

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

Order Instituting Rulemaking to Continue
Implementation and Administration of California
Renewable Portfolio Standard Program.

Rulemaking 08-08-009

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**THE LARGE SCALE-SOLAR ASSOCIATION (“LSA”)
RESPONSE TO DATA REQUEST FOR COMMENTS ON THE REVISED
PROJECT VIABILITY CALCULATOR**

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RESPONSE OF THE LARGE-SCALE SOLAR ASSOCIATION TO DATA REQUEST FOR COMMENTS ON THE REVISED PROJECT VIABILITY CALCULATOR

I. Introduction and Summary

The Large-scale Solar Association (“LSA”) offers these comments in response to the April 17, 2009 Energy Division (“ED”) Data Request for Comments on the Revised Project Viability Calculator (“PVC”) for use in the Utilities’ Renewable Portfolio Standard (“RPS”) Solicitations (hereinafter “ED PVC Data Request”). LSA appreciates the opportunity to comment on the PVC. Generally, LSA believes that despite ED Staff’s hard work on the PVC, the PVC still requires significant work, and should not be applied to the 2009 RFOs.

LSA represents ten of the nation’s largest developers and providers of utility-scale solar generating resources. Collectively, LSA’s members have contracted to provide over 5 gigawatts (“GW”) of clean, sustainable solar power under contract to California’s load-serving entities (“LSEs”). Its members develop, own and operate various types of utility-scale solar technologies, including photovoltaic and solar thermal system designs. LSA, and its individual member companies, are leaders in the renewable energy industry, advancing solar generation technologies and advocating competitive market structures that facilitate significant integration of renewable energy throughout the western United States. LSA actively represents the interests of utility-scale solar development in California, Arizona, and Nevada, and also works to shape regional and federal policies that affect solar development.

Although LSA recognizes the value of having explicit viability metrics, LSA is very concerned that the risks of the current draft of the PVC outweigh its potential benefits. As LSA stated in its comments on the first draft PVC, renewable development in California is fraught with development-related hurdles, including the many hurdles that face any development of generation or other energy infrastructure. Even if it were possible to design a process that perfectly identified which projects have the greatest indicia of success at the time the contract is signed, that process would do little to ensure that viable contracts are fulfilled and renewable power is actually delivered. Simply put, the problem with contract non-performance in California is not that inexperienced developers are proposing poorly-considered projects, but rather that the energy project development process is inherently slow, contentious and extraordinarily difficult for even the most sophisticated developers of conventional generation. In other words, the PVC would primarily address the symptom (contract non-performance) rather than the disease (development-related hurdles).

LSA believes that the most important question concerning the PVC is not raised in the ED PVC Data Request: how the PVC will be used. While LSA supports the notions of increased transparency in the RPS procurement process, LSA cannot see how the calculator could serve any other purpose than to eliminate viable, potential suppliers before contracts are signed. If the PVC is used as a project specific or RFO specific screen, the PVC will undermine the State’s RPS by limiting the number of eligible renewable projects. To avoid this result, LSA urges the Commission to steer clear of using the PVC in a way that is outcome-determinative. The PVC should, instead, at most be used as an advisory tool only.

LSA is also troubled by the fact that the PVC is apparently delaying the 2009 RFOs. It is unclear to LSA why the issues posed in the ED PVC must be resolved for the 2009 RPS procurement plans. The longer the IOUs must wait to solicit renewable power, the harder it will be for the IOUs to comply with the State's RPS requirements.

LSA's responses to the ED PVC Data Request follow below. However, since the fundamental question of how the PVC will be used is not raised in the ED PVC Data Request, LSA must qualify its responses to the questions posed in the Data Request. LSA does not believe that the construction of the PVC and scoring criterion can practically be divorced from the question of how the PVC will be used. Thus, LSA's responses to the questions below should only be read as tentative thoughts until such time as the Commission finalizes how the calculator will be used.

II. LSA Response to ED PVC Data Request

Part A: Revised Project Viability Calculator (PVC.v3)

• Review and comment on: 1) the Matrix of Proposed Criteria (Attachment A), 2) and the PVC criterion definitions and scoring guidelines (Refer to PVC. v3, "Criteria Scoring Guidelines" tab). Please provide a rationale for why each criterion should or should not be included in the PVC. Any proposed modifications should be justified and incorporated into the PVC and attached to your data response,

Double Counting and Technical Viability:

The Matrix of Proposed Criteria is indicative of ED Staff's goal of creating a PVC that encompasses the multitude of factors that indicate a project's likelihood of coming online. The accuracy of the PVC will depend not only on the inclusiveness of viability factors, but also on how those factors are accounted for in the PVC. One of LSA's concerns with the PVC is that the PVC results will be distorted if a single viability related issue is counted under more than one subcategory within the proposal. LSA believes that such "double counting" occurs in the latest draft and imposes a highly disproportionate and improper penalty.

One example of this double counting in the PVC.v3 occurs in the calculator's application of technology-related factors. The scoring guideline for both the "Project Development Experience" and "Facility Ownership, Operations and Maintenance Experience" subcategories would only allocate a top score to developers contracting for commercialized technologies. A developer contracting for a technology that has been demonstrated, but not commercialized would at best receive a score of 7, but more likely receive a 4 or 0 score. Moreover, the "Technical Feasibility" subcategory would only allocate a 10 score to commercialized technologies. Unless a developer is proposing a contract for a commercialized technology and the developer has installed other projects of the same type, the project will be penalized for the *same* project attribute in three different subcategories. There is no evidence that commercialization is a necessary prerequisite for viability, or metrics such an exceptionally high weight. Performance demonstrations through test projects or other methods should be given nearly equal weight, reflecting the developing nature of the renewable energy technologies California needs to attain the RPS goals. We simply will not obtain the least-cost, reliable renewable-based energy infrastructure California's RPS

demands without developing new and improved technologies. If the PVC unduly prejudices such technologies, then the PVC could on its own cause the State's RPS program to fail to meet its objectives.

ED staff should avoid placing so much weight on technical viability by ensuring that the definitions for "Development Experience" and "Facility Ownership, Operations, and Maintenance Experience" are not limited to experience with a *particular type* of technology. Instead, the criterion should weight project development experience more generally. Specifically, for development experience, a 10 score should be allocated to developers who have developed 2 or more *similar* projects (please see LSA response to Question B.2.a for rationale regarding the change from 5 to 2 projects); an 8 score should be allocated to developers that have developed 2 or more projects of *any* technology type; a 7 score should be allocated to developers that have completed at least one project of *any* technology type or capacity within the last 10 years; and a 4 score should be allocated to developers that have broken ground, but not completed one project of *any* technology type.

The same double counting problem also exists in the "Technical Feasibility" category. To receive a top score for the subcategory "Technical Design," a project must score in the top two tiers of the "Technical Feasibility" subcategory. The calculator should not correlate the weighting of the two Technical viability subcategories. Specifically, the scoring guideline language should allocate a 10 score under the subcategory "Technical Design" to projects where "there are no known significant supply chain constraints." LSA also offers specific recommendations to the "Technical Design" subcategory in its response to Question B.2.a.

Site Control and BLM Land:

Many renewable developers will site on BLM land, and LSA is concerned that the "Site Control" subcategory would not accurately account for the unique site control issues faced by projects developing on federal land. While site exclusivity for private lands may be obtained prior to approval of an AFC or CUP, BLM will only grant a right of way once the applicable environmental laws have been satisfied.¹ The "Site Control" sub-category definition for a score of ten should be amended to incorporate site control in the BLM context. This issue was controversial when first addressed by the CAISO in the context of interconnections, but was satisfactorily resolved with extensive work by the CAISO, BLM and other stakeholders. The "Site Control" subcategory should be amended to reflect this extensive work and to achieve a degree of reasonable consistency that will benefit the RPS program and developers alike. LSA recommends incorporating the CAISO definition of site control only with respect to site control on BLM land.²

• Review and provide comments on Energy Division staff's PVC, v3 regarding its functionality and transparency.

¹ See: Federal Land Policy and Management Act of 1976, 43 USC 1765(a), available at: <http://www.blm.gov/flpma/FLPMA.pdf> ; see also BLM regulations for grants of right of way ("ROW") on federal land: 43 CFR § 2805.14 (federal regulation governing the rights conveyed by a grant of a right of way application).

² See CAISO Technical Bulletin on Site Exclusivity, available at: <http://www.caiso.com/2349/2349e45518f0ex.html>

While transparency is a valuable attribute in the RPS solicitation process, LSA believes that the viability calculator should *not* be mechanically applied and mechanically dispositive.³ That is, a low score should not constitute a verdict in its own right, and the results of the calculator should not be used to group contracts into categories with rigid limitations outlining how the contract may be treated by the utility or the Commission. LSA's primary concern is that the calculator will be used in a rigid fashion that does not reflect the case-specific nature of the evolving RPS technologies, and that the PVC will eliminate reasonably viable projects before contracts are signed. Such use would undermine achievement of the State's RPS. Instead, the PVC should be used as an advisory tool for Commission staff to evaluate the overall procurement activities of the utilities.

Part B: Questions

1. Staff proposes a scoring range from 0-10 for each criterion. Please comment whether you agree that this scoring methodology provides a sufficient amount of gradation to account for varying degrees of development risk, without purporting a false sense of accuracy. If not, explain why and propose an alternative methodology.

The PVC will do little to remove the subjectivity in the viability analysis that the utilities already engage in when evaluating supply contracts. By providing the appearance of an objectively calculated result, the calculator may do more harm than good. That being said, the 0-10 scoring will make the calculator more accurate than the 0/1 scoring in previous versions of the calculator.

2. Staff and parties have proposed methodologies to weight the categories (e.g., developer experience, technology and project milestones), and/or, the specific criteria within each category (e.g., permitting or site control). At the workshop parties discussed what the right weighting for one category vs. another was. Staff agrees with parties that the relative weighting of the three project viability categories' is important for the PVC's effectiveness. However, rather than requiring a specific percentage weight for each category, the Commission may wish to provide the utilities guidance on the relative weights of the categories. For example, that from a project viability perspective, the development milestones category is more importance than developer experience, but less important than technology.

a. Please identify and provide a rationale for your preferred rank order of importance for the three project viability categories, which would then inform their relative weighting. For example, 1 = development milestones, 2 = technology and 3 = developer experience.

³ The ALJ Mattson R.08-08-009 Proposed Decision (May 1, 2009) supports this position, stating: "we agree with PG&E and other parties that the project viability calculator is to be used as a screening tool, not to determine the exact merit of a particular project or contract. The output of the project viability calculator should be just one factor in the evaluation of projects for LCBF ranking. The Mattson Proposed Decision is available at: <http://docs.cpuc.ca.gov/efile/PD/100517.pdf>

As discussed in LSA's response to Question A.I, too much weight is placed on technology. We therefore offer further recommendations geared towards achieving a more accurate weighing of the technology category. Not only is technical feasibility effectively triple counted, but the PVC grossly favors certain technologies over others. Commercialized technologies are favored over technologies that are past the research and development stage but not yet common-place in the market. In addition, the "project development experience" subcategory allocates a 10 to developers that have "completed 5 or more projects of similar technology and capacity, within the last 10 years." Practically, the only developers that could obtain a 10 in this sub-category would be those that have developed 5 small projects of the same technology type. LSA recommends amending the definition for a 10 score in the "Project Development Experience" to read: "The company and/or the development team has completed 2 or more projects of similar technology and capacity, within the last 10 years."

Such favoritism is at odds with the legislative intent of the RPS program to be technology agnostic.⁴ By favoring those technologies that have a longer history of commercial development, the Commission will not only fail to recognize the recent, significant technological innovations in the solar industry, but prevent California from benefiting from those innovations. While many of today's solar technologies have yet to be commercialized and put into general use, there are many technologies that are beyond the research and development stage that promise substantial advantages to least-cost, reliable renewable power. The PVC does not accord enough value to this middle ground.

In addition to LSA's specific suggestions above, and those under Question A.I., ED staff should also amend the "Technical Feasibility" subcategory to account for technologies that are past the research and development stage but not yet commercialized. The U.S. Department of Energy ("DOE") loan guarantee program guidelines are helpful in this regard. DOE offers assistance to projects that are in the early stages of commercialization, but are more developed than simply being a demonstration project.⁵ "Innovative technologies" are projects that are mature enough to "assure dependable commercial operations and generate sufficient revenues. . ."⁶ ED Staff should incorporate this definition into the "Technical Feasibility" Criteria Scoring Guidelines as follows: a 7 score should be allocated for a commercialized technology that is currently in use at a minimum of 2 operating facilities of similar capacity, or an innovative technology that has been demonstrated and is able to assure dependable commercial operations. The 5 score should be eliminated in entirety. In addition, the 20MW distinction for a score of 5 should be deleted because it is an arbitrary distinction. The 2 score should be changed to a 3 score.

⁴ See CA PUC Code § 399.12(c); CA Pub. Res. Code § 25741(b), which define eligible renewable energy facilities to include "in-state renewable electricity generation facility." In-state renewable electricity generation facility is broadly defined to include: biomass, solar thermal, photovoltaic, wind, geothermal, fuel cells, etc.

⁵ Loan Guarantees for Projects that Employ Innovative Technologies; Guidelines for Proposals Submitted in Response to the First Solicitation, 71 Fed. Reg. 156 (Aug. 14, 2006), P. 46451, available at <http://www.lgprogram.energy.gov/FinalGuidelines.pdf>.

⁶ Id.

LSA also has concerns with the “technical design” subcategory. This subcategory places too much emphasis on theoretical supply constraints. The subcategory would allocate a 5 score to projects dependent on new manufacturing capacity that is not currently online. A 2 score would be allocated to projects that rely on proprietary technical designs for their key components, not currently in use commercially. This subcategory should be made more accurate by re-defining the “technical design” scores to account for actual, known supply constraints that historically, have delayed projects. In other words, the “technical design” scores should not attribute supply-constraints to projects solely because their technology is new. Rather, the technical design subcategory should penalize projects that have historically experienced delays because of actual, known supply constraints for key components. Specifically, LSA recommends that a 5 score should be redefined to read: “project is dependent on supply of components that have historically been subject to supply-chain constraints.” A 2 score should be redefined to read: “project’s key components have historically been subject to supply-chain constraints.”

3. Parties and staff have explored the relationship between a project's price and its viability in three main areas. First, as a means of reducing the likelihood of future contract amendments through indexing; second, as a remedy to the assertion that some developers are bidding to be shortlisted rather than bidding their true development costs; and finally, to screen for projects with a bid price not high enough to generate sufficient revenues to be viable. Staff believes that there is a relationship between price and project viability that should be considered in the utilities' procurement of renewable resources. That said, staff sees limited value in assessing project viability based on price, on a project specific basis, in the PVC. Rather, staff believes that it makes more sense to examine price, and the relationship between price and viability, in the least-cost, best-fit evaluation where the utility can examine the reasonableness of a project's price, relative to all other projects, by technology and other like characteristics.

- a. Please comment on whether you agree or disagree with this proposal. If you disagree, any proposed modifications should be justified and incorporated into the PVC and attached to your data response.*

4. In its Staff Proposal for integrating project viability into the RPS procurement process, staff proposed that a project's project viability score would determine the level of development security. The Union of Concerned Scientists (UCS), in its comments to the ACR, proposed that it may be more appropriate for development security to be added as a criterion for assessing project viability.

- a. Please comment on whether you support UCS's proposal. Identify strengths and weakness of including development security as a criterion of project viability and propose how development security criterion should be incorporated into the PVC, if at all.*

5. PG&E and SDG&E proposed methodologies that would result in adjustments to a project's PVC score, under certain conditions (Refer to Attachment A, and PG&E's and SDG&E's comments on the ACR).

- a. Discuss the strengths and weaknesses of these proposals and whether they should be included in the PVC. Support of these proposals or other methodological modifications, should be justified and incorporated into the PVC, and attached to the data response.*

6. *The utilities' RPS solicitations permit proposals from all RPS-eligible resources and technologies, at any stage of commercialization. This presents a challenge for developing a PVC that can apply to all projects, without unduly rejecting emerging technologies. As an interim approach, until the commission has expressed a policy preference regarding the role of emerging technologies relative to commercial technologies, staff proposes that the a single PVC be applied to commercial and emerging technologies. Projects that score below a certain threshold in the technology category will then be separately grouped and evaluated against other projects in this group to determine relative viability.*

- a. *Please comment on this proposal. If you disagree, please explain an alternative proposal for separately evaluating projects that would rely on emerging technology. Any proposed modifications should*

LSA believes that the presence of an emerging technology bucket may in and of itself hinder projects grouped into that bucket, placing them in an undesirable “ghetto.” It is unclear how the objectives of the standardized viability calculator (i.e. provide transparency and ensure viable projects are not unfairly excluded from the short list) would be applied to, or furthered by, an emerging technology bucket. In other words, what would be done to ensure that viable projects characterized as emerging technologies are not excluded from the short list when these projects cannot be evaluated relative to non-emerging technologies that made the short list? To avoid creating an “emerging renewable ghetto,” ED staff should re-define the technical viability sub-category to incorporate innovative technologies as detailed above in LSA’s response to question B.2.a.

III. Conclusion

LSA appreciates the opportunity to provide these responses to the ED PVC Data Request. LSA urges the Commission to finalize its proposal to make clear that the PVC will be advisory and not be used as a dispositive, project specific screen. Further, LSA asks that the PVC be adjusted to ensure that a project’s status as a commercialized technology is not overly valued and innovative technologies are not unduly penalized for not being common-place in the market place.

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