

Decision 18-06-012 June 21, 2018

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to Enhance the Role of Demand Response in Meeting the State's Resource Planning Needs and Operational Requirements.

Rulemaking 13-09-011

DECISION MODIFYING DECISION 16-09-056

Summary

We determine that the demand response prohibited resources policy (Prohibited Resources Policy) should not rely on any metric developed in the Self Generation Incentive Program. Furthermore, there are multiple reasons to exempt energy storage not coupled with fossil-fueled generation from the list of prohibited resources, at this time. Accordingly, Decision (D.) 16-09-056 at Conclusion of Law 10 is modified to confirm that the Prohibited Resources Policy is applicable to all resources but that energy storage resources, not coupled with fossil-fueled generation, should be exempt from the list of prohibited resources. Furthermore, D.16-09-056 at Ordering Paragraph 3 is also modified to exempt all energy storage resources, not coupled with fossil-fueled generation, from the list of prohibited resources. The exemption of energy storage resources will be reviewed again in either the proposed rulemaking on new models of demand response or the 2023-2027 demand response program applications, whichever commences first. At that time, the Commission will have more experience with energy storage resources participating in demand response and can better

determine whether to continue the exemption from the list of prohibited resources or develop and adopt a new independent emissions requirement for energy storage resources participating in demand response programs.

Rulemaking 13-09-011 is closed.

1. Procedural Background

On September 29, 2017, the Commission approved Decision (D.) 16-09-056, adopting guidance for future demand response portfolios and modifying D.14-12-024. Relevant to this decision, D.16-09-056 rescinded a prior requirement in D.14-12-024 to collect data on fossil-fueled back-up generation in demand response programs and established a prohibition of the use of certain resources for load reduction during demand response events (Prohibited Resources Policy). Ordering Paragraph 3 of that decision established the list of prohibited resources as: distributed generation technologies using diesel, natural gas, gasoline, propane, or liquefied petroleum gas, in topping cycle Combined Heat and Power (CHP) or non-CHP configuration. Notably, the decision exempted from the list of prohibited resources energy storage and storage coupled with renewable generation that meet the relevant greenhouse gas emissions metric adopted for the Self Generation Incentive Program (SGIP).

On January 26, 2018, Stem, Inc. (Stem) filed a petition to modify D.16-09-056 (Petition). In its Petition, Stem contends that implementation of the Prohibited Resources Policy adopted in D.16-09-056 would cause more harm than the very slight greenhouse gas annual emissions increase attributed to

SGIP-eligible energy storage for all of 2016.¹ Stem argues in its Petition that the reliance on an SGIP metric would prohibit energy storage resources from not only contributing to demand response but to other equally important goals of Senate Bill (SB) 1414 and Assembly Bill (AB) 2514.² Pursuant to Commission Rules of Practice and Procedure, Rule 16.4(c),³ Stem explains that a report released in September 2017 provides additional information not previously available, which Stem alleges establishes the justification for modification of D.16-09-056.⁴ In its Petition, Stem requests the Commission to 1) clarify that the Prohibited Resources Policy does not apply to energy storage; 2) suspend the requirement that energy storage meet the existing SGIP emissions metric in order to provide load reduction during demand response events, pending adoption of a more accurate greenhouse gas method; and 3) clarify that existing non-SGIP storage projects and previously executed contracts governing the projects are not subject to the incorporation of the SGIP greenhouse gas metric.

On February 26, 2018, the following parties filed responses to the Petition: California Energy Storage Alliance (CESA); California Solar & Storage

¹ D.16-09-056 required the Prohibited Resources Policy to be implemented on January 1, 2018. Due to regulatory and technical delays, the implementation is now anticipated sometime in the second half of 2018.

² California SB 1414 (Wolk) Chapter 627 approved by the Governor on September 26, 2014. SB 1414 requires utilities and regulators to include demand response in resource adequacy plans, as specified. California AB 2514 (Skinner) Chapter 469 approved by the Governor on September 29, 2010. AB 2514 requires the Commission to determine appropriate targets, if any, for load serving entities to procure energy storage systems.

³ Rule 16.4(c) requires that if more than one year has elapsed since the effective date of the decision proposed to be modified, the petition must explain why the petition could not have been presented within one year of the effective date of the decision.

⁴ Petition at 2 referencing the 2016 SGIP Energy Storage Impact Evaluation prepared by Itron with assistance from Energy + Environmental Economics (E3) and released in September 2017.

Association (CALSSA); Engie Storage Services NA, LLC (Engie); the Joint Demand Response Parties;⁵ the Office of Ratepayer Advocates (ORA), and Pacific Gas and Electric Company (PG&E) and Southern California Edison Company (SCE) (jointly, PG&E/SCE).

2. Party Positions

In its Petition, Stem provides new information to this proceeding directly related to the SGIP emissions metric referenced in the Prohibited Resources Policy. Stem references the 2016 SGIP Energy Storage Impact Evaluation (Itron Report), which has shown that “the SGIP round-trip efficiency standard adopted nearly eight years ago as a proxy greenhouse gas emissions measure is at best “an imperfect metric for achieving greenhouse gas reductions.”⁶

According to Stem, the Itron Report found that the round trip efficiency alone does not accurately or reliably measure greenhouse gas emissions reductions associated with energy storage operations and recommended that the Commission should consider a more accurate method that signals storage operators to enable them to charge and discharge their systems to minimize greenhouse gas emissions.⁷ An Assigned Commissioner Ruling in Rulemaking (R.) 12-11-005 established an “Energy Storage Greenhouse Gas Signal Working Group” to develop alternative operational requirements to improve greenhouse gas emissions impacts from storage project, including the development of a

⁵ The Joint Demand Response Parties are CPower, EnerNOC, Inc., and EnergyHub.

⁶ Petition at 2 quoting a December 29, 2017 Assigned Commissioner Ruling in R.12-11-005.

⁷ *Ibid.*

greenhouse gas signal to help SGIP energy storage systems reduce greenhouse gas emissions.⁸

Stem requests the Commission exempt storage from the Prohibited Resources Policy until the R.12-11-005 working group develops and the Commission adopts some variant of the greenhouse gas emissions signal, as described in the December 29, 2017 Assigned Commissioner Ruling. Stem argues that implementing the Prohibited Resources Policy as currently written could “cause far more harm than the very slight greenhouse gas annual emissions increase attributed by Itron to SGIP-eligible energy storage for all of 2016.”⁹

There is support for revising the current Prohibited Resources Policy, but to varying degrees ranging from support for complete exemption of energy storage from the Prohibited Resources Policy to support for modification of the current greenhouse gas emissions metric. First, several parties support the complete exclusion of storage from the Prohibited Resources Policy. Arguing that Conclusion of Law 10 makes clear that the Commission seeks to include storage resources generally in demand response programs, Joint Demand Response Parties assert that tying storage resources artificially to the SGIP policies circumvents that policy.¹⁰ Joint Demand Response Parties as well as CESA caution that the current policy could yield the unintended consequence of eliminating all storage from participating in demand response programs, including resources providing demand response services in accordance with

⁸ *Ibid* and R.12-11-005 Assigned Commissioner Ruling, December 29, 2017 at 3.

⁹ Petition at 2, footnote 6, citing the Itron Report findings.

¹⁰ Joint Demand Response Parties Response at 3.

Local Capacity Requirement and Demand Response Auction Mechanism contracts.¹¹ Engie fully supports the development of greenhouse gas standards for energy storage, but discourages the Commission from adopting standards already identified as problematic.¹²

ORA and PG&E/SCE also support Stem's recommendation to modify D.16-09-056 to more accurately ensure energy storage reduces greenhouse gas emissions.¹³ However, all three entities recommend maintaining the current policy until a new method to improve greenhouse gas emissions impacts from storage projects can be established.¹⁴ Contending that the new SGIP emissions method – currently being developed in R.12-11-005 – will only apply to storage projects that receive SGIP incentives, ORA recommends that the Commission establish a greenhouse gas metric for energy storage independent of the SGIP.¹⁵ Further, ORA highlights that the SGIP is scheduled to sunset in 2020 making it unclear whether the Commission could rely on the new method adopted in SGIP.¹⁶ PG&E/SCE recommend expeditious collaboration through the R.12-11-005 greenhouse gas working group. Once completed, PG&E/SCE suggest the new SGIP method should apply to storage participating in demand response and in the Demand Response Auction Mechanism.¹⁷

¹¹ *Id.* at 2 and CESA Response at 3.

¹² Engie Response at 3.

¹³ ORA Response at 2 and PG&E/SCE Response at 2.

¹⁴ ORA Response at 2 and PG&E/SCE Response at 2.

¹⁵ ORA Response at 4, citing R.12-11-005 December 29, 2017 Assigned Commissioner Ruling.

¹⁶ *Id.* at 4 and footnote 16.

¹⁷ PG&E/SCE Response at 2.

3. Discussion

The SGIP emissions metric at the heart of this issue is currently being reviewed in the SGIP proceeding. We do not address the efficacy of the current metric or any other metric or method being reviewed in the SGIP proceeding. This decision addresses: 1) whether the continued use of the SGIP emissions metric in the Prohibited Resources Policy is reasonable, and 2) whether and how the Commission should modify D.16-09-056 to address the concern.

The Commission determines that the Prohibited Resources Policy, which currently requires energy storage to meet the current SGIP emissions metric, should not include requirements associated with the SGIP for multiple reasons, as further described below. Furthermore, it is reasonable to balance the Commission's responsibility to ensure a commitment to clean energy policies while recognizing the nascent nature of energy storage participating as demand response. Accordingly, this decision clarifies that it is reasonable to exempt but not exclude energy storage, not coupled with fossil-fueled generation¹⁸ from the list of prohibited resources and takes a balanced approach and revises D.16-09-056, Ordering Paragraph 3, to exempt all energy storage resources not coupled with fossil-fueled generation from the list of prohibited resources in the Prohibited Resources Policy at this time. The exemption from the list of prohibited resources includes Commission-approved behind-the-meter energy storage resource contracts. The Commission will review the exemption of storage resources in either the proposed rulemaking on new models of demand response or the 2023-2027 demand response program applications.

¹⁸ In other words, energy storage charging from a fossil-fueled generator and discharging during a demand response event.

3.1. Linkage Between SGIP and the Prohibited Resources Policy

We begin with a discussion of whether to continue the linkage between the SGIP and the Prohibited Resources Policy. R.12-11-005 determined that a working group should develop alternative operational requirements to improve greenhouse gas emissions impacts from storage projects, including a greenhouse gas signal to help SGIP energy storage systems reduce net greenhouse gas emissions.¹⁹ Parties in this proceeding have voiced concern that current demand response storage contracts outside of the demand response portfolio may not meet the SGIP emissions standard, currently required by the Prohibited Resources Policy, but which is now being considered to be replaced.

Since 2015, the Commission has approved several demand response energy storage resources contracts external to the demand response portfolio, as well as energy storage contracts for the demand response auction mechanism. Stem highlights examples of currently contracted or pending potential procurement of energy storage that may not meet the existing SGIP emissions metric: SCE's 2014 Local Capacity Resource Request for Offer, which has resulted in 135 megawatts of demand responsive energy storage contracts and SCE's Puente-Moorpark procurement of storage as an alternative to new gas-fired generation.²⁰ Stem underscores that energy storage in these contracts may not be eligible for or may not seek SGIP incentives and yet will be required to meet the SGIP emissions metric pursuant to the Prohibited Resources Policy anticipated to be soon implemented by the Commission. Stem contends that

¹⁹ R.12-11-005 Assigned Commissioner Ruling, December 29, 2017 at 3.

²⁰ Petition at 4.

“unless the current reference to an SGIP [greenhouse gas] standard is modified, [these contracts] may be precluded from using storage for demand response.”²¹ Stem further asserts that the current SGIP emissions metric may also severely impact the Demand Response Auction Mechanism. No party disputes these contentions.

We agree that as a result of the linkage with the current SGIP emissions metric – now under further review by the Commission – contracts for demand response energy storage could be determined to be out of compliance with the Prohibited Resources Policy, as currently written, which could result in an inability of those resources to contribute to demand response. This may impact grid reliability. Meeting the needs of the grid is a cornerstone of the demand response goal, as well as one of the highest responsibilities of the Commission. Hence, the Commission should not continue to rely on the SGIP emissions metric, currently being reviewed in R.12-11-005, as a requirement in the Prohibited Resources Policy.²²

We now review the appropriateness of the linkage between the SGIP and the Prohibited Resources Policy. To begin, the SGIP and the demand response program are two different programs with different objectives and operations. The Commission established the SGIP in D.01-03-073. The intent of the program is to increase deployment of distributed generation and energy storage systems to facilitate the integration of those resources into the electrical grid, improve efficiency and reliability of the distribution and transmission system, and reduce

²¹ Petition at 4.

²² See R.12-11-005 Assigned Commissioner Ruling, December 29, 2017 at 2.

emission of greenhouse gases, peak demand, and ratepayer costs.²³ In comparison, the demand response program involves reductions, increases, or shifts in electricity consumption by customers in response to either economic signals or reliability signals.²⁴ Hence the objectives of the two programs are different. That being said, we recognize, as pointed out by PG&E, that behind the meter energy storage technology can enable or support a customer's participation in demand response because the on-site storage resource can assist the customer to respond to a demand response signal.²⁵ However, the general objectives of the two programs are different.

Furthermore, the operations of the two programs are also different in that the SGIP responds through retail rates, while demand response programs respond through market rates. In comments to the proposed decision, PG&E contends that it is an error to state that "the SGIP-incented energy resources respond to retail rates."²⁶ PG&E argues that energy storage is a technology and its use is dependent on what the customer wants to do with it. True, but if the SGIP storage is operating, it has been incented to do so by retail rates. Furthermore, the statement referenced by PG&E characterizes SGIP, the program, not SGIP energy storage, the technology. The statement compares the two programs, not the technology.

²³ D.11-09-015 at 4.

²⁴ D.17-12-003 at 3.

²⁵ PG&E Opening Comments to the Proposed Decision, June 4, 2018 at 3.

²⁶ *Id.* at 4.

Relatedly, ORA points out that the SGIP is expected to sunset in 2020. The Commission should not establish a policy (i.e., the Prohibited Resources Policy) that relies on a standard from a program that may cease to exist.

Because of the differences between SGIP and demand response, the fact that SGIP is expected to sunset in 2020, and the uncertainty with the current SGIP emissions metric, the Commission determines it should not rely on a standard developed in the SGIP for establishing demand response related policy. Accordingly, the Commission should disengage the linkage between the Prohibited Resources Policy and the SGIP.

3.2. Energy Storage Resources and the Prohibited Resources Policy

We turn to the issues of the Petition: 1) whether the Prohibited Resources Policy should be applicable to energy storage resources; 2) if the policy is determined to be applicable to energy storage resources, whether the Commission should adopt a new method to replace the current SGIP greenhouse gas metric and; 3) if a new method should be adopted, what that new method should be.

3.2.1. Applicability of the Prohibited Resources Policy to Storage

First, we address the applicability of the Prohibited Resources Policy to energy storage resources. Stem, CALSSA, CESA, Engie, and the Joint Demand Response Parties assert that energy storage resources participating in demand response should not be required to comply with the current SGIP emissions metric but rather the Commission should determine the Prohibited Resource

Policy not applicable to energy storage.²⁷ Stem argues that the Commission specifically called out energy storage as a strategic resource to meet AB 2514 requirements and thus excluded energy storage from the list of prohibited resources. On the other hand, PG&E/SCE and ORA support the continued applicability of the Prohibited Resources Policy to energy storage resources. ORA highlights that the exclusion of energy storage from the list of prohibited resources was with the condition that the resource meet the relevant SGIP emissions metric.²⁸

As stated in D.16-09-056, the Commission considers energy storage a strategic resource to meet AB 2514 storage targets but, simultaneously, the Commission must ensure that storage coupled with fossil resources is not permitted. Hence, the Commission could not then and should not now exclude all energy storage resources from the Prohibited Resources Policy. D.16-09-056 concluded it should exempt stand-alone and storage coupled with renewables so long as the resources can meet the SGIP emission metric. In this decision, we determine that the Commission should not rely on a metric or method from the SGIP for establishing demand response related policy. This determination does not mean, however, that the Prohibited Resource Policy does not apply to energy storage. Again, the Commission is responsible for carrying out California's clean energy policy while also meeting AB 2514 requirements. Accordingly, we clarify that we exempt energy storage and to avoid confusion, the Commission should modify Conclusion of Law 10 to replace the word "exclude" with the word

²⁷ Petition at 9; CESA Response at 7; CALSSA Response at 4; Engie Response at 3; and Joint Demand Response Parties Response at 2.

²⁸ ORA Response at 2-3.

“exempt.” Furthermore, we specify the energy storage as not coupled with fossil-fueled generation.

3.2.2. Exemption of Storage Not Coupled With Fossil-Fueled Generation

Now we address whether the Commission should adopt a new emissions metric to replace the current SGIP metric, for use in the Prohibited Resources Policy. We have determined that the Prohibited Resources Policy should not rely upon a metric or method from the SGIP, so we now consider whether to develop an independent demand response emissions measurement.

CESA suggests that while greenhouse gas emissions reduction is an important objective for demand response programs, a balanced approach is more appropriate where the other objectives of demand response such as customer choice and grid support are factored into the value of energy storage resources provided through demand response.²⁹ Agreeing that the Commission should prohibit the use of fossil-fueled fired generators, CESA posits that energy storage, which has zero point-source emissions, should neither be prohibited from use in demand response nor subject to discriminative rules in comparison to traditional demand response resources.³⁰ CESA contends that the Prohibited Resources Policy may be holding energy storage resources participating in demand response programs to stricter operating requirements from traditional demand response resources.³¹

²⁹ CESA Response at 7.

³⁰ *Ibid.*

³¹ *Ibid.*

ORA recommends expanding the scope of R.13-09-011 to include the development of a stand-alone emissions metric for energy storage. We note that the rulemaking has resolved all issues and has been closed, except for addressing the Petition at hand.

In our consideration of the replacement emissions metric the Commission should adopt, we are compelled to evaluate the allegation that energy storage may not be on a level playing field with traditional demand response curtailment resources in terms of the Prohibited Resources Policy.³² D.16-09-056 adopted a set of principles for all Commission-regulated demand response.³³ The principles of demand response include a requirement that all demand response shall be market-driven leading to a competitive, technology-neutral open market in California. Policies unfair to a particular technology conflict with this principle. Our intention in adopting the Prohibited Resources Policy was and remains to ensure resources meet the Commission's clean energy policies including SB 1414, whereby demand response shall reduce greenhouse gases.³⁴ However, the Commission should balance this intention with other objectives such as customer choice and grid support, and competitive neutrality. Additionally, we also consider the report from the California Air Resources Board, that the emissions from energy storage comprise less than .0009 percent of

³² CESA Response at 7.

³³ D.16-09-056 at Ordering Paragraph 8.

³⁴ D.16-09-056 at 20-21.

California's total greenhouse gas emissions of electricity generation for all of 2016.³⁵

Having determined that we should disengage the linkage between the SGIP and the Prohibited Resources Policy, we are left with the option of creating an independent energy storage emissions metric. However, singling out energy storage by creating this independent metric could possibly send the wrong signal to energy storage providers. Some perceive the Prohibited Resources Policy as requiring energy storage to comply with stricter operating requirements from traditional demand response resources. Again, the Commission should ensure that regulatory metrics are not discriminatory of one technology over another. Furthermore, because of the nascent nature of storage and since emissions impact from storage are currently low, it may be reasonable to exempt energy storage from the Prohibited Resources Policy. Taking all of these elements into consideration, the Commission should grant an exemption to energy storage resources not coupled with fossil-fueled generation from the list of prohibited resources in the Prohibited Resources Policy at this time.

4. Conclusion

This decision partially grants the Petition filed by Stem to modify D.16-09-056. First, to avoid further confusion, D.16-09-056, Conclusion of Law 10 is modified to replace the word "exclude" with the word "exempt" and energy storage is qualified by adding the words, "not coupled with fossil-fueled generation." Second, we revise D.16-09-056, Ordering Paragraph 3 to exempt energy resources, not coupled with fossil-fueled generation, from the list of

³⁵ Petition at 8, footnote 22, citing data on the California Air Resources Board website at <https://www.arb.ca.gov/cc/inventory/data/data.htm>.

prohibited resources at this time. The Commission will review this determination in either the proposed new rulemaking on new models of demand response or the 2023-2027 demand response program applications, whichever commences first. At that time, the Commission will consider whether to continue the exemption and/or develop a new independent emissions requirement for energy storage. As part of its review, the Commission will consider the elements discussed above, having had additional experience with the use of energy storage as a demand response resource. In the meantime, we find it reasonable to task the Load Shift Working Group³⁶ with considering the issue of an appropriate energy storage emissions metric, as part of any proposals involving energy storage.

R.13-09-011 is closed.

5. Comments on Proposed Decision

The proposed decision of Administrative Law Judges Hymes and Atamturk in this matter was mailed to the parties in accordance with Section 311 of the Public Utilities Code and comments were allowed under Rule 14.3 of the Commission's Rules of Practice and Procedure. Comments were filed on June 4, 2018 by the CESA and PG&E. Reply comments were filed on June 11, 2018 by ORA and Stem. Clarifications and corrections were made throughout the proposed decision in response to the filed documents.

In comments to the proposed decision, ORA and PG&E recommend the Commission resolve the greenhouse gas emissions standards in the near-term. ORA and PG&E argue that the Itron Report has determined that *some* (emphasis

³⁶ The Load Shift Working Group was established in D.17-10-017.

added) behind the meter storage resources receiving SGIP funds increase greenhouse gas emissions.³⁷ However, as ORA and the proposed decision acknowledged, current net greenhouse gas emissions from SGIP-funded energy storage is small compared to California's total greenhouse gas emissions. Recognizing that energy storage is nascent, the Commission determines it reasonable to gain additional experience with using energy storage as demand response, before making a final determination on an emissions requirement for storage resources in demand response.

6. Assignment of Proceeding

Martha Guzman Aceves is the assigned Commissioner and Kelly A. Hymes and Nilgun Atamturk are the assigned Administrative Law Judges in this proceeding.

Findings of Fact

1. An Assigned Commissioner Ruling in R.12-11-005 (the Self Generation Incentive Program) determined that the Commission should develop alternative operational requirements to improve greenhouse gas emissions impacts from storage projects, including a greenhouse gas signal.

2. Since 2015, the Commission has approved several demand response energy storage resource contracts external to the demand response portfolio, as well as energy storage contracts for the demand response auction mechanism.

3. Contracts for demand response energy storage could be determined to be out of compliance with the Prohibited Resources Policy, as currently written, and could result in the inability of those resources to contribute to demand response.

³⁷ PG&E Opening Comments, June 4, 2018 at 6 and ORA Reply Comments, June 11, 2018 at 2.

4. The inability of the energy storage contracts to contribute to demand response may impact the reliability of the grid.
5. Meeting the needs of the grid is a cornerstone of the demand response goal and one of the Commission's responsibilities.
6. The SGIP and demand response are two different programs with different objectives and operations.
7. The SGIP is expected to expire in 2020.
8. It is inappropriate to rely on a standard developed in the SGIP for establishing demand response policy.
9. Energy storage is a strategic resource to meet AB 2514 storage targets.
10. Storage coupled with fossil-fueled resources should not be permitted to receive incentives for load reduction during a demand response event.
11. The principles of demand response include a requirement that all demand response shall be market driven leading to a competitive, technology-neutral open market in California.
12. Policies unfair to a particular technology conflict with the demand response principles.
13. The intention of the Commission in adopting the Prohibited Resources Policy is to ensure resources meet the Commission's clean energy policies.
14. In developing demand response policies, the Commission should consider other objectives such as customer choice, grid support and competitive neutrality.
15. The California Air Resources Board reports that emissions from energy storage comprise less than .0009 percent of California's total greenhouse gas emissions of electricity generation for all of 2016.

16. Singling out energy storage resources by creating an independent metric for them could possibly send the wrong signal to energy storage providers.

17. Energy storage is a nascent industry.

18. It may be reasonable to exempt energy storage from the list of prohibited resources at this time.

19. By the time that either the new rulemaking on new models of demand response or the 2023-2027 demand response applications commences, the Commission will have additional experience with the use of energy storage as a demand response resource.

Conclusions of Law

1. The Commission should not continue to rely on the current SGIP greenhouse gas emissions metric for use in the Prohibited Resources Policy.

2. The Commission should not continue to rely on a metric from a program that is expected to expire.

3. The Commission should disengage any linkage between the Prohibited Resources Policy and the SGIP.

4. The Commission should modify Conclusion of Law 10 in D.16-09-056 to replace the word “exclude” with the word “exempt” and to qualify that the energy storage is not coupled with fossil-fueled generation.

5. The Commission should ensure that regulatory metrics are not discriminatory to one technology over another.

6. The Commission should exempt energy storage, not coupled with fossil-fueled generation, from the list of prohibited resources in its Prohibited Resources Policy at this time.

7. The Commission should consider whether to continue the exemption for energy storage or develop a new emissions metric in either the proposed new rulemaking on new models of demand response or the 2023-2027 demand response program applications, whichever commences first.

8. The Commission should task the Load Shift Working Group to consider an energy storage emissions metric for any energy storage related proposal.

O R D E R

IT IS ORDERED that:

1. Stem, Inc.'s Petition for Modification of Decision 16-09-056 is granted in part, as described in the subsequent ordering paragraphs.

2. Decision 16-09-056, Conclusion of Law 10 is modified as follows:

The Commission should exempt energy storage, not coupled with fossil-fueled generation, from the list of prohibited resources.

3. Decision 16-09-056, Ordering Paragraph 3 is modified as follows:

Beginning on January 1, 2018, the following list of resources are prohibited to be used for load reduction during demand response events: distributed generation technologies using diesel, natural gas, gasoline, propane, or liquefied petroleum gas, in topping cycle Combined Heat and Power (CHP) or non-CHP configuration. The following resources are exempt from the list of prohibited resources: pressure reduction turbines and waste-heat-to-power bottoming cycle CHP, as well as energy storage resources not coupled with fossil-fueled generation. The following programs are exempt from the prohibition: air conditioner cycling programs, permanent load shifting programs, schedule load reduction programs, the optional binding mandatory curtailment, time of use rates, critical peak pricing, real time pricing, and peak time rebate.

A review of this determination will be performed in either the proposed new rulemaking on new models of demand response or the 2023-2027 demand response program applications, whichever commences first. At that time, the Commission will consider whether to continue this exemption or develop a new

emissions requirement for energy storage resources to be used for load reduction during demand response events. The Load Shift Working Group established in Decision 17-10-017 should consider an energy storage emission metric for any storage related proposal.

4. Rulemaking 13-09-011 is closed.

This order is effective today.

Dated June 21, 2018, at San Francisco, California.

MICHAEL PICKER

President

CARLA J. PETERMAN

LIANE M. RANDOLPH

MARTHA GUZMAN ACEVES

CLIFFORD RECHTSCHAFFEN

Commissioners