

BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking  
Pursuant to Assembly Bill 2514 to  
Consider the Adoption of  
Procurement Targets for  
Viable and Cost-Effective Energy  
Storage Systems.

Rulemaking 10-12-007  
(Filed December 16, 2010)

**CLEAN COALITION OPENING COMMENTS ON PROPOSED DECISION**

Tam Hunt, Attorney and Policy  
Advisor

Stephanie Wang, Regulatory  
Policy Director

Clean Coalition  
2 Palo Alto Square  
3000 El Camino Real, Suite 500  
Palo Alto, CA 94306

September 23, 2013

## CLEAN COALITION OPENING COMMENTS ON PROPOSED DECISION

The Clean Coalition respectfully submits the following opening comments on the proposed decision.

The Clean Coalition is a California-based nonprofit organization whose mission is to accelerate the transition to local energy systems through innovative policies and programs that deliver cost-effective renewable energy, strengthen local economies, foster environmental sustainability, and enhance energy security. To achieve this mission, the Clean Coalition promotes proven best practices, including the vigorous expansion of Wholesale Distributed Generation (WDG) connected to the distribution grid and serving local load. The Clean Coalition drives policy innovation to remove major barriers to the procurement, interconnection, and financing of WDG projects and supports complementary Intelligent Grid (IG) market solutions such as demand response, energy storage, forecasting, and communications. The Clean Coalition is active in numerous proceedings before the California Public Utilities Commission and other state and federal agencies throughout the United States in addition to work in the design and implementation of WDG and IG programs for local utilities and governments.

A summary of our comments follows:

### *Procurement targets*

- The Clean Coalition applauds the Commission for maintaining its appropriate storage procurement targets of 1,325 MW by 2020 (p. 22). As the PD notes, many parties objected to this target but didn't offer good rationales for why the targets should be reduced or by how much.
- The Clean Coalition feels, however, that additional teeth are required to

ensure that the procurement targets are met by, at the least, 2020. As such, we urge the Commission to require that the investor-owned utilities (IOUs) must meet, at the very least, the 2020 target if cost-effective and viable storage projects have been offered in sufficient quantities.

- We propose three mechanisms to add some teeth to the procurement targets: 1) the targets should be incorporated into the biennial LTPP plans submitted by each IOU; 2) the bar should be set higher for deferrals between biennial tranches; and 3) the bar for shifting of MW between buckets should be modified.

#### *Procurement program details*

- The PD allows up to 80% of a utility's biennial tranche to be deferred until the next period with "an affirmative showing of unreasonableness of cost based on the approved evaluation methodology or the lack of operationally viable number of bids in the energy storage solicitation." We suggest instead that the cost-effectiveness criterion required by AB 2514 be the primary criterion for deferral, combined with a more qualitative approach to determining viability. Under this approach, any projects that meet the cost-effectiveness thresholds established in the "common framework" (described in the Appendix) would be deemed cost-effective and projects that also pass the viability screens would be deemed viable.
- It is not clear why the PD allows up to 80% of transmission storage projects to be shifted to distribution, or *vice versa*, without any showing. From the Clean Coalition's perspective, distribution-interconnected storage projects are highly important because of their importance in allowing higher levels of distributed renewable energy penetration, among other benefits. With the allowed deferrals and discretion to shift MW between buckets provided by the PD it could be the case that almost no distribution-interconnected storage projects are built under the PD's framework for many years. This result

would be contrary to AB 2514 and to the principles the PD itself provides, such as market transformation. We strongly recommend that, at the least, the final decision require a showing by each IOU seeking to shift MW from distribution to transmission or vice versa either 1) the lack of cost-effective and viable bids in the bucket at issue or; 2) a state-level policy decision that requires such a shift.

- This conclusion is bolstered by the PD's allowance of pumped hydro storage up to 50 MW (p. 33). Based on available market data at this time, it seems clear that these relatively large pumped hydro facilities will be more competitive than smaller distribution-level storage projects and will, consequently, push out the latter category of storage. This, again, is contrary to the principles and objectives of the PD, which itself discusses the need for market transformation and the presumed viability of the large pumped storage market already (id.). The PD itself provides a strong rationale for why pumped storage projects larger than 50 MW should be ineligible, and the same rationale applies to smaller projects because 50 MW projects will likely crowd out smaller distribution-level storage just as much as 500 MW pumped hydro storage projects will. We recommend that pumped hydro storage be eliminated entirely unless the procurement targets are expanded. At the least, each IOU should be limited to 25% of its total target from pumped hydro storage.
- The Clean Coalition strongly disagrees with the PD's citation to D.06-06-066 regarding confidentiality in the context of the value of the various products from energy storage projects and we recommend that references to D.06-06-066 be removed in this context.

#### *Procurement framework (Appendix)*

- Solicitation application – the Clean Coalition requests that the Commission include parties in the joint consultation between the IOUs and Commission

staff in terms of establishing a common framework for the IOUs for “valuing storage benefits such as market services and avoided costs, and estimating project costs to provide a consistent basis for comparison across utilities, bids, and use cases.” (Appendix, p. 6). This is a highly important part of the process, which has been deferred by the PD until a later date, and it would contravene the spirit of the rule-making process to not allow parties to comment on this common framework.

- Commission approval of procurement contracts – the PD suggests (Appendix, p. 8) that the IOUs must negotiate and complete signed contracts within one year of the solicitation. This seems to the Clean Coalition to be longer than is warranted and we recommend instead six months. We are concerned by the various deferment options and offramps, plus this one-year negotiation period, that we will see almost nothing substantial happen in the energy storage space for a number of years. We believe more of a sense of urgency is appropriate, particularly given the ACR’s and PD’s reliance on the goal of market transformation in the energy storage market.
- Similarly, the PD requires that each IOU file an advice letter within one year of the solicitation (Appendix, p. 9). We recommend that this be changed to nine months, given the goal of market transformation
- The PD also provides (Appendix, p. 9) up to four years from the solicitation date for projects to become operational. We feel that this is also longer than warranted and recommend that this be reduced to two years, with up to one year delay permitted upon a showing by the developer that the delay is beyond its control (for example, interconnection delays or permitting delays to the IOU or permitting agency). However, we recognize that some technologies, such as pumped hydro storage may require longer to come online. If the Commission decides to keep pumped hydro storage projects less than 50 MW in this program, we suggest that up to four years be allowed for COD for these projects, but two years plus a one-year extension, as described above, be allowed for all other technologies.

## I. General comments

The Clean Coalition applauds the Commission for maintaining its appropriate storage procurement targets of 1,325 MW by 2020 (p. 22). As the PD notes, many parties objected to this target but didn't offer good rationales for why the targets should be reduced or by how much. We agree with the Commission that incentivizing energy storage in a significant manner, with appropriate long-term market signals, is one of the best ways to transform the energy storage market and allow California to cost-effectively meet its energy and climate change goals.

The Clean Coalition feels that additional teeth are required, however, to ensure that the storage procurement targets are met. As is, the language in the PD is too weak (pp. 40-41): "We remind the IOUs that while we may grant a request to defer a portion of their procurement targets, we expect that the cumulative procurement goals will be met by 2020. If the goals are not met at that time, we will consider whether the target date to achieve the MW goals should be extended past 2020." Combined with the off-ramps provided in the PD, it seems likely that the headline procurement targets are at significant risk of not being met by 2020. Considering that the IOUs have already expressed their disagreement with the procurement targets, it is likely that the IOUs will continue to be opposed to procurement of the full targets. As such, we urge the Commission to require that the IOUs meet, at the very least, the 2020 procurement target if cost-effective and viable storage projects have been offered in sufficient quantities.

We propose three mechanisms to add some teeth to the procurement targets: 1) the targets should be incorporated into the biennial LTPP plans submitted by each IOU; 2) the bar for deferring procurement targets should be modified; 3) the bar for shifting megawatts between categories should be modified, as we describe below.

## II. Specific comments

### a. The procurement targets should be incorporated into the biennial LTPP plans

We recommend as one step in adding some teeth to the procurement targets that the utilities be required to incorporate their respective storage procurement targets in their biennial long-term procurement plans. This may already be contemplated by the Commission but we recommend that the final decision be revised to make this requirement explicit.

### b. There should be a higher bar for deferral of procurement targets

The PD allows up to 80% of a utility's biennial tranche to be deferred until the next period with (p. 7, emphasis added) "an affirmative showing of unreasonableness of cost based on the approved evaluation methodology or the lack of operationally viable number of bids in the energy storage solicitation." We generally agree with this approach but we recommend further detail regarding what "cost-effective" and "viable" mean in this context. Having clear guidance on these issues will be highly important to the development of this nascent market. We also recommend that the PD be revised to match AB 2514's requirement that storage facilities be "viable and cost-effective," rather than the disjunctive "or" used in the PD in the quote above. We suggest the following alternate language for the quote above: "... an affirmative showing of the lack of viable and cost-effective bids in the energy storage solicitation, based on the approved evaluation methodology."

We make this recommendation with the following statutory language in mind. AB 2514 provides (Public Utilities Code section 2836.2):

In adopting and reevaluating appropriate energy storage system procurement targets and policies pursuant to subdivision (a) of Section 2836, the commission shall do all of the following:

...

(d) Ensure that the energy storage system procurement targets and policies that are established are technologically viable and cost effective.

No definition of viable or cost-effective is provided in the law; nor does the Commission provide such definitions in the PD. Under our recommended approach, any projects that meet the cost-effectiveness thresholds established in the “common framework” (described in the Appendix to the PD) would be deemed cost-effective, and any project that also passes the viability screens would be deemed cost-effective and viable. This approach would provide clear guidance to utilities and the market and fill in a key lacuna in the regulatory framework.

The KEMA and EPRI studies have framed cost-effectiveness in terms of a balancing of cost and value, which we support. What is not clear in the PD, however, is whether cost-effectiveness is a cost vs. value analysis, or a cost vs. avoided cost of alternatives to storage analysis. If energy storage is procured only if it's the lowest possible cost option, we fear that there will be no transformation of this nascent market.

In terms of fleshing out the cost-effectiveness criterion, we recommend that the common framework be required to include a bright line test for cost-effectiveness of the most common use cases (netting out costs and benefits for each use case), similar to that described by EPRI and KEMA in their reports.<sup>1</sup> In addition to the bright line test for cost-effectiveness we recommend that the PD flesh out more qualitative criteria for viability. The two-part test for deferral would then rely on a bright line test for cost-effectiveness and a generally qualitative set of criteria for viability.

---

<sup>1</sup>This information should be made available to the Commission regardless of the Commission's decision about confidentiality, which we address below.

**c. Shifting capacity between product types should require a substantial showing**

It is not clear why the PD allows up to 80% of transmission storage projects to be shifted to distribution, or *vice versa*, without any showing. From the Clean Coalition's perspective, distribution-interconnected storage projects are highly important because of their importance in allowing higher levels of distributed renewable energy penetration, among other benefits. With the options for deferral and discretion to shift MW, provided by the PD, it could be the case that almost no distribution-interconnected storage projects are built under the PD's framework for many years. This result would be contrary to AB 2514 and to the principles the PD itself supports, such as market transformation. We strongly recommend that, at the least, the final decision require a substantial showing by each IOU seeking to shift MW from distribution to transmission or *vice versa*. We suggest that an IOU must either show (a) compliance with state goals or requirements set forth by the Commission or other state agencies to justify the shift, or (b) the lack of viable and cost-effective projects in the bucket the utility seeks to avoid, per the framework described in the previous section.

**d. Parties should be part of the joint consultation for developing a common framework**

The Clean Coalition requests that the Commission include parties to this proceeding as potential members of the joint consultation between the IOUs and Commission staff to establish a common framework for the IOUs for "valuing storage benefits such as market services and avoided costs, and estimating project costs to provide a consistent basis for comparison across utilities, bids, and use cases." (Appendix, p. 6). This is a highly important part of the process and it would contravene the spirit of the rule-making process to not allow parties to be part of the development of this common

framework. In fact, it is perhaps the most important part of the proceeding and it is being deferred. We accept this deferral but we strongly recommend including other parties in the process of completing the common framework.

**e. Pumped hydro storage should be ineligible for the energy storage procurement framework because it will crowd out other technologies**

Our recommendation that a substantial showing be made before utilities are allowed to shift between technology buckets is bolstered by the PD's allowance of pumped hydro storage up to 50 MW (p. 33). Even though pumped hydro storage projects are generally far larger than 50 MW, the PD anticipates the viability of smaller pumped storage projects. Further, there are no limitations on the PD against breaking a larger project into smaller tranches for sale into an RFO under the proposed procurement framework. For example, a 400 MW pumped hydro storage project developer could carve out a 50 MW component for sale into this new program, unless some limitation on such activities is included in the final decision.

50 MW pumped storage should be excluded for the same reasons that the PD excludes larger pumped storage projects. Without such a limitation, it seems that we are likely to see a number of 50 MW pumped hydro storage projects bid into this RFO, which will likely drown out other technologies. This is contrary to the principles and objectives of the PD, which itself discusses the need for market transformation for new technologies and the current economic viability of the pumped storage market (*id.*).

We recommend that pumped hydro storage be eliminated entirely unless the procurement targets are expanded. We also recommend, at the least, that each IOU is limited to 25% of its total target from pumped hydro storage and that each 50 MW project must be a stand-alone project and not part of a larger project.

**f. The PD should eliminate any reference to D.06-06-066 in the context of valuation of the benefits of energy storage**

The Clean Coalition strongly disagrees with the PD's citation to D.06-06-066 re confidentiality in the context of the value of the various products from energy storage projects. The Clean Coalition has long been concerned about confidentiality and the tendency to enforce a presumption of confidentiality rather than the actual presumption of non-confidentiality codified in Commission precedent. While our comments here are limited to the energy storage context, our general concerns extend to the treatment of data confidentiality in all domains regulated by the Commission.

The PD states (p. 52):

We do not agree with those parties that advocate assigning a public value to an agreed upon list of benefits, as this would be contrary to D.06-06-066, our primary decision on confidentiality. Providing valuation information to competitive developers may invite "gaming" of the solicitation. In addition, we believe that use of standard value figures are applicable for a feed-in tariff mechanism, where there is greater similarity in technology and providers, such as solar photovoltaics or combined heat and power. To the extent parties believe certain values are important, they can structure the values into the solicitation design. Accordingly, there is no standard value that is appropriate for all storage technologies, or even for the three grid domains.

The PD breaks significantly from the precedent and framework provided by D.06-06-066, which provides a rebuttable presumption of non-confidentiality in all contexts not specifically covered by the data matrix in that decision. D.06-06-066 provides (p. 2): "We start with a presumption that information should be publicly disclosed and that any party seeking confidentiality bears a strong burden of proof. Indeed, as discussed below, a party seeking protection of its documents always bears the burden of proof." That decision also provides (p. 12) that "the guiding principle established by SB 1488 is that the Commission must act carefully before allowing utilities to redact data. We must act as more than a rubber stamp for a party seeking confidentiality."

D.06-06-066 provides a procedure that must be followed for a finding of confidentiality, as described further in D.08-04-023 (p. 19):

Motions filed ... shall, at a minimum, meet the following five requirements in Ordering Paragraph 2 of D.06-06-066:

1. That the material constitutes a particular type of data listed in the Matrix;
2. The category or categories in the Matrix to which the data correspond;
3. That the submitting party is complying with the limitations on confidentiality specified in the Matrix for that type of data;
4. That the information is not already public; and
5. That the data cannot be aggregated, redacted, summarized, masked or otherwise protected in a way that allows partial disclosure.

No such showing has been made by any party in this proceeding. Rather, PG&E was the sole party that we are aware of that objected to the Clean Coalition's recommendations by invoking D-06-06-066, as cited in the PD. PG&E's discussion was, however, very vague and in no way meets the requirements of D.06-06-066 or D.08-04-023.

Moreover, under the rationale provided by the PD, D.06-06-066 would have prevented, for example, the data and calculations used to determine the AB 1969 FIT prices from being made public, or the components of the Market Price Referent from being made public because these data refer to the benefits to ratepayers of the services provided by the technologies at issue. Our suggestion that the value of the various benefit streams from energy storage be made public is in the same spirit as the public processes that determined the AB 1969 FIT prices and the MPR.

As discussed above, parties seeking to rebut the rebuttable presumption in D.06-06-066 must file a motion explaining why they believe the data at issue should be confidential. Energy storage data is not addressed in D.06-06-066 and the PD does not cite to the

category in the D.06-06-066 matrix that the Commission believes is most similar to the data at issue in this proceeding. It seems that the most relevant category is “strategic procurement information, electric,” which data is required by the matrix to be public, not confidential.

The Clean Coalition has not proposed that bid data or PPA pricing data be made public, as this data arguably does fall within the D.06-06-066 matrix because it is similar enough to bid and pricing data for other types of resources to be included by implication in the matrix. Rather, the Clean Coalition has proposed that the value of benefits of various energy storage services be made public. This information falls outside of the matrix and must be presumed to be non-confidential until a party files a motion explaining why this data should be confidential in a particular context, at which time the Commission would rule whether the presumption of non-confidentiality should be over-ruled. If any portion of this data may fall within the matrix, a party must make the case for confidentiality for each specific portion of this data.

Last, the types of data we have sought to be made public on a moving forward basis are contained in the EPRI and KEMA reports, which shows that much of this data is “already public,” a criterion weighing against confidentiality in the above test.

These facts combined weigh heavily against the PD’s interpretation of D.06-06-066 and we strongly urge the Commission to revise this section. Specifically, we recommend the following changes to the paragraph quoted above, removing any reference to confidentiality as an objection to our policy recommendation:

We do not agree with those parties that advocate assigning a public value to an agreed upon list of benefits, ~~as this would be contrary to D.06-06-066, our primary decision on confidentiality. Providing valuation information to competitive developers may invite “gaming” of the solicitation. In addition,~~ We believe that use of standard value figures are applicable for a feed-in tariff mechanism, where there is greater similarity in technology and providers, such as solar photovoltaics or combined heat and power. To the extent parties believe certain values are important, they can structure the values into the solicitation

design. Accordingly, there is no standard value that is appropriate for all storage technologies, or even for the three grid domains.

We also recommend the following changes to Conclusion of Law 34 (p. 68):

The confidentiality of procurement data should be subject to the confidentiality requirements contained in D.06-06-066, including the rebuttable presumption of non-confidentiality of data.

**g. Various timelines in the PD should be reduced**

The PD suggests (Appendix, p. 8) that the IOUs must negotiate and complete signed contracts within one year of the solicitation. This seems to the Clean Coalition to be much longer than is warranted and we recommend instead six months. We are concerned that the various deferral options, plus this one-year negotiation period, will result in almost nothing substantial happening in the energy storage space for a number of years. We believe more of a sense of urgency is appropriate, particularly given the ACR's and PD's reliance on the goal of market transformation in the energy storage market.

Similarly, the PD requires that each IOU file an advice letter within one year of the solicitation (Appendix, p. 9). We recommend that this be changed to nine months, given the goal of market transformation.

The PD also provides (Appendix, p. 9) up to four years from the solicitation date for projects to become operational. We feel that this is also longer than warranted and recommend that this be reduced to two years, with up to one-year delay permitted upon a showing by the developer that the delay is beyond its control (for example, interconnection delays or permitting delays to the IOU or permitting agency). However, we recognize that some technologies, such as pumped hydro storage may require longer to come online. If the Commission decides to keep pumped hydro storage projects less than 50 MW in this program, we suggest that up to four years be allowed

for COD for these projects, but two years plus a one-year extension, as described above, be allowed for all other technologies.

## **I. Conclusion**

We again applaud the Commission for adopting ambitious procurement targets for energy storage. We feel that energy storage is a key part of the puzzle for getting to a low-carbon future. However, we feel that there are far too many off-ramps in the proposed decision and we have recommended various ways to add some teeth to the proposed procurement framework. We also recommend that the final decision specify that parties may comment on the common framework to be developed by the utilities and Energy Division. Last, we recommend that the PD's discussion of confidentiality rules be modified to be more inline with established Commission precedent.

Respectfully submitted,

\_\_\_\_\_/s/\_\_\_\_\_

Tam Hunt

Clean Coalition  
2 Palo Alto Square  
3000 El Camino Real, Suite 500  
Palo Alto, CA 94306

Dated: September 23, 2013