Net Metering Service Rate Workshop
May 1, 2024, 1 – 3 pm

[12:57 PM]
Welcome to the Net Metering Service Rate workshop. A friendly reminder that questions from those attending virtually will be addressed using the Chat feature. Please ensure your microphone and video are off to help with connectivity issues and limit distractions. We'll get started shortly.

Slides 1 - 5 – Jen Thompson

13:02 – 13:07

Slides 6 - 12 – Chris Sandve

13:07 – 13:47

[1:21 PM]
Doesn't the discussion about recovering costs rest on first understanding whether NEM customers cost the same to serve as non-generator customers? But BC Hydro has not conducted a cost-of-service study specific to customer-generators, right?

[1:25 PM]
What has been the feedback? How many of the 8800 NM customers have participated? How many have asked for changes? How many are concerned about capacity limits? How many are interested in virtual net metering? How many are interested in time of use issues?

[1:27 PM]
If the greater majority of 8800 NM customers happy with the current net metering, why throw them under the bus in order to devise a new net metering rates for potential new customers - only 0.5% of current customers? Design a new tariff for these new, bigger solar customers (capacity, virtual, time of use participants). Leave what is working alone.

[1:33 PM]
… - please place your comments or questions in the chat? Due to the number of people online, we're trying to direct everything through the chat function. Thank you.

[1:34 PM]
It would seem to me that if BC Hydro is looking to increase generation for the future that is increasingly electrified, then any new Net Metering customer is helping to advance this goal, therefore making Net Metering slightly more attractive (such as for example a 15 year payback) would be a good idea to reach that goal more easily.

Slides 13 – 21 - Paul Seo

13:47 – 14:02

[1:51 PM]
Could the folks in the room ID themselves pls?

[1:51 PM]
Thanks … - I'll ask everyone to say their name first.

[2:00 PM]
Capacity barrier of 100kW - a barrier to whom. Not to me a residential customer with a 7.4kW system. Not a barrier for me if I add more solar panels for an electric vehicle. Maybe for new virtual net metering, so why change the tariff for existing and new residential customers who are far below the barrier. What is your best guess for new demand from these new customers?

Slides 22 – 36 - Taver Bahrami

14:02 – 15:43

[2:04 PM]
It would seem that new generation like solar should be encouraged more than supply averaging like battery only.

[2:05 PM]
Time variation rates - price signals are useless if you cannot generate energy with passive solar systems in the darker, winter later afternoons and early evenings. Are you expecting net metering customers to defy the laws of the solar system and overcome weather related effects to generate energy in the dark? Evolving customer needs seem to be taking place beyond passive residential-based generation. Tweak compensation rates to meet new higher cap customers.

[2:12 PM
In prior cases, BC Hydro has treated lost revenues (the difference between revenue generation for non-generators and revenue generation for NEM customers) as a cost. Is that still BC Hydro's approach?

[2:12 PM]
What are the bottom-line costs for the 8800 NM customers for Cost of Service and Economic justifications (slide 26) today? Would like more information beyond a nice formula.

[2:20 PM]
It is important to consider the "behind the meter" economic justification, which is unique to customer generation - if a customer's LCOE is 9c and retail is 12c, they have a benefit of 25% savings on this power until the system is paid back (e.g., the first 18 years). For the remaining (7+ years) of expected life, that savings becomes 100%. This is a significant economic justification that needs to be considered - this "legacy solar" will lower customer costs in the long term much like "legacy hydro" does today. For public customers like schools, clinics, etc., these savings will be passed onto taxpayers. Standard cost-of-service formulas that only present the BC Hydro perspective will not show this benefit.

[2:21 PM]
Solar generation should be encouraged so that BC Hydro can and should try to take market share from fossil fuels, and the climate will benefit.

[2:21 PM]
I think it is important that BC Hydro hold the line against those who want to see tenants and other non-participants subsidizing more affluent customers who own homes and can afford to install solar, and businesses engaged in marketing these systems. I note that it is not as though the utility-scale generation that net metering avoids were GHG emitting to any appreciable extent.
Non-participants should pay a fair market price for the energy that BC Hydro purchases for them under this program

[2:27 PM]
Bottom line cost reductions has gotten humanity in a very deadly situation. We need to bear the cost of improvements to the climate. The costs of not doing it are becoming very apparent.

[2:27 PM]
Any form of renewable energy generation is good for both BC Hydro and the planet in general.

[2:28 PM]
The most important "economic factor" is cost reduction at BC Hydro, not the returns to producers. Hydro should be building a smart grid and encouraging tens of thousands of solar projects to make low-cost power. Acknowledging, of course, that cheap power in the future won't pay down the debt on existing generating capacity.

[2:28 PM]
But there are lots of ways to acquire renewable energy

[2:31 PM]
what are the 'other benefits' in the cost plus option?

[2:31 PM]
Slide 28. "Cost-Based Payment with Incentive." For clarity, is this 9.17 cents/kWh IN ADDITION to an energy credit at the retail rate, or IN PLACE of and energy credit?

[2:31 PM]
What commitment is BC Hydro considering making for how many years it will offer the $5000 incentive, and will it be adjusted for inflation? Is BC Hydro looking at any thresholds or triggers for adjusting the incentive level? Will BC Hydro increase the incentive level if other rate design changes result in a significant downturn or slowdown in distributed generation market growth?
How is BC Hydro proposing to quantify the amount of generation that is exported to the grid: (1) monthly netting? (2) 2-channel or instantaneous? (3) some other time increment?

[2:34 PM]
thanks

[2:34 PM]
One issue I see with Installation Incentives is that the system purchaser receives the benefit only. If the system cost is embedded as equity in the property, then it is turned over, the new owner does not realize the Installation Incentive.

[2:35 PM]
If BC Hydro is proposing an export or net generation credit that is lower than the retail rate, how does BC Hydro justify the full retail rate for electricity that customers buy from BC Hydro at the same location? How will BC Hydro address the perverse incentive that export rates lower than retail will create - e.g., the incentive to increase generation during solar production hours?

[2:37 PM]
Slide 28. Please explain "100 kW Net Injection". Does this mean the NM participant gets no compensation for any injection of more than 100 kW to the grid at any given time? Or that the NM program doesn't allow participation by customers with self-generation systems that are capable of greater than 100 kW injection?

[2:39 PM]
Can you please address if the Generation to Grid values would be escalated over time in accordance with BCH rates or inflation?

[2:39 PM]
What is the rationale for changing the 100 kW maximum generator size?

[2:45 PM]
sorry if I missed it - is the $5k fixed or scaled to the size of the system?

[2:45 PM]
Please confirm the structure of the Installation Incentive ie. $1000/kw installed, capped at 5kW... Is this capped similarly for commercial systems

[2:46 PM]
Please clarify if the Cost-Based Payment with Incentive option (9.17 cents/kWh for Generation to Grid) (to a residential participant) is LESS than the equivalent value of the status quo energy credit. So residential NM participants would be less well off than under the status quo?

[2:46 PM]
$5,000 per kW?

[2:47 PM]
Hi … - the payment is less compared to the current retail rate, yes. For example, 12.21 cents is the residential flat rate and 9.17 cents is b1 and 11 cents is b2. But b1 and b2 have the $5,000 incentive, status quo doesn't. Status quo payback 19 years; b1 18 years, b2 17 years

[2:47 PM]

Time of Delivery winter peak adder: does it add 8.80-11.61 cents /kWh to what? Sorry if I missed the explanation

[2:49 PM]
Would BC Hydro apply to the BCUC to have both the Cost-Based Payment and the Cost-Plus Based Payment? And if so, would it be the customer's option which rate to go onto?

[2:49 PM]
you mentioned you were seeing an 18-19 year payback for solar currently. do you have an estimate for how that payback changes under these two options?

[2:49 PM]
yes - i think that is next slide
… - B2 provides superior compensation to B1 so I think it would be an either/or based on feedback and what we think we can justify

[2:51 PM]
$5,000 per 5kW?

[2:51 PM]
As the size limit changes, virtual net metering, and winter peak adder are all low-controversy elements (as they do not change cost/benefits if customers do not take advantage of them, and generally provide improved B/C ratios if adopted), can the base 'Status Quo' option under consideration include these elements? aka 'Status Quo plus'?

[2:52 PM]
Having the generation to grid at retail rate for the options B1 and B2 is not a possibility due to R/C or B/C calculations?

[2:54 PM]
$5,000 per kW?

- …'s explanation was a good one: $1000/kw installed, capped at 5kW.

[2:55 PM]
Is there reason to believe that potential participants in the NM program are aware of (BC Hydro's estimate of) the payback period and would be incented to go ahead with a self-generation system because the payback period changed from 19 years to 18 or 17 years? I would have thought that NM participants are not heavily motivated by the payback period (if they were then a 17 year payback period would kill the project). Rather, they are motivated to pioneer progressive energy technologies and practices.

[2:55 PM]
To clarify: would the optional time of use residential rate still be available under all these options? The TOU rate provides lower-cost electric vehicle charging and valuable incentives to reduce peak-related system costs, so it's important to not force solar customers to have to choose between more affordable EV's and solar.

[2:58 PM]
Is Option C: Status Quo/B1 or Status Quo/B2?

[2:58 PM]
The fact that more affluent customers can install solar actually benefits everyone by bringing on low cost generation.

[2:58 PM]
… - could be either depending on feedback and what we think we can support

[3:00 PM]
thanks for the information. I need to sign off. I would be particularly interested in more information on slide 34 to understand steps between now and a June 28 application.

[3:01 PM]
Thanks.

[3:02 PM]
Slide 29. Suddenly there's talk about Time of Delivery, Virtual Net Metering, and Installation Incentive. Perhaps these have been defined and explained in the working group sessions. In any event, they should be defined by BCH, because terms like these can mean many different things to different people.

[3:05 PM]
Just a reminder that if you are able to stay on with us for a bit longer, we'll come back in about three or four more minutes. And if you were not able to keep going, we'll be sharing the chat and responses to outstanding questions via email.

[3:13 PM]
To clarify: would the optional time of use residential rate still be available under all these options? The TOU rate provides lower-cost electric vehicle charging and valuable incentives to reduce peak-related system costs, so it's important to not force solar customers to have to choose between m…

- Hi …. Yes, TOD would be available to residential customers for their consumption as an option.

[3:22 PM]
Time of delivery/time variation rates. BCH's designation of winter afternoons and early evenings does not make sense for a passive solar system. It is too dark and weather too variable to even to begin thinking that snow-covered roof-top panels can deliver energy in this time period. This may be a great hypothetical time variation rate for modelling, but it is unrealistic as a positive element in the proposed rate/tariff for net metering solar unless you have massive battery storage systems.

[3:24 PM]
A suggestion to consider on the winter peak adder - as the ELCC for batteries starts very high and declines the more batteries are on the grid and the flatter the load gets - a fairer approach might be

to award prices based on 90% ELCC for the first few MW of batteries, then decline on a predictable, predetermined schedule. Older customers would retain the higher rates for the life of the system, similar to legacy net metering customers.

[3:25 PM]
This could help kick-start battery installs in the province while being more cost-reflective and fair as well.

[3:26 PM]
Time of delivery, time variation rats - 2. I responded to the previous surveys as a BCH customer wishing to reduce my hydro bill, which I could do by variable time of use rates. But as a NMM customer, I know I cannot turn on my passive solar system to provide power in peak demand periods, but if I do supply power to the grid in a high demand period, I would expect a higher sale price to BCH. If you vary the rates, you should also vary the compensation.

[3:29 PM]
If that wasn't included in the payback calculation, how a shorter payback was obtained in options B1 and B2 if the generation to grid rate is not at retail rate but at lower levels? I am a bit confused here.

[3:31 PM]
... - the shorter payback period in those options is driven by the addition of the $5,000 incentive

[3:33 PM]
When you think about net metering customers as a class, in the future when there is higher battery adoption, some NM customers will be supplying capacity from their batteries while others will be using it to power their loads. With this formula, you're compensating capacity at its value divided by two, but calculating its cost at the full value. It would be great to see a cost-of-service study tailored to net metering customers that accounts for this scenario. There should be a balance point, where the payments for capacity supplied by NM customers equals the cost incurred. That is what BC Hydro should aim for to achieve a sustainable net metering program that avoids significant cost shifts.

[3:35 PM]
Do we expect that the proposed tariff will come with a "batteries not included" warning?

[3:37 PM]
Why can Hydro allow a 1 MW virtual net metering but not a 1 MW injection for other large customers.

Slides 37 – 41 – Chris Sandve

15:43 – 15:45