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PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Item # 27 (Rev. 2)

AGENDA ID #16195

RESOLUTION E-4909

January 11, 2018

ENERGY DIVISION

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:

- Authorizes Pacific Gas and Electric Company to hold competitive solicitations for energy storage and/or 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 authorizes Pacific Gas and Electric Company to hold a solicitation that could alleviate the need for capacity contracts that are higher costs, thus this resolution could result in lower overall ratepayer costs.

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

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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 it 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) made a determination 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 then 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 a CAISO-determined 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

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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 2006⁴. In 2006, the CAISO announced that it was reducing the use of RMR agreements by sixty percent for 2007.⁵ These three agreements appear to be the first time that the use of RMR capacity 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 Oakland⁶. Further, we are concerned that the historical procurement process was not followed leading up to these RMR agreements. The historical process for procurement of capacity for reliability occurred 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.
- RMR resources are renewed and coordinated with the CPUC's RA program per D.06-06-064.⁸
- Annual Local and System RA filings are due to the CPUC and the CAISO on or around October 31st.
- 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

³ The three units of the Metcalf Energy Center are: 173 MWs; 170 MWs; and 237 MWs.

⁴ With the exception of the 2012 RMR designation of the Huntington Beach Generating Stations 3 and 4 Synchronous Condensers which were designated as RMR for voltage support due to the unexpected retirement of San Onofre Generating Station. There was no capacity value on these RMR contracts.

⁵ <https://www.caiso.com/Documents/CaliforniaISOreducesRMRContractsby60Percent.pdf>

⁶ http://www.caiso.com/Documents/Decision_ConditionalApproval_ExtendRMRContracts_2018-Memo-Sep2017.pdf.

⁸ See D.06-06-064, Section 3.3.7.1 entitled RMR Resources

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activate the Capacity Procurement Mechanism (CPM). The CPM is also a competitive process, and is intended to be complimentary to the annual RA cycle.

In the case of all three plants, the RMR request from Calpine pre-dated the annual local capacity technical analysis (LCR Study). Subsequent to the LCR Study, Calpine did not enter into any bilateral RA contracts for 2018 for these plants. Instead, the company elected to communicate to the CAISO that it was planning to make these resources unavailable for CAISO dispatch unless each was awarded an RMR contract. Calpine cited the insufficiency of RA capacity prices and that the timing of the CPM processes would not provide a planning period sufficient for Calpine to make major maintenance, budget, and planning decisions.

The CAISO staff acknowledged that the normal RA process was not follow in the steps leading to the determination of need and the RMR designations. In the memos to the CAISO Board, dealing with the Metcalf, Feather River and Yuba City RMR Designations CAISO staff stated:

[“In the normal course established in recent years, the ISO would allow the 2018 resource adequacy procurement process to run its course, request the Board for authority to extend existing RMR contracts and to designate those resources needed for RMR service pending the preliminary resource adequacy showing in the third quarter of 2017. If a resource needed for reliability was not procured for resource adequacy service, the ISO would explore other mechanisms, such as the capacity procurement mechanism, which a resource is not obligated to accept, or the RMR option.”](#)⁹

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.

⁹ http://www.caiso.com/Documents/Decision_ReliabilityMust-RunDesignation_MetcalfEnergyCenter-UpdatedMemo-Nov2017.pdf, and <http://www.caiso.com/Documents/Decision-RequestforReliabilityMust-RunDesignations-Memo-Mar2017.pdf>

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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 procurement authority with this Resolution to authorize PG&E to conduct a limited solicitation for resources that can effectively fill the local deficiencies and address issues identified by the CAISO. 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 renewal in subsequent years. 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 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 authorizing PG&E conduct the solicitation authorized 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 Code¹⁰ requires the Commission to establish and enforce resource adequacy requirements to assure "development of new generating capacity and retention

¹⁰ All further statutory references shall be to the California Public Utilities Code unless otherwise specified.

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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:

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

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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 authorized to conduct one or more solicitations at its earliest opportunity. Should PG&E not commence the solicitation authorized by this Resolution within 90 days of its effective date, PG&E must notify the Commission's Executive Director in writing and include the justification. . PG&E must coordinate with the CAISO in an effort to ensure that its proposed portfolio¹¹ will contribute to reducing or eliminating the local sub-area deficiencies in the Pease and South Bay-Moss Landing subareas and high voltage in the Bogue subarea. In any advice letter submission for approval of the solicitation results, PG&E must indicate whether the CAISO agrees that the proposed portfolio will reduce, or eliminate, the local sub-area deficiencies. PG&E is not required to execute any contracts if the solicitation does not yield resources at a reasonable cost and value as detailed, below.

Parameters for procurement:

1. PG&E is required to take into consideration any new or planned transmission solutions that reduce or eliminate the need for RMR contracts or their extension, when it selects resources for procurement in this solicitation.
2. PG&E may solicit bids for energy storage and/or preferred resources, either individually or in an aggregation.
3. PG&E may consider accelerating projects from its 2016 storage RFO, should those projects meet all other criteria of the solicitation ordered by this Resolution.
4. Resources procured pursuant to this solicitation must be both:

¹¹ Portfolio means any transmission solutions and any projects resulting from the solicitation authorized by this Resolution.

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- a. On-line and operational on or before 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 in any year from 2019 through 2022.
 - 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.
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, and the known or estimated cost and benefits associated with new and planned transmission solutions.
 6. The portfolio of resources selected and contracted with must be of sufficient capacity and attributes to reduce or eliminate the deficiencies identified, as determined in coordination with the CAISO.
 7. PG&E is required to hold a bidders' conference in advance of the RFO.

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.

COMMENTS

This Resolution was mailed on December 8, 2017. Comments were timely filed on or before December 29, 2017 by Pacific Gas and Electric Company ("PG&E"); California Independent System Operator ("CAISO"); Cogentrix; Independent Energy Producers Association ("IEPA"); California Energy Storage Association ("CESA"); Association of Retail Energy Marketers and the Direct Access Customer Coalition ("AReM/DACC"); Calpine Corporation; Office of Ratepayer

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Advocates (“ORA”); Coalition of California Utility Employees (“CUE”); Western Power Trading Forum (“WPTF”); CCA Parties; and Sierra Club, EarthJustice, California Environmental Justice Alliance and Environmental Defense Fund (hereafter “Environmental Parties”).

PG&E, CESA, and the Environmental Parties all express support for the Resolution. CAISO, Cogentrix, IEPA, AReM/DACC, Calpine, CUE, CCA Parties and ORA all express varying degrees of concern and opposition to the Resolution. We organize the comments of these parties into the categories, below.

Timing of Solicitation and Required On-Line Date

Most parties commented on the timing of the solicitation and the requirement in the Draft Resolution that any resources procured pursuant to this solicitation must come on-line in sufficient time as to obviate the need for RMR agreements for the three plants in 2019. CCA Parties express concern that the expedited procurement required by the Resolution could result in over procurement of resources by PG&E.¹²

IEPA¹³, CESA¹⁴, WPTF¹⁵, ORA¹⁶, and PG&E¹⁷ all assert that requiring eligible resources to be online in 2018, as the Resolution effectively requires, is unrealistic given interconnection and development timelines, and could exclude cost-effective and viable projects well-suited to meet the specific need.

ORA recommends an extension in on-line date, citing the scale of the South Bay-Moss Landing deficiency. WPTF offers that “(a) more realistic timeline, given the interconnection study for capacity resources, would be 2020 or 2021.” CESA offers specific recommendations for expediting the interconnection process. PG&E requests that the Commission allow for PG&E to consider cost effective solutions in 2020 and the years beyond. PG&E points out that “even if feasible,

¹² CCA Parties Comments on Draft Resolution E-4909. Page 1.

¹³ Comments of the Independent Energy Producers Association on Draft Resolution E-4909, pages 5-6

¹⁴ Comments of CESA on Draft Resolution E-4909, pages 2 -4.

¹⁵ Western Power Trading Forum Comments on Draft Resolution E-4909, page 5.

¹⁶ Comments on Draft Resolution E-4909 Authorizing Pacific Gas and Electric Company (PG&E) to procure energy storage or preferred resources to address local deficiencies and ensure local reliability, page 7.

¹⁷ Comments of Pacific Gas and Electric Company on Draft Resolution E-4909, page 2.

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the additional costs to accelerate resource development to meet that timeline might outweigh the costs of an additional year of RMR expenditures under one or more of the RMR agreement”.

The CAISO¹⁸ states that certainty of the availability of alternatives to the RMR contract must be known before October 1 of the prior year to not extend the agreement. The CAISO also points to Article 2.2 of the RMR agreement, which effectively prohibits the CAISO from re-designating the facility for one full year, if its RMR contract expires and is not renewed.

We agree with the predominance of opinion that the CPUC should allow for resources with on-line dates beyond 2018. Thus, we amend this draft Resolution to allow PG&E to consider solutions and procurement that will come in sufficient time to reduce or eliminate the need for RMR agreements in any year from 2019 through 2022.

Ensure Effectiveness of Portfolio

Many parties¹⁹ point to the fact that the CAISO has not yet studied whether storage and preferred resources would be effective in alleviating the local capacity deficiencies Pease and South Bay-Moss Landing, and high voltage issue in the Bogue sub-areas. PG&E²⁰, ORA²¹ and WPTF²² point to the study conducted by CAISO at the request of the California Energy Commission (CEC) to explore alternatives to the Puente power plant. ORA suggests that the Commission request a similar study of the CAISO examining the efficacy of using energy storage and preferred resources to alleviate the relevant sub-area deficiencies. PG&E agrees that any procurement resulting from this Resolution must be coordinated with the CAISO, and requests that the Commission clarify that PG&E must work with the CAISO in this regard.

AReM/DACC point out that it “...does not appear that PG&E is even capable of satisfying Ordering Paragraph 6 without the involvement of the CAISO in the

¹⁸ California Independent System Operator Corporation Comments on Draft Resolution E-4909, page 4.

¹⁹ AReM/DACC; WPTF; Cogentrix; ORA; PG&E; CESA

²⁰ Comments of Pacific Gas and Electric Company on Draft Resolution E-4909, pages 2-3.

²¹ Comments on Draft Resolution E-4909 Authorizing Pacific Gas and Electric Company (PG&E) to procure energy storage or preferred resources to address local deficiencies and ensure local reliability, pages 3-4.

²² Western Power Trading Forum Comments on Draft Resolution E-4909, page 3

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process".²³ CESA²⁴ comments that solicitation parameters must be more specifically and clearly defined in order to both garner an effective response from the industry and ensure reliability value of the proposed procurement. CESA requests that the Commission require PG&E to hold a bidders' conference in advance of the release of the RFO.

The Commission does intend for the procurement to be effective in reducing or eliminating the local area deficiencies issues that led to the RMR contracts which are pending at FERC and the subject of concern in this Resolution. We thus concur with parties' request to further clarify that PG&E is ordered to coordinate with the CAISO on its proposed portfolio and its effectiveness in reducing or eliminating the deficiencies, and adopt PG&E's suggested additions to the Findings and Orders of this Resolution with modifications. We expect that the adoption of PG&E's proposed changes in this regard will result in more specific parameters for bidders, and thus we also adopt CESA's recommendation to hold a bidders' conference in advance of the release of the RFO.

Eligibility to Participate in Solicitation

PG&E²⁵, Calpine²⁶ and ORA²⁷ all comment on the importance of considering transmission solutions as well as energy storage and preferred resources. Calpine, IEPA and CUE recommend that the solicitation also be open to existing natural gas fired power plants, transmission upgrades, and other technologies.

ORA recommends that the Commission permit PG&E to pursue the most cost effective portfolio, which should both include transmission solutions and be consistent with PG&E's 2018 IRP filing. PG&E requests that the Commission permit it to seek transmission solutions as well as preferred resources and storage.

²³ Draft Resolution E-4909 – Authorizing PG&E to Procure Energy Storage or Preferred Resources to Address Local Deficiencies and Ensure Local Reliability Comments of the Alliance for Retail Energy Markets and Direct Access Customer Coalition, page 3.

²⁴ Comments of CESA on Draft Resolution E-4909, pages 4-5.

²⁵ Comments of Pacific Gas and Electric Company on Draft Resolution E-4909, pages 1-2.

²⁶ Comments of Calpine Corporation on Draft Resolution E-4909, pages 5-6.

²⁷ Comments on Draft Resolution E-4909 Authorizing Pacific Gas and Electric Company (PG&E) to procure energy storage or preferred resources to address local deficiencies and ensure local reliability, page 5.

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PG&E states that the CAISO has already approved transmission projects that will eliminate or reduce the need for RMR extensions, starting in 2022, for both the Bogue and Pease sub-areas. The CAISO provides more detail on these projects in its comments:

- In the case of the Feather River Energy Center in the Bogue sub-area, the CAISO states that “PG&E is also exploring better management of the source of the high voltage issues on the distribution system, and the CAISO has already approved two transmission projects that are expected to eliminate the need for the RMR Contract for Feather River in the spring of 2021: the Rio Oso 230/115 kV Transformer project, approved in the CAISO 2007 Transmission Plan; and the Rio Oso 230 kV Voltage Support project approved in the 2011-2012 Transmission Plan.”
- In the case of the Yuba City Energy Center in the Pease sub-area, “...the South of Palermo 115 kV reinforcement project, which the CAISO approved in 2011, is expected to reduce the MW capacity needs to a level that eliminates the need for the Yuba City Energy Center. PG&E’s latest quarterly AB 970 project status report indicates that the scheduled in-service date for that project is December 2021. In the 2018-2019 transmission planning cycle, the CAISO will address the remaining needs in this sub-area and potential solutions, which may include additional preferred resources or energy storage.”²⁸

We decline to make the solicitation truly “all source” to gas generation. We do, however, include an explicit requirement for PG&E to consider the known cost of new or planned transmission solutions to alleviate local-area needs in the subareas relevant to this Resolution, when reviewing procurement for cost-effectiveness. We do this for two reasons. First, we appreciate that a mix of solutions will likely be necessary, and transmission solutions are often used to alleviate local area deficiencies, as will soon be the case in both the Bogue and Pease sub-areas. Second, expanding allowable solutions to include transmission will allow for expanded range of alternatives and, in so doing, will better enable PG&E to bring only cost effective procurement to the Commission. Additionally, we clarify that the value of any negotiated RMR contract should be used as a

²⁸ California Independent System Operator Corporation Comments on Draft Resolution E-4909, page 3.

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metric to value other alternatives and if the RMR contracts offer the best ratepayer value, PG&E is not required to pursue other alternatives.

PG&E offers edits to the Findings and Orders of this Resolution, which we adopt here with some modification.

Other Solicitation Parameters

ORA²⁹ further recommends that PG&E be permitted to consider accelerating projects from its 2016 storage RFO. Both CESA³⁰ and IEPA³¹ request clarification as to the definition of “preferred resources”, as used in this Resolution.

We find ORA’s recommendation to be reasonable and amend this Resolution to allow PG&E to accelerate projects from its 2016 storage RFO, should those projects meet all other criteria of the solicitation ordered herein. We also clarify that by, preferred resources, we refer to energy efficiency, demand response and renewable energy generation sources.

Established Procurement Process Not Followed

CAISO³² states in its comments on E-4909 that the Draft Resolution contains some inaccurate descriptions that should be removed. The Resolution states that the three RMR designations are the first designations made since 2006. CAISO argues that this is not true and cites to the contracting for both the Huntington Beach facilities in 2012 after the closure of San Onofre Nuclear Generating Station.

CAISO is accurate in its claims that Huntington Beach Generation Station 3 and 4 were designated as RMR. However, the designation was made only for the synchronous condensers that were built at the stations for voltage support due to the unexpected closure of SONGs. These RMR designations were not for capacity and therefore did not interfere with the established procurement process. The draft resolution has been modified to footnote the Huntington Beach units designation for voltage support.

²⁹ Comments of Pacific Gas and Electric Company on Draft Resolution E-4909, page 5.

³⁰ Comments of CESA on Draft Resolution E-4909, pages 6-7.

³¹ Comments of the Independent Energy Producers Association on Draft Resolution E-4909, page 7.

³² California Independent System Operator Corporation Comments on Draft Resolution E-4909, page 4.

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CAISO also contends that the “description of the resource procurement process to meet reliability needs as proceeding in a set, step-by-step manner-..... does not represent the a complete or accurate picture. It does not describe the process the CAISO must follow in designating RMR Units and ignores that it would be both impractical and imprudent for the CAISO to rigidly proceed in a manner the Draft resolution lays out.”³³

IEPA argues that it “remains unconvinced that the normal procurement process was not followed in this case.” They state that “if the exercise of the CPM mechanism or, alternatively, the execution of RMR agreements is accomplished within the bounds of the approved Tariff, then these acts are fully consistent with the normal regulatory process that governs today.”³⁴

Calpine³⁵ argues that the “Draft Resolution makes the unsupported blanket assertion that Calpine (and indirectly the CAISO) did not follow ‘established procurement process’ in the designation of the Calpine RMR units. The Draft Resolution implies that the RMR designations were somehow wrong or unfair because “[u]se of RMR as a means to ensure reliability has been declining for more than a decade.” Calpine asserts that this premise of the Draft Resolution is both factually and legally inaccurate.

In response to IEPA, CAISO and Calpine’s comment regarding the normal procurement process, the Resolution modifies the description of the historical process of procurement. The Resolution clarifies that for whatever reason of timing and specific events of the past year, the normal procurement process and subsequent approved backstop tariff, known as the Capacity Procurement Mechanism (CPM), were not used for these three plants.

The normal procurement process is based on the local RA program framework developed by D.06-06-064 and modified periodically since that time.

In 2006, pursuant to the stated policy preference of the Commission,³⁶ the Commission implemented the local RA program for its jurisdictional Load Serving Entities. The local RA program was developed with intention on how it

³³ Ibid.

³⁴ Ibid.

³⁵ Comments of Calpine Corporation on Draft Resolution E-4909, page 8.

³⁶ D.06-06-064, Section 3.3.7.1.

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would interact with the RMR process (which was heavily in use at that time) and a to-be developed backstop mechanism. Ultimately, the CAISO tariff implemented the Reliability Capacity Service Tariff (RCST), and later modified and renamed the CPM mechanism as a post-procurement backup mechanism after the RA showing process that demonstrated contracted units.

The RMR contracting process, when it was utilized extensively prior to the introduction of local RA requirements, utilized a process known as the annual LARS process to make RMR determinations.³⁷ The LARS process included CAISO staff conducting both a technical study to determine which specific areas within the grid exhibited local reliability problems, as well as issuance of an RFP to see if there were generation, transmission or demand side solutions that could satisfy the local reliability problems. The LARS RFP process was the final step in selecting and presenting the preferred RMR mitigation alternatives to the ISO Board for approval.³⁸ The full RMR process for capacity has not been used in many years, the issuance of an RFP looking at alternatives was not used in 2017 for these three plants. The RMR process for these two of the Calpine units commenced November 2016, which was prior to the issuance of the April 2017 Local Capacity Technical Analysis, and the Metcalf RMR process commenced in June 2017. Both RMR processes commenced prior to the CPUC adoption of the Local RA obligation in June 2017, the LSEs opportunity to complete procurement of Local RA to meet their obligations, and prior to the Local RA showings due in October 2017.

These specific RMR designations (nor any other new RMR designations) have not been part of what has been the normal procurement process since the onset of the Local RA program. The Local RA program's existence has reduced the CAISO's reliance on RMR designations significantly, and the program and associated procurement processes have not resulted in any (a) any new RMR designations for capacity since the local RA program began, nor (b) any RMR designations based on a reliability assessment triggered by a generator letter to the CAISO.

Revisions to the Draft Resolution were made to clarify these issues.

³⁷ <http://www.caiso.com/Documents/2004ReliabilityMust-RunTechnicalStudy-ISO-ControlledGrid.pdf>

³⁸ <http://www.caiso.com/Documents/2004ReliabilityMust-RunTechnicalStudy-ISO-ControlledGrid.pdf> p.4-5

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Application vs. Advice Letter

Both the CCA Parties³⁹ and ORA⁴⁰ raise concern that the Resolution would require PG&E to submit any contracts to the Commission for consideration through a Tier 3 Advice Letter rather than an Application. ORA offers that, if an Application is not viable, then more time should be allowed for in the Advice Letter Review Process for parties to evaluate the contracts.

We maintain that the Advice Letter process is an acceptable vehicle for procurement review and contract approval, in certain instances. Advice Letters have been used to approve contracts resulting from the Renewable Auction Mechanism (RAM), the Demand Response Auction Mechanism (DRAM) pilot, and both SCE and SDG&E's procurements in response to Commission Resolution E-4791. We decline to require PG&E to file contracts resulting from this solicitation in an Application. We also decline to adopt ORA's recommendation for a longer review process, as we expect PG&E to present procurement to its PRG in advance of filing its AL, of which ORA is a member, and modifications to this Resolution require PG&E to coordinate with CAISO to ensure the effectiveness of its portfolio to reducing or eliminating RMR obligation of any resource it procures. Should more time for review be desired or needed by the time that PG&E files its Advice Letter, ORA may make that request then.

Procurement Appropriate for CAM

AReM/DACC⁴¹ and WPTF⁴² both oppose the authorization given in the draft Resolution to PG&E to seek recovery of costs associated with this procurement from all ratepayers via the Cost Allocation Mechanism. Nowhere does this Draft Resolution "direct PG&E to recover the cost of the procurement from all customers through CAM" (*emphasis added*), as AReM/DACC claim in comments. Rather, the relevant Ordering Paragraph in this Draft Resolution states:

³⁹ CCA Parties' Comments on Draft Resolution E-4909, pages 4-5.

⁴⁰ Comments on Draft Resolution E-4909 Authorizing Pacific Gas and Electric Company (PG&E) to procure energy storage or preferred resources to address local deficiencies and ensure local reliability, pages 4-5.

⁴¹ Draft Resolution E-4909 – Authorizing PG&E to Procure Energy Storage or Preferred Resources to Address Local Deficiencies and Ensure Local Reliability Comments of the Alliance for Retail Energy Markets and Direct Access Customer Coalition, pages 5-6.

⁴² Western Power Trading Forum Comments on Draft Resolution E-4909, pages 6-7.

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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. (*emphasis added*)

WPTF cites Public Utilities Code § 365.1(2)(B), and argues that without studies or analysis to show that the resources meet a reliability need, the costs of the procurement may not be recovered from all ratepayers.

With the clarifications to this Resolution, particularly modifications that require PG&E to ensure that the CAISO agrees with the effectiveness of its procurement to meet reliability needs, we believe that the concerns expressed on this topic are addressed. We also note that the CAISO did conduct reliability studies with the removal of the three Calpine plants, at Calpine's request, which did indeed find need for the three plants. Thus, it is incorrect that no study has been done, or that this Resolution orders procurement absent the existence of any study. We do not change the language of this Resolution and note that parties have the option of raising this concern again when and if PG&E requests recording of costs associated with this procurement in its CAM Account, when and if it files the Tier 3 Advice Letters directed by this Resolution.

Reform Resource Adequacy Program at CPUC

IEPA⁴³, AReM/DACC⁴⁴, CESA⁴⁵, Calpine⁴⁶ and Cogentrix⁴⁷ all take opportunity in their comments on this Resolution to offer their recommendations for modifications to the Commission's Resource Adequacy (RA) program. None of these parties offer any specific recommendations to be addressed within this Resolution. In any event, we decline to address any of these comments here as reforms to the RA program are clearly out of scope for this Resolution.

⁴³ Comments of the Independent Energy Producers Association on Draft Resolution E-4909, pages 2-4.

⁴⁴ Draft Resolution E-4909 – Authorizing PG&E to Procure Energy Storage or Preferred Resources to Address Local Deficiencies and Ensure Local Reliability Comments of the Alliance for Retail Energy Markets and Direct Access Customer Coalition, pages 7-8.

⁴⁵ Comments of CESA on Draft Resolution E-4909, pages 5-6.

⁴⁶ Comments of Calpine Corporation on Draft Resolution E-4909, pages 1-3.

⁴⁷ Resolution E-4909 - Authorizing PG&E to procure energy storage or preferred resources to address local deficiencies and ensure local reliability, pages 7-8.

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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 Commission has 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 some 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 any year from 2019 through 2022, and interconnect in a location that will help alleviate the specific electric reliability issues discussed in this Resolution.
10. 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.

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11. It is reasonable to require that PG&E take into account the known costs and on-line dates of any new or planned transmission solutions that reduce or eliminate the need for RMR contracts or their extension, when it selects resources for procurement in this solicitation.
12. 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.
13. 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.
14. 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.
15. 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 in any year from 2019 through 2022, if feasible and at a reasonable cost to ratepayers.
16. It is reasonable for PG&E to expedite the interconnection processes to allow a storage resource to connect to the grid.
17. 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.
18. It is reasonable to require PG&E to coordinate with the CAISO to ensure that its proposed portfolio will reduce or eliminate the CAISO-identified subarea deficiencies.
19. It is reasonable to require PG&E to indicate in its submission of the contracts for approval to indicate whether the CAISO agrees that the proposed portfolio will partially or wholly eliminates the need for, or extension of, an RMR contract for the Feather River, Yuba City or Metcalf Energy Centers.
20. 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.

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THEREFORE IT IS ORDERED THAT:

1. Pacific Gas and Electric Company is authorized to hold one or more competitive solicitation to address two local sub-area capacity deficiencies in the Pease and South Bay-Moss Landing subarea and manage a high voltage in the Bogue subarea.
2. If PG&E does not commence the solicitation authorized by this Resolution within 90 days of its effective date, PG&E is required to notify the Commission's Executive Director in writing and include the justification.
3. PG&E may solicit bids for energy storage and/or preferred resources, either individually or in an aggregation.
4. PG&E is required to take into account the known cost and on-line dates of any new or planned transmission solutions that reduce or eliminate the need for RMR contracts or their extension, when it selects resources for procurement in this solicitation.
5. Resources procured pursuant to this solicitation must be on-line and operational on or before a date sufficient to ensure that one or more of the RMR contracts for the three plants - Metcalf Energy Center, Feather River Energy Center, and Yuba City Energy Center - will not be renewed for any year from 2019 through 2022, if feasible and represent a reasonable cost savings to ratepayers.
6. 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 reduce or eliminate the need for RMR contracts for the aforementioned plants.
7. 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.
8. Any portfolio of resources selected and contracted with, including consideration of any new or planned transmission solutions that will reduce or eliminate the sub-area deficiencies, must be of sufficient capacity and attributes to alleviate the deficiencies identified.
9. PG&E is required to coordinate with the CAISO to ensure that the resources procured in this solicitation partially or wholly obviate the need for, or extension of, RMR contracts at question in this Resolution.
10. PG&E is required to indicate when seeking approval of the contracts whether the CAISO agrees that the resources procured in this solicitation partially or wholly eliminate the need for, or extension of, one or more of the RMR contracts at question in this Resolution.

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11. PG&E may consider accelerating projects from its 2016 storage RFO, should those projects meet all other criteria of the solicitation ordered by this Resolution.
12. PG&E is required to hold at least one bidders' conference in advance of issuance of the request for offer (RFO).
13. 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.
14. Pacific Gas and Company shall take all reasonable steps to expedite the interconnection processes to allow storage resource to connect to the grid.
15. 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:

TIMOTHY J. SULLIVAN
Executive Director