From: Chaset, Nicolas L.

Sent: 10/18/2013 1:46:52 PM

To: Ho, Nick (/O=PG&E/OU=CORPORATE/CN=RECIPIENTS/CN=NKH3) Redacted Dietz,

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

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Cc: Johnson, Aaron (/O=PG&E/OU=Corporate/cn=Recipients/cn=AJJ9)

Bcc:

Subject: Re: Rule 24 Implementation in 2014 & Beyond

Here are my take aways from our discussion on Monday. PLease let me know if you have any questions. I am happy to set up a call to discuss.

- -There are two fundamental tasks to the development of systems that enable direct PGE bundled customer participation in the CAISO market:
- 1) PG&E DRP Scenario: systems needed for PG&E to act at the interface between the customer and the CAISO (could be as a DRP for an end customer or as a provider to an aggregator that does not want to directly interface with the CAISO)
- 2) 3rd Party DRP Scenario: systems needed to enable third parties to bid PGE bundled load into the CAISO market (IRM2 is the best available comparable here)
- -For the PGE centric task, there are multiple avenues to building out these capabilities, ranging from modifications to the three separate systems that are currently in place to manage PG&Es DR portfolio, to the development of a single platform that all PGE managed DR programs that directly participate in CAISO market utilize. The direction PG&E will take to build out these capabilities will be largely informed by what types of DR resources the CPUC directs PG&E to bid into the CAISO market (currently, PG&E sees limited value in bidding its current DR portfolio into the CAISO market).
- -For the 3rd party centric task, PG&E envisions developing a single system to enable third parties to directly bid PG&E bundled load. PG&E is gaining further understanding of what exactly needs to be implemented to enable this through the IRM2 pilot.
- -For both tasks, PG&E will need to file cost recovery applications prior to commencing implementation.
- -PG&E has capabilities to 'manually' enable direct participation of a limited number of customers under both the PGE and 3rd Party DRP scenario, but the tipping point at which automation would be required is not currently known.

Is this an accurate characterization? If not please amend as you see fit.

Based on our prior discussions, I want you to understand the goals and where I think this process should go based on what I have heard so far from you.

Goal:

-Full implementation of systems needed to enable both PG&E and 3rd party managed DR resources in the CAISO market starting in 2016. With the key caveat being that not all DR resources will be expected to participate in the

CAISO market. Rather, the expectation is that some portion of the existing portfolio of 'reliability' programs (BIP, CBP, AMP and potentially AC cycling) should be capable of direct participation, though not necessarily required to do so. While a new category of supply side DR resources (resources that are designed to meet specific reliability needs akin to local, system and flexible RA) should also be able to directly participate in CAISO markets. During the interim period, it is thus desirable to limit expenditures on expensive and complex systems upgrades and instead focus on understanding the specific needs of customers, 3rd party DRPs, PGE and the CAISO so that when it is time to undertake a large implementation, it is being done having already gained experience enabling direct participation using 'manual' processes.

Next Steps for PG&E

- A) Q1-Q2 2014, PG&E files cost recovery applications for both PG&E and 3rd party DRP scenarios. Applications may include broad cost recovery for full implementation, but with phased in expenditures of resources to enable PG&E to expend limited funds during the scoping and testing period in 2014 and beginning of 2015 before full implementation and funds expenditures in the second half of 2015 and first half of 2016.
- B) By summer of 2014, identify the necessary scope of work to enable direct customer participation in CAISO markets for both the PG&E as DRP and the 3rd party DRP scenarios
- a. Starting July 1, 2014, when the Commission is expected to have issued its Supply Side DR Resource Decision, PG&E shall commence testing necessary processes and systems that allow PG&E to act as a DRP to its customers and bid their load into the CAISO market. This testing may be best accomplished with very limited changes to systems, instead relying on 'manual' processes that allow PGE to better understand both the customer and CAISO interface.
- C) Based on experience gained in 2014, PG&E shall develop a scope of work to make necessary upgrades to enable the PG&E DRP scenario. PG&E shall implement and test these systems in 2015, with a target of full implementation (and thus a full set of capabilities to directly bid in those PG&E managed DR resources into the CAISO market that the CPUC has determined should/shall do so) in place by 2016.
- D) By summer of 2014, begin identifying and testing capabilities to enable 3rd party DRP scenario, such that scope of work for systems upgrades are in place by 2015 that allow 3rd party DRPs to directly participate in CASIO markets (note that much of this may already be under way through the IRM2 Pilot). End goal is that by 2016, all necessary systems have been tested, debugged and rolled out to allow for 3rd party DRPs to bid PG&E bundled customer load into the CAISO market. One potential approach here might be to have a full implementation plan ready, but continue to rely on 'manual' processes until a critical mass of participation is hit that would require a move to automation. The key point here being that there should not be a lag between the transition between manual and automated system that creates a barrier to 3rd party DRPs.

From: Ho, Nick [NKH3@pge.com]
Sent: Thursday, October 10, 2013 11:56 AM
Required: Ho, Nick; Redacted

Optional: Johnson, Aaron
Subject: Rule 24 Implementation in 2014 & Beyond
When: Monday, October 14, 2013 9:00 AM-10:00 AM.
Where: 361, 245 Market & Dial-In Redacted

Dial-in Number:

Rescheduled meeting from Monday, 10/7.

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