From: Chaset, Nicolas L.

Sent: 12/3/2013 11:47:10 AM

To: Malnight, Steven

(/O=PG&E/OU=CORPORATE/CN=RECIPIENTS/CN=S0M302774364)

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

Redacted

Redacted Redacted

Redacted

Bcc:

Subject: Review of Discussion Points - CPUC/PG&E DR Discussion

Steve

Thank you for taking the time to meet with us last week to discuss DR policy. So that we are both clear about policy positions and proceeding expections, I wanted to send you the following review of our discussion. Please comment as you see fit with the understanding that your response will not be on the 'record' (hence my sending this and not Audrey or Rachel).

Regards

Nick

Load Modifying v Supply Side DR

I heard general agreement from you that bifurcating DR programs into a load modifying and supply side category made sense, but PG&E does not yet want to clearly define which existing programs should be grouped into either of the two categories.

Demand Response Auction Mechanism (DRAM)

The primary tenants of the DRAM proposal are as follows:

- -Capacity contracts with between aggregators/customers and IOUs for TBD term (3-5 years was discussed)
- -DR resources procured in DRAM would be required to participate in CAISO energy market and be subject to Must Offer Obligation
- -Auction subject to a price cap based on long run avoided cost of capacity (metric similar to that used in existing DR C-E assessments)

- -Annual auctions for up to a defined quantity of DR capacity (i.e. 200 MWs in 2015, 300 MWs in 2016 etc), subject to above price cap
- -Initial auctions for a suite of DR products that are different than current portfolio of DR resources (i.e. more starts, more hours and different months than existing DR resources)
- -After 2-3 years of experience procuring new DR products, procurement of certain existing DR resources would be transitioned into the DRAM over another couple years
- -DRAM would eventually be clearing house for all supply side DR, with potential for multiple different DR products to be transacted (i.e. Emergency DR: BIP; Contingency DR: AMP, CBP; Operationally Flexible DR: Local, System and Flexible RA DR)

Key aspects of DRAM implementation may include:

- -CPUC-led effort to define new DR product characteristics and capabilities (ex: Local RA DR) and refine existing DR products to improve their performance (ex: refine design of programs like AMP to more clearly link their dispatch with avoided conventional gen dispatch)
- -CPUC-led effort to develop market rules (ex: metering, settlement, and telemetry requirements for supply side DR) that facilitate efficient integration into CAISO market
- -CPUC determination of who should manage the auction (options include ISO, IOUs or 3rd party)
- -CPUC-led effort to set DR procurement targets (Energy Action Plan set a target of 5% of peak load, which would mean a nearly 3 fold increase in DR capacity)

In our discussion of the DRAM, I did not hear explicit opposition to the concept, though I did hear you say that you have concerns. Specifically, PG&E is concerned that:

- -DRAM might diminish effectiveness of existing DR resources through resource shuffling from existing programs to the DRAM. After discussion of this concern, I believe we agreed that this concern could be addressed through DRAM and DR product design.
- -Experience working within the current CAISO market rules has led PG&E to believe that they are overly restrictive and impose costs on DR resources that make them not cost-effective. After discussion of this concern, I believe we agreed that one of the primary areas of focus of DRAM (and the supply side DR phase of the DR rulemaking) would be defining market rules that draw from best practices in other balancing areas to facilitate integration of DR into the CAISO market.
- -Changes to the current DR construct might diminish the overall quantity of DR currently available. After discussion of this concern, I believe we agreed that the goal of the DRAM (or any new procurement program for supply side DR) should focus on procuring DR resources in

excess of what we already have. To this goal, we discussed the idea that DRAM would initially seek to procure new, more operationally flexible DR resources that rely on enabling technologies that are not typically in use within existing DR resources. Over time as existing DR contracts end, the DR capacity associated with these legacy resources would be rolled into the DRAM (or a like mechanism) as a defined type of DR product (in the case of BIP, it might be an emergency product, while in the case of AMP it might be a contingency product). After this discussion, I believe you seemed amenable to the general idea.

-I also heard you say that the effort to define DR products for DRAM (or a like mechanism) and the setting of market rules are likely to be the most important elements of the implementation of this initiative.

Rule 24 Implementation

In our discussion of Rule 24, we talked about the two main areas of focus for Rule 24 systems implementation. The first being developing the necessary systems to allow 3rd parties to directly bid PG&E bundled loads into the CAISO market. The second being the development the necessary systems for PG&E to be able to directly bid customer loads into the CAISO market. Both systems will require significant IT implementations on PG&E's part, with uncertain but potential significant (10s of millions) costs. PG&E currently plans to file a cost recovery application focused on these Rule 24 systems upgrades in Q1 2014 (after Rule 24 PTMs are approved). This application will cover both third party and PG&E bidding into the CAISO market. From an implementation timing perspective, PG&E will prioritize developing its systems for 3rd party 'Direct Participation', with a target of rolling out these capabilities by 2015. In parallel, PG&E will pursue an initially more modest implementation of systems for its own bidding of DR into the CAISO market, but with a target of rolling out these capabilities by 2016. While implementation is under way, PG&E will utilize manual processes to enable limited 'Direct Participation' of its existing DR resources.

Nicolas Chaset

Special Advisor for Distributed Energy Resources

Office of Governor Edmund G Brown, Jr

California Public Utilities Commission

Email: Nicolas.chaset@cpuc.ca.gov

Phone: 510 219 2121