

**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.

R.10-12-007
Filed December 16, 2010

**COMMENTS OF THE CALIFORNIA ENERGY STORAGE ALLIANCE ON
PROPOSED DECISION ADOPTING ENERGY STORAGE PROCUREMENT
FRAMEWORK AND DESIGN PROGRAM**

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Pursuant Rule 14.3 of the California Public Utilities Commission's ("Commission's") Rules of Practice and Procedure, the California Energy Storage Alliance ("CESA")¹ hereby submits these comments on the *Proposed Decision Adopting Energy Storage Framework and Design Program*, issued September 3, 2013 ("Proposed Decision").

I. INTRODUCTION.

CESA commends the Proposed Decision's overall framework for establishing and fulfilling energy storage procurement targets through 2020. The proposed 1.325 GW target will

¹ The California Energy Storage Alliance consists of 1 Energy Systems, A123 Systems, AES Energy Storage, Alton Energy, American Vanadium, AU Optronics, Beacon Power, Bright Energy Storage, BrightSource Energy, CALMAC, Chevron Energy Solutions, Christenson Electric Inc., Clean Energy Systems Inc., CODA Energy, Deeya Energy, Demand Energy, DN Tanks, Eagle Crest Energy, East Penn Manufacturing Co., Ecoult, Energy Cache, EnerVault, FAFCO Thermal Storage Systems, FIAMM Group, FIAMM Energy Storage Solutions, Flextronics, Foresight Renewable Systems, GE Energy Storage, Green Charge Networks, Greensmith Energy Management Systems, Growing Energy Labs, Gridtential Energy, Halotechnics, Hecate Energy LLC, Hydrogenics, Ice Energy, Innovation Core SEI, Invenergy, K&L Gates LLP, KYOCERA Solar, LightSail Energy, LG Chem Ltd., NextEra Energy Resources, OCI Company Ltd., Panasonic, Paramount Energy West, Parker Hannifin, PDE Total Energy Solutions, Powertree Services, Primus Power, RedFlow Technologies, RES Americas, S&C Electric Co., Saft America, Samsung SDI, Sharp Labs of America, Silent Power, SolarCity, Stem, Sovereign Energy Storage LLC, Sumitomo Corporation of America, TAS Energy, UniEnergy Technologies, and Xtreme Power. The views expressed in these Comments are those of CESA, and do not necessarily reflect the views of all of the individual CESA member companies. <http://storagealliance.org>

be a significant step in the transformation of California's electric grid toward a more efficient, affordable, clean, and optimized system. In response to the Proposed Decision's framework, CESA recommends several changes to programmatic details and requests that the Commission clarify certain requirements and procurement methodologies set forth in the Proposed Decision.

II. THE GUIDING PRINCIPLES SHOULD BE EXPANDED TO RECOGNIZE THE IMPORTANCE OF GRID RESILIENCY, POLLUTION ABATEMENT INCLUSIVE OF CRITERIA POLLUTANTS, AND ECONOMIC DEVELOPMENT BENEFITS

The guiding principles play an important role in determining the objectives and by extension, the benefits that are recognized and sought through the establishment of a storage procurement program. The current set of guiding principles currently omits a number of items that, in the context of storage, should be included.

Storage can play an integral part in enhancing electric power system resiliency in the event of natural and man-made disasters. This capability and opportunity should be recognized by including this in the first principle in the Proposed Decision. Second, while storage clearly has a role to play in facilitating the state's greenhouse gas emission mitigation efforts, it also can play an important role in reducing other criteria pollutants by reducing reliance on relatively inefficient conventional generators in transmission constrained load pockets. Lastly, by catalyzing an emerging market, the economic benefits to be derived from this program are potentially significant. Given the slow pace of the economic recovery, economic development and job creation should be expressly recognized as a key principle and justification for this program.

III. THE COMMISSION SHOULD LIMIT UTILITY OWNERSHIP WITHIN EACH DOMAIN, LIMIT SHIFTING BETWEEN TRANSMISSION AND DISTRIBUTION DOMAINS TO 50% OF EACH PROCUREMENT TARGET DOMAIN, AND REQUIRE A SHOWING OF NEED FOR ANY SHIFTING TO OCCUR.

CESA appreciates the Proposed Decision's clarification that defines storage grid domains based on point of interconnection. This clarification is very helpful and will help promote energy storage application and business model diversity and healthy competition, and will also help facilitate procurement compliance tracking and accounting over time. Diversity of ownership models also facilitates market dynamism and confidence. Allowing utility procurement of "utility-owned storage resources up to 50% of the cumulative procurement targets across all three grid domains," as suggested in the Proposed Decision is a commendable effort towards ensuring ownership diversity; however, it could prove problematic as utility ownership in one grid domain could be near or at 100% without exceeding the 50% overall limit. Such an ownership mix would compromise the market diversity and dynamism intended by the 50% cap. CESA accordingly recommends that the Commission limit utility ownership to 50% of energy storage resource capacity *within each* grid domain. For example, utility procurement of services and/or ownership of energy storage assets behind the meter maybe a cost-effective solution for meeting distribution support applications. Any resulting utility-owned energy storage projects interconnected behind the meter would then count toward the behind the meter goal. By limiting utility ownership to at most 50% of the behind the meter domain, competition and application diversity will be preserved.

Most importantly, going forward, it is important to consider the possibility that energy storage may be a more cost-effective resource than the next best *status quo* alternative, and as such, any procurement target for any of the proposed grid domains should be considered a floor, rather than a ceiling.

The Proposed Decision's current framework provides that up to 80% of procurement target capacity in the transmission domain may be shifted to the distribution domain, and vice versa, without a showing of need by the utilities. CESA's view is that this level of flexibility is excessive, and may lead to uncertainties in both grid resource planning and energy storage system manufacturing and project development, with unintended market consequences. Accordingly, CESA recommends limiting allowed shifting between transmission and distribution grid domains to a maximum of 50% of each domain's target for a given procurement cycle *with* an appropriate showing. This will allow for better overall grid planning, especially for those resources (storage and non-storage) that are procured in multi-year-ahead timelines or those with extended operational lifetimes. With regard to market dynamics, energy storage systems and requisite resources (including component parts) are developed for specific interconnection points/applications, and excessive flexibility between domains could disrupt medium to long-term developer/manufacturer planning and market confidence. CESA also recommends that the Commission clarify what is specifically required in a showing of need; when the showing of need will occur within the procurement process; the procedure for reviewing requests for shifting; and the burden of proof required of utilities in demonstrating compliance. Limiting shifting and providing greater clarity as to what is required in order to demonstrate a "showing of need" will thus provide a clearer, more certain market signal to energy storage developers and manufacturers, with related benefits in resource availability, price, and capabilities.

The process of developing individual utilities' methodologies for showing of need should be transparent, with the opportunity for stakeholder input, at least where proprietary and/or confidential information is not present. There should likewise be well-outlined opportunities for third-party stakeholders to comment on utility requests for shifting (again, where appropriate

without compromising legal rights and regulatory responsibilities). CESA also recommends that following each procurement cycle, the Commission undertake a review of utilities' showing of need and procurement procedures. Such evaluations should be structured to provide opportunities for specific feedback from third-party stakeholders. These evaluations should also occur as soon as possible to enable appropriate review and constructive feedback that can be implemented during the next procurement cycle.

CESA also recommends that the Commission clarify how energy storage resources procured in other proceedings are counted toward utility procurement targets. CESA recommends that the Commission clarify eligibility for those resources to count toward procurement targets, as well as the methodology for including such resources, and that any such methodology encourage consistency and fairness toward meeting eligibility requirements. For example, all eligible energy storage, including RD&D funded projects, should provide grid services and be operational for a minimum duration, such as 10 years. Such consistency will provide clarity and ensure fairness among all market participants, including utilities, energy storage manufacturers and developers, while such a minimum operational life will ensure the overarching purposes of the procurement targets will be realized over a reasonably long horizon. Further, contract duration should be commensurate with those in other procurements, to provide consistency with other proceedings, and to enable maximum value to ratepayers.

CESA also requests that the Commission clarify the timeline for energy storage resources procured in other proceedings to count towards biennial energy storage targets. It is unclear, for example, why energy storage resources in other proceedings must be operational for a year prior to being eligible. It is also unclear how resources procured for future online dates (beyond the stated maximum four year requirement) would count toward the target. For example, current

resources contracted for in SCE current LCR procurement process will not be online until 2020-2021. It is unclear which of SCE's biennial targets the LCR procurement would satisfy.

Generally, the final methodology used to determine eligible energy storage projects toward meeting utility procurement targets should facilitate compliance tracking and promote consistency and fairness with other proceedings. Ease of compliance can be accomplished by tracking procurement vs. installations. Consistency should especially focus on the overlap between energy storage procurement, renewable portfolio standard, and RA/LTPP proceedings. Operational requirements should especially be consistent, including those outlined for grid-connected RD&D projects procured through other proceedings and deemed eligible for energy storage targets. In summary, CESA recommends that procurement tracking and compliance be based on the following principles:

- Compliance with energy storage procurement targets set forth in the Proposed Decision should be based on storage capacity procured.
- Capacity that is procured pursuant to the final decision in this proceeding should be operational within four years of date that a solicitation is issued solicitation as proposed.
- Capacity that is procured in other proceedings should be eligible for counting, provided that such capacity provides grid services and is contracted for comparable operational durations as the contracts procured in this proceeding (at least a minimum of 10 years) even if that capacity is scheduled to be operational/commissioned beyond four years of the date that a solicitation is issued.

- Shifting between transmission and distribution domains should be limited to 50% of each procurement target domain and only with an appropriate showing.
- Any procurement that is deferred based on an approved showing of lack of cost effectiveness or viability must be included in the next solicitation issued pursuant to the final decision in this proceeding with no possibility of deferral (discussed further in Section IV below).

IV. ENERGY STORAGE PROCUREMENT PROGRAM DESIGN, INCLUDING THE SOLICITATION APPLICATION AND COST EFFECTIVENESS METHODOLOGIES, SHOULD BE UNDERTAKEN IN A TRANSPARENT MANNER, WITH OPPORTUNITIES FOR STAKEHOLDER REVIEW AND INPUT.

Utility-specific resource solicitation application and cost-effectiveness methodologies are foundational to the direction and success of statewide energy storage procurement. Accordingly, the development of solicitation applications and cost effectiveness methodologies should be conducted via a transparent process with opportunities for external stakeholder input. External stakeholder input will be extremely valuable during such development, as the energy storage market contains a vast diversity of expertise with the ability to identify best practices and areas for improvement based on successful commercial deployment outside of California. The energy storage industry, markets, and stakeholder knowledge are also constantly evolving, so transparency and stakeholder input should continue with biennial revisions of both applications and methodologies, consistent with the planned procurement schedule. CESA advocates that the Commission should ultimately maximize transparency and stakeholder input into the development and execution of the energy storage procurement process, including but not limited to evaluating showing of need and utility adherence to burden of proof standards developed by the Commission.

CESA recognizes that precedent exists in other proceedings for creating a balance between transparency and the safeguarding of utilities' proprietary and/or confidential information. CESA thus recommends that transparency and stakeholder input in energy storage procurement (both in policy development and execution) is undertaken so as to be consistent with transparency and input in other resource procurement proceedings.

A key focus of stakeholder input should be the least-cost, best-fit ("LCBF") analysis outlined in the energy storage procurement methodology, as it is integral to determining the benefits of energy storage resources. CESA advocates that any LCBF analysis should include all benefits of energy storage, including societal and market transformation benefits including environmental benefits and greenhouse gas ("GHG") emissions impacts. The list of benefits that energy storage provides includes, but may not be limited to, the following:

- a. Increased resiliency/reliability
- b. GHGs reduction (including reductions in CO₂, CH₄, NO_x, and SO_x). GHG reductions should be prioritized in LCBF analysis
- c. Locational benefits and locational market value
- d. Transmission upgrade deferral
- e. Transmission congestion relief
- f. Voltage/VAR Support
- g. Faster build time
- h. Reduced fuel cost risk (if charged by renewables)
- i. Resource mobility
- j. Flexibility of purpose: storage dispatch can be changed to meet grid needs, which reduces long term risk
- k. Ramping and voltage support for fossil generators or renewable generation resources
- l. Firming of renewable energy
- m. Energy and ancillary services
- n. Resource adequacy, including flexible resource adequacy/capacity

o. Economic development and local job creation

It is important to note that not all of the benefits of energy storage resources were modeled in the EPRI and KEMA analyses – as such, those analyses should not be established as the official ongoing LCBF analyses framework. Instead, CESA advocates that these models be used as a helpful starting point, and that the resulting LCBF analysis be developed with multiple stakeholders’ input and revised for each procurement cycle in a way that fully incorporates all benefits of energy storage resources as these resources, markets and related business models evolve.

CESA further recommends that any “showings” related to the cost-effectiveness of energy storage should compare the cost effectiveness of potential energy storage resources with the next best alternative, rather than requiring that energy storage resources are unequivocally cost-effective (benefit to cost ratio greater than 1). Many procured *status quo* energy resources are not generally cost-effective: for example, a gas peaker would never be justified based on its market value alone. Resource adequacy is a value historically paid to generators to compensate them for the difference between the amount they can earn in the market and their total resource cost. If a certain system requirement has to be met through procurement of a new resource, and a given energy storage resource meets the stated need, is not unequivocally cost-effective, but is more cost-effective relative to the next best alternative, then that energy storage resource should be procured to meet the system need. However, notwithstanding the foregoing, CESA strongly agrees with the Proposed Decision that there is ample precedent for the Commission to set targets “without a system needs determination”:

“To the extent energy storage is treated akin to a ‘preferred resource’, as it has been designated in D.13-02-015, the Commission has clear precedent to

administratively establish storage procurement targets without a system needs determination”. (Page 24)

V. **ALLOWABLE DEFERMENT OF PROCUREMENT TARGETS SHOULD BE LIMITED TO 50% OR LESS FOR EACH PROCUREMENT CYCLE, AND ANY DEFERRED CAPACITY SHOULD BE REQUIRED TO BE PROCURED IN THE NEXT CYCLE. ANY CAPACITY TAKEN OFF-LINE DUE TO CONTRACT FAILURES SHOULD ALSO BE REQUIRED TO BE PROCURED IN THE NEXT PROCUREMENT CYCLE.**

The Proposed Decision allows each utility to request a deferment of up to 80% of its procurement targets with an affirmative showing of unreasonableness of cost or lack of operationally viable bids in the solicitation. The allowance of 80% is excessive, and CESA recommends that this allowed deferment be limited to 50% and any deferred procurement must be procured in the next solicitation with no further deferment allowed. Similarly, failed contract capacity from any given solicitation should also be reported to the Commission in the procurement planning process and required to be procured in the next procurement cycle. Further, the Commission should also more clearly define the standard that needs to be met to have an ‘affirmative showing of unreasonableness of cost effectiveness or lack of operationally viable bids’. As stated above, CESA recommends that the cost-effectiveness analysis be comprehensive as to all resource benefits, and not limited to only those considered in the EPRI and DNV Kema analyses.

Further, regarding the timing for the deferment request, utilities should be able to ask for deferment only after bids are received. Thus, allowing utilities to request deferment via a Tier 3 Advice letter within three months of the solicitation date may be far too soon. Deferment can and should be considered only based on a showing of need, which is only possible after bids are received. Such consideration of deferment can be efficiently undertaken concurrent with the utility’s contract approval request (for the subset of contracts that are found to be cost effective

and viable). Finally, CESA supports contract review by independent evaluators and recommends that any such independent evaluators be selected by the Commission to ensure their objectivity.

VI. THE COMMISSION SHOULD DIRECT THAT ENERGY STORAGE PROCUREMENT PROGRAM EVALUATIONS OCCUR EVERY TWO YEARS, INSTEAD OF EVERY THREE YEARS. THE FIRST PROGRAM EVALUATION SHOULD OCCUR BEFORE 2016, IN ORDER TO IMPACT POLICY CHANGES FOR THE 2016 PROCUREMENT CYCLE.

CESA recommends that the Commission establish biennial energy storage procurement program evaluations, rather than having such evaluations occur every three years as suggested in the Proposed Decision. Given that energy storage procurement cycles will occur every two years, it is appropriate and logical to likewise conduct energy storage procurement program evaluations every two years. This will allow the Commission and utilities to appropriately review and modify the energy storage procurement program in time for each subsequent procurement cycle.

It is important to recognize the connection of the 3-year timeline with the original text of AB 2514. AB 2514 directed the Commission to establish procurement targets for 2015 and 2020, and concurrently mandated that program evaluations occur no less than once every three years. The 3-year program evaluation delay was appropriate given the 5-year gap between procurement targets included in AB 2514. However, with biennial procurement targets, triennial evaluations will compromise the ability of the Commission and utilities to review and modify the procurement program in time for subsequent procurement cycles.

CESA further recommends that biennial procurement program evaluations are appropriately scheduled to provide useful input for modifications to subsequent procurement cycles. Accordingly, the first procurement program review should occur in time to impact program modifications the 2016 procurement cycle. Ideally, this program review will be

completed by mid-to-late 2015, and not in 2016 as the Proposed Decision recommends. Subsequent procurement program reviews would occur in the same month in odd years through 2019, with a final program review potentially given a 3-year gap to enable comprehensive program review (completed in 2022).

CESA recommends that the participants in, and methodologies for, procurement program reviews should be explicitly outlined in the final decision. This will provide more transparency and opportunities for participation from all stakeholders. CESA likewise recommends that the Commission establish feedback mechanisms for modifying program review methodologies, and potentially for modifying the composition of review participants.

Energy storage procurement program evaluation should also include a review of targets, and potential future modifications. In particular, if energy storage is found to be more cost effective than the *status quo* alternative then procurement targets should be increased accordingly. Ultimately, the existing targets should be considered a floor, not a ceiling. CESA also recommends that the Commission outline enforcement mechanisms, including penalties, to ensure that procurement targets are met.

VII. THE COMMISSION SHOULD EXPLICITLY STATE ITS SUPPORT FOR LARGE-SCALE PUMPED HYDROELECTRIC RESOURCES, AND RECOMMEND THAT OTHER PROCEEDINGS PURSUE THE PROCUREMENT OF PUMPED HYDROELECTRIC RESOURCES WITH NAMEPLATE CAPACITIES GREATER THAN 50 MW.

While CESA concurs with the Commissions' explicit support for large scale pumped hydro, CESA recommends certain clarifications in the final decision's Findings of Fact and Conclusions of Law that are set forth in Appendix A to these comments to avoid unintended exclusion of large scale pumped hydro in the Commission's ongoing development of comprehensive energy storage policy. The Commission should encourage a separate study to be

undertaken and workshop devoted to pumped hydro storage to be scheduled and closely coordinated with other appropriate Commission proceedings, so that the subject will be given sufficient consideration to enable its very cost-effective and valuable energy storage services to enter the market in a meaningful way. This study should analyze how pumped hydro can be an instrumental component of a low carbon energy low cost procurement process. Neither the study nor the workshop should be permitted to delay the opportunity for pumped hydro storage to compete immediately in any procurement processes other than those subject to the final decision in this proceeding, and may not be conducted in any way that could delay a final decision or hamper timely implementation of energy storage procurement targets contemplated in this proceeding.

VIII. SIMILAR TO PREFERRED RESOURCES, THE COMMISSION SHOULD REQUIRE THAT ENERGY STORAGE IS CONSIDERED PRIOR TO APPROVING ANY NEW GAS PEAKER CONTRACTS.

Currently, every utility application for new generation is subject to a requirement that it must be reasonable and cost effective. This analysis requires evaluation of other alternatives such as demand response and distributed generation. Energy storage should routinely be added to that list going forward. CESA recommends that the final decision in this proceeding clarify and enforce routine consideration of energy storage in all utility procurement plans going forward.

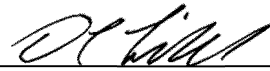
Additionally, consistent with CESA's Comments on the Assigned Commissioner's Ruling issued in this proceeding on June 10, 2013, CESA recommends that the Commission require the utilities to implement a statewide market test to pursue creative contracting mechanisms and new ownership models for energy storage products and services with third parties and retail customers behind the meter. Because non-utility owned projects sited behind the meter are likely to be cost-shared with private sector customers, the services provided from

those assets maybe a very cost-effective solution for fulfilling a range of services that maybe a priority in other grid domains. Near term, any behind the meter energy storage contract would certainly count toward meeting the behind the meter sited grid domain goal. However, encouraging new contracting mechanisms and business models in partnership with investor owned utilities and their customers via a statewide wide market test will generate much more information for future policy development and future shaping of the overall energy storage procurement goals and framework. As pointed out above, if found to be cost-effective, then any procurement goal in any of the grid domains should be treated as a floor, not a ceiling.

IX. CONCLUSION.

CESA appreciates this opportunity to submit these comments on the Proposed Decision.

Respectfully submitted,



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Date: September 23, 2013

APPENDIX A

PROPOSED FINDINGS OF FACT AND CONCLUSION OF LAW

CESA recommends that the following changes be made in the Findings of Fact and Conclusion of Law of the Proposed Decision. A page citation to the Proposed Decision is provided in brackets for the finding or conclusion for which a modification is proposed. Added language is indicated by **bold type**; removed language is indicated by **bold strike-through**. An “**Added Finding of Fact**” or “**Conclusion of Law**” is so indicated.

Proposed Findings of Fact:

1. [Page 64] Add a new Finding of Fact Number 1 as follows: **Energy Storage should be treated akin to a preferred resource.**
2. [Page 65] Insert a new Finding of Fact after Number 12 as follows: **Pumped storage offers the same or better potential benefits as all of the emerging technologies targeted by the Energy Storage Procurement Framework and Design Program regardless of whether or not it is directly co-located with a preferred resource.**
3. [Page 65] Insert a new Finding of Fact after Number 12 as follows: **Pumped storage may effectively compete against traditional generation procurement included in other Commission proceedings, including, without limitation, the LTPP. Such procurement competition may meet the Guiding Principles of Section 4.1.**
4. [Page 66] Modify Finding of Fact Number 17 as follows: Energy storage has multiple attributes and functions that cross the spectrum of wholesale and retail markets and transmission, distribution **and generation** services.

Proposed Conclusion of Law:

1. [Page 67] Modify Conclusion of Law Number as follows: **Although** it is reasonable to exclude pumped storage projects 50 MW and over from participating in the Energy Storage Procurement Framework and Design Program, **pumped storage is consistent with the Guiding Principles of Section 4.1.**
2. [Page 67] Insert Conclusion of Law after Number 10 as follows: **It is reasonable to encourage pumped storage to compete in procurement competition included in other Commission proceedings, including, without limitation, the LTPP.**
3. [Page 67] Insert Conclusion of Law before Number 22 as follows: **The utilities should be allowed, under certain circumstances, to shift up to 50% of their annual target between the transmission and distribution grid domains upon acceptable showing.**

4. [Page 67] Modify Conclusion of Law Number 22 as follows: The utilities should be allowed, under certain circumstances, to defer up to ~~80%~~**50%** of their procurement target and should bear the burden of making a showing that deferral is appropriate. **The utilities should only be allowed to defer a portion of their procurement target for a given procurement cycle to one subsequent procurement cycle. Deferral should only be for the established target in that procurement cycle, and not for a cumulative target inclusive of previously deferred capacity. Any acceptable deferment must be procured during the next solicitation.**
5. [Page 67] Modify Conclusion of Law Number 25 as follows: It is reasonable to limit utility ownership of storage systems to 50% ~~aeross~~**within each** grid domains.
6. [Page 68] Modify Conclusion of Law Number 30 as follows: The utilities should be allowed **to** propose their own **statewide** methodology to evaluate the costs and benefits of bids and evaluate the full range of benefits and costs identified for energy storage in the use cases **with appropriate stakeholder input over time, recognizing the dynamic nature grid energy storage solutions.**
7. [Page 68] Modify Conclusion of Law Number 31 as follows: The IOUS should utilize a consistent **statewide** evaluation protocol for assessing bids to provide a consistent comparison across utilities, bids and use cases. **Parties that are not utilities should be allowed to propose amendments to this statewide evaluation protocol to help ensure the full range of benefits and costs identified for energy storage are consistently accounted for in the bids and use-cases.**
8. [Page 68] Insert Conclusion of Law after Number 34 as follows: **The procurement of energy storage resources should be transparent to the extent possible given the confidentiality requirements contained in D.06-06-066.**
9. [Page 68] Modify Conclusion of Law Number 36 as follows: There should be a comprehensive evaluation of the energy storage Procurement Framework and Design Program by no later than ~~2016~~ **2015**, and once every ~~three~~ **two** years thereafter.
10. [Page 69] Insert additional Conclusion of Law as follows: **The Commission should require that every utility application for new generation require consideration of alternatives including preferred resources and energy storage.**
11. [Page 69] Insert additional Conclusion of Law as follows: **The Commission must direct the investor owned utilities to conduct a statewide market test to pursue creative contracting mechanisms and new ownership models for energy storage products and services with third parties and retail customers behind the meter concurrent no later than December 1, 2014.**