

**Commission Secretary BCUC:EX**

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**From:** Bob McKechnie [REDACTED]  
**Sent:** Friday, January 8, 2016 5:11 PM  
**To:** Commission Secretary BCUC:EX  
**Subject:** BC Hydro's Rate Design Application

Ms Hamilton -

I ask you to forward this as a letter of comment to those involved in the hearing to do with BC Hydro's current Rate Design Application:

My quick assessment of the material on the BCUC website tells me the proposed changes will increase the amount of \$'s ratepayers have to pay for electricity, and as well further embed in the Tariff wording that moves things away from simple, reliable, robust, incombustible, and transparent analog measuring and billing technology in the direction of a new vision involving an integrated North America wide 'Smart grid' with 'smart meters' featuring software and digital (as opposed to electro-mechanical) technology, wirelessly relaying customers' consumption data via a collection of supposedly interconnected mesh networks to BC Hydro's billing computer(s).

Inasmuch as there are several significant questions as yet unanswered as to the desirability for ratepayers of continuing in the aforementioned direction with the aforementioned technology, and inasmuch as the BC Utilities Commission is in place to represent the interests of ratepayers, I ask that you put the RDA hearing (complete with its over-4000 pages of not easily understood material!) on hold pending outcome of investigation into issues that have been raised by many members of the public, including fairness of the recently approved Meters Choice rates and as well a few concerns of my own as follows::

\* How well is the smart-meter based system working compared to how it was supposed/touted to work? For example, how are things working out cost-wise? Is electricity being saved and are customers' bills going down as a result of the move to digital technology? Are costs more or less as predicted in the business plan or have they gone over? How successfully has wireless interconnectivity between BC ratepayers' meters and BC Hydro's billing computers been achieved? If interconnectivity isn't yet at a satisfactory level for proper functioning, how many more meters and collectors to go and at what cost?

\* How with a digital meter can a customer be assured the kWh's for which he/she gets billed corresponds to the kWh's used? Measurement Canada tells me they certify as accurate only the measurement transducers which convert current and voltage into digital numbers - no check on anything beyond that. So I wonder, for example how the software in each meter computes power compared to how an analog meter computes it according to the laws of physics? And how compared to analog meters does the smart meter software treat noise and voltage transients on the line? What about wireless transmission errors? What about hackers gaining access to a customer's smart meter and changing the data or turning off his/her power using the remotely actuated disconnect switch? What about the robustness of digital meters, situated as they are in adverse environmental conditions - 240 vac, moisture, heat, voltage surges (such as occurred in Summerland not too long ago), customer's wiring not up to snuff, etc? What about complaints from ratepayers that the digital meters, with their combustible components and sensitivity to heat (from arcing due to bad contacts, for example), moisture, voltage surges, etc aren't fire-safe, and what's more haven't been properly tested for fire safety? Where are BC Hydro's professional engineers in all this?

Before you continue with trying to decide whether or not BC Hydro's RDA is to the benefit of BC ratepayers, I respectfully ask you to investigate matters such as those mentioned . . . and as well those submitted by others concerned about not only the new technology but also with how the new technology has been implemented.

Sincerely,

Bob McKechnie, retired professional engineer

