the importance of a pilot prior to full implementation and subsequent evaluation to clearly assess the impacts on non-participants. Further, given the uncertainties with the rate, BCOAPO submitted that “Hydro should not be conservative in determining the level of benefits necessary to offset the potential risks.”³³

BCOAPO also expressed concern with respect to extending the pilot rate to general service customers pointing out that there are “so many more” in this group. However, it did express an interest in being involved in the development of the rate from an early stage.³⁴

BC Hydro indicated that it is willing to engage with the CEC regarding its request for a freshet pilot for general service customers but noted that as outlined in the SRP, medium general service (MGS) and large general service (LGS) rates are in transition. Further, concerning the substantive comments from interveners with respect to the

²⁸ T2:341.

²⁹ T2:330.

³⁰ T2:338.

³¹ T2:341.

³² T2:334.

³³ T2:343–345.

³⁴ T2:347–348.

evaluation process, BC Hydro stated it “is certainly open to an inclusive evaluation, and we’ll certainly review the transcript and take careful note of what everybody was looking for.” Its expectation is that there is a likelihood there will be stakeholder consultation prior to the start of the evaluation process.³⁵

Commission determination

The Panel approves the two-year freshet rate pilot program as proposed by BC Hydro with the rate being effective for the period extending from March 1, 2016 to October 31, 2017.

As noted in Section 3.1, BC Hydro set three objectives which the freshet rate program was designed to meet: that it respond to IEPR task force recommendations, provide assistance to BC Hydro freshet energy oversupply management and recover what might otherwise be obtained from export market sales with potential economic benefits to the province. As a consequence, approval of the freshet rate pilot represents a positive step toward achieving these objectives. The initiation of a pilot will provide the opportunity to analyse and assess the impact of the program over a two-year period and determine whether it should be made permanent.

The Panel observes that there is support for this program from interveners, many of whom were involved in the extensive consultation process prior to the filing of the Application. This provided parties the opportunity to understand the issues prior to final development of the freshet rate pilot program.

Significant to the Panel is the fact that BC Hydro has applied for a pilot program rather than a permanent rate. This will provide the parties the opportunity to assess the impact of the rate on non-participants and participants alike allowing for modification of the current methodology prior to considering whether the freshet rate should be made permanent. In addition, the parties have agreed there is a need for a robust evaluation of the pilot both during and following the pilot and BC Hydro has proposed a set of evaluation criteria. The Panel’s consideration of the proposed evaluation criteria is provided in Section 4.2 following.

Many of the parties have addressed the risks associated with a freshet rate and there seems to be general consensus that these risks have been identified and will be monitored during the pilot program and addressed during the evaluation process. The Panel accepts this and notes that a key benefit of piloting this program is to learn more about its impacts prior to considering a permanent freshet rate.

Given the overall support for the program and the fact it is designed as a pilot with a defined end and includes a rigorous evaluation process, the Panel is persuaded that approval of the freshet rate pilot program is warranted.

CEBC has raised a concern as to whether there is a freshet oversupply problem and a need for a freshet rate. CEBC points to the graphs provided by BC Hydro as indicating that the oversupply during freshet is minimal and can be dealt with by other measures. BC Hydro has responded to these assertions by explaining that the graphs provided represent averages and are not intended to clearly convey the extent of the surplus energy at any point in time, pointing out the level of surplus energy varies by day and throughout each day. The Panel accepts BC Hydro’s explanation of why the extent of the oversupply during freshet is not apparent on the graphs. In the Panel’s view CEBC’s interpretation does not consider the variability of intraday demand and supply. The Panel also notes that in the event supply is not available from BC Hydro, the freshet rate is designed to take advantage of potential lower Mid C pricing opportunities thereby providing benefit to BC industries. While the Panel accepts that there is likely to be sufficient energy available to support the freshet rate pilot, this issue will require further examination before proceeding with a permanent rate or expanding the program to other rate

³⁵ T2:355–357.

classes. **The Panel directs BC Hydro to provide more clarity in its evaluations and provide more clarity as to the magnitude of the energy surplus during freshet and provide an estimate of its potential value.**

4.0 OTHER ISSUES

4.1 Potential to expand the freshet rate pilot to other rate classes

BC Hydro, in its opening statement at the SRP for the freshet rate pilot, indicated its willingness to explore whether the freshet rate could be applied to general service customers with a completion date of required analysis by the spring of 2018.³⁶ As noted in Section 3.4, CEC is advocating an expansion of the freshet rate program to include medium general service (MGS) and large general service (LGS) rate groups and has indicated that it is requesting the Commission to confirm that discussions are to occur in the near term.

In answer to CEC's query concerning BC Hydro's opening statement, the utility gave the following response:

...one of the things we want to deal with through the evaluation period is we want to look at how this rate is working. One of the challenges with implementing it for the commercial sector right now is that one of the most substantial proposals in BC Hydro's rate design application is a fundamental change to the large general service, immediate general service rates, which is the default rate. As it is, as it stands right now, we have that, our proposed flattening of the rate coming into effect in fiscal 2018, so April 2017, which would be right in the middle of the two-year pilot.³⁷

BC Hydro continued by stating the uncertainty around the new MGS and LGS rates would cause challenges and there is no certainty on those rates until the Commission renders a decision. However, there will be certainty as to the general service rates by the time the freshet rate pilot is being evaluated. BC Hydro acknowledged however, that there is nothing stopping it from working with CEC to understand what kinds of things this customer group can provide and the flexibility they have.³⁸

In its final submissions, BC Hydro noted that the freshet pilot rate is specific to the RS 1823 group and cannot be readily applied to different rate schedules. Thus, a whole new rate schedule would need to be developed for those other rate classes.³⁹

CEC, in its final submissions, noted that the number of 6,000 customers was talked about but it was not looking at a program to serve this many customers. It stated that it is looking at an opportunity for a more refined target approach. CEC completed its submissions by stressing that it is urging the discussion on this matter be current and ongoing and requested the Commission confirm that this should be dealt with in the more near term.⁴⁰

In reply, BC Hydro stated that it was happy to consult with CEC and explore their ideas. However, it did not guarantee that this would result in a short-term solution.⁴¹

³⁶ T2:175.

³⁷ T2-194.

³⁸ T2:195.

³⁹ T2:320.

⁴⁰ T2:334.

⁴¹ T2:355-356.

Commission discussion

There appears to be agreement between CEC and BC Hydro to begin the process of discussing the potential for extending a freshet rate to general service customers at some future date. The Panel is supportive of these discussions being initiated in the shorter term as requested by CEC.

However, the Panel understands that it is unlikely a freshet rate solution will be achieved in the short term as desired by CEC. We accept that it is not simply a matter of applying the same rate to commercial customers as will be applied in the industrial customer pilot due the differences in rate schedules. In addition, the fact that medium and large general service customer rates are currently under review adds additional challenges in determining a freshet rate for this customer class.

Development of the freshet rate for industrial customers was reliant on an engagement process that covered many months and resulted in a broad range of stakeholder groups providing support for a single proposal. BCOAPO has expressed some concern with moving forward with extending the pilot rate to general service customers at this time, but has expressed an interest in being involved with the development of such a rate from an early stage. Given these concerns, the Panel sees value in a similar process being applied to the determination of a freshet rate program for general service customers. This will allow the parties to benefit from any learning that may have resulted from the transmission service freshet rate pilot. The Panel is reluctant to direct the parties to adhere to a particular timeline on this matter, but do encourage them to begin initial discussions to examine the potential for a freshet rate pilot for general service customers prior to the end of the transmission service freshet rate pilot.

4.2 Evaluation of the freshet rate pilot

BC Hydro proposes to have three evaluation reports for the freshet rate pilot; two preliminary reports, one in the fall of 2016 and one in the fall of 2017, and a final evaluation report in the spring of 2018. The 2016 and 2017 preliminary reports will provide information on the take-up of the pilot in Years 1 and 2, and identify total sales and revenue under the rate. In addition, BC Hydro proposes to include the impact of shifting in Year 1 in the 2017 report. BC Hydro proposes the final evaluation report will provide a summary of the take-up and shifting over the two year pilot.⁴²

Evaluation criteria

At Workshop #10 BC Hydro proposes to address the following evaluation criteria questions in assessing the freshet rate pilot:

- Did the rate provide RS 1823 customers with lower cost options?;
- Did the rate have positive or negative impacts on non-participating customers?;
- How many RS 1823 customers used the rate? What were the volumes of use?;
- How did customers use the rate?;
- To what extent did shifting contribute to higher freshet energy?;
- Was there any shifting within the freshet period from HLH to LLH?; and

⁴² Exhibit B-1, p. 7-44.

- Were there any issues with setting baselines, implementation, or billing?⁴³

Further, based on stakeholder comments and its own further analysis, it will also consider the following additional questions in its assessment:

- Did the pilot impact RS 1823 customers' conservation and efficiency measures?;
- How quickly did customers respond to changes in market prices?;
- Did customers with aggregated RS 1823 loads shift consumption between plants to take advantage of this rate?;
- Did BC Hydro curtail any customers under the non-firm provisions of the rate? If so, what led to the curtailments? If not, were there any financial impacts on BC Hydro from not curtailing customers during constrained periods?; and
- Was there any impact on RS 1880 events? Did customers use the rate as a substitute for RS 1880?⁴⁴

MoveUP "is concerned that BC Hydro has decided to proceed with this pilot project...without turning its mind to how it will track, or if it is even possible to track some of the items that have been flagged as concerns by the interveners."⁴⁵ BC Hydro submitted it would be appropriate for the Panel to direct fine-tuning of the reporting criteria, the evaluation methods, et cetera, with stakeholders and staff.⁴⁶

MoveUP further submitted "...there is no solid evidence regarding the evaluation framework that will be applied to this pilot project, or the standard of performance that BC Hydro will require from the project to decide whether it's a failed experiment or a success." It noted that this can be dealt with when the evaluation reports come out and indicated it intends to vigorously participate in any evaluation process.⁴⁷

NIARG noted that a desirable outcome of the evaluation process would be identification of increased benefits to other customer classes.⁴⁸

When BC Hydro was asked to comment on where this program will go post pilot and what does success look like, it explained that "success looks like as many as possible of our transmission service rate customers can take up this rate" and explained that in the spring of 2018 they would file a final evaluation report where they would make an assessment of the success of the pilot and believe there would be some additional consultation with stakeholders on the evaluation reports.⁴⁹

In addition to comments regarding what should be included in the evaluation process, a number of issues arose concerning program elements and their handling in the pilot and in the event the program continues beyond the pilot stage. These included the following:

⁴³ Exhibit B-1, p. 7-43.

⁴⁴ Exhibit B-1, p. 7-43.

⁴⁵ T2:340-341.

⁴⁶ T2:311.

⁴⁷ T2:341.

⁴⁸ T2:330.

⁴⁹ T2:187.

Wheeling fee

A number of concerns were raised with respect to the \$3 wheeling fee proposed by BC Hydro. Commission staff raised the issue of wheeling fees and whether it would be more appropriate for wheeling charges to mimic those employed by FortisBC (as outlined in Order G-77-14).⁵⁰ CEBC raised this issue as well, asserting that what the FortisBC rate is tracking is what should be tracked in the evaluation period.⁵¹ BCOAPO indicate they are willing to support the proposed wheeling fee for the pilot but submit that a full assessment of these costs must be part of the evaluation process.⁵²

Baselines

As noted in Section 3.2, BC Hydro expects to use 2015 data for baselines without further adjustment as long as 2015 freshet purchases are within +/- 10 percent of a customer's historical freshet load but acknowledges that there could be cases where adjustment is necessary to achieve baselines representative of normal operations.⁵³

BC Hydro provides the following explanation with regard to the setting of baselines:

To determine if a customer's 2015 freshet consumption can be used to set a baseline without further adjustment, BC Hydro believes it's necessary to compare consumption in 2015 with the prior three to five year period. The exact period for comparison will be determined on a case by case basis and BC Hydro will be guided by the baseline setting principles set out in TS 74. Furthermore, Special Condition 4 of RS 1892 (Exhibit B-1, Appendix F-1B) states that BC Hydro will file baselines not based on 2015 freshet purchases with the Commission.

BC Hydro continues by stating:

Setting baselines can be challenging for a variety of reasons because consumption in the baseline period can be affected by many factors including economic conditions, maintenance, production expansion, DSM, etc. Setting baselines ultimately requires a degree of professional judgement to ensure the baseline reasonably represents what the customer would have used in the absence of the freshet rate.⁵⁴

Both MoveUP and BCOAPO raised the baseline setting issue with BCOAPO submitting that "One of the objectives of the evaluation should be, and is, to assess the reasonableness of the proposed approach, and the extent to which adjustments in judgment were required in determining the baselines."⁵⁵

Longer term rate/investment decisions

CEC raised an issue with respect to the potential for some freshet rate customers to not take part in the pilot due to circumstances dictating that a longer period than the proposed 2-year pilot is required to

⁵⁰ T2:303.

⁵¹ T2:338.

⁵² T2:352.

⁵³ Exhibit B-1, 7-39.

⁵⁴ Exhibit B-5, BCUC 1.110.1.

⁵⁵ Ibid., p. 350.

justify the investment required to participate and CEC proposes that such cases be identified and tracked.⁵⁶ BC Hydro indicates that it intends to make this issue it part of the reporting process.⁵⁷

Sharing Benefits with Non-Participating Customers

The issue was raised as to whether freshet rate benefits should be shared in some way with non-participating customers.⁵⁸ BC Hydro's position is that the UCA's legal test does not require the delivery of benefits to non-participating customers⁵⁹ and submitted that it is the holding harmless of non-participants rather than benefit sharing that is the appropriate test.⁶⁰ BC Hydro provided the \$0kWh floor price as an example of benefits to non-participants.

Commission determination

The Panel accepts the evaluation criteria and agreed to reporting items as proposed by BC Hydro and directs BC Hydro to file three evaluation reports as described in section 7.3.4.6 of the 2015 RDA on the RS 1892 Freshet Rate Pilot. In addition the Panel considers there to be a need to address a number of other issues as raised in this proceeding as part of the evaluation process. Accordingly, **the Panel directs BC Hydro as part of the evaluation process to address and where appropriate, evaluate the following:**

- **Analysis of the costs/benefits to non-participating customers, including the \$0kWh floor price, and evaluating the appropriateness of sharing additional benefits with non-participating customers ;**
- **The Freshet Rate Pilot wheeling charges as compared to those that would have been collected had FortisBC's standby rate charges been applied;**
- **The data, the calculations, the analysis and other considerations, if any, that went to determining each customer's baseline, each customer's freshet rate charges and each customer's RS 1823 charges;**
- **Freshet rate engagement activities with commercial ratepayers and other ratepayer groups;**
- **Detailed information as to the extent of the potential energy oversupply issue and BC Hydro's progress on other strategies it is pursuing to mitigate the issue;**
- **All costs associated with the implementing the freshet rate pilot; and**
- **An analysis of the impact of any load shifting including the actual monthly consumption for each pilot participant in comparison to the respective CBLs for each.**

Prior to filing the final evaluation report on the freshet rate pilot, BC Hydro is further directed to consult with stakeholders on further process in the event there is a recommendation that the freshet pilot rate be made a permanent.

⁵⁶ T2:199.

⁵⁷ T2:310.

⁵⁸ T2:330; T2:345.

⁵⁹ Exhibit B-5, BCUC 1.103.1.

⁶⁰ T2:282.