STATE OF CALIFORNIA

Energy Resources Conservation and Development Commission

In the Matter of:

The Application for Certification for the Calico Solar Project

Docket No. 08-AFC-13

SIERRA CLUB'S MOTION TO COMPEL PRODUCTION OF INFORMATION IN RESPONSE TO DATA REQUESTS, SET TWO

September 16, 2010

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SIERRA CLUB'S MOTION TO COMPEL PRODUCTION OF INFORMATION IN RESPONSE TO DATA REQUESTS, SET TWO

Sierra Club submitted data requests (attached hereto as Attachment A) to Tessera Solar (the "Applicant") related to the Calico Solar Project ("Project") on September 14, 2010 requesting data and supporting information relied on by the Applicant to assesses desert tortoise habitat quality. The Applicant's response (attached hereto as Attachment B) failed to provide critical information that Sierra Club requested and which it requires to evaluate whether the Applicant's delineation of desert tortoise habitat quality is based on an appropriate, science-based evaluation. Instead of providing specific responses, the Applicant directed Sierra Club to search the record for previous documents that purportedly contained the information relied on by Theresa Miller and the Applicant to create the delineation line presented as the new boundary in the newly proposed Scenario 6. Notwithstanding the Applicant's burden to produce this information, Sierra Club searched for this information in the record, but the documents the Applicant referenced do not provide the data or analysis that Sierra Club requested. Sierra Club therefore

submits this motion to compel the production of information that it requested in its data requests.[1]

The Commission's regulations allow any party to an AFC proceeding to, "request from the applicant *any information* reasonably available to the applicant which is relevant to the ... proceedings or reasonably necessary to make any decision on the ... application."[2] The Committee in the Carlsbad Energy Center proceeding noted that the provision of "information" by the Applicant includes data and other objective information available to it.[3] Although the answering party is not required to perform research or analysis on behalf of the requesting party, the "line between discoverable data and undiscoverable analysis and research is dependent on the particulars of a request and cannot be drawn with precision."[4] Thus, in evaluating the request, the Committee considered four factors: (1) The relevance of the information; (2) Whether the information is available to the Applicant, or from some other source, or whether it has already been provided in some form; (4) whether the request is for data, analysis, or research; and (5) the burden on the Applicant to provide the data.[5]

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[1] Sierra Club originally submitted ten separate data requests. Most of the Applicant's answers were non-responsive; however, in the interests of time Sierra Club moves to compel production of information related to only four of its requests.
[2] 20 Cal. Code Regs. § 1716(b) (emphasis added).
[3] Committee Ruling on Intervenor Center for Biological Diversity's Petition to Compel Data Responses, Application for Certification for the Carlsbad Energy Center, Docket, No. 07-AFC-6, December 26, 2008.
[4] *Id.*
[5] *Id.*

If the applicant refuses to provide the requested information, the requesting party "may petition the committee for an order directing the responding party to supply such information."[6]

Sierra Club files this petition because the applicant has not provided the following key data in response to our September 14 2010 data requests:

REQUEST 1: Please provide all of the data used to support site-specific conclusions about habitat quality.

> *RESPONSE*: The Applicant's response stated that information on vegetation cover, type of vegetation, soil composition, slope aspect, temperature, wind and cloud cover were recorded "per cell" as part of the 2010 Desert Tortoise Survey.
>
> *DEFICIENCY*: The data currently provided in the 2010 Desert Tortoise Survey in Appendix A-1 is only available for cells where a desert tortoise was observed and therefore does not provide any soil, vegetation, or other information for cells where no tortoises were observed. Similarly, Appendix A-2 only contains information on burrows, and it does not contain any information on soils and vegetation. Therefore, Applicant did not provide any data on the soil, vegetation composition, cover, available forage and other data for several survey cells within the newly proposed Project boundary.
>
> *REQUEST TO COMPEL:* **The Applicant must provide the data for each cell within the Calico boundary that contains this recorded information. The Applicant must also provide a map showing the specific cell labels and locations within the Project footprint.**

REQUEST 1: Please provide all of the data used to support site-specific conclusions about habitat quality. [Related to soils.]

> *RESPONSE*: "All of the specific metrics used to define habitat quality were included in Theresa Miller's declaration (docketed September 13, 2010)."
>
> *DEFICIENCY*: Theresa Miller's September 13, 2010 testimony stated, "The demarcation between the sandy soils in the south and the more rocky and cobbly was one of the factors which was used to draw the boundary line..." (Miller September 13, 2010 Testimony, pp. 4-5.) The only reference to such data in Ms. Miller's testimony stated that URS reviewed STATSGO soil information to

[6] *Id.* at § 1716(g).

obtain a "general understanding" of the Project area. Ms. Miller does not provide any site-specific data on soil composition that indicates where a "demarcation" occurs between sandy soils and rocky/cobbly soils. Without such site-specific or cell-specific information, Sierra Club cannot evaluate whether the Applicant's conclusions about habitat quality are appropriate.

REQUEST TO COMPEL: **The Applicant must provide the soils data that Ms. Miller relied on to determine the "demarcation" between sandy soils and rocky/cobbly soils. The Applicant must also provide the map or data set of specific soils data that were collected and/or used to create the "demarcation" line.**

REQUEST 1: Please provide all of the data used to support site-specific conclusions about habitat quality. [Related to vegetation.]

RESPONSE: "All of the specific metrics used to define habitat quality were included in Theresa Miller's declaration (docketed September 13, 2010)."

DEFICIENCY: Theresa Miller's September 13, 2010 testimony stated, "During the desert tortoise surveys, surveyors noted when typical forage was present or available." (Miller September 13, 2010 Testimony, p.5.) As noted above, the appendices to the 2010 Desert Tortoise Survey do not contain this data. Sierra Club requires site-specific and cell-specific information on the type of vegetation present, the availability of forage and the availability of cover in order to evaluate whether the Applicant's conclusions regarding habitat quality are appropriate.

REQUEST TO COMPEL: **The Applicant must provide the vegetation and forage data noted by surveyors.**

REQUEST 1: Please provide all of the data used to support site-specific conclusions about habitat quality. [Related to additional factors.]

RESPONSE: "All of the specific metrics used to define habitat quality were included in Theresa Miller's declaration (docketed September 13, 2010)."

DEFICIENCY: Theresa Miller's September 13, 2010 testimony stated, "The surveys consisted of surveyors walking transects and noting for each approximately 50-acre cell location, weather, number of tortoises, number of burrows, scat...habitat characterization (based on soil, presence of native or non-native vegetation (weed infestation), cover of forage...and evidence of disturbance..." (Miller September 13, 2010 Testimony, p.7.) The Applicant did not provide any of this cell-specific data. Based on Ms. Miller's testimony, this data was collected and it should be readily available.

REQUEST TO COMPEL: **The Applicant must provide cell-specific maps or data showing the results of these surveys for each observed factor on the Project site.**

REQUEST 2.a: Please provide the data used to prepare the desktop habitat modeling.

RESPONSE: "Since this data is large, electronic GIS information is not docketable. As noted in our testimony docketed August 13, 2010, this information is available by request from Camille Lill."

DEFICIENCY: The size of the data file in relation to the docket is irrelevant to the Applicant's obligation to provide the specific data requested by Sierra Club. The Applicant ignored this request and referred Sierra Club to Camille Lill at URS. It is completely inappropriate for the Applicant to defer a data request to a third party. In any case, Scott Cashen contacted Ms. Lill, and she has not responded to his request for this data.

REQUEST TO COMPEL: **The Applicant must provide the GIS data requested by Sierra Club.**

REQUEST 2.b: Please provide the model's output information that the Applicant relied on to create the delineation between the high quality habitat and the medium quality habitat.

RESPONSE: "All GIS data used to delineate habitat quality has been printed on maps included in the Applicant's filings (in either the AFC – docketed December 2, 2008 or the DT Translocation Plan – docketed August 4, 2010)."

DEFICIENCY: It is inappropriate for the Applicant to respond to a specific data request with a general reference to its AFC and the Desert Tortoise Translocation Plan. Sierra Club made a specific request for information that the Applicant relied on to create the boundary line in Scenario 6. Sierra Club has no idea which of the numerous maps contained in the record the Applicant might have relied on to create this boundary line. The Applicant did not even site to the specific maps or figures that allegedly contain this information. Notwithstanding Applicant's inappropriate response, Sierra Club searched the AFC and the DT Translocation Plan for maps showing soil composition, vegetation cover, forage availability and other factors purportedly relied on by the Applicant to create the demarcation line. Sierra Club cannot find any maps or data that are consistent with the habitat quality demarcation line.

REQUEST TO COMPEL: **The Applicant must either provide the maps or indicate which maps in the record it relied on to make its determination of habitat quality that is delineated in Scenario 6.**

REQUEST 2.b: Please provide the model's output information that the Applicant relied on to create the delineation between the high quality habitat and the medium quality habitat.

RESPONSE: Without providing any actual data or any explanation of its relative importance or weight, the Applicant responded, "For your convenience here is a list of data used to help evaluate habitat quality..."

DEFICIENCY: Theresa Miller's September 13, 2010 testimony stated, "Based upon the modeling and the surveys, URS set lines showing an approximate gradation between lower quality habitat, medium quality habitat and higher quality habitat..." (Miller September 13, 2010 Testimony, p.7.) Ms. Miller does not provide any explanation as to how URS used the modeling and survey data to make conclusions about habitat quality. There is no data on the record that supports the Applicant's conclusions, and there is no possible way for Sierra Club or other parties to replicate and/or verify whether the Applicant's gradation lines are appropriate.

REQUEST TO COMPEL: **The Applicant must explain its analysis or provide the criteria, weighting, or other measures that URS applied to the surveys and modeling to determine how to "set lines" for the gradation between habitat quality**

REQUEST 5: Please provide a spreadsheet, copies of data sheets, or other document(s) that provides adequate information to establish the personnel that surveyed each transect, and the date(s) the transects were surveyed.

RESPONSE: "The Applicant feels identifying surveyor information down to the transect level is beyond the narrow scope of assessing habitat quality and not required by any protocols that the applicant was requested to follow by the resource agencies."

DEFICIENCY: Sierra Club adamantly disagrees with Applicant's refusal to provide this information. This information should be readily available to the Applicant and is therefore not overly burdensome to produce. This information is necessary because the Applicant has repeatedly referred to qualitative assessments of "habitat quality" that surveyors reported on the Project site. There are no objective or measurable criteria for several of the factors observed during the surveys. Therefore, each surveyor may evaluate the "quality" of a particular factor in a different way. This subjectivity may have introduced bias into the data. Without knowing the individual surveyors who recorded data for each transect, Sierra Club cannot evaluate whether such observer bias has corrupted the survey data.

REQUEST TO COMPEL: **The Applicant must provide information to establish which personnel surveyed each transect.**

REQUEST 6: Please provide a Project site map that includes data from both the 2007-2008 tortoise surveys and the 2010 tortoise surveys.

RESPONSE: "Resource agencies requested the applicant only include 2010 tortoise surveys data since this information was collected per USFWS 100% protocol level surveys, and in 2007 and 2008 probabilistic sampling surveys were conducted and thus are not directly comparable."

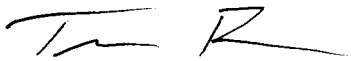
DEFICIENCY: The data from the 2007 and 2008 surveys are relevant to the evaluation of habitat quality on the Project site. It is improper for the Applicant to refuse to provide existing data because it does not believe such data is "comparable" to the 2010 survey data. Any discrepancies between the 2007/2008 data and the "100%" surveys are particularly relevant because they would be indicative of the level of accuracy of the 2010 surveys. Furthermore, all data points are relevant for evaluating the quality of habitat, whether they were observed in 2007, 2008 or 2010. The Applicant's refusal to provide this data to Sierra Club is completely unjustified.

REQUEST TO COMPEL: **The Applicant must provide the 2007 and 2008 data and/or maps showing the results of this data.**

It goes without saying time is of the essence here. The Committee must order the applicant to immediately respond to these requests, because these data requests are relevant and necessary to the proceeding and reasonably necessary to make any decision on proposals 5.5 or 6. In the interests of time, Sierra Club is not moving to compel responses to all of its data requests and instead identified here the most critical responses that it requires to evaluate the Applicant's newly proposed footprint.

Dated: September 16, 2010

Respectfully submitted,



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Attachment A

SIERRA CLUB
FOUNDED 1892

September 14, 2010

VIA Electronic and U.S. Mail

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Re: Calico Solar Project Data Request – 08-AFC-13

Dear Ms. Bellows:

During the Calico Solar Project ("Project") workshop held at the California Energy Commission ("Commission") on September 8, 2010, Tessera Solar (the "Applicant") indicated that it relied on several factors to determine the quality of desert tortoise habitat on the Project site. The Applicant referenced an arching line across the Project footprint that delineated the newly proposed boundary for the reduced footprint "Scenario 6." Theresa Miller stated that the Applicant developed this new boundary line based on information collected during the 2010 desert tortoise surveys, and the Applicant originally included a map of the proposed boundary as part of its analysis of habitat quality in the draft desert tortoise translocation plan. In order to determine whether the

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proposed boundary line is an appropriate, science-based delineation of desert tortoise habitat quality, Sierra Club requires all of the data and information that the Applicant and/or other agencies relied on to develop the proposed boundary line.

As you know, Sierra Club must respond to the Applicant's newly proposed reduced acreage footprint by 3:00 p.m. on Friday, September 17. We therefore immediately require the following information to be able to evaluate the reduced acreage Project alternatives:

1. Please provide all of the data used to support site-specific conclusions about habitat quality. With these data, please provide:
    a. A description of all specific metrics observed and recorded on the Project site that the Applicant used to determine habitat quality. These may include, but are not limited to, tortoise density, tortoise burrows, vegetation cover, type of vegetation, soil composition, slope, aspect, temperature, wind, and cloud cover.
    b. The geographic locations associated with the data that are provided (including geographic coordinates if available).
    c. The names of the surveyor(s) that collected the data, and their qualifications (if not provided previously).
2. Theresa Miller's written testimony submitted by the Applicant on September 13, 2010 stated, "Data that was prepared by URS for the desktop habitat modeling is available and can be obtained by emailing Camille Lill at URS (camille_lill@urscorp.com) and requesting the specific data layers. Additionally, data that was created by URS and provided to BLM has been released for public use by BLM and can be requested from Camille Lill." (Miller Testimony, p.2)
    a. Please provide the data used to prepare the desktop habitat modeling.
    b. Please provide the model's output information that the Applicant relied on to create the delineation between the high quality habitat and the medium quality habitat.
3. The following questions relate to the Applicant's submittal of 2010 Desert Tortoise survey results (i.e., URS 2010 May 17):
    a. On 5 August 2010, Theresa Miller testified that "We conducted surveys -- ten meter protocol surveys on the 8,230 acre original project boundary plus a 1,000 foot buffer of the project with 10-meter transects according to the 2010 U.S. Fish and Wildlife protocol" (page 35 of the transcript). The Applicant's 2010 survey report does not include information on tortoises or tortoise burrows that were detected in the 1,000-foot buffer (see Tables 1 and 2; Figures 1 through 4 of the survey report). Please provide the data for the tortoises and tortoise sign that were detected within the 1,000-foot buffer.

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b. Several of the data forms provided in Appendix 1 of the 2010 desert tortoise survey results list two biologists in the "Biologist" field. For example, the first form (e.g., for DT#1) identifies Rick Bailey and Jerry Monks as the biologists associated with the detection of DT#1. Please clarify whether some transect lines were surveyed by two biologists (as suggested by several of the data forms). If each transect was surveyed by a single biologist, please indicate the biologist that detected, and derived data, for each live tortoise that was detected (e.g., for DT#1, was it Rick Bailey or Jerry Monks?).

c. Please provide the data missing from the data forms in Appendix 1, as outlined below:

Variable	**Tortoise number (DT #)**
Time	82,88
Temperature	6,7,8,9,19,27,34,38,39,45,48,49,50,51,56,57,58,64,65,70,86 94,96,97,98,99,100,101,102,103,104
Cloud cover	34,96,97,98,99,100
Wind	34,45,56,57,58,96,97,98,99,100
Slope	2,6,17,19,20,21,22,24,26,27,53,55,66,79,81,83,86,92,96, 97,98,99
Aspect	2,6,14,15,16,17,19,20,21,26,27,34,35,36,37,53,55,66,79, 81,83,86,92,96,97,98,99

4. Appendix 2 of the 2010 desert tortoise survey report provides a table with tortoise burrow data. Please clarify the following:

   a. Do the tortoise numbers provided in the 10th column (i.e., the one labeled "Tortoise #") correspond with the tortoise numbers provided in Appendix 1? If yes, please clarify why the geographic coordinates provided in Appendix 1 do not match those provided in Appendix 2.

   b. Was there any attempt to distinguish winter burrows from summer burrows? If yes, please identify the winter burrows and discuss how they were distinguished from summer burrows.

   c. Please clarify whether a data form (i.e., the ones provided in Appendix 1) was completed for each of the live tortoises listed in Appendix 2.

5. Please provide a spreadsheet, copies of data sheets, or other document(s) that provides adequate information to establish the personnel that surveyed each transect, and the date(s) the transects were surveyed. We understand the 8,230-

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acre Project site and 1,000-foot buffer was surveyed between 29 March and 15 April 2009. We further understand the names of the surveyors were listed in the 2010 survey report. However, we require more specific information on the survey teams and locations for these dates. The table below serves as a template for the type of data we seek.

Section	Transect line	Date	Start coordinate	End coordinate	Surveyor(s)
6	1	3/29	589929, 3689017	588378, 3689017	TR, BD
6	2	4/1	589929, 3688867	588378, 3688867	EM, JT

6. Please provide a Project site map that includes data from both the 2007-2008 tortoise surveys and the 2010 tortoise surveys, and the other sensitive biological resources that were detected on the Project site (e.g., bighorn sheep sign, rare plants, burrowing owls).
7. There are several threats to desert tortoises that could exist to the desert tortoises on the Project site. For example, several research studies have demonstrated a zone of depression adjacent to a road, and thus roads are considered a threat to desert tortoises. Threats to desert tortoises are summarized in: Boarman WI. 2002. Threats to Desert Tortoise Populations: A Critical Review of the Literature. U.S. Geological Survey, Western Ecological Research Center. Sacramento (CA): 86p. Boarman's paper was submitted as an exhibit, and is available at: http://www.dmg.gov/documents/RVW_Threats_to_DT_Pops_A_Crit_Rvw_of_the_Lit_USGS_080902.pdf.
    a. Please discuss the various threats to desert tortoises that the Applicant considered in making its determination regarding the delineation of habitat quality. If the Applicant did not consider such threats, please explain why not.
    b. Please explain how the Applicant identified those threats, if at all, on the Project site.
    c. Please describe the site-specific occurrences of those various threats across the Project site and the amount of variability of those threats.

Sierra Club is also concerned with the impacts that the revised Project footprints and the proposed elimination of detention basins will have on hydrology, drainage, erosion, and sediment control on and around the Project site. Sierra Club does not propose that the Applicant construct detention basins in the high quality desert tortoise habitat; however, Sierra Club is concerned that the removal of the detention basins may affect biological and other resources in ways that the Applicant and other parties have not had an opportunity to address at this late stage. Sierra Club is also concerned that the Applicant has not provided a drainage, erosion and sediment control study for the Project. To that end, Sierra Club requests the following information:

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8. The Commission required the applicant in the Ivanpah proceeding to provide a study of the drainage, erosion, and sediment control impacts to the alluvial fan that would result from the Project. "Major site alterations, as would result from ISEGS, have the potential to modify stormwater drainage patterns and flowrates, and result in severe erosion impacts which would adversely affect the project site." (Staff's Status Report No. 9, May 18, 2009.) Please provide a similar study of the impacts to drainage, erosion, and sediment control resulting from the Calico Project. If no such study exists, please explain why the Applicant has not prepared a study similar to the study that Staff required in the Ivanpah proceeding.
9. Dr. Howard Chang's written testimony submitted by the Applicant on September 13, 2010 stated, "The [sic] analyze the hydraulics of flow, erosion and sedimentation, a study has been made to provide the dynamics of stream flow and potential stream channel changes including general scour and local scour for the Calico project site." (Chang Testimony, p.10.)
    a. Please provide the study referenced by Dr. Chang.
    b. Please provide an analysis and explanation of the changes to hydrology, drainage, erosion and sedimentation that would occur as a result of the reduced footprint project scenarios 5.5 and 6.
10. Dr. Howard Chang's written testimony submitted by the Applicant on September 13, 2010 stated, "the installation of SunCatchers is subject to certain restrictions...(1) Storm water flow depths around the SunCatcher cannot exceed 1.5 ft, (2) the maximum allowable scour depth around the SunCatcher pedestal is 4 ft, and (3) Sediment deposition within the SunCatcher filed during a 100-year event cannot exceed 6 inches..." (Chang Testimony, p.10.)
    a. Please provide a map or description of the areas within the newly proposed footprints that would trigger these restrictions.
    b. For each scenario, please provide an estimate of the number of SunCatchers that would be subject to the restrictions discussed by Dr. Chang.

If you have any concerns or questions regarding this request, please contact me as soon as possible.

Sincerely,

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Attachment B

Tessera Solar
power from stirling energy systems

September 15, 2010

Mr. Christopher Meyer
CEC Project Manager
Attn: Docket No. 08-AFC-13
California Energy Commission
1516 Ninth Street
Sacramento, CA 95814-5512

RE: Calico Solar (formerly Solar One) Project (08-AFC-13)
Applicant's Submittal of Response to Sierra Club Data Requested on September 14, 2010

Dear Mr. Meyer:

Tessera Solar hereby submits Data Requested by Sierra Club on September 14, 2010. I certify under penalty of perjury that the foregoing is true, correct, and complete to the best of my knowledge.

Sincerely,

Felicia L. Bellows
Vice President of Development

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Response to Sierra Club's Information Request, docketed September 14, 2010

1. Please provide all of the data used to support site-specific conclusions about habitat quality. With these data, please provide:

a. A description of all specific metrics observed and recorded on the Project site that the Applicant used to determine habitat quality. These may include, but are not limited to, tortoise density, tortoise burrows, vegetation cover, type of vegetation, soil composition, slope, aspect, temperature, wind, and cloud cover.

Response: All of the specific metrics used to define habitat quality were included in Theresa Miller's declaration (docketed September 13, 2010). A summary of the tortoise density and tortoise burrow information was provided in the Desert Tortoise (DT) Plan (docketed August 4, 2010). Survey results for 2010 were docketed May 18, 2010. Data sheets and supportive information that includes habitat quality metrics has also already been provided (Applicant's Submittal of Results of 2010 Desert Tortoise Surveys, docketed August 11, 2010). Information included on data sheets provided in the August 11, 2010 docketing (e.g., vegetation cover, type of vegetation, soil composition, slope aspect, temperature, wind and cloud cover) were recorded per cell not per data sheet. This is consistent with the USFWS 2010 survey protocol. Additionally, temperature, sky and wind data are summarized for each day in Appendix B (Survey Effort Table) of the survey results (docketed August 11, 2010).

b. The geographic locations associated with the data that are provided (including geographic coordinates if available).

Response: Per Theresa Miller's testimony docketed September 13, 2010 publicly available, non-restricted information with geographic locations and/or geographic coordinates can be obtained by contacting Camille Lill at URS Corporation (Camille_lill@urscorp.com). See response to question 2 for more information. GPS coordinates of observed desert tortoise and other sign are available on the data sheets (Attachment A-1) and burrow data spreadsheets (Attachment A-2) of the survey results (docketed August 11, 2010).

c. The names of the surveyor(s) that collected the data, and their qualifications (if not provided previously).

Response: All surveyors' information, qualifications and resumes have been previously provided (see Attachment B (Survey Effort Table) and Attachment C (Resumes of the Surveyors) of the 2010 desert tortoise survey results docketed May 18, 2010).

2. Theresa Miller's written testimony submitted by the Applicant on September 13, 2010 stated, "Data that was prepared by URS for the desktop habitat modeling is available and can be obtained by emailing Camille Lill at URS (camille_lill@urscorp.com) and requesting the specific data layers. Additionally, data that was created by URS and provided to BLM has been released for public use by BLM and can be requested from Camille Lill." (Miller Testimony, p.2)

a. Please provide the data used to prepare the desktop habitat modeling.

Response: Since this data is large, electronic GIS information it is not docketable. As noted in our testimony docketed August 13, 2010, this information is available by request from Camille Lill.

b. Please provide the model's output information that the Applicant relied on to create the delineation between the high quality habitat and the medium quality habitat.

Response: All GIS data used to delineate habitat quality has been printed on maps included in the Applicant's filings (in either the AFC – docketed December 2, 2008 or the DT Translocation Plan – docketed August 4, 2010). The source and date for each layer is listed in the "Source" area on each map. For your convenience here is a list of data used to help evaluate habitat quality:

URS generated data available upon request:
1. *Desert tortoise survey results (DT locations and burrows)*
2. *URS mapped vegetation (2008)*

Publicly available data:
1. *USGS topographic data (including slope and general landform type) (2001)*
2. *USDA STATSGO soil information (2001)*
3. *USGS desert tortoise habitat suitability model (2009)*
4. *BLM (ACECs, wilderness areas, land ownership)*

Restricted data not available for release but parties can contact these entities to purchase or request data:
1. *POWERmap transmission line information (2009)*
2. *CNDDB and other sensitive plant and animal locations (2008)*

3. The following questions relate to the Applicant's submittal of 2010 Desert Tortoise survey results (i.e., URS 2010 May 17):

a. On 5 August 2010, Theresa Miller testified that "We conducted surveys -- ten meter protocol surveys on the 8,230 acre original project boundary plus a 1,000 foot buffer of the project with 10-meter transects according to the 2010 U.S. Fish and Wildlife protocol" (page 35 of the transcript). The Applicant's 2010 survey report does not include information on tortoises or tortoise burrows that were detected in the 1,000-foot buffer (see Tables 1 and 2; Figures 1 through 4 of the survey report). Please provide the data for the tortoises and tortoise sign that were detected within the 1,000-foot buffer.

Response: The statement was an error. Per USFWS 2010 survey protocol, no buffer zone is required nor was conducted during protocol level surveys conducted in 2010. Limited data was collected outside of the boundary during the 2010 surveys and has been included, where available. Data sheets were not prepared for this information. Additionally, desert tortoise information was collected in 2007and 2008 during the probabilistic sampling surveys, and as discussed previously, it was not included by agency request because it was not relevant to the current analysis.

b. Several of the data forms provided in Appendix 1 of the 2010 desert tortoise survey results list two biologists in the "Biologist" field. For example, the first form (e.g., for DT#1) identifies Rick Bailey and Jerry Monks as the biologists associated with the detection of DT#1. Please clarify whether some transect lines were surveyed by two biologists (as suggested by several of the data forms). If each transect was surveyed by a single biologist, please indicate the biologist that detected, and derived data, for each live tortoise that was detected (e.g., for DT#1, was it Rick Bailey or Jerry Monks?).

Response: For tortoise located by a single biologist, the biology task lead would be asked to come verify the tortoise location and assist in conducting the visual health assessment. This is why two names are listed on many of the data forms.

c. Please provide the data missing from the data forms in Appendix 1, as outlined below:

Variable	Tortoise number (DT #)
Time	82,88
Temperature	6,7,8,9,19,27,34,38,39,45,48,49,50,51,56,57,58,64,65,70,86 94,96,97,98,99,100,101,102,103,104
Cloud cover	34,96,97,98,99,100
Wind	34,45,56,57,58,96,97,98,99,100
Slope	2,6,17,19,20,21,22,24,26,27,53,55,66,79,81,83,86,92,96, 97,98,99
Aspect	2,6,14,15,16,17,19,20,21,26,27,34,35,36,37,53,55,66,79, 81,83,86,92,96,97,98,99

Response: Time, temperature, cloud cover, wind, slope and aspect were recorded by survey grid cell and not recorded on each data sheet. Some biologists recorded this information per data sheet anyway, but it was not required by the USFWS 2010 protocol.

4. Appendix 2 of the 2010 desert tortoise survey report provides a table with tortoise burrow data. Please clarify the following:

a. Do the tortoise numbers provided in the 10th column (i.e., the one labeled "Tortoise #") correspond with the tortoise numbers provided in Appendix 1? If yes, please clarify why the geographic coordinates provided in Appendix 1 do not match those provided in Appendix 2.

Response: Yes. The hand-written data sheets provided in Appendix 1 include location coordinates copied in the field looking at the GPS units. All data sheets in Appendix 1 were cross-checked and verified in GIS. The electronic spreadsheet provided in Appendix 2 contains the final, cross-checked information for all tortoise locations. Where there were discrepancies, the electronic GPS file (Appendix 2) took precedence over the hand-written locational coordinate information copied from the GPS unit in the field (Appendix 1).

b. Was there any attempt to distinguish winter burrows from summer burrows? If yes, please identify the winter burrows and discuss how they were distinguished from summer burrows.

Response: No. This is not required per USFWS survey protocol.

c. Please clarify whether a data form (i.e., the ones provided in Appendix 1) was completed for each of the live tortoises listed in Appendix 2.

Response: Yes, a data form was completed for all live tortoises within the survey protocol areas. For tortoise outside of the project boundary, or where not all assessment information could be recorded because the tortoise was in a burrow or the surveyor was otherwise unable to assess the tortoise, a form was not created.

5. Please provide a spreadsheet, copies of data sheets, or other document(s) that provides adequate information to establish the personnel that surveyed each transect, and the date(s) the transects were surveyed. We understand the 8,230- acre Project site and 1,000-foot buffer was surveyed between 29 March and 15 April 2009. We further understand the names of the surveyors were listed in the 2010 survey report. However, we require more specific information on the survey teams and locations for these dates. The table below serves as a template for the type of data we seek.

Section	Transect line	Date	Start coordinate	End coordinate	Surveyor(s)
6	1	3/29	589929, 3689017	588378, 3689017	TR, BD
6	2	4/1	589929, 3688867	588378, 3688867	EM, JT

Response: The Applicant has provided surveyor information, qualifications and resumes for each surveyor (2010 desert tortoise survey results docketed May 18, 2010). In addition, all data sheets included in Applicant's Response to Sierra Club Data Requests (docketed August 11, 2010) indicate the surveyor collecting the information. The Applicant feels identifying surveyor information down to the transect level is beyond the narrow scope of assessing habitat quality and not required by any protocols that the applicant was requested to follow by the resource agencies.

6. Please provide a Project site map that includes data from both the 2007-2008 tortoise surveys and the 2010 tortoise surveys, and the other sensitive biological resources that were detected on the Project site (e.g., bighorn sheep sign, rare plants, burrowing owls).

Response: Resource agencies requested the applicant only include 2010 tortoise surveys data since this information was collected per USFWS 100% protocol level surveys, and in 2007 and 2008 probabilistic sampling surveys were conducted and thus are not directly comparable. All other biological resources detected on the project site (including all locations of bighorn sheep sign, rare plants and burrowing owls), including anything

found during the DT 2010 surveys are identified on the "Biological Resources Avoided Map" (Ex. 82-C to Applicant's Rebuttal Testimony docketed July 29, 2010).

7. There are several threats to desert tortoises that could exist to the desert tortoises on the Project site. For example, several research studies have demonstrated a zone of depression adjacent to a road, and thus roads are considered a threat to desert tortoises. Threats to desert tortoises are summarized in: Boarman WI. 2002. Threats to Desert Tortoise Populations: A Critical Review of the Literature. U.S. Geological Survey, Western Ecological Research Center. Sacramento (CA): 86p. Boarman's paper was submitted as an exhibit, and is available at: http://www.dmg.gov/documents/RVW_Threats_to_DT_Pops_A_Crit_Rvw_of_the_Lit_USGS_080902.pdf.

a. Please discuss the various threats to desert tortoises that the Applicant considered in making its determination regarding the delineation of habitat quality. If the Applicant did not consider such threats, please explain why not.

b. Please explain how the Applicant identified those threats, if at all, on the Project site.

c. Please describe the site-specific occurrences of those various threats across the Project site and the amount of variability of those threats.

Response to a-c: Threats to desert tortoise was not a differentiating factor in evaluating habitat quality. While it was noted that the higher habitat quality was found further away from known threat areas, the Applicant based their habitat quality assessment on the metrics described in Miller's testimony (docketed September 13, 2010). The DT plan does, however, look at threats when assessing translocation areas.

8. The Commission required the applicant in the Ivanpah proceeding to provide a study of the drainage, erosion, and sediment control impacts to the alluvial fan that would result from the Project. "Major site alterations, as would result from ISEGS, have the potential to modify stormwater drainage patterns and flowrates, and result in severe erosion impacts which would adversely affect the project site." (Staff's Status Report No. 9, May 18, 2009.) Please provide a similar study of the impacts to drainage, erosion, and sediment control resulting from the Calico Project. If no such study exists, please explain why the Applicant has not prepared a study similar to the Study that Staff required in the Ivanpah proceeding.

Response: On January 8, 2010, the Applicant docketed the Huitt-Zollars Existing Condition Hydrologic and Hydraulic Study (April 2009) ("Huitt-

Zollars Study"). On September 8 and September 13, 2010, the Applicant docketed the report of Dr. Howard Chang and the Declarations of Matt Moore and Robert Byall, which explain why the Calico Solar Project, as reduced in size, moved away from the base of the Cady Mountains, and otherwise modified, would not cause significant drainage, erosion or sediment control impacts.

9. Dr. Howard Chang's written testimony submitted by the Applicant on September 13, 2010 stated, "The [sic] analyze the hydraulics of flow, erosion and sedimentation, a study has been made to provide the dynamics of stream flow and potential stream channel changes including general scour and local scour for the Calico project site." (Chang Testimony, p.10.)

a. Please provide the study referenced by Dr. Chang.

Response: As explained in Dr. Chang's written testimony, Dr. Chang relied on the Huitt-Zollars study referenced in response 8. As explained summarized in his September 13, 2010 Assessment, Dr. Chang analysis and conclusions relied upon this information. The input-output files and the user's manual for the model used are attached.

b. Please provide an analysis and explanation of the changes to hydrology, drainage, erosion and sedimentation that would occur as a result of the reduced footprint project scenarios 5.5 and 6.

Response: As Dr. Chang has explained, with elimination of detention basins, reduced footprint Scenarios 5.5 and 6 would not significantly alter existing conditions. The SunCatcher pedestals are too small, at 3.14 square feet per 0.28 acre, to cause significant impacts.

10. Dr. Howard Chang's written testimony submitted by the Applicant on September 13, 2010 stated, "the installation of SunCatchers is subject to certain restrictions...(1) Storm water flow depths around the SunCatcher cannot exceed 1.5 ft, (2) the maximum allowable scour depth around the SunCatcher pedestal is 4 ft, and (3) Sediment deposition within the SunCatcher filed during a 100-year event cannot exceed 6 inches..." (Chang Testimony, p.10.)

a. Please provide a map or description of the areas within the newly proposed footprints that would trigger these restrictions.

Response: The stormwater management design parameters for the SunCatchers are not based on maximum flow rates but rather maximum flow depth and flow velocity. In order to prevent inundation of electrical equipment in the Suncatcher, the Applicant has specified a maximum flow depth of 1.5 feet. Flow velocity is related to the scour potential at each SunCatcher foundation. The Applicant has specified a maximum scour

depth of 4 feet, which equals a flow velocity of approximately 7 feet-per-second based upon the existing soil type and terrain. See Applicant's Response to CEC Email Dated June 4th, 2010, Calico Solar (docketed June 11, 2010).

The Huitt-Zollars Study analyzed the alluvial fan for flow velocity, scour, and flow depth for the 100-year storm. The report identified three hazard zones for the alluvial fan north of the BNSF railroad. The highest hazard zone("Zone 1") was identified as the northern 1/3 of the project area at the foot of the Cady Mountains. This area produces the flow depths and scour potential that approach the maximums specified by the Applicant. This hydrology report indicates this area has nominal flood depths of 1-2 feet and scour potential of 4-5 feet. The Huitt-Zollars Study also concluded that some areas south of the railroad will likely exceed a 2 foot depth for the 100-year storm.

Under Scenarios 5.5 and 6, few or no SunCatchers would be located in Zone 1. In addition, as explained in the Declaration of Robert Byall docketed on September 13, 2010, SunCatcher installation will be excluded from floodways that will produce a combined local and general scour depth greater than four feet during a 100-year event and/or a 100-year flow depth of more than 1.5 feet.

b. For each scenario, please provide an estimate of the number of SunCatchers that would be subject to the restrictions discussed by Dr. Chang.

Response: The number of SunCatchers that would be subject to the restrictions discussed by Dr. Chang has not been calculated. The number is expected to be very low for the reasons described above.

BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT
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APPLICATION FOR CERTIFICATION

***For the CALICO SOLAR** (Formerly SES Solar One)*

Docket No. 08-AFC-13

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(Revised 8/9/10)

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DECLARATION OF SERVICE

Sierra Club's Motion to Compel Production of Information in Response to Data Requests, Set Two

I, Jeff Speir, declare that on September 16 2010, I served and filed copies of the attached _____, dated September 16, 2010. The original document, filed with the Docket Unit, is accompanied by a copy of the most recent Proof of Service list, located on the web page for this project at: **[www.energy.ca.gov/sitingcases/solarone]**.

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:

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

____ by personal delivery;

X 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:

X 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-13
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.

Jeff Speir

*indicates change