

From: Erickson, John "David"

Sent: 8/15/2013 11:17:30 AM

To: Redacted  
Redacted Redac  
Redacted Dietz, Sidney  
(/O=PG&E/OU=Corporate/cn=Recipients/cn=SBD4); Redacted  
Redacted

Cc: Ho, Nick (/O=PG&E/OU=CORPORATE/CN=RECIPIENTS/CN=NKH3);  
Redacted  
Redacted  
Redacted O'Donnell,  
Arthur J. (Arthur.O'Donnell@cpuc.ca.gov); Gupta, Alope  
(aloke.gupta@cpuc.ca.gov); Kaneshiro, Bruce (bruce.kaneshiro@cpuc.ca.gov)

Bcc:

Subject: RE: HAN Q&A with Energy Division

Hi Amy,

Thank you very much for this. It's a very helpful window into PG&E's current thinking about DR via the HAN/AMI and DR more generally. Looking forward to further discussions on strategy for 2014 and beyond.

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:** Thursday, August 15, 2013 10:27 AM  
**To:** [Redacted]; Erickson, John "David"; [Redacted] Dietz, Sidney  
**Cc:** [Redacted]; Ho, Nick  
**Subject:** RE: HAN Q&A with Energy Division

Hi David,

Great to connect with you last week on HAN. One item I took away was your question regarding PG&E's DR strategy for looking at programs with devices other than HVAC loads (e.g. pool pumps, appliances, etc). I spoke with a few more folks on the DR team and below is a high level roadmap of our current plans in this area.

#### 2014/2015 – Foundational Work

- [Redacted] (2014) HAN-DR Integration pilot – develop internal IT infrastructure to send DR event signals, like price signals and event messaging, to expand the DR opportunities for residential and Small & Medium Business (SMB) customers on SmartRate and Peak Day Pricing (PDP) through the PG&E AMI network. This will allow customers to purchase and enable a device (e.g. t-stat, energy management system, etc) to receive a DR signals and automatically respond, based on the customer's preferences.
- [Redacted] (2015) Upon successful completion of the 2014 HAN DR Integration pilot , residential and small to medium business customers will be able to use standards compliant devices to manage their response during SmartRate and PDP events. (the end device can be a range of devices – displays, gateways, t-stats, pool pumps, energy management systems, etc). We are looking at offering incentives/rebates to these customers for this enabling technology.
- [Redacted] (2014) Direct Load Control – Through the SmartAC program, PG&E is testing AC cycling direct load control (DLC) devices that utilize the AMI network and would be recruited onto the program through the direct installation channel and the customer procured channel. This could be leveraged for the exploration of other DLC technologies which control end loads such as pool pumps and electric water heaters. PG&E is considering the expansion of qualifying technologies in its mass market demand response programs in the next funding cycle.
- [Redacted] (2013-2014) A comprehensive DR Emerging Technology assessment to identify how to modify existing DR programs to provide operators with flexibility and to address new electric grid operational needs. This involves: a thorough understanding of existing loads, a

detailed assessment of current DR programs, and realistic empirical analysis of how net loads change with the projected penetration of renewable generation, electric vehicles, storage and energy efficiency by 2015-2017. The analysis is vital to defining the next generation of DR programs and to evolve existing products into more useful resources.

- [Redacted] (2014) Assessment of our delivery channels and marketing to customers through the SMB Advanced Thermostat pilot
- [Redacted] (2014/15) Use findings from above to shape our DR 2016 Application (assuming 2015 is a bridge year)

2016

- [Redacted] (dependent upon items above) – Mass market, technology agnostic DR program (e.g. HAN, broadband, AutoDR) which is pay for performance

One item that we'd like some insight from the Commission on is how you see the IDSM strategy for devices that deliver EE, DR savings, and enable participation in TVP. We look forward to discussing further as we approach 2014.

Thanks,

[Redacted]

Principal Product Manager

Demand Response – 3<sup>rd</sup> Party Data Platforms

Pacific Gas and Electric Company

[Redacted]

-----Original Appointment-----

**From:** [Redacted]

**Sent:** Friday, August 02, 2013 11:29 AM

**To:** [Redacted] Erickson, John "David"  
(john.erickson@cpuc.ca.gov); [Redacted] Dietz, Sidney

**Subject:** HAN Q&A with Energy Division

**When:** Wednesday, August 07, 2013 2:30 PM-3:00 PM (UTC-08:00) Pacific Time (US & Canada).

**Where:** Con Call Listed Below

Hi All,

David Erickson, Energy Division, has reached out with the following questions regarding HAN.

Let's connect for ½ hour to discuss.

- [Redacted] walk-through of the IT systems involved in communicating DR signals to the HAN devices, and sort of a data flow description of what happens when PG&E triggers DR in a HAN device.
- [Redacted] We can skip over how the decision is made to trigger DR, but say, starting at the equivalent time to when you "press the button" to trigger a Smart AC event. I hope that makes sense. Of course, I understand that this may be proprietary, or involve proprietary systems, so we can address that if necessary.
- [Redacted] Why PG&E NEM customers are not currently eligible for HAN activation, and what the plans are for including them.

Conf Call #

[Redacted]

Thanks,

[Redacted]

Principal Product Manager

Demand Response – 3<sup>rd</sup> Party Data Platforms

Pacific Gas and Electric Company

Redacted

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