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BEFORE THE CALIFORNIA ENERGY COMMISSION

In the Matter of Preparation of the *2011
Integrated Energy Policy Report (2011 IEPR)*

COMMITTEE WORKSHOP RE: Renewable Power
in California: Status and Issues Report

Docket No. 11-IEP-1G

COMMENTS OF THE LARGE-SCALE SOLAR ASSOCIATION ON THE DRAFT *RENEWABLE POWER IN CALIFORNIA: STATUS AND ISSUES* REPORT

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October 7, 2011

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**COMMENTS OF THE LARGE-SCALE SOLAR ASSOCIATION ON THE DRAFT
RENEWABLE POWER IN CALIFORNIA: STATUS AND ISSUES REPORT**

The Large-scale Solar Association (LSA)¹ submits these Comments on the draft *Renewable Power in California: Status and Issues* report (Draft Report). We applaud the Energy Commission's considerable efforts in preparing this extensive Draft Report. Overall, we believe that the Energy Commission has done a commendable job of identifying the myriad challenges that could inhibit the timely development of renewable generation to meet California's ambitious renewable and climate goals. However, we have identified several issues that deserve additional attention in the Draft Report. In particular, the Draft Report should be revised to address the environmental attributes of renewable generators in a systematic manner, identify the roadblocks and bottlenecks that are preventing the efficient licensing and development of transmission, explore the need for coordination between the procurement and interconnection processes, and reflect the full range

¹ LSA represents 15 of the nation's largest developers and providers of utility-scale solar generating resources. Collectively, LSA's members have contracted with utilities in California and the West to provide more than 7 gigawatts ("GW") of clean, sustainable solar power. Our 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 for policies that ensure environmentally appropriate solar generation facilities to meet the state's renewable and greenhouse gas goals.

of options to integrate renewables into the grid, including market and regulatory changes and opportunities for renewable generators to provide integration services. We encourage the Energy Commission to expand these areas of the Report.

In addition to these general recommendations, as we reviewed the Draft Report, we identified several detailed items, noted in these comments, that require correction or clarification to properly describe the current state of solar generation and projected developments in solar technology. These refinements are needed to ensure the Draft Report properly frames the issues at the outset of this renewable strategic planning effort. We look forward to working with the Commission as this process moves forward towards a strategic plan to increase renewable generation and transmission infrastructure in the state.

The comments in this document focus on Chapters 3-5 of the Renewable Power Report, addressing permitting and siting; transmission and interconnection; and integration, respectively. The comments are structured to provide general feedback on each section, followed by an identification of recommended specific textual concerns and/or revisions.

I. LSA Comments on Chapter 3: Planning, Permitting, and Environmental Issues

A. The Draft Report Should Systematically Address the Environmental Attributes of Renewable Generation.

The narrow focus of the Report skews the analysis and limits the ability of this document to serve as the basis for a broad strategic plan on renewables. The Draft Report explicitly states that it is focused on “large renewable power plants in desert locations.” (Draft Report, p. 53). The non-desert environmental impacts are

not addressed in a comprehensive way in the document. (Draft Report, p. 57, 62). It is simply not possible to draw fair conclusions, or make sensible policy judgments, with such an unbalanced approach. The analysis should include a thorough analysis of the environmental impacts and benefits of the energy systems under different renewables buildouts; these environmental impacts and benefits should not be assessed in a void, but must take a broader look at the overall energy system.

For this strategic planning effort, it is important to perform a thorough identification of the environmental attributes of renewables and challenges in permitting renewables throughout the state. The bulk of the Draft Report's discussion on impacts is organized by impact, focusing on characteristics of the desert environment and how renewable technologies could impact biological resources, water supply, and cultural resources (among other issues) in the desert. The Draft Report addresses the key impacts of solar facilities impacts, but other technologies have different environmental impacts and do not fit neatly into the discussion. While the Commission is right to identify desert-specific environmental impacts, focusing on these, to the exclusion non-desert impacts, could unintentionally signal a preference for non-desert locations, although these locations could have similar or other environmental impacts that are not fully addressed in the Draft Report.

Rather than focusing solely on desert environments, which LSA acknowledges do deserve special attention, we recommend that the Draft Report address the environmental attributes of renewable generation in a comprehensive manner. Changing the organization of this section to discuss impacts and benefits

by technology would facilitate this change. With this organizational change, we also recommend including a separate discussion of the desert environment; the Draft Report includes general information about the unique resource attributes of the desert in the impacts discussion. This information serves as important background and should be included in its own section.

B. Specific Clarifications or Corrections to Chapter 3

LSA has identified the following detailed items that we believe are in need of clarification or correction:

- Impacts Section Generally – Identifying whether these impacts can be addressed through the design of the renewable generation facility would be helpful.
- Pg. 52 - The Draft Report refers to the Renewable Energy Action Team’s *Best Management Practices and Guidance Manual: Desert Renewable Energy Projects* and the Energy Commission’s “lessons learned” proceeding. LSA had previously commented on the *Best Management Practices* document and we were told that this document would be updated through the lessons learned proceeding. The Draft Report does not identify a connection between this document and proceeding. LSA requests clarification on the process of updating the *Best Management Practices* document going forward.
- Pg. 58 (Water Supply Impacts) – Solar facilities do not necessarily require water for panel washing.
- Pg. 58 (Water Supply Impacts) – Some of the broad statements in this section appear to apply only to ongoing water use, which may vary depending on the type of facility. Clarification of whether such statements apply to construction impacts, operations impacts, or both would be helpful.
- Pg. 59 (Surface Water Impacts) – Portions of this section address water supply, as opposed to surface water.
- Pg. 60 (Visual Impacts) – Clarify that these steam impacts are associated with wet cooled facilities.
- Pg. 68 (Varying Codes, Standard, and Fees) – This issue is not limited to renewable DG systems, but also applies to large-scale development. LSA’s comments (cited in footnote 130) apply to large-scale development.
- Pg. 69 (Planning and Permitting Process Challenges, Williamson Act Issues) – SB 618 does not make any determination about the compatibility of solar with Williamson Act lands.

- Pg. 73 (Energy Commission Order Instituting Informational Proceeding on Siting “Lessons Learned”) – The Draft Report notes that the Commission staff is evaluating the Staff Assessments to determine if the document can be pared down in future proceedings. We applaud the Commission for its work in this area. The extreme detail included in the conditions of certification adds cost, complexity, and time to both the review process and to compliance.

II. LSA Comments on Chapter 4: Transmission Infrastructure Issues

A. The Strategic Planning Process Should Identify Roadblocks in the Development of Transmission.

The Draft Report appropriately identifies licensing and constructing of transmission facilities as a key hurdle to interconnection and delivery of renewables. (Draft Report, p. 86). Perhaps not for this report, but as the strategic planning process moves forward, LSA encourages the Commission to identify the specific bottlenecks in the transmission development process and formulate recommendations to resolve those bottlenecks. LSA concurs with the Draft Report that the successful completion of the transmission upgrades to meet the 33% Renewable Portfolio Standard (RPS) by 2020 is a high priority. Given the long lead time for transmission licensing and development, it is critical to identify the roadblocks, determine whether there are policy changes necessary to remove those roadblocks, and implement those changes in the near term.

B. The Draft Report Should Include a More Extensive Discussion of the Challenges for Permitting and Interconnection, including Need for Coordination Between the Procurement and Interconnection Processes.

The Draft Report identifies a key planning challenge – the lack of coordinated land use and electric transmission system planning. (Draft Report, pg. 78). LSA agrees that this is a serious concern, and further suggests that another, related

challenge that the Draft Report should discuss is the lack of coordination between the procurement and interconnection processes. LSA has raised concerns periodically as conflicts in the procurement and interconnection timelines arise, but we believe that the coordination between these two processes should occur in a more formal and complete manner.

For instance, one challenge stemming from the lack of coordination is that developers could face significant uncertainty, having to make considerable financial security postings without information about their status in the procurement process. Currently, the procurement and interconnection timelines are not coordinated with each other. Renewable project developers are required to post interconnection financial security (including a non-refundable deposit of \$10,000 per interconnected megawatt) with the California Independent System Operator (CAISO) 90 days from the completion of the Phase 1 interconnection studies. Developers may not know at the time they are required to post interconnection financial security what their status is in the utilities' Request for Offers process – or may have little notice to make arrangements for posting their financial security. Recently, the timelines for the financial security postings and the utilities' shortlist announcements were within days of each other. This risk may discourage otherwise viable projects that would help meet the RPS requirements from proceeding with development. Ensuring that the deadlines and timelines for the two processes are synchronized would provide more certainty for developers and ensure that viable projects move efficiently through the procurement and interconnection processes.

The need for coordination between the procurement and interconnection processes is not limited to synchronizing the processes' timelines, but should also include aligning the terms of the pro forma power purchase agreements (PPAs) with interconnection rules and transmission policies. The Resource Adequacy (RA) issue (discussed on pg. 97 of the Draft Report) is one example where the developer may be held responsible for providing RA value, although the development of the required transmission for the project to achieve full deliverability is largely out of the developer's control. The CAISO's Generator Interconnection Procedures, Phase 2 (GIP-2) and Transmission Planning and Generation Interconnection Integration (TPP-GIP Integration) stakeholder proceedings are addressing deliverability issues. Moving forward, aligning the terms of the pro forma PPAs with the changes to interconnection and transmission planning that will affect a project's deliverability status is critical issue and will facilitate the timely development of renewable generation.

The lack of coordination between interconnection and procurement processes does not serve the interests of the state or the parties working in good faith to meet state policy objectives.

C. Specific Clarifications and Corrections to Chapter 4

LSA has identified the following detailed items that we believe are in need of clarification or correction:

- Pg. 79 (Table 10) - The Draft Report should discuss the Federal Energy Regulatory Commission's Order 1000 in this Table.
- Pg. 81 (Planning Challenges, Lack of Coordinated Land Use and Electric Transmission System Planning) - The Draft Report discusses coordination between the land use and "wires" planning and discusses the timing of transmission planning. This section should also include discuss the

challenges of getting transmission projects needed to interconnect generation resources, identified in CAISO Generation Interconnection Procedures (GIP), to be built. The GIP transmission projects face even more uncertainty and, without the timelines in the Transmission Planning Process (TPP) for lines approved through that process, often take even longer to be constructed.

- Pg. 92 (Renewable Energy Action Team/Desert Renewable Energy Conservation Plan) – The Energy Commission should also ensure that data and preliminary information from the Desert Renewable Energy Conservation Plan (DRECP) are available for the California Public Utilities Commission’s (CPUC’s) Long Term Procurement Planning (LTPP) process.
- Pg. 94 (CAISO’s Role in Facilitating Renewable Development) – The Draft Report refers to the Large Generator Interconnection Procedures (LGIP). The reference is outdated. The CAISO has combined the Small and Large Generator Interconnection Procedures into a unified GIP.
- Pg. 94 (CAISO’s Role in Facilitating Renewable Development, 2010-2011 Transmission Plan) – The renewable portfolios for the 2011-2012 planning cycle have been developed. These portfolios were developed in the CPUC’s LTPP process. The CAISO made a few corrections to the scenarios based on stakeholder input, but the overall portfolios are largely the same as those modeled in the LTPP (discussed in the Draft Report, p. 133). Similarly, this clarification should also be made on pg. 34 of the Draft Report.
- Pg. 97 (CAISO’s Role in Facilitating Renewable Development, LGIP) – As noted above, this section should be identified as GIP (as opposed to LGIP).
- Pg. 97 (CAISO’s Role in Facilitating Renewable Development, LGIP) – The Draft Report states that LGIP Phase II studies will be reassessed in Phase 2 of the TPP “to determine whether these upgrades/additions are the best system solution or if better alternatives are available.” This statement does not reflect what is specified in the CAISO’s tariff, Section 24.4.6.5. To better align with the tariff language, we suggest the Draft Report state that “the objective of evaluating large GIP Network Upgrades in TPP to analyze whether the expansion or modification of these upgrades could provide public policy benefits and whether these upgrades can be approved as policy-driven.”
- Pg. 97-100 (CAISO’s Role in Facilitating Renewable Development, Resource Adequacy) – This section discusses the lag of completion of transmission upgrades needed by generators to make them fully deliverable and the proposed solution from the CAISO and CPUC. It is important to note that this solution does not address the underlying challenge of moving these transmission upgrades and keeping them on schedule. In addition, another challenge that the Draft Report should address is the need to provide generators with more certainty around the costs of delivery upgrades.
- Pg. 97 (CAISO’s Role in Facilitating Renewable Development, Resource Adequacy) – This section refers to the CAISO performing an annual deliverability assessment. However, the CAISO assesses deliverability twice a year as part of the Phase I and II GIP studies and separately as part of the

comprehensive transmission plan. Please clarify which assessment this section refers to or remove the term annual.

- Pg. 97 (CAISO's Role in Facilitating Renewable Development, Resource Adequacy) – The Draft Report includes a sentence describing the purpose of the deliverability assessment. This sentence is incorrect and confusing. We recommend replacing the sentence with the following: The purpose of the deliverability assessment is to determine “if the aggregate of generation output in a given area can be simultaneously transferred to the remainder of ISO Control Area.” (From the CAISO's Generator Deliverability Assessment Methodology).²

III. LSA Comments on Chapter 5: Grid-level Integration Issues

A. The Draft Report Fails to Discuss the Full Range of Options to Reduce Integration Needs or Provide Integration Services.

LSA agrees that integration of renewables is an important issue – and will require changes to the market and grid management. By working towards 33% renewables, California is effecting a major change in energy generation, which requires a thoughtful analysis of how the grid and market rules should change to accommodate variable energy resources (VERs) and how VERs can and should change (through operations and technology) to facilitate grid integration. LSA has been, and will continue to be, engaged on integration issues; we believe that there are a number of productive efforts ongoing to understand the challenges and opportunities of integration.

California needs to ensure that it has the appropriate policy framework, market rules, and resources available to operate with a larger portfolio of variable energy resources. We are dismayed by statements in the Draft Report that seem to suggest that renewables and grid reliability, safety, and security are at odds with

² Available at <http://www.aiso.com/23d7/23d7e41c14580.pdf>; see Section 2.0 - Study Objectives.

one another.³ The CAISO and other grid operators in California can ensure that reliability is preserved through the efficient economic dispatch of all resources on the grid, retaining the option to resort to physical instructions if economic dispatch fails to elicit the desired operational result. The goal should be to minimize the costs of renewable integration. The CAISO has a critically important and challenging job – and that job will change as renewables become a larger part of our energy mix. Designing the appropriate rules and market changes will facilitate the integration of renewable resources onto the grid and promote a safe, reliable, and secure grid with a diverse portfolio of renewable resources. Thus, we also recommend that these rules and market changes be discussed as a “Complementary Strategy for Integrating Renewable Generation.” (p. 119).

Large-scale solar plants are valuable clean energy producing generation facilities whose production profiles largely correlate with annual peak loads in California. Thus, they will offer high energy and capacity value and will be important capacity resources for the future power system. LSA members see opportunities to reduce the need for integration services through technology development. While solar energy is both an excellent energy and capacity resource, LSA recognizes that the market is likely to require additional ancillary services and operating capability as the number of variable resources in the market increases. To some extent, solar plants under construction and/or design by LSA members can provide additional operability to the future generation fleet.

³ For example, the Draft Report states “[a]s more intermittent renewable electricity generating resources, like wind and solar, are added to California’s electricity resource mix, it becomes increasingly challenging to integrate variable resources while maintaining grid reliability, safety and security”. (pg. 106)

The Draft Report makes a number of overgeneralizations about renewable technologies. The Draft Report suggests that renewable generation “can swing by several hundred megawatts in a short period of time.” (Draft Report, p. 112). The Draft Report also suggests that renewable variations are “frequent and wide” and “sudden and dramatic.” (p. 118, 112). These broad statements are not true for all renewable technologies, which have a broad range of variability, predictability and dispatchability. Within the contract portfolios of companies represented by LSA, there are large-scale solar plants that can utilize supplemental gas, thermal storage and other operational capabilities to mitigate schedule deviations and system ramps. The Draft Report should discuss the expected performance of different renewable technologies and should quantify (at least approximately) the terms used in this chapter to describe the speed and magnitude of changes in generation, including those in the quotes above. And, rather than using terms that convey a value judgment, we recommend more objective terminology (e.g., “significant” as opposed to “quite sudden and dramatic”).

Finally, the Draft Report focuses on non-renewable resource solutions to provide integration services, overlooking the possibilities of renewable resources or market and policy changes to reduce integration needs or provide integration services. We recommend that the Draft Report’s three complementary strategies for integrating renewable generation (p. 116) be expanded to include a full range of options for providing integration services. Rather than recognizing even this limited range of options to provide integration services, in certain places, the Draft Report narrowly focuses only on conventional gas-fired units, suggesting that these units

“will have to be dispatched” to meet a particular integration need. (pg. 111). Rather than presuming an appropriate solution to fill a certain need, LSA supports an approach of identifying the specific operational requirements, examining the potential options to meet those requirements, and then designing the solution to minimize costs and ensure efficient commitment of resources. In particular, solar thermal plants can offer storage solutions that may be cost-effective at higher penetration of intermittent renewables.⁴

B. Specific Corrections

LSA has identified the following detailed items that we believe are in need of clarification or correction:

- Throughout the section - We recommend use of the term variable energy resource, where appropriate. As noted in footnote 210, this term is used by FERC to describe renewable resources with variable or intermittent production. We consider variable renewable resources to be a more inclusive term; not all renewables have performance that could be characterized as intermittent.
- Pg. 106 – The second paragraph is an example where the tone of the section appears to set renewables against reliability and safety. We identified this concern above. While our concern is not limited to this paragraph, we provide a specific recommendation for amended text to help resolve the problematic language and serve as a model for the rest of the section.

Electricity system operators routinely plan for outages of significant resources such as nuclear plants or transmission lines, and the need to bring grid frequency back into balance within minutes. System operators also routinely manage load variability and uncertainty. As more variable renewable electricity generating resources, like wind and solar, are added to California’s electricity resource mix, the level of variability and uncertainty that must be managed increases, adding to the existing challenge of maintaining grid reliability, safety, and security at low cost. Like load but unlike traditional sources of generation, the output from individual wind and solar plants can rise

⁴ We note that there is an ongoing study by NREL to evaluate the costs and benefits of such storage under the 33% RPS. In a presentation entitled “Quantifying the Value of Dispatchable CSP: Project Plan Overview,” Paul Denholm from NREL presented the project plan for this study earlier this year. (May 25, 2011).

or drop from moment to moment, across hours, and over days or months. Solar resources begin production after sunrise and more or less shut down at sunset. Increased variability and uncertainty means that operators need to forecast what renewable generation will be provided, what services from other sources will be needed, the options to provide these services, what they would cost, and how to make good choices among the options.

- Pg. 106 - We recommend that the last sentence on this page be amended to read: “ Integrating increasing levels of variable resources onto the grid will require some combination of increasingly sophisticated controls, new market designs, complementary generation, energy storage, and demand response that can be turned up or down as needed.”
- Pg. 108-109 (Description of Integration Challenges) - This section of the chapter serves as a general description of the different ancillary services. As such, we have a few recommendations to ensure that this section describes the use of these services beyond integrating renewables.
 - These services are not limited to addressing changes in resource production, but also are used for load. The descriptions should be specific that the services also address load changes, where appropriate.
 - Spinning reserves are primarily used for a contingency, or the sudden loss of a large conventional generator. While non-spinning reserves are primarily used to replace more expensive spinning reserves after a contingency, but could also be used for renewable integration.
 - Inertia is an intrinsic property of conventional generators that is typically depended upon to maintain system stability and reduce frequency deviations or oscillation.
- Pg. 109 (Description of Integration Challenges) - The Draft Report notes that “large, fast ramps up or down that are difficult to forecast are of particularly [sic] concern.” Please clarify the approximate size/speed of a large, fast ramp.
- Pg. 109 (Description of Integration Challenges) - We recommend that the final bullet be amended to read “An inability of solar photovoltaic (PV) and some wind resources to significantly contribute to system inertia.” Both PV and wind can “dispatch on command”, though (like many conventional generators) since they are normally run at 100% output they can generally only be dispatched in one direction. Both PV and wind can contribute to frequency control – again typically over-frequency – and are currently already required to do so in some cases. Finally, some newer wind turbine technologies feature programmable inertia emulation, which is claimed by the manufacturers to be more effective than the intrinsic inertia provided by conventional units.
- Pg. 109 (Description of Integration Challenges) - The Draft Report should not presume integration needs. Thus, the Report should specify that “[s]uccessful integration of high levels of intermittent renewable energy facilities connected to the grid **may** require...” instead of “will require.”

- Pg. 116 (Operational Challenges with Increased Variability, Inertia and Frequency Response) - We note that, while PV has no inertia, PV can provide primary frequency (governor or frequency droop) response, though like the conventional plants mentioned below, generally only in one direction (responding to overfrequency conditions) since PV plants are typically not operated with “headroom” and, as a zero marginal cost resource, should operate in that manner. Further, a requirement for PV systems to provide over-frequency droop is already in place in Germany, including for distributed systems.
- Pg. 116 (Operational Challenges with Increased Variability, Inertia and Frequency Response) - The first full paragraph on this page appears to apply to asynchronous (inverter-based) resources displacing conventional generation, as opposed to variable resources generally.
- Pg. 117 (Complementary Technologies: Demand Response, Storage, and Gas-Fired Units) - We note that a recent International Energy Agency (IEA) study⁵ using data from the Western Wind and Solar Integration Study (WWSIS) indicated that Western Electricity Coordinating Council (WECC) could integrate double the amount of VEs if it could access the available technical flexibility in the existing fleet, versus “business as usual” operations.
- Pg. 118 (Complementary Technologies: Demand Response, Storage, and Gas-Fired Units, Energy Storage) - The Draft Report should specify that energy storage can also be used to manage variations in load.
- Pg. 125 – (Environmental Impacts) – The Draft Report states “recent California ISO studies indicate that integration issues will limit the air quality and environmental benefits of renewable resources.” The Draft Report should provide a citation for this conclusion. We assume that the Draft Report is referring to the CAISO’s recent 33% modeling performed for the CPUC’s LTPP proceeding, however do not believe that this is an appropriate characterization of those results. In the initial round of modeling, gas-fired generation was used as a proxy for filling ALL of the computed integration needs. These results should not be read to suggest either that gas-fired generation is the best solution or that the environmental performance of these proxy resources offers an appropriate metric for assessing the environment impacts of renewable integration.
- Pg. 126 (Environmental Impacts) – It is important to note that decreasing the need for integration services will likely reduce the environmental impacts of integration. For instance, siting renewables in locations of optimal renewable resources would lead to lower integration requirements and, thus, lower environmental impacts from integration.
- Pg. 126 (Environmental Impacts) – The Draft Report indicates that the question of environmental impacts “is complicated because integration services are not added in a vacuum.” We agree that an overall look at system environmental performance will need to include units for local reliability purposes or system support; however, the section addresses “environmental

⁵ “Harnessing Variable Renewables – A Guide To The Balancing Challenge” IEA 2011.

impacts from integrating renewables,” so we are unsure how these reliability and system support resources complicate the question that this section is seeking to address.

- Pg 128 (CAISO, Forecasting Improvements) – The section suggests that solar needs to be very disperse to achieve smoothing through geographic diversity. Recent work, cited in the draft report, by Thomas Hoff and Richard Perez suggests that smoothing benefits over short timeframes are achieved at small distances. Although their research was focused on distributed generation, the distances in which they saw geographic smoothing suggest that large-scale facilities would have intra-plant smoothing given their size.
 - Specifically, for PV, research has shown that geographical dispersion even within the footprint of a single large-scale plant can significantly reduce variability on a timescale of one minute or less, as compared to the relative variability of a smaller PV system or an irradiance sensor. PV plant separations of as little as 1 km have been shown to lead to poorly or uncorrelated minute-to-minute changes in output. For longer time periods, distances must be larger, but even hourly cloud-induced changes show poor correlation for locations separated by 50 km or more.
- Pg 128 (CAISO, Forecasting Improvements) – The Draft Report states that “study results indicate geographic diversity has some beneficial potential for smoothing variable output.” As noted above, geographic diversity has been shown to have significant beneficial potential for smoothing, especially on the short timeframe relevant to frequency regulation.
- Pg. 133 (CPUC Long Term Procurement Plan) – The Draft Report should clarify that these scenarios studied in the LTPP are also used in the CAISO’s 2011/2012 Transmission Plan, however the CAISO is treating the CPUC’s 33% Cost Constrained scenario as a base case, per the CPUC staff’s recommendation.
- Pg. 135 (Footnote 270) – This footnote is outdated. CAISO is proposing modifications to PIRP, but the VERP proposal is no longer being considered.

IV. CONCLUSION

LSA appreciates the opportunity to comment on the Draft Report. We urge the Commission to address the overarching issues and the detailed clarifications and corrections discussed in these comments as it prepares the next version of this Report.

LSA looks forward to continuing work with the Commission as it develops a strategic plan to ensure that renewable energy projects are developed efficiently, in an environmentally sound manner to meet California's renewable energy and greenhouse gas goals. As the process moves forward, LSA would be happy to provide the Commission additional information; please feel free to contact us if we can be of assistance

Respectfully submitted,

/s/ Kristin Burford

October 7, 2011