PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

AGENDA ID #16195
ENERGY DIVISION **RESOLUTION E-4909**
January 11, 2018

R E S O L U T I O N

Resolution E-4909. Authorizing PG&E to procure energy storage or preferred resources to address local deficiencies and ensure local reliability.

PROPOSED OUTCOME:
- Orders Pacific Gas and Electric Company to hold competitive solicitations for energy storage and preferred resources, to meet specific local area needs in three specified subareas.

SAFETY CONSIDERATIONS:
- Pacific Gas and Electric Company is required to ensure any contracts entered into provide that sellers shall operate the facilities in accordance with prudent and safe electrical practices.

ESTIMATED COST:
- This Resolution is expected to result in additional contracts, which could lead to increased ratepayer costs, but could also offset other costs. Actual costs of the contracts are unknown at this time.

By Energy Division's own motion.

SUMMARY

This Resolution orders Pacific Gas and Electric Company (PG&E) to hold a competitive solicitation for energy storage and preferred resources to address two local sub-area capacity deficiencies and to manage voltage issues in another sub-area.

BACKGROUND

Designation of Three Calpine-Owned Power Plants

In November 2016, Calpine sent a letter to the CAISO stating its desire to terminate Participating Generator Agreements (PGAs) for the four of its peaking units (Feather River, Yuba City, King City, and Wolfskill Energy Centers).[1] In June 2017, Calpine sent a letter to the CAISO explaining that is was assessing whether to make the Metcalf Energy Center available for CAISO dispatch effective January 1, 2018.[2] The claim for all these plants is that they are no longer economic to operate at current energy and Resource Adequacy (RA) capacity prices. Additionally, they claim that the CAISO's capacity procurement mechanism (CPM) does not provide a sufficient planning period for Calpine to make major maintenance, budget, and company planning decisions. Calpine's letter regarding Metcalf also explains the need for significant upgrades and capital expenditures. Calpine requested that the CAISO conduct reliability studies for the plants to determine whether they are needed to ensure local reliability. CAISO performed the studies, per Section 41.3 of the CAISO Tariff.

In March 2017, the California Independent System Operator (CAISO) determined that two of the four peaking units, Yuba City and Feather River Energy Centers, are needed to meet a local capacity need in the Pease sub-area and to continue to mitigate a voltage issue in the Bogue sub-area, respectively, both of which are located in the Sierra local capacity area (LCA). The CAISO designated both plants as reliability must-run resources (RMR) under tariff section 41. The Yuba City Energy Center is a 47.6 MW facility that has been designated to fulfill an identified capacity shortfall of 18 megawatts (MWs) in the Pease sub-area. The Feather River Energy Center is a 47.6 MW facility that has been designated to alleviate a high voltage issue in the Bogue sub-area and not a capacity shortfall.

In November 2017, the CAISO determined that the entire Metcalf Energy Center is needed for local reliability needs in the South Bay-Moss Landing sub-area of the Bay Area LCA, and designated the unit as RMR. The Metcalf Energy Center is a 580 MW facility. The South Bay-Moss Landing sub-area RA requirement for 2018 has been determined to be 2,221 MW. The available generation in this local sub-area has been determined to be 2,408 MW. The CAISO concluded that

[1] http://www.caiso.com/Documents/DecisiononRequestforReliabilityMust-RunDesignations-Attachment-Mar2017.pdf.

[2] http://www.caiso.com/Documents/CalpineLetter_CAISO_MetcalfEnergyCenterRetirementAssessment.PDF

removing any one unit of the Metcalf facility would result in a sub-area local deficiency.[3]

On November 2, 2017, Calpine filed three unexecuted RMR agreements for the aforementioned plants with the Federal Energy Regulatory Commission (FERC).

Established Procurement Process Not Followed

Use of RMR as a means to ensure reliability has been declining for more than a decade, since 2006. In 2006, the CAISO announced that it was reducing the use of RMR agreements by sixty percent for 2007.[4] These three agreements appear to be the first time that the use of RMR has increased since 2006, based on our review CAISO staff's annual "RMR/Black Start/Dual Fuel Contract Status", the last of which was presented to the CAISO board in September 2017, in support of the board's decision to extend RMR agreement for three units owned by Dynegy in Oakland[5]. Further, we are concerned that normal regulatory process[6] was not followed leading up to these RMR agreements. The normal process for procurement of capacity for reliability is in the following order:

- The CAISO conducts its annual local capacity technical study, with the results being adopted by the Commission in June.
- Generating resources offer their available capacity into load serving entities' (LSEs) resource adequacy (RA) competitive solicitations. System, local and flexible capacity is procured through this process. Alternatively, LSEs and generators negotiate and contract bilaterally outside of a competitive solicitation.
- As described in Section 43A of the CAISO tariff, in the event that CAISO identifies a shortfall following the normal RA process (which concludes with the annual RA compliance filing in October), it may activate the Capacity Procurement Mechanism (CPM). The CPM is

[3] The three units of the Metcalf Energy Center are: 173 MWs; 170 MWs; and 237 MWs.
[4] https://www.caiso.com/Documents/CaliforniaISOReducesRMRContractsby60Percent.pdf
[5] http://www.caiso.com/Documents/Decision_ConditionalApproval_ExtendRMRContracts_2018-Memo-Sep2017.pdf
[6] The CAISO staff make reference to the normal RA process in two memos to the CAISO Board, dealing with the Metcalf, Feather River and Yuba City RMR Designations: http://www.caiso.com/Documents/Decision_ReliabilityMust-RunDesignation_MetcalfEnergyCenter-UpdatedMemo-Nov2017.pdf, and http://www.caiso.com/Documents/Decision-RequestforReliabilityMust-RunDesignations-Memo-Mar2017.pdf

also a competitive process, and is intended to be complimentary to the annual RA cycle.

In the case of all three plants, Calpine did not enter into any bilateral RA contracts for 2018. Instead, the company elected to communicate to the CAISO that it was planning to make these resources unavailable for CAISO dispatch unless it were awarded an RMR contract. Calpine cited the insufficiency of RA capacity prices and that CPM would not provide a planning period sufficient for Calpine to make major maintenance, budget, and planning decisions.

Potential Resultant Market Distortions

The Commission is concerned about impacts to ratepayers if the RMR contracts are executed and if they are extended. As discussed earlier in this Resolution, these contracts were developed outside of the normal resource adequacy process and the CAISO's Capacity Procurement Mechanism (CPM) was not initiated. Lack of competition, with in this instance these RMR contracts, can lead to market distortions and unjust rates for power. It is because of this concern that the Commission is exercising its broad procurement authority with this Resolution to authorize PG&E to conduct the solicitation for resources that can effectively fill local deficiencies and address issues identified. If contracted for, alternative resources could potentially be brought on line. These new resources could eliminate the need for the RMR contracts for the plants described in this Resolution, or limit their duration. In addition, these new resources would be subject to must offer obligations (MOO) in the wholesale energy markets. In contrast, RMR contracts cover the full cost of keeping the facility available, but the facility is only called upon to serve load if the specific contingency occurs, and is not subject to a MOO. In all other time periods, RMR designation can cause ongoing market distortions because it may serve as a disincentive to a plant from regular participation in the energy market.

Commission Authority to Direct Procurement

Section 701 of the Public Utilities Code gives the Commission broad authority to take any action to conduct its duties: *The commission may supervise and regulate every public utility in the State and may do all things, whether specifically designated in this part or in addition thereto, which are necessary and convenient in the exercise of such power and jurisdiction.* We are not aware of any specific legislative prohibition against the Commission requiring PG&E conduct the solicitation required by this Resolution.

Several areas of California law give the Commission authority to act to ensure a safe and reliable energy supply for the state as well as just and reasonable retail rates for such services. The Commission's authority over utility regulation and supervision arises from the California Constitution, state law and court decisions as well as federal law including, but not limited to, the Federal Power Act, 16 U.S.C. § 791 et seq., and section 714 of the Energy Policy Act of 1992, 16 U.S.C. §824(g). (General Order 167, Section 1; see generally *Southern California Edison Company v. Public Utilities Commission* (2014) 227 Cal.App.4th 172, 186-196.)

Several state statutes direct the Commission to assure the long-term reliability of California's electric energy supply. Section 380 of the California Public Utilities Code[7] requires the Commission to establish and enforce resource adequacy requirements to assure "development of new generating capacity and retention of existing generating capacity that is economic and needed." (Section 380, subds. (b)(1); see also subds. (c)-(f).)

The Commission also exercises authority not just over electric utilities, but also in state generation facilities. Section 761.3, subdivision (a) provides the Commission "shall implement and enforce standards for the maintenance and operation of facilities for the generation of electricity . . . located in the state to ensure their reliable operation." The commission shall enforce the protocols for the scheduling of powerplant outages of the Independent System Operator." The Commission designed General Order (G.O.) 167

> "to implement and enforce standards for the maintenance and operation of electric generating facilities and power plants so as to maintain and protect the public health and safety of California residents and businesses, to ensure that electric generating facilities are effectively and appropriately maintained and efficiently operated, and to ensure electrical service reliability and adequacy." (G.O. 167, Section 1.)

Procurement of Preferred Resources and Energy Storage for Local Reliability

Energy storage and preferred energy resources can be fast-responding, reliable and constructed in a short timeframe. Energy storage and preferred energy resources are procured at increasing levels to meet local reliability requirements including capacity shortfalls, in lieu of conventional generation. Two examples follow:

[7] All further statutory references shall be to the California Public Utilities Code unless otherwise specified.

In February 2013, as a result of the impending closure of the Once-Through-Cooling Plants and the unexpected closure of the San Onofre Nuclear Generating Station, the Commission required SCE to undertake solicitations for the West L.A. Basin and Moorpark sub-areas. SCE was required to procure a minimum amount of energy storage and preferred resources, within that solicitation. As a result, 510.66 MW of energy storage and preferred resources have been contracted by SCE and approved by the Commission. For storage alone, SCE's target was 50 MWs. Ultimately, more than 260 MWs were procured, more than five times the target, as storage proved to have an exceptionally high value in bid evaluation.

In May 2016, with Resolution E-4791, the Commission required Southern California Edison company to conduct an expedited procurement for both utility-owned and third party storage resources that could come online in Winter 2016, to alleviate any electric supply shortages resulting from natural gas interruptions. As a result, more than 100 MWs of grid-level energy storage are currently operating and contributing to reliability.

DISCUSSION

Solicitation

PG&E is directed to conduct one or more solicitations at its earliest opportunity, commencing no later than 30 days from the effective date of this Resolution.

Parameters for storage procurement:

1. PG&E may solicit bids for energy storage and preferred resources, either individually or in an aggregation.
2. Resources procured pursuant to this solicitation must be both:
    a. On-line and operational by a date sufficient to ensure that the RMR contracts for the three plants – Metcalf Energy Center, Feather River Energy Center, and Yuba City Energy Center – will not be renewed for 2019.
    b. Located within the relevant sub-area(s) and be interconnected at location(s) that will mitigate local capacity and voltage issues

sufficient to obviate the need for RMR contracts for the aforementioned plants.

3. Resources procured in this solicitation should be at a reasonable cost to ratepayers, taking into consideration the cost and value to PG&E, previous solicitations in which PG&E has awarded contracts to similar resources, the cost of the specific RMR contracts, with adjustments for contract terms such as contract length and expedited delivery date.
4. The portfolio of resources selected and contracted with should be of sufficient capacity and attributes to alleviate the deficiencies identified.

Cost Recovery

Per Public Utilities Code § 365.1(c)(2)(A) and (B) costs for procurement to address and alleviate local reliability issues, that are determined by the Commission to benefit all customers, may be recovered from all customers. The procurement directed by this Resolution would be required to alleviate local reliability issues in specific sub-areas as described in this Resolution. Thus, we authorize PG&E to request recording of costs of any contracts resulting from this solicitation in its Cost Allocation Mechanism, for recovery from all benefitting ratepayers.

PROTESTS

COMMENTS

Public Utilities Code section 311(g)(1) provides that this resolution must be served on all parties and subject to at least 30 days public review and comment prior to a vote of the Commission. Section 311(g)(2) provides that this 30-day period may be reduced or waived upon the stipulation of all parties in the proceeding.

The 30-day comment period for the draft of this resolution was neither waived nor reduced. Accordingly, this draft resolution was mailed to parties for comments, and will be placed on the Commission's agenda no earlier than 30 days from today.

FINDINGS

1. Calpine filed three RMR contracts for the Feather River Energy Center, Yuba City Energy Center and Metcalf Energy Center, with the FERC, on November 2, 2017.
2. Calpine communicated its plans, in a letter to the CAISO, to make these facilities unavailable unless it were awarded an RMR contract.
3. Calpine claimed that RA capacity prices were insufficient and that CPM would not provide a sufficient planning period for Calpine to make major maintenance, budget, and personal planning decisions.
4. The three plants did not enter into any bilateral RA contracts with load serving entities.
5. The Public Utilities Code grants the Commission has broad authority to take any action to conduct its duties, including ordering procurement to ensure just and reasonable rates.
6. Authorizing PG&E to conduct a competitive solicitation to procure energy storage and preferred resources falls within the Constitutional Commission authority to assure long term energy supply at just and reasonable rates.
7. The Commission recognizes energy storage and preferred energy resources can be fast-responding, reliable, and may be able to be procured at sufficient quantity and reasonable cost to alleviate a projected capacity shortfalls and a high voltage issue in the South Bay-Moss Landing, Pease and Bogue sub-areas.
8. Energy storage and preferred energy resources can be constructed in a short timeframe, and may be able to be brought on-line in sufficient time as to obviate the need for RMR contracts, or their extension, for the Feather River Energy Center, Yuba City Energy Center and Metcalf Energy Center.
9. It is reasonable to require that any contracts that PG&E executes and submits to the Commission for approval, both have an on-line date sufficient to obviate the need for an extension of RMR contracts for the aforementioned plants in 2019, and interconnect in a location that will help alleviate the specific electric reliability issues discussed in this Resolution.

5. It is reasonable to require that resources procured in this solicitation be at a reasonable cost to ratepayers, taking into consideration the cost and value to PG&E, previous solicitations in which PG&E has awarded contracts to similar resources, the cost of the specific RMR contracts, with adjustments for contract terms such as contract length and expedited delivery date.

10. It is reasonable that any storage procured through this solicitation be able

to satisfy PG&E's overall storage mandate obligation, if it meets existing eligibility criteria.

11. Public Utilities Code Section 451 requires that every public utility maintain adequate, efficient, just, and reasonable service, instrumentalities, equipment and facilities to ensure the safety, health, and comfort of the public.
12. It is reasonable that PG&E ensures the any contracts entered into from this solicitation provide that sellers shall operate the facilities in accordance with prudent electrical practices.
13. In order to help address the short-term problem, it is important that projects be on-line in sufficient time to obviate the need for, or extension of, RMR contracts for the Feather River, Yuba City or Metcalf Energy Centers.
14. It is reasonable for PG&E to expedite the interconnection processes to allow a storage resource to connect to the grid.
15. It is reasonable that resources procured in this solicitation be at a reasonable cost, adjusting for different contract terms such as contract length and delivery date impacts.
16. It is reasonable to allow PG&E to seek approval of, and request cost recovery treatment for, any contracts resulting from this solicitation through one or more Tier 3 Advice Letters.

THEREFORE IT IS ORDERED THAT:

1. Pacific Gas and Electric Company is ordered to hold one or more competitive solicitation to address two local sub-area capacity deficiencies and to manage a high voltage issue in another sub-area.
2. PG&E may solicit bids for energy storage and preferred resources, either individually or in an aggregation.
3. Resources procured pursuant to this solicitation must be on-line and operational by a date sufficient to ensure that the RMR contracts for the three plants – Metcalf Energy Center, Feather River Energy Center, and Yuba City Energy Center – will not be renewed for 2019.
4. Resources procured pursuant to this solicitation must be located within the relevant sub-area(s) and be interconnected at location(s) that will mitigate local capacity and voltage issues sufficient to obviate the need for RMR contracts for the aforementioned plants.
5. Resources procured in this solicitation should be at a reasonable cost to ratepayers, taking into consideration the cost and value to PG&E, previous

solicitations in which PG&E has awarded contracts to similar resources, the cost of the specific RMR contracts, with adjustments for contract terms such as contract length and expedited delivery date.

6. The portfolio of resources selected and contracted with should be of sufficient capacity and attributes to alleviate the deficiencies identified.
7. Pacific Gas and Electric Company may contract with any resource at reasonable cost, and file Tier 3 Advice Letters for approval of contracts resulting from this solicitation.
8. Pacific Gas and Company shall take all reasonable steps to expedite the interconnection processes to allow storage resource to connect to the grid.
9. Pacific Gas and Electric Company may request authorization to record procurement costs for procurement in the solicitation authorized by this Resolution in its Cost Allocation Mechanism account.

This Resolution is effective today.

I certify that the foregoing resolution was duly introduced, passed and adopted at a conference of the Public Utilities Commission of the State of California held on January 11, 2018, the following Commissioners voting favorably thereon:

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TIMOTHY J. SULLIVAN
Executive Director