Tom Budlong
3216 Mandeville Canyon Road
Los Angeles, CA 90049-1016

STATE OF CALIFORNIA

Energy Resources Conservation and Development Commission

In the Matter of:)	
)	
)	DOCKET NO. 08-AFC-5
APPLICATION FOR CERTIFICATION)	
FOR THE IMPERIAL VALLEY SOLAR)	
PROJECT (FORMERLY SES SOLAR TWO))	
_____)	

OPENING TESTIMONY OF INTERVENOR TOM BUDLONG ON THE REMAINING TOPICS DESIGNATED BY THE COMMITTEE'S APRIL 8, 2010 EVIDENTIARY HEARING NOTICE

AS REQUIRED BY THE NOTICE OF CANCELLATION OF EVIDENTIARY HEARINGS, NOTICE OF RE-SCHEDULED EVIDENTIARY HEARING
FINAL DEADLINE MONDAY, MAY 10, 2010

REVISED SCHEDULE

ACTIVITY OR FILING	*DATE OR FINAL DEADLINE*
All intervenors file written and documentary testimony and exhibits as to ready topics	Thursday, April 15, 2010
All parties file and serve supplemental and rebuttal written and documentary testimony as to ready topics	Thursday, April 22, 2010
All parties file and serve opening written and documentary testimony on remaining topics, supplemental testimony on ready topics, and rebuttal to evidentiary filings of intervenors	Monday, May 10, 2010
Parties file and serve supplemental and/or rebuttal written and documentary testimony on all topics	Monday, May 17, 2010
Applicant submits compilation of its opening and rebuttal testimony on all topics to Hearing Officer	Monday, May 17, 2010
Evidentiary Hearings	Monday, May 24, 2010, and if needed, Tuesday, May 25, 2010

May 1, 2010

This statement identifies issues with respect to Alternatives as presented in the Imperial Valley Solar Project DEIS. I intend to present at the Evidentiary Hearing.

I would like to reserve the right to provide additional testimony from three potential witnesses. Helena Quintana and Preston Arrow-weed are Native Americans familiar with area culture. Their resumes are attached to the end of this document. Edie Harmon has long familiarity with water issues in the area. Her health has prevented her from providing testimony at the time of this submission. In addition, she lives quite close to the recent Baja earthquake swarm, making it even more difficult. She will provide a resume if she testifies.

Introduction: Alternatives

NEPA's underlying principal is to understand and know before deciding, that inadequate information leads to unsound understanding, leading to unsound decisions when balancing environmental protection with our activities. Thus, the environmental policy contained in NEPA. CEQA necessarily follows NEPA, with the same principals.

NEPA/CEQA Requirements

NEPA and CEQA demand clear, adequate presentation and discussion of both impacts and alternatives. The text from NEPA (1502.14), for example, is explicit:

> *… it should present the environmental impacts of the proposal and the alternatives in comparative form, thus sharply defining the issues and providing a clear basis for choice among options by the decision maker and the public.*

The DEIS alternative section does this, but only in a few places. Substantial parts are brief, qualitative where they should be quantitative, and do not present alternatives in comparative form. Too often, statements are made with no backup data or evidence, and have the flavor of arbitrary opinions. Reasons for elimination of an alternative often apply to SunCatchers as well as the alternative. These shortcomings must be corrected before the DEIS can be considered an adequate depiction of the situation, for adequate understanding, and for intelligent decision making.

Summary of Impacts

The Summary of Impacts for four of the alternatives count the number of impact categories that have impacts similar to, greater than, and less than the proposed project. Thought not stated explicitly, the implication is that comparing the number of greater impact categories to the number of lesser impact categories leads to a conclusion. Not considered by this method are the levels of impacts of the various categories.

I attempted to factor in level of impact for these four alternatives – the analyses are included in the alternative discussions. The impact levels assigned were derived from the impact discussions in the DEIS. They are subjective, and others may wish to assign different levels.

The results are:

- Mesquite Lake is preferred over the Plaster City site by a factor of 3.7 (30:8).
- Geothermal is preferred over the Plaster City site by a factor of 1.7 (19:11).
- The Agricultural Lands alternative is preferred over the Plaster City site by a factor of 3.1 (22:7).
- The Plaster City site is preferred over the South of Hwy 98 alternative by a factor of 1.6 (13:8).

Plaster City Site

The major objection to the project is the almost complete destruction of the biological, cultural and visual character of the site. No matter how you look at it, or how many mitigation measures are applied or devised, the result is that the site is essentially destroyed – it becomes single purpose industrial – a complete transformation. Yet Imperial County has an abundance of disturbed land. It's difficult to believe that a solution cannot be devised to put the project on disturbed land already exhausted of aesthetic values. In the end, it's not necessary to consume the Plaster City property to provide solar power.

Combined Alternative Analysis

The alternative analyses are restricted to either:

- Putting SunCatchers at sites other at Plaster City (e.g., Mesquite Lake, Ag Lands, South of 98).
- Putting alternate technologies at the Plaster City site.

Only one alternative analysis – geothermal – considers an alternate technology at an alternative site. Examples of other possible off-site/alternative technologies:

- Power tower on Mesquite Lake would remove the flat land objection, reduce visual impact, and presumably remove the military objection to tower height.
- Other CSP technologies on the other sites would remove the military height restrictions and flat land objections. With water available at some sites, wet cooling could be used to increase CSP efficiency and reduce installation cost.

Another way of expressing this analysis deficiency is that there has been no attempt to design a best possible solution considering combinations of other location and other technologies. It appears highly likely that such an unrestricted design philosophy would result in a better solution.

Rejections of Alternatives

The alternatives analysis invites suspicion that it is considered only as one of the tasks to be completed to get the permission to build the proposed project on the Plaster City site, that alternatives are not really taken seriously. Clues abound:

- Both tidal and wave alternatives are dismissed because they are not '*…proven at the scale that would be required…*'. But SunCatchers certainly are not proven at the scale required. So SunCatchers should also be eliminated. Of course, SunCatcher elimination for this reason is not mentioned.
- Power tower: Cited as reason for elimination is that a power tower would introduce an industrial character, ignoring that SunCatchers are also industrial. This criteria would eliminate SunCatchers. Again, SunCatcher elimination for this reason is not mentioned.
- Linear Fresnel is dismissed because it would not eliminate the significant impact of the proposed SES technology. This criteria would also remove SunCatchers from consideration, since SunCatchers do not eliminate significant impacts (e.g., Visual). As above, SunCatcher elimination for this reason is not mentioned.
- Distributed Solar Technology (e.g., rooftop solar) is eliminated because:

  the very limited numbers of existing facilities make it difficult to conclude with confidence that it will happen within the timeframe required for the SES Solar Two project.

  But SunCatchers have no existing facilities, not just 'limited existing facilities'. And because of unresolved technical doubts about the technology, it is impossible, not merely difficult, '*to conclude with confidence that it will happen…*'. This elimination criteria cited for distributed solar applies with far greater strength to SunCatchers.

The examples above illustrate a basic, unspoken assumption in the DEIS that SunCatchers are the only solution to be considered, SunCatchers being the business of the proponent. The DEIS, however is not the proponent's sales brochure, and the purpose of the DEIS is not to promote the applicant's proposed solution or pretend it is better. The applicant's proposed solution, in fact, must be better (or at least equal), to be selected over all other alternatives.

At the same time, several of the alternative analyses appear to be well considered and as complete as could be expected as 'first look's at potential alternatives. To preserve credibility, the inadequate sections should be corrected.

1) Mesquite Lake Alternative

Analysis in the DEIS shows that the Mesquite Lake alternative has enough advantage compared to the Plaster City site that Mesquite Lake should get genuinely serious consideration.

Level of Impacts

The Mesquite Lake alternative 'Summary of Impacts' lists the impacts that are similar, greater or lesser, without consideration of relative importance of the impact categories or degree of impact difference. It implies the decision be based on the number of categories with greater impact compared to the number of categories with lesser impact. But it does not explicitly make this comparison.

The table below uses a numeric score to measure degree of impact. For categories with dissimilar impacts, degree of impact is estimated from the descriptions in the DEIS. Categories with similar impacts as stated in the Summary of Impacts paragraphs are ignored. The level of impact is judged on a 1-10 scale. Small difference is value 1. Huge difference is value 10. This variable is subjective.

Note: Page B.2-12(136) of the DEIS lists the impacts considered of greatest concern. They are:

Air Quality Biological Resources Cultural Resources
Visual Resources Soil & Water

These categories largely correspond with the categories that have dissimilar impacts.

Impact Category	**Comparison**	**Level (1-10)**
The Plaster City site is preferred for these categories.		
Traffic, Transportation	Construction requires improvements to SRs 86 and 111. Mitigation could be done.	2

Impact Category	Comparison	Level (1-10)
Geology, Paleontology, Minerals	Geologic: greater risk – ground shaking, liquefaction, subsidence, flooding. Minerals, paleontology resources: Similar.	3
Transmission Line Safety & Nuisance	Transmission lines: … line at Mesquite Lake would be longer … Mesquite Lake alternative … traverse residential neighborhoods … impact of transmission line would be greater at Mesquite Lake	3
Total		**8**

The Mesquite Lake alternative is preferred for these categories.

Land Use	No BLM land, or CDCA amendment. Land is alkaline. Conversion to industrial conforms with County General Plan.	6
Recreation, Wilderness	No recreation lands at Mesquite Lake. Plaster City has ORV, camping and backpacking.	3
Soil & Water	Plaster City: re: sediment transport: (C.7-41 (1017)) … impacts…significant and adverse Mesquite Lake: (B.2-39(163)) … would avoid significant impact. Avoids significant water supply impact of Plaster City site. Mesquite Lake is level, previously disturbed, no drainage issues. (B.2-39(163))	6
Biological Resources	From the alternative analysis, page B.2-29 (153): … definite conclusions cannot be made … likely impact fewer biological resources … primarily agricultural land … not sensitive habitat … potential foraging habitat for…owl…lark…shrike… not FTL … rare plant species are not expected … alternative has fewer biological constraints. … mainly agricultural land with some development	5
Cultural Resources	From the alternatives analysis, page B.2-31,2 … likely impact fewer resources than at the SES site … significant portion of the alternate site has been disturbed … Mesquite Lake alternative is preferred	7
Visual Resources	From the alternatives analysis, page B.2-43 (167) … Mesquite Lake alternative is preferred Solar facility: … fewer visitors would see the solar facility at the alternative site … visual concern at the alternative would be lower … Solar Two area would create more dramatic change than at the Mesquite Lake alternative.	3
Total		**30**

Impacts for these categories is similar.

Air Quality	Socioeconomics	Plant Efficiency
Hazardous Materials	Waste Management	Plant Reliability
Noise, Vibration	Worker Safety, Fire Protection	Transmission System Engineering
Public Health	Facility Design	

This analysis shows the Mesquite Lake site is preferred over the Plaster City site by a ratio of 3.7 (30:8).

Mesquite Lake has the additional advantage, not analyzed, of not requiring a CDCA plan amendment, and the probable support of the environmental community.

Fractured Ownership

It appears the number of land owners, though not analyzed, is judged a major impediment. It appears there has been no attempt to measure this, or to propose solutions.

Page B.2-1,2(125)

> *The Mesquite Lake Alternative presents an additional challenge: it is made up of approximately 70 parcels with 52 separate landowners. Due to the number of parcels that would have to be acquired, obtaining site control would be more challenging at this site. At the proposed site, BLM is the primary land management entity although there are some private parcels within the proposed project site.*

Page B.2-22(146)

> *The Mesquite Lake Specific Plan Area is made up of approximately 70 parcels with 52 land owners. A number of these parcels have been advertised for sale on local realty websites.*

Page B.2-47(171)

> *Finally, as stated above, the Mesquite Lake Specific Plan Area is made up of approximately 70 parcels with 52 land owners. Due to the number of parcels that would have to be acquired, this alternative would make obtaining site control more challenging in comparison to obtaining a right-of-way grant for use of BLM administered land at the SES Solar Two site.*

The RETI process anticipated private owners. Page B.2-22, 23(146, 147):

> *The Draft Phase 2a Report published by the Renewable Energy Transmission Initiative (RETI) in early June 2009 identified private land areas suitable for solar development only if there were no more than 20 owners in a two-square-mile (1,280-acre) area.*

The description on page B.2-22(146) about how much Mesquite Lake is available is unclear and somewhat confusing. However, it does state that the Mesquite Lake Specific Area is 5100 acres. The RETI rate limit of 20 owners per 1280 acres scales to a limit of 80 owners for the 5100 acres. The actual number of owners stated in the DEIS is 52 (bottom of page B.2-22(146)), under the RETI limit.

I could not find in the DEIS attempts to address the problem of multiple land owners. Since this is agricultural land it has more commodity-like character than homes with high emotional value. It's reasonable to expect a positive outcome from a genuine effort to acquire parcels in the area. Note that the proponent can tolerate inholdings, since there are inholdings on the Plaster City site, the Ag Lands alternatives has dispersed parcels, and the proponent states that SunCatchers are modular down to 1.5 MW (capacity). Without an effort to measure feasibility of getting control of the parcels, it looks like the number of parcels is used as a convenient way to eliminate the site from consideration.

The advantages of the Mesquite Lake alternative are sufficient that a more thorough analysis should be done. It would involve consideration and further investigation of, at minimum:

- Appraising the parcels
- Contacting owners to determine willingness to sell through a local real estate broker or a Land Trust with experience in acquiring land under similar circumstances.
- Evaluating eminent domain action. Note that the Sunrise Power Link has recently started eminent domain proceedings to complete required property control.
- Cost analysis of site preparation and other factors compared to Plaster City.
- An estimate of the resource savings (time and money) by satisfying the environmental community, which has been urging solar facilities to locate on previous disturbed land, not open space. Choosing Mesquite Lake would probably convert opponents to enthusiastic supporters. This aspect alone might obviate the temptation of dealing with one land owner, the BLM.
- Measuring tolerance for inholdings. The Plaster City site has several.
- Savings by eliminating the requirement of a CDCA plan amendment.
- Goodwill generated by conforming to existing Imperial County land use plans.
- Possible financial return from the water rights that come with the property.
- Cost impact of improving access from Highways 111 and 86.
- Analysis of frequency and magnitude of flooding and the associated financial impact, compared to the Plaster City site.
- Impact of not upgrading the Seeley water treatment plant.
- Impact and cost of higher geologic hazards. This impact is identified as more severe at the Mesquite Lake site.

Other Properties

Acreage, fallow or productive, is continually available in the area. The attraction, of course, is that it is previously disturbed and already in a highly impacted area – similar to the attractiveness of the Mesquite Lake site. From a brief look at listings on the internet, prices appear to be on the order of $ 5,000/Ac. One parcel of 2400 Ac, previously disturbed and not being used, is promoted as suitable for renewable: (http://www.loopnet.com/Listing/15854161/I-78-and-Pole-Line-Road-East-of-Ocotillo-Wells-CA/).

It's highly probably that a contiguous tract of previously disturbed land could not be put together. The proposed technology, SunCatchers, do not require a contiguous tract. They do not require a central boiler/turbine-generator as with heliostats, parabolic reflectors or Fresnel lenses. One of the SunCatcher advantages is they can be arranged in smaller groupings.

2) Geothermal Energy

Page B.2-117 (241).

The Geothermal alternative analysis leads to the conclusion that geothermal is potentially a viable alternative, since it would have fewer environmental impacts. Analysis in more detail is warranted. The stated rationale for elimination is not supported by the analysis. Geothermal should be seriously considered as a realistic alternative.

Invalid Rationale for Elimination

The Rationale for Elimination on page B.2-129(253) is unsupported by the analysis, since the analysis does not discuss the topic of the rationale. After a short review of the feasibility of geothermal, it eliminates the alternative because:

> *…few new projects have been proposed in the Imperial Valley and no geothermal projects are included on the Renewable Energy Action Team list of projects requesting ARRA funds.*

This logic says that if this technology is not proposed elsewhere, the technology must not be worthwhile. (Philosophically, I appreciate that not everyone uses this logic.) The same logic would eliminate SunCatchers. It concludes that the technology is feasible, new development is expected, but that despite this,

> *the technology is not retained for detailed analysis in this SA/DEIS*

The rejection is not supported by the technology's feasibility and the expectation of new development.

Fundamental Analysis Flaw

There is potentially a fundamental flaw in the geothermal analysis. If the flaw exists, it would make geothermal even more attractive.

Geothermal plants have capacity factors far greater than concentrated solar since they can run 24/7. For equal energy output, an equivalent geothermal with a 75% capacity factor would need a capacity rating of one third of a CSP's capacity, since CSPs, including SunCatchers, have capacity factors close to 25%. I could find no recognition of this in the analysis of the geothermal alternative. All references to geothermal size use '750 MW'. All impacts analyzed are based on a 750 MW geothermal and are similar or lower than SES Solar Two. Obviously, impacts based on a geothermal plant one third the size would be not merely lower, but substantially lower.

That the analysis requires a 750 MW capacity geothermal appears in several places:

- Page B.2-117(241), in Geothermal Alternative Scenario:

  There is no single 750 MW geothermal project in Imperial County. In order to develop an alternative scenario for analysis, this analysis assumes that approximately five to ten smaller projects would be required to achieve 750 MW of geothermal energy.

  The 750 MW is incorrect.

  The relevance of the statement that there is no single 750 MW project in Imperial County is not explained. It implies that since there is no such project, a project of that size cannot be considered.

  The assumption of 5-10 smaller projects is not supported by evidence. There is no evidence given.

- Page B.2-118(242), below the 3rd dot:

  750 MW of geothermal energy could require the use of thousands of acres of land

  The 750 MW is incorrect. 'Could require' is not supported by evidence. 'Thousands of acres' applies equally to the proposed project. The statement comes to no conclusion. Simple replacement

of ‘could’ with ‘might not’ would reverse the implication, but would not change the validity of the statement. The statement is farcical.

Levels of Impacts

The Geothermal alternative ‘Summary of Impacts’ (page B.2-128 (252)) lists the impacts that are similar, greater or lesser, without consideration of relative importance of the impact categories or degree of impact difference. It implies the decision be based on the number of categories with greater impact compared to the number of categories with lesser impact. But it does not explicitly make this comparison.

The table below uses a numeric score to measure degree of impact. For categories with dissimilar impacts, degree of impact is estimated from the descriptions in the DEIS. Categories with similar impacts as stated in the Summary of Impacts paragraphs are ignored. The level of impact is judged on a 1-10 scale. Small difference is value 1. Huge difference is value 10. This variable is subjective.

Note: Page B.2-12(136) of the DEIS lists the impacts considered of greatest concern. They are:

Air Quality	Biological Resources	Cultural Resources
Visual Resources	Soil & Water	

These categories largely correspond with the categories that have dissimilar impacts.

Impact Category	Comparison	Level (1-10)
The Plaster City site is preferred for these categories.		
Air Quality	Geothermal operational emissions can include ammonia and H_2S. Mitigation can reduce these to less than significant.	2
Hazardous Materials	Uses H_2S. Mitigation can reduce this to less than significant.	2
Noise, Vibration	24/7 drilling during geothermal construction. 24/7 operation during geothermal production. Steam blows during production.	4
Geology, Paleontology, Minerals	Geothermal can generate micro-earthquakes.	3
Total		11
The geothermal alternative is preferred for these categories.		
Visual Resources	Visual steam plumes. Less extensive facilities compared to Plaster City. No glare, as with SunCatchers.	4
Traffic, Transportation	Unlike SunCatchers, no glare from geothermal facility.	2
Soil & Water	Erosion, sedimentation, wash morphology at Plaster City remain significant, even after mitigation. These effects are mitigable with the geothermal alternative because of the greatly reduced ground area needed, and localized siting flexibility. Geothermal requires more water.	3
Cultural Resources	Fewer acres disturbed, so less cultural disturbance.	4
Biological Resources	Fewer acres disturbed, so less biological disturbance. No perimeter fence, so less biological disturbance.	6
Total		**19**

Impacts for these categories is similar.

Land Use	Transmission Line Safety & Nuisance	Facility Design
Recreation, Wilderness	Waste Management	Plant Efficiency
Public Health	Worker Safety, Fire Protection	Transmission System Engineering
Socioeconomics		

This analysis shows the Geothermal alternative is preferred over the Plaster City site by a ratio of 1.7 (19:11).

3) Agricultural Lands

Analysis in the DEIS shows that the Mesquite Lake alternative has enough advantage compared to the Plaster City site that Mesquite Lake should get genuinely serious consideration.

Levels of Impacts

The 'Summary of Impacts' for the Agricultural Lands alternative lists the impacts that are similar, greater or lesser, without consideration of relative importance of the impact categories or degree of impact difference. It implies the decision be based on the number of categories with greater impact compared to the number of categories with lesser impact. But it does not explicitly make this comparison.

The table below uses a numeric score to measure degree of impact. For categories with dissimilar impacts, degree of impact is estimated from the descriptions in the DEIS. Categories with similar impacts as stated in the Summary of Impacts paragraphs are ignored. The level of impact is judged on a 1-10 scale. Small difference is value 1. Huge difference is value 10. This variable is subjective.

Note: Page B.2-12(136) of the DEIS lists the impacts considered of greatest concern. They are:

Air Quality	Biological Resources	Cultural Resources
Visual Resources	Soil & Water	

These categories largely correspond with the categories that have dissimilar impacts.

Impact Category	Comparison	Level (1-10)
The Plaster City site is preferred for these categories.		
Hazardous Materials	Hazardous materials are the same, but Ag lands alternative has slightly greater impact- smaller roads, scattered rural residences. Conditions of Certification result in no significant impact.	1
Land Use	No BLM land, and no CDCA amendment. Loss of farmland significant per LESA model. Approx 20 residences affected (+/- 2500 feet proximity. Ag Lands have no disturbance of undeveloped open space desert.	2
Noise, Vibration	Slightly greater impact for Ag Lands alternative due to proximity of residences	2
Transmission Line Safety & Nuisance	Shorter transmission lines to SDGE system, but more transmission lines due to separated parcels. Transmission lines closer to two residences.	2
Total		**7**
The Ag Lands alternative is preferred for these categories.		
Biological Resources	Biology is similar except FTL impact is less for Ag Lands. General wildlife use is less.	3
Cultural Resources	Ag Lands intensely disturbed, so fewer resources compared to Plaster City site. Most Ag Lands have zero to rare cultural resources.	7
Recreation, Wilderness	Ag lands have no impact on recreation for parcels BL-2 to 7.	2
Soil & Water	Level terrain means less water impact. Pinto and Yuma wash flows are possible – avoided by not constructing there. Water supply from IID.	5
Visual Resources	Ag lands preferred. Slightly more developed, further from recreation areas. Fewer people exposed to the project.Transmission line visual impacts are the same for both sites.	5
Total		**22**

Impacts for these categories is similar.

Air Quality	Waste Management	Plant Efficiency
Public Health	Worker Safety, Fire Protection	Plant Reliability
Socioeconomics	Facility Design	Transmission System Engineering
Traffic, Transportation	Geology, Paleontology, Minerals	

This analysis shows the Agricultural Lands Alternative is preferred over the Plaster City site by a ratio of 22:7.

The Ag Lands alternative has the additional advantage, not analyzed, of not requiring a CDCA plan amendment, and the probable support of the environmental community.

4) South of Highway 98 Alternative

The Mesquite Lake, Geothermal, and Agricultural Lands alternatives analyses show them to be superior to the Plaster City site.

The South of 98 alternative analysis shows the Plaster City site to be superior to this alternative.

Levels of Impacts

The South of 98 alternative 'Summary of Impacts' (page B.2-96 (220))lists the impacts that are similar, greater or lesser, without consideration of relative importance of the impact categories or degree of impact difference. It implies the decision be based on the number of categories with greater impact compared to the number of categories with lesser impact. But it does not explicitly make this comparison.

The table below uses a numeric score to measure degree of impact. For categories with dissimilar impacts, degree of impact is estimated from the descriptions in the DEIS. Categories with similar impacts as stated in the Summary of Impacts paragraphs are ignored. The level of impact is judged on a 1-10 scale. Small difference is value 1. Huge difference is value 10. This variable is subjective.

Note: Page B.2-12(136) of the DEIS lists the impacts considered of greatest concern. They are:

Air Quality	Biological Resources	Cultural Resources
Visual Resources	Soil & Water	

These categories largely correspond with the categories that have dissimilar impacts.

Impact Category	Comparison	Level (1-10)
The Plaster City site is preferred for these four categories.		
Biological Resources	Biologically sensitive: stabilized sand dunes and riparian habitat Plants: Sites similar: No observed rare plants, relatively undisturbed with low to moderate potential for rare plants.	5
Hazardous Materials	Proximity of hydrogen storage to the Tamarisk LTVA.	3
Noise, Vibration	Rural residences within ½ mile of the project. Tamarisk LTVA is within 500 feet of the project.	3
Transmission Line Safety & Nuisance	Longer transmission lines, and near two residences. Plaster City site does not have these characteristics.	2
Total		**13**

The South of 98 alternative is preferred for these three categories.		
Soil & Water	Level terrain means less water impact. Longer water pipeline.	3
Cultural Resources	All-American canal activity has disturbed cultural resources. Imperial Co. Plant EIR: moderate to light cultural resources.	3
Visual Resources	The discussion rates the visual impacts similar, but the South of 98 transmission line would be in a designated utility corridor, adjacent to a 500 KV line.	2
Total		**8**

Impacts for these categories is similar.

Air Quality	Traffic, Transportation	Geology, Paleontology, Minerals
Land Use	Waste Management	Plant Efficiency
Recreation, Wilderness	Worker Safety, Fire Protection	Plant Reliability
Public Health	Facility Design	Transmission System Engineering
Socioeconomics		

This analysis shows the Plaster City site is preferred over the South of 98 alternative by a ratio of 13:8.

5) Solar Power Tower Technology

See page B.2-105(229).

Being concentrated solar technology, as are SunCatchers, the impacts of a power tower installation would be approximately similar to SunCatchers.

Power tower is dismissed in the Rationale for Elimination because of tower height, but the analysis is ambiguous and presumptive.

- Cited as reason for elimination is that a power tower would introduce an industrial character, ignoring that SunCatchers are industrial. Of course, both are industrial in nature. If industrial character is a reason for elimination, then SunCatchers should be eliminated.
- It's possible that power tower would take a lot less area. Since many impacts are dependent on disturbed area, area needed should be examined in more detail.

Following are comments on impacts discussed and used in the Rationale for Elimination:

Impact	Discussion	Conclusion	Comment
Height of towers (visual, aircraft)	Tower height: Pp B.2-105(229) and 106(230): 'up to 459 feet' P B.2-106(230): 'up to 600 feet' eSolar towers are much lower, and are not mentioned.	Impacts greater for the alternative because of the height of the towers.	The discussion is ambiguous (459 or 600 feet), unspecific ('up to') and omits eSolar's lower tower design. This careless analysis is unusable.
Area	Requires 3750 to 7500 acres (5-10 Ac/MW)	'area needed is comparable to SunCatchers'	Inconclusive. The proposed alternative uses 6500 acres. More specific data is needed. eSolar claims 4.5 Ac/MW (3375 Ac).
Character	'[solar power tower] would introduce an industrial character…'	SunCatchers have less impact	The implication is that SunCatchers would not result in industrial character. Absurd.
Grading requirements.	Similar	Both require access roads.	Though not discussed in any detail, this is probably correct.
Recreation and land use, biological resources, cultural resources, soil erosion	These are dependent on area and grading needed.	Similar impacts	Though not discussed in any detail, this is probably correct.

6) Linear Fresnel Technology

See page B.2-106(230)

The brief description of linear Fresnel does not discuss impacts relative to Suncatchers. Conclusions concerning relative merits of this alternative are therefore not possible.

The only mention of comparative impact is in the Rationale for Elimination, which states that linear Fresnel would use less land. It then dismisses linear Fresnel because it would not **eliminate** the significant impact of the proposed SES technology. Although not stated, the implication is that to allow consideration of an alternative a significant impact must be eliminated, that reduction of the significant impact is insufficient. Not only is this logic incorrect, there is no statement that mere elimination of an impact is required for an alternative to be considered.

The option cannot be eliminated with such sparse data and analysis. Indeed, it is probably a viable alternative.

7) Utility Scale Solar Photovoltaic

See pages B.2-107(231) to 109(233))

The brief discussion is imprecise, disorganized, interesting in places, and often comes to no point. The information is largely unsupported, often relying on qualitative comparison, or no comparison with the proposed alternative. An example at the bottom of page B.2-108(232) is

> *…approximately 2,250 to 7,500 acres may be required, depending on the technology.*

Such lack of specificity can't be used to evaluate, except in the most general terms. Considering that PV has a relatively long history, more precision is possible.

The following table is summarizes the rejection.

Rationale for Elimination	Discussion statement	Comment
…PV…would not reduce major impacts	…PV project would reduce impacts to glare…	The Rationale for Elimination contradicts the discussion. In fact, visual impacts of the proposed project are significant and unmitigable.
Extent of land required	"… approximately 2250 to 7500 acres may be required."	No conclusion can be derived without more precision of the acreage required. The estimated range of area is almost 3:1. Considering the number of PV installations worldwide, area requirements are known to better precision. Note that the proposed solution uses 6500 acres.
	…additional acreage…site the PV arrays away from desert washes.	No conclusion can be drawn since there is no comparison with SunCatcher site requirements.
Extent of access roads required	"many miles of permanent access roads would be required for washing and maintenance of the solar panels"	Page B.1-9(105) discusses proposed project grading and roads. The analysis is completely qualitative – no road mileages or designs are mentioned. No conclusion can be drawn from unsupported descriptions with this low level of precision.
more extensive grading and stormwater management system required.	None	No conclusion is possible without discussion of grading and stormwater for SunCatchers.
PV requires nearly flat, graded site… more construction with greater air emissions and more erosion potential.	None	No conclusion is possible.

Despite this almost entirely qualitative analysis, paucity of supporting data, and absence of overriding negative reason, the DEIS concludes to eliminate the alternative from consideration. The analysis is lacking sufficient data to be considered valid.

8) Distributed Solar Technology

See pages B.2-109(233) to 114(238)

The Distributed Solar PV Systems section has a description of installations, and an interesting discussion of the San Diego Smart Initiative. The discussion does not give data that lead to comparison with a SunCatcher installation, and no conclusions are stated – it comes to no point and has no value for analysis of a distributed solar PV alternative.

No 'Rationale for Elimination' section is included, although the last paragraph on page B.2-114 appears to serve this purpose:

> *The conclusion of this section is that, while it will very likely be possible to achieve 750 MW of distributed solar energy over the coming years, the very limited numbers of existing facilities make it difficult to conclude with confidence that it will happen within the timeframe required for the SES Solar Two project. As a result, this technology is eliminated from detailed analysis in this SA/EIS.*

Analysis of this spectacularly illogical conclusion:

Rationale for Elimination	Comment
… very limited number of installations…	No information about installation numbers has been given. PV installations are now common. More than 1800 Home / Rooftop installers are listed in California[1], and ads for home PV installation regularly run on the radio, in the LA Times and on freeway billboards. The implication that there is a small number of installations is both misleading and false. Note that there are far more commercial PV installations than commercial SunCatcher installations, since there are no commercial SunCatcher installations.
… difficult to conclude with confidence that it will happen…	The implication is that 'confidence that it will happen' is a criterion for approval. Should this be true, then SunCatchers, with essentially no operating history and with legitimate questions about viability, reliability maintenance, installation cost, cost of electricity produced, should also be eliminated. In fact, this rationale has no basis and is not a reason for elimination.

Following is a summary of this section. It is not at all obvious that the PV alternative should be dismissed.

	Proposed	Solar Voltaic	Comment	Conclusion
Acreage	Approx 6500 (B.1-6(102))	2250 to 7500.	No substantive discussion of wide range of solar voltaic needs, or attempt to design to the minimum acreage.	Inconclusive
		Additional acreage required because the site is crossed by several washes.	Unexplained why PV needs more acreage than Suncatchers on land with washes. The Plaster City site is crossed by many washes.	Inconclusive. Reasons are qualitative and unexplained.
Slope	No requirements discussed.	"Utility-scale solar PV installations require land with less than 3% slope."	No further information is given.	Inconclusive. No discussion. Authority for slope limitation absent. Slope of site not stated. Slope requirements of SunCatchers not stated. No alternate design suggested.
Water	Needed for mirror washing only	Needed for mirror washing only		None, but presumed similar impacts.
Visibility	Equipment is higher than PV.	High equipment		Not stated, but probably similar.
	More glare (shiny mirrors)	Less glare (dark panels)		PV has less impact.
Grading		More, for some PV types, due to <3% slope needs and denser collectors.	Qualitative. No explanation. No design comparison given.	SunCatchers have less impact, but based on unexplained statement. No quantitative analysis given.
Access Roads		"Many miles" for washing access.	No explanation of different access road requirements for washing SunCatchers and PV panels.	Inconclusive.

Not compared are construction times, construction and operation costs, and system reliability.

9) Wind Energy

The discussion in the alternative section on page B.2-115 (239) is woefully inadequate.

[1] Database of Solar Installers, Contractors, and Retailers in California: http://www.gosolarcalifornia.ca.gov/database/search-new.php

Wind is a viable technology, used in a large number of places throughout the world, and so certainly is a possibility in this situation. Yet the DEIS analysis covers less than two pages, most of which is general to wind, not specific to this project. About a quarter of the space is allocated to a list of negative impacts, unsupported by analysis. There is no corresponding list of positive impacts, or comparison to SunCatchers.

The discussion concludes with Rationale for Elimination (page B.2-116 (240):

> *While wind electricity generation is a viable and important renewable technology in California, it would not reduce the large-scale ground disturbance and visual impacts associated with the SES Solar Two project. Therefore wind generation was eliminated from further consideration in this SA/DEIS. Furthermore, wind is part of a renewable energy supply mix along with solar thermal, which staff believes will be needed to meet SDG&E and statewide RPS requirements.*

A similar statement is on page B.2-5.

The reasons for elimination in these two places in the DEIS is specious:

…it would not reduce the large-scale ground disturbance and visual impacts associated with the SES Solar Two project.	The reasoning implies: • Independent of other impacts, reduction of ground disturbance and visual impact are a requirement for consideration of an alternative. • Visual impacts of SES Solar Two, considered to be significant and unavoidable, are at the lower limit of acceptability.
… wind is part of a renewable energy supply mix along with solar thermal, which staff believes will be needed to meet SDG&E and statewide RPS requirements.	It's unclear if wind or solar is what 'staff believes will be needed'. Either way, needing either is not a reason to eliminate one from consideration. This actually is an argument in favor of wind.
impacts could also be significant so wind would not reduce impacts	The logic uses uncertainty ('could') to deduce certainty ('would'). The statement is irrational.
wind is one of the components of the renewable energy mix required to meet the California Renewable Portfolio Standard requirements, so additional technologies like solar thermal generation, would also be required	Paraphrase: Since wind is one of the required components, solar thermal is also required. Presuming this is true, it has no bearing on a decision to eliminate the wind alternative.

This illogical reasoning makes it look like the authors are composing words, any words, to eliminate the alternative. This is unacceptable. It violates the purpose of an EIS.

10) Biomass

The biomass analysis has the same conceptual flaw as the geothermal analysis. Presuming biomass has a high capacity factor since it can run 24/7, the analysis ignores the capacity factor difference. The difference is probably on the order of 3:1 (75% for biomass to 25% for solar). Page B.2-5 (129) states:

> *Most biomass facilities produce only small amounts of electricity (in the range of 3 to 10 MW) and so could not meet the project objectives related to the California Renewable Portfolio Standard. In addition, between 75 and 250 facilities would be needed to achieve 750 MW of generation, creating substantial adverse impacts.*

The 750 MW capacity dish-Stirling solar with 25% capacity factor would average 187MW actual output.

Eighty-two 3 MW biomass facilities at 75% capacity factor would be equivalent, not 250. Similarly, 25 10MW biomass facilities at 75% capacity factor would be equivalent, not 75. The number of biomass facilities needed is overstated by a factor of three.

Along with the conceptual flaw, this analysis does not present evidence or reasons why it should be eliminated.

- No evidence is given that biomass facilities cannot be outside the 3-10MW range stated for 'most' biomass facilities.
- Not mentioned are fuel source, greenhouse gas emissions, exhaust pollution, waste disposal, siting requirements, visual, biological and cultural impacts, amd many of the impacts considered for other alternatives.

I would guess biomass is probably not a reasonable alternative, but not for the reasons given in the analysis.

The last sentence of the statement blames the number of biomass facilities, not the total capacity, for adverse impacts. By this logic, one large biomass facility would be acceptable. This is sloppy analysis.

11) Tidal Energy

The reason given on page B.2-5 for elimination of tidal energy is that:

> *it has not been demonstrated and proven at the scale that would be required to replace the proposed project, particularly with Pacific tides.*

Neither has the proposed SunCatcher solution been demonstrated and proven at the scale proposed. Under this criterion the dish-Stirling solution should also be eliminated. Either SunCatchers should be eliminated, or the rationale is incorrect.

12) Wave Energy

The reason given on page B.2-5 for elimination of wave energy is that:

> *Unproven technology at the scale that would be required to replace the proposed project; it may also result in substantial adverse environmental impacts*

Note that:

- SunCatchers are also unproven at this scale.
- The SunCatcher solution WILL, let alone 'may', result in substantial adverse environmental impact. (page ES-17 (23): Visual resources are 'significant and unavoidable'.

The reasoning demands that SunCatchers also be eliminated from consideration

END

«GreetingLine»

1726 Brighton Ave. #A - El Centro, CA 92243
760-353-7349 hm - 760-540-0789 cell
helena_quintana@yahoo.com

SUMMARY

A rich career in education. Experienced reference librarian in public school and college level. Accomplished at creating new programs and services. Experienced in selecting, acquiring, cataloguing, classifying, circulating and maintaining library materials. Have worked with databases and information systems to catalogue and access information. Technology is an important tool in our world and I am comfortable with it. I would like a part-time position in reference work at the college level.

WORK EXPERIENCE

Calexico Unified School School District, 1986 – 2006
Resource Teacher (10 yrs), classroom teacher in kingergarten, third, and fifth grades

- As a resource teacher I coordinated all teacher training,
- I assisted teachers in the classroom, assisted the principal with databases, testing information, curricular materials, and writing the school plan.
- Tested students and assisted teachers in testing.
- Ordered curriculum materials and coordinated them throughout the campus.
- Initiated a parent-training program in English and Spanish to help parents help their children with language, math, and science.
- Directed several after-school programs such as the TIPS program under Title IX funding where girls in third and fifth grades stayed one hour after school to do research in math and science and to use the technology we had in the computer lab.
- In the classroom, I was a bilingual teacher in English and Spanish.

Imperial Valley College, 1990-2003
Part-time instructor, English as a Second Language

- Taught classes in grammar, language, reading, and speech

San Diego Status University, Imperial Valley Campus, 1982-1986
Assistant Professor, Education; Coordinator of Bilingual Teacher Training

- I taught teacher education classes in education including reading (elementary and secondary), language, children's literature k-12, multicultural education.
- Coordinated and observed bilingual student teachers throughout the county
- Served on committees
- Planned student events on campus
- Presented papers at education conferences
- Sponsored students at various education conferences

New Mexico State University, 1979-1982
Graduate Assistant, College of Education

- Taught Freshmen classes in remedial reading

University of New Mexico, 1970-1976
Reference Librarian, Ethnic Studies Center

- Created an Ethnic Studies reference desk in the Main Library
- Select and catalogue ethnic studies materials
- Serve as reference librarian throughout the library departments
- Teach a class in ethnic and women's studies
- Talk to ethnic studies classes about library research

Pueblo High School, Tucson, Arizona. 1967-68
Librarian

- Coordinated all technology checkout
- In-charge after school hours, two floors
- Coordinated library programs
- Wrote a weekly book review for local newspaper

Big Spring School District, Big Spring, Texas. Summer 1967
Summer Library Coordinator

- Coordinated library services at three primary schools in the city
- Worked with staff at three schools, including administrators
- Planned and implemented a summer library program which included a weekly movie, book reading, guest speakers, art activities, etc.

San Simon Unified School District, San Simon, Arizona. 1964-1966
Teacher:

- Teach classes 7-12 grades in Spanish, business, and English

EDUCATION

New Mexico State University, Las Cruces, New Mexico. 1979-1984
Graduate School, College of Education. All but dissertation
Major: Curriculum. Minor: Reading/Bilingual Education

New Mexico Highlands University, Las Vegas, New Mexico, 1978-1979
Department of Education. Master of Arts in Bilingual Education

University of Texas at Austin, Texas, 1973
Graduate School of Library and Information Science
Master of Library and Information Science

New Mexico Highlands University, Las Vegas, New Mexico. 1964
Bachelor of Arts in Education
Major: Education Minors: Spanish/Business Education

COMMUNITY SERVICE:

IVC Desert Museum Society, 2005-present
Board Member, currently serving as Vice President. Chair: Exhibits Committee
Chair: Fundraising Committee. Grants writer.

Ah-Mut Pipa Foundation, 2000-present
Volunteer bookkeeper, grants writer.

REFERENCES

Provided upon request

PRESTON JEFFERSON ARROW-WEED
Ft. Yuma Indian Reservation
SAG member
1726 W. Brighton Ave. #A
El Centro, CA 92243
928-388-9456
ahmut@earthlink.net

Biography

Preston J. Arrow-weed is a member of the Quechan Tribe of California, one of the Yuman language groups of the Colorado River which defeated the Spanish in 1781 ending the overland expansion from the south. He was raised by his grandmother, a Kamya, on the Fort Yuma Indian Reservation. As a boy he remembers living in a commune of Kamya people where he learned the Tipai songs he sings today. He watched the ceremonies of the Quechan, Kamya, and Cocopah people with his teacher, Takai, a Kamya healer, orator, and singer. Mr. Arrow-weed is the last singer of *Urave,* the Lightening Song of the Quechan Tribe. His ability to speak both the Kamya and Quechan dialects of the Hokan language, have enabled him to develop a deep and comprehensive understanding of tribal songs, history, and ceremony. It also allows him the ability to sing both Kamya and Quechan songs with knowledge and understanding of each word in the song. He now knows that as a boy he was a witness of an ancient form of indigenous American drama. The work of Preston J. Arrow-weed as a contemporary playwright, activist, environmentalist, teacher, and singer is grounded in and reflects these early memories and experiences in tribal traditions prior to his western education.

After returning from the Marine Corps in his mid-twenties, Preston Arrow-weed performed in numerous Hollywood movies as an extra and a bit player. A fall from a horse in a film prompted him to study acting at the Indian Actors Workshop under the direction of Jay Silverwheels. This led to his debut as a member of Actors Equity at the Inner City Cultural Center of Los Angeles founded by C. Bernard Jackson. He later attended Arizona Western College and continued the study of drama. He founded and directed the California Inter-Tribal Theatre sponsored by the Inter-Tribal Council of California and was a teacher of Drama at D.Q. University . As founder and director of the *Theatre of Ah Mut Pipah* based on the Fort Yuma Indian Reservation, Mr. Arrow-weed has continued to write and direct as well as perform in plays and on television across the country. He

is the recipient of many honors for his contributions to Native American Drama.

In addition to his accomplishment in the entertainment field, Mr. Arrow-weed is involved in cultural and environmental survival. He led a group of young students to Ward Valley to protest a nuclear waste dump where they were instrumental in stopping the planned project in its tracks. Mr. Arrow-weed was a leader in the fight against the proposed gold mine at Indian Pass. As a result of his leadership and speaking abilities, he was named to serve on the Desert Advisory Council of the Bureau of Land Management by Gale Norton, Secretary of the Interior for a four-year term. He is known as the "conscience" of the Council because of his ability to bring discussion back to basics: "We are the stewards of the land, let's act accordingly." He is a staunch defender of the desert and sacred sites existing for thousands of years, the stories of which are told in the songs that he sings. Mr. Arrow-weed has been recognized by the Desert Protection Council and by the Society for California Archaeology with the California Indian Heritage Preservation Award.

In education, Mr. Arrow-weed has taught Quechan language through drama and song in the local schools as an artist in residence. He has also participated in the Master/Apprentice Program with selected students learning language through songs. Currently, he is teaching a course at Cuyamaca Community College/Kumeyaay Community College in San Diego, California, on "Hokan Stories Told Through Songs."

Preston J. Arrow-weed is President of Ah-Mut Pipa Foundation, a non-profit organization dedicated to cultural preservation and teaching through the arts and modern technology.

WORKS

Film and Television Acting:

Preston, an old Pomo man in *Grand Avenue*, HBO Movie Special; TV commercials; Film, Stage and TV Credits from 1965-1970.

Film Voice Over:

Tonacatecuhtli in an animated film *The Five Suns: A Sacred History of Mexico*;
Voice of **Ishi** in Ishi, *The Last Yahi*, Rattlesnake Productions, Inc.;
Narrator, *People of the Klamath*, Jim Culp Productions, San Francisco;
Narrator, *Going Home*, California Indian Library Project a documentary from UC Berkeley;

Narrator/Lead Actor, **Joe Homer**, *The Yuma Crossing*, docu-drama, Chariot Productions;
Narrator, *Coyote and the Great Sprit Run*, Carnegie Museum of Natural History

Documentary Film
Narrator, singer, *Journey From Spirit Mountain.* 36-min. DVD. A Hokan Media Production with a grant from the Desert Protection Council. 2007.

Original Plays Written by Preston J. Arrow-weed:
Ishi: Path Denied.. Presented at The Bookstore Gallery, Berkeley.
Provocation: A deadly Game.
Snake Clan. Presented at the American Conservatory Theatre, San Francisco.
A Time of Decay. Presented at Fort Yuma Indian Reservation.
The Hoofman. Presented at Sacramento State University, UC Davis.
Whirlwind Warrior. Presented at California State Indian Museum, Sacramento, on tour, published.
Fork Road. Children's play. Presented at the Icehouse Outdoor Theatre, East of Sacramento.
The Sacred Sharper. Presented at Wyatt Pavilion, UC Davis.
To Find the Greatest Enemy. un-produced play
Horsehair and the Frog, un-produced play
Creation Story of the Quechan, un-produced script

Special Skills and Training:
Quechan Tribal singer and dancer; Kumiai cultural and Language teacher
Indian Actors Workshop, Los Angeles, Ca.;
Drama Major, Arizona Western College;
PC832 Law Enforcement Certification (357 magnum, Baton, Mace, and handcuffs), Barclay College

STATE OF CALIFORNIA
State Energy Resources
Conservation and Development Commission

In the Matter of:	)	08-AFC-5
	)	
Imperial Valley Solar, LLC	)	**DECLARATION OF SERVICE**
_____	)	

I, Tom Budlong, declare that on April 15, 2010 I served and filed copies of the attached ***Opening Testimony of Intervenor Tom Budlong on the remaining topics designated by the committee's April 8, 2010 Evidentiary Hearing Notice***, accompanied by a copy of the most recent *Proof of Service* list (most recent version is located on the proceeding's web page) with the Docket Unit OR with the presiding committee member of the proceeding. The document has been sent to the Commission AND the applicant, as well as the other parties in this proceeding (as shown on the *Proof of Service* list), in the following manner:

(*Check all that Apply*)

FOR SERVICE TO THE APPLICANT AND ALL OTHER PARTIES:

__☒__ sent electronically to all email addresses on the Proof of Service list;

__☒__ by personal delivery or by depositing in the United States mail at Los Angeles, CA 90049 with first-class postage thereon fully prepaid and addressed as provided on the *Proof of Service* list above to those addresses **NOT** marked "email preferred."

AND

FOR FILING WITH THE ENERGY COMMISSION:

__☒__ sending an original paper copy and one electronic copy, mailed and emailed respectively, to the address below (preferred method);

OR

_____ depositing in the mail an original and 12 paper copies, as follows:

CALIFORNIA ENERGY COMMISSION
Attn: Docket No. 08-AFC-5
1516 Ninth Street, MS-4
Sacramento, CA 95814-5512

-or-

CALIFORNIA ENERGY COMMISSION
Presiding Member _____
1516 Ninth Street
Sacramento, CA 95814-5512
Re: Docket No. [____08-AFC-5____]

docket@energy.state.ca.us

I declare under penalty of perjury that the foregoing is true and correct.

/s/ Tom Budlong. Mailed copy has original signature.
Name

May 1, 2010
Date

BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT COMMISSION OF THE STATE OF CALIFORNIA
1516 NINTH STREET, SACRAMENTO, CA 95814
1-800-822-6228 – WWW.ENERGY.CA.GOV

APPLICATION FOR CERTIFICATION FOR THE IMPERIAL VALLEY SOLAR PROJECT
(formerly known as SES Solar Two Project)
IMPERIAL VALLEY SOLAR, LLC

Docket No. 08-AFC-5
PROOF OF SERVICE
(Revised 4/12/10)

APPLICANT
Richard Knox
Project Manager
SES Solar Two, LLC
4800 N Scottsdale Road.,
Suite 5500
Scottsdale, AZ 85251
richard.knox@tesserasolar.com

CONSULTANT
Angela Leiba, Sr. Project
Manager URS Corporation
1615 Murray Canyon Rd.,
Suite 1000
San Diego, CA 92108
Angela_Leiba@urscorp.com

APPLICANT'S COUNSEL
Allan J. Thompson
Attorney at Law
21 C Orinda Way #314
Orinda, CA 94563
allanori@comcast.net

Ella Foley Gannon, Partner
Bingham McCutchen, LLP
Three Embarcadero Center
San Francisco, CA 94111
ella.gannon@bingham.com

INTERESTED AGENCIES
California ISO
e-recipient@caiso.com

Daniel Steward, Project Lead
BLM – El Centro Office
1661 S. 4th Street
El Centro, CA 92243
daniel_steward@ca.blm.gov

Jim Stobaugh,
Project Manager &
National Project Manager
Bureau of Land Management
BLM Nevada State Office
P.O. Box 12000
Reno, NV 89520-0006
jim_stobaugh@blm.gov

INTERVENORS
California Unions for Reliable
Energy (CURE)
c/o Tanya A. Gulesserian
Loulena Miles, Marc D. Joseph
Adams Broadwell Joseph &
Cardozo
601 Gateway Blvd., Ste. 1000
South San Francisco, CA 94080
tgulesserian@adamsbroadwell.com
lmiles@adamsbroadwell.com

Tom Budlong
3216 Mandeville Canyon Road
Los Angeles, CA 90049-1016
TomBudlong@RoadRunner.com

*Hossein Alimamaghani
4716 White Oak Place
Encino, CA 91316
almamaghani@aol.com

*Tom Beltran
P.O. Box 501671
San Diego, CA 92150
cnpssd@nyms.net

*California Native Plant Society
Greg Suba & Tara Hansen
2707 K Street, Suite 1
Sacramento, CA 5816-5113
gsuba@cnps.org

ENERGY COMMISSION
JEFFREY D. BYRON
Commissioner and Presiding
Member
jbyron@energy.state.ca.us

ANTHONY EGGERT
Commissioner and Associate
Member
aeggert@energy.state.ca.us

Raoul Renaud
Hearing Officer
rrenaud@energy.state.ca.us

Kristy Chew, Adviser to
Commissioner Byron
kchew@energy.state.ca.us

Caryn Holmes, Staff Counsel
Christine Hammond,
Co-Staff Counsel
cholmes@energy.state.ca.us
chammond@energy.state.ca.us

Christopher Meyer
Project Manager
cmeyer@energy.state.ca.us

Jennifer Jennings
Public Adviser
publicadviser@energy.state.ca.us

*indicates change

DECLARATION OF SERVICE

I, _____, declare that on_____, I served and filed copies of the attached, _____. The original documents, filed with the Docket Unit, are accompanied by a copy of the most recent Proof of Service list, located on the web page for this project at:
[http://www.energy.ca.gov/sitingcases/solartwo/index.html]

The documents have been sent to both the other parties in this proceeding (as shown on the Proof of Service list) and to the Commission's Docket Unit, in the following manner:

(*Check all that Apply*)

FOR SERVICE TO ALL OTHER PARTIES:

_____ sent electronically to all email addresses on the Proof of Service list;

_____ by personal delivery;

_____ by delivering on this date, for mailing with the United States Postal Service with first-class postage thereon fully prepaid, to the name and address of the person served, for mailing that same day in the ordinary course of business; that the envelope was sealed and placed for collection and mailing on that date to those addresses NOT marked "email preferred."

AND

FOR FILING WITH THE ENERGY COMMISSION:

_____ sending an original paper copy and one electronic copy, mailed and emailed respectively, to the address below (***preferred method***);

OR

_____ depositing in the mail an original and 12 paper copies, as follows:

CALIFORNIA ENERGY COMMISSION
Attn: Docket No. 08-AFC-5
1516 Ninth Street, MS-4
Sacramento, CA 95814-5512
docket@energy.state.ca.us

I declare under penalty of perjury that the foregoing is true and correct, that I am employed in the county where this mailing occurred, and that I am over the age of 18 years and not a party to the proceeding.

_____

*indicates change