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June 29, 2012

California Public Utilities Commission
Energy Division
Attention: Tariff Unit
505 Van Ness Avenue
San Francisco, CA 94102

Re: Protests of Advice Letter 2339-E, as Amended by Advice Letter 2339-E-C, Filed by the National Resources Defense Council, Defenders of Wildlife, the Sierra Club the Center for Biological Diversity, the Wilderness Society and the Western Power Trading Forum

Dear Energy Division:

BrightSource Energy, Inc. ("BrightSource") hereby submits its response to (i) the joint protest submitted by the National Resources Defense Council ("NRDC"), Defenders of Wildlife and the Sierra Club (the "Joint Protestors"), dated June 8, 2012 ("Joint Protest")[1], (ii) the protest submitted by the Sierra Club, dated June 8, 2012 ("Sierra Club Protest"), (iii) the protest submitted by the Center for Biological Diversity, dated June 20, 2012 ("CBD Protest"), (iv) the letter submitted by the Wilderness Society, dated June 22, 2012 ("Wilderness Letter"), and (v) the protest submitted by the Western Power Trading Forum, dated June 22, 2012 ("WPTF Protest").[2] The five protests object to certain power purchase agreements ("PPAs") originally submitted by Southern California Edison ("SCE") to the California Public Utilities Commission ("Commission") for approval by Advice Letter ("AL") 2339-E, dated April 6, 2009 and amended thereafter as described below.

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[1] The Joint Protest was supplemented by an addendum submitted by the Joint Protestors on June 22, 2012 ("Joint Protest Addendum").

[2] Section 7.4.3 of the General Order 96-B requires the utility filing an advice letter to respond to all protests within five business days after the end of the protest period. General Order 96-B is silent as to whether other parties, including the counter-party to a contract that is the subject of an advice letter, may respond to protests or responses. Given BrightSource's interest in AL 2339-E-C and the unique perspectives that it can bring to the Commission on the issues raised in response, BrightSource respectfully requests that the Commission accept and consider this response.

By AL 2339-E, SCE sought approval of seven PPAs, each between SCE and a subsidiary of BrightSource. On August 12, 2010, the Commission approved one of the PPAs in Resolution E-4261 and deferred judgment on the other PPAs. BrightSource and SCE thereafter agreed upon site changes for and amended five of the PPAs, and terminated the remaining PPA. On November 28, 2011, SCE submitted AL 2339-E-C to the Commission, seeking approval of the five amended PPAs.

The Joint Protestors, CBD, the Wilderness Society ("Environmental Groups") and WPTF object to the Commission's approval of the PPAs associated with two projects, the Solar Partners XVIII project and the Solar Partners XIX project (collectively the "Siberia PPAs"). The Sierra Club, CBD and WPTF also object to the Commission's approval of the PPAs associated with the Solar Partners XVI project and the Solar Partners XVII project (collectively, the "Rio Mesa PPAs").[3] In addition, the CBD Protest objects to the Solar Partners XX project ("Sonoran West PPA").

The Environmental Groups raise similar concerns and their protests fail for many of the same reasons. These protests are treated together throughout this reply unless otherwise indicated. The WPTF Protest raises distinct issues and is addressed separately below.

At the outset, BrightSource emphasizes that, as discussed in detail below, the claims of alleged environmental issues raised in all five protests are clearly outside the scope of this proceeding. Therefore, BrightSource will limit its response on the substance of these issues to the corrections provided in Appendix 1 attached to this reply.

This reply proceeds in seven sections and attached Appendix 1:

- Section I sets forth why it is poor policy to consider protests that were filed nearly half-a-year after the protest period had expired. In addition, several of the filing parties failed to adhere to the proper service protocols and, as a result, the Commission should reject their protests.

- Section II explains that the appropriate proceedings for the Environmental Groups to raise concerns related to environmental issues are the environmental review proceedings at the California Energy Commission ("CEC"), not this advice letter review.

- Section III explains that the Joint Protestors' contentions regarding project development are critically flawed and that adoption of their positions would result in numerous viable renewable energy projects being derailed based on presumed environmental issues well before an environmental impact review could realistically evaluate and address the issues.

[3] The Sierra Club Protest incorrectly identifies the Solar Partners XVIII project and the Solar Partners XIX project as the "Rio Mesa Projects".

- Section IV explains why the Sierra Club should not be permitted to opt out of the environmental review of the Rio Mesa Projects at the CEC and then to attack the projects based on alleged environmental issues here.

- Section V explains that the Joint Protestors' and Sierra Club's arguments are fundamentally misaligned with the Commission's established parameters for calculating a project's viability and that these protests err by presuming that a project's viability calculation is dispositive as to whether a PPA should be approved.

- Section VI addresses the three faulty arguments from the WPTF Protest: (i) that SCE failed to show that the Siberia PPAs were reasonably priced; (ii) that the Commission is using the advice letter forum to set preference for a particular type of technology, and (iii) that the viability of the project needs to be investigated more closely.

- Section VII sets forth BrightSource's request that the Commission reject the arguments advanced in the Joint Protest, the Sierra Club Protest, the CBD Protest, the Wilderness Letter and the WPTF Protest, and timely approve the Siberia PPAs, the Rio Mesa PPAs and the Sonoran West PPA.

- Appendix 1 corrects misstatements in the protests related to environmental issues. These corrections include: (i) the Environmental Groups misstatement of the location of the Siberia Projects as being within the Pisgah Valley; they are located in the Bristol Valley; (ii) the Joint Protestors mischaracterization of the removal of the Pisgah Valley from consideration by the Bureau of Land Management ("BLM") as a solar energy zone and the failure to reveal critical distinctions among projects in the Pisgah Valley, and (iii) the CBD and Sierra Club misstatements regarding the nature of avian issues that are currently being addressed in the permitting proceedings.

I. Consideration of the Very Late Protests Introduces Additional Uncertainty into the Advice Letter Process and Prejudices BrightSource; Improperly Served Protests Should be Rejected

Under the Commission's standard policy, advice letter protests must be filed with the reviewing Industry Division within 20 days of the filing of the advice letter and served on the utility on the same day.[4] SCE filed AL 2339-E-C on November 28, 2011. Therefore, under the Commission's standard policy, protests should have been served no later than December 18, 2011. The Joint Protesters did not file and serve their protests until June 8, 2012, nearly six months after the normal deadline. BrightSource is aware that on June 15, 2012, the Commission re-opened the protest period for AL 2339-E-C, allowing additional protests to be filed between

[4] General Order 66-B at § 7.4.1.

June 15, 2012 and June 20, 2012. As such, it appears that the protests of the Environmental Groups will be considered by Energy Division, despite the fact that they were filed nearly half-a-year late.

Accepting such late protests is disruptive and introduces added uncertainty to the advice letter process, making the financing and development of renewable energy projects in California more difficult. Allowing protestors to become involved in the advice letter process so belatedly is poor policy. When a protest period closes, based on the objections that have been raised by protestors, developers begin to assess the likelihood that an advice letter will be approved by the Commission and to plan accordingly. To the extent possible, they also begin taking actions that address the concerns raised by protesters, in order to remove obstacles to approval and/or create more regulatory certainty moving forward. Therefore, Energy Division's acceptance of protests that are filed many months after the close of the protest period creates real prejudice for developers. Here, BrightSource was surprised and significantly disadvantaged by the five late-filed protests. As discussed in more detail below, the Sierra Club's very late protest of the Rio Mesa PPAs is particularly improper because the Sierra Club has not participated in the ongoing environmental impact review proceeding at the CEC.

Finally, Sierra Club, Wilderness Society and CBD did not serve their protests on the service lists of R.11-05-005 as required by the Commission when it allowed parties to file additional protests. As a result, the Commission should reject these protests.[5]

II. The Appropriate Proceeding for the Environmental Groups to Express their Concerns Regarding Possible Environmental Impacts from the Projects is in the Applicable Environmental Review Proceeding at the CEC

All of the concerns raised by the Environmental Groups relate to environmental issues that they argue are likely to impede the development of the various projects. However, the environmental review proceeding for the Siberia Projects will be conducted at the CEC, and that proceeding is, as a matter of law, the exclusive forum for the Environmental Groups to raise those concerns. In the case of the Rio Mesa Projects, the environmental review process is underway at the CEC, and the Sierra Club has not participated in it. The environmental issues raised by the Environmental Groups are clearly outside the scope of the Commission's review of the Siberia, Rio Mesa and Sonoran West Projects (collectively, "Projects").

It is well settled at the Commission that, under California law, all issues relating to the environmental impacts of the Siberia Projects, the environmental review of the Siberia Projects at the CEC or the issuance of any environmental permits for the Siberia Projects are outside the scope of the Commission's jurisdiction or consideration when it reviews a Power Purchase Agreement.[6] Furthermore, the CEC has exclusive licensing authority for all thermal power plants

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[5] *See Notice of the Re-opening Protest Period for AL 2339-E-C*; via e-mail from Jason Simon (June 15, 2012).

[6] *See*, for example, Scoping Ruling in Application of Pacific Gas and Electric Company for Approval of a Power Purchase Agreement with Mariposa Energy, LLC. Application 09-04-001 "CARE is also concerned with viability, the Commission's role as a responsible agency, and whether PG&E properly considered the community's

with a capacity of 50 megawatts ("MW") or more proposed for construction within the state. The CEC's licensing process, which includes extensive environmental impact review, is the functional equivalent of the CEQA environmental impact review process. Public Resources Code Section 25500 grants the CEC "exclusive power to certify all sites and related facilities in the state." This section further provides that the "issuance of a certificate by the commission shall be in lieu of any permit, certificate, or similar document required by any state, local or regional agency, or federal agency to the extent permitted by federal law, for such use of the site and related facilities, and shall supersede any applicable statute, ordinance, or regulation of any state, local, or regional agency, or federal agency to the extent permitted by federal law." Public Resources Code Section 25519(c) reiterates the CEC's exclusive authority specifically with regard to environmental review under CEQA by stating, in pertinent part, that "[t]he commission shall be the lead agency as provided in Section 21165 for all projects that require certification pursuant to this chapter and for projects that are exempted from such certification pursuant to Section 25541."

To underscore the legislative intent that the CEC have exclusive authority to review environmental aspects of the Siberia Projects, the CEQA statute and the CEQA Guidelines clearly establish that the early activities such as the Commission's decision making concerning the PPA are exempt from environmental review under CEQA. Public Resources Code Section 21080(b)(6) and Section 15271 of the CEQA Guidelines expressly exempt early activities undertaken by a public agency related to thermal power plants. Even without this explicit exemption, applicable law excludes from CEQA review preliminary funding decisions that do not authorize a particular development project.[7] This is in concordance with the CEQA guidelines, which make clear that CEQA does not apply where, as here, it can be seen with certainty that there is no possibility that the activity in question – the mere approval of a PPA – may have a significant environmental effect.[8] Therefore, the argument of the Environmental Groups that environmental review should precede approval of the PPA is in contravention to both the purpose and wording of the CEQA provisions that exempt the approval of the PPA from environmental review.

In fact, the Commission recently issued resolutions in which it rejected arguments very similar to those made by the Environmental Groups, explaining that such arguments were outside the scope of the Commission's review of a PPA. On November 17, 2011, the Commission issued Resolution E-4439, in which it rejected concerns raised by various

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acceptance of the project as part of its evaluation of this particular contract.....All issues related to the environmental review that will occur at the CEC or to the issuance of air quality permits are excluded from this proceeding." See also, Decision 09-10-017, p. 2 (October 15, 2009), to the same effect.

[7] *See, e.g., Sustainable Transp. Advocates of Santa Barbara v. Santa Barbara County Ass'n of Gov'ts* (2009) 179 Cal.App.4th 113(CEQA does not apply to approval of "mechanism for funding proposed projects that may be modified or not implemented depending on a number of factors, including CEQA environmental review"); *Citizens to Enforce CEQA v. City of Rohnert Park* (2005) 131 Cal.App.4th 1594, 1601 (approval of a "mere funding mechanism" did not trigger CEQA review).

[8] CEQA Guidelines Section 15061(b)(3).

community groups who had argued that the projects associated with PPAs for which SDG&E sought approval were not viable. The community groups' viability concerns were based on technology, project financing, and project siting issues. In rejecting the community groups' arguments, the Commission explained:

> As previously noted by this Commission, the Commission's review of PPAs is confined to approval of costs pursuant to a PPA. Further, Commission approval of the PPA does not exempt the project from compliance with all applicable environmental laws nor does it limit the review of project alternatives should future environmental reviews of the development projects require such analysis. *Thus, BAD, POC, and ECCAC concerns are outside the scope of AL 2270-E and 2270-E-A.*[9]

Similarly, on April 2, 2012, the Commission issued Resolution E-4467 in which it rejected environmental concerns raised by community groups. Quite analogous to the position taken by the Environmental Groups here, certain protesting community groups had argued (i) that a PPA for which SDG&E sought approval should be rejected because it was too expensive or (ii) that the Commission should condition approval of the PPA on a full environmental review of the project and adoption of enforceable environmental mitigation measures. In rejecting those arguments, the Commission explained:

> ....as SDG&E argued in its reply, *Commission review of a PPA is not review of a "project," but a review of the costs SDG&E's ratepayers will incur pursuant to the proposed PPA.* Further, any project, as defined by CEQA, is subject to all applicable environmental laws. As such, the project will not go forward without meeting the relevant environmental laws. *Therefore, BAD, POC, and ECCAC's protest recommending rejection of AL 2247-E based on the PPA's price and its alternative recommendation of conditioning approval on environmental review and mitigation measures is denied.*[10]

In essence, the Environmental Groups are asking the Commission to do precisely what the Commission has expressly stated that it will not do as part of the advice letter process: prejudge the environmental impacts of the Projects during its review of the costs associated with the PPAs for those Projects.

In an effort to shoehorn their concerns into this proceeding, the Environmental Groups make various efforts to recharacterize the alleged environmental issues they raise as

[9] Resolution E-4439 at p. 18 (emphasis added).

[10] Resolution E-4467 at p. 24 (emphasis added).

concerning project viability or PPA costs.[11] For example, the Joint Protestors claim that a potential delay in permitting, that they might choose to create, would trigger a change in contract pricing. They go on to reference the 30% federal Investment Tax Credit ("30% ITC"), arguing that the delays in the environmental review and an accompanying inability to reach commercial operation on time will jeopardize the ability of the Siberia Projects to claim the 30% ITC.[12] They even take this argument a step further by claiming that the failure to claim the 30% ITC will result in higher costs to ratepayers, as the contract could be subject to renegotiation at a higher price to make up for the lost 30% ITC.[13] There is simply no basis for these claims.

First, the risks and costs associated with delays in the permitting of the Siberia Projects are accounted for in the original PPAs, their milestone schedules and related provisions, and their pricing. Second, the Joint Protestors are assuming that the Siberia Projects' permits will be delayed such that commercial operation will extend beyond 2016 and that the 30% ITC will not be available when the Siberia Projects reach commercial operation. These assumptions are pure speculation. Finally, even if the 30% ITC was not able to be claimed, it is pure conjecture to assume that the additional costs presented will be passed on to ratepayers. The Joint Protestors' arguments are based on a series of assumptions stacked on top of each other, none of which should lead the Commission to reject or delay approval of the PPAs.

In the end, all of the Environmental Groups' requests would require the Commission to make a substantive determination, after an in-depth inquiry of disputed facts, about the merits of claims raised in the protests related to the environmental review process of the Projects and conclude that the claims will in fact materially delay the Projects. This inquiry is under the exclusive jurisdiction of the CEC. As such, they are outside the scope of this proceeding.

III. The Commission Should Not Allow the Joint Protestors to Foreclose the Environmental Review Process before the Environmental Review Process for the Siberia Projects have Even Commenced

The Joint Protestors fail to recognize that each renewable energy project is different and that developers have unique modes of developing projects and differing resources. Were the Commission to accept their flawed perceptions, the environmental review of numerous renewable energy projects would be foreclosed before it had even begun.

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[11] *See, e.g.*, the Environmental Groups' statement that "[t]he considerable environmental risks also present a significant potential cost, both in the form of qualitative environmental damage, and in increased mitigation, potential permitting delay and litigation" (Joint Protest at p. 3) and the Sierra Club's statement that "it seems unlikely that this project will be permitted in a timely manner that will not lead to high direct or indirect costs to SCE's customers" (Sierra Club Protest at p. 3).

[12] *See* Joint Protest Addendum at p.1.

[13] *Id.*

Specifically, the Joint Protestors claim that approval of a PPA "is not necessary to proceed with environmental review"[14] and assert that the Commission should reject the Siberia PPAs at this time and reconsider the projects only if the environmental review has been completed and "the responsible permitting agencies are able to demonstrate acceptably low environmental impacts and acceptable mitigation . . . ."[15] Stating that PPA approval "is not a requisite to environmental review of the project site"[16], the Joint Protestors argue that developers can proceed with the environmental review process even if the Commission has rejected the PPA associated with the Siberia Projects. They support this contention by citing one example in which a developer continued the environmental review process after its PPA had been terminated.[17]

Relying on one example of a developer who, under the particular circumstances of its development, was able to proceed with the environmental review process after its PPA had been terminated does not present a sound basis to make policy. Each developer faces different financing and development challenges specific to the project under development, and each developer has differing mechanisms and resources for addressing those challenges.[18] In the case of the Siberia PPAs, BrightSource would not be in the position to proceed with the environmental review process if the PPAs were terminated. And, quite simply, BrightSource should not be placed in the position of doing so. California has a well-developed and methodical process for reviewing the environmental impacts of renewable energy projects. That process should not be foreclosed based on assertions made by the Joint Protestors before the process has even commenced.[19] From an efficiency standpoint, it also makes sense to hold the PPA approval process independent, and prior, to any environmental review. If we were to allow developers to conduct the costly and time intensive process of an environmental review, only to have a PPA declared too expensive after the fact, this could lead to disastrous and financially crippling results for developers and to a significant waste of governmental resources. As discussed above, such a course is in direct conflict with statute and the CEQA guidelines which exempt the PPA from environmental review by the Commission and grant exclusive authority for that environmental review to the CEC.

To ensure that the Projects at issue and other renewable energy projects have the opportunity to be thoroughly considered under established environmental review processes, the Commission should reject the Joint Protestors' arguments as outside the scope of this proceeding, consistent with the Commission's decisions discussed above. As the Commission

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[14] Joint Protest at p. 8.

[15] Joint Protest at p. 2.

[16] Joint Protest at p. 2.

[17] *Id.*

[18] The developer referenced by the Joint Protestors is a part of a very large company, and its abilities to pursue permitting in the absence of a PPA cannot be presumed to be reflective of other developers' abilities generally.

[19] Even if the environmental review does uncover unexpected environmental impacts, as the Environmental Groups point out, "In many cases these impacts can be addressed and the project can be changed or the impacts can be mitigated." Joint Protest at p. 7.

recognized in Resolution E-4439, "Commission approval of the PPA does not exempt the project from compliance with all applicable environmental laws nor does it limit the review of project alternatives should future environmental reviews of the development projects require such analysis."[20] The Commission should continue its sound policy of recognizing that environmental review is not a component of the PPA approval process. The result of changing that policy would be to encourage similar challenges for each PPA that is placed before the Commission, overwhelm Commission resources, as well as those of the counterparties, and likely result in many viable and desirable projects never having the opportunity to undergo a thorough environmental review.

IV. The Sierra Club's Request that the Commission Withhold Approval of the Rio Mesa PPAs until Completion of the Environmental Review Process is Improper, Particularly as it has Not Participated in the CEC's Environmental Review Process

Similar to the Environmental Groups' contention that the Commission should reject the Siberia Projects and only reconsider them upon completion of the environmental review, the Sierra Club inappropriately requests that the Commission withhold approval of the Rio Mesa PPAs "until environmental review of the project sites has been completed (including all surveys and additional data requested by permitting agencies) and a determination has been made by the permitting agencies that the Rio Mesa Projects have low environmental impacts."[21] As noted above, the environmental review of the Rio Mesa Projects is currently ongoing at the CEC, and the Sierra Club has not participated in that process. It is improper for the Sierra Club to stand on the sidelines in the CEC proceeding, the proceeding dedicated to addressing the environmental impacts of the Rio Mesa Projects and with the exclusive jurisdiction to do so under state law, and then come to this Commission and make a collateral attack on the Rio Mesa Projects based on assertions about environmental issues it claims "call into question the viability of the Rio Mesa Projects in terms of permitting."[22]

Delaying approval of the Rio Mesa PPAs would make further development of the Rio Mesa Projects much more difficult and could even derail the Rio Mesa Projects before the environmental process can be completed. The Sierra Club's arguments appear to be premised on its same flawed assertion that developers can and will continue to devote resources to projects that have not obtained PPA approval, as discussed above. Perhaps the Sierra Club is truly naïve as to how large scale solar projects are financed and developed and the critical role that an approved PPA plays in that process. Or, perhaps the Sierra Club is perfectly aware that without an approved PPA, BrightSource may be forced to abandon the Rio Mesa Projects and has deliberately brought its arguments to this Commission in an effort to derail the Rio Mesa Projects without expending the resources required for participating in the CEC proceeding. In either case, the Commission should reject the Sierra Club's request and timely approve the Rio

[20] Resolution E-4439 at p. 18 (emphasis added).

[21] Sierra Club Protest at p. 4.

[22] Sierra Club Protest at p. 3.

Mesa PPAs, while the environmental review process at the CEC proceeds. The Sierra Club's apparent attempt to undermine the CEC proceeding, without making its arguments at the CEC, is improper and should not be condoned by the Commission.

V. The Joint Protestors' Requests Are Fundamentally Misaligned with the Commission's Established Parameters for Assessing a Project's Viability, and the Joint Protestors Fail to Understand that Project Viability is not the Sole Consideration In the PPA Approval Process

The Joint Protestors raise numerous environmental issues that they claim will reduce the viability of the Siberia Projects. Similarly, the Sierra Club argues that SCE's project viability calculation for the Rio Mesa Projects is deficient due to environmental issues that the Sierra Club contends will create permitting problems. As stated above, because the environmental review proceeding at the CEC is the proper venue for addressing those claims, and not this Commission's review of the Siberia PPAs and Rio Mesa PPAs, BrightSource will not engage in a specific discussion of the Joint Protestors' allegations in this reply, other than the corrections provided in Appendix 1. However, BrightSource emphasizes that the Joint Protestors' request to reject the Siberia PPAs and the Sierra Club's request to withhold approval of the Rio Mesa PPAs, based solely on alleged permitting issues, are fundamentally misaligned with the Commission-established Project Viability Calculator ("PVC") and the manner in which the Commission has used the PVC in approving SCE's and other IOUs' RPS solicitation protocols.

Utilities like SCE use the PVC to evaluate the viability of a project relative to other projects for procurement purposes. Energy Division considers project viability in its evaluation of advice letters seeking approval of contracts, using a project viability matrix which is "substantially similar" to the PVC, the use of which has been approved by the Commission.[23] The PVC quantifies project viability based on key project development milestones and barriers and other considerations, and the total project viability score ranges from 0 to 17. For the "Permitting" milestone, a project either gets a "1" if the project is "OK" or a "0" if there is a "Major Hurdle."[24] Thus, even if there are serious permitting issues, the project viability score will not be reduced by more than one point. By arguing that the Siberia Projects and the Rio Mesa Projects should be rejected solely because the Joint Protestors allege that permitting hurdles are likely to arise, the Joint Protestors are essentially asking the Commission to consider this one factor in the PVC as a "veto," and to afford no weight to 16 of the 17 points in the project viability calculation. That request is completely inconsistent with the parameters established by the Commission for assessing a project's viability and should be rejected. In essence, the Joint Protestors are collaterally attacking the Commission's decisions adopting the PVC and SCE's use of it. This impermissible collateral attack is in the wrong forum and must be rejected.

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[23] Decision 09-06-018 at p. 21 (noting that the project viability matrix has 13 criteria, totaling a final result ranging from 0-15, and the PVC has 14 criteria, totaling a result ranging from 0-17).

[24] *See* February 3, 2009 Assigned Commissioner's Ruling ("ACR") in R.08-08-009 at Attachment B, p. 7.

BrightSource by no means agrees with the Joint Protestors' claims that the Siberia Projects and the Rio Mesa Projects will be unable to timely obtain the permits necessary for their development, but even if that were the case, the PVC requires that permitting be considered as one piece of the total development picture. A project may face particular hurdles in one area, but those hurdles may be countered by strengths in other areas. In adopting a calculator that treats project viability as a multi-faceted equation, the Commission appropriately recognized that numerous factors weigh into whether a renewable energy project will ultimately come to fruition. There is no reasoned basis for departing from that policy here.

Further, the Joint Protestors fail to recognize that the Commission's viability analysis is not dispositive as to whether a PPA should be approved. To the contrary, in Decision 09-06-018, the Commission expressly rejected a staff proposal to categorize projects for Commission acceptance or rejection based on their project viability scores. Staff had proposed that contracts be placed in one of three categories: (1) Low Project Viability Score (0-4) – not eligible for Commission approval; (2) Medium Project Viability Score (5-9) – eligible and limited amendments permitted; and (3) High Project Viability Score (10-17) – eligible and major amendments permitted. In rejecting the proposal, the Commission expressed its disinclination "to adopt a tool that limits our discretion to consider a range of projects", and it agreed that the PVC score "is only one element of the [Least-Cost-Best-Fit] methodology, and to the extent that other factors weigh into that assessment, the PVC alone should not override all other considerations."[25] The Commission also agreed that "[i]t would be imprudent to automatically reject any PPA that does not meet the minimum project viability score because other benefits of the PPA may outweigh its viability risk."[26] And, the Commission recognized that it was not necessary to use the PVC score to reject PPAs because "there are already contract provisions that address project delays or failures."[27] Decision 09-06-018 thus makes clear that the Joint Protestors' requests to reject the Siberia PPAs and withhold approval of the Rio Mesa PPAs are severely flawed. Not only do the Joint Protestors fail to consider the multi-faceted nature of the project viability calculator, they similarly presume, erroneously, that the Commission's viability analysis is dispositive as to whether a PPA should be approved.

VI. The WPTF Protest incorrectly claims that SCE did not adequately prove the Siberia PPAs were reasonably priced, incorrectly characterizes the approving advice letter as setting a preference for renewable technologies and incorrectly makes assumptions about the Siberia Projects' viability.

The WPTF Protest can be broken down into three arguments: (i) that SCE did not provide the customary representations required for the approval of bilaterally negotiated contracts, (ii) the Commission should not use an advice letter as the forum for establishing a preference for certain renewable technologies; and (iii) that project viability was not assessed accurately. Each of these arguments should be rejected as set forth below.

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[25] *Id.*

[26] *Id.*

[27] *Id.* at pp. 23-24.

WPTF's first argument is that SCE did not make the required showing for approval of bilateral contracts. However, the only requirement the protest claims was not addressed is that SCE failed to show that the Siberia PPAs were reasonably priced. The WPTF Protest appears to be basing this conclusion on a statement from the Independent Evaluator ("IE") report which indicated that none of the projects would have been included within SCE's shortlist when compared to the other projects in SCE's 2011 RFO.[28] However, it is important to understand the context in which the IE's statement was made.

First, in making this statement, the IE report did not appear to take into consideration the unique benefits associated with the Projects. The Commission has recognized that different renewable technologies add different values to the renewable portfolio, and that solar thermal technology in particular adds such benefits that sometimes warrant approval of an otherwise expensive PPA.29 The Commission should not be persuaded by overly simplistic price comparisons, particularly given the static nature of the IE's report relative to the dynamically changing nature of the energy system as renewable penetration increases. The energy attributes of solar thermal, both with and without storage, are more similar to conventional generation than many other renewable energy technologies, and the value of those attributes can be expected to increase as more conventional power is displaced by renewable energy generation. These features of solar thermal have been well-established through a number of studies by independent researchers, including the National Renewable Energy Laboratory ("NREL") and the Lawrence Berkeley National Laboratory ("LBNL").[30] These studies quantify

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[28] WPTF Protest at p. 2.

[29] Resolution E-4433 at p. 2 (In approving the Mojave Solar PPA, the Commission noted that "solar thermal facilities offer better operational characteristics than other intermittent renewable facilities." The Commission went on to state that because, the "solar thermal facility will enhance the resource diversity of PG&E's portfolio," it warrants approval of "the relatively high priced contract.")

[30] The studies on the value of solar thermal technologies and their comparison with other types of renewable resources include the following:

Denholm, P. and M. Mehos, "Enabling Greater Penetration of Solar Power via the Use of CSP with Thermal Energy Storage, National Renewable Energy Laboratory, Technical Report," NREL/TP-6A20-52978 (Nov. 2011), available at http://www.nrel.gov/csp/pdfs/52978.pdf.

Denholm, P., S.H. Madaeni and R. Sioshansi, "Capacity Value of Concentrating Solar Power Plants, National Renewable Energy Laboratory, Technical Report," NREL/TP-6A20-51253 (June 2011), available at http://www.nrel.gov/docs/fy11osti/51253.pdf,

Madaeni, S.H., R. Sioshansi, & P. Denholm, "How Thermal Energy Storage Enhances the Economic Viability of Concentrating Solar Power," Proceedings of the IEEE, 2011.

Mills, A. & R. Wiser, "Changes in the Economic Value of Variable Generation at High Penetration Levels," LBNL-5445E (June 2012), available at http://eetd.lbl.gov/ea/ems/reports/lbnl-5445e.pdf.

Madaeni, S.H.,, R. Sioshansi, & P. Denholm, "Estimating the Capacity Value of Concentrating Solar Power Plants with Thermal Energy Storage: A Case Study of the Southwestern United States," submitted to IEEE Transactions on Power Systems.

the additional value of different configurations of solar thermal plants, whether modeled against historical California wholesale market prices for energy and ancillary services, or looking at future comparative market value. In addition, there are a large number of recent studies showing increasing system integration needs as renewable generation comprises a larger portion of the State's energy resource mix. While work remains to be done to better quantify those integration needs, there is already sufficient basis for the Commission to value solar thermal projects with storage as being well positioned to help meet those needs.

Second, the IE report acknowledges that the Siberia PPAs are "competitive relative to SCE's other solar thermal options in its most recent solicitation."[31] The WPTF Protest argues that this comparison "says nothing with respect to their overall reasonable pricing."[32] However, the Commission's practice is to compare pricing of PPAs to the pricing of similar technologies,[33] not to make a price comparison across the board as the WPTF protest suggests.

Finally, the IE's statement has limited value, as comparisons between executed contracts and those projects that are short-listed from a solicitation are difficult to make. Even the IE in his report concedes this point: "comparing executed contracts with a solicitation's potential projects/contracts (either shortlisted or not) can be problematic – given that some projects on a short list may not make it to the finish line of fully negotiated and executed contracts."[34]

The WPTF's second argument is that an advice letter is not the appropriate mechanism to establish a preference for a certain type of renewable technology. Once again, this argument is based on a misconstrued statement from the IE report which states, "Regarding whether or not Sedway Consulting recommends the approval of the BSE amended PPAs, it comes down to a question of how much the CPUC wants to advance solar thermal technology in California."[35] Notwithstanding the IE's comment, when considering an RPS PPA, the utility is required to consider LCBF factors, and the Commission always considers the unique attributes of the underlying project. Every project is unique, and its particular characteristics are not ignored by the Commission in considering an advice letter proposal. Rather, the fit of the project to the portfolio is of paramount importance. Commission approval of the contracts based on the

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Sioshansi, R., & P. Denholm, "The Value of Concentrating Solar Power and Thermal Energy Storage, National Renewable Energy Laboratory," NREL/TP-6A2-45833 (Feb. 2010), available at http://www.nrel.gov/docs/fy10osti/45833.pdf.

[31] SCE 2339-E-C, IE Report at p.6.

[32] WPTF Protest at p. 2.

[33] Resolution E-4444 at p. 10 (In approving the Kiara Solar PPA, the Commission stated, "Because there are fewer biomass contracts to compare against than with other technologies,...the Commission compared the Kiara PPA to recently executed [biomass] contracts ...")

[34] IE Report at p.3.

[35] WPTF protest at 3.

projects unique benefits, and its fit to the portfolio, is not the same as establishing an overall policy preference for solar thermal projects.

Finally, the WPTF Protest states that recent CAISO reforms have eliminated certain transmission upgrades and questions whether this might affect the viability of the Projects. BrightSource has analyzed these changes and has concluded that they have no effect on the Projects' viability.

VII. Conclusion

For the foregoing reasons, BrightSource respectfully requests that the Commission reject the flawed arguments and inappropriate requests set forth in the Joint Protest, the Sierra Club Protest, the CBD Protest, the Wilderness Letter and the WPTF Protest, and promptly approve the Projects' PPAs. Granting the protests requests would require the Commission to depart from its well-established policies and practices in numerous ways. The Environmental Groups and WPTF have not presented any basis, nor is there any basis, for the Commission to abandon its established policies.

Sincerely,

/s/ Joseph M. Karp
Joseph M. Karp

cc:

Sarah K. Friedman
Senior Campaign Representative
Sierra Club
Beyond Coal Campaign

Noah Long
Energy Program Attorney
Natural Resources Defense Council

Kim Delfino
California Program Director
Defenders of Wildlife

Sally Miller
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Trading Forum

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Senior Attorney
Center for Biological Diversity

Service List R.11-05-005

Appendix 1

Appendix 1

As discussed in the body of this reply, BrightSource believes that the substantive environmental issues raised by the Environmental Groups are outside of the proper scope of the Commission's evaluation of PPAs, and that such environmental review is the exclusive province of the CEC. However, as the Environmental Groups have mischaracterized the Projects in several respects, this appendix is intended to correct the record.

I. Contrary to the Environmental Groups' Statements, the Siberia Projects are not in the Pisgah Valley; Joint Protestors also Fail to Properly Characterize the Environmental Sensitivity within the Pisgah Valley and at the Actual Site Location where Existing and Pending Land Use Planning Documents Permit Solar Development.

A fundamental premise of the Environmental Groups' objections to the Siberia Projects is the location of the projects, which they allege are in the Pisgah Valley. The Siberia Projects are not actually located in the Pisgah Valley. In fact, they are located in the Bristol Valley, which is separated by a ring of mountains from the Pisgah Valley. See Figure 1, attached. Only the generation tie to the sub-station (the "gen-tie"), as currently proposed, would extend into the Pisgah Valley. The site is approximately 15 miles from the area that had been identified as the Pisgah Solar Energy Zone ("SEZ"). See Figure 2, attached.

In addition to misstating the location of the Siberia Projects, the Joint Protestors also erroneously suggest that, due to the BLM's decision to not consider the Pisgah Valley as a Solar Energy Zone, developing a project in the Pisgah Valley is inconsistent with BLM policy. In the Supplement to the Draft Solar Development Programmatic Environmental Statement ("PEIS") issued in October 2011, BLM did remove the Pisgah Valley as a SEZ, but the Joint Protestors' characterization of that removal creates an unjustified impression that development in the Pisgah Valley is therefore contrary to the BLM's plans. Specifically, the Joint Protestors argue that "[u]tility-scale solar projects sited outside of solar energy zones are not only face a higher burden to gain final approval [*sic*], *but undermine ongoing planning efforts such as the PEIS* . . . ."[1] To the contrary, BLM states explicitly that the removal of the Pisgah Valley from consideration as a SEZ should not foreclose the development of solar resources there. Specifically, the BLM explains:

> Although the area will be dropped from consideration as a SEZ, *most of the lands that composed the proposed Pisgah SEZ will be retained as solar right-of-way variance areas, because the BLM expects that individual projects could be sited in this area to avoid and/or minimize impacts.*[2]

[1] Joint Protest at p. 5 (emphasis added).

[2] Supplement to the Draft Programmatic Environmental Impact Statement for Solar Energy Development in Six Southwestern States, DES 11-49, DOE/EIS-0403D-S (Oct.2011) at p. B-14 (emphasis added).

The BLM explained that solar development within the Pisgah Valley will require appropriate environmental analysis.[3] As such, the BLM anticipates that there will be solar projects developed in the Pisgah Valley in accordance with the normal environmental review process. The presence of a gen-tie in this area simply cannot be concluded to be inconsistent with BLM's plans.

The position taken by the Joint Protesters—that the Siberia Projects are necessarily problematic because of their alleged proximity to the controversial Calico project and the former Pisgah SEZ—is inconsistent with the comments made by these organizations in response to BLM's initial proposal of the Pisgah SEZ. Specifically, NRDC, the Sierra Club, DOW and other environmental organizations recognized that in 2009, environmental stakeholders identified "lands near the Pisgah Zone . . . as potentially appropriate for development . . . ."[4] NRDC, the Sierra Club and DOW recommended that BLM consider "a limited base of lands" in the area of the proposed SEZ.[5] Although the areas recommended as potential development areas do not overlap directly with the Siberia Projects, the prior comments by the Joint Protesters demonstrate that generalizations cannot be made about the areas surrounding the proposed Pisgah SEZ because, as the Joint Protesters themselves point out, some of these areas are appropriate for development.

As illustrated in the BLM land use map appended hereto as Figure 3, the Siberia Projects (including their gen-tie line) are entirely located on land that the BLM has categorized as "Class M" or "Moderate Use" land. This classification reflects the BLM's determination that this zone is appropriate for energy and utility development. Specifically, BLM has explained that "this class provides for a wide variety of present and future uses such as mining, livestock grazing, recreation, *energy and utility development*."[6] It is misleading for the Joint Protestors' to insinuate that developing a gen-tie, or even a solar energy project, anywhere in the Pisgah Valley is contrary to the BLM's policy.

Finally, project development at the proposed Siberia Site is also consistent with the most recent information that has emerged from the California Desert Renewable Energy Conservation Plan ("DRECP") process, notwithstanding the Joint Protesters' allegations to the contrary.[7] The Siberia site is located in an area that several runs of the Marxan software, used by the DRECP to preliminarily identify the priority areas for biological conservation and for renewable energy development, identifies as either a priority for solar development or allowable

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[3] *Id.*

[4] Comments on Draft Programmatic Environmental Impact Statement for Solar Energy Development in Six Southwestern States made on behalf of the Audubon Society, California Native Plant Society, California Wilderness Coalition, Californians for Western Wilderness, Defenders of Wildlife, the National Parks Conservation Association, the Natural Resources Defense Council, Point Reyes Bird Observatory Conservation Science, Sierra Club, The Wilderness Society, and The Wildlands Conservancy (Apr. 29, 2011) at p. 31.

[5] *Id. See also id.* App. C (West Mojave and Daggett Triangle Potential Development Areas).

[6] Draft Programmatic Environmental Impact Statement for Solar Energy Development in Six Southwestern States, DES 10-59, DOE/EIS-0403 (Dec. 2010) at p. 9.3-23 (emphasis added).

[7] Joint Protest at p.5.

for solar development.[8] Arecent mapping of biological concern areas issued as part of the DRECP, in conjunction with a June 26th meeting, although also preliminary, identifies the Siberia site area as having only "moderate biological sensitivity" See Figures 3 & 4, attached. Areas that have been identified as potential development focus areas are also located on land identified as having "moderate biological sensitivity." It is simply not the case that the Siberia site is necessarily inconsistent with the DRECP, the Solar PEIS, or existing land use classifications.

II. The Calico Project Is Not an Appropriate Reference Point for the Likely Environmental Impacts of the Siberia Projects.

The Joint Protestors continually cite to environmental and permitting problems facing the Calico Project (which is 15 miles from the Siberia site, and with which BrightSource has no affiliation) to support its argument that the Siberia Projects are destined to suffer the same fate – again, based on the erroneous conclusion that both projects are located in the Pisgah Valley.[9] In drawing their comparisons, the Joint Protestors also fail to address other highly pertinent differences between the project locations. For example, as illustrated in the BLM Fee Compensation Map appended hereto as Figure 6, the desert tortoise mitigation ratio for the portion of the West Mojave Plan where the Siberia Projects are located is designated with a 1:1 ratio. In contrast, the Calico project is located in an area designated with a 5:1 ratio. The Calico project is also within an area that has been identified as an important biological linkage area, in a study referenced in the California Desert Renewable Energy Working Group ("CDREWG") siting criteria discussed below. The important biological linkage area includes the Pisgah Valley, but does not include the Bristol Valley. See Figure 7. The failure of the Joint Protestors to make the Commission aware of such critical distinctions demonstrates exactly why this advice letter process is not the appropriate forum to make substantive determinations about environmental issues such as those raised by the Joint Protestors. Rather, such claims must be vetted through a thorough environmental review process: the one that will be conducted at the CEC after the Siberia PPAs are approved.

III. Based on Site-Specific Considerations, the Siberia Projects have been Proposed in an Area Where they Are Likely to Be Approved.

When selecting site locations, and re-evaluating which sites to continue to pursue in light of new information and evolving best practices, BrightSource makes use of three sources for guidance: (i) BLM Instruction Memorandum 2011-061[10]; (ii) the criteria proposed by representatives of the renewable energy industry, the electric utility sector, and the environmental community in a joint comment letter submitted on the PEIS under the name CDREWG (*see* Attachment C); and (iii) the 2009 Renewable Siting Criteria for California

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[8] *See* Attachment A, depicting the location of the Siberia site in relation to three of the Marxan results; *see also* Attachment, explanation provided to the DRECP of the Marxan software.

[9] *See* Joint Protest at pp. 3, 4, 7, 8.

[10] BLM Instruction Manual is available at: http://www.blm.gov/wo/st/en/info/regulations/Instruction_Memos_and_Bulletins/national_instruction/2011/IM_2011-061.html

Desert Conservation Area ("CDCA") prepared by environmental stakeholders and attached to the Wilderness Letter. BrightSource believes that the proposed Siberia site is consistent with these policies.

Regarding the BLM criteria, which are divided into low, medium, and high potential for conflict, the Siberia Projects do not meet any of the high conflict criteria.[11] Certain medium potential for conflict criteria (used to identify "projects that have resource conflicts that can potentially be resolved") could exist at the Siberia Project site.[12] However, medium conflicts are, by definition, conflicts that can be resolved. Whether or not the site possesses some of these criteria would not provide a justification for presuming unusual permitting difficulty. This is especially true since the site meets many low conflict criteria that would justify not just authorizing the Projects, but authorizing them in an expedited timeframe.[13]

Development of a solar project on the proposed Siberia site would also be consistent with the criteria proposed by the CDREWG. The site is not within one mile of areas designated for "the protection of sensitive resources and values . . . which would be adversely affected by development." Nor is it within an area proposed for some special designation, such as a national monument. The land furthermore is not subject to a conservation easement or part of a mitigation plan for other projects and has not been avoided by other projects due to known resource conflicts.

The CDCA siting criteria overlap significantly with the criteria described above, but also include some notable additions; specifically requirements to avoid ACECs and "significant populations of federal or state threatened and endangered species." The Siberia Projects are potentially consistent with even these more demanding criteria, given that the generation facilities would be located some distance from the nearest ACEC and development within the ACEC would be limited to the gen-tie, as it is currently proposed. Although desert tortoise have been observed in the area proposed for the Siberia Projects, the site is well outside of the connectivity corridor that has been identified in the region, as part of the study referred to in the CDREWG criteria. See Figure 7. None of the protest letters assert that the Projects would impact a significant population of endangered, threatened, rare or special status species, as further described in the siting criteria.[14]

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[11] CBD's allegation to the contrary is based on the gen-tie, and not the project site; BLM has not interpreted these guidelines as applicable to the gen-ties, as opposed to the project sites. Note that even projects that meet BLM's high *potential* for conflict criteria *might* still be permitted according to BLM's policy.

[12] For example, the easternmost portion of the site contains designated Visual Resource Management Class III lands, and cultural resources have not yet been fully surveyed.

[13] These low-conflict criteria including the following: the site has been used as and is adjacent to an active military bombing range; it is near a mining site that is slated for reopening (see http://www.desertdispatch.com/articles/plans-12722-reopen-says.html), and that sits between the Projects and the hills defining the Bristol Valley; BLM land use plans permit solar energy development in the moderate use area proposed for the site; the proposed site includes designated VRM Class IV lands; and the site can be accessed by existing infrastructure, as well as connect to an existing substation)

[14] Wilderness Letter Attachment at fn. 6 (explaining that "Determining 'significance' requires consideration of factors that include population size and characteristics, linkage, and feasibility of mitigation").

The criteria that BLM and environmental stakeholders have established, as well as the criteria that developers and conservation organizations have agreed to, explicitly provide guidance as to when development is appropriate in, adjacent to, or near specially designated areas. The protest letters blur these standards by making vague statements about the proximity of the Projects to certain resources. The criteria only prohibit development in proposed Wilderness Areas, proposed National Monuments, and Citizens' Wilderness Inventory Areas. BLM discourages development in designated critical habitat, but does not prohibit development in ACECs, especially the development of linear facilities such as generation-tie lines, because some limited development is allowed in such areas.[15]

The Siberia Projects are not *within* a designated or proposed Wilderness Area or National Monument and only the gen-tie line will (potentially) enter species critical habit or cross an ACEC. Specifically, the Projects would be adjacent to, not within, the proposed Mojave Trails National Monument. The closest known USFWS Critical Habitat is 19 miles northwest of the generation site. The closest known Wilderness Preservation area is the Bristol Mountains, located 10 miles due north of the Projects. The closest ACEC (designated for the protection of White-margined beardtongue and Mojave fringed-toed lizard, not desert tortoise as some protestors try to imply), is located 9 miles northwest of the generation facility site boundary. As shown in the map attached to the Joint Protest, the Ord-Rodman Desert Wildlife Management Area, the Cady Mountains Wilderness Study Area, and the Ord-Rodman Mountains and Kelso Dunes Wilderness Areas are even further away. The suggestion that the Siberia Projects are improperly located within, or in proximity to, the designated areas of concern is not justified.

IV. The Rio Mesa Projects, Targeted by the Sierra Club and CBD, Are Consistent with Environmental Considerations

The chief arguments against approving the Rio Mesa PPAs, that the project will have unmitigatable impacts on avian species, rests on incorrect, obsolete and incomplete information. Numerous examples of solar power tower technology deployed in the United States, Spain and Israel have not resulted in significant incidents with avian species, as discussed below. The Rio Mesa Projects now comprise approximately 3800 acres, which does not include pristine desert.[16] Prior to development, BrightSource will need to address unexploded ordinance ("UXO") and trash issues, which obviously impair the environmental quality of the site.

The only reported incidents of avian issues associated with solar power towers were with respect to the Solar One facility, which was commissioned by the Department of Energy and operated in the 1980s.[17] The single study conducted on that facility, undertaken in 1986, found that its avian impacts were "minimal," affecting only 0.6-0.7% of the local avian population. Other solar power tower operations have reported few or no avian issues; for

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[15] *See* IM 2011-061 (recognizing that medium conflict lands include "[d]esignated BLM special management areas, including ACEC areas, that provide for some limited development").

[16] The historic uses of the site include extensive desert training operations by General George S. Patton from approximately 1941 through 1944.

[17] This facility was subsequently modified to test solar thermal storage and renamed Solar Two, operating under that name for a few years in the 1990s.

example, the eSolar facility in Lancaster, California has operated for over three years without incident.[18]

Newer solar power tower technology, including the technology used by BrightSource, has been designed to minimize the avian issues identified at the Solar One facility. Specifically, the following differences between modern solar power towers and the Solar One facility should significantly lessen avian issues below the already-minimal level presented by Solar One:

- Smaller mirrors and lower placement to the ground reduces likelihood of collision: Solar One had large, 47.5 m^2 heliostat mirrors, reaching up to 25 feet off the ground. The mirrors used by BrightSource are much smaller. The newest generation of the BrightSource technology utilizes 14 m^2 heliostats that reach a maximum height of 13 feet off the ground.

- Precise focus, reduction in concentrated sunlight ("solar flux") reduces likelihood of singeing: The technology used by Solar One could not precisely control the heliostats; when not aimed at the top of the tower, mirrors were focused on four "standby" points in midair, where the high concentration of sunlight was presumed to singe a small number of birds that flew through the standby points. Modern technology uses highly precise, software-controlled heliostats and eliminates standby points, replacing them with diffuse zones that avoid a potentially harmful concentration of sunlight.

In addition, the impacts observed in the 1986 study of the Solar One facility can be minimized by siting decisions. According to the study, the impacts of Solar One facility (in Daggett, California) were exacerbated by the presence of nearby agricultural land and more than 100 acres of standing water (un-netted evaporation ponds) adjacent the facility, which attracted birds and insects. Buffer areas between power tower projects and agricultural areas, and minimal, netted evaporation ponds can avoid turning the project into an attractive nuisance for species. The Rio Mesa project will incorporate these measures to avoid avian impacts.

Further, it should be noted that many of the potential issues that the Sierra Club identifies as insurmountable environmental obstacles to permitting have, in fact, already been resolved or mitigated. For example, the January 2012 correspondence, which Sierra Club relies upon for its information, predates the March 19, 2012 agreement among, CEC Staff, the Renewable Energy Action Team ("REAT") Agencies (BLM, CEC, FWS, CEC) and BrightSource on specific additional surveys that will be conducted to properly assess potential impacts to avian species. Furthermore, on May 30, 2012, BrightSource notified the CEC that it would pursue an Environmental Enhancement proposal that would eliminate the third, northernmost generating unit (including all of the public land) from the project proposal, reducing any avian impacts that might occur by one-third.

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[18] Trabish, "ESolar Has Answers to Questions About the BrightSource Solar Power Tower" (GreenTech Media, June 27, 2012), *available at* http://www.greentechmedia.com/articles/read/esolar-has-answers-to-questions-about-the-brightsource-solar-power-tower.

The Sierra Club's suggestion that the project could impact Desert Tortoise and tortoise habitat is not supported by the data. The Desert Tortoise habitat at Rio Mesa is of the lowest possible quality, and is considered marginal. The attached Figure 8 shows, in an enlargement of a US map, that on a scale of 0 – 1 where 0 is the worst and 1 the best, the Rio Mesa site rates mostly as 0, 0.1, and 0.2 for tortoise habitat potential. Lastly, there is no basis, as CBD alleges, to believe that the Rio Mesa Projects would have a significant impact on the desert kit fox. The desert kit fox is neither a threatened nor an endangered species; nonetheless, BrightSource is taking the concerns raised by CBD about this species seriously, and will address these issues in the permitting process underway at the CEC.

Figure 1

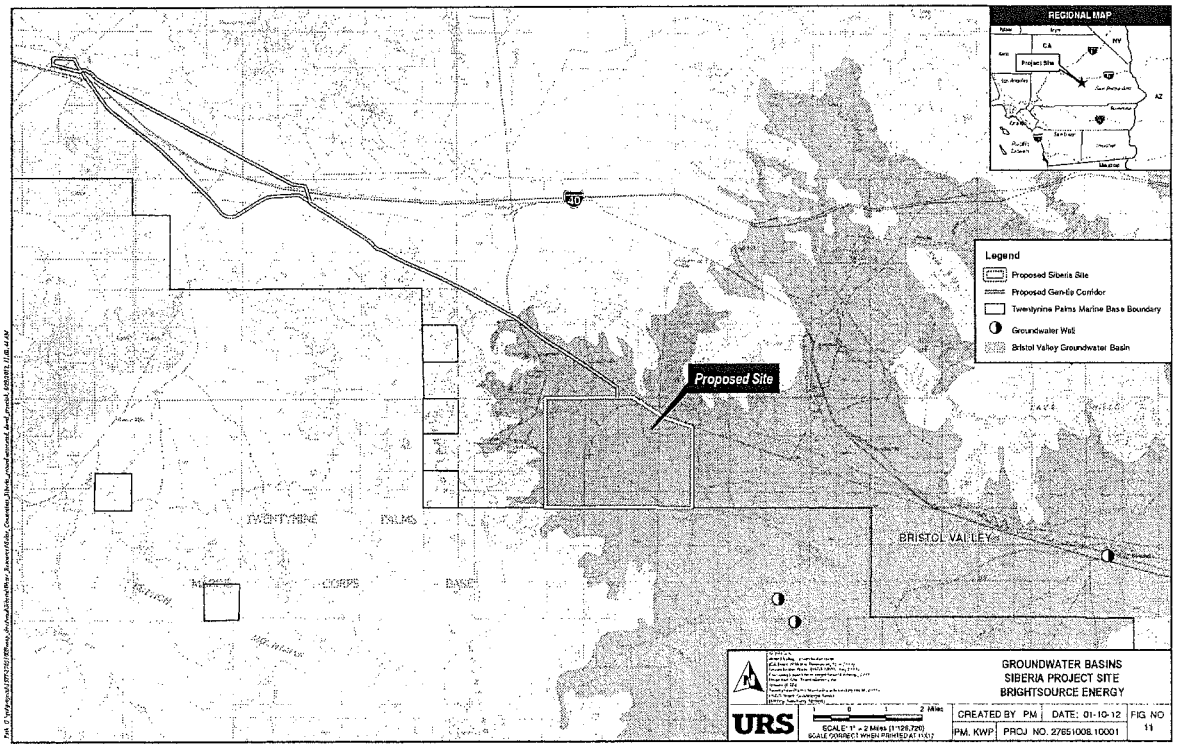


Figure 2

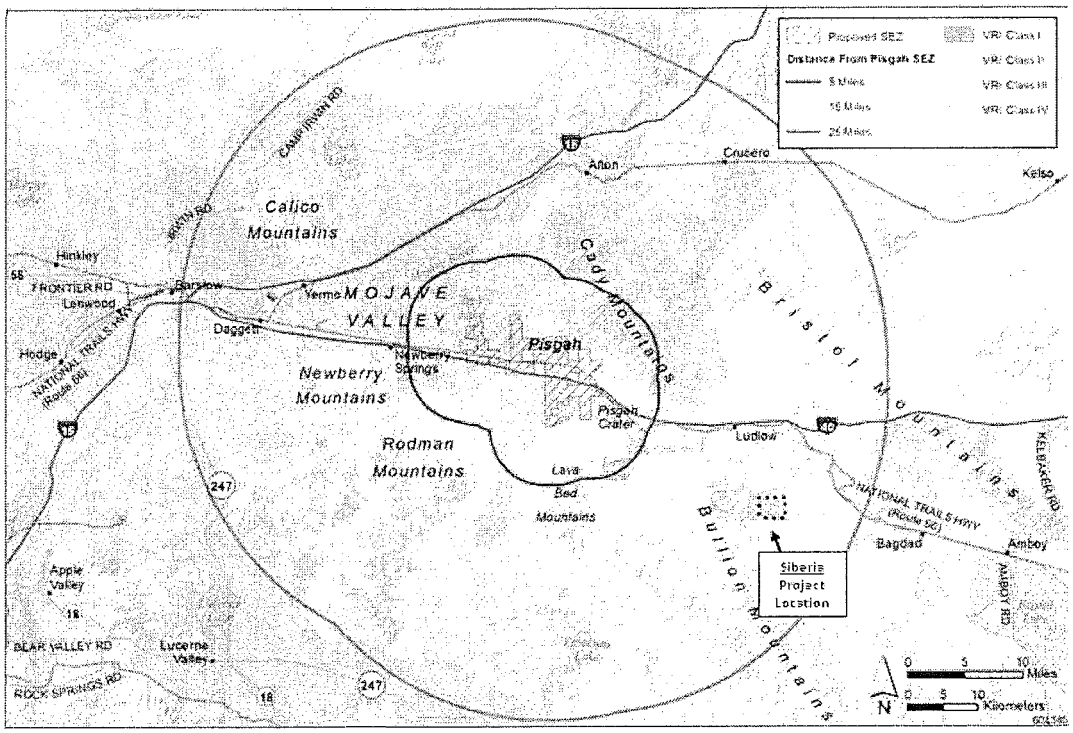


FIGURE 9.3.14.1-5 Visual Resource Inventory Values for the Proposed Pisgah SEZ and Surrounding Lands

Figure 3
(follows on next page)

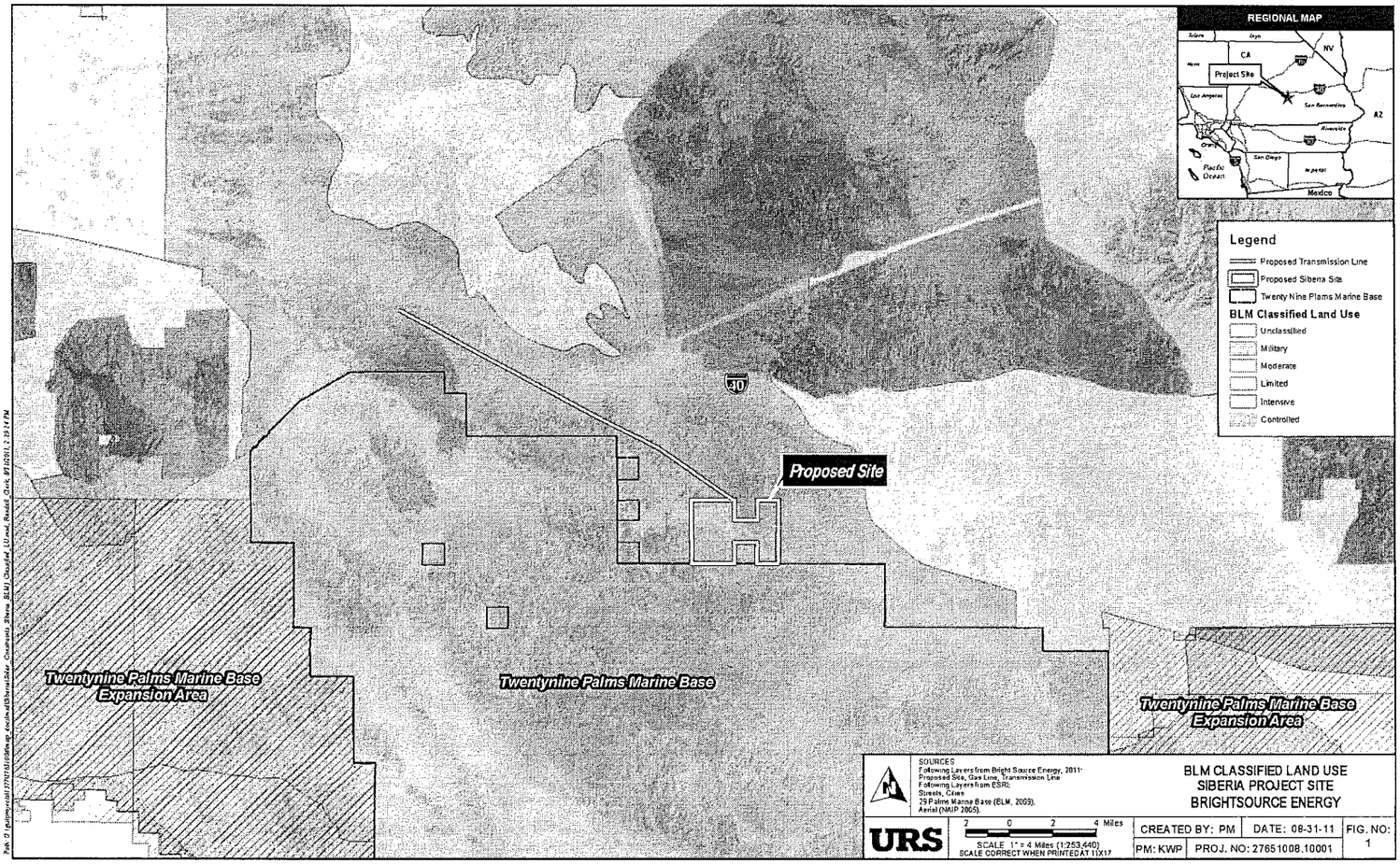


Figure 4

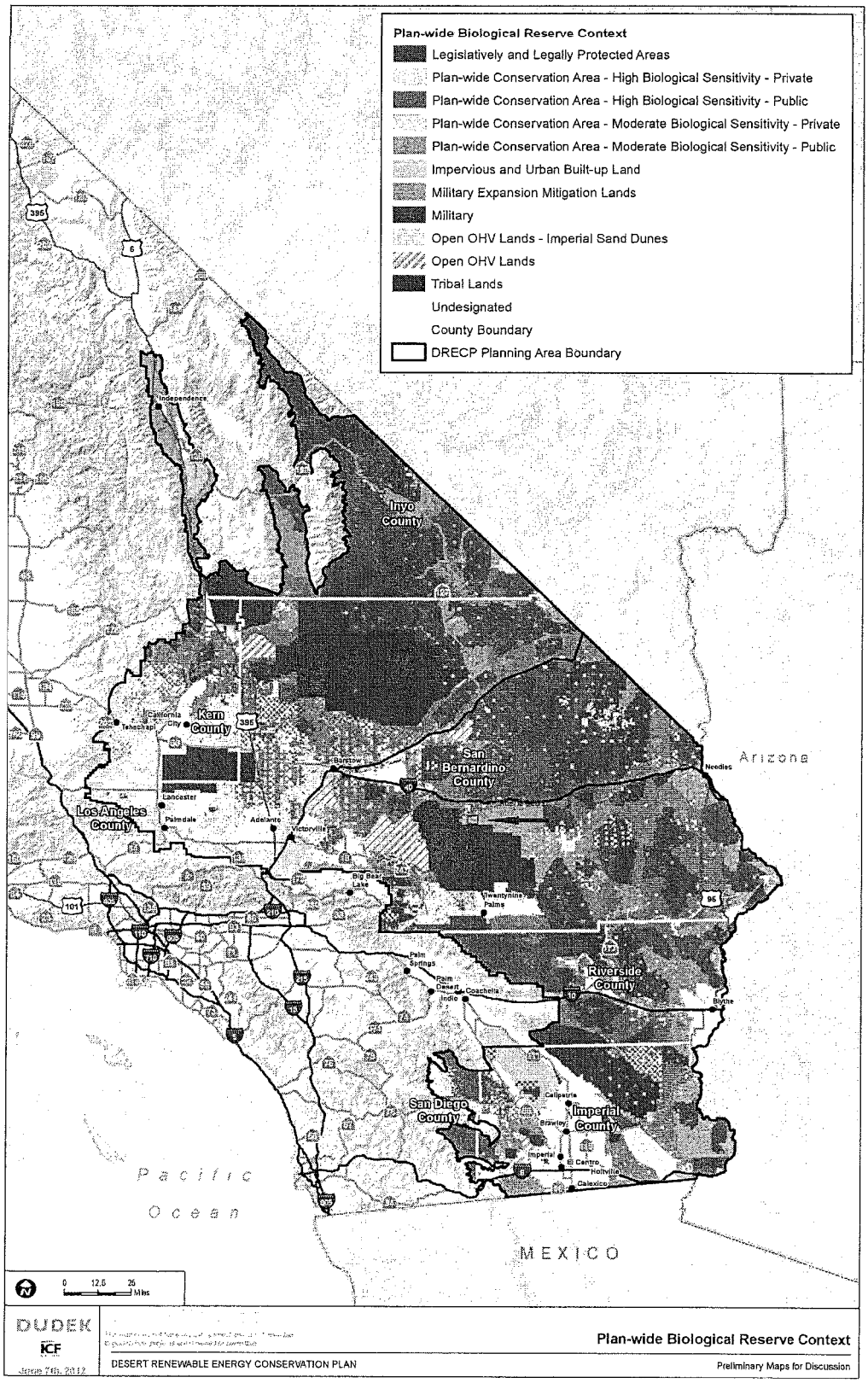


Figure 5

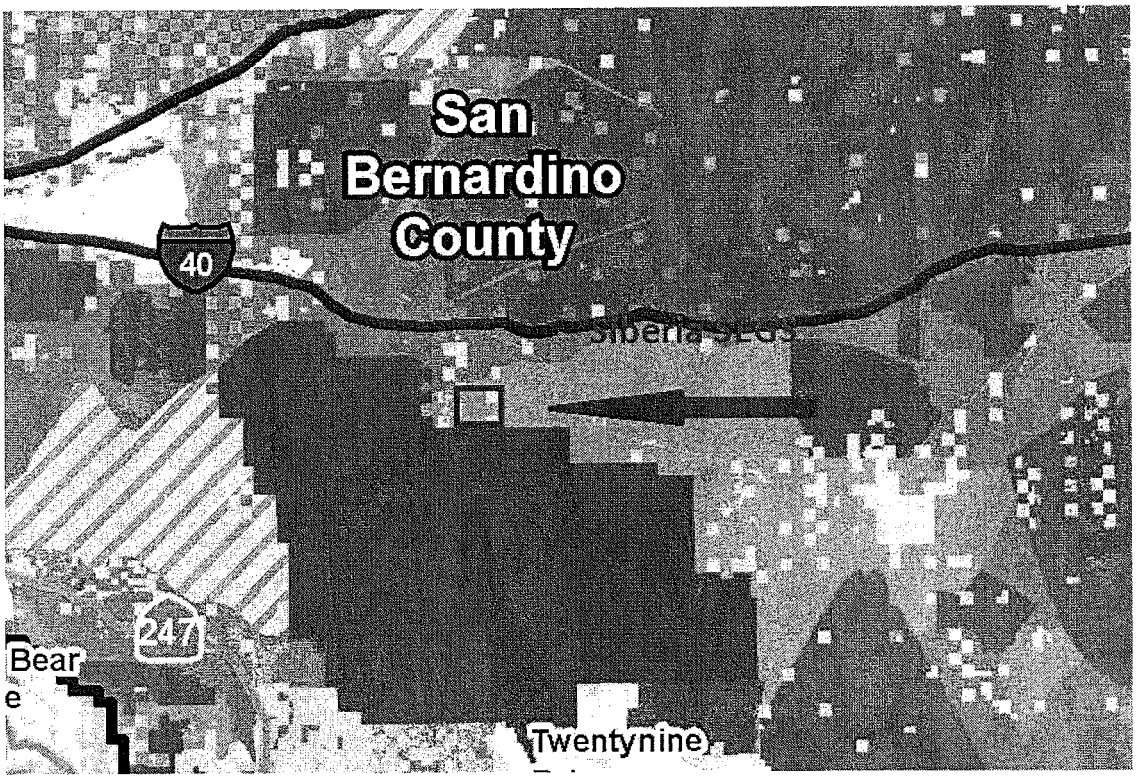


Figure 6

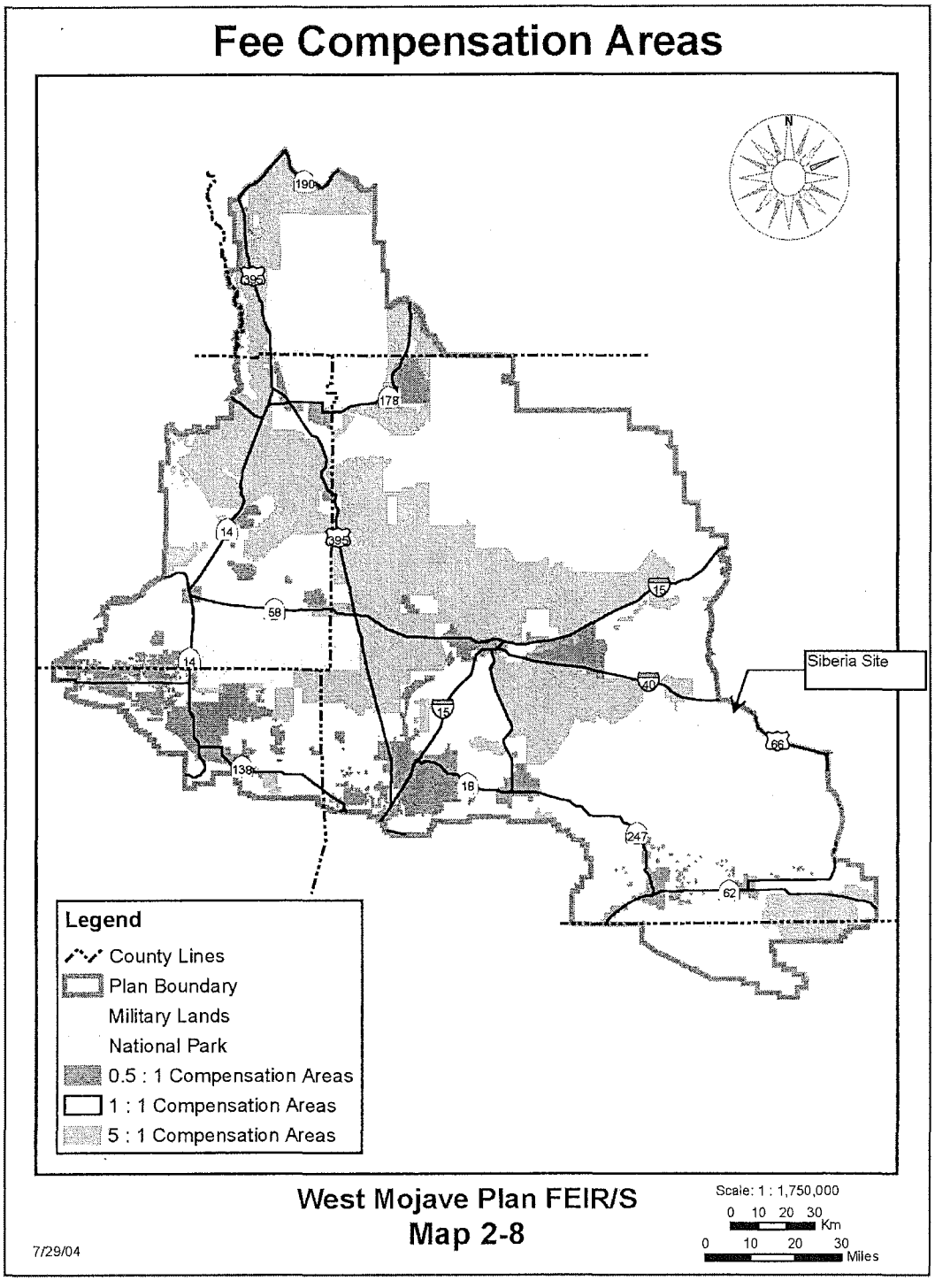

Fee Compensation Areas
N
190
395
178
14
395
58
15
14
Siberia Site
40
15
66
138
18
247
62
Legend
County Lines
Plan Boundary
Military Lands
National Park
0.5 : 1 Compensation Areas
1 : 1 Compensation Areas
5 : 1 Compensation Areas
West Mojave Plan FEIR/S
Map 2-8
Scale: 1 : 1,750,000
0 10 20 30
Km
0 10 20 30
Miles
7/29/04

Figure 7

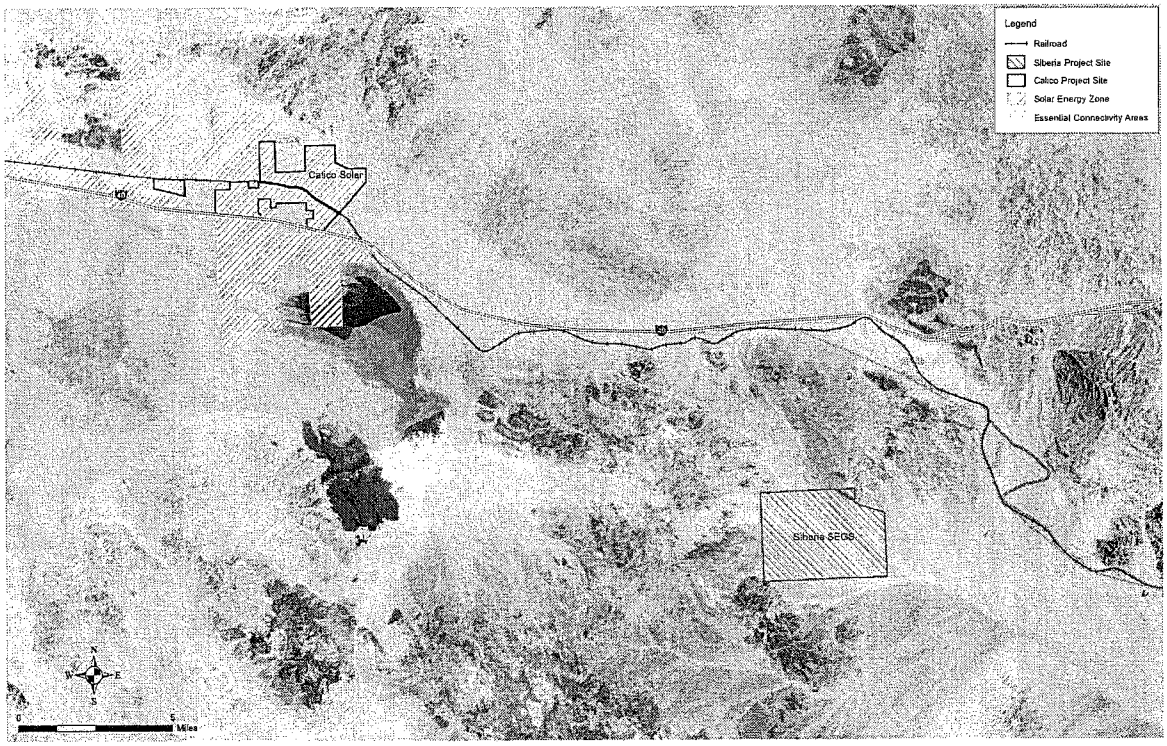
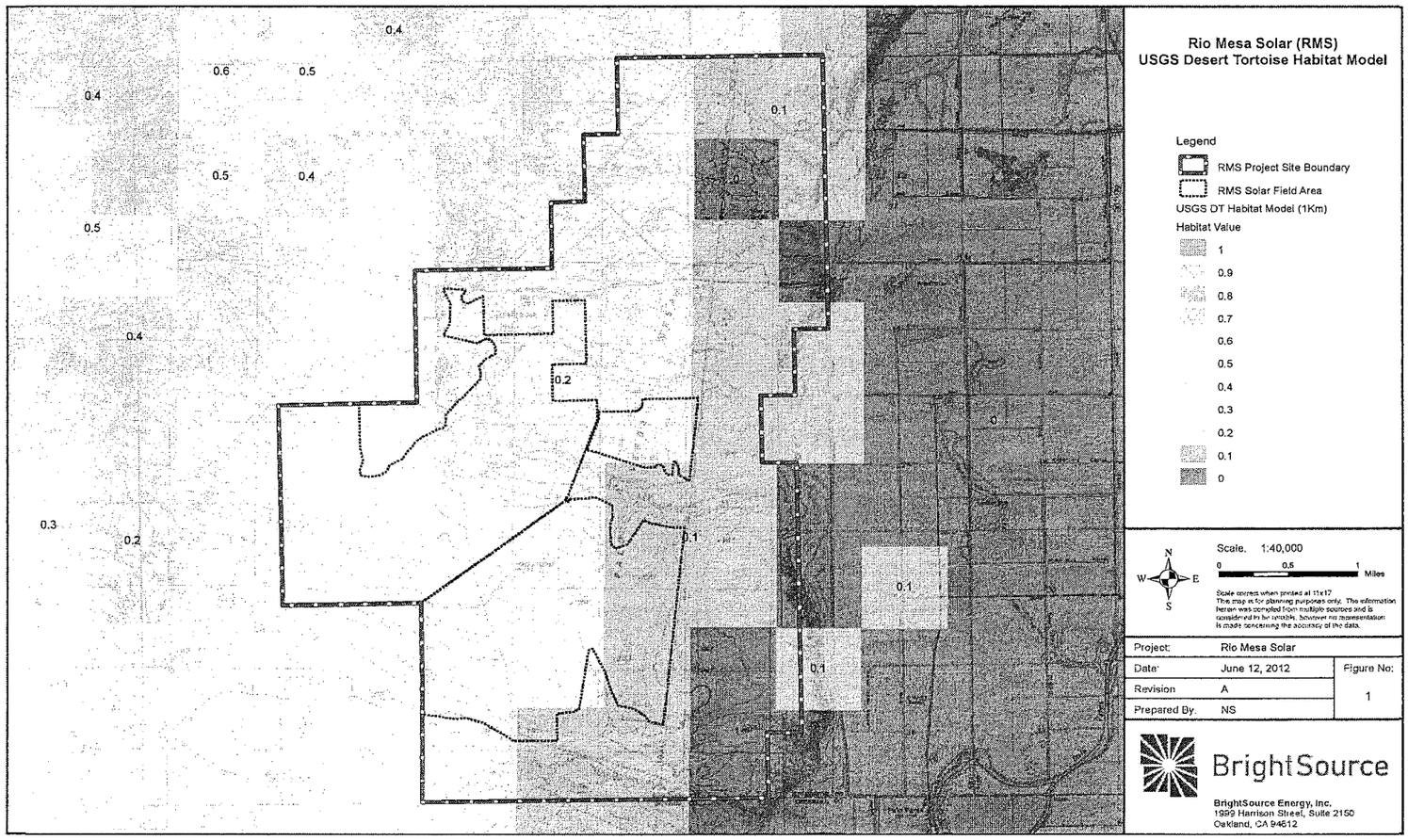


Figure 8


0.4
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0.1
Rio Mesa Solar (RMS)
USGS Desert Tortoise Habitat Model
Legend
RMS Project Site Boundary
RMS Solar Field Area
USGS DT Habitat Model (1Km)
Habitat Value
1
0.9
0.8
0.7
0.6
0.5
0.4
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Scale. 1:40,000
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1
Miles
Scale correct when printed at 11x17
This map is for planning purposes only. The information
herein was compiled from multiple sources and is
considered to be reliable, however no representation
is made concerning the accuracy of the data.
Project: Rio Mesa Solar
Date: June 12, 2012
Figure No:
Revision A
1
Prepared By. NS
BrightSource
BrightSource Energy, Inc.
1999 Harrison Street, Suite 2150
Oakland, CA 94612

Attachment A to Appendix 1

Attachment A

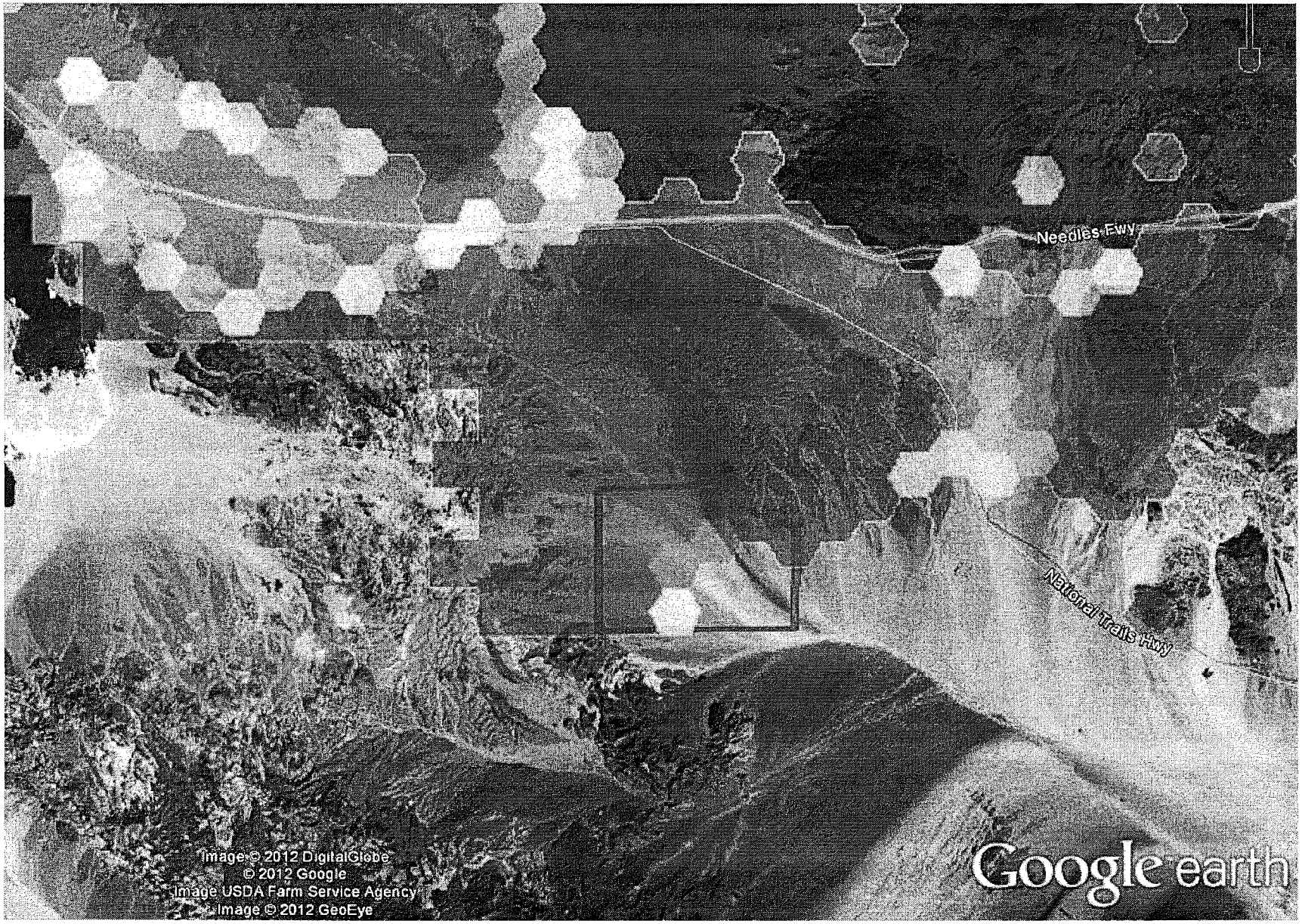
Marxan Scenarios and Post-Marxan Analysis Elements and Approach

DRECP Stakeholder Meeting

February 24, 2012

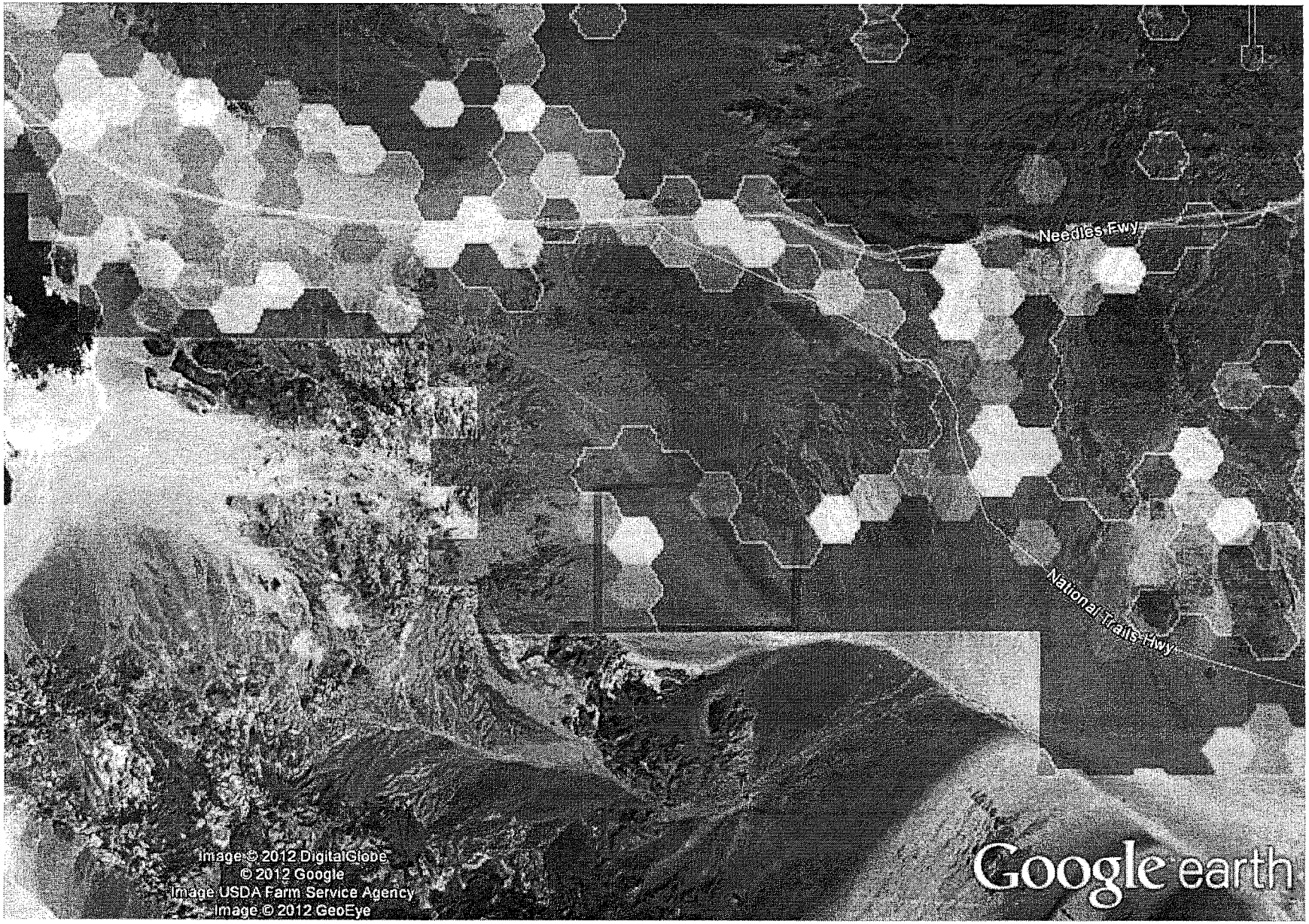
(excerpt)

Siberia SEGS –Solar Marxan Scenario 5



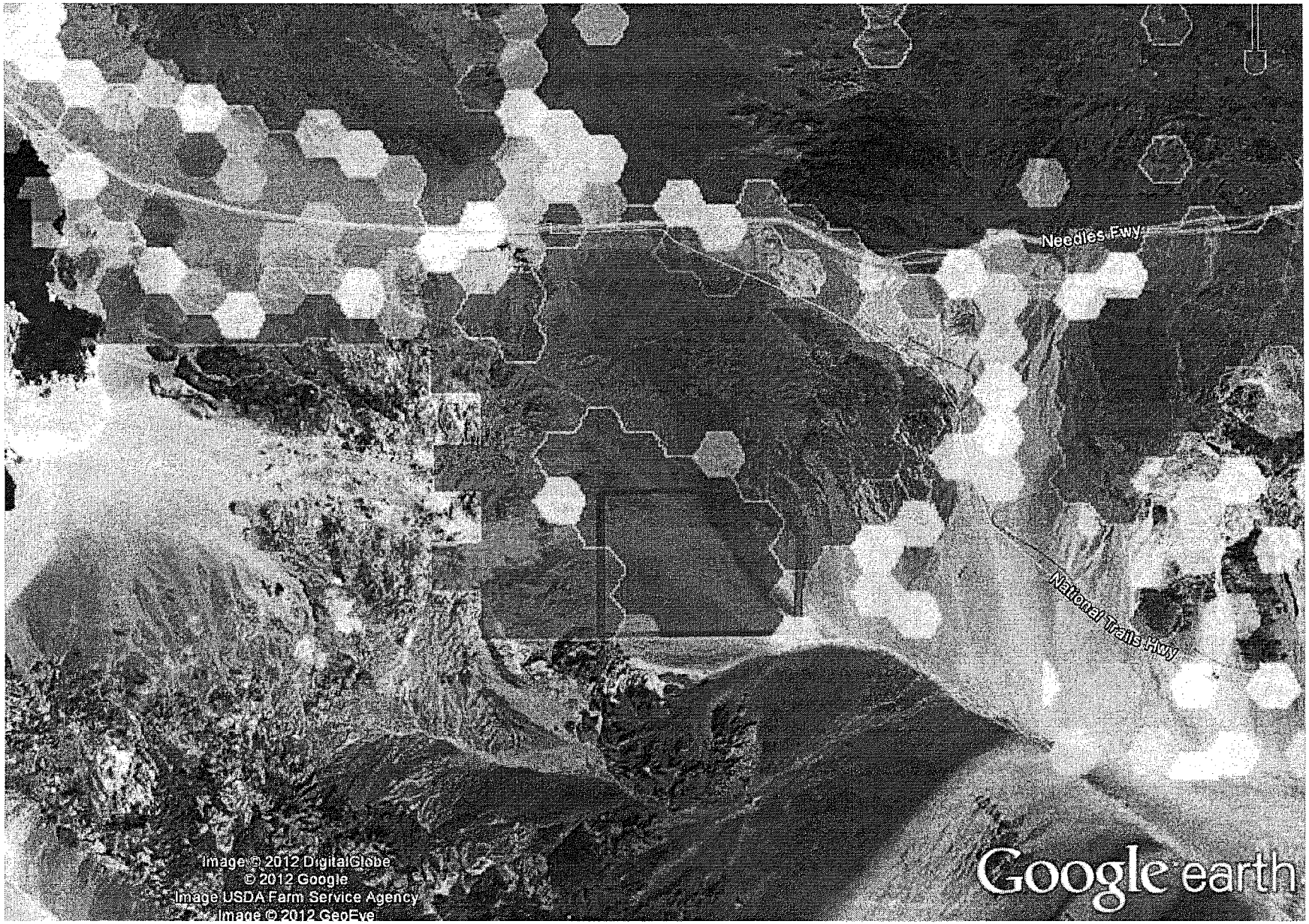
Solar Development Solar Multiuse Reserve

Siberia SEGS – Solar Marxan Scenario 7



Solar Development Solar Multiuse Reserve

Siberia SEGS – Solar Marxan Scenario 8



Solar Development Solar Multiuse Reserve

Attachment B to Appendix 1

Attachment B

DRECP Marxan Runs / Siberia Site Area

(Note: these are preliminary DRECP maps, among many to be considered in the DRECP process)

DESERT RENEWABLE ENERGY CONSERVATION PLAN

DRECP Stakeholders Working Session

Marxan Scenarios and Post-Marxan Analysis Elements and Approach

February 24, 2012
10am – 2pm

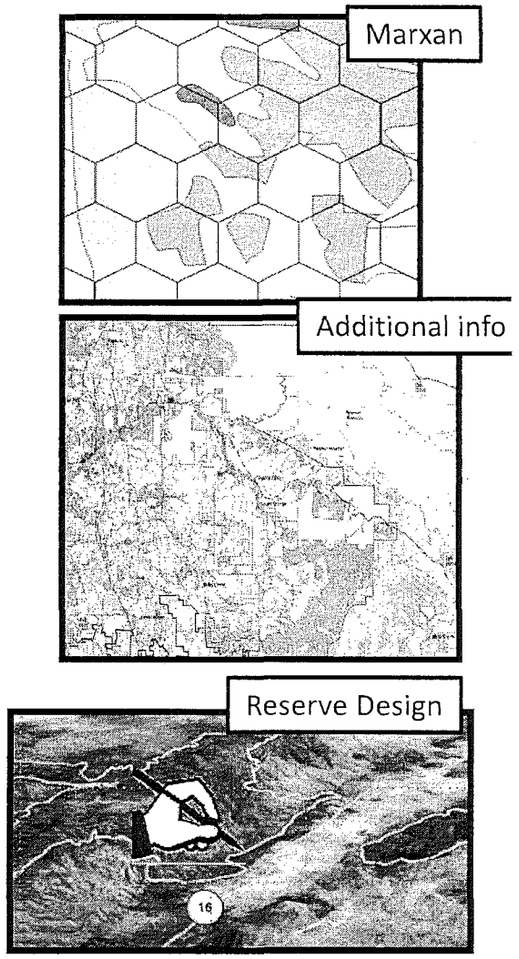
Marxan is a tool for Conservation Planning

Two Phases:

1. Marxan Analysis
   - Benefits: Objective and spatially optimized
   - Limitations: Only uses GIS data
2. Post-Marxan Analysis and Reserve Design

- Consideration of Additional Information
  - Benefits: Synthesis of diverse information
  - Limitations: Subjective, not spatially optimized

- Post-Marxan: Iterative refinement of Marxan results to develop reserve design
  - Bring expert knowledge, planning assumptions, and additional information to refine reserve design alternatives



How is this tool applied?

- ***Marxan assists in the prioritization of areas for increased conservation actions***

  - *Higher Priority Areas*
    - *More efficient reserve design meets more goals with less area*
    - *Lower conflict areas with multiple or alternative uses*

  - *Lower Priority Areas*
    - *Less efficient reserve design meets fewer goals with more area*
    - *Higher conflict with multiple or alternative uses*

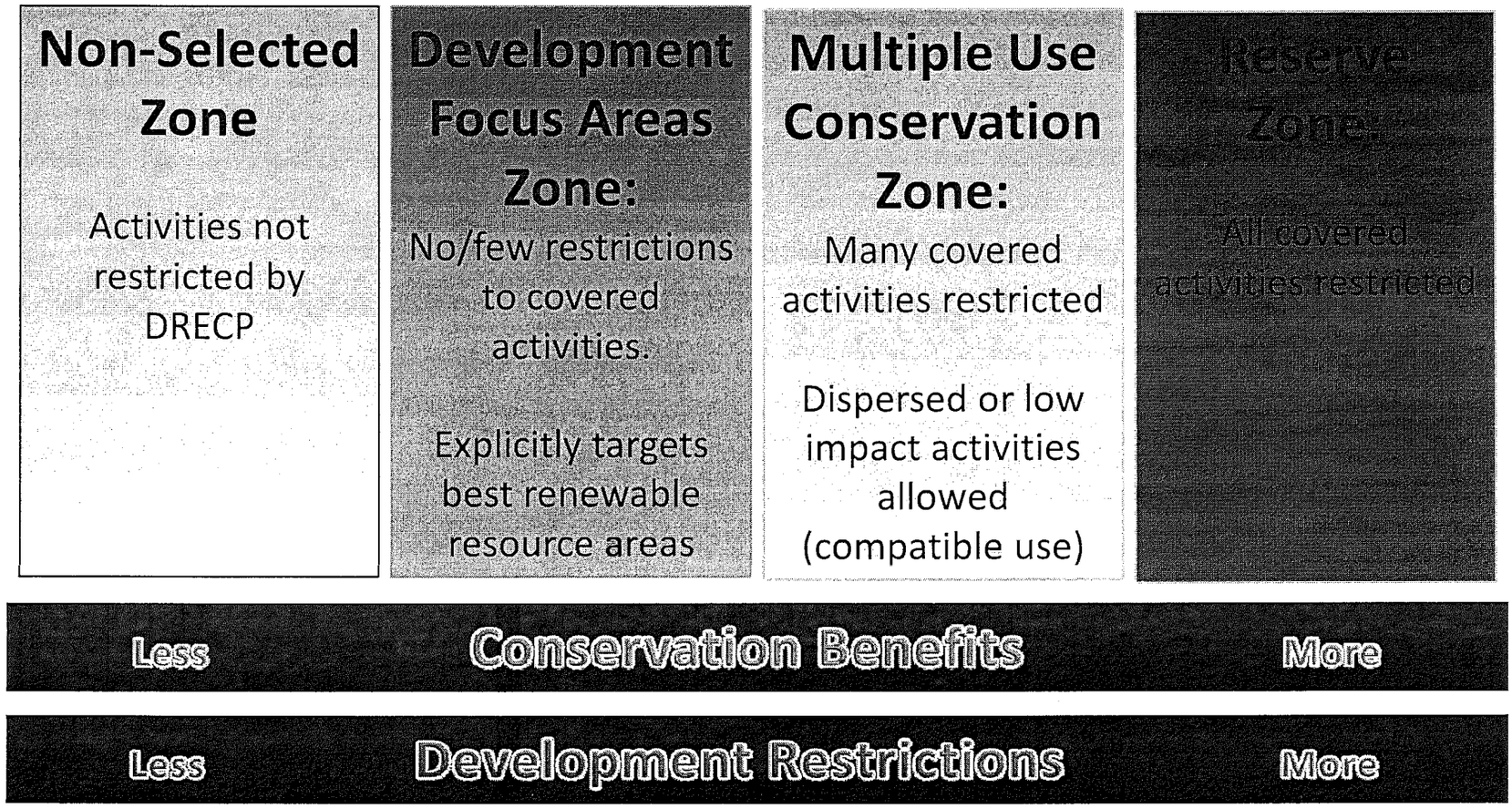
Use of Marxan with Zones to Support the DRECP Conservation Planning Process

Plan-wide Conservation Analysis

- *Considers full set of 77 species and all natural communities*
- *Incorporates existing protected areas as assumed reserve areas*
- *Considered needs of multiple use public lands*
- *Consider needs of renewable resource development*

Marxan Zones

Marxan zones for DRECP



Attachment C to Appendix 1

Attachment C
CDREWG Siting Criteria

Appendix B.
The Least Conflict Approach:

We offer the following criteria to evaluate BLM lands that would provide minimal conflict as Areas for Facilitated Development:

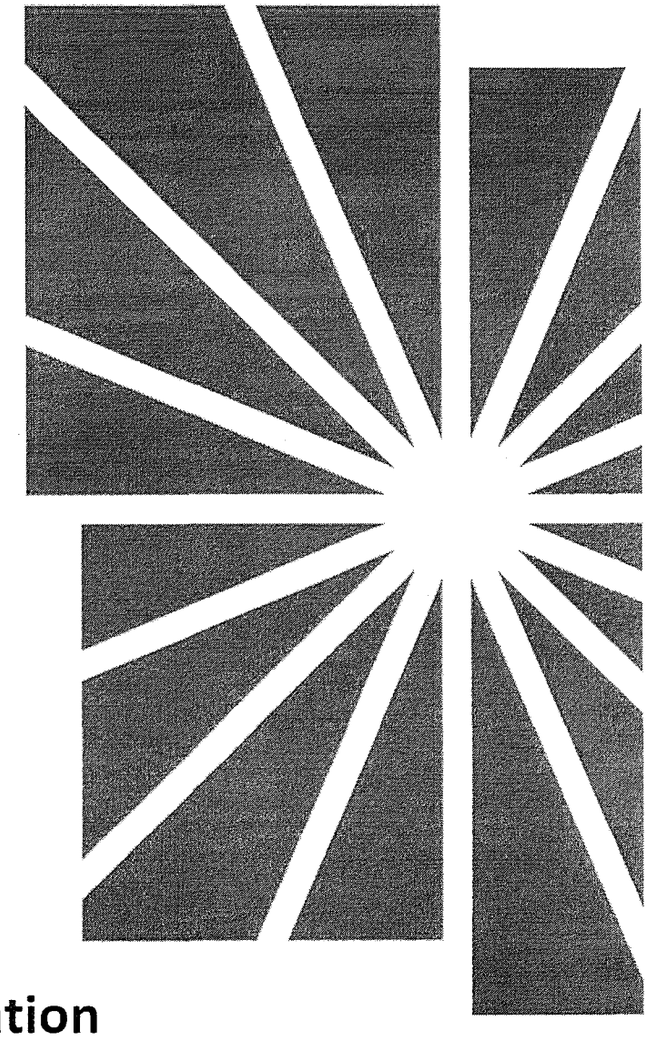
- Mechanically disturbed lands such as fallowed agricultural lands.
- Brownfields, idle or underutilized industrial areas.
- Locations adjacent to urbanized areas and/or load centers where edge effects can be minimized.
- Locations that minimize the need to build new roads and that meet the one or more of the following transmission sub-criteria: transmission with existing capacity and substations is already available; minimal additional infrastructure would be necessary, such as incremental transmission re-conductoring or upgrades, and development of substations.
- Public lands of comparatively low resource value located adjacent to degraded and impacted private lands on the fringes of BLM-managed land. This combination of public and private lands could allow for a conjunctive use area, allowing for the expansion of renewable energy development onto private lands.
- Locations that have been repeatedly burned and invaded by fire-promoting non-native grasses.

In addition, the following areas should be *avoided* when identifying Areas for Facilitated Development because of the high degree of conflict that a proposal for development would cause:

- Lands within one mile of lands designated by Congress, the President or the Secretary for the protection of sensitive resources and values (e.g., units of the National Park System, Fish and Wildlife Service Refuge System, National Forest System, and the BLM National Landscape Conservation System), which would be adversely affected by development.
- Lands that have been formally proposed by federal agencies for designation as wilderness, or proposed for a national monument or wilderness designation in S.2921 (111th Congress).
- Lands that were originally part of a renewable energy right of way application and were eliminated from a ROW application by BLM or the applicant due to resource conflicts *prior to or following the finalization the PEIS*. For example, where the final project represents a smaller or different footprint to avoid wildlife habitat, rare vegetation or desert washes, the excluded portion of the right of way should no longer be available for development.
- Lands that have conservation value and were purchased with federal, state or private funds, and donated or transferred to the BLM for conservation purposes.
- Lands purchased with federal, state or private funds, and donated or transferred to the BLM expressly as mitigation for project impacts.
- Lands that have been: inventoried by trained citizen groups, conservationists and/or agency personnel using BLM protocols; found to meet Congress' definition of "wilderness characteristics;" and publicly identified as of November

Appendix 2

INTEGRATION ANALYSIS AND VALUE OF CONCENTRATING SOLAR POWER WITH THERMAL ENERGY STORAGE



BrightSource

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Managing Director
Economic and Pricing Analysis

CEC IEPR Workshop on Renewable Integration
June 11, 2012

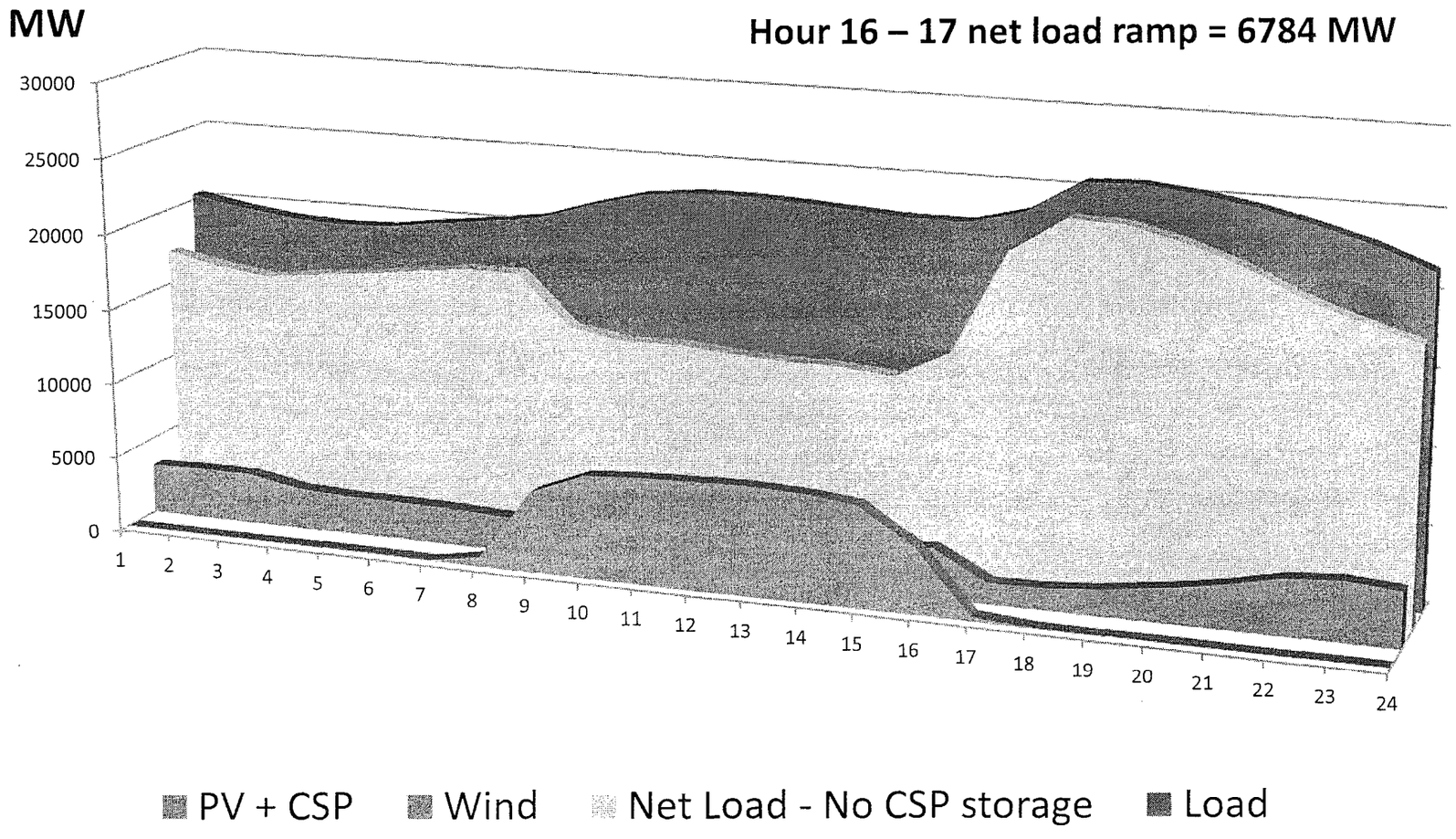
Additional value of CSP with thermal energy storage

- Reduction of system integration costs associated with variable energy resources
- Optimizing scheduling of energy and ancillary services from thermal storage
- Higher long-term Resource Adequacy capacity benefits than less flexible solar resources
- Other operational, emissions and reliability benefits

Integration Costs can be Significantly Diminished – Directly and Indirectly

- Lower production forecast error than other variable energy renewables (day-ahead, hour-ahead)
- Decisions to use energy from storage for smoothing of intra-hour production variability on cloudy days
- Potential to slow rate of morning net load ramp
- Potential to slow rate of late afternoon net load ramp
- Solar dispatchability could offset the need for new integration resources (beyond the capability of the planned generation fleet)

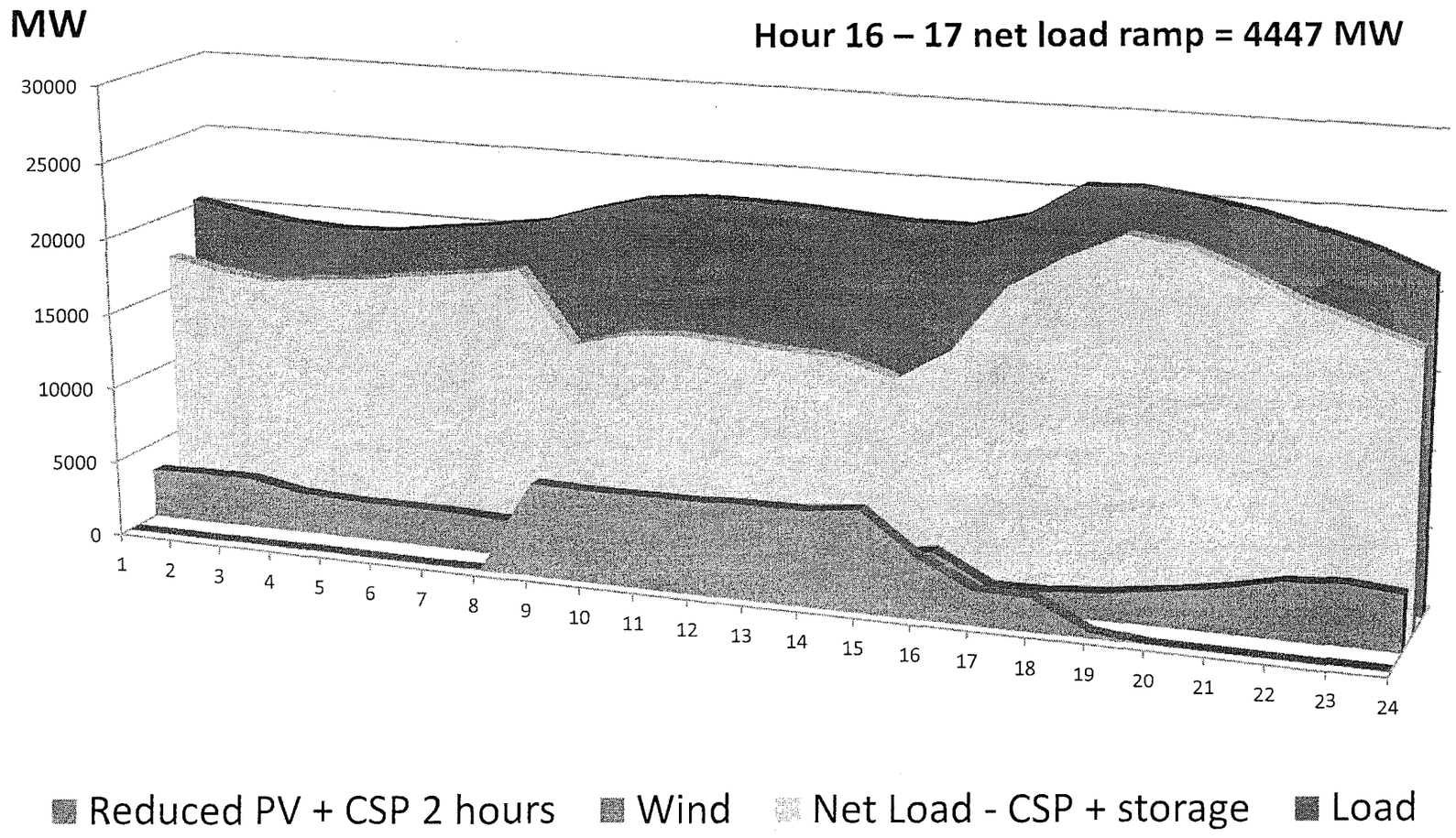
Simple example: Net load ramp in late afternoon – without thermal storage on simulated November 22, 2020, CPUC Trajectory Case (2010 vintage)



BrightSource

Source: CAISO 33% RPS data sets with BrightSource assumptions about net load

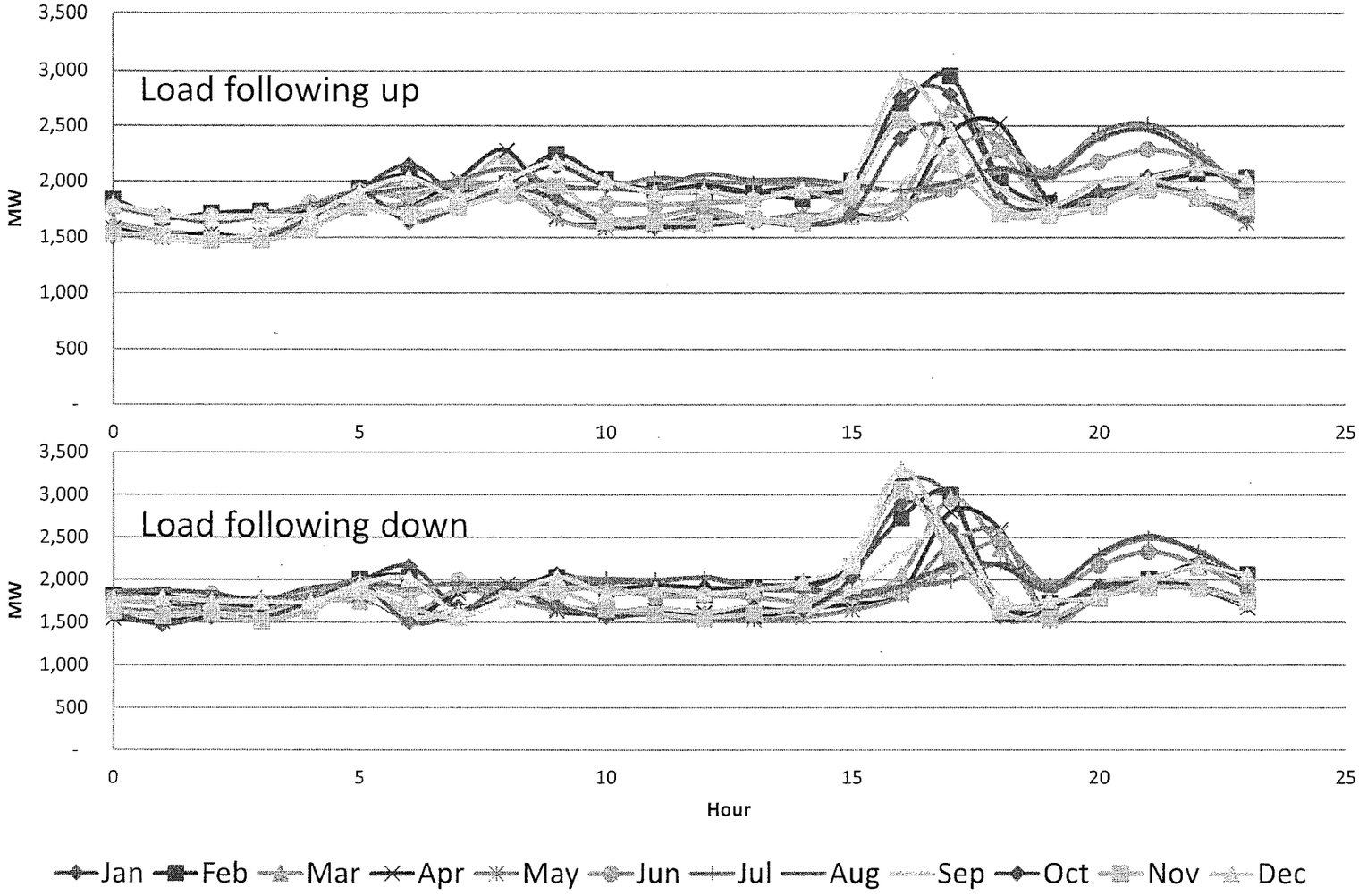
Simple example (*cont.*): Net load ramp – CSP with 2 hour thermal storage (not optimized) on simulated November 22, 2020, CPUC Trajectory Case (2010 vintage)



BrightSource

Source: CAISO 33% RPS data sets with BrightSource assumptions about net load

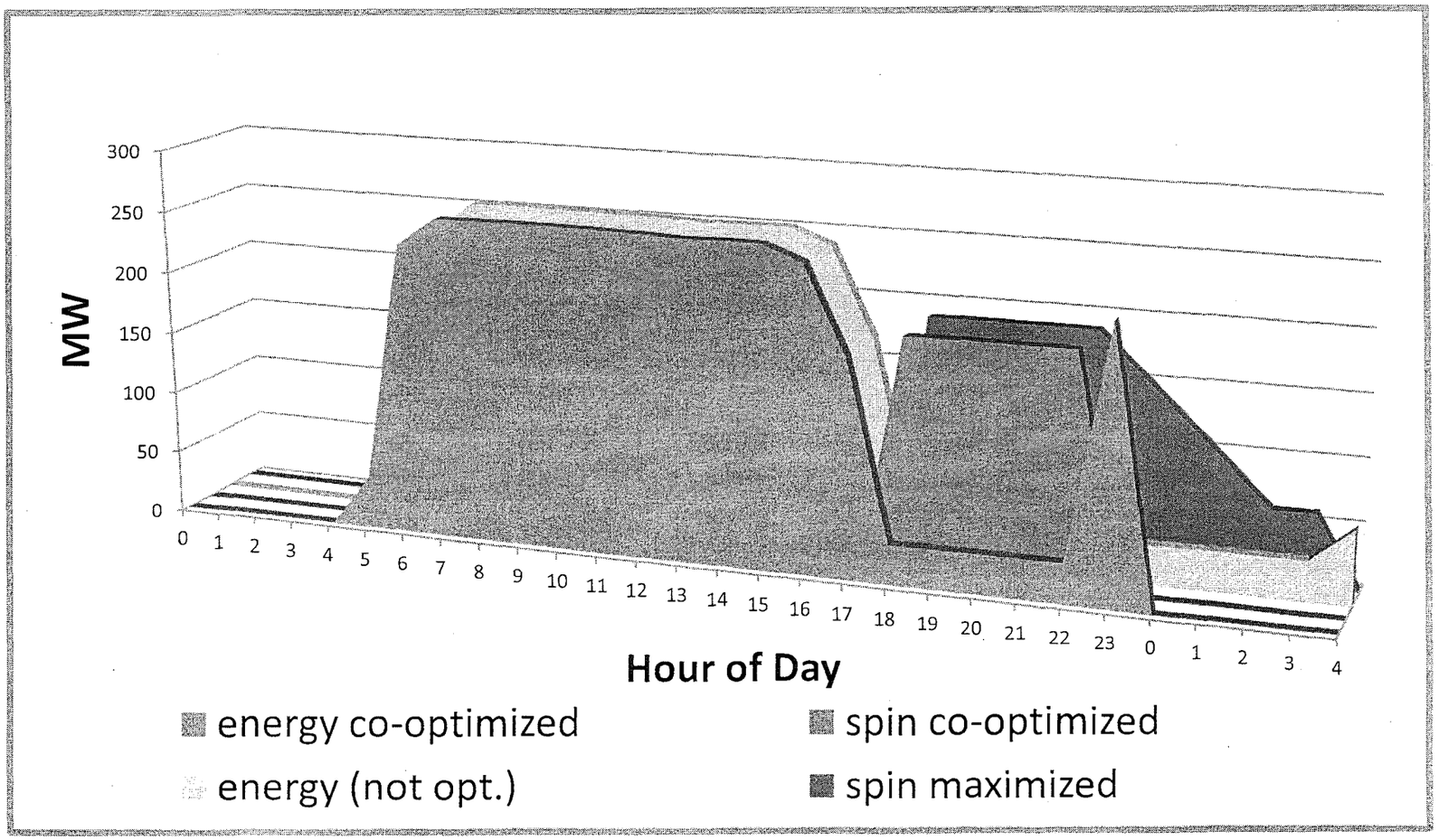
Late afternoon ramps will be consistent and forecast errors will require load following reserves: CAISO estimates of average hourly load-following requirements, CPUC Trajectory Case, 2020



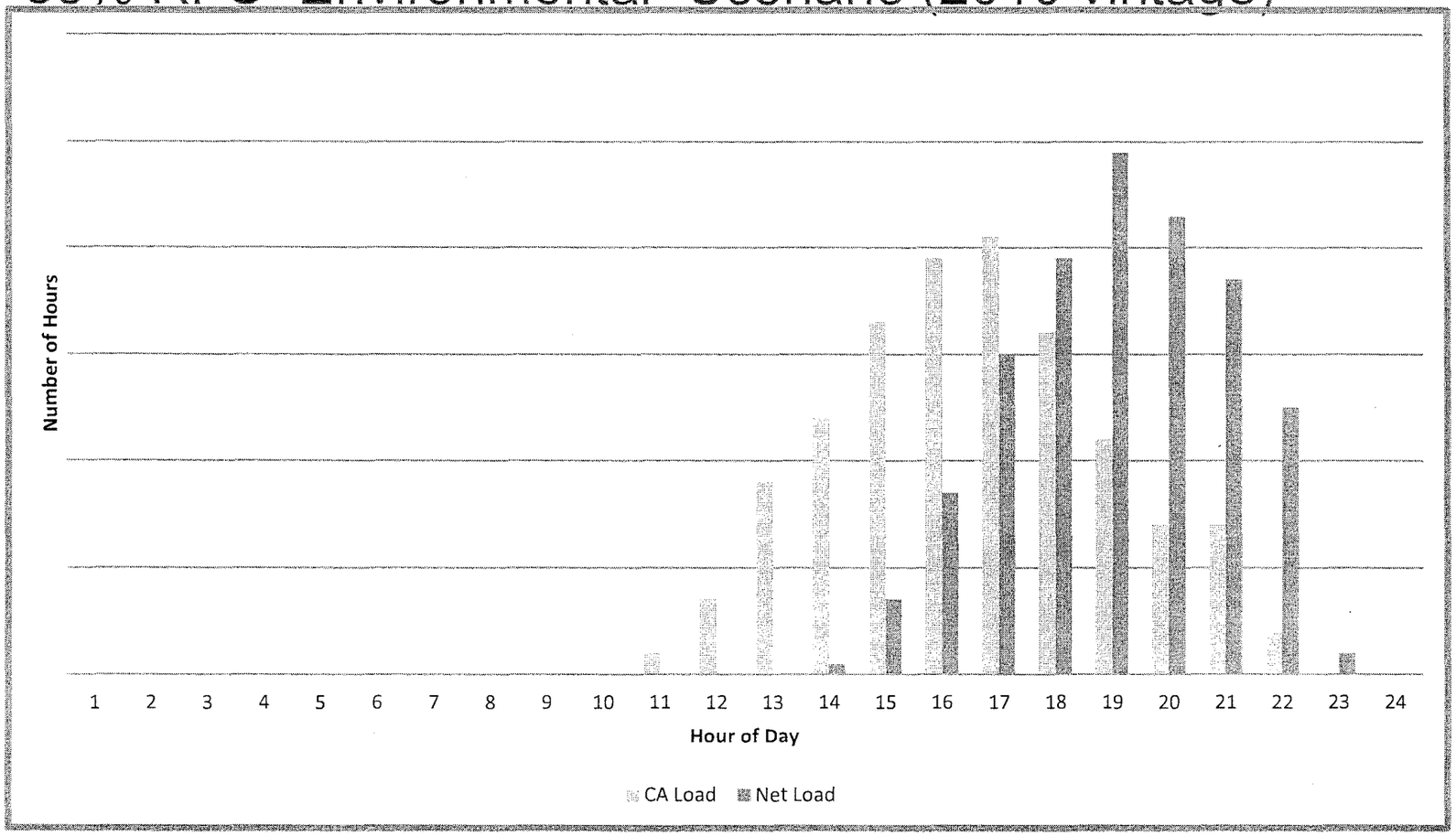
BrightSource

Source: CAISO 33% RPS data sets

Thermal storage dispatch can be used to optimize energy and ancillary service provision – allowing for clean energy back-up of wind overnight if desirable



Dispatchable Solar Energy can serve the shifting net load peak: Top 250 load and net load Hours in the CPUC 33% RPS "Environmental" Scenario (2010 vintage)



BrightSource

Source: CAISO 33% RPS data sets with BrightSource assumptions about net load

Some next steps

- CAISO/CPUC integration studies of 33% RPS to provide additional clarity on operational needs and integration costs over 2012-13

- Several studies in development or in process to provide quantitative valuation of CSP with thermal storage
  - National Renewable Energy Laboratory
  - Lawrence Berkeley Lab
  - CEC with KEMA
  - EPRI

- CPUC 2012 RPS proceeding evaluating the inclusion of integration costs in RPS valuation methodology