

**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)

**REPLY COMMENTS OF THE CALIFORNIA ENERGY STORAGE ALLIANCE  
ON ADMINISTRATIVE LAW JUDGE'S RULING REQUESTING COMMENTS  
ON STAFF PROPOSAL REGARDING MODIFICATIONS TO THE  
SELF-GENERATION INCENTIVE PROGRAM**

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**CALIFORNIA ENERGY STORAGE ALLIANCE**

December 10, 2010

**BEFORE THE PUBLIC UTILITIES COMMISSION  
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The California Energy Storage Alliance (“CESA”)<sup>1</sup> hereby submits these reply comments pursuant to *Administrative Law Judge’s Ruling Requesting Comments on the Staff Proposal Regarding Modifications to the Self-Generation Incentive Program*, issued September 30, 2010, and the extension of time to file reply comments until December 10, 2010, granted November 23, 2010 (together the “ALJ’s Ruling”).

**I. INTRODUCTION.**

CESA submits these reply comments to respond to opening comments filed by to other parties and further explain certain of the points made in CESA’s Opening Comments for the benefit of the Commission and the parties. Particularly as some key policy issues are closely related and interwoven, all of the discussion in these reply comments is important to a full understanding of CESA positions on the merits of the Staff Proposal as a whole. However, CESA’s comments regarding SGIP funding at Section II below are critical to focus on as early as possible so that the entire discussion does not become moot.

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<sup>1</sup> The California Energy Storage Alliance consists of A123 Systems, Altairmano, Applied Intellectual Capital, Beacon Power Corporation, Chevron Energy Solutions, Debenham Energy, Deeya Energy, East Penn Manufacturing Co., Inc., Enersys, Enervault, Fluidic Energy, General Compression, Greensmith Energy Management Systems, Ice Energy, Lightsail Energy, International Battery, MEMC/SunEdison, Primus Power, Powergetics, Prudent Energy, Redflow, ReStore Energy Systems, Saft, Samsung SDI, SEEO, Silent Power, Suntech, Sunverge, SustainX, 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://www.storagealliance.org>.

## **II. FUEL CELL INCENTIVES, INCLUDING INCENTIVES FOR DIRECTED BIOGAS, SHOULD BE IMMEDIATELY REDUCED TO LEVELS COMPARABLE TO THOSE PROPOSED FOR ENERGY STORAGE.**

CESA is deeply concerned that the existing SGIP rules allow a substantial amount of funds to be allocated to only a few participants, who have been able to use up nearly all available renewable funds – thus making any proposed modifications to the program an effort in futility and undermining the purpose of the SGIP. Other stakeholders are similarly concerned about current program rules and the near term impact to remaining SGIP budget:

- CCSE supports modifications to improve the SGIP and expand the technologies eligible for participation but cautions that “without an additional infusion of funds to continue the program past 2011, these modifications will have little practical impact in the marketplace.”<sup>2</sup>
- PG&E points out very directly that: “At this time, PG&E is carrying a Waitlist for Level 2 SGIP Projects. If we begin the 2011 program year on January 1, 2011, it is possible that by the time the final decision implementing SB 412 is approved, there will be no more budget to allocate towards any additional technologies in 2011. In addition, it will be more efficient and effective to launch the entire 2011 program at one time rather than making multiple substantive changes to the program.”<sup>3</sup>

The chart below illustrates the current renewable funding shortfall in the SGIP as of the end of Q3 2010.<sup>4</sup> It is important to note that at the time a Petition for Modification was approved granting directed biogas projects \$4.50/W incentive levels, the total SGIP budget was closer to \$428 million<sup>5</sup>. By the end of the third quarter of 2010, the total remaining budget (including new funds authorized under SB 412) has been reduced by almost 50%. It is not hard to imagine, that

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<sup>2</sup> PG&E Opening Comments, p. 18.

<sup>3</sup> CCSE Opening Comments, p. 2.

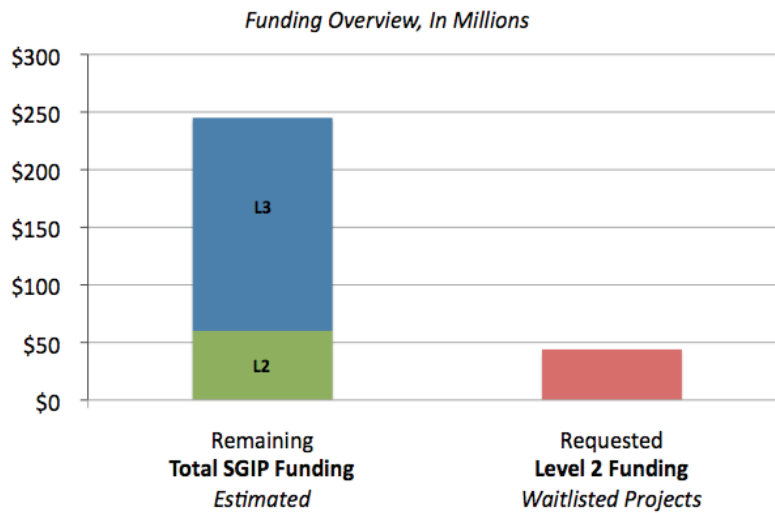
<sup>4</sup> Source: Current Monthly Budget Reports for All SGIP Program Administrators (PG&E, SCE, SoCalGas, CCSE). “Remaining Total SGIP Funding” calculated as (2010/2011 Allocated Budgets + Authorized Carryover) – 10% Admin. Fee – 2010 Active Projects.

“Requested Level 2 Funds, Waitlisted Projects” calculated as fund requested from projects currently waitlisted with PG&E/CCSE.

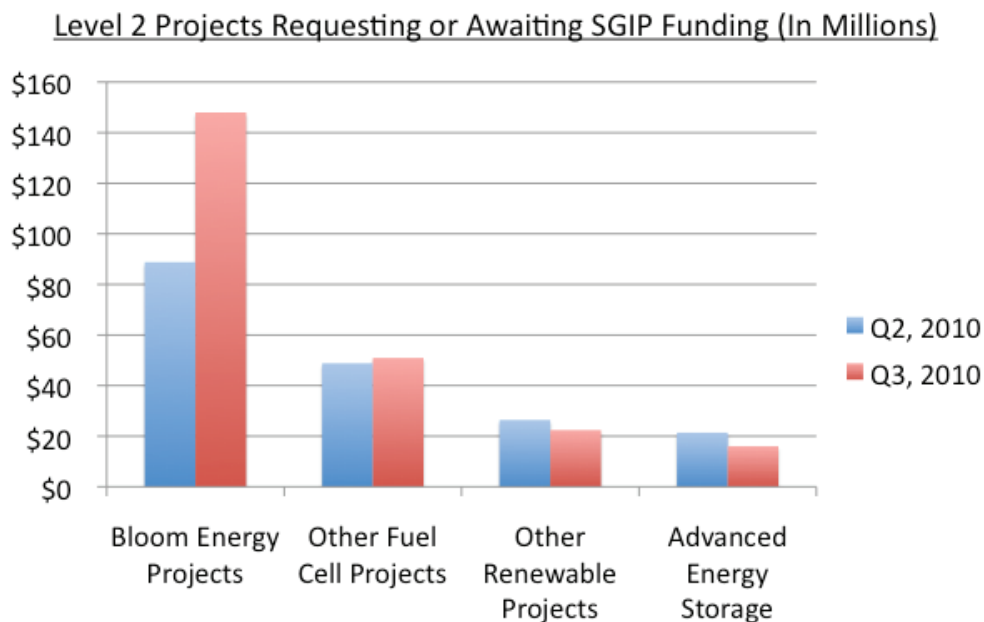
<sup>5</sup> \$428 million total SGIP budget from end of 2009 estimated as follows: CPUC authorized carryover \$310M + 2010 authorized budget (SB 412) \$83M + 2011 authorized budget (SB 412) \$83M less 10% administration fees (\$48M) = \$428M

if current program rules are not immediately changed, then one year from now - after SB 412 is fully implemented - there will be no budget left.

As of Q3, 2010, all renewable (Level 2) funding for 2010 has been depleted, and a very large waitlist persists; as large as the remaining total Level 2 program funds. If funds from the non-renewable category are moved to the renewable category as urged by fuel cell proponents (as reported by Program Administrators), then the SGIP budget would be rapidly depleted under current program rules; certainly before SB 412 is fully implemented.



Furthermore, most of the Level 2 funding is being reserved by a very small group of companies, contrary to the market transformation objectives of the SGIP.



To alleviate this problem and preserve limited SGIP funding for SB 412 implementation, CESA recommends that the fuel cell incentive level, including incentives for directed biogas, be immediately reduced to \$2/W. This absolute incentive level, as discussed above, can readily be translated later into a fuel cell performance-based incentive (“PBI”) paid on an actual \$/kWh delivered basis once SB 412 is fully implemented.

Looking ahead there are also significant problems with administration of conditionally approved directed biogas fuel cell projects because there is no nationally accepted methodology for verifying retirement and use of directed biogas-based renewable energy credits (“RECs”). CESA is concerned about the Commission’s ability to audit and confirm that directed biogas was indeed used for renewable fuel cell projects, particularly when many of the directed biogas suppliers are located out of state. The current safeguard of a simple attestation or letter from the biogas supplier and fuel cell developer will certainly not be sufficient (the insufficiency of this type of approach is what led to the development of WREGIS for REC tracking).

The rapid expansion of out-of-state directed biogas fuel cell projects is of grave concern not only to preserve available funds for new technologies pursuant to SB 412, but also for the long term health and sustainability of the SGIP overall. Historically, the SGIP has been a very successful program in accelerating the deployment of new technologies such as solar, and its success should be continued for new eligible distributed energy technologies including energy storage and distributed wind energy.

To remedy this current funding imbalance, CESA recommends reducing fuel cell incentives, including for directed biogas projects, immediately to \$2.00/W equivalent, and then, upon implementation of SB 412, converting that incentive level into a PBI payment, based on actual kWh delivered. Reducing the fuel cell incentives should have the effect of curtailing demand and reducing the presently unbalanced number of project applications in the program. Additionally, as will be further discussed in Section XI below, CESA also recommends immediately requiring application fees for all SGIP applicants, including those already on the waitlist.

If current fuel cell incentives cannot be immediately reduced to \$2.00/Watt, CESA strongly agrees with PG&E’s recommendation to “delay the start of the 2011 program year until the implementation of SB 412 into the SGIP is complete” provided that no new applications are

accepted into the wait list.<sup>6</sup> If new fuel cell applications are accepted at current incentive levels, then when the 2011 program year is opened the funds will simply be consumed by projects in the waitlist. In other words, it is important to fix the fundamental issue in the program – that of overly rich fuel cell incentive levels whether that happens now or at a point in the future. CESA certainly strongly supports fixing this fundamental program flaw now so that other eligible technologies can continue with their normal project development during SB 412 implementation. Finally, CESA strongly agrees with CCSE that additional infusion of funds is required, however, before considering new legislation it is imperative that these inherent current funding flaws be immediately remedied.

### **III. PEAK LOAD MANAGEMENT SHOULD REMAIN THE FUNDAMENTAL PROGRAM POLICY GUIDING PRINCIPAL FOR THE SGIP.**

CESA has already directed the attention of the Commission and the parties to the genesis of peak load management when the SGIP was first established, and will not repeat that history here.<sup>7</sup> As stated above, at the same time, CESA agrees with the essential role of the GHG requirement in SB 412. By the same token, SB 412 made an important reference to the continuing goal of peak reduction as an additional factor to consider. In other words, SB 412 did not emphasize the peak, because it need not have done so in order to add new focus on GHG emission reduction. As was indicated by Staff in response to a question at the Workshop, the initial program goals remain implicitly as a general underlying theme of the SGIP and the Proposal. Accordingly, CESA respectfully disagrees on legal and policy ground with the implication in the Opening Comments of some parties that suggest that GHG emission reduction has replaced pre-existing goals of the SGIP.

### **IV. STAND-ALONE ENERGY STORAGE SYSTEMS SHOULD BE ELIGIBLE TO PARTICIPATE IN THE SGIP INDEPENDENT OF ANY OTHER PROCEEDING OR POLICY DEVELOPMENT.**

CESA emphatically agrees with SCE that “allocation of budget is necessary to preserve funds for different technologies, especially newer ones”.<sup>8</sup> However, CESA strongly disagrees

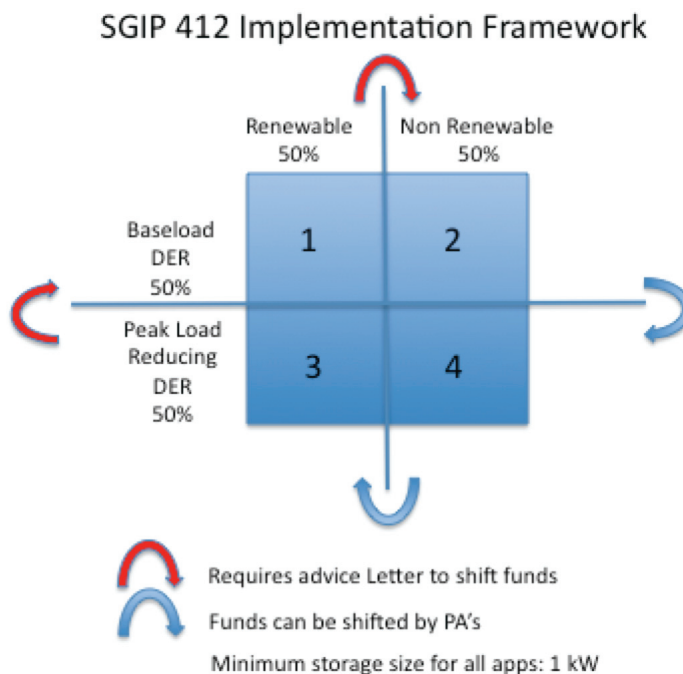
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<sup>6</sup> PG&E Opening Comments, p. 18.

<sup>7</sup> CESA Opening Comments, p. 5.

<sup>8</sup> SCE Opening Comments, p. 12.

with SCE, PG&E, and SDG&E that standalone energy storage should be excluded from the SGIP. As recommended in CESA’s and Opening Comments and December 2009 Comments<sup>9</sup>, the SGIP should implement a funding framework consistent with the peak load reduction goals of the program. As discussed above, the Commission created the SGIP as a *peak load reduction program* to implement the intent of AB 970. To be consistent with this state goal (and with the discussion in the Proposal) CESA recommends that the current funding framework be modified so that, in addition to renewable and non renewable allocations, there are also program budget allocations for peak load reducing and base load distributed energy resources. This approach would essentially create four funding categories, summarized below as follows:



Establishing a simple funding framework, as indicated above figure, that is consistent with the fundamental goals of the SGIP will help ensure that sufficient funds are allocated toward program goals, and to help preserve funds for a diversity of different eligible technologies.

While CCSE’s intentions are laudable, its proposed methodology for creating technology-specific weighted incentives based on “GHG Reduction effectiveness defined as an “annually established emissions relationship between grid supplied power and power supplied by

<sup>9</sup> *Opening Comments of the California Energy Storage Alliance on Administrative Law Judge’s Ruling Requesting Comments on the Implementation of Senate Bill 412 and Noticing Workshop*, filed December 15, 2009 in R.08-03-008.

the technology, normalized to avoid tons of CO<sub>2</sub> per MWh of energy produced by the technology” would be far too complex to determine. CCSE also recommends that SGIP funding categories should be weighted, based on technology-specific GHG emission reduction effectiveness.<sup>10</sup> However it is unclear, for example, how such a metric could be applied to energy storage, because specific storage CO<sub>2</sub> emissions will vary significantly depending on the specific mix of electricity used to charge the system; the same mix of grid electricity when discharged; the application/duty cycle and other site-specific factors. If the funding framework proposed in the figure above is implemented in the SGIP, using CCSE’s proposed methodology for weighting funding across distributed generation technologies would remain possible for non-storage technologies.

#### **V. GHG EMISSIONS REDUCTIONS SHOULD BE TAKEN INTO ACCOUNT AT THE ELECTRIC POWER SYSTEM LEVEL.**

CESA agrees with Staff’s recommendation that GHG reduction should be an important guiding principle to guide the Commission going forward. CESA also agrees with Staff’s recommendation that the SGIP should only provide incentives to technologies that are able to produce fewer emissions than they avoid from the grid, as required by SB 412.<sup>11</sup> CESA further agrees with Staff that this requirement should be applied on a technology-wide basis, combined with a technology-specific verification option.<sup>12</sup>

It is critical to recognize and fully account for, however, that avoided grid emissions need to also assign value to *system level benefits* of any particular technology. For example, the appropriate methodology for considering improvements in the grid’s emissions profile for distributed energy storage is to compare the marginal emissions from a centralized natural gas peaker vs. the emissions produced by distributed energy storage to provide the same service.<sup>13</sup> This would necessarily factor in the current existing electric mix used to ‘charge’ the energy

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<sup>10</sup> CCSE Opening Comments, p. 8.

<sup>11</sup> , Attachment 1 to the ALJ’s Ruling, *Self Generation Incentive Program (SGIP) Staff Proposal*, September 2010.p.22.

<sup>12</sup> *id.*, p. 23.

<sup>13</sup> CESA published a white paper specifically comparing a 50MW battery vs. a 50 MW natural gas fired peaker and found that in the one for one replacement scenario, the battery delivers significant emissions reductions. Distributed storage will provide the added benefit of reducing line losses associated with central-station peaking generation. for a copy of CESA’s whitepaper and analysis, please see: <http://www.storagealliance.org/work-whitepapers.html>



storage system and the avoided line losses of providing the peak energy at the point of consumption (which will change over time and get cleaner).

As discussed at Section III above, it is equally important to remember that GHG reduction is not the SGIP's *only* guiding principle – rather, looking back at the history of the program, peak load reduction should be *the* fundamental guiding principle of the SGIP because the SGIP was originally created for the *sole* purpose of encouraging management of California's peak load usage of electricity.

**VI. THE MINIMUM ROUND TRIP EFFICIENCY REQUIREMENT FOR PROGRAM ELIGIBILITY SHOULD BE BASED ON THE MINIMUM REQUIRED TO BE 'ON PAR' WITH A NATURAL GAS FIRED PEAKER**

CESA remains firm on its Opening Comments and methodology for calculating a round trip efficiency minimum requirement. In its comments, using a real life mix of inputs, CESA concluded that stand-alone systems with efficiency as low as 38% can still reduce GHG emissions.<sup>14</sup> For systems coupled with renewables, the roundtrip efficiency minimum should be reduced and at times removed altogether when the energy storage system is charged from the renewables as opposed to the grid. By including an unnecessarily high roundtrip efficiency minimum requirement as suggested by Staff and others, the program will be putting some energy storage technologies at a disadvantage, thereby losing the multiple value streams these technologies could offer to the program (i.e. long runtimes, low capital costs, low operating costs, long life cycles, durability, etc.). Put another way, if the minimum required round trip efficiency for distributed energy storage to be on par emissions-wise with a central station natural gas peaker, then ANY distributed storage technology will have a beneficial impact to GHG emissions in California. Round trip efficiency thus becomes an input to the project economics. More efficient storage systems will have a lower 'fuel' cost (fuel defined as the electricity it uses to charge off the grid or from onsite renewables), and thus possess a competitive advantage for this aspect of the project economics.<sup>15</sup>

Many parties commented on which emissions number to use to calculate the required minimum roundtrip efficiency. Most comments favored using 0.437 tonnes/CO2/MWh for

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<sup>14</sup> Detailed overview of CESA's GHG emissions calculation methodology can be found in CESA Opening Comments page 6-14.

<sup>15</sup> It is important to note that there are many drivers of project economics, round trip efficiency is just one – other drivers include capex, opex, installation/permitting cost, ongoing maintenance etc. etc.

avoided emissions. CESA remains neutral on this topic, and agrees with the staff recommendations that this number will not apply to energy storage systems since it reflects the total calculated emissions during all times. Energy storage systems must be calculated differently as the systems will be charged during off peak times and discharged during peak times. Therefore, the emissions used to calculate the minimum roundtrip efficiency requirement for energy storage systems must reflect the marginal emissions either avoided or produced during these times. This is completed using “real life” data in the analysis supplied by CESA in its Opening Comments<sup>16</sup>. This analysis is more accurate for energy storage systems since they will be used to provide power during peak times and thus, the combustion turbine marginal plants will be avoided. During off peak times, the energy storage systems will be charged, and the marginal increase in emissions would reflect the total mix of generation.

**VII. TRUE PERFORMANCE BASED INCENTIVES ARE THE ONLY WAY THAT THE COMMISSION CAN INCREASE GREATER PROJECT ACCOUNTABILITY FOR RATEPAYERS AND SIMPLIFY PROGRAM ADMINISTRATION**

The staff recommendations and reply comments reject a “true” PBI for the SGIP<sup>17</sup>. CESA also disagrees with SDG&E that a PBI is not appropriate now. Rather, CESA believes that implementing a true PBI, very similar to the approach used in the California Solar Initiative (“CSI”) program, is of utmost importance at this point in the life of the SGIP. A PBI not only ties incentives directly to actual performance delivered, but it is also the simplest incentive mechanism that can be applied across-the board to all eligible technologies - including both standalone energy storage and energy storage coupled with renewables (specific recommendations for how a PBI can be applied to storage is further discussed below). As CCSE stated in their Opening Comments ... additional funds will be required in the SGIP. CESA strongly believes fundamentally shifting incentive payment structure toward performance based incentives will increase the likelihood of additional future funding authorization. Implementing a true PBI for the SGIP will not only help promote greater project accountability and simplify the

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<sup>16</sup> Detailed overview of CESA’s GHG emissions calculation methodology can be found in CESA Opening Comments page 6-14.

<sup>17</sup> In this context “true” is meant in the sense that it requires nothing further, qualifiers, assumptions or conversion factors and the like.

program administration, but it is also a requirement prior to considering any future funding for the SGIP beyond that currently authorized by SB 412.

Further, the \$/kWh PBI can be set at the technology class level such that project economics will not make sense unless waste heat is captured, or other reasonable efficiency metrics are met. For example, a \$/kWh PBI for combined heat and power (“CHP”) may be different than the \$/kWh PBI for fuel cells or wind, and the \$/kWh PBI level for CHP may be set so that the project economics only make sense if waste heat is captured. Thus, a PBI will be self-enforcing from both an economic and a greenhouse gas (“GHG”) emissions performance standpoint.

Basing incentive amounts and performance on GHG reduction (or any other indirect metric besides \$/kWh) as suggested by CCSE, would introduce far too much complexity and project-level calculations and, would remain an indirect means of measuring performance. This is very important because, while GHG reduction is a key goal of SB 412, it is not the only one. Other goals exist in the program for a reason and need to be considered during implementation.

For smaller projects, CESA agrees with CCSE and supports creating an up-front lump sum incentive payment for small energy storage projects sized at less than 10 kW, similar to the way the CSI program is structured (along with more simplified metering and application fee requirements, as described below in Section X. CESA also agrees with SDG&E that a declination schedule for the PBI is premature at this time, especially given that there is only one remaining year of SGIP funding left (2011). CESA supports a declination schedule in general, but it would be more appropriate to consider this if/when new funding is authorized into the program (funding beyond SB 412).

#### **VIII. CESA RECOMMENDS A PERFORMANCE BASED INCENTIVE FOR ENERGY STORAGE THAT INCENTIVIZES BOTH CAPACITY AND ENERGY**

Because it is a valuable distributed energy resource that can meaningfully reduce peak demand and be synergistically coupled with other eligible generation technologies, incentives for energy storage can also be structured as a performance-based incentive. CESA recommends that the maximum total *value* of energy storage incentives be set to \$2.00/Watt for standalone energy storage and \$2.50/Watt for energy storage coupled with renewable resources.

Energy storage provides both a capacity value and an energy value to the grid. Closely aligning these system benefits to the incentive structure would naturally mean that the PBI for

energy storage would have both a capacity and an energy component. To set the new PBI levels, CESA recommends that 50% of the current incentive (either \$2/Watt for standalone, or \$2.50/Watt coupled with renewables) be paid upon project commissioning, essentially the same way that incentives are paid today. This would equate to an up-front capacity-based incentive of \$1/W for standalone energy storage projects and \$1.25/W for energy storage projects coupled with renewable energy resources. To be eligible for this capacity incentive, the storage device would demonstrate at least one hour of storage duration capacity. This will have the effect of excluding very short duration capacitors and uninterruptible power supply (UPS-only) solutions from the program.

The maximum energy-based incentive would be set to maintain the Net Present Value (“NPV”) of the remaining incentive amount in the first year in order to account for the time value of money and other project risks for incentive payouts made over a multi-year period<sup>18</sup>. Such a change would simply align the incentive amount with current and requested incentive levels<sup>19</sup>, while providing the accountability benefits of a long-term payment plan - a payment plan that would be in effect if and only if the asset delivered kWh on peak. The dollar incentive level per kWh discharged on-peak would be based on an assumed 90% availability factor and a four hour discharge period (consistent with current SGIP Handbook requirements) and either a three or five year payout as indicated in the chart below (a total of 464.4 targeted peak load reduction hours per year, calculated as 129 peak week days per year x 4 hours per day x 90% availability). The key difference between the three and five year \$/kWh discharged on-peak incentive payout is simply the annual discount rate assumed to maintain the NPV in the first year and the more condensed incentive payout horizon in the three year case.

Using these inputs, it is possible to solve for resulting \$/kWh delivered on-peak during summer months, assuming an end result NPV of \$2/W standalone and \$2.50/W coupled with renewables incentive for energy storage. Results are summarized in the table below:

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<sup>18</sup> The Staff-proposed discount rate of 15% is used to value the time value of the performance based PBI.

<sup>19</sup> In its December 2009 Comments, CESA requested \$2.00/W for standalone energy storage, and \$2.50/W for energy storage coupled with renewable energy resources.

Scenario	Renewable?	Discount Rate (%)	PBI Duration (yr)	PBI (\$/kWh delivered on-peak in summer)	Year 0 Capacity Based Incentive \$/kW
kWh Non-RF Rate 5yr 15%	Non-Renewable	15%	5	\$0.64	\$1,000
kWh RF Rate 5yr 15%	Renewable	15%	5	\$0.81	\$1,250
kWh Non-RF Rate 3yr 15%	Non-Renewable	15%	3	\$0.95	\$1,000
kWh RF Rate 3yr 15%	Renewable	15%	3	\$1.18	\$1,250

Actual energy incentives paid would be based on actual kWh-discharged-on-peak (12-6 pm during the 6 month summer peak season), with a cap of up to 694 kWh discharged per calendar year. Thus, if an energy storage system were able to cost effectively discharge for a full 6 hours, it could achieve additional incentives but those would be capped at 694 kWh discharged on peak during any calendar year. This PBI structure also has the benefit of reducing the current administrative burden on Program Administrators to ensure a system has 4 hours of discharge duration capability prior to granting specific energy storage project applications. Under this PBI, if the system does not fully discharge four hours every peak week-day it will simply not receive energy based incentives.

The energy used to ‘charge’ the energy storage system, and the cost of that energy, would be factored into the project’s proforma, similar to how onsite distributed generation has a fuel usage/cost. This energy can come from the grid itself or from an on-site renewable energy system. More efficient technologies would have a lower cost of charging, and less efficient technologies would have a relatively higher cost of charging. Because most, if not all energy storage technologies would perform better than the minimum 38% round trip efficiency required to be on par with a natural gas peaker, all energy storage technologies with round trip efficiencies greater than 38% would improve GHG emissions. Ratepayers will be protected, SGIP funds will be rationally utilized and, importantly, this incentive structure would not discriminate against storage technologies that may be able to more cost effectively provide a shorter duration, (as little as 1-2 hours) from participating in the program. Such applications would receive lower total energy-based PBI accordingly.

To minimize the administrative burden associated with calculating and disbursing kWh-based incentive payments, the payments should be made on the same monthly basis as is currently done in the CSI program. Further, there is no reason why the meter data management and reporting standards and methodologies developed for the CSI program could not and should not be directly applied to the SGIP. The same performance data providers under the CSI program can monitor and track eligible SGIP technology performance for the purposes of

program administration and incentive payments over time provided they expand their measurement to provide reporting of both their on-site generation and energy storage activity. Finally, as previously stated, CESA agrees with CCSE and recommends that small/residential energy storage projects (<10kW) be incentivized via an up-front lump sum incentive payment, similar to the way the CSI program is structured.

Under CESA's proposed hybrid PBI approach, energy storage program participants would receive incentives for "clipping" their peak demand on a capacity basis, as well as receive incentives to shift peak energy consumption to off-peak period - commensurate with the actual amount of peak consumption shifted. By paying only for performance in this way, program accountability will be ensured. Further, measuring actual kWh's delivered-on-peak is easily monitored and tracked, thus reducing overall administrative costs. Commercially available meters can easily track not only the amount of kWh, but also the timing of *when* the kWh is delivered. Finally, a PBI mechanism based on actual kWh delivered could easily be extended to most other eligible SGIP technologies such as fuel cells, microturbines or distributed wind, further simplifying and standardizing program administration across technologies.

**IX. NEED FOR FINANCIAL INCENTIVES SHOULD NOT BE USED AS A SCREEN FOR TECHNOLOGY ELIGIBILITY.**

CESA agrees with CCSE that need for financial incentives should *not* be utilized as a screen for assessing technology eligibility for the SGIP, but rather should be included with other guiding principles that Staff recommends be considered in evaluating technologies for eligibility and/or designing details of the SGIP." CESA agrees once again with CCSE that using a 15% targeted IRR with incentives be the threshold for a reasonable IRR above which no incentives will be provided may be problematic given the varying states of market commercialization of the different technology classes under consideration. Technologies that have been included in the SGIP for a long time, and may have a long commercial history, may not require as high a targeted internal rate of return. Such projects will be viewed as more commercially mature, and subject to less technology and implementation risk on the part of applicants and host customers. Newer, emerging technologies that may not have the same depth and breadth of project performance history may require higher returns in the market place to compensate for increased perceived technology and implementation risk. Thus, CESA recommends that the 15% IRR target be used as a guideline only and not a hard and fast target by which to set incentives for any

particular technology class. With respect to energy storage, CESA supports using 15% as an appropriate discount rate as a benchmark for guidance in determining performance based incentives for energy storage as discussed above.

**X. METERING REQUIREMENTS SHOULD BE TECHNOLOGY-SPECIFIC.**

If the SGIP incentives are truly performance based, the metering requirements can be standardized somewhat across eligible technologies. However, additional metering may be required for specific technology classes. Here yet again CESA agrees with CCSE that the Commission should consider waiving metering requirements for small projects (e.g. < 10kW) due to the increased transaction and overhead cost associated with the metering requirements. However, for small projects, CESA recommends sampling and audits to ensure compliance with performance as predicted.

**XI. A FIVE-YEAR WARRANTY REQUIREMENT FOR ENERGY STORAGE SYSTEMS IS REASONABLE.**

CESA agrees with SDG&E that the warranty requirement should be maintained at five years, as this has been the warranty requirement since the inception of the program, and increasing this requirement to 10 years would have the effect of increase system cost dramatically.

**XII. THE COMMISSION SHOULD ADOPT APPLICATION FEES IN ORDER TO ENCOURAGE ONLY HIGH-QUALITY APPLICATIONS.**

CESA agrees with a number of parties that application fees should be included to encourage only high-quality applications. To simplify program administration, CESA offers the following specific application fee recommendation:

- 1) Residential applications (systems < 10kW) should be either free or capped at \$100;
- 2) Project application fees should be a flat 1% of the proposed incentive amount.

All Application fees should be forfeited if a project is either withdrawn, expires or is cancelled. Forfeited fees can be used to off set program administration costs or be returned to fund projects. If a project is successfully completed and a claim is filed and paid the fee should be refunded at the time of claim payment.

Finally, given the tremendous demand for limited SGIP funding, CESA additionally recommends that all applications currently on the waitlist be immediately required to pay an application fee to secure their spot on the waitlist. Currently, there is no downside to simply applying, aside from the applicant's time. By requiring application fees for all participants, including those on the waitlist, the SGIP can ensure that only the highest quality applications with greatest certainty of completion are in the queue.

### **XIII. THERE SHOULD BE NO CHANGE TO THE CURRENT DEFINITION OF SITE**

CESA strongly disagrees with Bloom Energy's proposal to change the definition of 'site' (Current Definition: "Site: A Single Business Enterprise or home located on an integral parcel or parcels of land undivided by a public road or thoroughfare regardless of the number of meters serving that Site; or if divided by a public road or thoroughfare, served by a single Electric Utility meter. Separate business enterprises or homes on a single parcel of land undivided by a highway, public road, thoroughfare or railroad would be considered for purposes of the SGIP as separate Sites" which requires an address and a meter for each separate entity. The modification requested would allow for greater incentives for larger customers (Proposed Definition: "Site: A Single Business Enterprise or home served by a single Electric Utility meter. Separate business enterprises or homes on a single parcel of land undivided by a highway, public road, thoroughfare or railroad would be considered for purposes of the SGIP as separate Sites.") This proposed definition would benefit only larger customers who would then be able to reserve a larger proportion of limited program funds at potentially higher values. Further, adoption of Bloom Energy's recommendation would be completely inconsistent with how the definition of 'site' and 'premises' is treated in the CSI program and under normal sub-metering rules such as PG&E's Electric Rule 18.

Bloom Energy also proposes that multi-site applicants should be allowed to substitute sites within an IOU service territory for same-size installations at the same levels, in lieu of re-applying. CESA strongly disagrees with this approach, as it would encourage lower quality applications (purely to secure their place in line) and limit new applicants from participating while starving the industry at large of the chance to participate in the program resulting in less financial support and innovation for other eligible technologies. This request, if allowed, is extremely anti-competitive and would serve to allow Bloom Energy (or some other group) to



rapidly tie up all or almost all SGIP funds in projects of questionable validity while preventing support from other applicants, investors and financiers to develop other technologies and approaches. This would be especially true if the application fees are low or non-existent as it becomes a purely administrative exercise by an anti-competitive applicant to the detriment of other participants. There is no precedent for this in any other program.

CESA agree with a few parties that the maximum project size to be allowed to be bigger, so long as such projects are sized to the onsite load *and so long as the incentive payments are pro-rated to cover only that portion of the generation serving onsite load up to the tiered incentive structure of up to 3MW*. Finally, CESA agrees with the original intent of the tiered incentive structure as articulated by CCSE: “Our reason for the tiered incentive structure, to prevent monopolization of the available incentives by a small group of customers installing multiple larger systems, still exists today and continues to be of particular concern in CCSE’s program area. Tiered incentive structure should be maintained.”<sup>20</sup>

#### **XIV. CONCLUSION.**

CESA appreciates this opportunity to comment on the ALJ’s Ruling, and looks forward to working with the Commission and the parties as this proceeding progresses.

Respectfully submitted,



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Counsel for the  
**CALIFORNIA ENERGY STORAGE ALLIANCE**

December 10, 2010

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<sup>20</sup> CCSE Comments, p. 7.

**CERTIFICATE OF SERVICE**

I hereby certify that I have this day served a copy of *Reply Comments of the California Energy Storage Alliance on Administrative Law Judge's Ruling Requesting Comments on Staff Proposal Regarding Modifications to the Self-Generation Incentive Program* on all parties of record in proceeding *R.10-05-004* by serving an electronic copy on their email addresses of record and by mailing a properly addressed copy by first-class mail with postage prepaid to each party for whom an email address is not available.

Executed on December 10, 2010, at Woodland Hills, California.

  
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Michelle Dangott

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