

## West, Michele L MEM:EX

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**From:** West, Michele L MEM:EX  
**Sent:** Wednesday, May 30, 2012 11:42 AM  
**To:** Wieringa, Paul MEM:EX; Griffin, Derek MEM:EX; Bonnyman, Sue MEM:EX; Barillaro, Scott W MEM:EX; Wingfield, Irene MEM:EX; Dias, Oswald MEM:EX; Buchanan, Jack MEM:EX; Johnstone, Heather MEM:EX; Cutler, Scott MEM:EX  
**Cc:** McNeil, Kevin MEM:EX; Fitzpatrick, Brigitte C MEM:EX  
**Subject:** FW: Updated notes on smart meters  
**Attachments:** F1a. High bills and Smart Meters - 25 May 2012.doc; F1b. Smart Meters - Refusal Rate - 25 May 2012.doc

I've just saved them in the EPB, BC Hydro folders, BC Hydro Briefing Notes 2012 folder.

-----Original Message-----

**From:** Wieringa, Paul MEM:EX  
**Sent:** Wednesday, May 30, 2012 8:29 AM  
**To:** Bonnyman, Sue MEM:EX; Barillaro, Scott W MEM:EX  
**Cc:** West, Michele L MEM:EX  
**Subject:** FW: Updated notes on smart meters

Michele: are these notes saved somewhere on our common drive?

Paul Wieringa

-----Original Message-----

**From:** MacLaren, Les MEM:EX  
**Sent:** Wednesday, May 30, 2012 6:47 AM  
**To:** Wieringa, Paul MEM:EX; Green, Dan L MEM:EX; Eichenberger, Kathy MEM:EX  
**Cc:** Fitzpatrick, Brigitte C MEM:EX  
**Subject:** FW: Updated notes on smart meters

Info

-----Original Message-----

**From:** Vanagas, Steve [<mailto:steve.vanagas@bchydro.com>]  
**Sent:** Tuesday, May 29, 2012 9:04 AM  
**To:** Woolley, Paul GCPE:EX; MacLaren, Les MEM:EX; Ash, Christine GCPE:EX; Joyce, Tonja GCPE:EX  
**Cc:** Heer, Simi  
**Subject:** Updated notes on smart meters

Attached are two updated notes on smart meters providing the latest information on "high bill" inquiries and the number of people refusing to allow installation of a meter.

I'll flag the 2 most important items here:

- after looking closely at all the high bill complaints and inquiries and whether they had anything to do with the new meter, we have identified 6 bills that had to be adjusted due to a malfunctioning new meter - 4 were too high (including S22 and 2 were too low.

- the number of people refusing to allow a smart meter installation has grown to about 2%.

Let me know if you have any follow-up questions on this.

SV

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-BCHydroDisclaimerID5.2.8.1541

## ***High bills and smart meters***

- BC Hydro processes 1.3 million bills every month.
- It's common for BC Hydro to get more questions about higher bills during winter months.
- Vast majority of bill inquiries can be explained by:
  - looking at past consumption patterns at the same time of year (going back 3 or 4 years)
  - looking at whether there was a bill estimate error by BC Hydro
  - a manual meter reading or inputting error.
- Historically, BC Hydro has experienced billing adjustments on less than 0.3% of 1.3 million customer bills per month.
  - Billing adjustments are due to bill estimating errors or manual meter reading errors.
  - These problems will be eliminated with the new metering system as there will be no more routinely estimated bills or manual meter misreads.
- BC Hydro has historically replaced 40,000 meters per year for a variety of reasons.

## **High bill inquiries during 2011-12 winter**

- This year, during the January-March winter period, BC Hydro received more bill inquiries from customers with analog meters than from those with smart meters.
- To date, BC Hydro has only adjusted 6 customer bills where a faulty smart meter was the cause of a bill being incorrect. Of these six customers:
  - 4 customers received a refund on their account S22
  - 2 customers were under-billed.

## **Meter accuracy**

- Out of the 1.2 million new meters installed to date, there has been about one-tenth of one percent have problems of any kind (0.1%).
- Industry experience has shown that on average about 0.5% of meters can have components that fail early in the unit's life cycle.
- Like any new electronic equipment, we are finding a small number of meters that have components that stop working shortly after they are installed. This was the case with our old meters too.
  - This includes meters that are showing an "error" message or have blank LED screens.
  - Meters replaced under warranty at the manufacturer's request.
- When BC Hydro finds a meter that malfunctions, they fix the problem and rectify the situation immediately.
- BC Hydro takes a number of steps to ensure the accuracy of new meters:
  - Before Itron produces any meter, they send BC Hydro the prototype and it is tested for accuracy.
  - After accuracy is confirmed, Itron is required to prove that the meters that they are producing meet Measurement Canada requirements. They continue to test the meters throughout the production process.
  - Once the meters arrive in B.C., BC Hydro tests the meters again and the accuracy of the meters is subject to audit by Measurement Canada.

## **High profile customer examples**

- Here's a look at a couple real-life customer cases about a higher than expected electricity bills.
  - S22 went to the media over a higher than normal bill and was attributing it to the installation

of a smart meter. BC Hydro sent a crew out to investigate the week of April 8 to do a breaker test. The results of the test were inconclusive. The customer's meter was tested by Measurement Canada on April 24 and found to be operating correctly.

- A customer said his bill had risen 60 per cent after a smart meter installation. We've checked with the customer and discovered that in the 84 days after his smart meter was installed, his consumption has actually decreased compared to the previous 36 days.
- A customer in s.22 said his bill had doubled to \$885 after a smart meter install. Upon investigation, we determined that this customer's bill was lower than it had been from the same billing period last year.

### **Conservation rate**

- Some customers may also be experiencing higher than normal bills since their usage during the cold months may have bumped them into the second, higher step rate.
- Under the Residential Conservation Rate, customers pay 6.67 cents per kilowatt-hour for the first 1,350 kilowatt-hours they use over an average two-month billing period. Above that amount, customers pay 9.62 cents per kilowatt-hour for the balance of the electricity used during the billing period. This rate structure is designed to encourage conservation and is referred to as a "stepped rate."

***Smart meters – refusal rate***

- As of Friday, May 25, BC Hydro had installed 1,236,446 smart meters, representing 67% of its 1,845,000 customers.
- The refusal rate for smart meters is now approximately two per cent or about 41,000 customers.
  - Other jurisdictions that have implemented smart meters have experienced as much as a 5% refusal rate.
- The refusal rate includes customers who have indicated that they do not want a smart meter. This includes requests that are received through:
  - a phone call, letter or email,
  - a signed notice on a meter,
  - a cage or lock on a meter, or
  - a verbal request through the customer made directly to an installer.
- When BC Hydro is contacted by a customer who has concerns about the new meter, BC Hydro will:
  - Hold off on installation while staff work with the customer on an individual basis to address their question or concerns.
  - Present the opportunity to have the meter moved to a different location on their property.
- More than 2,400 people have changed their mind and allowed installation when they got the facts.