

PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

ENERGY DIVISION

Item 38
Agenda ID 14895
RESOLUTION E-4791 (Rev.1)
May 26, 2016

R E S O L U T I O N

Resolution E-4791. Authorizing expedited procurement of storage resources to ensure electric reliability in the Los Angeles Basin due to limited operations of Aliso Canyon Gas Storage Facility.

PROPOSED OUTCOME:

- Requires Southern California Edison Company to hold an expedited competitive energy storage procurement solicitation to help alleviate an outage risk during the upcoming summer and winter of 2016-2017.
- Requires Southern California Edison Company to file one or more Tier 3 Advice Letters to seek approval of storage contracts selected in the solicitation, and applications for any utility-owned facilities.
- Requires Southern California Edison Company to take all reasonable steps to expedite the interconnection processes to allow a utility-owned or a third-party owned storage resource to connect to the grid.
- Requires SCE to record procurement costs for all “in-front-of-the-meter” (IFOM) storage system procured in the solicitation authorized by this Resolution in its Cost Allocation Mechanism account.

SAFETY CONSIDERATIONS:

- This Resolution supports the Governor’s Emergency Proclamation to protect public safety by ensuring the continued reliability of natural gas and electric supplies while there is a moratorium on gas injections at Aliso Canyon.
- SCE shall ensure any contracts entered into provide that sellers shall operate the energy storage facilities in accordance with prudent and safe electrical practices.

Energy Division's Own Motion Regarding Expedited Procurement of
Storage Resources to Ensure Electric Reliability in the Los Angeles
Basin/ML2

ESTIMATED COST:

- This Resolution is expected to result in additional contracts, which could lead to increased ratepayer costs. Actual costs of the contracts are unknown at this time.

By Energy Division's own motion.

SUMMARY

This Resolution orders Southern California Edison Company (SCE) to hold a competitive solicitation for storage contracts to address electrical reliability risks in the Los Angeles ("LA") Basin due the moratorium on injections into the Aliso Canyon Natural Gas Storage Facility ("Aliso Canyon").

This Resolution also allows SCE to contract for storage that will count towards their overall storage mandate and meet their local capacity requirement needs.

BACKGROUND

The Aliso Canyon Well Failure threatens electric reliability in the LA Basin

On October 23, 2015, a massive leak at one of Southern California Gas Company's ("SoCalGas") natural gas storage wells was discovered by crews at the Aliso Canyon storage field. The well has since been permanently sealed. Currently, 15 billion cubic feet of working natural gas remains in the Aliso Canyon underground reservoir – less than one-fifth of the capacity of the facility. SoCalGas is prohibited from injecting additional natural gas into the facility until the completion of well safety tests that are currently underway.

Aliso Canyon is critical to help meet peak electrical demands during the summer months and peak gas usage demands in winter months. Aliso Canyon's limited operational capabilities have put SoCalGas at risk of not being able to meet the gas supply needs of electric generators and its retail customers in the Greater Los Angeles area. This situation creates a distinct possibility of electricity service interruptions in the coming summer and winter months.

Energy Division's Own Motion Regarding Expedited Procurement of
Storage Resources to Ensure Electric Reliability in the Los Angeles
Basin/ML2

Overview of the State of Emergency Proclamation

On January 6, 2016, Governor Brown proclaimed a state of emergency in Los Angeles County due to the prolonged duration of the natural gas leak at Aliso Canyon. Paragraph 10 of the Proclamation states that: "The California Public Utilities Commission and the California Energy Commission, in coordination with the California Independent System Operator, shall take all actions necessary to ensure the continued reliability of natural gas and electricity supplies in the coming months during the moratorium on gas injections into the Aliso Canyon Storage Facility."

Without Additional Procurement, Gas Curtailments Could Cause Electricity Service Interruptions during the Upcoming Summer and Winter of 2016-2017.

On April 5, 2016, the California Energy Commission (CEC), The California Public Utilities Commission (CPUC), California Independent System Operator (CAISO), and the Los Angeles Department of Water and Power (LADWP) released the *Aliso Canyon Action Plan to Preserve Gas and Electric Reliability for the Los Angeles Basin* ("Action Plan"). The Action Plan finds that "Aliso Canyon plays an essential role in maintaining both natural gas and electric reliability in the greater Los Angeles area. As a result, the facility's limited current operations create a distinct possibility of electricity service interruptions in the coming summer months." The accompanying report and technical studies predict that the region faces up to 14 days this coming summer during which gas curtailments could be high enough to cause electricity service interruptions to millions of utility customers.¹ The Action Plan proposes over 18 measures to reduce the possibility of electrical interruptions, including a call for greater conservation from residents. State and local agencies have undertaken the recommended measures of the Action Plan. Nonetheless, the report concludes that these actions "will

¹ See Page 3 of Aliso Canyon Action Plan to Preserve Gas and Electric Reliability for the Los Angeles Basin, prepared by the California Public Utilities Commission, California Energy Commission, the California Independent System Operator, and the Los Angeles Department of Water and Power, available at:
[http://www.cpuc.ca.gov/uploadedFiles/CPUC_Public_Website/Content/News_Room/News_and_Updates/Aliso%20Canyon%20Action%20Plan%20\(04-4-16\)_final%20clean.pdf](http://www.cpuc.ca.gov/uploadedFiles/CPUC_Public_Website/Content/News_Room/News_and_Updates/Aliso%20Canyon%20Action%20Plan%20(04-4-16)_final%20clean.pdf)

Energy Division's Own Motion Regarding Expedited Procurement of Storage Resources to Ensure Electric Reliability in the Los Angeles Basin/ML2

reduce, but not eliminate, the risk of gas shortages this summer that are large enough to cause electricity interruptions for the region's residents and businesses."²

DISCUSSION

In accordance with the Governor's State of Emergency Proclamation, the Commission is pursuing activities that could be quickly implemented to alleviate the electric reliability risks to the LA Basin. The Commission identified energy storage systems as one potential solution because they can be fast-responding, firm, and dispatchable. Energy storage resources can be potentially constructed, interconnected, and deployed on a short timeline. Under current conditions, energy storage systems may alleviate the reliability risks associated with the partial shutdown of the Alison Canyon.

Given the risk to electric reliability in the LA Basin, SCE shall execute an expedited competitive solicitation to procure energy storage that can help mitigate an outage risk in the coming months due to limited availability of gas supplies from Aliso Canyon.

Parameters for storage procurement:

1. SCE may procure storage resources within its service area and to the extent the resources also qualify for LCR credits pursuant to D.13-02-015 and D. 14-03-004, SCE will be granted the LCR credits consistent with their remaining authorization from D.15-11-041.
2. SCE shall solicit in-front-of-the-meter (IFOM) energy storage that must be operational by December 31, 2016.
3. All resources procured under the Aliso Canyon Energy Storage Solicitation must interconnect in a location(s) that helps to alleviate electric reliability concerns associated with the partial shutdown of the Aliso Canyon Gas Storage Facility and qualify for resource adequacy credit.

² *Ibid.* page 4

Energy Division's Own Motion Regarding Expedited Procurement of
Storage Resources to Ensure Electric Reliability in the Los Angeles
Basin/ML2

4. Resources procured in the Aliso Canyon Energy Solicitation should be price-competitive with previous solicitations in which SCE has awarded contracts to energy storage resources, adjusting for different contract terms such as contract length and expedited delivery date impacts..
5. Given that it is unclear how long the moratorium on injections into Aliso Canyon will persist, SCE may enter into contracts with terms of 10 years or less.

Solicitation Structure

SCE shall conduct the Aliso Canyon Energy Storage Solicitation as a "one round" competitive solicitation allowing bidders to submit pricing at the offer deadline. SCE will then evaluate and shortlist offers. SCE will enter into contract negotiations with shortlisted bidders and will make final selection decisions based on successful negotiation of a form of contract agreeable to both parties.

Commission Authorization for Solicitation and Approval of Contracts

SCE is directed to conduct a solicitation at its earliest opportunity. The Commission intends to expedite consideration of any contracts resulting from the Aliso Canyon Energy Storage Solicitation. To that end, SCE may seek approval of, and obtain cost recovery treatment and Energy Storage target credit and LCR credit for, any contracts resulting from the Aliso Canyon Energy Storage Solicitation through a Tier 3 Advice Letter. SCE will also be allowed to submit applications for utility-owned storage projects. Any storage procured through the Aliso Canyon Energy Storage Solicitation should be able to satisfy SCE's overall storage mandate obligation, assuming it meets existing defined eligibility criteria.

Cost Recovery Mechanism

Any procurement to alleviate reliability risks associated with the partial shutdown of the Aliso Canyon Natural Gas Storage Facility will benefit all customers connected to the grid. Therefore, all customers must bear the costs of contracts resulting from the Aliso Canyon Energy Storage Solicitation. Thus, the Cost Allocation Mechanism (CAM), as adopted by the Commission in D.15-11-041 and applicable to "In Front of the Meter" (IFOM) Energy Storage, shall apply to any contracts resulting from the Aliso Canyon Energy Storage

Energy Division's Own Motion Regarding Expedited Procurement of
Storage Resources to Ensure Electric Reliability in the Los Angeles
Basin/ML2

Solicitation. SCE shall consult with its CAM Group on the Aliso Canyon Energy Storage Solicitation process and results.

SAFETY

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.

This Resolution implements the Governor's State of Emergency Proclamation to address the electric reliability concerns in the Los Angeles Basin due to the moratorium on gas injections into the Aliso Canyon Natural Gas Storage Facility.

SCE shall ensure that any contracts selected for CPUC approval provide that sellers shall operate the energy storage facility in accordance with prudent electrical practices.

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 "in an unforeseen emergency" The Commission's Rules of Practice and Procedure also provides that public review and comment may be waived or reduced in an "unforeseen emergency situation" specifically where there are "[a]ctivities that severely impair or threaten to severely impair public health or safety..." (Rule 14.6(a)(1) and/or where there are "[c]rippling disasters that severely impair public health or safety" (Rule 14.6(a)(2)).

The 30-day comment period was reduced pursuant to these authorities.

Comments were filed in a timely fashion on May 19, 2016 by Southern California Edison (SCE), California Energy Storage Association (CESA), Office of the Ratepayer Advocates (ORA), MegaWatt Storage Farms, Inc. (MegaWatt), Wellhead Electric, City of Lancaster, Shell Energy North America

Energy Division's Own Motion Regarding Expedited Procurement of Storage Resources to Ensure Electric Reliability in the Los Angeles Basin/ML2

(Shell Energy NA), County of LA, SolarCity, Smart Wires, California Independent System Operator (CAISO), Sierra Club and LS Power.

The objective and timing of this Resolution is directed to address the Proclamation. Therefore, while all of the comments were read and considered, the scope of this Resolution is limited to comments most relevant to the implementation of the Proclamation. Comments outside the scope of this Resolution - resolving critical issues prior to the start of an expedited storage solicitation - were excluded.

Mitigating Electric Reliability Issues throughout the Southern California Zone (South of Path 26)

SCE states that the on-going, limited use of Aliso Canyon impacts the safe and reliable operation of the natural gas and electric systems throughout southern California. SCE suggests that electric grid reliability issues can occur anywhere South of Path 26, and resources outside of the LA Basin can help to alleviate the risk of electric service interruptions. SCE recommends that it should not be restricted to procuring resources that are interconnected to the list of A-bank substations identified in SCE's Local Capacity Requirements ("LCR") Request for Offers ("RFO") solicitation materials. It seeks Commission clarification that any resources interconnected to the CAISO grid South of Path 26 are eligible to bid into the Aliso Canyon Energy Storage Solicitation, and to the extent those resources also qualify for LCR credit pursuant to D.13-02-015 and D.14-03-004, then LCR credit would also be granted.

California Independent System Operator's (CAISO) comments support the Resolution. CAISO recommends that resources elsewhere in southern California should also be encouraged because resources outside of the LA Basin can be effective in mitigating the effects of potential gas curtailments on the Southern California Gas Company pipeline system.

Wellhead Electric filed comments suggest that storage projects located outside of the defined Western LA Basin area (but still in the SCE service area) could provide essential reliability services to the SCE grid while also reducing the demand for gas.

Energy Division's Own Motion Regarding Expedited Procurement of
Storage Resources to Ensure Electric Reliability in the Los Angeles
Basin/ML2

Comments from the parties suggest that new energy storage projects connected to the CAISO system South of Path 26 have the ability to enhance southern California electric grid reliability. Therefore, this Resolution does not bind SCE's solicitation to the LA Basin area. SCE is allowed to procure storage resources within its service area South of Path 26; to the extent the resources also qualify for LCR credits pursuant to D.13-02-015 and D. 14-03-004, SCE will be granted the LCR credits. To the extent storage procured meets existing eligibility criteria of the storage mandate SCE will be able to count them towards their storage mandate.

The Commission finds that energy storage resources interconnected to the CAISO grid South of Path 26, which alleviate the reliability issues caused by Aliso Canyon are eligible to participate in the solicitation.

Time-horizons for procurement, expanded procurement plans and on-line dates for storage projects

SCE recommends modifying the draft Resolution language to provide that resources procured through the Aliso Canyon Energy Storage Solicitation must come online by the end of the year 2016 to ensure that the resources procured in this solicitation actually address the short-term problem.

CESA supports the Commission's timeline for the Resolution. In addition, CESA recommends that the Commission should also direct SCE to consider projects that would be developed (including further developed) in time for Summer 2017 and beyond. In its comments CESA recommends consideration of alternate procurement timeframes, such as augmenting immediate procurement with procurement direction that contemplates on-line dates for energy storage projects in early 2017, if the greater capacity levels cannot be in place by the end of 2016. CESA further recommends making contracts binding even if force majeure considerations delay on-line dates to some extent.

LS Power filed late comments suggesting that the procurement may not meet its objective unless the commercial operation cut-off date is moved to July 1, 2017 or December 31, 2017.

Energy Division's Own Motion Regarding Expedited Procurement of Storage Resources to Ensure Electric Reliability in the Los Angeles Basin/ML2

The Commission agrees with SCE's recommendation that in order to help address the short-term problem these projects must be on-line by December 31, 2016. The Commission does not agree with CESA and LS Power recommendations of alternate timeframes as that would be going against the purpose of expedited risk mitigation measures. With regards to CESA's recommendation to make contracts binding even if force majeure considerations delay online dates, the Commission does not adopt CESA's recommendation.

The Resolution is modified to require SCE to solicit in-front-of-the meter (IFOM) energy storage that must be operational by December 31, 2016.

Modifying the Resolution to Include SDG&E

SCE commented that the Commission's final Resolution should require SDG&E to also launch an energy storage solicitation and procure energy storage contracts to support electric and gas reliability in Southern California. Sierra Club's comments allude to D.15-05-051 in which the Commission reduced the size of the proposed Carlsbad Energy Center from 600 to 500 MW and required that the resulting 100 MW of residual procurement authority consist only of preferred resources or energy storage. It further mentions that SDG&E has not yet solicited resources to meet this 100 MW of residual need and to the extent additional energy storage in SDG&E service territory would help address Aliso Canyon reliability concerns, Sierra Club recommends the Commission to include SDG&E and require SDG&E to use its residual procurement authority to procure additional energy storage resources.

LS Power filed late comments suggesting that SDG&E load pocket should be included in this procurement.

SDG&E did not provide comments on the Resolution. This Resolution does not limit SDG&E or SoCalGas from taking any necessary step to mitigate reliability risk in their service territory arising from Aliso Canyon gas shortages. It is the utility's obligation to ensure safe, reliable electric and gas supply to its customers.

Energy Division's Own Motion Regarding Expedited Procurement of Storage Resources to Ensure Electric Reliability in the Los Angeles Basin/ML2

Pursuant to D.14-03-004, SDG&E is currently running a solicitation seeking preferred resources, including energy storage, to meet both local capacity needs and SDG&E's energy storage procurement targets.

As mentioned above, CESA recommends different time-horizons for procurement and expanded procurement plans. MegaWatt also recommends the Commission to consider delivery dates in 2017, in addition to a December 31, 2016 delivery date. Megawatt suggests that site availability, site design and preparation, interconnection, leadtimes for switchyard items like transformers, permitting, and other issues are uncertain, even for delivery dates into 2017.

By including SDG&E in a separate Aliso Canyon Energy Storage solicitation at this stage of the Resolution we will potentially lose precious time, which could be used by SCE to initiate its solicitation process upon approval of this Resolution. Time is of essence. Energy Division staff will evaluate and monitor SDG&E's, currently underway, 2016 Preferred Resources LCR RFO Seeking Local and Flexible Capacity issued on February 26, 2016.. Through that RFO, SDG&E is soliciting offers for up to 140 MW of energy storage across all three identified domains: transmission, distribution, and customer and is seeking both third party and utility-owned and operated energy storage capacity. SDG&E can leverage its current RFO process to pursue qualified respondents to determine if the storage project on-line in time can be expedited to resolve immediate Aliso Canyon reliability issues and if the projects are cost-effective. It is reasonable for SDG&E to share the results of this inquiry with the Energy Division and Procurement Resource Group within 30 days of Resolution's effective date.

The Commission finds that SCE's solicitation can be augmented with additional solicitations and measures; however, a timely approval of this Resolution is critical for SCE to meet project on-line date of December 31, 2016. SCE is directed to undertake expedited storage procurement consistent with the amount of unfilled capacity remaining in SCE's LA Basin LCR procurement authorization. SCE has proposed May 27, 2016 as its RFO launch date. **Therefore, SCE is required to start the solicitation process as soon as practicable.**

Energy Division's Own Motion Regarding Expedited Procurement of
Storage Resources to Ensure Electric Reliability in the Los Angeles
Basin/ML2

Interconnection Process, Ownership and Site-identification

SCE suggests that although the primary focus of the Aliso Canyon Energy Storage Solicitation should be on third-party owned and operated resources, allowing sellers to propose "build and transfer" projects that can be sited at SCE's substations and/or SCE-owned or controlled sites may provide additional market and siting opportunities that would not otherwise exist, thereby facilitating the construction of near-term resources to help alleviate electric reliability issues caused by Aliso Canyon. SCE seeks permission to pursue proposals for turnkey project development of "build and transfer" projects located at SCE- owned or controlled sites. SCE suggests that it will submit any utility-owned storage it develops to the Commission for reasonableness review through an application after development of the project(s) given the compressed end of the year online requirement.

In its comments ORA suggests that as part of the Aliso Canyon Energy Storage Solicitation, SCE should identify specific interconnection locations that will directly alleviate electric reliability concerns.

CESA alludes to the challenge of developing, permitting, constructing, completing and interconnecting energy storage projects by December 31, 2016, which involves many steps. It seeks clarification that the Commission will work with SCE, successful bidders and coordinate with CAISO to address the associated challenge, ensuring a more robust and competitive solicitation. CESA recognizes that the wholesale interconnection process is outside of Commission jurisdiction. It recommends close coordination with CAISO to expedite interconnection process.

Additionally, CESA recommends SCE to hasten the process of site-identification and project-development through a bidders' conference, in-person meetings, site identifications, site tours, geotechnical reports, and timeframe commitments on interconnection processes. CESA further recommends that SCE provide information on where and whether energy storage co-located at SCE's in-basin gas-fired power plant is being considered.

MegaWatt supports utility ownership. Comments from MegaWatt suggest that to speed the delivery of storage, SCE should be required to focus on procuring

Energy Division's Own Motion Regarding Expedited Procurement of Storage Resources to Ensure Electric Reliability in the Los Angeles Basin/ML2

for utility ownership of storage, on utility land, using existing interconnection capacity. SCE should strive for plug and play AC interconnection of storage.

Regarding interconnections the Commission will coordinate with SCE, the developer and CAISO to expedite the process. **SCE shall take all reasonable steps to expedite the interconnection processes to allow a utility-owned or a third-party-owned storage resource to connect to the grid.**

Regarding SCE's request to pursue proposals for turnkey project development of "build and transfer" projects located at SCE-owned or controlled sites, the Commission finds this option would increase the likelihood of resources being timely developed. **The Commission finds it is reasonable to allow the utilities to pursue proposals for turnkey project development of "build and transfer" projects located at utility's substations or on utility-owned or operated sites.**

SCE will be required to submit utility-owned storage project applications for reasonableness review within 90 days after the operational start date of such projects.

The Commission is cognizant of challenges in siting, procuring, building and interconnecting IFOM storage projects. South of Path 26 is a large geographic region and any advance work undertaken by SCE will quicken the procurement process. The Commission recommends SCE to work with potential bidders, as suggested by CESA and ORA, in providing them information regarding site-identification and project-development through any means that will allow quick dissemination of data. **The Commission recommends SCE to include a bidders' conference in its solicitation schedule in advance of its offer submittal deadline.**

Project configuration and storage types

Parties such as SolarCity and CESA recommend including behind-the-meter (BTM) resources in this solicitation or in directing an alternative mechanism, where BTM energy storage can quickly respond to the Aliso Canyon reliability challenge. Their comments suggest that BTM storage has unique attributes that make it well-situated to solving the near-term reliability issues in the LA Basin, including ease of permitting, dispatchability, reduced costs to non-participating

Energy Division's Own Motion Regarding Expedited Procurement of Storage Resources to Ensure Electric Reliability in the Los Angeles Basin/ML2

ratepayers, as well as the potential to provide back-up power should electrical generation curtailment prove unavoidable.

The Commission would like to note that while BTM storage may face less permitting and interconnection issues on a per project basis, the volume of projects needed for a meaningful number of MWs to address the reliability issues would likely take a significant amount of time to amass. Moreover, BTM storage has to be visible to CAISO to be able to dispatch. Currently CAISO initiatives are still developing and refining the BTM participation process and there is not a clear protocol for the ISO to dispatch BTM storage at this point.³ Resources must be visible by the CAISO to address the reliability issues identified in the Action Plan.

The Commission finds it reasonable to limit this solicitation to IFOM storage configuration.

Wellhead Electric comments on storage projects with less than 4-hours of continuous delivery capability (at the maximum output level) be allowed to bid as they may enable a significant reduction in gas deliveries during critical hours in the LA Basin. However, as Wellhead itself notes, the projects meeting RA requirements could provide value in addition to addressing the Aliso Canyon gas availability problem. Therefore, the Commission does not see a merit in changing its original criterion.

Smart Wires recommends the Commission to consider solicitation solutions for a broader set of technologies to solve the need rather than just energy storage. We appreciate comments from Smart Wires; however, at this time the focus of this Resolution is on storage technologies. This is not the only or last solution, and

³ Other than proxy demand resource product that facilitates the participation of existing retail demand programs in the ISO market, the CAISO has Non Generator Resources model that would allow BTM meter participation; however, it is being refined under Energy Storage and Distributed Energy Resources Phase 2 (ESDER) initiative

Energy Division's Own Motion Regarding Expedited Procurement of Storage Resources to Ensure Electric Reliability in the Los Angeles Basin/ML2

we will continue to consider the role that other technologies can play in addressing the reliability issues identified in the Action Plan.

Cost recovery

City of Lancaster, County of Los Angeles and Shell Energy North America raise concerns about the applicability of CAM in this solicitation process.

City of Lancaster states that although the gas shortage caused by the Aliso Canyon disaster is proclaimed an "emergency," it is premature to determine that there is a corresponding emergency need for short-term energy storage resources. It asks whether CAM is the right cost recovery vehicle. It suggests that if SoCal Gas is ultimately found to be negligent, Lancaster is concerned that its customers and other ratepayers will foot the bill for new resources whose need was created by that negligence.

Shell Energy North America states that energy storage that serves a market (generation) function should be included in generation rates, subject to application of the Power Charge Indifference Adjustment ("PCIA"). CAM treatment should not apply to an IOU's energy storage procurement that satisfies the IOU's energy storage procurement mandate.

Safety and reliability are our priority. State agencies are working with SoCalGas and local agencies to monitor the situation and ensure public safety. The Commission will continue to take any necessary actions needed to avoid electric blackouts due to Aliso Canyon gas shortages.

Regarding whether it is appropriate to CAM these costs – there is reliability risks associated with the partial shutdown of the Aliso Canyon Natural Gas Storage Facility. Storage procurement to alleviate these risks will benefit all customers in the Southern California service area connected to the grid. Moreover, storage systems are not only providing electricity, these systems can provide other grid optimization services. **The Commission finds it reasonable to CAM procurement costs for all IFOM storage system procured in the solicitation authorized by this Resolution.**

SCE also notes that consistent with the Commission's direction to separately

Energy Division's Own Motion Regarding Expedited Procurement of Storage Resources to Ensure Electric Reliability in the Los Angeles Basin/ML2

track and/or record the costs associated with measures to mitigate the threat to electric reliability caused by Aliso Canyon, SCE will separately track the costs of procurement from the Aliso Canyon Energy Storage Solicitation - in addition to recording such costs in the prescribed Cost Allocation Mechanism (CAM) account.

The Commission finds it reasonable for SCE to record such costs in the prescribed CAM account.

SCE states that this is an incredibly aggressive procurement timeline, and any delays in approval of the agreements will also delay commercial operation. With the need for projects to be online by the end of this year, SCE requests that the Commission approve the Aliso Canyon Energy Storage solicitation contracts within 30 days after contracts are submitted to the Commission. SCE has proposed the following schedule -

May 27, 2016	SCE launches RFO
June 17, 2016	Offer submittal deadline
July 6, 2016	SCE's shortlist offer selection notification
July 29, 2016	SCE's final offer selection notification
August 15, 2016	SCE's CPUC approval filing target (Tier 3 AL)
September 15, 2016	Target CPUC Approval

Additionally, SCE suggests that any challenges to Commission approval of executed energy storage agreements will likely prevent 2016 operations. If the Commission expects SCE to waive Final CPUC Approval to facilitate the construction of energy storage facilities and commercial operations in 2016, SCE states that the Commission must ensure cost recovery in the event of a successful legal challenge, which will maintain its recoverability of the costs of energy storage agreements executed in the Aliso Canyon Energy Storage Solicitation. **Due to the need to have projects online by the end of 2016, it is reasonable to authorize SCE to waive the "Final CPUC Approval" provision in contracts entered into as a result of the solicitation approved in this Resolution.**

County of Los Angeles offers comments that are directed more generally at the exit fee methodology and regulatory process. They recommend that the

Energy Division's Own Motion Regarding Expedited Procurement of Storage Resources to Ensure Electric Reliability in the Los Angeles Basin/ML2

Commission open a generic proceeding where the details of the exit fee data inputs are thoroughly vetted in a public and transparent manner.

City of Lancaster, and Shell Energy NA raise issues that if costs are recovered via CAM then CCAs and DAs should receive the benefit of these resources as well, such as storage credits. This discussion is outside the scope of this Resolution.

Bid Evaluation

ORA states that since the Draft Resolution permits SCE to count the storage resources procured through this solicitation towards its energy storage target and to enter into contracts of 10 years or less, the selected resources should be price competitive and cost-effective such that the resources can provide useful service(s) in addition to the immediate reliability need identified in the Draft Resolution.

Wellhead supports the Resolution as it provides clarity that this emergency procurement is not an "at any price" order and that there is an expectation that the prices will be reasonable in comparison to previous storage procurements. It recommends that resources procured in the Aliso Canyon Energy Storage Solicitation must be price-competitive with previous solicitations on a net present value (NPV) basis and with consideration of costs associated with the near-term COD requirement (expedited development requirements, current market prices of equipment, etc.) in which SCE has awarded contracts to comparable energy storage resources.

The Commission agrees with ORA that these resources can provide benefits in addition to meeting immediate reliability needs. Similarly, the Commission agrees with Wellhead that in the evaluation model should be comparable to the recent storage solicitations.

The Commission finds it reasonable that Resources procured in the Aliso Canyon Energy Solicitation should be price-competitive with previous solicitations in which SCE has awarded contracts to energy storage resources, adjusting for different contract terms such as contract length and expedited delivery date impacts.

Energy Division's Own Motion Regarding Expedited Procurement of Storage Resources to Ensure Electric Reliability in the Los Angeles Basin/ML2

FINDINGS

1. On October 23 2016, a massive methane leak was detected at the Aliso Canyon Natural Gas Storage Facility.
2. The leak has been permanently sealed; 15 billion cubic feet of working gas remains the underground reservoir – less than one-fifth of the capacity of the facility.
3. No new gas may be injected into the facility until safety tests are completed on all the facility's wells.
4. The facility is critical to meeting peak gas usage demands in winter months and peak electrical demands during the summer months in the Los Angeles Basin.
5. With limited gas supply from Aliso Canyon, there could be gas curtailments severe enough to cause electric generation shortages that lead to electric service interruptions during upcoming summer and winter days in 2016-2017.
6. On January 6, 2016, Governor Brown proclaimed a state of emergency in Los Angeles County due to the Aliso Canyon leak.
7. Paragraph 10 of the Proclamation directs the CPUC to take all actions necessary to ensure the continued reliability of natural gas and electricity supplies in the coming months during the moratorium on gas injections into the Aliso Canyon Natural Gas Storage Facility.
8. On April 5, 2016, a joint agency Reliability Action Plan analyzing the reliability risks to electrical service this summer in the greater Los Angeles area found that there are 14 days this coming summer during which gas curtailments could be high enough to cause electricity service interruptions to millions of utility customers.
9. The Action Plan identifies 18 measures to reduce the possibility of electrical interruptions, including a call for greater conservation from residents.
10. There is limited time to undertake remedial actions or activities that will help alleviate electric reliability risk concerns, thus it is necessary to accelerate regulatory processes that might delay remedial actions.

Energy Division's Own Motion Regarding Expedited Procurement of Storage Resources to Ensure Electric Reliability in the Los Angeles Basin/ML2

11. The Commission recognizes energy storage can be fast-responding, firm, and dispatchable, and may be able to alleviate the reliability risks associated with the injection moratorium at Aliso Canyon.
12. Energy storage resources can be potentially constructed on a short timeline.
13. Allowing SCE to execute an expedited competitive solicitation to procure energy storage that can help mitigate outage risks in the coming months due to limited availability of gas supplies from Aliso Canyon is consistent with Paragraph 10 of the Governor's State of Emergency Proclamation.
14. SCE may receive LCR credit for resources procured consistent with their remaining LCR authorization.
15. SCE shall solicit "In-front-of-the-Meter" (IFOM) energy storage that must be operational by December 31, 2016. It is reasonable that energy storage procurements interconnect in a location that will help alleviate electric reliability concerns and qualify for resource adequacy credit.
16. Resources procured in the Aliso Canyon Energy Storage Solicitation should be price-competitive with previous solicitations in which SCE has awarded contracts to energy storage resources, adjusting for different contract terms such as contract length and expedited delivery date impacts.
17. It is unclear how long the injection moratorium will last; therefore, SCE is authorized to enter into contracts with terms of 10 years or less.
18. To expedite the process SCE may conduct the Aliso Canyon Energy Storage Solicitation as a "one round" competitive solicitation allowing bidders to submit pricing at the offer deadline.
19. One of the objectives of this Resolution is facilitating contracts within a timely manner by allowing SCE to successfully negotiate contracts with shortlisted sellers.
20. SCE may conduct a solicitation at its earliest opportunity.
21. SCE may seek approval of, and obtain cost recovery treatment for, any contracts resulting from the Aliso Canyon Energy Storage Solicitation through a Tier 3 Advice Letter.

Energy Division's Own Motion Regarding Expedited Procurement of Storage Resources to Ensure Electric Reliability in the Los Angeles Basin/ML2

22. It is reasonable that any storage procured through the Aliso Canyon Energy Storage Solicitation should be able to satisfy SCE's LCR credit and overall storage mandate obligation, if it meets existing defined eligibility criteria.
23. The partial shutdown of the Aliso Canyon Natural Gas Storage Facility will impact all customers connected in the area.
24. It is reasonable that all impacted customers bear the costs of contracts resulting from the Aliso Canyon Energy Storage Solicitation.
25. The Cost Allocation Mechanism, as adopted by the Commission in D.15-11-041 and applicable to In-Front-Of-the-Meter (IFOM) energy storage, shall apply to any contracts resulting from the Aliso Canyon Energy Storage Solicitation.
26. 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.
27. This Resolution responds to the Governor's Emergency Proclamation to address the electric reliability concerns in the Los Angeles Basin area due to partial shutdown of the Aliso Canyon Gas Storage Facility.
28. It is reasonable that SCE ensures the any contracts entered into from this solicitation provide that sellers shall operate the energy storage facility in accordance with prudent electrical practices.
29. New energy storage projects connected to the CAISO system South of Path 26 have the ability to enhance southern California electric grid reliability.
30. The Commission finds that energy storage resources interconnected to the CAISO grid South of Path 26, which alleviate the reliability issues caused by Aliso Canyon, are eligible to participate in the solicitation.
31. In order to help address the short-term problem these projects must be on-line by December 31, 2016.
32. SDG&E did not provide comments to the Resolution.
33. This Resolution does not limit SDG&E or SoCalGas from taking any necessary step to mitigate reliability risk in their service territory arising

Energy Division's Own Motion Regarding Expedited Procurement of Storage Resources to Ensure Electric Reliability in the Los Angeles Basin/ML2

from Aliso Canyon gas shortages. It is the utility's obligation to ensure safe, reliable electric and gas supply to its customers.

34. Pursuant to D.14-03-004, SDG&E is currently running a solicitation seeking preferred resources, including energy storage, to meet both local capacity needs and SDG&E's energy storage procurement targets.
35. The Commission finds that this solicitation can be augmented with additional solicitations and measures.
36. SDG&E can leverage its current RFO process to determine if current bids can help alleviate Aliso Canyon reliability issues.
37. It is reasonable for SDG&E to share the results of an expedited inquiry of their current bids with the Energy Division and Procurement Resource Group within 30 days of Resolution's effective date.
38. A timely approval of this Resolution is critical for SCE to meet project online date of December 31, 2016.
39. It is reasonable to require SCE to start the solicitation process as soon as practicable.
40. The Commission will coordinate with SCE, the developer and CAISO to expedite the interconnection process.
41. It is reasonable for SCE to expedite the interconnection processes to allow a utility-owned or a third-party-owned storage resource to connect to the grid.
42. The Commission finds SCE's option for turnkey project development of "build and transfer" projects located at utility's substations or on utility-owned or operated sites would increase the likelihood of resources being timely developed.
43. A reasonableness review within 90 days after the operational start date of utility-owned or operated projects is prudent.
44. Any advance work undertaken by SCE that will quicken the procurement process, such as a bidders' conference in its solicitation schedule in advance of its offer submittal deadline, is recommended.

Energy Division's Own Motion Regarding Expedited Procurement of Storage Resources to Ensure Electric Reliability in the Los Angeles Basin/ML2

45. The volume of behind-the-meter (BTM) projects needed for a meaningful number of MWs to address the reliability issues would likely take a significant amount of time to amass.
46. CAISO initiatives are still developing and refining the BTM participation process.
47. To expedite SCE's bid selection process it reasonable to limit this solicitation to in-front-of-the-meter (IFOM) storage configuration.
48. It is reasonable to CAM procurement costs for all IFOM storage system procured in the solicitation authorized by this Resolution.
49. The Commission finds it reasonable for SCE to record such costs in the prescribed CAM account.
50. It is reasonable to authorize SCE to waive the "Final CPUC Approval" provision in contracts entered into as a result of the solicitation approved in this Resolution.
51. It is reasonable that Resources procured in the Aliso Canyon Energy Storage Solicitation should be price-competitive with previous solicitations in which SCE has awarded contracts to energy storage resources, adjusting for different contract terms such as contract length and expedited delivery date impacts.

THEREFORE IT IS ORDERED THAT:

1. Southern California Edison Company is ordered to hold a competitive solicitation to procure energy storage resources to address the system and local reliability risks associated with the injection moratorium at the Aliso Canyon Natural Gas Storage Facility.
2. Southern California Edison Company is authorized to file Tier 3 Advice Letters for approval of contracts resulting from the Aliso Canyon Energy Solicitation, and applications for reasonableness review of utility-owned or operated projects within 90 days after their operational start date.

Energy Division's Own Motion Regarding Expedited Procurement of
Storage Resources to Ensure Electric Reliability in the Los Angeles
Basin/ML2

3. Southern California Edison Company shall take all reasonable steps to expedite the interconnection processes to allow a utility-owned or a third-party owned storage resource to connect to the grid.
4. Southern California Edison Company shall record procurement costs for all IFOM storage system procured 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 May 26, 2016; the following Commissioners voting favorably thereon:

TIMOTHY J. SULLIVAN
Executive Director