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Barrister & Solicitor

November 8, 2013

By Electronic Mail

British Columbia Hydro and Power Authority
6th Floor - 333 Dunsmuir Street
Vancouver, BC V6B 5R3

Attention: Janet Fraser, Chief Regulatory Officer

Dear Sirs / Mesdames:

Re: BC Hydro smart meter opt-out

Re: BC Hydro Smart Meter Choices Application

The following information requests are advanced on behalf of the Citizens for Safe Technology Society and Nomi Davis *et al.* in relation to the proceedings initiated by way of the British Columbia Hydro and Power Authority (“BCH”) application of October 7, 2013 (“the BCH Application”).

BCH customer categories

1. BCH claims approximately 1.9 million customers. Please particularize how many customers are in each of the following categories: residential, business & light industrial; and heavy industrial.
2. Are heavy industrial customers going to be smart meter customers?
3. When, if ever, will heavy industrial customers be placed on the smart grid system and what share of the smart grid system costs will they bear?
4. Of the 60,000 holdouts, what proportion is from the residential category and what proportion is from the business & light industrial category?
5. What category or categories of customers is/are to account for the 15,000 customers referenced in the BCH Application at page 1-1, line 19, in the

8

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following terms: “about 15,000 smart meter installations that have not been completed for various reasons”?

Who has been given a choice?

6. Does BCH acknowledge that the customer has the option of either keeping the legacy meter or of having a radio-off meter installed?

BCH states:

All customers were provided with advanced notification of smart meter installation at their home or business and information about what they could expect during the meter exchange process.¹

7. Were all customers provided with a choice as to whether to have their analogue meter retained, replaced by a radio-off meter or replaced by a smart meter?
8. Did BCH ever install a smart meter at a residence where the customer had posted a conspicuous notice to BCH indicating the customer’s objection to the installation of a smart meter? If so, in how many instances did such an installation occur?
9. Please indicate why BCH customers were not individually asked whether or not they would like a smart meter installation.

Holdout customers

BCH states:

While the majority of BC Hydro’s approximately 1.9 million customers have accepted the installation of a smart meter at their premises, a small portion of customers have requested that the smart meter installation at their premises be put on hold.²

10. Has BCH installed smart meters at the homes of any customers who have requested that the smart meter installation at their premises be put on hold?

¹ BCH Application, page 2-2, lines 2 - 4
² BCH Application, page 1-1, lines 11 - 12

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11. Has BCH installed smart meters at the homes of any customers who have requested that the smart meter installation at their premises be put on hold and who have maintained that request and not resiled from that request?

Installations “put on hold”

12. The BCH Application at page 2-3, lines 3-4, 8-13 and 15, states that 60,000 customers requested that their smart meter installations be 'put on hold'. Would it be more accurate to say that these customers informed BC Hydro (by mail, phone or email prior to September 1, 2013) that they outright refused the installation of a smart meter on their property at any time?
13. Why does the BCH Application repeatedly present the false notion that these customers requested that their installations be 'put on hold'? Was the BCH Application drafted with the intent of downplaying the existence of manifest implacable customer opposition to BCH's intent to replace their analogue meters with smart meters?
14. Of your customers who now have smart meters, how many have contacted you, subsequent to the installation of their smart meter, to request that their smart meter be removed? Would it be reasonable for these customers to be permitted to participate in the opt-out program? Would their participation in the opt-out program lower the per-read cost of administering the opt-out program?

Customers who have suffered the installation of a smart meter against their will

15. Many BCH customers (also members of CSTS) have suffered the installation of a smart meter notwithstanding that those customers had explicitly indicated their refusal by way of correspondence to BC Hydro or conspicuous signage on their former analogue meters. In some cases, the installation has occurred when the customer was not home. In other cases, BC Hydro has used misinformation, coercion and/or manipulation to achieve the installation of the smart meter. See, for example, the case of Nomi Davis by video at the following link:

<http://www.youtube.com/watch?v=8FSDdeXm8dQ>

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16. Why is BCH not offering an opt-out opportunity to these customers who have suffered the installation of a smart meter against their will? On what principled basis is BC Hydro limiting the opt-out opportunity to customers who have managed to hold out to date?
 17. Why should a customer with a smart meter not be able to elect to have it replaced with a non-emitting meter?

Continued eligibility upon a move

18. How does BCH propose to treat an opt-out customer (such as one who is presently being included in BCH's proposed opt-out program), where that customer moves to a residence that already has a smart meter? Will that opt-out customer be able to carry her opt-out choice with her? What if she is a gestating or nursing mother and she has made a choice to raise her baby in an environment free from radio-frequencies? What if she is a person who claims to be electrohypersensitive?

Commercial customers

19. While FortisBC is offering an opt-out opportunity to commercial customers, BCH is not proposing to. Why not? Many commercial customers spend more time at their places of business than they do at home. What principled basis does BCH have for limiting the offer of an opt-out opportunity to residential customers?

Direct correspondence

20. Please provide statistics as to the choices and/or responses that BCH customers have made to date in reply to the BC Hydro correspondence described at sections 2.3.3.1 and 2.3.3.2 of the BCH Application.

Useless smart meters

21. Can you confirm that BCH has installed smart meters in areas that do not yet have the infrastructure to run the smart grid ("the Undeveloped Areas")?
22. Please provide a geographical description of the Undeveloped Areas.

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23. Can you confirm that, within the Undeveloped Areas, BCH is continuing to manually read meters at premises notwithstanding that smart meters have been installed at these premises?
 24. How long will it be until the necessary smart grid infrastructure is put in place so as to eliminate the need for manual meter reading in the Undeveloped Areas?
 25. How can BCH justify the imposition of an opt-out fee in Undeveloped Areas if manual meter reading is occurring anyway at premises in these areas regardless of whether they have a smart meter or not?

Estimated opt-out numbers?

26. How many customers would BCH expect to opt out in the event that the cost for opting out was nil?
27. Does Table 3-13 in the BCH Application indicate that the cost per read decreases with an increase in the number of customers that opt out?
28. Would the per-premises costs of the BCH opt-out program be lower if it offered an opt-out opportunity to all customers who wish to opt out, including those who have somehow suffered the installation of a smart meter against their will?
29. Does Table 3-2 on page 3-4 of the BCH Application show a correlation between the affordability of the opt-out fee and the percentage of customers who opt out?
30. Does BCH expect that there will be a correlation between the amount of the opt-out fee and the number of customers who are deterred from opting out?
31. Is BCH using the opt-out fee to deter customers from opting out?
32. Does BCH anticipate different opt-out volumes if the charges for opting out are somewhat different from those currently proposed?" If yes, explain the degree of elasticity BCH is anticipating.
33. Please add a column to Table 3-2 showing the date when the utility commenced offering an opt-out choice.

Charges

34. Why would there be an “initial charge” for legacy meters when no change in meter or location is needed outside of the conditions where a change may be necessary due to in-service expiry?
35. Why would there be a full “initial charge” for the radio-off meter when the only difference between it and the no-charge, radio-on option is the decommissioning of the radio transmission feature?
36. Why would there be a *monthly* charge when a legacy meter typically has been read once every two months (and in some cases annually) where a customer has been on a monthly payment program that is reconciled as to actual consumption once a year? Is there to be a withdrawal of that service option for BCH customers?
37. Is it the intention of BCH to have legacy and radio-off meters read bi-monthly in some circumstances? If so, how is a monthly opt-out fee justified in that context?
38. Under the regime contemplated by the present BCH Application, may a given customer elect to have their meter read less often so as to reduce the frequency of the proposed per-read fee? What options can be made available to customers in that regard?
39. Under the regime contemplated by the present BCH Application, may opt-out customers elect to be billed on an equal payment basis, based on the previous year’s consumption patterns, with a single reading at the end of the year to confirm actual usage? Would this manner of billing reduce the per-read fee to an annual occurrence?
40. How would the proposed opt-out fees account for the reduced costs associated with administering the opt-out program in relation to:
 - a. a multi-unit dwelling where several opting-out customers share the same address while not the same account or meter?
 - b. a town house complex, condominium or co-op housing complex where all the residents have chosen to opt out?

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- c. a neighbourhood block where all the residents have chosen to opt out?
 - d. a customer who has more than one meter on her property (e.g. a single customer who has five meters on her property)?
41. Does BCH take the position that the actual cost of physically reading each meter (that is a legacy or radio-off meter) will be uniform?
 42. Would BCH be willing to alter its proposed tariff to charge fees that relate specifically to each customer's physical meter circumstances, such as those circumstances enumerated in sub-paragraphs (a) - (d) above?
 43. Please confirm that there is a discrepancy between a flat, per-meter reading fee and the possible reality that the same customer at the same address may have more than one meter or that several customers at the same address will not cause per-meter service expenses for BCH that are as great as for a single customer at a single address.
 44. Why is there a marginal cost to be recovered from opting-out customers if grid modernization is to be done in any case and grid modernization costs are (or will be) incorporated into the general operating cost of BCH's system?
 45. Given that forecasting costs is admittedly very uncertain and imprecise, has BCH considered the possibility of deferring the final establishment of costs to a future point?

Billing costs

46. Historically, what has been the annual cost associated with billing residential customers?
47. Historically, what has been the annual cost associated with billing business and light industrial customers?
48. What is the expected total annual billing cost for residential customers (post smart meter installation) as determined by BCH in the context of this application?

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49. What is the expected total annual billing cost for business and light industrial customers (post-smart meter installation) as determined by BCH in the context of this application?

Electric cars

50. Does BCH suggest that smart meters will facilitate better service to cars powered by electricity?
51. What makes electricity delivered via smart meters any different from electricity delivered via legacy meters or radio-off meters?

Range extenders

BCH states:

The Government of British Columbia has decided that BC Hydro will offer new meter options and related services to eligible customers who choose not to have a smart meter installed at their premises, and that eligible customers choosing an alternative meter option will have to pay additional charges designed to recover the costs attributable to providing services in relation to the option.³

BCH further states:

The additional charges are designed to recover the forecast costs of providing services to customers in relation to their choice to have radio-off meters installed at their premises.⁴

52. How is the cost of a range extender a cost attributable to providing services to an opt-out customer?
53. How is it that a single customer decision to opt out can affect "program costs, integration costs, and infrastructure costs"?
54. Have smart grid program costs, integration costs and infrastructure costs been externalized so as to be carried by individual customers, including those opting out from the smart meter program?

³ BCH Application, page 1-1, lines 22 - 25

⁴ BCH Application, page 1-2, lines 14 - 15

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55. Apart from the context of a customer opt-out, what role do RF range extenders have in the BCH smart meter program?
 56. Can the BCH smart meter program operate without the use of RF range extenders?
 57. Apart from the context of a customer opt-out, will the BCH smart meter program utilize RF range extenders? If so, how many units will be utilized and in what context will they be deployed?
 58. Where BCH installs an RF range extender in order to fill a “gap” created by a given customer’s opt-out choice, how much distance will there be between that RF range extender and the residential dwelling of the given customer? Will BCH commit to a minimum distance in that regard?
 59. What is the power density output of an RF range extender at various given distances?
 60. Is the cost of the RF range extender a cost of reading an opt-out customer’s meter?
 61. Is the cost of the RF range extender a cost of providing power to an opt-out customer?
 62. Why should an opt-out customer pay for the communication infrastructure of the smart meter program in which he/she is not participating?
 63. What is the per unit cost of an RF range extender and the field cost for overcoming the difficulty created by the customers estimated to be radio-off and legacy meter customers?

Failed installation charges

64. Can the costs associated with failed installations be avoided by honouring a customer’s express refusal to allow the installation of a smart meter on his or her property?
65. Does BCH take the position that it is entitled, according to the terms of the current tariff, to install a microwave emitting smart meter at a customer’s property and attend the property for that purpose? If so, why is BCH

applying to amend the current tariff? If not, then on what basis did BCH install smart meters on the properties of customers who explicitly indicated their refusal by way of correspondence to BC Hydro or conspicuous signage on their former analogue meters?

66. Will BCH refrain from making chargeable visits to customers who have formally elected to opt out by either keeping their legacy meter or by requesting a radio-off meter?
67. Will BCH be forgoing the enforcement of the failed installation charge for all customer visits prior to November 15, 2013? If not, why not?
68. Will BCH charge a failed installation charge to customers who, at the material time, had explicitly indicated their refusal by way of correspondence to BC Hydro or conspicuous signage on their former analogue meters?
69. The proposed failed installation charge will apply to failed installations as of when?

Moves

70. When an opt-out customer moves, will he or she be able to continue to opt out at his or her new premises? Will a new set-up fee apply?

Travel time

71. What alternatives has BCH explored to having vehicles travel to the premises of each opt-out customer?
72. Would it be possible for opt-out customers to use a USB memory stick or some other device to download radio-off meter data and send such data to BCH over the internet? If not, why not?
73. Will the BCH radio-off and legacy meters have a glass face through which consumption data can be seen and photographed? Can such a photograph be emailed by a customer to BCH so as to communicate consumption data at any given time? Would BCH be able to audit such a practice of customer self-reporting? What would the costs of such a program be?

Meter readers

74. Apart from the proposed opt-out program, does BCH plan to employ field meter readers?

The cost of turning radios off

75. Can the cost of turning radios off (for opt-out customers) be reduced by specifying to the equipment provider that a number of new meters be delivered to BCH in a radio-off configuration?
76. Can the cost of turning radios off (for opt-out customers) be reduced by having BCH turn those radios off before they are installed at customer residences?

Opt-out revenue

77. Can BCH confirm what revenue it will derive in opt-out fees on the basis of likely radio-off and legacy customers?

Other utilities

78. Do any jurisdictions and/or utilities worldwide provide their customers with an option to opt out without having to pay a fee in relation to the opt-out?
79. Do any jurisdictions and/or utilities worldwide provide their customers with an option to opt out by payment of a fee that is less than that proposed by BCH in the present Application?
80. Is the legality and/or implementation of an opt-out fee pending or subject to regulatory approval in any jurisdiction worldwide?
81. Can you confirm that utilities in New Mexico, Eugene and Ashland allow for an opt-out without fee?
82. What are the features of the opt-out program in Quebec?
83. What opt-out fee is being sought by the utility in Kauai?

Special customers

84. Under the regime contemplated by the present BCH Application, will BCH waive the opt-out fee for customers who suffer from a disability that prevents them from accessing environments where exposure to radio-frequency emissions is ongoing and incessant?
85. Under the regime contemplated by the present BCH Application, will BCH waive the opt-out fee for customers who are under some degree of financial hardship?

Nature of data

86. Where data is manually downloaded from radio-off meters, what data (besides usage information) is being collected and how is such data useful to BCH if it is not collected in real time?

BCH Application - Chapter 3 - Meter Choice Program Costs - page 3-9; Table 3-4; "Radio-Off Information Technology Capital Costs"

87. BCH presents this as a non-variable total cost of \$1,238,577 regardless of numbers of opt-out customers.
88. Is this an annual cost or a one-time setup cost? If it is an annual cost in part, what proportion is variable?
89. If it is all or in a large part a one-time cost, why would it not be better to include it in the general rate-base?

Thank you for your attention to this matter.

Yours truly,


DAVID M. AARON

cc: BCUC
cc: clients
cc: intervener parties