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Decision 15-03-042 March 26, 2015

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Application of Pacific Gas and Electric Company (U39E) for Recovery of Costs to Implement Electric Rule 24 Direct Participation Demand Response.	Application 14-06-001 (Filed June 2, 2014)
And Related Matters.	Application 14-06-002 Application 14-06-003

DECISION APPROVING RECOVERY OF COSTS TO IMPLEMENT AN INITIAL LEVEL OF DEMAND RESPONSE DIRECT PARTICIPATION

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DECISION APPROVING RECOVERY OF COSTS TO IMPLEMENT AN INITIAL LEVEL OF DEMAND RESPONSE DIRECT PARTICIPATION

Summary

This decision approves cost recovery by Pacific Gas and Electric Company (PG&E), San Diego Gas & Electric Company (SDG&E), and Southern California Edison Company (SCE) for implementing an initial step of third party demand response direct participation in the California Independent System Operator's energy markets. We recognize the need to move forward with third party direct participation in anticipation of a demand response auction mechanism pilot in Rulemaking 13-09-011, while understanding the uncertainty regarding the amount of participation by customers. This decision directs the three utilities to provide additional information, including the filing of status reports, and to obtain Commission authorization prior to moving on to a subsequent step of direct participation involving a larger customer group and additional funding. We authorize cost recovery of $2.9 million for PG&E, $1.8 million for SDG&E, and $2.7 million for SCE.

1. Procedural Background

On November 29, 2012, the Commission approved Decision (D.) 12-11-025, which resolved several policies toward the refinement and adoption of Electric Rule 24 and 32,[1] the third party direct participation of demand response in the California Independent System Operator's (CAISO) energy markets.
Ordering Paragraph 36 of D.12-11-025 permitted Pacific Gas and Electric Company (PG&E), San Diego Gas & Electric Company (SDG&E), and SCE, (jointly, the Applicants) to file applications requesting recovery of costs incurred

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[1] Electric Rule 24 applies to PG&E and SCE. Electric Rule 32 applies to SDG&E.

as a result of the implementation of Electric Rule 24 and 32 and third party demand response direct participation in the CAISO energy market. Furthermore, Ordering Paragraph 27 required the three utilities to include in their applications a request for the review and approval of tariffs for the recovery of costs incurred as a result of providing services to demand response providers.

On June 2, 2014, the three utilities each filed an application seeking (1) the recovery of costs associated with the implementation of third party demand response direct participation and (2) the approval of proposed fees for third party demand response provider services to facilitate demand response direct participation. A June 27, 2014 Ruling confirmed the consolidation of the three applications into one proceeding. On July 7, 2014, the Direct Access Customer Coalition (DACC) with the Alliance of Retail Energy Markets (AReM), Joint Demand Response Parties,[2] and the Office of Ratepayer Advocates (ORA), each filed protests to the applications. Marin Clean Energy filed a response to the applications.

Following a prehearing conference on July 30, 2014, the assigned Administrative Law Judge (ALJ) and the assigned Commissioner jointly issued a Ruling and Scoping Memo (Scoping Memo) that determined the scope for this proceeding.[3] The Scoping Memo also determined that a phased approach to the proceeding would be the most prudent. Phase One addresses two general issues: whether to allow a partial versus full implementation of Rule 24/32 and the

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[2] The Joint Demand Response Parties are EnerNOC, Inc., Johnson Controls, Inc., and Comverge, Inc.

[3] Joint Assigned Commissioner's and Administrative Law Judge's Ruling and Scoping Memo, August 14, 2014.

reasonableness of proposals and costs for partial implementation. If the Commission determines that partial implementation is reasonable, then a Phase Two will be carried out with the issues for Phase Two to be determined in the Phase One decision. Specific issues to be addressed in Phase One are provided below in Section 4, Issues Before the Commission.

Parties in this proceeding requested that the ALJ facilitate one or more workshops to assist the parties in understanding the three applications. An initial workshop, held on September 23, 2014, provided parties an overview of each of the applications. Presentations during the first workshop included the relationship of these applications with the Demand Response Rulemaking (R.) 13-09-011, a comparison of the three applications, implementation dependencies, an update on the CAISO Application Programming Interfaces (APIs), and ORA's proposal for the use of a proxy for Revenue Quality Meter Data. As a result of the ORA proposal, a second workshop, held on October 9, 2014, provided parties with additional information on Revenue Quality Meter Data including an overview of its current and future availability, alternatives for the data, and an overview of requirements for third party demand response participation in CAISO markets and other requirements for utilities to support non-utility demand response providers during the interim. Reports from each of these workshops were developed with input by all parties.[4]

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[4] The two reports: the September Workshop Report and the October Workshop Report were received into the record by Ruling on December 17, 2014.

On September 26, 2014, the Applicants timely filed a request for testimony and evidentiary hearings on the issue of whether the Commission should allow a proxy for Revenue Quality Meter Data for use in the CAISO's market settlement with demand response providers for residential and small commercial customer's direct participation demand response until the utilities make this data available to nonutility demand response providers (Motion). An October 13, 2014 Ruling determined that testimony and hearings were unnecessary, denied the Applicants' Motion, and canceled the previously scheduled hearings.

During the October Workshop, the assigned ALJ encouraged a discussion of the phasing-in of large scale demand response. Following that workshop, a Ruling was issued requiring the Applicants to each file proposals for a three-stepped approach to this phasing that includes the following timing and number of customers served: Step 1) approximately 6-9 months from the issuance of a decision / serving 25,000 customers, Step 2) approximately 12-18 months / serving 500,000 customers and Step 3) 24 months / serving all customers.[5] In response, the Applicants each filed a proposal on November 10, 2014, which we discuss in the next section of this decision.

PG&E filed a motion on December 3, 2014 requesting to supplement the record with additional information. According to this motion, PG&E met with Energy Division staff on November 20, 2014 to discuss its application in this proceeding. During the meeting, PG&E revealed an alternative method to its November 10, 2014 filing, which presented its recommendations for phasing the

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5 Administrative Law Judge Ruling issued on October 31, 2014.

implementation of Rule 24. Furthermore, in the December 3, 2014 motion PG&E explained that the Energy Division requested in a November 25, 2014 email that PG&E file a motion to supplement the record with this alternative method. No party opposed this motion. Through a December 5, 2014 Ruling, the additional information was received into the record as of December 9, 2014.

Briefs were filed on December 22, 2014 by the California Large Energy Consumers Association (CLECA), DACC/AReM, Joint Demand Response Parties, ORA, OhmConnect, PG&E, SDG&E, SCE, and TURN. Reply briefs were filed on January 8, 2015 by CLECA, DACC/AReM, ORA, OhmConnect, PG&E, SCE, and TURN.

This proceeding remains open to address Phase Two issues. Phase One of this proceeding is closed.

2. Overview of Applications and Additional Filings

2.1. PG&E's Application

In its original application, PG&E requested the Commission to authorize a limited rollout of Rule 24 that predominantly uses manual processes to facilitate direct participation in the CAISO energy market.[6] PG&E requested a budget of $1.45 million in 2015 and $1.42 million in 2016 to implement Rule 24 that will result in the ability to serve a maximum of 500 non-residential customers in 2016.[7] PG&E also requested approval of the proposed fee schedule for providing

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[6] PGE-01 at 2-1.

[7] PGE-01 at Table 2-1 and Table 2-4.

direct participation services to customers.[8] PG&E proposes that the Commission recovery the costs of implementation through distribution rates.[9]

PG&E contends that the level of uncertainty in demand response direct participation and the potential risks for stranded costs of premature investments requires this limited but practical approach. PG&E provided an option in its Application that includes the necessary modifications and associated costs of $18 million for full implementation.[10] According to its testimony, the costs found in Appendices A and B are what PG&E estimates it would incur to implement, at full scale, the foundational systems and processes for Rule 24.[11]

In response to the October 31, 2014 Ruling requesting information on a three phased approach to the implementation of direct participation, PG&E proposed its three phases (referred to as Phases 1a-3c) as provided in Table 1 below.

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[8] PGE-01 at Appendix C.

[9] PG&E Opening Brief at 14-16.

[10] PGE-01, Appendix B at B-18-19.

[11] Exhibit PGE-01 at 1-3.

TABLE 1 PG&E's Three Phases to Large Scale Direct Participation[12]				
Phase	**Expected Time Frame**	**Expected Customers served[13]**	**Expected CISRs processed[14]**	**Costs**
1A	January 2016	750 C&I	3,750	$2.9 M
1B	January 2016	6,000 R / 2,500 C&I incl DRAM	42,500	$2.9 M
1C	January 2016	7,500 R / 2,500 C&I	50,000	$2.9 M
2A	October 2016	750 C&I	3,750	$2.9 M
2B	October 2016	300,000 R Real-time or AS 500,000 R Day-Ahead 100,000 C&I Real-time or AS Unlimited C&I in day-ahead	Unlimited	$19 M
2C	October 2016	400,000 R Real-time or AS 500,000 R Day-Ahead 100,000 C&I Real-time or AS Unlimited C&I in day-ahead	Unlimited	$19 M
3A	Mid to Late 2018	400,000 R Real-time or AS 500,000 R Day-Ahead	Unlimited	$19 M

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12 PG&E Response to October 31, 2014 Ruling, November 10, 2014. In this filing, PG&E explains that the B level equates to the alleviation of regulatory and policy barriers such as dual participation requirements and the C level equates to the alleviation of technical barriers such as the development of the CAISO APIs. In addition, Steps 1 and 2 are also limited in the number of resources of MW until the CAISO Baseline and Performance APIs are in place. (*See* November 10, 2014 filing, Attachment B at 1-4.)

13 In this column, the letter "R" refers to residential customers and the acronym C&I refers to commercial and industrial customers.

14 Customer Information Service Request – the Rule 24/32 process to enroll a customer in a demand response provider program begins with a customer information service request sent to a utility by the demand response provider, who is then required to provide customer data to the demand response provider. (*See* D.12-11-024 at Section 4.2.3.1)

		100,000 C&I Real-time or AS Unlimited C&I in day-ahead		
3B	Mid to Late 2018	1.6 – 2 M R AS Unlimited C&I	Unlimited	10 M + 50%[15]
3C	Mid to Late 2018	Unlimited	Unlimited	Add Appl

Following its November 10, 2014 filing, PG&E was granted a motion to supplement the record. In this additional filing, PG&E explains that the utility could reach the 10,000 participant level without changes to Rule 24 if the Commission would impose a limit of 500 per week on the number of customer information service requests (CISRs) PG&E should process.

In its brief, PG&E revised its original request to two three-stepped alternatives.[16] Alternative 1 would simultaneously implement two steps beginning in April 2015 with step 1 supporting a mix of 10,000 residential and non-residential customers by January 2016 with a budget of $2.9 million and the use of a desktop application for automation, and step 2 supporting 500,000 customers by October 2016 with a budget of $16 million.[17] PG&E proposes that a third step would support 5 million customers but would, however, require a new application with a yet-to-be-determined budget or timeline. PG&E's Alternative 2 is similar in numbers but step 1 would proceed first and separately.[18] Steps 2 and 3 would not proceed until the Commission authorizes

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[15] According to PG&E, these numbers will require updating or refreshing if an implementation delay occurs.

[16] PG&E Opening Brief at 1-2.

[17] *Id.* at 3-4.

[18] *Id.* at 4-5.

PG&E to do so. PG&E cautions that, in Alternative 2, the budget for step 2 could increase due to the delay in timing.[19]

2.2. SDG&E's Application

SDG&E contends that the nascent state of demand response direct participation in the CAISO energy markets necessitates that the Commission allow SDG&E to establish a memorandum account to record the implementation, administration and maintenance costs related to Rule 32.[20] In addition to this memorandum account, SDG&E also requested approval of proposed new tariff sheets.[21]

SDG&E suggests that the uncertainty of participation levels in direct participation is the reason SDG&E provided a range of implementation process and costs.[22] SDG&E explains that the range of Information Technology (IT) costs highlights this uncertainty; low participation levels will allow manual processes while higher participation levels will require more extensive automated processes increasing IT costs.[23]

In testimony, SDG&E provides cost estimates of $600,000 to $750,000 for business processes and $1.5 million to $3 million in IT costs.[24] Generally, the business process costs cover the costs of four full-time employees to oversee the

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19 *Id*. at Footnote No. 4.

20 SDG&E Application at 5.

21 SGE-02 at Appendix A.

22 SDG&E Opening Brief at 4-5.

23 SGE-01 at 5.

24 SGE-01a at 5-6.

implementation of direct participation, specifically the project implementation and the enrollment process.

SDG&E provided the information in Table 2 in response to the October 31, 2014 Ruling.

TABLE 2

SDG&E's Three Phases to Large Scale Direct Participation

Phase	Expected Time Frame	Expected Customers served[25]	Expected CISRs processed	Costs
1A	January 2016	750 R and C&I	3,750	$300,000/year
1B	January 2016	7,000	35,000	$300,000/year Plus IT
2A	October 2016	25,000	125,000	500,000/ year + $3 M
2B	October 2016	100,000	500,000	$500,000 / year + $3 M + IT and CAISO
3A	March 2017	5 M w/API	Unknown	Unknown
3B	March 2017	5 M w/ API	Unknown	Unknown

2.2. SCE's Application

SCE requests approval of processes to implement demand response direct participation and authorization to recover $ 2.7 million in implementation costs.[26]

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[25] In this column, the letter "R" refers to residential customers and the acronym C&I refers to commercial and industrial customers.

[26] SCE-01 at 9.

Additionally, SCE requests Commission approval of proposed tariff changes associated with providing demand response direct participation.[27]

SCE explains that it must make several process and systems changes to three activities in order to enable the direct bidding of third party demand response into the CAISO market: provider registration, customer reservations, and transmittal of customer data.[28] SCE anticipates IT costs of $1.5 million in 2015 and programmatic costs, including training, of $1.2 million for 2015-2017.[29] These costs would enable a direct participation program for up to 50 providers in 2017 with a maximum of 14,000 customer information service requests.

In response to the October 31, 2014 Ruling, SCE provided the information in Table 3 below.

TABLE 3

SCE's Three Phases to Large Scale Direct Participation

Phase	Expected Time Frame	Expected Customers served[30]	Expected CISRs processed	Costs
1A	January 2016	750	3,750	$1.5 M + 1.2 M
1B	January 2016	14,000	70,000	$1.5 M + 1.2 M
2A	September 2016	25,000	125,000	$1.5 M + 1.2 M + unknowns
2B	September 2016	500,000	2.5 M	Unknown
3A	March 2017	All Eligible Accts	5 per account	Unknown
3B	March 2017	All Eligible Accts	5 per account	Unknown

[27] *Id.* at Appendix A.

[28] *Id.* at 5-7.

[29] *Id.* at 2 and Table II-1.

[30] In this column, the letter "R" refers to residential customers and the acronym C&I refers to commercial and industrial customers.

3. Interdependence Between Application and Related Activities

From the outset of this proceeding, it became evident that the Applications in this proceeding are inter-related with at least two other activities: 1) the outcome of R.13-09-011, the Rulemaking to enhance the role of demand response in meeting California's resource planning needs and operational requirements, and 2) the technical and regulatory requirements for the integration of demand response into the CAISO energy market. We discuss these briefly here to provide context for reviewing the applications in this proceeding.

In 2014, the Commission adopted several decisions in R.13-09-011, which set in motion policies to carry out the goals of improving the efficiency of demand response and increasing the use of demand response programs. Through D.14-03-026, the Commission adopted the policy to bifurcate demand response into load modifying resources, which reshape or reduce the net load curve and supply resources, which are integrated into the CAISO energy markets. D.14-12-024 adopted a pathway to bifurcation and reaching our demand response goals. The implementation of Rule 24/32, the direct participation of demand response into the CAISO market, is an integral part of demand response supply resources. Hence several of the steps along the pathway adopted in D.14-12-024 will intertwine with how Rule 24/32 is implemented. We keep this in mind when making determinations in this proceeding.

As the Commission has moved forward toward the implementation of demand response direct participation, the CAISO simultaneously has moved forward in adopting tariffs and business requirement specifications that enable demand response providers to integrate into the CAISO energy market. However, since the adoption of Rule 24/32, the CAISO has faced regulatory and technical complications, thus impeding integration. We take these complications into account when making determinations in this proceeding.

4. Issues Before the Commission

On November 26, 2014, the ALJ issued a Ruling asking parties to brief the following issues, as provided in the Scoping Memo:

I. Partial versus Full Implementation

   a. Should the Commission adopt a multiple-step approach to the implementation of third-party direct participation of demand response in CAISO market?

   b. If the Commission determines that a multiple-step approach is reasonable, should all steps be addressed in this proceeding or in separate applications?

   c. Is there a need for further coordination and integration with the CAISO with respect to third-party direct participation of demand response? What would this entail? Is there a presumption that the CAISO will grant waivers for certain requirements? Is this likely and, if not, is this problematic?

II. Reasonableness of Proposals and Costs for Implementation

   a. Are the proposals for each step of implementation of third-party direct participation of demand response, as provided by the Applicants on November 10, 2014, reasonable and should they be approved? If not, what should the proposals look like for each step of implementation including participant numbers, dates, exemptions, etc.

   b. Should the Applicants be authorized to use a manual process and then migrate to an automated process, as part of the initial and/or partial implementation?

c. Do the limits on the number of demand response providers, customers, meters, etc. imposed in the first phase of each of the Applicant's proposal create any barriers to participation?

d. Are the costs for the implementation proposals just and reasonable and should they be approved? If not, what would the costs look like for each step of implementation?

e. Are the cost differences between each utility's application reasonable? Is it reasonable for the Commission to approve different costs for the same proposed task?

f. Is there any overlap of costs with other cost recovery that any of the Applicants either have already used or will need to bid their own demand response programs into the CAISO market?

g. Are the fee schedules as proposed by the Applicants reasonable and should they be approved? Should the Applicants use the same charges that were adopted for electric service providers and apply them to demand response providers?

h. Are the cost allocation and cost recovery methodologies as proposed by each of the Applicants reasonable and should they be approved?

5. Discussion and Analysis

5.1. Partial Versus Full Implementation

Early in this proceeding, parties expressed concern that the Applicants did not request cost recovery for the full implementation of direct participation of demand response despite the fact that D.12-11-025 envisioned only full implementation. The Applicants were clear in their requests that the Commission allow them to move forward with direct participation on a limited basis.[31] As discussed further below, we find that a partial, multiple-step approach to the implementation of demand response direct participation is reasonable.

The Commission has previously adopted policies and rules for demand response direct participation and in no terms should the idea of a multiple-step approach be perceived as watering down this policy. The Commission sees the multiple-step approach as one that moves our demand response direct participation implementation forward efficiently and effectively while simultaneously ensuring the protection of ratepayers. Accordingly, this decision only approves the budget for an initial implementation step, but allows for a second step in this proceeding aimed at serving a larger population when the market shows progress and the necessary technology has been developed.

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[31] For example, PG&E requested cost recovery for a limited scope deployment of Rule 24 with a maximum of 500 non-residential customers in 2016, SDG&E proposes an estimated budget with a memorandum account strictly because of the uncertainty of the participation level, and SCE only requests funding to implement a program to process a maximum of 3500 Customer Information Service Requests in 2015.

The Applicants are directed to file quarterly reports regarding the status of demand response direct participation in order to justify and frame an intermediate step or steps in this proceeding. The reports shall include updates on coordination efforts with the CAISO, including updates on technical improvements. Also as discussed below, requests for large scale integration shall be addressed in a new application if and when the market indicates that level of progress and the necessary technology has been developed.

5.1.1. Should the Commission Adopt a Multiple-Step Approach

Parties present several valid reasons for taking a stepped approach to demand response direct participation. First and foremost, parties point to the uncertainty and unpredictability in the participation level for direct participation.[32] While providers such as EnerNOC, EnergyHub, and OhmConnect indicate to us that there is interest in third party demand response direct participation, both in the residential and commercial & industrial markets, there is no evidence in the record of this proceeding that would lead us to believe that large numbers of utility customers are ready to participate in demand response direct participation. Hence, as highlighted by The Utility Reform Network (TURN), there is a risk of stranded assets if the Applicants build out their systems but the participation level does not come to fruition.[33] Second, as was evident during the September Workshop, there are technical issues that need

[32] *See*, for example, ORA Opening Brief at 2, OhmConnect Opening Brief at 4, and SDG&E Opening Brief at 4.

[33] TURN Opening Brief at 6.

to be addressed both on the utility side and the CAISO side.[34] The presentations by the CAISO and the Applicants during the September Workshop show that technological barriers are currently impeding the implementation of demand response direct participation.[35] Parties contend that in order to provide direct participation to large numbers of customers, automation is necessary and until we address and resolve the technical issues, we cannot move to full automation. Third, parties agree that only PG&E has experience in the CAISO market and a multiple-step approach could allow the Applicants to gain experience in the market while the market continues to grow and the processes evolve to service that growing market.[36]

In addition to the above reasons for a stepped-approach, several parties point to the benefits of this approach. TURN notes that an initial implementation step using a manual process would allow the Applicants to test certain systems prior to implementing more costly IT solutions.[37] Furthermore, OhmConnect contends that the multiple-step approach would allow for continuous adjustment of resources.[38]

The Commission recently approved a plan in R.13-09-011 for enhancing the role of demand response in meeting California's resource planning needs. This plan includes the establishment of working groups that, among other

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[34] *See*, TURN Opening Brief at 4, CLECA Opening Brief at 3, and Joint Demand Response Parties Opening Brief at 4. See also September Workshop Report at II.A.1.

[35] September Workshop Report at II.B, II.C, and II.D.

[36] CLECA Opening Brief at 3, SDG&E Opening Brief at 5 and Joint Demand Response Opening Brief at 4.

[37] TURN Opening Brief at 5.

[38] OhmConnect Opening Brief at 4.

things, will work to first, identify requirements of the CAISO that lead to increased costs and complexity, and then, develop modifications to make demand response programs more suitable and successful as supply resources.[39] ORA states that these modifications should assist the Applicants in the success of direct participation and in planning for demand response because the results of these efforts can be incorporated.[40]

We find that the uncertainty of future participation levels in demand response direct participation, in combination with the technical issues that need to be resolved, and the lack of experience by the Applicants, should cause us to move forward with the implementation of direct participation in a cautious but deliberate manner. In addition, this approach will allow the Commission to continue to improve related processes through the efforts of R.13-09-011. Thus, we conclude that a multiple-step approach to the implementation of demand response direct participation is reasonable and should be approved.

5.1.2. Should All Steps Be Addressed in this Proceeding?

The Scoping Memo contemplated the possibility of multiple implementation steps and thus included the question of whether to address all implementation steps in this application or require future steps to be addressed in separate applications. We have already determined that a multiple-step approach to implementation is reasonable. As discussed below, we find that the uncertainty regarding the level of participation expected for demand response

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[39] D.14-12-024 at Ordering Paragraph 4. (*See* also D.14-12-024, Appendix 1 at Attachment A.)

[40] ORA Opening Brief at 3.

direct participation and the potential risk of stranded assets causes us to proceed in a more deliberative manner. Accordingly, we approve an initial implementation step and its associated budget in this proceeding, but require additional information before we can fully address subsequent steps.

The majority of parties advocate that the Commission approve, in this proceeding, the processes and funding for a Phase 1 and parts of a Phase 2, as indicated in the October 31, 2014 Ruling and the November 10, 2014 filed responses.[41] However, some parties express concern regarding the lack of evidence regarding the costs for a Phase 2 and beyond.

TURN argues that there is too much uncertainty to authorize the development of automated direct participation (otherwise known as Phase 2) in this decision.[42] Pointing to a lack of evidence concerning the costs of implementation beyond Phase 1 or Phase 2A,[43] TURN suggests that the Commission direct the Applicants to file compliance reports by June 30, 2015 updating the Commission on the status of the CAISO technical issues. SCE provides similar arguments stating that the Commission must continue to build the record in this proceeding if it determines that a multiple-step approach to the implementation of demand response direct participation is required.[44]

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41 In earlier filings and in briefs, parties use the term, "Phase." For consistency with the filings and briefs, we will continue to use this term. However, we will use the term, "step," for any process that we adopt in this decision in order to avoid confusion with the two phases of this proceeding.

42 TURN Opening Brief at 9.

43 As defined by the Applicants, Phase 2A includes the CAISO Location API; Phase 2B would include both the CAISO Location and Registration API.

44 SCE Opening Brief at 7.

Taking a slightly different approach, CLECA recommends that the Commission use the current proceeding to achieve a Phase 1 level of participation, as indicated in PG&E's filing, and direct SCE and SDG&E to file supplemental information corresponding to increased participation levels of 25,000 in 2016 and 500,000 in 2017. Because the amount of potential demand response is not clear based upon the record, CLECA cautions that increases above 500,000 customers may or may not be necessary.[45] The Joint Demand Response Parties echo this approach, calling for the Commission to adopt a Phase 1 and relevant funding for all three Applicants, but only adopt a Phase 2 for PG&E. Stating that additional information is needed for SDG&E and SCE for implementation of a Phase 2, the Joint Demand Response Parties contend that a separate decision is needed to approve funding for the implementation of a Phase 2 of SDG&E and SCE's third party direct participation.[46]

In its brief, SCE recommends that the Commission adopt the approach outlined in its testimony as this approach uses realistic estimates for participation and scales the utility investment accordingly. SCE claims that the responses to the October 31, 2014 Ruling use estimates that are unrealistically large for the timeframe of the next three years.[47] Furthermore, SCE claims that the assumptions are not based on fact and vary widely from those assumptions in SCE's testimony.[48]

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[45] CLECA Opening Brief at 5-6.

[46] Joint Demand Response Provider's Opening Brief at 17.

[47] SCE Opening Brief at 4.

[48] *Id.* at 4 referencing SCE-01 at 7-8.

Although ORA supports a multiple-step approach to implementation, it also states that having the flexibility to determine what should happen in subsequent steps based on actual experience is both a practical and prudent approach.[49] Most notably, ORA contends that the Commission should not opt for full implementation until the level of interest in demand response direct participation is properly evaluated.[50]

The record in this proceeding does not include any evidence indicating a level of participation that would require the Applicants to implement systems and processes for large scale residential demand response direct participation. The only residential demand response direct participation potential outside of the Applicants' current programs that was discussed during this proceeding is OhmConnect's experience in demand response. The presentation during the September Workshop does not indicate a large scale level of residential participation. In comments to the proposed decision, Alarm.com and EnergyHub (EnergyHub) argue that such a conclusion should not be based on one entity. Asserting that it has more than a million engaged customers nationwide and approximately 100 MW of capacity available in California, EnergyHub contends that limiting implementation is not appropriate.[51] However, as pointed out by PG&E, there is no evidentiary support for these

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49 ORA Opening Brief at 3.

50 *Ibid*.

51 EnergyHub Opening Comments to the Proposed Decision at 3.

claims.[52] Furthermore, we are not ruling out large scale participation, we are simply taking a cautious deliberate approach.

Thus, we consider large scale residential demand response direct participation to be a future possibility but not something that the Commission should address at this time or in this proceeding. We should continue to monitor the level of third party demand response direct participation. If the participation level rises to an appropriate level, we will direct the Applicants to file a new application for implementation of large scale residential demand response direct participation.

The record in this proceeding also does not include sufficient evidence that demand response direct participation has participation levels beyond an initial implementation either now or in the near future, i.e. less than one year. Thus, this decision will only address an initial implementation step. However, we find it appropriate and reasonable to develop the record for an intermediate implementation step (or steps) in this proceeding as it should build upon the information we have already collected. Thus, we will consider funding for an intermediate step(s) within this proceeding but in a future decision.

Lastly, the Applicants are directed to file quarterly reports regarding the status of the implementation of third party demand response direct participation as described below. If and when the Commission finds it appropriate to implement large scale residential direct participation, the Applicants will be directed to file applications in a new proceeding. However, the Applicants shall reference this proceeding in any new application for large scale integration of

[52] PG&E Reply Comments to the Proposed Decision at 4.

direct participation, so that the record of this proceeding can be incorporated into the new proceeding focused on large scale residential direct participation.

5.1.3. Should the Commission Require Continued Coordination with the CAISO?

All parties agree that continued coordination with the CAISO is appropriate and necessary for the successful implementation of demand response integration in the CAISO energy markets, especially demand response direct participation. As we discuss below, this coordination is currently occurring within R.13-09-011. We find this coordination to be a good starting point and will monitor through status reports until we find that additional coordination is needed. In the meantime, we require the Applicants to work together to develop and file quarterly status reports on demand response direct participation and its integration with the CAISO, including the current status of the APIs.

At the prehearing conference, PG&E discussed the issue of CAISO integration, noting that it "overlaps and is integral with what is going on in R.13-09-011."[53] PG&E added that its proposals in this proceeding are informed by the state of affairs with respect to the CAISO development of its third party direct participation processes. PG&E also pointed to the CAISO stakeholder processes for providing information regarding the CAISO integration but noted that what is developing at the CAISO is a moving target and thus amplifies the need to coordinate with the CAISO.[54]

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[53] Prehearing Conference Transcript (TR) at 21.

[54] *Id*. at 21-22.

While the CAISO is not a party to this proceeding, a representative was invited to the September Workshop to provide an overview of the CAISO's APIs necessary for demand response direct participation. This presentation is included in the September Workshop Report.[55] There are four identified APIs needed for automated submission and retrieval: locations, registrations, baseline calculation data, and performance data.[56] The September Workshop Report states that the development of the APIs directly impacts the scope of the Applicants' services and the timing of the Applicants' ability to implement demand response direct participation on a large scale.[57]

In briefs, parties agree that CAISO coordination is crucial to the implementation of demand response direct participation and provide several reasons why the Commission should monitor the status of its work. For example, TURN, CLECA, and the Joint Demand Response Parties state that the need to monitor the CAISO's development of its APIs is one of the major coordination issues in this proceeding.[58] TURN explains that any utility investment in automated systems must be closely coordinated with the CAISO software development work to ensure system compatibility.[59] SCE cautions that any delays with the CAISO APIs could create additional barriers to the

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[55] September Workshop Report at II.D.1 and Appendix, A-15 through A-21.

[56] *Id.* at Appendix, A-20.

[57] September Workshop Report at II.D. 1.

[58] TURN Opening Brief at 5 referencing the September Workshop Report at 8, Joint Demand Response Parties Opening Brief at 17, and CLECA Opening Brief at 7.

[59] TURN Opening Brief at 5.

implementation of direct participation.[60] SDG&E underscores the importance of the participation of the CAISO in the Supply Resource Integration Working Group and the Load Modifying Resource Operations Working Group established in R.13-09-011, noting that the outcome of these groups could have a significant effect on determining the level of demand response direct participation.[61]

Given that the CAISO is solely responsible for the development and implementation of the Location and Registration API,[62] we agree that it is reasonable to coordinate the efforts of the CAISO software development with the efforts of the Applicants' software development in demand response direct participation. However, the record in this proceeding indicates that the Commission is currently working collaboratively with the CAISO through the working groups established in R.13-09-011 as well as through the CAISO's own stakeholder groups. We find this level of coordination sufficient for now.

In order to ensure a complete record in this proceeding, we direct the Applicants to file status reports as suggested by TURN. The status reports on the implementation of demand response direct participation should describe the completed and current efforts by the CAISO for market integration, including the current status of APIs. The first report shall be filed in this proceeding on June 30, 2015 and every three months thereafter until the end of 2018,[63] unless directed by the Commission to do otherwise. This will enable the Commission to

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[60] SCE Opening Brief at 8.

[61] SDG&E Opening Brief at 7.

[62] Joint Demand Response Parties Opening Brief at 17.

[63] The current anticipated date of full bifurcation of demand response into supply side and load modifying resources as required by D.14-12-024.

move forward to a next step of direct participation when the results of the current step indicate so. In order to ensure comprehensive reports, we direct the Applicants to file a proposal in this proceeding for the elements that should be included in the reports. This proposal shall be filed within 30 days of the issuance of this decision. Parties shall have 14 days following the filing to comment on its content.

5.2. Reasonableness of Proposals for Initial Implementation

We have determined that this decision will only address the reasonableness of proposals for an initial implementation step, referred to by parties as either step or Phase one. In this section, we determine what an initial step should look like, what its costs should be, whether the fees for this program are reasonable and who should bear the costs of initial implementation.

5.2.1. The Parameters of Demand Response Direct Participation Initial Implementation

The parameters of demand response direct participation have evolved since the filing of this application. Our options include the parameters requested by each of the Applicants in their applications, the November 10, 2014 Applicant filings in response to the October 31, 2014 Ruling, the supplemental filing by PG&E received into the record on December 9, 2015, and the revisions suggested in the briefs. Because there are several different proposals in the record, we present in the following tables the step or phase one proposals for each utility as recommended in parties' briefs.

Table 4 Recommendations for PG&E's Initial Implementation Step	
Party	**Proposal**
PG&E	The Commission should approve the following proposal:[64] 10,000 residential, non-residential, bundled, direct access, and/or community choice aggregation customers with first participants enrolling in January 2016 at a cost of $2.9M and limited to Day-Ahead energy with a maximum load reduction of 75 MW. Assumes the deployment of the CAISO Location API by April 2015 but with it the use of a desk top application for automation. Assumes the use of temporary automated applications to be discarded for large scale implementation. Assumes a maximum of 500 weekly service agreements.[65]
CLECA	The Commission should approve PG&E's proposal with participation levels of 10,000 and an implementation date of January 2016, as supported by the November comments.[66]
Joint Demand Response Parties	The Commission should approve PG&E's proposal for 10,000 customers, an implementation target of 12 months, providing day-ahead service only at a cost of $2.87 million, and using interim desktop measures with the following caveats: a) develop a plan to prioritize the onslaught of demand response provider customer information service forms being submitted at the same time, and b) develop a plan to provide helpful information to the third-party provider as to why a registration is rejected. If the Location API is not available, PG&E should be permitted to move forward with manual processes knowing that the 10,000 customer mark is likely not achievable.[67]
ORA	PG&E's alternative proposal should be rejected, and PG&E should be required to refile with a proposal similar to that of

[64] While PG&E requested to implement two steps of direct participation simultaneously, we have already determined to only approve an Initial Step and therefore only provide an overview of that step here.

[65] PG&E Opening Brief at 7.

[66] CLECA Opening Brief at 7-8.

[67] Joint Demand Response Providers Opening Brief at 13-15.

	SCE and SDG&E. An initial step should support some reasonable number of residential and non-residential customer accounts for participation in the day-ahead market which would be sufficient for running a demand response auction mechanism. PG&E's alternative proposal to support 10,000 residential and nonresidential service agreements in the day-ahead market fit the requirements of a first step. But this alternative proposal is manual, while SCE and SDG&E's proposal are automated at the same costs. Thus, PG&E should be required to perform the same functionality as SCE and SDG&E.[68]
OhmConnect	OhmConnect supports PG&E's proposal of November 10, 2014 with the supplemental filing of December 9, 2014. Limiting enrollments to 500 per week is a manageable approach that makes steady progress toward larger goals.[69]
TURN	Authorize the work necessary to complete Phase 1 as described in the October 31, 2014 Ruling, which includes participation by up to 25,000 customers.[70]

[68] ORA Opening Brief at 8-9.

[69] OhmConnect Opening Brief at 6.

[70] TURN Opening Brief at 2.

Table 5 Recommendations for SDG&E's Initial Implementation Step	
Party	**Proposal**
SDG&E	The Commission should approve SDG&E's Initial Implementation proposal as detailed in its November 10, 2014 filing: 1a) If the CAISO Location API is not available, SDG&E would be able to accommodate 750 residential or commercial & industrial customers with the first participants enrolling by January 2016 at a cost of $300,000 for 2 to 3 full time employees, and 1b) If the CAISO Location API is available, SDG&E would be able to accommodate 7,000 residential or commercial & industrial customers with the first participants enrolling by January 2016 at a cost of $300,000 for 2 to 3 full time employees. The cost for the IT for Phase 1b is unknown at this time.[71]
CLECA	The Commission should approve SDG&E's proposal with participation levels of 7,000 and an implementation date of January 2016, as supported by the November comments.[72]
Joint Demand Response Parties	The Commission should approve SDG&E's proposal but with a target of 10,000 customers, an implementation target of 12 months, providing day-ahead service only at a cost of $3 million, and the development of a plan to provide helpful information to the third-party provider as to why a registration is rejected. If the Location API is not available, SDG&E should be permitted to move forward with manual processes knowing that the 10,000 customer mark is likely not achievable.[73]
ORA	The initial step for each utility should support some reasonable number of residential and non-residential customer accounts for participation in the day-ahead markets which would be sufficient for running a demand response auction mechanism. SDG&E's semi-automated IT system approach accommodating 7,000 residential and non-residential customers in the day-ahead market appears to fit the requirements of this first step.

[71] SDG&E Opening Brief at 4-5.

[72] CLECA Opening Brief at 7-8.

[73] Joint Demand Response Providers Opening Brief at 13-15.

	ORA supports SDG&E's semi-automated proposal as a first step.[74]
OhmConnect	OhmConnect generally supports the SDG&E proposal for an initial step but requests that future phases include ancillary and real-time services.[75]
TURN	Authorize the work necessary to complete Phase 1 as described in the October 31, 2014 Ruling, which includes participation by up to 25,000 customers.[76]

Table 6 **Recommendations for SCE's Initial Implementation Step**	
Party	**Proposal**
SCE	The Commission should approve SCE's proposal as detailed in its original application as this approach uses realistic estimates for participation and scales the utility investment accordingly. : Furthermore, this approach fully implements direct participation services and assumes more reasonable participation rates of 3,500 accounts in 2015, 7,000 accounts in 2016 and 14,000 accounts in 2017, but includes interim manual processes while the CAISO API is in development, [77]
CLECA	The Commission should approve SCE's proposal with participation levels of 7,000 and an implementation date of January 2016, as supported by the November comments.[78]
Joint Demand Response Parties	The Commission should approve SCE's proposal but with a target of 10,000 customers, an implementation target of 12 months, providing day-ahead service only at a cost of $2.74 million, and the development of a plan to provide helpful information to the third-party provider as to why a registration is rejected. If the Location API is not available, SCE should be

[74] ORA Opening Brief at 7-8.

[75] OhmConnect Opening Brief at 6.

[76] TURN Opening Brief at 2.

[77] SCE Opening Brief at 4-6.

[78] CLECA Opening Brief at 7-8.

	permitted to move forward with manual processes knowing that the 10,000 customer mark is likely not achievable.[79]
ORA	The initial step for each utility should support some reasonable number of residential and non-residential customer accounts for participation in the day-ahead markets which would be sufficient for running a demand response auction mechanism. SCE's approach accommodating 14,000 residential and non-residential customers in the day-ahead market appears to fit the requirements of this first step at a cost of $2.7 million. ORA supports SCE's proposal as a first step.[80]
OhmConnect	OhmConnect generally supports the SCE proposal for Phase I but requests that future phases include ancillary and real-time services.[81]
TURN	Authorize the work necessary to complete Phase 1 as described in the October 31, 2014 Ruling, which includes participation by up to 25,000 customers.[82]

For the Initial Implementation Step of demand response direct participation, we approve the November 10, 2014 Phase 1B responses from SCE and SDG&E and the December 9, 2014 revision from PG&E, with the anticipation that the CAISO Location API will be completed in a timely manner. As described below, we find that the proposals are a reasonable initial step, will accommodate the demand response auction mechanism scheduled for 2016 and 2017, and will provide the experience and data necessary to determine whether to pursue a second, intermediate step.

79 Joint Demand Response Providers Opening Brief at 13-15.

80 ORA Opening Brief at 7-8.

81 OhmConnect Opening Brief at 6.

82 TURN Opening Brief at 2.

As previously stated, most parties, with the exception of SCE, generally support a stepped approach as laid out in the November 10, 2014 utility responses. Furthermore, no party provided any barrier or concern to implementing the initial step for each of the Applicants, except for the timing of the CAISO Location API.[83] As such we conclude it is reasonable to approve an initial step, the Initial Implementation Step, and authorize the funding for such a step. We next address the parameters of this initial step: timing, number of customers, automation level, the services to be provided, and other miscellaneous requests by the Applicants. The specifics of the costs for the Initial Implementation Step will be addressed in a subsequent section.

5.2.1.1. Timing of the Initial Implementation Step

First, we discuss the timing of the Initial Implementation Step. As we previously stated, this proceeding is interdependent with the demand response rulemaking. In that proceeding, R.13-09-011, the Commission has adopted a series of actions that the parties collaboratively must accomplish over the next few months. One such action is to create and pilot a demand response auction mechanism, with the first pilot auction occurring in 2015 for a 2016 delivery. Thus, the Commission must ensure that the processes and tools for demand response direct participation are in place to allow the auction mechanism to be used.

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[83] We note that the current proposals for future phases of demand response direct participation include limitations on the number of meters, demand response providers and the capacity threshold (megawatts). Parties have indicated that these limitations could create barriers to participation in future phases. We will address these concerns when we address the parameters of future phases.

PG&E explains in its brief that the demand response auction mechanism pilot, a primary driver for third-party direct participation, is expected to be operational in May 2016 and therefore a ramp-up date of January 1, 2016 should be adequate to accommodate the pilot participants.[84] ORA also supports a schedule to accommodate the auction mechanism pilot.[85] Only the Joint Demand Response Parties recommended a longer implementation period of 12 months.[86]

In comments to the proposed decision, PG&E, SDG&E, and SCE, expressed concern regarding the January 2016 deadline and its timing with the demand response auction mechanism.[87] This concern focused on ensuring that the target number of customers served in direct participation is not reached prior to the 2016 auction for the demand response auction mechanism pilot. We agree that is it possible that the target number of customers to be served may be reached prior to the customers of the winning bidders from the auction being able to enroll into the CAISO market. While, we find that a January 2016 deadline is reasonable for implementing demand response direct participation, we also want to ensure the success of the demand response auction mechanism.

We therefore adopt the January 2016 deadline for the Applicants to have their processes in place for the initial implementation step of demand response direct participation. However, to ensure that the Applicants can also accommodate the customers from the demand response auction mechanism

[84] PG&E Opening Brief at 3.

[85] ORA Opening Brief at 8.

[86] Joint Demand Response Parties Opening Brief at 14-15.

[87] PG&E Opening Comments to Proposed Decision at 6-7; SCE Opening Comments to Proposed Decision at 5, and SDG&E Opening Comments to Proposed Decision at 2-3.

pilot, we find it reasonable to delay the enrollment start date until one day after the winning bidders of the pilot are able to enroll their customers.

We also acknowledge that the CAISO Location API must be in place shortly after the adoption of this decision in order to adhere to a January 2016 deadline for the Initial Implementation Step. To ensure that the Commission is kept apprised of the implementation status, the Applicants are directed to jointly file a brief report updating the Commission on the development of the CAISO Location API. The report shall be filed no later than 30 days following the issuance of this decision. If the CAISO Location API is delayed, the Judge in this proceeding is hereby granted the authorization to issue a Ruling revising the schedule in order to accommodate the timing of the completed CAISO Location API.

5.2.1.2. Number of Customers to Serve in the Initial Implementation Step

In determining the number of customers each utility should serve in the Initial Implementation Step of demand response direct participation, we must balance our desire to accommodate as many customers as possible with the technical limitations. In Tables 4-6, parties propose a range of the number of customers to receive service in the proposed Phase I, from 7,000 (for SDG&E only) to a cap of 25,000 for each of the Applicants. Although the October 31, 2015 Ruling suggested that the proposed Phase 1 provide service to 25,000 customers, the Applicants were asked to estimate the actual number of residential accounts and commercial & industrial accounts they considered could be supported. As shown in Tables 4 through 6, most parties recommend that the Commission adopt the lower individual targets as proposed by each of the Applicants. Only TURN recommends a target of 25,000 customers.

Given that the Applicants have differing sizes of territories and are currently at differing technological capabilities, it is reasonable to have differing expectations of the Applicants for the Initial Implementation Step. We find 7,000 for SDG&E, 10,000 for PG&E and 14,000 for SCE to be reasonable targets for the number of customers to support in the Initial Implementation Step of direct participation. We confirm that these target numbers should include both residential and commercial & industrial customers. Furthermore, we intend that these targets should be dynamic ceilings that will rise over time and should not be reached. It will be the responsibility of each utility to inform the Commission within 6 months if it anticipates reaching the target. The six-month window should ensure ample time to increase the target, and provide cost recovery to increase the target. We will fine tune this process during Phase Two of the proceeding.

In comments to the proposed decision, SCE expressed its concern that residential customers might force out non-residential customers and recommends allocating a portion of the 14,000 for non-residential customers.[88] Nothing in the record of this proceeding leads us to this conclusion at this time.

5.2.1.3. Manual versus Automatic Processes in the Initial Implementation Step

We now turn to the issue of manual versus automatic processes for the Initial Implementation Step. In their applications, all three Applicants request the use of manual processes for initial implementation, or at least until the number of customers using the process require automatic implementation. PG&E considers 750 customers to be the maximum number of customers served

[88] SCE Comments to Proposed Decision at 5.

manually in demand response direct participation.[89] In their November 10, 2014 filing, SDG&E and SCE agree that beyond 750 customers, processes for direct participation must be automated.[90]

As described in Tables 4 through 6 above, parties generally recommend the use of a manual process for Phase I until the CAISO Location API has been developed. More specifically, CLECA contends that moving forward with any direct participation, including through the use of manual processes, will expedite the integration of third party direct participation into the CAISO market.[91] Joint Demand Response Parties and OhmConnect concur.[92] TURN recommends that the Commission move as fast as is reasonable using manual processes to test systems and that automation should only be performed if the costs are not excessive, *i.e.;* over $5 million.[93]

We find that the use of a manual process by the Applicants is reasonable until the CAISO Location API has been developed.[94] However, the CAISO has provided timelines in this proceeding indicating that the Location API will be

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89 PG&E Opening Brief at 10.

90 SDG&E Response to October 31, 2014 Ruling, November 10, 2014 at 3, Table 1 and SCE Response to October 31, 2014 Ruling, November 10, 2014 at 4.

91 CLECA Opening Brief at 10.

92 Joint Demand Response Parties Opening Brief at 19 and OhmConnect Opening Brief at 8.

93 TURN Opening Brief at 7.

94 In comments to the proposed decision, PG&E reminds us that without the three remaining CAISO APIs (registration, baseline and performance), the implementation process for direct participation remains a semi-automatic process. (*See* PG&E Opening Comments to the Proposed Decision at 4-5 and Attachment A.)

ready in early 2015.[95] Thus, we have little doubt that the CAISO Location API will delay the Initial Implementation Step. To ensure the Commission is kept abreast of the CAISO APIs we have requested in this decision that the Applicants provide an initial 30-day status report on the CAISO's Location API, in addition to the quarterly status reports due beginning June 30, 2015.

5.2.1.4. Services to be Provided in the Initial Implementation Step

We next discuss the matter of the services that the Applicants should provide in the Initial Implementation Step: day-ahead, ancillary, and/or real-time services. Parties generally support prioritizing day-ahead services in the Initial Implementation Step of demand response direct participation.[96] As discussed below, we find it reasonable to require the Applicants to implement ancillary and real-time services in addition to day-ahead services during the Initial Implementation Step.

All three Applicants state they will only provide day-ahead services for their proposed Phase 1.[97] ORA states that proposals for supporting participation in all CAISO markets should be considered only after getting sufficient experience in the day-ahead markets.[98] TURN agrees that direct participation should focus on day-ahead services as participation in the ancillary services market will require the additional re-programming of meters to provide 15-

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[95] September Workshop Report at II.D.2 and Appendix A at A-21.

[96] *See* for example, Joint Demand Response Parties Opening Brief at 15,

[97] *See* PG&E, SDG&E and SCE November 10, 2014 filings for Phase 1A and 1B.

[98] ORA Opening Brief at 9.

minute data.[99] However, OhmConnect encourages the Commission to determine a timeline for when the Applicants should be required to support ancillary and/or real-time services.[100] The Joint Demand Response Parties suggest this issue be included in Phase II of this proceeding.[101]

Several parties highlight the financial potential for real-time and/or ancillary service products in comparison with day-ahead services. OhmConnect contends that the real-time and ancillary products provider larger financial upside than the day-ahead markets and suggests that the Commission require additional clarity on the timeline for these products in order to improve transparency about the market opportunity for third parties.[102] TURN also contends that there may not be a large enough financial incentive for participation in the day-ahead markets.[103] Additionally, CLECA questions whether participation in the day-ahead market is sufficient for the Commission's goals for third party direct participation.[104]

While day-ahead markets are the most accessible entry point for the integration of demand response, many parties believe that currently real-time and ancillary services products provide larger potential financial upside for demand response providers. If the Commission does not invest in an initial implementation for these services, customers may never have the option to

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99 TURN Opening Brief at 6.

100 OhmConnect Opening Brief at 7.

101 Joint Demand Response Parties Opening Brief at 15.

102 OhmConnect Opening Brief at 7.

103 TURN Opening Brief at 6.

104 CLECA Opening Brief at 8.

access the possibly larger financial upside made possible by participation in real-time or ancillary services. Given the Commission's repeated findings that the participation of demand response in wholesale markets is in the public interest, we must create a pathway for providers to do so. Enabling third parties to access real-time and ancillary service markets could help make the integration of demand response more commercially viable for customers and third party providers. We find it unreasonable to wait for experience in the day-ahead market before investing the needed capabilities to support participation in the real-time and ancillary services markets.

The record in this proceeding, however, does not include a budget for implementation of real-time and ancillary services, even at the initial implementation step. We direct the Applicants to serve testimony proposing budgets for implementing real-time and ancillary services during the Initial Implementation Step or soon after. The budgets should include costs for the implementation procedures for 15-minute and 60 minute data options for residential and commercial & industrial sectors. The testimony should also describe the procedures and any concerns. The testimony shall be served no later than 45 days following the issuance of this decision.

In comments to the proposed decision, SCE states that it currently can provide, without additional funding, ancillary and real-time direct participation services to non-residential customers if it can maintain its current levels of meter data granularity.[105] In reply, ORA suggests that the Commission approve the support of such services if no increased funding is required. We find this

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[105] SCE Opening Comments to Proposed Decision at 4.

reasonable given our previous conclusion that it is unreasonable to wait to implement these services. Hence, SCE shall provide ancillary and real-time direct participation services to non-residential customers while maintaining its current level of meter data granularity. However, we note that Phase Two of this proceeding may require changes regarding the ancillary and real-time services.

5.2.1.4. Miscellaneous Matters in the Initial Implementation Step

Lastly, we address other miscellaneous concerns including whether to allow the use of a temporary desktop application by PG&E, and the requests for waivers from either aspects of Rule 24/32 or CAISO rules.

In its description of its proposed Phase 1B, PG&E states that in order to implement Phase 1B in a timely fashion, it must build temporary desktop computer applications that would be discarded if and when PG&E is authorized to build its enterprise level solution for subsequent Phases.[106] ORA expressed concern that the temporary desktop applications would be discarded.[107,108] ORA recommends that the Commission require PG&E to propose similar infrastructure as SCE and SDG&E, *i.e.* the same amount of funding for the same abilities. PG&E explains that the desktop applications allow Phase 1B to be implemented by January 2016 and any enterprise level infrastructure would not meet that schedule.[109]

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[106] PG&E Opening Brief at 6.

[107] ORA Opening Brief at 9.

[108] We note that TURN, in its discussions regarding stranded costs, does not address this matter as a stranded cost.

[109] PG&E Reply Brief at 4.

Parties argue that there are several reasons that a full enterprise system will take additional time for PG&E to implement, further delaying direct participation. CLECA points out that PG&E does not have a centralized customer data system, such as SCE does, currently in place.[110] PG&E contends that each of the Applicants' IT systems is configured differently and has different functionalities. For example, SDG&E and SCE already have functionalities in place needed for CAISO market integration because of its peak time rebate program; PG&E does not have this functionality.[111] We find that a full enterprise system could take more time than a temporary desktop application for PG&E to implement resulting in delayed direct participation.

The use of a temporary desktop application as a first step toward full implementation is not an unusual request. For example, in describing the use of manual tools, OhmConnect states that it embraces using manual processes before the incorporation of fully developed automated systems. OhmConnect suggests that lessons learned from the deployment of such processes should be applied when building the fully automated system. Furthermore, OhmConnect recommends the practice of creating basic implementation for a system in order to develop direct insights for building a more robust system.[112] Here, the Commission considers the desktop application as requested by PG&E to be equal to the concept of basic implementation

Hence the Commission is faced with the option of choosing the initial implementation of a potentially stranded asset versus that of a long-term system

[110] CLECA Opening Brief at 8.

[111] PG&E Opening Brief at 12.

[112] OhmConnect Brief at 8.

that delays direct participation. We find that PG&E's request to use the automated desktop applications for the Initial Implementation Step is reasonable as it moves forward the implementation of third party demand response direct participation and it will allow the demand response auction mechanism to move forward in 2016. We encourage PG&E to devise a system that is reusable for other future small scale projects or pilots.

Finally, we address the issues of 1) waivers from the CAISO, 2) firewall protections as required by Rule 24/32, and 3) a proxy for Revenue Quality Meter Data.

- Regarding the issue of requesting waivers from the CAISO, this issue was initially discussed in the party responses to the applications. All three Applicants have since confirmed that they have not requested waivers from the CAISO for the implementation of third party direct participation.[113] We find this issue moot.
- SDG&E requested an extension in implementing the required firewalls between departments and stated that the cost of implementing this firewall was not included in SDG&E's cost recovery application.[114] CLECA notes that while SDG&E as well as PG&E propose to create such a firewall, SCE did not specifically address this issue.[115] CLECA requests that the Commission clarify whether firewall protections are required. We confirm that, indeed, firewall protections are a requirement of Rule 24/32 and should be implemented once enrollments begin on January 1, 2016. We address the cost issue under the cost section of this decision.

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[113] PG&E Opening Brief at 6, SDG&E Opening Brief at 8, and SCE Opening Brief at 8-9.

[114] SDG&E Response to October 31, 2014 Ruling, November 10, 2014 at 5.

[115] CLECA Opening Brief at 4.

- The issue of using Green Button Data[116] as a proxy for Revenue Quality Meter Data was addressed in both the September and October Workshops.[117] In an October 31, 2014 Ruling, the Applicants were asked to consider the use of both revenue quality meter data as currently defined and raw Green Button data as a proxy. In response, PG&E stated that Rule 24 has Revenue Quality Meter Data requirements that PG&E's "Share My Data" program meets.[118] PG&E notes that the Green Button Data does not meet Rule 24 requirements.[119] SDG&E responded to the October 1, 2014 Ruling by stating SDG&E will have the ability to inform meter data recipients through its Customer Energy Network Green Button, which is considered revenue Quality Meter Data. SDG&E asserts this process will be implemented in 2015 ahead of the implementation of third party direct participation.[120] Lastly, in its response to the October Ruling, SCE states that it will have the capability to transmit revenue quality meter data by January 2016.[121] All three Applicants contend that the revenue quality meter data will be available and the green button data as a proxy is unnecessary. We find this issue resolved.

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116 Green Button Data is a White House initiative that allows customers greater access to their usage data via an easily accessible online "green button."

117 September Workshop Report at II.E. and October Workshop Report at II.A. and II.B.

118 In reply comments to the proposed decision, PG&E confirmed that it's "Share My Data" went live on March 16, 2015. See PG&E Reply Comments to the Proposed Decision at 4.

119 PG&E Response to October 31, 2014 Ruling, November 10, 2014 at 4.

120 SDG&E Response to October 31, 2014 Ruling, November 10, 2014 at 3.

121 SCE Response to October 31, 2014 Ruling, November 10, 2014 at 3.

5.2.2. Costs of Demand Response Direct Participation Initial Implementation

In this section, we discuss the costs for the Initial Implementation Step of third party demand response direct participation. We address the reasonableness of the requested budgets, the differences between the three Applicants' requested budgets, and the overlap of costs in this proceeding with recovery of costs to implement utility direct participation.

PG&E provided an overview of the Applicants' requested amounts to implement the proposed Phase 1B of demand response direct participation:[122]

TABLE 7 REQUESTED PHASE 1B BUDGETS (PRESUMES CAISO'S LOCATION API)		
UTILITY	**PARTICIPATING CUSTOMERS**	**REQUESTED BUDGET[123]**
PG&E	10,000	$2.9 million
SCE	14,000	$2.7 million
SDG&E	7,000	$300,000 + unknown IT costs

While PG&E and SDG&E assert their costs are reasonable and should be authorized, SCE argues that the estimates provided in the November 10, 2014 responses are not what SCE seeks in this proceeding. SCE explains that the participation rates and association costs are not supported by any evidentiary record and were used for informational purposes only.[124] However, the costs listed in Table 7 for SCE for 14,000 customers are equal to that provided in its

[122] PG&E Opening Brief at 11.

[123] As provided in the three Applicants' November 10, 2014 responses to the October 31, 2014 Ruling and supplemented by PG&E's December 9, 2014 filing.

[124] SCE Opening Brief at 9.

testimony.[125] SCE states in its November 10, 2014 filing that "should CAISO's Location API be available as currently expected (Phase IB), then SCE's ability to provide Rule 24 service increases to approximately 14,000 accounts consistent with the estimates described in SCE's testimony."[126] Thus, we find the amount of $2.7 million for SCE's cost provided in Table 7, and described further in SCE's testimony, to be supported by the record.

No party disputes the costs for the proposed Phase 1B for SCE and SDG&E.[127] We find SCE's proposed budget of $2.7 million for Phase 1B to be reasonable for our adopted Initial Implementation Step of direct participation.

While no party disputes the budget proposed by SDG&E, the Commission cannot authorize a "blank check," despite SDG&E's request for establishing a new memorandum account, which we address later in this decision. In its opening brief, ORA points to a range of estimates that SDG&E provides for its potential IT costs: $1.5 million for semi-automated to $3 million for a fully automated approach.[128] We find that $1.5 million for semi-automated IT costs for SDG&E's Phase 1B is reasonable given the fact that Phase 1B is an initial implementation. Thus we find $1.8 million[129] to be a reasonable budget for SDG&E during the Initial Implementation Step of demand response direct participation.

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125 SCE-01 at 8, line 6-7 and at 9, Table II-1.

126 SCE's Response to October 31, 2014 Ruling, November 10, 2014 at 4.

127 *See* CLECA Opening Brief at 10, Joint Demand Response Parties Opening Brief at 19, and ORA Opening Brief at 12.

128 *See* ORA Opening Brief at 11 citing SGE-01 at 5-6.

129 $1.5 million for semi-automated IT costs plus $300,000 for business costs.

ORA contends that the proposed costs for PG&E's proposed Phase 1B are not reasonable because of the use of a temporary desktop computer application, which will eventually be discarded.[130] ORA further contends that PG&E should be providing the same services at approximately the same costs as SCE. We have already discussed reasons why PG&E may have different software needs. As we have already determined the reasonableness of the temporary desktop computer application proposed by PG&E, we find the cost of PG&E's proposed Phase IB to be a reasonable budget for the Initial Implementation Step of third party demand response direct participation.

We authorize the following amounts for the Initial Implementation Step of demand response third party direct participation: $2.9 million for PG&E, $1.8 million for SDG&E, and $2.7 million for SCE.

5.2.3. Reasonableness of Fee Schedules

Each of the Applicants included a proposed fee schedule in their application. The fee schedule sets forth the fees to facilitate direct participation of demand response providers in the CAISO wholesale market. No party opposes the requested fee schedules. As discussed below, we adopt the proposed fee schedules.

PG&E requests the Commission to adopt its proposed fee Schedule E-DRP, claiming that the costs involved were taken directly from its Schedule E-EUS pertaining to direct access services. PG&E contends these fees were recently litigated and represent a reasonable approximation of the costs that would be incurred for metering services.[131] PG&E argues the costs are the same for both an

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130 ORA Reply Brief at 3.

131 PG&E Opening Brief at 14.

energy service provider and a demand service provider and alleges that it is better to keep the costs the same in order to avoid confusion.[132]

Similarly, SDG&E also modeled its fees after the charges for energy service providers.[133] SDG&E contends its fee schedule is reasonable and should be approved.

SCE states that its proposed fees are reasonable and based on established fees for energy service provider. SCE proposes to establish a new tariff, Schedule DRP-SF to establish the fees to third party demand response providers for customer information.[134]

No party opposes the fees requested by the Applicants for third party demand response providers. We find it reasonable to model the fees for demand response direct participation after the fees for energy service providers, as adopted by the Commission. Nothing in this record indicates these fees are not reasonable. The fees for third party direct participation services as requested by the Applicants are adopted. The Applicants shall file the requested fee schedule through a Tier 1 Advice Letter no later than 90 days following the issuance of this decision.

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[132] *Ibid*.

[133] SDG&E Opening Brief at 11.

[134] SCE Opening Brief at 11.

5.2.4. Costs Allocation and Recovery

The Applicants requests that the costs of the implementation of demand response direct participation be recovered from all distribution customers pursuant to D.14-12-024, whereby services available to all customers shall be paid for by all customers. DACC/AReM contends that because unbundled customers are exempt from Rule 24/32, they are also exempt from paying for the integration costs. Although unbundled customers are exempt from the rules of direct participation that does not mean they cannot participate in demand response direct participation. Unbundled customers, such as direct access and community choice aggregator customers, can participate in direct participation either through another demand response provider or through their own energy service provider. Such participation causes the utilities to incur costs whether the customers are bundled or unbundled. Therefore, as determined in D.14-12-024 and discussed below, all customers should share in the costs of the implementation of third-party demand response direct participation.

PG&E requests the Commission to approve recovery of its implementation cost for third-party demand response direct participation from all distribution customers via its distribution revenue adjust mechanism and to track implementation expenses via the demand response expenditure balancing account.[135]

SCE requests the Commission to approve recovery of its costs for direct participation through distribution customers. However, SCE proposes that the costs for direct participation be funded by its 2012-2014 demand response funding cycle. In D.12-04-045, the Commission authorized SCE a budget of

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[135] PG&E Opening Brief at 14 citing PGE-01 at 3-2 and 3-3.

$5 million to implement direct participation. SCE requests to be allowed to use a portion of that funding to cover the system changes and operational costs described in this application.[136]

SDG&E addresses cost recovery in a different manner. SDG&E requests to recover the rates through the establishment of a new memorandum account, the direct participation demand response memorandum account. Like PG&E and SCE, SDG&E contends that the costs should be allocated to distribution customers.

All parties, except for DACC/AReM, support the allocation of costs to distribution customers.[137] DACC/AReM argue that the cost allocation principles established in D.14-12-024 require that costs be allocated based on eligibility, such that, if a program is available solely to bundled customers, the costs for that program should be borne solely by bundled customers through generation rates.[138] DACC/AReM explain that because direct access customers are exempt from the direct participation rules, then the costs to implement these rules should be recovered only by those eligible *i.e.*, bundled customers.[139]

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[136] SCE-01 at 9.

[137] *See*, for example, CLECA Opening Brief at 12, TURN Opening Brief at 10-11, and ORA Opening Brief at 14-16.

[138] DACC/AReM Opening Brief at 9.

[139] *Id*. at 7.

In response to DACC/AReM's position, TURN argues that the exemption from the direct participation rule does not mean that direct access or community choice aggregation customers are ineligible to participate using Rule 24, or that these customers would not take advantage of direct participation.[140] TURN explains that the direct participation rule explicitly delineates that certain activities apply only to bundled customers.[141] TURN highlights that multiple activities and services apply to all customers, including direct access and community choice aggregation customers. Furthermore, TURN notes that Rule 24 specifies tariffed services performed by the utility apply even if the demand response provider is a load serving entity serving only direct access or community choice aggregation customers.[142]

In regards to the issue of cost allocation, we look to our latest decision in the demand response rulemaking. Pursuant to D.14-12-024, because the direct participation rules apply to services that are available to all customers, the costs for implementation should be borne by all customers. We recognize that unbundled customers are exempt from the direct participation rules, but exemption does not mean these customers cannot participate in direct bidding to the CAISO market. Furthermore, the unbundled customers need the direct participation rules in order for them to be able to bid into the CAISO market. For example, as noted by TURN, if an energy service provider seeks to enroll only direct access customers to bid into CAISO markets, that load serving entity could

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[140] TURN Reply Brief at 2.

[141] *Id.* at 2 citing Rule 24 Section E, which applies only to demand response providers serving bundled customers.

[142] TURN Reply Brief at 2-3.

still need an investor-owned utility service pursuant to Rule 24, if the load serving entity has elected the investor-owned utility to be its meter data management agent or its meter service provider.[143] We agree with TURN's conclusion that the direct participation rule requires the investor-owned utility to act as the meter data management agent for all community choice aggregation customers. Further, investor-owned utilities may act as the meter data management agent for direct access customers, causing the utilities to incur costs for these customers' direct participation. Hence, we conclude that the cost for implementation of direct participation should be allocated to distribution customers.

In regards to cost recovery methodologies, PG&E requests to track costs through the same means used in demand response, its Demand Response Expenditure Balancing Account. No party opposes the use of this account. As we have found it reasonable in past demand response applications, we find no reason to deny its use here. We approve the use of the Demand Response Expenditure Balancing Account for PG&E to track its demand response direct participation Initial Implementation Step costs.

SCE has requested to use funding previously authorized in D.12-04-045 to cover the costs of demand response direct participation. No party opposes the use of those funds for purposes of this application. While, it is preferable for utilities to utilize funding for the purposes directed by the Commission, we find no reason in the record of this proceeding to deny this request. SCE is authorized to use the funds previously approved in D.12-04-045 earmarked for

143 *Ibid.*

direct participation to fund the costs of the Initial Implementation Step of demand response direct participation.

Lastly, SDG&E has requested to establish a new memorandum account since it considers the costs to be unpredictable with any certainty.[144] No party opposes this request. ORA agrees with SDG&E's request noting that this methodology is similar to SDG&E's current process for recording and recovering its demand response program costs through its Advanced Metering and Demand Response Memorandum Account.[145] We find SDG&E's request to establish a new memorandum account to track its Initial Implementation Step costs to be reasonable. We note that these costs are capped at the authorized amount we previously found reasonable, $1.9 million.

6. Next Steps

The Scoping Memo for this proceeding set forth a two-phase approach, if the Commission determined that a second phase was necessary. As we have determined that a second phase is necessary, we look at the issues to be discussed in and the schedule for Phase Two.

Phase Two will look at budgets for ancillary and real-time services and the need and timing for an intermediate implementation step. First, the Commission must analyze the testimony provided by the Applicants regarding budgets for ancillary and real-time services. A prehearing conference will be held by the ALJ to set the schedule for review of the testimony.

Second, in order to approve a next step or steps for third party demand response direct participation, we must evaluate the current status of direct

[144] SDG&E Opening Brief at 12.

[145] ORA Opening Brief at 15-16.

participation and determine the need for and scope and schedule of a next step or steps. The Commission will have data feeding into the record of this proceeding with the Applicants' filings of quarterly reports on the status of demand response direct participation implementation and the status of the CAISO APIs. In addition to analyzing the costs for an intermediate step or steps, we need to also determine what the intermediate step entails. Thus, we need to take comment on the number of participants we should target in an intermediate step and the services that should be included.

In comments to the proposed decision, several parties recommended waiting to take comment on moving to an intermediate step until after the Commission has received the data on the initial implementation step of direct participation, the Demand Response Potential Study, and the demand response auction mechanism pilot. We disagree. The Commission should ensure customers and providers a smooth transition from the initial step to the intermediate step of direct participation. That transition should limit multiple starts and stops that could stifle, discourage, or harm the market.

Hence, the Commission will begin to build a record on the intermediate step. This should help the Commission prepare for the 2017 demand response auction mechanism and full bifurcation of demand response in 2018. The Applicants shall and parties are invited to file comments on the following aspects of the Intermediate Implementation Step: number of participants and why, services to be included and why, what data should trigger moving to the Intermediate Implementation Step and why. Applicants and parties shall file comments, no later than seven months following the issuance of this decision. Phase One of this proceeding is closed.

7. Comments on Proposed Decision

The Proposed Decision of the ALJ in this matter was mailed to the parties in accordance with Section 311 of the Public Utilities Code and comments were allowed under Rule 14.3 of the Commission's Rules of Practice and Procedure. Comments on the Proposed Decision were filed on March 12, 2015 by Alarm.com and EnergyHub (EnergyHub), CLECA, DACC/AReM, ORA, PG&E, SDG&E, SCE, and TURN and replies were filed on March 17, 2015 by DACC/AReM, ORA, OhmConnect, PG&E, SCE, and TURN. In response to comments to the proposed decision, corrects and clarifications have been made throughout this decision.

We specifically address two issues here; the timing of Phase Two and cost allocation.

In comment, EnergyHub expressed concern that postponing implementation of Phase Two to assess interest in direct participation will unnecessarily delay the implementation of Rules 24 and 32 for large scale participation in the CAISO market. EnergyHub explains that putting caps on the number of customers that can participate will establish caps on residential customer participation and will have a detrimental impact on the development of the markets. We clarify that the target numbers in place are meant to increase over time while the CAISO and the Applicants implement technology that is currently unavailable.

DACC/AReM contends that the cost for implementing direct participation should be recovered solely through bundled, or generation, customers. In its comments, DACC/AReM argues that the Rules 24 and 32 are available and applicable to bundled customers but the Rules exempt direct access (unbundled) customers.[146] Again, the Rules exempt these customers but do not prohibit the customers from participating in direct participation. Such direct participation causes costs to the utility that should be borne by all utility customers. As we previously stated, Rules 24 and 32 are necessary for all customers (bundled and unbundled) to participate in the CAISO market. As further explained by PG&E, even though energy service providers may interface with the CAISO under light-handed Commission regulatory oversight, the additional data that is only available under Rule 24, are still necessary for the energy service providers' direct access (unbundled) customers to participate directly in the CAISO markets for demand response services.[147] Thus, direct access customers should pay their fair share of these costs.

DACC/AReM interpret several prior Commission decisions narrowly and incorrectly to reach the conclusion that direct access customers are exempt from paying such costs. DACC/AReM assert, based on D.12-11-025, that direct access customers and their providers are "exempt" from Rule 24 and therefore should not pay for any direct participation costs. However, such exemption is in the nature of regulatory forbearance; such providers still must register with the Commission and be subject to light-handed regulation.[148] These providers and their customers still may engage in direct participation in CAISO markets, which requires the utilities take certain steps to facilitate this participation. This utility effort imposes costs, which all customers should bear.

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146 DACC/AReM Opening Comments to Proposed Decision at 4.

147 PG&E Reply Comments to Proposed Decision at 3.

148 D.12-11-025 at Conclusion of Law 3, at 65.

8. Assignment of Proceeding

Michel Peter Florio is the assigned Commissioner and Kelly A. Hymes is the assigned ALJ in this proceeding.

Findings of Fact

1. There is no evidence in the record of this proceeding that would lead the Commission to conclude that a large number of utility customers are ready to participate in third party demand response direct participation.

2. The presentations by the CAISO and the Applicants during the September Workshop indicate that technological barriers are currently impeding the implementation of demand response direct participation.

3. Of the three Applicants, only PG&E currently has experience in the CAISO market.

4. There is uncertainty regarding the future participation levels of demand response direct participation.

5. The uncertainty in participation, combined with the technological barriers and the lack of experience in the CAISO market, should lead the Commission to move forward cautiously but deliberatively.

6. A multiple step approach has the benefits of gaining experience, allowing the testing of less expensive processes, and continuous adjustment of resources.

7. Modifications being developed in R.13-09-011 should assist the Applicants and the Commission in making demand response direct participation a success.

8. The record in this proceeding does not include any evidence indicating a level of customer participation in direct participation that requires the Applicants to implement processes for large scale direct participation.

9. The only residential demand response direct participation potential outside of the Applicants' current demand response programs that was

discussed during this proceeding is OhmConnect's experience in demand response.

10. The OhmConnect presentation during the September Workshop does not indicate a large scale level of residential participation potential.

11. Large scale residential demand response direct participation is a future possibility, but not something the Commission should address at this time or in this proceeding.

12. The record in this proceeding does not include sufficient evidence that demand response direct participation has participation levels beyond an initial implementation either now or in the near future.

13. Data to justify an intermediate implementation step should build upon the information already in this record.

14. The development of the CAISO APIs directly impact the scope of the Applicants' services and the timing of the Applicants' ability to implement demand response direct participation on a large scale.

15. CAISO coordination is crucial to the implementation of demand response direct participation.

16. The need to monitor the CAISO's development of its APIs is one of the major coordination issues in this proceeding.

17. The CAISO is solely responsible for the development and implementation of the Location Management and Registration Management API.

18. The Commission is currently working collaboratively with the CAISO through the working groups established in R.13-09-011 and through the CAISO stakeholder groups.

19. The level of coordination between the Commission and the CAISO for implementing demand response direct participation is sufficient for now.

20. Most parties in this proceeding support the multiple-stepped approach to third party demand response direct participation as laid out in the November 10, 2014 responses by the Applicants.

21. Other than the timing for the Location API, no party provided any barrier or concern to implementing the initial step of direct participation, as proposed by the Applicants in their November 10, 2014 filings.

22. This proceeding is interdependent with the demand response rulemaking, R.13-09-011.

23. In R.13-09-011, the Commission adopted a series of actions that the parties collaboratively must accomplish over the course of a few months.

24. One of the actions that the parties in R.13-09-011 must accomplish is the creation of a demand response auction mechanism pilot.

25. The demand response auction mechanism pilot is expected to be operational in May 2016.

26. The Commission wants to ensure the success of the demand response auction mechanism pilot.

27. It is possible that a January 1, 2016 enrollment date for direct participation could create a situation where the customer target number is reached prior to the customers from the winning bidder of the demand response auction mechanism pilot being able to enroll in the CAISO market.

28. Parties discuss a range of the number of customers to target in the Initial Implementation Step, from 7,000 for SDG&E only to a cap of 25,000 for each utility.

29. Most parties in this proceeding recommend that the Commission adopt the lower customer targets as suggested by each utility.

30. Only TURN recommended that the Commission adopt the higher cap of 25,000 customers for the Initial Implementation Step.

31. The Applicants have differing sizes of service territories and are currently at differing technological capabilities.

32. Parties in this proceeding generally agree that a manual process should be used in the initial implementation step of direct participation until the CAISO Location API is available.

33. The CAISO has provided a schedule for its APIs that indicate its Location API will be ready in early 2015.

34. It is doubtful the CAISO Location API will delay the Initial Implementation Step of demand response direct participation.

35. Day-ahead markets are the most accessible entry point for the integration of demand response.

36. Many parties believe that real-time and ancillary services products provide larger potential financial upside for demand response providers.

37. It is not reasonable to wait for experience in the day-ahead market before investing the needed capabilities to support participation in the real-time and ancillary services markets.

38. Enabling third parties to access real-time and ancillary service markets could help make the integration of demand response more commercially viable for customers and third party providers.

39. The record in this proceeding does not include a budget for implementation of real-time and ancillary services.

40. A full enterprise system for PG&E's third party demand response direct participation processes could take longer to implement that the temporary desk application it requests to use in an initial implementation step.

41. The use of the temporary desk application for the Initial Implementation Step moves forward the implementation of third party demand response direct participation.

42. The use of the temporary desk application will allow the demand response auction mechanism to move forward in 2016.

43. The issue of using Green Button Data as a proxy for Revenue Quality Meter Data was addressed in the September and October Workshops.

44. The Applicants either currently or will have Revenue Quality Meter Data by January 1, 2016.

45. The costs listed in Table 7 for SCE for 14,000 customers are equal to that provided in its testimony and is therefore supported by the record.

46. No party disputes the costs for the proposed Phase 1B for SCE and SDG&E.

47. The Commission cannot authorize a blank check for SDG&E.

48. PG&E may have different software needs compared to SCE or SDG&E.

49. No party opposes the fee schedules requested by each of the Applicants.

50. PG&E's proposed fee schedule uses the fees from its schedule E-EUS which have been approved by the Commission.

51. SDG&E and SCE model their proposed fees on those established for energy service providers.

52. All parties, except for DACC/AReM, support the allocation of costs for the implementation of third party demand response direct participation.

53. Unbundled customers are exempt from the rules of direct participation but can participate in demand response direct participation.

54. Because the direct participation rules apply to services that involve all customers, the costs of implementation should be borne by all customers.

55. Under the direct participation rules, the investor-owned utilities may act as the meter data management agent for customers.

56. Even if the investor-owned utilities do not act as the meter data management agent for direct participation customers who are also direct access customers, such customers' participation in the CAISO markets still causes the utilities to incur costs.

57. No party opposes the use by PG&E of its Demand Response Expenditure Balancing Account to track expenses incurred by the implementation of third party demand response direct participation.

58. In the past, the Commission has approved the use by PG&E of its Demand Response Expenditure Balancing Account to track similar expenses.

59. No party opposes SCE using previously authorized funds for implementing third party demand response direct participation.

60. There is no reason in the record of this proceeding to prohibit SCE from using previously authorized funds for implementing third party demand response direct participation.

61. No party opposes SDG&E establishing a new memorandum account to track the expenditures incurred by the implementation of third party demand response direct participation.

62. This methodology is similar to SDG&E's current process for recording and recovering its demand response program costs through its Advanced Metering and Demand Response Memorandum Account.

Conclusions of Law

1. The Commission should continue to monitor the level of third party demand response direct participation.

2. It is reasonable to develop the record for an intermediate implementation step in this proceeding.

3. It is reasonable to direct the Applicants to file applications for large scale demand response direct participation in a new application, at the appropriate time.

4. It is reasonable to require the Applicants to reference A.14-06-001 et al. in any new application for large scale demand response direct participation.

5. It is reasonable to coordinate the efforts of the CAISO software development with the efforts of the Applicants' software development in demand response direct participation.

6. It is reasonable to require the Applicants to file quarterly reports on the status of direct participation, in order to ensure a complete record in this proceeding.

7. It is reasonable to approve an initial step for demand response direct participation.

8. The Commission should ensure that the remaining processes and tools for demand response direct participation be in place to allow the proposed demand response auction mechanism pilot to be used.

9. It is reasonable to have differing expectations of the Applicants depending upon each of their territory size.

10. It is reasonable to adopt the following customer target number for the Initial Implementation Step of third party demand response direct participation for each of the Applicants: 7,000 customers for San Diego Gas & Electric

Company, 10,000 customers for Pacific Gas and Electric Company, and 14,000 customers for Southern California Edison Company.

11. It is reasonable to use a manual process for direct participation until the CAISO Location API is available.

12. It is not reasonable to require the Applicants to focus on providing day-ahead services for the Initial Implementation Step until they gain experience.

13. The Scoping Memo issues of whether there is a presumption that the CAISO will grant waivers for certain requirements in third party demand response direct participation, whether the granting of the waivers is likely, and whether this is problematic are moot because the Applicants have not asked for waivers.

14. Commission Electric Rule 24 and 32 require the implementation of firewall protections on January 1, 2016.

15. The issue of using green button data as a proxy for revenue quality meter data is moot, as revenue quality meter data will be available.

16. It is reasonable to adopt SCE's proposed budget of $2.7 million for the Initial Implementation Step.

17. It is reasonable to set a cap of $1.8 million for SDG&E as it is equal to the amount proposed by SDG&E for semi-automated costs for its Phase 1B costs plus its business costs.

18. It is reasonable to adopt a budget of $2.9 million for PG&E.

19. It is reasonable to model fees for demand response direct participation after the Commission-adopted fees for energy service providers.

20. It is reasonable to allocate the costs of demand response direct participation implementation to distribution customers.

O R D E R

IT IS ORDERED that:

1. Pacific Gas and Electric Company, San Diego Gas & Electric Company, and Southern California Edison Company (jointly, the Applicants) are directed to file quarterly reports regarding the status of third party demand response direct participation. The quarterly reports shall describe the completed and current efforts by the California Independent System Operator (CAISO) for demand response market integration, including the current status of the CAISO's Application Programming Interfaces. The first quarterly report shall be filed in this proceeding by the Applicants on June 30, 2015 and every three months thereafter until the end of 2018, unless directed by the Commission to do otherwise.

2. Pacific Gas and Electric Company, San Diego Gas & Electric Company, and Southern California Edison Company (jointly, the Applicants) are directed to jointly file a proposal for the contents of the quarterly report regarding the status of third party demand response direct participation. The Applicants shall file the proposal for the report no later than 30 days after the issuance of this decision. Parties are invited to file comments on the report proposal no later than 14 days following the filing by the Applicants.

3. Pacific Gas and Electric Company, San Diego Gas & Electric Company, and Southern California Edison Company are directed to jointly file a report on the status of California Independent System Operators implementation of its Location Application Programming Interface. The Applicants shall file the report no later than 30 days after the issuance of this decision.

4. Pacific Gas and Electric Company, San Diego Gas & Electric Company, and Southern California Edison Company shall each implement an automated Initial

Implementation Step of third party demand response direct participation no later than January 1, 2016, with enrollments to begin one day after the customers of the winning bidders of the demand response auction mechanism pilot can bid into the California Independent System Operator's (CAISO) Energy Market. If the CAISO has not implemented its Location Application Programming Interface (API) by March 31, 2015, the assigned Administrative Law Judge in this proceeding is authorized to issue a Ruling revising the January 1, 2016 deadline in order to accommodate any delay from the implementation of the Location API.

5. In their Initial Implementation Step of third party demand response direct participation, Pacific Gas and Electric Company shall target 10,000 customers for enrollment, San Diego Gas & Electric Company shall target 7,000 customers for enrollment, and Southern California Edison Company shall target 14,000 customers for enrollment. The customer target numbers shall include residential, commercial and industrial customers.

6. In their Initial Implementation Step, Pacific Gas and Electric Company, San Diego Gas & Electric Company, and Southern California Edison Company shall provide day-ahead, ancillary, and real-time services.

7. Pacific Gas and Electric Company, San Diego Gas & Electric Company, and Southern California Edison Company (jointly, the Applicants) are directed to serve testimony proposing budgets for providing ancillary and real-time services during the Initial Implementation Step. The Applicants shall each serve the testimony no later than 45 days following the issuance of this decision.

8. Pacific Gas and Electric Company (PG&E) is authorized to use a temporary desktop application for automation purposes in its Initial Implementation Step in

lieu of the completion of its full enterprise system. PG&E is encouraged to purchase a system that is reusable for other future small scale projects or pilots.

9. In their Initial Implementation Step of third party demand response direct participation, Pacific Gas and Electric Company is authorized a budget of $2.9 million, San Diego Gas & Electric Company is authorized a budget of $1.8 million, and Southern California Edison Company is authorized a budget of $2.7 million.

10. Pacific Gas and Electric Company, San Diego Gas & Electric Company, and Southern California Edison Company are authorized to use the fee schedules proposed in their applications for demand response direct participation. The Applicants shall file the fee schedules through a Tier 1 Advice Letter within 90 days from the issuance of this decision.

11. Pacific Gas and Electric Company, San Diego Gas & Electric Company, and Southern California Edison Company are authorized to allocate the costs of the implementation of third party demand response direct participation to distribution customers.

12. Pacific Gas and Electric Company is authorized to use its Demand Response Expenditure Balancing Account to track its third party demand response direct participation Initial Implementation Step costs.

13. Southern California Edison Company is authorized to use the funds previously approved in Decision 12-04-045 earmarked for direct participation to fund the costs of its Initial Implementation Step of third party demand response direct participation.

14. San Diego Gas & Electric Company (SDG&E) is authorized to establish a new memorandum account to track the costs of its third party demand response direct participation Initial Implementation Step. Within 45 days from the

issuance of this decision, SDG&E shall file a Tier 1 Advice Letter establishing the memorandum account.

15. Pacific Gas and Electric Company, San Diego Gas & Electric Company, and Southern California Edison Company shall file comments, no later than seven months following the issuance of this decision, on the following aspects of a third party demand response direct participation Intermediate Implementation Step:

- The number of participants to target and why;
- The services to be included and why; and
- The data that should trigger moving to the Intermediate Implementation Step and why.

16. Applications 14-06-001, 14-06-002, and 14-06-003 remain open to address Phase Two issues. Phase One is closed.

This order is effective today.

Dated March 26, 2015, at San Francisco, California.

MICHAEL PICKER
President
MICHEL PETER FLORIO
CATHERINE J.K. SANDOVAL
CARLA J. PETERMAN
LIANE M. RANDOLPH
Commissioners