

**PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA**  
**ENERGY DIVISION**

**Agenda ID #15376**  
**RESOLUTION E-4809**  
**December 15, 2016**

**R E D A C T E D**  
**R E S O L U T I O N**

Resolution E-4809. Authorizing Southern California Edison's continued operation of the Tehachapi Storage Project and changing the point of interconnection to a permanent position on the Monolith 12 kilovolt bus.

**PROPOSED OUTCOME:**

- Approves Southern California Edison Company's requested relief in Advice Letter 3384-E for the Tehachapi Storage Project to continue operations, and to permanently move the point of interconnection of Tehachapi Storage Project to the Monolith 12 kilovolt bus.
- Clarifies that Southern California Edison Company is to use a portion or all of the remaining funding amount, not to exceed the previously authorized funding of \$25.978 million, to support project activities arising from the option selected here.
- Conditions approval of AL 3384-E on the following requirement: Southern California Edison Company is to file a Tier 3 Advice Letter to analyze options regarding continued operation of Tehachapi Storage Project should Total Energy Storage Operating Costs exceed Total Market Benefits.

**SAFETY CONSIDERATIONS:**

- Energy storage can increase grid reliability and assist in the integration of variable output renewable energy resources, which produce climate benefits.
- SCE shall operate the energy storage facilities in accordance with prudent and safe electrical practices.

ESTIMATED COST:

- This Resolution is expected to result in net-zero costs to ratepayers. It is expected that Total Market Benefits will pay for Total Energy Storage Operating Costs.

By Advice Letter 3384-E, Filed on March 21, 2016.

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**SUMMARY**

This Resolution approves Southern California Edison Company's (SCE's) requested relief in Advice Letter (AL) 3384-E to continue operations of its Tehachapi Storage Project (TSP), and to move the point of interconnection to the Monolith 12 kilovolt (kV) operating bus. This Resolution clarifies that SCE is to use a portion or all of the remaining funding amount, not to exceed the original pre-authorized funding of \$25.978 million, to support project activities arising from the option selected here and allows SCE to use economic benefits from market participation to offset annual operations and maintenance (O&M) costs. This Resolution directs SCE to file a Tier 3 AL should market participation revenues fall short of offsetting annual O&M costs. The AL will evaluate the feasibility of continued operations of SCE's TSP and explain any circumstances that may make the benefits from continued market participation no longer reasonable.

**BACKGROUND**

On September 10, 2009, the California Public Utilities Commission (CPUC or Commission) issued Decision (D.) 09-09-029 requiring SCE to file a Tier 3 AL to recover SCE's cost share for the TSP smart grid project. The TSP is an 8 megawatt (MW), 4 hour (32 megawatt-hour, MWh) utility-scale lithium-ion battery energy storage system (BESS) located in SCE's Monolith Substation, 100 miles northeast of Los Angeles within the Tehachapi Wind Resource Area. The

purpose of the TSP was to evaluate utility-scale BESS for purposes of improving grid performance and integrating renewable wind energy generation resources into the grid.

On June 20, 2010, SCE submitted a Tier 3 AL, AL 2482-E, to comply with the provisions of Ordering Paragraph (OP 3) of D.09-09-029 which included a showing that the DOE has selected the project to receive an award, a showing that the project furthers benefits to SCE's ratepayers, a showing that the requested incremental ratepayer funding for the project did not exceed \$30 million, a showing that ratepayer funding did not exceed 50 percent of the total projects costs, and demonstrating that SCE has sought third party funding in addition to DOE funding.<sup>1</sup> SCE requested a maximum of \$25,978,264 for the project, which was below the \$30 million and 50 percent threshold. This cost share was matched by federal stimulus funding of \$24,978,264 awarded by the United States Department of Energy (DOE) under the American Recovery and Reinvestment Act (ARRA), \$1,000,000 in co-funding awarded by the California Energy Commission (CEC), and \$5,261,627 in third-party vendor contribution. The total project cost was \$57,218,155.

On August 12, 2010 the Commission concluded that the TSP met the requirements specified by OP 3 of D.09-09-029 and issued Resolution E-4355 approving SCE's TSP request in AL 2482-E to recover up to a maximum of \$25,978,264 for the TSP. As of December 31, 2015 the balance in the Smart Grid American Recovery and Reinvestment Act Memorandum Account (SGARRAMA), which tracks costs related to the TSP, is \$19.246 million (SCE expenditures net of DOE and other proceeds). This amount is \$6.732 million below the authorized maximum funding amount of \$25.978 million.

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<sup>1</sup> SCE 's Tehachapi Storage Project, Continued Operation Feasibility (Advice Letter 3384-E), p.1.

Resolution E-4355 also required SCE to:

- Investigate the feasibility of continued operations of the TSP facility beyond the projected five-year demonstration life, including a comparison of the costs and benefits of continued operational activities versus the costs and benefits of decommissioning the facility at the end of the initial project period; and
- Provide the Commission with a report on its investigation of TSP continued operations feasibility versus decommissioning, via a Tier 3 AL.

### **Advice Letter 3384-E**

On March 21, 2016, SCE submitted AL 3384-E, to comply with the requirements of Resolution E-4355, containing a comparison of the costs and benefits of continued operational activities versus the costs and benefits of facility decommissioning. The instant Resolution responds to this AL.

In AL 3384-E SCE explained that due to the substation configuration and the limited nature of the project, the BESS is temporarily connected to the Monolith Substation 66 kV transfer bus. The 66 kV transfer bus was originally selected due to capacity availability at the commencement of the project. SCE explained that continued operation at the existing 66 kV connection point is not an option for continued operation of TSP as it places an unacceptable burden on long term grid operations. For continued operation of the TSP, SCE is proposing two options for moving the interconnection point to a permanent location as explained below.

In AL 3384-E, SCE provided three options for the TSP: (1) Continue Operations and move the point of interconnection to an existing, available permanent position on the Monolith 12 kV operating bus, (2) Continue Operations and move

the point of interconnection to a new, permanent position on the Monolith 66 kV operating bus, and (3) Facility Decommissioning.

Under Option 1 (Continue Operations and move the point of interconnection to the 12 kV bus), additional funds of \$1,747,399 would be required for relocation of the interconnection. Additional funds of \$3,388,583 would be required for annual O&M. The funds for annual O&M would be offset by the forecast net benefit of \$4,538,197 from market participation. Recent upgrades to the grid system in the area allow for connection to the 12 kV bus, which was not a viable option when the system was originally placed in service. Construction of interconnection facilities is estimated to be 24 months from the time of execution of the interconnection agreement between SCE as the distribution operator and itself as the generator.

Under Option 2 (Continue Operations and move the point of interconnection to the 66 kV bus) additional funds of \$6,109,842 would be required for relocation of the interconnection. Additional funds of \$2,958,069 would be required for annual O&M. The funds for annual O&M would be partially offset by the forecast net benefit of \$1,407,865 from market participation. SCE states that expansion of the 66 kV bus is required. SCE states that the net market benefits are lower under Option 2 as compared to Option 1 because market operations would be suspended until completion of the interconnection upgrades. Construction of interconnection facilities is estimated to be 80 months from the time of execution of the interconnection agreement, more than three times that of Option 1.

Under Option 3 (Facility Decommissioning) decommissioning costs of the TSP amount to \$1,493,010. More information on the residual value of the TSP can be found in the Confidential Appendix A attached to this Resolution. The DOE may direct SCE to sell the equipment and share any proceeds. Under the terms of the DOE agreement, the DOE is entitled to a share of the proceeds of any sale of tagged equipment at a level consistent with their contributions (approximately fifty percent of the fair market sale price).

The DOE has expressed a preference that the BESS continue to operate to gain additional knowledge to share with the industry. Thus, SCE's recommendation is for the TSP to continue operations and permanently move the point of interconnection to the Monolith 12 kV bus (Option 1). Option 1 was identified as the most cost-effective option for continued operations of the TSP because net market benefits are higher than those under Option 2. This is because market operations would not need to be suspended until completion of the interconnection upgrades, as they would be under Option 2. SCE stated that "there is remaining available funding under the authorized funding to cover planning, development, construction, operations and maintenance, and future decommissioning costs"<sup>2</sup> and that "current forecast net market benefits would nearly offset operations and maintenance costs."<sup>3</sup> Any future revenues that exceed costs would be returned to ratepayers. SCE states "Any revenue shortfalls or excesses collected up to the authorized funding amount would be collected from or returned to ratepayers."<sup>4</sup>

## **NOTICE**

Notice of AL 3384-E was made by publication in the Commission's Daily Calendar. Southern California Edison states that a copy of the Advice Letter was mailed and distributed in accordance with Section 4 of General Order 96-B.

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<sup>2</sup> Advice Letter 3384-E, p. 8.

<sup>3</sup> Advice Letter 3384-E, p. 8.

<sup>4</sup> Advice Letter 3384-E, p. 6.

## **PROTESTS**

SCE's AL 3384-E was timely protested by the Office of Ratepayer Advocates (ORA) on April 25, 2016. ORA recommended that the Commission condition its approval of AL 3384-E on the following requirements:<sup>5</sup>

1. SCE file a Tier 3 AL detailing: a) its plan to operate and maintain the TSP, b) its decommissioning strategy; c) updated Preliminary Statements; d) how it will record and maintain expenses and revenues in its Base Revenue Requirement Balancing Account (BRRBA) for recovery over the ten year life of the TSP; and e) which external parties will SCE engage in collaborative learning with;
2. SCE should provide lessons learned to the Commission on a yearly basis;
3. Continued operations of the TSP should be subject to the cost cap imposed by D.09-09-029, with all market benefits returned to ratepayers;
4. Costs incurred to move the TSP to the 12 kV bus and to operate and maintain the storage system are not included in rate-base; and,
5. In the event SCE seeks to change the operations or use of the TSP as detailed in ORA's recommended Tier 3 AL, the Commission should require SCE to obtain Commission approval first through a Tier 3 AL.

SCE responded to the protest of ORA on May 2, 2016. SCE argued that the additional requirements are "inconsistent with Commission directives, infeasible and in some cases extraneous"<sup>6</sup> and urged the Commission to reject ORA's protest and approve AL 3384-E "so that continued testing can provide additional benefits in obtaining knowledge and learning concerning large grid-connected energy storage systems."<sup>7</sup>

The following is a more detailed discussion of the major issues raised in the protest.

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<sup>5</sup> Protest of the Office of Ratepayer Advocates of Southern California Edison Company Advice Letter 3384-E (ORA Protest to AL 3384-E), p. 3.

<sup>6</sup> Reply of Southern California Edison Company to the Office of Ratepayer Advocates Protest of SCE Advice 3384-E (Reply of SCE to ORA Protest of AL 3384-E), p. 2.

<sup>7</sup> Reply of SCE to ORA Protest of AL 3384-E, p. 2.

## **DISCUSSION**

The Commission has reviewed SCE's AL 3384-E, ORA's protest, and SCE's response. We adopt SCE's final recommendation for TSP to continue operations and permanently move the point of interconnection to the Monolith 12 kV bus. The Commission also creates additional requirements for reporting and clarifies the use of the remaining authorized funds.

### **CONTINUED OPERATION OF THE TSP**

*SCE should continue operation of the TSP and move the interconnection point to the Monolith 12 kV bus.*

In AL 3384-E, SCE provided three options for the TSP: (1) Continue Operations and move the point of interconnection to an existing, available permanent position on the Monolith 12 kV operating bus, (2) Continue Operations and move the point of interconnection to a new, permanent position on the Monolith 66 kV operating bus, and (3) Facility Decommissioning. SCE provided the benefits and costs associated with all three options.

Under Option 1 (Continue Operations at the 12 kV bus), and Option 2 (Continue Operations at the 66 kV bus), benefits include:<sup>8</sup>

- Long-term evaluation of grid-connected lithium-ion battery technology;
- Opportunity to develop and improve a Storage System Control strategy in an SCE-controlled, field-deployed system;
- Opportunity for continued research and development for optimizing grid-connected storage, both for market uses and as a grid reliability asset;
- Opportunity to continue to leverage the substantial initial investment made through California ratepayer and federal public funding of the installed system; and
- Opportunity for collaborative learning with external parties (e.g. academia, vendor stakeholders etc.).

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<sup>8</sup> Advice Letter 3384-E, p. 5.

Under Option 3 (Facility Decommissioning) the primary benefit is avoiding operating expenses. The benefit of decommissioning is avoiding the risk that O&M costs will exceed net market benefits.

Under all the options, "SCE will use a portion or all of the remaining authorized funding amount, not to exceed the \$25.978 million cap, to support the respective project activities."<sup>9</sup> For the continued operation options these activities include permanently interconnecting the system and subsequently decommissioning it at the end of life. For the Facility Decommissioning option, the available funding would be applied to the costs of dismantling and disposal/recycling of the system.

SCE's recommendation is for the TSP to continue operations and permanently move the point of interconnection to the Monolith 12 kV bus (Option 1). SCE identified that Option 1 was the most cost-effective option for continued operations of the TSP and that continued Operations at the 66 kV bus is "considered prohibitive from both a cost and timing point of view."<sup>10</sup> This is due to the fact that net market benefits are forecasted to be lower under Option 2 because market operations would need to be suspended until completion of the interconnection upgrades. Additionally, construction of interconnection facilities is estimated to be 80 months under Option 2 versus 24 months under Option 1.

The Commission agrees that Option 1 is more reasonable. We also find that at this moment the benefits as stated by SCE outweigh the risks of additional costs to ratepayers. Therefore SCE is authorized to continue operation of the TSP and move the interconnection point to the Monolith 12 kV bus.

### **ORA's REQUEST FOR A TIER 3 ADVICE LETTER**

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<sup>9</sup> Advice Letter 3384-E, p. 3.

<sup>10</sup> Advice Letter 3384-E, p. 6.

*SCE shall file a Tier 2 Advice Letter updating its plan to operate and maintain its TSP and updating its Preliminary Statements.*

ORA argued that “AL-3384 lacks a detailed assessment and description of SCE-specific goals and intended use of the TSP. Now that the tasks identified by the DOE are coming to completion as the TSP demonstration period sunsets, the Commission should require SCE to file a Tier 3 Advice Letter detailing” the following:<sup>11</sup>

- Its plan to operate and maintain the TSP;
- Updating Preliminary Statements;
- Decommissioning strategy;
- Explaining how it will record and maintain expenses and revenues in its Base Revenue Requirement Balancing Account (BRRBA); and
- Detailing which external parties will SCE engage collaborative learning with.

The Commission finds value in ORA’s argument that SCE’s plans to operate and maintain the TSP should be re-assessed if needed. Resolution E-4355 contained a table of TSP Test Requirements and Metrics. SCE is instructed to update this table in a Tier 2 AL within 60 days after approval of this resolution.

In response to updating its Preliminary Statements, SCE stated “upon Commission approval SCE would submit a subsequent advice filing to update associated Preliminary Statements”<sup>12</sup> as originally stated in AL 3384-E. The Commission finds this acceptable. Having approved the final recommendation to continue operations of TSP using the 12 kV bus, SCE shall submit a subsequent Tier 2 AL, within 60 days after approval of this resolution, to update applicable Preliminary Statements. SCE may combine this filing with the filing on updating the TSP Test Requirements and Metrics.

Regarding its decommissioning strategy, SCE responded that, should the Commission deny SCE’s request to continue operation of the TSP, it will

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<sup>11</sup> ORA Protest to AL 3384-E, p. 3.

<sup>12</sup> Reply of SCE to ORA Protest of AL 3384-E, p. 3

decommission TSP as planned and detailed in AL 2482-E. Having approved SCE's request to continue operation of the TSP, the Commission finds this issue is premature and not relevant at this time. Should SCE recommend decommissioning the TSP at a later time, SCE shall file a Tier 3 AL requesting permission to decommission the TSP and updating detailed plans in AL 2482-E if needed as discussed further below.

At this moment the Commission sees no merit in having SCE detail how it will record and maintain expenses and revenues in its BRRB for recovery.

*SCE should report collaboration with other parties in its existing quarterly updates regarding the TSP.*

The Commission does see merit in SCE reporting which parties it directly collaborates with regarding the lessons learned and how this collaboration contributes to the goals of the project. SCE shall report this in its existing quarterly updates regarding the Tehachapi Wind Energy Storage Project.

#### **ORA's REQUEST FOR REPORTING OF LESSONS LEARNED**

*SCE should incorporate lessons learned into its quarterly updates regarding the Tehachapi Wind Energy Storage Project.*

ORA raised the issue of reporting lessons learned to the Commission. ORA recommended "SCE should be required to submit lessons learned to the Commission on a yearly basis" and reporting the lessons learned from operating the TSP in the California Independent Systems Operator (CAISO) market.

SCE stated in its reply that it agreed to provide lessons learned. Pursuant to D.09-09-029 Ordering Paragraph 7, SCE provides public TSP progress reports on a quarterly basis to the Commission. SCE proposes to modify the existing report template to discuss lessons learned.

We find the venue proposed by SCE acceptable for reporting lessons learned. SCE shall continue to file its quarterly reports and modify them with lessons learned. SCE shall continue to informally submit the reports to the director of Energy Division, the Executive Director, and any other party that the Commission deems necessary, including ORA.

**ORA's REQUEST FOR CONTINUED OPERATIONS OF TSP TO REMAIN WITHIN THE COST CAP PREVIOUSLY IMPOSED**

*SCE shall utilize a portion or all of the remaining funding amount, not to exceed the \$25.978 million cap, to support respective activities such as applying the costs toward permanently interconnecting the system, subsequently decommissioning at end of life and towards instances when market benefits fall short of offsetting operation and maintenance costs. The cost cap remains in effect and shall not be exceeded.*

ORA recommends that continued operations of the TSP should be subject to the cost cap imposed by D.09-09-029, with all market benefits returned to ratepayers. SCE responded that it is not feasible to continue operating the TSP subject to the cost cap with all market benefits returned to ratepayers because there would be insufficient funds to continue testing and operations. The Commission agrees with SCE.

In AL 3384-E SCE stated "SCE will use a portion or all of the remaining authorized funding amount, not to exceed the \$25.978 million cap, to support the respective project activities"<sup>13</sup> which includes permanently interconnecting the system and subsequently decommissioning it at its end of life. Furthermore, SCE stated that "there is remaining available funding under the authorized funding to cover planning, development, construction, operations and maintenance, and future decommissioning costs"<sup>14</sup> and that "current forecast net market benefits would nearly offset operations and maintenance costs."<sup>15</sup> Any future revenues that exceed costs would be returned to ratepayers.

SCE shall use the remaining funds, not to exceed the \$25.978 million cap, to offset costs required to interconnect the TSP to the 12 kV bus. SCE's recommendation

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<sup>13</sup> Advice Letter 3384-E, p. 3.

<sup>14</sup> Advice Letter 3384-E, p. 8.

<sup>15</sup> Advice Letter 3384-E, p. 8.

to use market revenues to offset O&M costs is also approved. The Commission makes the following clarification. SCE is instructed to utilize any funds remaining after interconnection costs and minus future decommissioning costs, not to exceed the cost cap, to offset Total Energy Storage Operating Costs should Total Market Benefits not offset these costs in any year.

ORA also recommended that SCE not be allowed to include in ratebase the costs incurred to move the TSP to the 12 kV bus and to operate and maintain the storage system. SCE argued that it is not requesting additional customer funding for TSP and that O&M costs would be offset by market revenues. The Commission agrees that SCE is not requesting additional customer funding, and will utilize the previously-authorized funds to move the TSP to the new permanent location. Therefore we do not see merit in ORA's argument and it is dismissed.

#### **CHANGING OPERATIONS OR USE OF THE TSP**

*SCE is required to file a Tier 3 Advice Letter seeking Commission approval to decommission the TSP should Total Market Revenues not offset Operations and Maintenance Costs or if the pre-authorized funding is exceeded.*

The Commission finds that it is prudent to invest the remainder of the already authorized funds to continue operation of the TSP. Due to the nascent energy storage market, the Commission is cautious of burdening ratepayers with excess costs. Therefore, starting in 2018, SCE is directed to file a Tier 3 AL seeking Commission consideration of whether to decommission the TSP should the authorized funding be exceeded. SCE is also instructed to file a Tier 3 AL, on April 1<sup>st</sup>, following those years that Market Benefits fall short of meeting Total Energy Storage Operating Costs. The AL shall contain all necessary data, analysis on what market changes affected the change in revenues, explanation on why this occurred and shall analyze whether continuation of the TSP is beneficial to grid reliability and economically feasible.

#### **ADDITIONAL REQUIREMENTS IDENTIFIED BY THE COMMISSION**

*SCE is instructed to file a Tier 1 Advice Letter informing the Commission of Total Market Benefits and Total Energy Storage Costs on April 1 for every year where Market Benefits exceed Total Energy Storage Costs.*

Due to the nascent nature of the Energy Storage market, the Commission finds it prudent to stay informed of the status of the TSP. In particular, the Commission would like to stay updated on how the TSP is performing in the CAISO market and how benefits offset O&M costs. This will provide the Commission insight into how the market is developing. Starting in 2017 SCE is instructed to file a Tier 1 AL notifying the Commission of the Total Market Benefits and Total Energy Storage Operating Costs for the previous year where Market Benefits exceeded Total Energy Storage Operating Costs. The AL shall be filed by April 1 of the following year for each year the TSP remains in operation. SCE shall consult with Energy Division staff within 45 days of the issuance of this decision to discuss how to report findings.

### **COMMENTS**

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

All parties in the proceeding have stipulated to reduce the 30-day waiting period required by PU Code section 311(g)(1) to 10 days. By stipulation of all parties, comments shall be filed no later than 10 days following the mailing of this draft resolution.

### **FINDINGS**

1. Commission Resolution E-4355 directed Southern California Edison Company to file an Advice Letter to investigate the feasibility of continued operation of the TSP facility beyond the projected demonstration life.
2. Southern California Edison filed Advice Letter 3384-E to meet the requirement set forth in Resolution E-4355.

3. It is reasonable to authorize SCE to continue operations of the TSP and move the interconnection point to the Monolith 12 kV bus.
4. The balance in the SGARRAMA is \$19.246 million which is \$6.732 million below the authorized maximum funding amount of \$25.978 million as of December 31, 2016.
5. It is reasonable to authorize SCE to use a portion or all of the remaining funding amount, not to exceed the \$25.978 million cap, to support approved project activities.
6. SCE will ultimately utilize the recorded December 31, 2016 SGARRAMA balance when calculating the remaining available authorized funding amount.
7. It is reasonable for SCE to update its plan to operate and maintain the TSP and update its Preliminary Statements in an Advice Letter.
8. SCE submits quarterly reports to the Commission, pursuant to Ordering Paragraph 1 of D.09-09-029.
9. It is reasonable for SCE to incorporate lessons learned into its existing quarterly updates and to include a section reporting collaboration with other parties.
10. Although forecasted total market revenues are expected to offset operation and maintenance costs, it is reasonable to require SCE to file a Tier 3 Advice Letter to investigate the feasibility of continued TSP operations for any year in which market revenues fall short of offsetting operation and maintenance costs.

**THEREFORE IT IS ORDERED THAT:**

1. The request of the Southern California Edison Company to continue operations of the Tehachapi Storage Project as requested in Advice Letter 3384-E is approved.
2. Southern California Edison Company is authorized to permanently move the point of interconnection of the Tehachapi Storage Project to the Monolith 12 kV bus.
3. Southern California Edison Company is authorized use a portion or all of the remaining funding amount, not to exceed the previously authorized funding of \$25.978 million, to support project activities.
4. Southern California Edison Company shall use Market Benefits to offset Operation and Maintenance Costs.

5. Southern California Edison Company shall use any remaining funds, not to exceed the previously authorized funding of \$25.978 million, to offset Operation and Maintenance Costs should Market Benefits fall short of offsetting Operation and Maintenance Costs.
6. Southern California Edison Company shall file a Tier 2 Advice Letter updating its plan to operate and maintain the Tehachapi Storage Project and updating its Preliminary Statements within 60 days after approval of this resolution.
7. Southern California Edison Company shall incorporate lessons learned into its existing quarterly updates and include a section reporting collaboration with other parties.
8. Southern California Edison Company is ordered to file Tier 3 Advice Letter, starting in 2018, on April 1 to either justify continued operation of the Tehachapi Storage Project or recommend facility decommissioning should Market Benefits not offset Operation and Maintenance Costs in the preceding year or if the pre-authorized funding is exceeded.
9. Southern California Edison Company shall record all Market Benefits and Total Energy Storage Operating Costs and is ordered to file Tier 1 Advice Letter on April 1, 2017, and every year thereafter annually, showing Market Benefits and Operation and Maintenance Costs during years when Market Benefits exceed Operation and Maintenance Costs. Southern California Edison Company shall consult with Energy Division staff within 45 days of the issuance of this decision to discuss how to report findings.

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 December 15, 2016; the following Commissioners voting favorably thereon:

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TIMOTHY J. SULLIVAN  
Executive Director

**C O N F I D E N T I A L**

**A P P E N D I X A**

[REDACTED]