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Sent: Friday, November 23, 2012 3:38 PM
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Subject: Second Round of Intervenor Questions:Andy Shadrack: FortisBC Inc. Advanced Metering
Infrastructure CPCN [BLC-ACTIVE.FID1476786]
Attachments: Smart meter monitor.jpg; Smart meter monitor daily.jpg

Kaslo

Friday, November 23rd

Attention: Erica M. Hamilton, Commission Secretary

Preamble

I am not a lawyer, have no paid staff and am doing this intervention amidst a very heavy constituent schedule, which includes after-impact work on the Johnson's Landing slide. I feel particularly under the gun in preparing a second, and potentially last, round of questions without knowing what amendments FortisBC may or may not be required to undertake in these proceedings as it relates to a wired option.

Security and Electrical Data Consumption Collection

1. With reference to evidence found at Hop Hacking Hedy (<http://www.cutawaysecurity.com/blog/archives/844>), why does FortisBC claim that Frequency Hopping Spread Spectrum (FHSS) is secure when it is only a data transmission protocol with no encryption in place?
2. FortisBC claims that they can legally use the 900-928 MHz ISM band, which is, in some instances, known to interfere with others using the same transmission protocols within that band. Why cannot others similarly use a transmission system within the same band that will interfere and block FortisBC smart meters?
3. Attached is a real time and minute-by-minute screen print readout and log of what can be collected from any meter, electro-mechanical analog, digital or smart meter, over a number of days. This information was sent to me by a constituent in Electoral Area D, of the Regional District Central Kootenay, in early September 2012. The device, a Blueline innovations unit, was attached and can be installed in a wireless or wired form:

<http://www.bluelineinnovations.com/Products/>

It is an inexpensive device that will attach in minutes and give the type of readout and monitoring capability, as per the attached readout, and can monitor this constituent's power consumption at their Area D home, over the internet, from anywhere in the world the customer can use their personal

computer.

i. Will FortisBC please confirm that any customer can monitor the data produced by any meter using this device and that therefore there is no need for a customer to purchase an IHD from FortisBC?

ii. Can FortisBC please explain, in layman's terms that could be understood by any customer, why they would go to the expense of installing wireless smart meters when other technology would allow them to use the existing meters and attach a wired or wireless monitoring option at a fraction of the cost?

iii. Will FortisBC please confirm that over time a customer could determine, from reading their smart meter log, which appliances and equipment were using what amount of electricity, gas or water, and consequently so could anyone else using the same kind of device?

iv. Will FortisBC please now confirm that it is totally unnecessary for a customer to have a smart meter installed at their residence, industrial site or commercial enterprise since a Blueline innovation unit or any other such device will supply the consumption data that FortisBC claims they need over the Internet from a customer's computer, and that therefore opting out from FortisBC's smart meter program will in no way prevent FortisBC from receiving the consumption data they need at an appropriate information portal set up by FortisBC at their data processing centre?

v. Will FortisBC please explain, in layman's terms that could be understood by any customer, what services an Itron Open Way smart meter will perform for FortisBC that a Blueline innovation unit or any other similar kind of device could not?

Wired Electrical Data Consumption Collection Vs Wireless

4. On page 13 of the RFP, at a box entitled "Service area map - substations - repeaters - fiber optic. pdf", FortisBC acknowledges that it has maps that show fiber optic links shown by red lines, and planned fiber optic links are shown by blue.

Please indicate both the red and blue lines on a map of the service area

5. Please then create a map that adds in to the map in 4, existing commercial and industrial customers for which FortisBC is using PLC electrical consumption data collection.

6. Have any of the existing and proposed fibre optic links and existing PLC been included in implementation of the AMI wireless application currently before the BCUC?

7. If no please explain, in layman's terms that can be understood by the average residential customer, why these existing options have not been considered and/or are being discarded.

8. Specifically please outline, in layman's terms, what such a proposal would fail to do that a RF mesh/AMI wireless one could do.

9. At CEC IR#1 40.4 (page 55, lines 8 to 10) FortisBC states that a presence of between 18 to 28 meters is necessary to form an RFmesh/AMI wireless network that can connect to a satellite backhaul collector and be economical and efficient.

Can FortisBC please confirm that the lower number of meters per square kilometre required for RF mesh/AMI wireless to work economically and effectively is 18, and if not what is the correct number required?

10. Can FortisBC please provide a map of its service area where the concentration of meters is sufficient to make deployment of RF mesh/AMI wireless economical and efficient, and can FortisBC please state what percentage of the service area is covered?

11. At BCUC IR#1 (page 277, lines 30 to 33) FortisBC states:

PLC technology is best suited for utilities with low meter density per square kilometer...Lower meter density negatively impacts the economics of an RF mesh solution relative to a PLC solution since RF mesh technologies rely on meter to meter communication

And at CEC IR#1 40.2 (page 54, lines 8 and 9 and 14 and 15) FortisBC further states:

"No, FortisBC does not expect that the expected economies of scale referred to in CEC IR#1 40.1 will make the RF mesh system significantly more economical for very sparsely populated areas...more likely that alternative technologies such as direct connect cellular or PLC will prove economical in 'hard to reach' areas".

Can FortisBC please provide a map of its service area where deployment of PLC AMI and/or a wired option (including fibre optic) is economical, and can FortisBC please state what percentage of the service area is covered?

12. Can FortisBC please provide a list of utilities in North America, and in Europe, the Middle East and Asia, where PLC AMI and/or wired smart meters have been deployed and in which year deployment occurred?

13. Can FortisBC please provide a list of the companies that supplied the PLC AMI and/or wired smart meters and the necessary adjunct equipment in these deployments?

14. Can FortisBC please identify to which of these companies it sent its RFP?

15. Has FortisBC considered deploying PLC AMI and/or wired smart meters as part of the implementation of this application, should it be successful, and when was FortisBC planning to tell FortisBC customers of this decision - before or after these proceedings have concluded?

16. Does FortisBC believe that its customers have a right to know which kind of smart meter it is considering deploying on their property and why, and if not why not?

17. Can FortisBC please provide the exact wording of any and all federal and/or provincial statutes and/or regulations that specifically grants FortisBC permission to place any of its equipment, including meters, on property not owned, leased or rented by FortisBC?

Respectfully submitted,
Andy Shadrack
Director Area D
Regional District Central Kootenay

Time Series

By Appliance



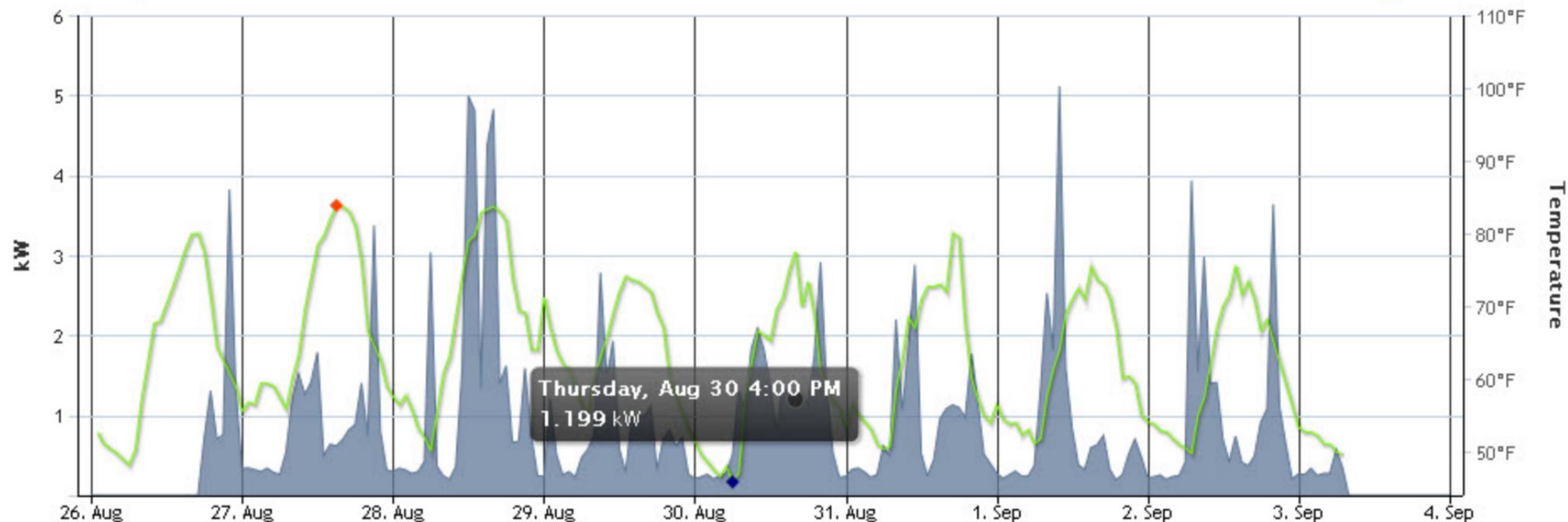
Aug 26, 2012 to Sept 3, 2012



Usage



* Click and drag to zoom

 Show Temperature

Time Series

By Appliance



Aug 31, 2012 to Sept 3, 2012



Usage



* Click and drag to zoom

 Show Temperature