

# BC Hydro Rate Design Workshop

## SUMMARY

26 JUNE 2015

9AM TO 2.30 P.M.

BCUC Hearing Room  
1125 Howe Street, Vancouver

<b>TYPE OF MEETING</b>	RDA Workshop 11B
<b>FACILITATOR</b>	Anne Wilson, BCH
<b>PARTICIPANTS</b>	Association of Major Power Consumers of British Columbia (AMPC); British Columbia Old Age Pensioners Organization (BCOAPO), BC Sustainable Energy Association and Sierra Club of Canada BC Chapter (BCSEA), BCUC staff, Canadian Office and Professional Employees Union Local 378 (COPE 378), Chemtrade, CLEAResult, Commercial Energy Consumers Association of British Columbia (CEC), First Nations Energy & Mining Council/Linda Dong Associates (FNEMC), FortisBC Inc. (Fortis), Ivanhoe Cambridge, Thrifty Foods, TransLink, Vancouver Aquarium, Viterra, West Fraser
<b>BC HYDRO ATTENDEES</b>	Shiau-Ching Chou, Allan Chung, Gordon Doyle, Rob Gorter, Paulus Mau, Anne Wilson, Bryan Hobkirk, Craig Godsoe, Jeff Christian (Lawson Lundell)
<b>AGENDA</b>	<ol style="list-style-type: none"> <li>1. Welcome &amp; Introductions</li> <li>2. LGS Energy Rate Alternatives</li> <li>3. LGS Demand Charge Alternatives</li> <li>4. GS Voluntary Rate Options</li> <li>5. Other GS Rate Issues – Demand Ratchet and TOD</li> </ol>

MEETING MINUTES			
<b>ABBREVIATIONS</b>	<table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;">                     BCH ..... BC Hydro                      BCUC.....BC Utilities Commission                      CBL.....Customer Baseline Load                      COS.....Cost of Service                      CP.....Coincident Peak                      DSM..... Demand Side Management                      EC&amp;E.....BCH Electricity Conservation &amp; Efficiency Committee                      FGR.....Formulaic Growth Rule                      GS.....General Service                      GWh.....Gigawatt hour                      HBL.....Historic Baseline                      HLH.....High Load Hours                      IPP.....Independent Power Producer                      kW.....Kilowatt                 </td> <td style="width: 50%; border: none;">                     kWh.....Kilowatt hour                      LGS.....Large General Service                      LLH.....Light Load Hours                      LRMC.....Long-Run Marginal Cost                      MGS.....Medium General Service                      PLB.....Price Limit Bands                      RDA.....Rate Design Application                      RS.....Rate Schedule                      SQ.....Status Quo                      TOD.....Transformer Ownership Discount                      TRC.....Total Resource Cost                      TS.....Tariff Supplement                      TOU.....Time of Use rate                      UCA.....Utilities Commission Act                 </td> </tr> </table>	BCH ..... BC Hydro BCUC.....BC Utilities Commission CBL.....Customer Baseline Load COS.....Cost of Service CP.....Coincident Peak DSM..... Demand Side Management EC&E.....BCH Electricity Conservation & Efficiency Committee FGR.....Formulaic Growth Rule GS.....General Service GWh.....Gigawatt hour HBL.....Historic Baseline HLH.....High Load Hours IPP.....Independent Power Producer kW.....Kilowatt	kWh.....Kilowatt hour LGS.....Large General Service LLH.....Light Load Hours LRMC.....Long-Run Marginal Cost MGS.....Medium General Service PLB.....Price Limit Bands RDA.....Rate Design Application RS.....Rate Schedule SQ.....Status Quo TOD.....Transformer Ownership Discount TRC.....Total Resource Cost TS.....Tariff Supplement TOU.....Time of Use rate UCA.....Utilities Commission Act
BCH ..... BC Hydro BCUC.....BC Utilities Commission CBL.....Customer Baseline Load COS.....Cost of Service CP.....Coincident Peak DSM..... Demand Side Management EC&E.....BCH Electricity Conservation & Efficiency Committee FGR.....Formulaic Growth Rule GS.....General Service GWh.....Gigawatt hour HBL.....Historic Baseline HLH.....High Load Hours IPP.....Independent Power Producer kW.....Kilowatt	kWh.....Kilowatt hour LGS.....Large General Service LLH.....Light Load Hours LRMC.....Long-Run Marginal Cost MGS.....Medium General Service PLB.....Price Limit Bands RDA.....Rate Design Application RS.....Rate Schedule SQ.....Status Quo TOD.....Transformer Ownership Discount TRC.....Total Resource Cost TS.....Tariff Supplement TOU.....Time of Use rate UCA.....Utilities Commission Act		
<b>1. Welcome and Introductions</b>			
<p><b>Anne Wilson</b> opened the meeting by reviewing the agenda set out in slide 2 of the Workshop 11B slide deck.</p> <p><b>Gordon Doyle</b> stated that BCH does not yet have a preferred alternative for either the LGS energy rate or the LGS demand charge. Gord described the purpose of Workshop 11B, which is to solicit feedback on: (1) what should the preferred LGS energy rate be; (2) what should the preferred LGS demand charge be; (3) BCH’s position that GS voluntary rate options form part of RDA Module 2, and the potential options BCH has identified to date; and (4) BCH’s proposals for the review timing of the LGS/MGS demand ratchets and the TOD.</p>			
<b>2. Presentation: LGS Energy Rate Alternatives</b>			
<p><b>Rob Gorter</b> and <b>Paulus Mau</b> reviewed the BCH Bonbright assessment of the four LGS energy rate alternatives:(1) SQ LGS Energy Rate; (2) SQ LGS Simplified Energy Rate; (3) LGS Flat Energy Rate; and (4) a TSR-Like Rate for a new class of larger LGS customers (referred to as <b>XLGS</b>), which both BCH and AMPC would consider in the context of the LGS Flat Energy Rate alternative for the remainder of the LGS rate class.</p> <p><b>Shiau-Ching Chou</b> discussed a number of LGS rate provisions that could be modified or eliminated as part of the SQ LGS Simplified Energy Rate.</p>			

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**Allan Chung** outlined BCH's thinking to date regarding a TSR-Like Rate for a new XLGS rate class.

FEEDBACK		RESPONSE
1.	<b>BCSEA</b> While not advocating for this rate structure, is BCH constrained from examining a declining block energy rate for LGS?	BCH is not constrained, and did examine and then screened out a LGS declining block energy rate on the basis that it is inferior to the four LGS energy rate alternatives, particularly concerning the Bonbright efficiency criterion.
2.	<b>FortisBC</b> Is the 800 GWh/year energy conservation forecast number rate structure specific?	Yes; this forecasted number does not include natural conservation.
3.	<b>COPE 378</b> The general problem BCH is grappling with is the diversity of the LGS rate class. If there is consensus that the LGS Flat Energy Rate does not perform worse than the SQ LGS Energy Rate on conservation, and BCH is forecasting zero conservation from the LGS Flat Energy Rate, why not pursue the LGS Flat Energy Rate?	
4.	<b>CEC</b> We are not sure the main problem is class diversity; there are elements of the SQ LGS Energy Rate that are problematic for conservation such as the three year rolling HBL average. Nonetheless, it seems to make sense to pursue the LGS Flat Energy Rate and then review voluntary rate options that may increase conservation and/or address economic cycle issues, etc.	
5.	<b>AMPC</b> AMPC's concern with SQ LGS Simplified Energy Rate and the LGS Flat Energy Rate is the bill impacts on LGS high load factor customers. Yesterday BCH acknowledged that high load factor customers use the BCH system more efficiently. What are BCH's proposals to mitigate these bill impacts?	BCH is exploring demand charge structure alternatives that among other things have the effect of offsetting some of the high load factor customer bill impacts. This is the subject of the next presentation at today's workshop.  Another possibility is to increase the LGS demand charge demand cost-related recovery, which is currently about 50%. BCH has not modelled different levels of LGS demand charge cost recovery as the current cost recovery is not unreasonable when compared to the Transmission Service RS 1823 demand charge cost recovery of about 65%. BCH is open to feedback on why the LGS demand charge demand cost-related recovery should be increased, and to what level.
6.	<b>COPE 378</b> As a follow-up to AMPC's comment, COPE 378 thinks it would be a mistake to impose a hard constraint such as 'no adverse bill impacts to high load factor customers'. COPE 378 thinks the main inefficiency is coming from the level of the energy charge for big GS customers, and not the LGS demand charge level.	

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<p>7.</p>	<p><b>Vancouver Aquarium</b></p> <p>The SQ LGS Energy Rate is flawed – it penalizes businesses that are in growth phase. The SQ LGS Energy Rate cost Vancouver Aquarium \$80,000 triggered by an efficiency-related project but we also received \$200,000 in DSM program incentives for the project. The SQ LGS Energy Rate PLBs do not incent conservation.</p> <p>BCH should flatten the LGS energy rate and look to its DSM programs, which can be better targeted to individual businesses.</p>	<p>The SQ LGS rate was designed to influence decision making to support the efficient use of energy through a price signal that reflects BC Hydro’s marginal cost of energy. As a result customers who grow relative to their baseline will see higher bills and those that decrease consumption relative to their baseline will see lower bills. Rates designed to encourage conservation can impact growing customers due to higher energy charges for increased consumption.</p>
<p>8.</p>	<p><b>CLEAResult</b></p> <p>What is the cost of conservation versus DSM programs? The avoided cost of supply is market.</p>	<p>The avoided cost of supply is not market as a result of section 6 of the <i>Clean Energy Act</i>, which requires BCH to be self-sufficient. The avoided cost of supply is thus B.C.-based resources.</p> <p>BCH uses the avoided cost of supply in the TRC test for DSM programs as described in the California Standard Practice Manual<sup>1</sup> to screen DSM. The BCUC’s determination of DSM cost-effectiveness for purposes of DSM expenditure schedules submitted under section 44.2 of the UCA is guided by the Demand-Side Measures Regulation, which among other things contains modifications to the TRC test – the Regulation provides for a deemed value of natural gas savings and a deemed non-energy benefit adder of 15 per cent.</p>
<p>9.</p>	<p><b>Thrifty Foods</b></p> <p>Thrifty Foods has benefitted from the SQ LGS Energy Rate; we think the SQ LGS Energy Rate reduced the payback period for some projects as we received credits. We are concerned that with the LGS Flat Energy Rate there will be no more credits.</p>	
<p><i>SQ LGS Simplified Energy Rate</i></p>		
<p>10.</p>	<p><b>BCUC staff</b></p> <p>Is the SQ LGS Simplified Energy Rate simply ‘flogging a dead horse’? Does BCH anticipate that the SQ LGS Simplified Energy Rate can deliver more conservation?</p>	<p>The SQ LGS Simplified Energy Rate was brought forward in response to some LGS customer comments at Workshop 8B that it may be possible to simplify the SQ LGS Energy Rate and that BCH should review a number of the SQ LGS Energy Rate provisions such as TS 82, the prospective growth rule.</p> <p>Nonetheless, the complexity flows from the baseline and the SQ LGS Simplified Energy Rate retains the baseline. It also debatable whether flattening the LGS Part 1 energy rate will make for a clearer price signal.</p>
<p>11.</p>	<p><b>BCSEA</b></p> <p>We echo BCUC staff’s comment; in the end, to the extent complexity is the reason for the SQ LGS Simplified Energy Rate poor conservation performance, SQ LGS Simplified Energy Rate is not likely to solve the problem.</p>	

<sup>1</sup> California Standard Practice Manual: Economic Analysis of Demand-Side Programs and Projects (October 2001); available at California Energy Commission’s website at [www.energy.ca.gov](http://www.energy.ca.gov).

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12.	<b>Viterra</b> The statement on slide 17 that moving to annual baselines may create cash flow problems at the end of the year for customers is a red herring. Business customers do annual budgeting and can plan out the cash flow fluctuation ahead of time.	BCH bases this statement from its experience with the 2005 Transmission Service Rate application, but recognizes that cash flow may not be an issue for all LGS customers. Customers who cannot cope with the bill fluctuation can set up the Equal Payment Plan (EPP).
13.	<b>BCOAPO</b> Could BCH make either TS 82 or the FGR optional for LGS customers, e.g., if there is a benefit, BCH would put the customer on the particular rule?	Customers' consumption fluctuates throughout the year. BCH will not know whether a customer would benefit from the provisions until the end of the special adjustment (1 year for FGR and three years for TS82).
14.	<b>TransLink</b> The 30% threshold is too high for the FGR and TS 82.	
15.	<b>Vancouver Aquarium</b> We echo TransLink's concern that the 30% threshold for TS 82 and the FGR is very difficult to meet.	
16.	<b>Ivanhoe Cambridge</b> Is the 30% increase in energy consumption over a one year period? If so, it cannot take into account projects that come in phases.	Yes, it is 30% increase in energy consumption over a one year period.
17.	<b>BCOAPO</b> Can BCH explain how higher baselines sometimes create higher bills?	When baselines are lower, the 20% price limit band (PLB) is smaller. Additional growth above the PLB is priced at the Part 1 rate. Higher baselines have larger 20% PLBs. Customers with significant growth are likely to have consumption exceeding baselines, even after their baselines are adjusted to be higher. With a larger 20% PLB, more kWhs are being priced at the higher LRM rate, thus the bill is higher.
18.	<b>Thrifty Foods</b> While we are in favor of the SQ LGS Energy Rate, the new accounts 85/15 rate must be changed as it is unfair when there has been no change in operations. What was the reason for the 85/15 rate?	In its 2009 LGS Application, BCH originally proposed that new accounts would pay the Part 1 energy rate for billed consumption for the first 12 months of service with one exception: the last 10% of energy consumed in a monthly billing period would be charged at the Part 2 energy rate, the LRM rate, rather than the Part 1 energy rate. The 2010 Negotiated Settlement Agreement resulted in the current 85/15 rate.  There were two reasons for the 85/15 rate – to prevent gaming to obtain a more favorable baseline and to ensure that new accounts were exposed to some sort of LRM price signal.  BCH has heard that a number of LGS customers are concerned with the 85/15 rate for new accounts.
19.	<b>Ivanhoe Cambridge</b> We support the BCH proposal on slide 27 of applying 100% Part 1 energy rates to new accounts.	

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20.	<p><b>CEC</b></p> <p>By Part 1 energy rates, BCH means both Tier 1 and Tier 2?</p> <p>We agree that the 85/15 new accounts rate is problematic.</p>	Yes.
<i>LGS Flat Energy Rate</i>		
21.	<p><b>FortisBC</b></p> <p>Would the LGS Flat Energy Rate address customer concerns that the SQ LGS Energy Rate 'penalizes' growth?</p>	With the LGS Flat Energy Rate, there are no baseline-related rules, so a customer's consumption relative to their past consumption history is not a factor in determining the energy portion of the bills. All energy consumed will be charged at the same rate.
22.	<p><b>Chemtrade</b></p> <p>Chemtrade has two chemical plants located in Prince George, B.C. Chemtrade takes service under the LGS rate for the smaller of the two plants.</p> <p>If the baseline is removed, LGS customers may do conservation projects that might not otherwise have done.</p>	
23.	<p><b>BCUC staff</b></p> <p>It would be helpful if BCH for purposes of the RDA obtained more feedback from LGS customers as to impact of baselines on conservation projects.</p> <p>The LGS Flat Energy Rate seems to look better than either of the SQ LGS Energy Rate or the SQ LGS Simplified Energy Rate. It also appears that the SQ LGS Simplified Energy Rate has many of the same problems as the SQ LGS Energy Rate with the baseline complexity still being there impeding conservation.</p>	
24.	<p><b>COPE 378</b></p> <p>While the conservation goals have not been met through the SQ LGS Energy Rate, this is not a reason to drop the energy rate to about half the lower end of the LRMC range through the LGS Flat Energy Rate.</p>	<p>The energy rate of 5.94 cents/kWh (F2017) resulting from the LGS Flat Energy Rate is based on revenue neutrality and keeping the demand charge at its current cost recovery. Note that the energy LRMC range is set out at page 7 of the Workshop 8A/8B Consideration Memo, including for F2017 (lower end – 9.54 cents/kWh; upper end – 11.23 cents/kWh).<sup>2</sup></p> <p>BCH is not clear on what, if anything, COPE 378 is suggesting as an alternative. As set on slide 30, it is not possible to set the LGS Flat Energy Rate at the lower end of the LRMC range as BCH would need to credit customers for demand to maintain revenue neutrality.</p>

<sup>2</sup> <https://www.bchydro.com/content/dam/BCHydro/customer-portal/documents/corporate/regulatory-planning-documents/regulatory-matters/2015-06-19-bch-rda-wksp-8a-8b-qsr.pdf>.

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25.	<p><b>AMPC</b></p> <p>We question the origin of the energy LPMC range. We have seen quotes for gas-fired combined cycle gas turbines of about 5 c/kWh.</p> <p>There are differences of opinion as to whether gas-fired generation is on the margin.</p>	<p>As discussed yesterday, the energy LPMC range results from the approved 2013 Integrated Resource Plan, which found that the two resources types required to fill the energy gap over the next ten years are DSM and IPP contract renewals, and this resulted in a range of 8.5 cents/KWh to 10.0 cent/kWh (F2013).</p> <p>Gas-fired generation is not on the margin for BCH given the section 2 <i>Clean Energy Act's</i> 90% clean or renewable generation energy objective.</p>																											
<i>TSR-Like Rate</i>																													
26.	<p><b>Viterra</b></p> <p>Would BCH employ the concept of revenue neutrality for a XLGS rate class taking service under the TSR-Like Rate?</p>	<p>BC Hydro would review the application of revenue neutrality and bill neutrality to a XLGS rate class to ensure pricing principles are appropriate to the rate design.</p>																											
27.	<p><b>BCOAPO</b></p> <p>How does the number of accounts at a breakpoint of 2,000 kW compare to the RS 1823 number of about 140 accounts?</p>	<p>This information is set out at page 44 of the 8A/8B Consideration Memo for a number of peak demand breakpoints; a 2,000 kW breakpoint results in 172 LGS accounts.</p>																											
28.	<p><b>CEC</b></p> <p>Has BCH undertaken analysis of the 172 accounts using the 2,000 kW breakpoint?</p>	<p><b>Revised Response</b></p> <p>The general sector classification of the 172 accounts is as follows in the table below:</p> <table border="1" data-bbox="821 1203 1409 1551"> <thead> <tr> <th>Sector</th> <th>#</th> <th>% of Total</th> </tr> </thead> <tbody> <tr> <td>Transportation</td> <td>14</td> <td>8%</td> </tr> <tr> <td>Commercial</td> <td>18</td> <td>10%</td> </tr> <tr> <td>Government &amp; Institution</td> <td>26</td> <td>15%</td> </tr> <tr> <td>Property</td> <td>25</td> <td>15%</td> </tr> <tr> <td>Industrial</td> <td>35</td> <td>20%</td> </tr> <tr> <td>Wood</td> <td>41</td> <td>24%</td> </tr> <tr> <td>Other Resource</td> <td>13</td> <td>8%</td> </tr> <tr> <td><b>Total</b></td> <td><b>172</b></td> <td><b>100%</b></td> </tr> </tbody> </table>	Sector	#	% of Total	Transportation	14	8%	Commercial	18	10%	Government & Institution	26	15%	Property	25	15%	Industrial	35	20%	Wood	41	24%	Other Resource	13	8%	<b>Total</b>	<b>172</b>	<b>100%</b>
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29.	<p><b>CLEAResult</b></p> <p>Given that a TSR-Like Rate would have annual baselines, public institutions and municipal governments may have end of year cash flow problems.</p>																												

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30.	<p><b>COPE 378</b></p> <p>A TSR-Like Rate may be a bad fit for public institutions. BCH should consider segmenting the LGS rate class and creating a new class of government and public institutions.</p>	<p>BCH does not see a cost of service basis for this kind of segmentation. Based on the jurisdictional analysis for GS segmentation discussed yesterday, BCH is not aware of Canadian electric utilities segmenting government and public institutions from the rest of the GS classes. However, Yukon Electric has separate GS rate schedules for the federal and territorial governments in its service area.<sup>3</sup></p>
31.	<p><b>BCOAPO</b></p> <p>Regarding slide 33 and the potential conservation savings of about 200 GWh, what is the basis for the assumption of accounts consuming at 90%?</p>	<p>The assumption is based on RS 1823.</p>
32.	<p><b>West Fraser</b></p> <p>What is the LGS equivalent of the 2,020 GWh figure on slide 33?</p> <p>We do not see the cash flow issue as a con as noted on slide 34; it can be a pro to pay at the end of the year.</p>	<p>It is about 19% of total LGS class load.</p> <p>Noted. BCH's main concern with the TSR-Like Rate is the administrative burden as outlined on slide 34.</p>
33.	<p><b>Viterra</b></p> <p>We don't see the administrative issues as significant hurdle for the TSR-Like Rate, particularly if the TSR-Like Rate is extended to only 170 or so accounts.</p>	
34.	<p><b>CEC</b></p> <p>Importing the concept of the RS 1823 dead-band may result in a loss of the LRMC signal. This issue is more complex than shown on slide 33.</p>	<p>BCH has only begun exploring a TSR-Like Rate in responses to comments from AMPC and Viterra provided in respect of Workshop 8B.</p>
35.	<p><b>COPE 378</b></p> <p>The LGS Flat Energy Rate energy price is too low, and in our view, this is the only reason for examining a TSR-Like Rate. However, there are problems with RS 1823 – it seems easy to save at 10%. The administrative issues look significant. BCH should explore if there other ways to induce conservation for LGS while pursuing the LGS Flat Energy Rate.</p>	

<sup>3</sup> <https://www.yukonenergy.ca/customer-centre/commercial-wholesale/rate-schedules/>.

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36.	<p><b>AMPC</b></p> <p>Consumption at or around 90% of CBL does not mean RS 1823 is not working or delivering conservation.</p> <p>AMPC proposed a TSR-Like Rate for large LGS customers with peak demand of 2,000 kW because: (1) it recognized that extending a TSR-Like Rate to all LGS accounts is not viable; (2) the 2,000 kW breakpoint limits the administrative issues – 170 accounts is comparable to the current RS 1823 140 or so accounts. In addition, many of the larger LGS customers are served by distribution due to 'accidents of geography' but are more akin to BCH Transmission Service customers. Finally, a TSR-Like Rate has the potential to incent conservation from those LGS customers most able to respond.</p> <p>Note also that AMPC proposed a TSR-Like Rate to work with the LGS Flat Energy Rate for the remainder of the current LGS class.</p>	<p>Agreed that the overall administrative burden falls if the TSR-Like Rate is coupled with the LGS Flat Energy Rate. BCH would be opposed to a TSR-Like Rate together with either the SQ LGS Energy Rate or the SQ LGS Simplified Energy Rate.</p>
37.	<p><b>Viterra</b></p> <p>Note that with the coming to an end of the persistence of DSM projects, the RS 1823 Tier 2 rate will come back into play as customers begin to consume above 90% of CBL.</p>	<p>Agreed that going forward, more Transmission Service customers are like to see the RS 1823 Tier 2 rate due to DSM persistence.</p>
38.	<p><b>BCUC staff</b></p> <p>We heard in Workshops 8A/8B and this workshop that some LGS customers have conserved under the SQ LGS Energy Rate, but that a larger portion has not. How many of the LGS customers who stated that they have conserved would migrate to a TSR-Like Rate and continue with conservation?</p>	<p>BCH will seek this feed-back.</p>
39.	<p><b>BCUC staff</b></p> <p>It appears a TSR-Like Rate could address the problem of bill impacts to high load factor customers associated with the LGS Flat Energy Rate.</p>	<p>This is not clear to BCH at the present time. For example, BCH has not yet examined the bill impacts for the remainder of the LGS rate class under a LGS Flat Energy Rate after segmenting and creating a XLGS class and implementing a TSR-Like Rate.</p>
<p><b>3. Presentation: LGS Demand Charge Alternatives</b></p>		
<p><b>Rob Gorter and Paulus Mau</b> reviewed the BCH Bonbright assessment of the three LGS demand charge alternatives: (1) SQ Demand Charge; (2) Flat Demand Charge; and (3) Two Step Demand Charge, which retains the current zero Tier 1 and flattens Tier 2 and Tier 3 into a single Tier 2.</p>		
<p><b>FEEDBACK</b></p>		<p><b>RESPONSE</b></p>
1.	<p><b>BCUC staff</b></p> <p>In terms of pursuing a Flat Demand Charge, many of the high load factor accounts in the lower right of slide 42 would migrate to a TSR-Like Rate and this could be a mitigation measure.</p>	<p>BCH has not modelled the level of demand charge cost recovery or other aspects of the TSR-Like Rate and so is not able to conclude what its effects are.</p>

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2.	<b>CEC</b> Is it the Flat Demand Charge that is causing the high load factor customer bill impacts?  CEC wishes to engage with BCH to explore if there are additional ways to mitigate the high load factor customer bill impacts.	No, it is the flattening of the SQ LGS Energy Rate Part 1 energy rates which causes the high load factor customer bill impacts; the Flat Demand Charge somewhat offsets these bill impacts.
3.	<b>COPE 378</b> Has BCH considered using HLH/LLH concepts for a LGS demand charge which would better reflect the marginal cost?	Yes; one demand charge option that is the subject of the next presentation at today's workshop is to charge customers for peak HLH only.
4.	<b>BCSEA</b> In BCH's view, which of the Flat Demand Charge and the Two Step Demand Charge better reflects cost causality?	The Flat Demand Charge. Refer to section 5.2 of the Workshop 8A/8B Consideration Memo for additional details.
<b>4. Presentation: GS Voluntary Rate</b>		
<b>Rob Gorter</b> set out BCH's position that GS voluntary rate options should form part of Module 2, as BCH believes that the GS default rates need to be set first through Module 1 before customers can make decisions about voluntary rate options. Rob also outlined the four GS rate options BCH has considered to date in conjunction with CEC: (1) TOU rate; (2) interruptible rates; (3) Efficiency Rate Credit; and (4) three demand charge options.		
<b>FEEDBACK</b>		<b>RESPONSE</b>
1.	<b>COPE 378</b> Has BCH considered a default LGS rate which would have a significantly lower energy rate for LLH and a higher HLH rate?	In BCH's view, this option is essentially a mandatory TOU rate which is contrary to B.C. Government policy.
2.	<b>FNEMC</b> Would BCH open up the optional Transmission Service freshet pilot to GS customers if the pilot is deemed a success?	Yes, this is something BCH would consider.
3.	<b>BCUC staff</b> BCH should consider testing GS interruptible rate options through pilots to see what actual take-up is.	
4.	<b>CEC</b> We urge caution in using the pilot demonstration approach for interruptible rate options. GS customers will want some certainty for their investments.  It appears that the interruptible rate options will require separate metering.  GS customers will want to know what the probability is of interruption and for how long.	Not necessarily for option 3 on slide 58.  The timing and length of interruptions and other necessary design parameters are considerations that BC Hydro would review in RDA Module 2 in consultation with customers and stakeholders.

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5.	<b>BCOAPO</b>  Are the three interruptible rate options set out on slide 58 meant to address Transmission and/or Distribution constraints?	Yes with respect to Option 1; BCH is exploring a RS 1852-like option with CEC and to date has focused on Delta in the Lower Mainland as this is where GS greenhouse growers are located, which CEC advised are interested in interruptible rates. BCH does not see any Transmission constraints in the Delta area but is investigating if there are Distribution constraints.  Option 3 is more likely aimed at Generation capacity resource displacement and so the credit could be based on the avoided cost of Generation capacity resources such as Revelstoke Unit 6 or gas-fired Simple Cycle Gas Turbines.
6.	<b>CEC</b>  CEC proposes to explore the Efficiency Rate Credit concept as part of Module 2 but slide 61 shows a timeline out to 2020-2030. CEC would like a discussion on what can be done before arriving at an efficiency-based price signal; CEC raised this same issue at the May 2015 EC&E meeting and this slide has not changed.	Slide 61 shows that a considerable amount of work is needed for an efficiency price signal. BCH will continue liaising with CEC at EC&E regarding this, and is proposing to explore CEC's Efficiency Rate Credit as part of Module 2. As part of this, BCH wants to know what the advantage of a credit approach is as compared to DSM programs; in other words, the appropriate mechanism may not be a rate.
7.	<b>BCUC staff</b>  We are interested in more information concerning Manitoba Hydro's Limited Use of Billing Demand option.	<b>Revised Response</b>  Set out below is a link to Manitoba Hydro's report to the Manitoba Public Utilities Board concerning its Limited Use of Billing Demand option for 2013/2014. <sup>4</sup>  Note that a key aspect of the option is that it is for low load factor customers with low coincidence.
8.	<b>CEC</b>  We encourage BCH to explore demand charge options beyond those listed on slide 62 as we have heard from greenhouse growers in particular they have concerns with the current MGS and LGS demand charge structure.	BCH will discuss with CEC what other options CEC is thinking of, and what the rationale for those options may be.
9.	<b>CLEAResult</b>  Since 4 CP is such a large BCH cost item, has BCH explored seasonally-based demand charges?	BCH found through its jurisdictional assessment that other Canadian electric utilities typically have flat or two step demand charges for larger GS customers. Nevertheless, a seasonally-based demand charge is close to the demand ratchet BCH will be discussing as part of the next presentation at today's workshop.
<b>5. Presentation: LGS/MGS Demand Ratchets and TOD</b>		
<b>Rob Gorter</b> outlined BCH's proposals for examining the MGS and LGS demand ratchets as part of Module 1 as they are integral part of these default rates, and for reviewing the TOD as part of Module 2 as it more closely relates to Distribution extension policy.		
<b>FEEDBACK</b>		<b>RESPONSE</b>
1.	<b>FNEMC</b>  The amount of revenue collected through demand ratchets. What is the rationale for demand ratchets?	Demand ratchets ensure a minimum contribution from those customers with high winter peak consumption and little consumption the rest of the year.

<sup>4</sup> [https://www.hydro.mb.ca/regulatory\\_affairs/electric/gra\\_2014\\_2015/pdf/appendix\\_6\\_12.pdf](https://www.hydro.mb.ca/regulatory_affairs/electric/gra_2014_2015/pdf/appendix_6_12.pdf).

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# BC Hydro Rate Design Workshop

## SUMMARY

26 JUNE 2015

9AM TO 2.30 P.M.

BCUC Hearing Room  
1125 Howe Street, Vancouver

2.	<b>BCOAPO</b> Can the COS provide insight into the TOD?	The TOD represents the estimated capital cost of transformation that BC Hydro would incur if BC Hydro was responsible for providing transformation . The analysis of TOD is more of an avoided cost as opposed to embedded cost approach.
<b>6. Closing Comments</b>		
<b>Anne Wilson</b> thanked everyone for making the time to participate in the workshop and reviewed the ways that feedback can be submitted to BC Hydro. The 30 day written comment period commences for both Workshop 11A and Workshop 11B with the posting of the Workshop 11B summary notes on July 13, 2015. Meeting adjourned at 2.30 PM.		