

From: [Redacted]  
Sent: 8/28/2013 10:22:37 AM  
To: Erickson, John "David" (john.erickson@cpuc.ca.gov)  
Cc: Dietz, Sidney (/O=PG&E/OU=Corporate/cn=Recipients/cn=SBD4); [Redacted]  
[Redacted]  
[Redacted] O'Donnell, Arthur J.  
(Arthur.O'Donnell@cpuc.ca.gov); Sterkel, Merideth "Molly"  
(MeridethMolly.Sterkel@cpuc.ca.gov); Gunta, Alope (aloke.gunta@cpuc.ca.gov);  
[Redacted]  
Bcc:  
Subject: RE: HAN follow up

Hi David,

Thanks for the quick reply. I'll find times on our side for next Wednesday and will touch base with the team about the time frame for a preferred solution (I think next Wednesday should be fine but need to double check) and will circle back with you to confirm.

Talk soon,

[Redacted]

[Redacted]

Senior Product Manager

Home and Business Area Networks

Customer Energy Solutions

Pacific Gas and Electric Company

Redacted

**From:** Erickson, John "David" [mailto:john.erickson@cpuc.ca.gov]

**Sent:** Wednesday, August 28, 2013 10:18 AM

**To:** Redacted

**Cc:** Dietz, Sidney; Redacted Gupta,  
Aloke; O'Donnell, Arthur J.; Sterkel, Merideth "Molly"

**Subject:** RE: HAN follow up

Redacted

Thank you for this. It's very helpful, and basically confirms what I had picked up in our meeting and in various conversations.

We are scheduled to discuss this situation with management here next Tuesday. I would like to schedule a call with you next Wednesday, if possible, to talk about what options are available and how/whether Energy Division could help resolve this situation.

I think if PG&E could commit to a preferred solution in an email from you (i.e., SSN firmware fix to send a signed Instantaneous Demand based on state of GE direction flag), that would allow NEM customers to be eligible for HAN activation, that would help us also.

Our goal is to enable NEM customers to be eligible for HAN activation as quickly as possible, while minimizing additional cost and risk to ratepayer investments.

Thanks for working with us on this.

Best,

Dave

J. David Erickson

Public Utilities Regulatory Analyst

Grid Planning and Reliability

Energy Division

California Public Utilities Commission

Phone: 415-703-1226

Email: [JE5@cpuc.ca.gov](mailto:JE5@cpuc.ca.gov)

**From:** Redacted  
**Sent:** Wednesday, August 28, 2013 9:09 AM  
**To:** Erickson, John "David"  
**Cc:** Dietz, Sidney; Redacted  
**Subject:** RE: HAN follow up

Hi David,

Good seeing you last Friday and apologies for the delayed reply. Here is more detail on the two parts of the instantaneous demand issue from Art and Eric:

SSN

SSN has told us the same thing - they do not want to use a signed variable because Instantaneous Demand may show incorrect information in a Generation scenario, (negative number), due to the GE direction flag 2 minute delay. However, by using an unsigned variable,

the Instantaneous Demand value will never be correct in a Generation scenario (i.e. never show the negative number). Also, by using this type of variable, the SSN firmware violates the ZigBee Alliance SmartEnergy Profile spec.

## GE

Our GE I210+ has a Net meter display. In this configuration, the meter will never set the direction bit (event after 2 minutes) – it will only show the direction flag in a delivered, or delivered + received display. We have tested and confirmed this. These two display options are not appropriate for a Net metered customer.

It sounds like the GE issue is configurable, and SSN was aware of it when they coded their firmware, so it is unfortunate that they did not tell us about it at that time.

We feel the SSN fix should happen regardless of GE, because they are out of spec and the data for Instantaneous Demand is incorrect in a net generation scenario.

We don't know yet if fixing that issue will produce correct results 100% of the time given the GE direction bit flag issue. However, with an SSN fix, the data will be inaccurate only some of time, rather than being inaccurate all of the time. This would be a step in the right direction.

We're actively working with both partners to determine and evaluate our options based on customer impact and cost. Let me know if you have further questions and whether you'd still find a call this afternoon helpful?

Thanks!

Redacted

Redacted

Senior Product Manager

Home and Business Area Networks

Customer Energy Solutions

Pacific Gas and Electric Company

Redacted

**From:** Erickson, John "David" [mailto:john.erickson@cpuc.ca.gov]

**Sent:** Wednesday, August 21, 2013 2:07 PM

**To:** Redacted

**Cc:** Erickson, John "David"; Dietz, Sidney; Redacted

Redacted

**Subject:** Re: HAN follow up

Any time. Ce Redacted I'm at work at 7 & leave at 4. It's technical so if Re and/or Redac can join the call I think that would be best.

J. David Erickson | CPUC Energy Division | 415-703-1226

Redacted

wrote:

[Moving Aloke, Chris, Arthur to bcc]

Sounds good. Can you let me know some times you're available and I'll coordinate a call with folks on our end?

Thanks,

Redacted

Redacted

Senior Product Manager

Home and Business Area Networks

Customer Energy Solutions

Pacific Gas and Electric Company

Redacted

**From:** Erickson, John "David" [mailto:john.erickson@cpuc.ca.gov]

**Sent:** Wednesday, August 21, 2013 7:43 AM

**To:** Redacted; Villarreal, Christopher; Gupta, Alope; O'Donnell, Arthur J.

**Cc:** Dietz, Sidney; Redacted

**Subject:** RE: HAN follow up

Hi Redacted

Thanks for this update. I would also like to pass along some info that I picked up in exchanges with Silver Spring Networks regarding their testing procedures that might be relevant to solving the HAN/NEM problem with the GE meters. It might be of interest to your team as it is related to how the instantaneous demand is reported. I don't want to go into any detail in this email, but I would be happy to share it if you put me in touch directly with the correct person.

Best,

Dave

J. David Erickson

Public Utilities Regulatory Analyst

Grid Planning and Reliability

Energy Division

California Public Utilities Commission

Phone: 415-703-1226

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**From:** Redacted

**Sent:** Tuesday, August 20, 2013 3:56 PM

**To:** Villarreal, Christopher; Gupta, Alope; Erickson, John "David"; O'Donnell, Arthur J.

**Cc:** Dietz, Sidney; Redacted

**Subject:** HAN follow up

Hello Alope, Arthur, Chris, and David,

It was great meeting you and the ED team on Thursday, and we appreciate the open engagement and conversation around HAN. We'll plan to provide an update on progress in October, including next steps with GE, Silver Springs and device manufacturer/customer communications. Meanwhile, I wanted to mention another topic not specifically related to NEMS, but a meter issue similar in nature and impacting HAN.

During testing in June we identified a bug with GE KV2C meters, which are not reporting usage to HAN devices, but show 'busy' when a HAN device is provisioned. Because this issue

is consistent across this meter type, we made it ineligible for HAN. We have reproduced the issue in our lab and are working to identify the scope of the problem so we can accurately enter an SSN ticket. This meter is typically used by commercial, industrial and agriculture customers, which are not target customers for HAN; small business customers with a residential GE i210 or Focus meter are still eligible to participate. We will continue to actively work with SSN and GE to develop a plan to resolve this issue.

We look forward to more HAN conversation on Friday, and to providing an update on Phase 3, which adds demand response and pricing signals to the currently offered usage functionality. Meanwhile, please don't hesitate to send any questions my way.

Thanks!

Redacted + the HAN team

Redacted

Senior Product Manager

Home and Business Area Networks

Customer Energy Solutions

Pacific Gas and Electric Company

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