

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**



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Order Instituting Rulemaking Regarding Policies,
Procedures and Rules for the California Solar
Initiative, the Self-Generation Incentive Program
And Other Distributed Generation Issues.

Rulemaking 10-05-004
(Filed May 6, 2010)

**OPENING COMMENTS OF THE CALIFORNIA ENERGY STORAGE ALLIANCE
ON PROPOSED DECISION MODIFYING THE SELF GENERATION INCENTIVE
PROGRAM AND IMPLEMENTING SENATE BILL 412**

Donald C. Liddell
DOUGLASS & LIDDELL
2928 2nd Avenue
San Diego, California 92103
Telephone: (619) 993-9096
Facsimile: (619) 296-4662
Email: liddell@energyattorney.com

Counsel for the
CALIFORNIA ENERGY STORAGE ALLIANCE

August 8, 2011

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The California Energy Storage Alliance (“CESA”)¹ hereby submits these Opening Comments on the Proposed Decision Modifying the Self Generation Incentive Program and Implementing Senate Bill 412, issued on July 19, 2011 (“Proposed Decision”).

I. INTRODUCTION.

CESA fully supports the Statement of Purpose for the SGIP adopted in the Proposed Decision.² CESA also supports most of the proposals in the Proposed Decision to modify the eligibility criteria for participation in the SGIP incentive amounts and payment structures for eligible technologies, budget allocation among eligible technologies, and other program parameters and requirements. CESA particularly applauds the Proposed Decision’s proposal to include standalone energy storage and energy storage paired with solar photovoltaics and all other SGIP-eligible technologies. In the following comments CESA recommends certain variations from the proposals contained in the Proposed Decision in a few specific areas,

¹ The California Energy Storage Alliance consists of A123 Systems, Altairnano, Applied Intellectual Capital/East Penn Manufacturing Co., Inc., Beacon Power Corporation, CALMAC, Chevron Energy Solutions, Debenham Energy, Deeya Energy, Enersys, EnerVault, Exide Technologies, Fluidic Energy, General Compression, Greensmith Energy Management Systems, HDR, Inc., Ice Energy, International Battery, Inc., LG Chem, LightSail Energy, Inc., MEMC/SunEdison, Powergetics, Primus Power, Prudent Energy, RedFlow, RES Americas, Saft America, Inc., Samsung SDI, SANYO, Seo, Sharp Labs of America, Silent Power, Sumitomo Electric, Suntech, SunPower, Sunverge, SustainX, Xtreme Power, and Younicos. 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://www.storagealliance.org>.

² Page 9, “Proposed Decision” July 19, 2011.

including a performance-based incentive methodology and calculation framework, and a methodology for calculating the kWh avoided by thermal energy storage.

II. THE COMMISSION SHOULD ADOPT ALL OF THE GUIDING PRINCIPLES THAT ARE RECOMMENDED FOR APPROVAL IN THE PROPOSED DECISION.

CESA fully supports all of the Guiding Principles recommended for approval in the Proposed Decision. This support extends to the principles proposed by the Energy Division staff,³ that are affirmatively approved as well as those that the Proposed Decision rejects because they would be unnecessary and arbitrary barriers in the way of promising transformative technologies such as energy storage.⁴

A. The Commission Should Encourage Deployment of Distributed Energy Resources, Including Energy Storage, to Reduce Peak Electric Demand.

CESA supports this principle. As the Proposed Decision points out, peak load reduction was the foundational purpose of the SGIP.⁵ CESA strongly agrees that peak load management should remain a primary objective of the SGIP. In fact, its stature should be equal to that of the newly adopted second primary objective of greenhouse gas (“GHG”) reduction that was added by SB 412. Together, both load management and GHG reduction should be the twin pillars of the SGIP going forward.⁶

B. The Commission Should Encourage Deployment of Technologies, Such as Energy Storage, That Have the Potential to Contribute to Market Transformation.

CESA supports this principle. CESA is an advocacy group consisting of more than 35 companies engaged in development and deployment of renewable technologies such as wind and solar and the entire spectrum of energy storage technologies. As such, CESA applauds the Proposed Decision’s support of energy storage technology as a critical element of California’s

³ See, *Self Generation Incentive Program (SGIP) Staff Proposal, Part II, Attachment A to Administrative Law Judges Ruling Requesting Comments on Revised Staff Proposal Regarding Modifications to the Self Generation Incentive Program*, issued April 21, 2011.

⁴ Page 9, “Proposed Decision” July 19, 2011.

⁵ *Id.*

⁶ *Id.*, page 9.

clean energy future. The Commission clearly recognizes the fact that energy storage technologies do not fit squarely within existing regulatory frameworks and require transformation of existing markets in order for the grid to fully realize the benefits of storage technology. CESA strongly supports the Commission's encouragement and recognition of energy storage technologies as a market transforming technology.⁷

C. Cost-Effectiveness and Need Should Not Be Criteria for SGIP Eligibility.

CESA supports this principle. There are numerous reasons to support this principle, as it relates to both cost-effectiveness and financial need. The most significant reasons are identified and discussed in some detail in the Proposed Decision. These reasons include: (a) neither the current SGIP nor SB 412 include any such eligibility requirements, (b) making cost-effectiveness an eligibility requirement could slow investment in the SGIP and hamper market transformation for technologies that should be allowed to contribute to reducing GHG emissions, (c) eliminating cost-effectiveness as an eligibility screen will encourage customer participation and result in the development of additional projects that further SGIP's goals, and (e) support from SGIP incentives should help technologies achieve future cost-effectiveness, and thus market transformation, and (f) currently available cost data is inadequate and could lead to inconsistent results.⁸

III. STAND-ALONE ENERGY STORAGE SHOULD BE AN SGIP-ELIGIBLE TECHNOLOGY, WITHOUT ANY RESERVATIONS OR CONDITIONS.

CESA could not be more supportive of the Proposed Decision's unambiguous conclusion on this point. However, CESA strongly opposes the Proposed Decision's condition that SGIP incentives for stand-alone energy storage should be removed from the SGIP if stand-alone energy storage receives incentives resulting from another Commission decision.⁹ Energy storage should not be conditionally eligible or treated any differently than are other technologies. There is quite simply no policy justification whatsoever to automatically make stand-alone energy storage ineligible for the SGIP because of *possible* availability of another funding source in the

⁷ *Id.* page10.

⁸ See, Cost-Effectiveness of energy storage is, of course, already a subject of the Commissions attention in its 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, issued December 16, 2010.

⁹ *Id.*, page 18.

future. Fuel cells presently qualify for net metering, the availability of which may always be expanded, yet retain flexibility in the SGIP.¹⁰ Similarly, combined heat and power (“CHP”) projects sized at less than 20 MW as of very recently have standard contracts available to them that encourage sales of excess energy resulting from AB 1613 while still remaining SGIP-eligible.¹¹ Against this backdrop, there is no policy justification at all for the proposed discriminatory interim eligibility status of stand-alone energy storage.

Treatment of other incentive sources is already more than adequately covered in the current SGIP Handbook¹², and SB 412 certainly says nothing about the long-standing Commission policy, embodied in the multiple revisions of the SGIP Handbook for many years that directly addresses incentives from other sources. As CESA points out, other SGIP-eligible technologies already benefit from concurrent California incentives such as net metering, and the proposed 25% export capability for generators. There are, of course, numerous other open Commission dockets that could produce decisions favorable to currently eligible technologies. CESA urges the Commission to reject this proposed interim status because it would specifically discriminate against only stand-alone energy storage to its disadvantage without any legitimate policy justification.

IV. THE COMMISSION SHOULD PRESERVE THE EXISTING INCENTIVE CATEGORIES OF RENEWABLES AND NON-RENEWABLES TO MAINTAIN PROGRAM CONSISTENCY AND REDUCE ADMINISTRATIVE BURDEN, AND SIMPLY EXEMPT ENERGY STORAGE FROM THE 30% PROJECT COST CAP

CESA supports SGIP’s current framework that divides projects into “renewables” and “non-renewables” payment categories. CESA does not support establishing a separate category for “emerging technologies” and does not believe that energy storage technologies should be confined to the “emerging technology” category. However, energy storage remains an emerging technology and as the “sole” emerging technology described in the Proposed Decision, CESA does agree with the Commission that energy storage projects should be exempted from the 30% cap on SGIP-funded project costs. Thus even with the simplified funding categories, CESA

¹⁰ See, Public Utilities Code §2827.

¹¹ See, D.09-12-042, issued December 17, 2009; *rehearing denied* D.11-04-033, April 14, 2011.

¹² See, *Self Generation Incentive Program Handbook*, at Section 2.7, page 22, published May 5, 2010.

recommends that energy storage be exempted from the 30% cap. As discussed above, energy storage is the only technology in the program that does not benefit from any other incentives and as such a 30% cap on program funds would unfairly handicap energy storage and inhibit market adoption.

Maintaining the existing “two category” framework will maintain program consistency in the SGIP and will ease the administrative burden on the Commission and the Program Administrators of creating and administering a new “emerging technology” classification. CESA’s view is that energy storage should be paired with the category that most suits the individual fuel source or generation technology, as has been the case with fuel cells under current program rules. For instance, an energy storage system paired with natural-gas fueled CHP should receive funds from the “non-renewables” category, and an energy storage project paired with a renewable generation resource such as wind, solar or a fuel cell operating on biogas should receive funds from the “renewables” category. Stand-alone storage would be funded out of the non-renewables category.

In addition to consistency with the existing framework, there are a number of other reasons to fund energy storage projects in this manner. Energy storage is highly capable of integration with any form of electricity generation. When properly integrated, an energy storage device can become a technically integrated part of a generation project. For example, energy storage can share power electronics, as well as software and communications technology, with wind or solar generation resources. In doing so energy storage adds substantial economic value to all generation technologies. In other words, energy storage enables paired generation resources to increase their value proposition in a project. Finally, the societal benefit of distributing energy storage resources, both geographically and across applications is immense, not only economically but also with regard to peak load reduction and overall grid stability.

For these reasons, energy storage projects should receive funds from the category that most suits the individual project and be exempted from the 30% project cost cap.

V. **FUEL CELL INCENTIVES SHOULD BE REDUCED TO \$1.50/WATT AND SHOULD NOT BE EXEMPTED FROM THE 30% CAP ON SGIP-FUNDED PROJECT COSTS.**

CESA does not oppose eligibility of fuel cells to participate in the SGIP.¹³ As the Proposed Decision points out, incentive structures based on fuel will generally provide greater incentives for zero-and low-GHG technologies than for technologies consuming fossil fuels. However, fuel cell incentives should be lowered to \$1.50/Watt. Many fuel cell projects currently can - and do - “double dip” in both the fuel cell technology and biogas fuel source incentive categories, which under the proposed rules, would equate to a \$4.25/watt incentive. The very large demand for fuel cells using biogas fuel incentives at \$4.50/watt (under current rules) is a strong indication that the incentive level was set too high. The Proposed Decision recommends that fuel cells that operate on biogas fuel should receive incentives slightly reduced to \$4.25/watt. CESA views this proposed very small decrease as insufficient given recent well-documented history of very substantial fuel cell participation in the SGIP. Instead, fuel cell incentives should be set at \$1.50/watt, plus \$2.00/watt for in-state biogas (provided the criteria recommended in the Proposed Decision are upheld) for a maximum total incentive of \$3.50/W. Further, fuel cells have been in commercial grid-use for a very long time, and as such, should not be treated as an emerging technology and should not be exempted from the 30% project cost cap.

VI. **HALF OF AN ELIGIBLE PROJECT’S INCENTIVE PAYMENTS SHOULD BE SHOULD BE PAID OUT ON A PERFORMANCE BASIS OVER THREE YEARS.**

CESA supports the performance-based payment proposal in the Proposed Decision, with several caveats. First, CESA recommends that 50% of the incentive amount should be paid out over three, instead of five years. Second, CESA recommends against annual performance payments, because such ‘lumpy’ payments will negatively affect smaller energy storage companies. Instead, CESA supports monthly incentive payments, consistent with the California Solar Initiative (“CSI”) program¹⁴. If monthly incentive payments are too administratively cumbersome, then payments should be paid no less frequently than quarterly. CESA recommends the following methodology for making the three-year pay out for energy storage projects:

¹³ CECA takes no position on any issues related to the source of biogas delivered to fuel cells.

¹⁴ See, *California Solar Incentive Program Handbook*, Section 3.3, p. 37.

A. Performance-Based Incentive Should Be Set at \$2.50/Watt For Energy Storage Paired with Renewables, and \$2.00/Watt for Standalone Energy Storage, with (in both cases) 50% payable up front and the remainder as performance-based incentives that factor in an appropriate discount rate

Consistent with how fuel cell incentives are being proposed – a higher incentive level for biogas, CESA recommends that higher incentives be possible for energy storage coupled with renewables: \$2/Watt for standalone energy storage and \$2.50/Watt for energy storage paired with renewables. The maximum applicable performance-based incentive (50%) should be set at the outset to maintain the net present value of the remaining incentive amount in the first year, applying a 15% discount rate to account for the time value of money and other project risks for incentive payouts made over a multi-year period. Factoring in the time value of money would simply align the incentive amount with current and requested incentive levels, while providing the accountability benefits of a long-term payment plan.

For example, by simply paying out 50% of a \$2/W incentive over three years and not including a 15% discount rate this would equate to reducing current incentive levels from \$2/W to only \$1.76/Watt as indicated in the table below. Under a three-year energy-based performance-based incentive, simply to maintain current incentive levels at a present value of the nominal \$2/W, the incentive level would need to be increased to \$2.33/watt as calculated in the table below:

15% Discount Rate					Not Adjusted for 15% Discount Rate on Time Value of Money	
Year	Upfront Capacity Incentive	Capacity (kW)	Hours Per Year Output	Annual Discharge (kWh)	PV of PBI - 15% Discount Rate	PV of Total Cumulative Incentive Amount
0	\$ 1,000,000				\$ -	\$ 1,000,000
1	\$ -	1,000	232.2	232,200	\$ 289,855	\$ 1,289,855
2	\$ -	1,000	232.2	232,200	\$ 252,048	\$ 1,541,903
3	\$ -	1,000	232.2	232,200	\$ 219,172	\$ 1,761,075
Total	\$ 1,000,000	1,000	696.6	696,600	\$ 761,075	\$ 1,761,075

Actual \$/W Without Factoring in Time Value of Money	\$ 1.76
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					Adjusted for 15% Discount Rate on Time Value of Money		
Year	Upfront Capacity Incentive	Capacity (kW)	Hours Per Year Output	Annual Discharge (kWh)	Adjusted PBI	Total Cumulative Adjusted Incentive	PV of Total Cumulative Adjusted Incentive
0	\$ 1,000,000					\$ 1,000,000	\$ 1,000,000
1	\$ -	1,000	232.2	232,200	\$ 383,333	\$ 1,383,333	\$ 1,333,333
2	\$ -	1,000	232.2	232,200	\$ 440,833	\$ 1,824,167	\$ 1,666,667
3	\$ -	1,000	232.2	232,200	\$ 506,958	\$ 2,331,125	\$ 2,000,000
Total	\$ 1,000,000	1,000	696.6	696,600	\$ 1,331,125	\$ 2,331,125	\$ 2,000,000

Adjusted \$/W Factoring in Time Value of Money	\$ 2.33
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B. The Proposed 20% Capacity Factor And Annual Performance Degradation Factors Should Not Apply To Storage

Based on the example provided in the proposed decision, the 20% capacity factor would imply that the energy storage technology is expected to be running 20% of the year (20% x 8760hrs/year = 1752 hours/year). This discharge profile is unreasonable considering that energy storage is only required to discharge between 2-4 hours per day during peak load months to effectively reduce peak demand. This is why in previous filings with the Commission, CESA has assumed 232.2 hours/year energy dispatch, targeting peak load reduction (calculated as 129 peak week days per year x 2 hours per day x 90% availability). Further, the Proposed Decision assumes a fixed degradation rate for the generation output using the following equation:

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$$\text{capacity (kW)} \times \text{capacity factor} \times \text{hours per year (8760)} \times \text{degradation (\% of total remaining capacity)}$$

The assumed degradation similarly does not make sense for energy storage, as under CESA's proposed energy-based PBI methodology, energy storage would be required to dispatch the same number of hours each year of the performance-based incentive. Any degradation in performance in the energy storage system would be factored into the system's annual operating costs. Rather than creating a "fixed capacity factor" or "annual degradation" for energy storage, the Commission should base its Performance based Incentive payments on performance delivered, assuming specific availability (90%) and performance as delivered in the performance-based calculation itself.

D. Projects Sized Smaller than 30 kW Should be Paid a Lump Sum Upon Commissioning In Lieu of Performance-Based Payments.

Small commercial and residential energy storage projects (<30kW) should be categorically exempted from the performance-based payment regime simply because of their size in comparison to the cost of incentive payment administration, consistent with the way that the CSI program exempts small projects <30kW. Instead, small projects should be paid an up-front lump sum incentive payment of \$2.00/W if stand-alone, or \$2.50/W if paired with eligible renewable resources.

E. SGIP Applicants Should Be Allowed to Choose Performance-Based Incentive Payments Based On EITHER an Energy Application OR Based on a Power Application.

The flexibility provided by allowing SGIP applicants to have an option as to the basis for calculation of performance-based payments will allow end use customers with many different load shapes to participate in the SGIP. Some customers may have a longer-duration demand

curve during peak periods and others may have a shorter-duration demand curve. In both cases, the goal of implementing energy storage is to reduce customer peak demand so greater program flexibility to accommodate a variety of customer load shapes would be consistent with the guiding principles. Applicants should be allowed a one-time election of one or the other of the two calculation methods for purpose of determining the amount of performance-based incentive payments. Each methodology is described below.

Power Performance Based Incentive Applications

Power applications would entail installations whose performance is measured in kW with at least 1 hour used to measure capacity (UPS applications should remain ineligible). Power applications would receive monthly payments based on performance during defined peak periods.

To calculate actual monthly kW performance of the power application, the following steps would be performed:

Meter the actual kW at the customer's meter once an energy storage system is in place (post storage impacts).

Meter the interval kW input/output of the energy storage system and add the amount to the actual kW (this produces the adjusted kW).

The monthly kW performance is the maximum observed net difference in the "apparent" kW and the adjusted kW occurring in the same time increment (*e.g.*, 15 minute increment, or hourly period).

Interval metering of the energy storage system would perform bi-directional metering, net of losses, and measure both energy and input and output of the energy storage system. Thermal Energy Storage used for cooling would be measured based on the performance of the storage system and a deemed energy efficiency rating for the customer's avoided air conditioning equipment. The performance-based payment would be made on basis of the kW discharged, or avoided.

Energy Performance Based Incentive Applications

Energy applications would receive a fixed payment for each kWh discharged during defined peak hours. The dollar incentive level per kWh discharged on-peak would be based on an assumed 90% availability factor and a two-hour discharge period (consistent with current

SGIP Handbook requirements)¹⁵ and a three year payout (a total of 232.2 targeted peak load reduction hours per year, calculated as 129 peak week days per year x 2 hours per day x 90% availability).

To calculate monthly kWh discharge performance the Program Administrators would measure kWh discharged from the energy storage system during peak hours. Thermal Energy Storage used for cooling would be measured based on the performance of the energy storage system and a deemed energy efficiency rating for the customer's avoided air conditioning equipment. The performance-based payment would be made on basis of the KWh discharged, or avoided.

F. Thermal Energy Storage for Cooling Should Receive Performance-Based Incentives Consistent With The Specific Features of the Technology.

The incentive for thermal energy storage systems would be calculated using an existing accepted structure that utilizes industry-standard models to compute offset energy. Actual performance would be measured as follows: The Btu's of cooling provided by a thermal energy storage system in a given time period is determined by monitoring the energy use and fluid properties of the energy storage system.

The customer's air conditioning equipment is monitored or metered to determine when its use is being avoided coincident with the operation of the thermal energy storage system. The avoided customer energy is computed from the quotient of the Btu's of cooling provided and the efficiency rating of the customer's equipment, less electricity used by the storage system during its discharge cycle. Either the Power Application performance-based incentive or Energy Application performance-based incentive can be applied to thermal energy storage.

VII. MAXIMUM PROJECT SIZE LIMITS SHOULD BE ELIMINATED, IF INCENTIVE AMOUNTS ARE CALCULATED ON THE BASIS OF A CAP OF 3 MW.

CESA supports this proposal.¹⁶ Removing the size cap will benefit the SGIP by enabling systems greater than 5 MW, which may not be financially viable without the incentives available for the first 3 MW, to become eligible to participate in the program. Authorizing the

¹⁵ See, SGIP Handbook,

¹⁶ *Id.*, 22.

participation of larger projects may also allow certain technologies to achieve wider adoption without any additional cost to the program. Capping incentives at 3MW will also ensure that customers with smaller loads, such as residential and small commercial customers, also have reasonable access to incentives. Removal of the size requirement would be consistent with SB 412, which requires the Commission to ensure that incentives under the SGIP be available to all customers. Authorizing the participation of larger projects may also allow certain eligible technologies to achieve wider adoption without any additional cost to the SGIP.

VIII. IT IS PREMATURE TO CONSIDER A SPECIFIC INCENTIVE DECLINING PAYMENT FRAMEWORK FOR ENERGY STORAGE AT THIS TIME.

CESA supports this proposal in concept. However, the proposed framework is premature as applied to energy storage. Energy storage technologies are currently in a period of rapid change. The effect of a declining rate structure at this point would likely be to chill the growth and development of energy storage development before commercial energy storage deployments have begun and new innovation has peaked. The goals of the SGIP as they relate to energy storage technologies will best achieved by exempting storage from any tiered incentive rate structure at this time.

The concept should be re-visited on an annual basis for energy storage once the Commission has gathered actual market results, because it may prove too arbitrary to implement in practice. It is not clear today, for example, whether it would apply to projects already receiving incentives or only new projects. It is too early to know how much the declining steps should be or over what time period they should be spread. The proposal in the Proposed Decision would appear to be an ideal candidate for workshop in the near future, perhaps by a date certain.

IX. A SUPPLIER CONCENTRATION LIMIT OF 50% IS TOO LARGE. A LIMIT OF 25% WOULD BE MORE APPROPRIATE.

CESA supports this concept in principle. CESA generally agrees with the concept, but suggests lowering the concentration limit to 25% of the annual SGIP budget per supplier or economically related entity. A very clear definition of “supplier” should be proposed in the advice letters proposed to be filed by the utilities.

X. SGIP FUNDS SHOULD CONSTITUTE NO MORE THAN 30% OF TOTAL PROJECT COST, EXCEPT FOR ENERGY STORAGE PROJECTS.

CESA supports this proposal.¹⁷ SGIP funds should not be allowed to constitute any more than 30% of the total project cost incurred by an eligible generator's system. This limitation should not apply to energy storage projects -- as noted in the Proposed Decision -- energy storage projects are commercially developing technologies, and do not receive any other incentives.

XI. METERING REQUIREMENT SHOULD BE DEVELOPED.

In order to effectively measure the value of energy storage, the metrics of availability and dispatched kWh of energy during peak hours should be part of the reporting requirements. Metering seems to be another suitable candidate for a workshop.

XII. ENERGY EFFICIENCY REQUIREMENTS MAY BE PREMATURE FOR ENERGY STORAGE TECHNOLOGIES.

CESA supports this proposal in principle, but must point out that this kind of requirement would significantly raise the front-end transaction costs for energy storage projects, particularly very small projects. This reality is a good example of why energy storage should receive more than \$2/Watt (when coupled with renewable projects), and the performance-based incentive should be calculated using an appropriate discount rate. This potential requirement may also be best considered in workshops.

XIII. APPLICATION FEES AND RESERVATION HOLD TIMES SHOULD BE IMPLEMENTED IN THE SGIP HANDBOOK.

CESA supports this proposal in principle. A tiered fee structure appears appropriate, but the proposed levels will certainly be too onerous for very small commercial and residential applicants. The application fee for projects in the 25-50 kW bracket should be no more than \$500, and the 50-100 kW bracket should be no more than \$1000. This recommended scale should be re-visited after six months of experience with its implementation in workshops.

¹⁷ Id., p. 45.

XIV. WARRANTY TERM REQUIREMENTS SHOULD BE NO GREATER THAN FIVE YEARS.

CESA respectfully is of the view that no further stakeholder input is necessary or desirable, and proposes that an SGIP warranty requirement should be maintained at five years. This has been the warranty requirement since the inception of the program, and increasing the requirement to 10 years would have the effect of increasing energy storage system cost dramatically.¹⁸

XV. CONCLUSION.

CESA thanks the Commission for this opportunity to comment, and looks forward to working with the Commission and stakeholders going forward.

Respectfully submitted,



Donald C. Liddell
DOUGLASS & LIDDELL

Counsel for the
CALIFORNIA ENERGY STORAGE ALLIANCE

August 8, 2011

¹⁸ The requirement of warranties for projects that involve providing a service rather than a product should be re-examined at some point in the future because a warranty does not logically or practically apply to the rendering of a service.