**State Of California** 

### Memorandum

**DOCKET 09-AFC-8**DATE 05/27/10

RECD. 05/27/10

The Resources Agency of California

Date: May 27, 2010 Telephone: (916) 654-4894

то: Vice Chairman James D. Boyd, Presiding Member

Commissioner Robert Weisenmiller, Associate Member

Kenneth Celli, Hearing Officer

From: California Energy Commission - Mike Monasmith, Project Manager

1516 Ninth Street Robin Mayer/Caryn Holmes, Staff Counsel

Sacramento, CA 95814-5512

Subject: GENESIS SOLAR ENERGY PROJECT (09-AFC-8), STATUS REPORT 3

Pursuant to the Genesis Committee Scheduling Order dated December 22, 2009, and verbal communications during the April 26, 2010 Genesis Committee Status Conference, staff issues Status Report #3 for the proposed Genesis Solar Energy Project Application for Certification (AFC). This Status Report will focus on the Genesis Staff Assessment, published March 26, 2010 and the soon-to-be published Revised Staff Assessment, scheduled for publication on June 11, 2010

### **Genesis Staff Assessment**

The Genesis Staff Assessment (SA) published in late March included an **Executive Summary** that detailed a list of specific technical disciplines where limited data gaps existed, or where certain, limited mitigation measures where outstanding. In the weeks following the SA's release, staff conducted five (5) publicly-noticed SA Workshops: two of which were held in Energy Commission Hearing Room B (on April 19 and April 20, 2010); one in Palm Springs (May 5, 2010); and, two conference call Workshops (on May 10 and May 11, 2010). With these, staff conducted a total of fifteen (15) publicly-noticed Workshops, spanning a period of over six months, dating back to the first, conducted on November 23, 2009 in Energy Commission Hearing Room B, for an average of a Workshop held every 2 weeks.

The Energy Commission's 30-day comment period for the Genesis Staff Assessment concluded on May 13, 2010 with only one set of comments received (those provided by intervenor CURE). Staff appreciates the ongoing participation of CURE, and our June 11, 2010 testimony will address all issues that were raised by CURE in their filing. In the meantime, in order to provide CURE (and the applicant) with an advanced opportunity for disclosure and review of forthcoming testimony, this status report will categorize all technical sections of the Staff Assessment as one of three "TIER" categories, I, II and III. TIER I sections are those that staff believes are uncontested, based upon stipulations made at the April 26, 2010 Status Conference. TIER II sections are those technical disciplines that staff had not previously indicated (in the SA Executive Summary) would need additional analysis, data or mitigation measures, but may be

modified in response to comments received from the applicant or CURE, and/or will be augmented in some minor fashion prior to publication on June 11, 2101. Ultimately, staff does not expect that TIER II sections will be contested, and that they will likely be removed from the list of adjudicated subjects prior to commencement of Evidentiary Hearings on July 12, 2010. TIER III sections are three critically important sections that comprise the majority of staff analysis, have been the primary subjects during each of the 15 staff Workshops, and were identified in the Staff Assessment as areas where additional data or mitigation measures would be necessary components of the Revised Staff Assessment.

#### **Genesis Revised Staff Assessment**

# TIER I sections:

- -- LAND USE
- -- SOCIOECONOMIC RESOURCES
- -- TRANSMISSION LINE SAFETY AND NUISANCE
- -- FACILITY DESIGN
- -- GEOLOGY AND PALEONTOLOGY
- -- POWER PLANT EFFICIENCY
- -- POWER PLANT RELIABILITY

Revised Staff Assessment testimony for TIER I sections is complete, and can be reviewed at: <a href="http://www.energy.ca.gov/2010publications/CEC-700-2010-006/CEC-700-2010-006.PDF">http://www.energy.ca.gov/2010publications/CEC-700-2010-006/CEC-700-2010-006.PDF</a>. As was indicated during the April 26, 2010 Status Conference, the LORS and impact analyses and associated mitigation measures contained in Conditions of Certification for these sections will be identical to what was filed on March 26, 2010 in the Staff Assessment/Draft EIS.

### TIER II sections:

- -- AIR QUALITY
- -- HAZARDOUS MATERIALS
- -- NOISE AND VIBRATION
- -- PUBLIC HEALTH
- -- TRAFFIC AND TRANSPORTATION
- -- TRANSMISSION SYSTEM ENGINEERING\* (Appendix A)
- -- VISUAL RESOURCES
- -- WASTE MANAGEMENT
- -- WORKER SAFETY
- -- ALTERNATIVES

The applicant provided comments and testimony requesting minor alternations for conditions in the following sections: AIR QUALITY, NOISE & VIBRATION, PUBLIC HEALTH, TRAFFIC & TRANSPORATION, VISUAL RESOURCES and WASTE MANAGEMENT. Staff considered all comments, and in the instance of TRAFFIC & TRANSPORATION, developed new language during the May 11, 2010 Workshop, designed to prevent "stacking" on Interstate-10 during peak construction hours. The new TRANS-1 reads:

TRANS-1 Prior to start of construction of the Genesis Solar Energy Project (GSEP) the project owner shall prepare and implement a Traffic Control Plan (TCP) for the GSEP's construction and operation traffic. The TCP shall address the movement of workers, vehicles, and materials, including arrival and departure schedules, and designated workforce and delivery routes.

The project owner shall consult with the County of Riverside and the Department of Transportation (Caltrans) District 8 office in the preparation and implementation of the Traffic Control Plan.

### The Traffic Control Plan shall include:

- A work schedule and end-of-shift departure plan designed to ensure that stacking on intersections necessary to enter and exit the project sites does not occur. Applicant shall consider the following measures designed to prevent stacking: staggered work shifts, restricting travel to and departures from each project site to 10 or fewer vehicles every three minutes during peak travel hours on Interstate 10.
- Provisions for an incentive program such as an employer-sponsored commuter checks to encourage construction workers to carpool and/or use van or bus service.
- Limitation on truck deliveries to the project sites to only off-peak hours to ensure adequate exit and entry at appropriate intersections.
- Provisions for redirection of construction traffic with a flag person as necessary to ensure traffic safety and minimize interruptions to nonconstruction related traffic flow.
- Placement of signage, lighting, and traffic control device at the project construction site and laydown areas.
- Signage along eastbound and westbound appropriate roads and at the entrance of each of the I-10 northbound and southbound off-ramps at appropriate roads notifying drivers of construction traffic throughout the duration of the construction period.
- A heavy-haul plan designed to address the transport and delivery of heavy and oversized loads requiring permits from Department of Transportation (Caltrans) or other state and federal agencies.

Verification: At least 60days prior to the start of construction, including any grading or site remediation on the power plant site or its associated easements, the project owner shall submit the proposed traffic control plan to the County of Riverside and the Department of Transportation (Caltrans) District 8 office for review and comment and to BLM's Authorized Officer and the CPM for review and approval. The project owner shall also provide BLM's Authorized Officer and the CPM with a copy of the transmittal letter

to the County of Riverside and the Department of Transportation (Caltrans) District 8 office requesting review and comment.

At least 30 days prior to the start of construction, the project owner shall provide copies of any comment letters received from either the County of Riverside and the Department of Transportation (Caltrans) District 8 office, along with any changes to the proposed traffic control plan to BLM's Authorized Officer and the CPM for review and approval.

Staff considered comments filed by the applicant in NOISE & VIBRATION. NOISE-1 will still require the posting of a public phone number for members of the public to lodge a noise complaint with the applicant. Staff did, however, discuss whether a noise-specific phone number was necessary given the Genesis project's distance to residents. In order to streamline mitigation, staff will accept the posting of any applicant phone number (such as for job information or project updates), equipped with a 24-hour, 7 day a week message machine.

Staff also considered comments provided by the applicant in the AIR QUALITY section. Staff did not agree with the oversimplified methods used by the applicant for fugitive dust emission estimation and in a data request asked the applicant to revise this estimate using a more thorough activity specific methodology. However, the applicant refused. The RSA will indicate that the applicant has likely underestimated the fugitive dust emissions by at least a factor of two. Prior to concluding its testimony in this area, staff needs the 1-hour Federal NO2 modeling analysis from the applicant and the FDOC from the Mojave Desert Air Quality Management District.

Non Heat Transfer Fluid (HTF) comments filed by the applicant in regards to PUBLIC HEALTH and WASTE MANAGEMENT were considered and primarily accepted by staff.

For all remaining TIER II sections, the primary issue involves Heat Transfer Fluid (HTF). As was discussed during the April 26, 2010 Status Conference and subsequent Staff Assessment Workshops held on May 5, 2010 in Palm Springs and May 11, 2010 via teleconference, HTF impacts and mitigation measures needed to not only be consistent across technical disciplines, but other solar AFC proceedings in the I-10 corridor (i.e. Solar Millennium Blythe, and Solar Millennium Palen). Staff continues to work on this issue.

The remaining TIER II section that received comments is VISUAL RESOURCES. The main issue here is whether the Project would contribute a cumulatively considerable impact on recreational use by wilderness hikers in the remote Palen and McCoy Mountain region north of the proposed Genesis project site. Following the April 26, 2010 Status Conference, when CURE indicated a desire for further information on this impact, staff found, based on BLM data and observances of hiking and recreation use in the wilderness area north of the project site, that recreational use was limited and sporadic. While still important, the managers of this area (BLM) do not consider wilderness hikers' view and visual experience to be diminished as the result of the presence of the I-10 solar projects in the Chuckwalla Valley. Because of this data and

the distance between the project and likely viewpoints, staff concludes that the Genesis project impacts on visual resources would not be cumulatively considerable.

### TIER III sections:

- -- BIOLOGICAL RESOURCES
- -- CULTURAL RESOURCES
- -- SOIL AND WATER RESOURCES

## **Biological Resources**

Staff from BLM, Energy Commission, US Fish & Wildlife Service (USFWS), and California Department of Fish & Game (CDFG) agree that compensatory mitigation at a 1:1 ratio is appropriate for Project impacts to desert tortoise habitat because the Project would eliminate desert tortoise habitat, fragment adjacent habitat, and adversely affect connectivity for desert tortoise and other wildlife. As specified in staff's proposed Condition of Certification, acquisition, protection and enhancement of desert tortoise habitat would mitigate Project impacts to desert tortoise. Acquisition of mitigation lands would focus on parcels of critical habitat within the Chuckwalla Desert Wilderness Management Area (DWMA), as well as lands that would promote protection of high quality desert tortoise habitat between the northern portions of the Chuckwalla DWMA and Joshua Tree National Park. The location of the mitigation lands would also facilitate connectivity between desert tortoise populations in the Chuckwalla and Chemehuevi DWMAs and related critical habitat units.

Habitat acquisition to protect large reserves with healthy desert tortoise populations is recognized by scientists and land managers as a significant and necessary recovery action, but habitat acquisition alone will not lead to full recovery of desert tortoise populations. The multiple threats that face desert tortoise populations will be addressed by a combination of land acquisition and management actions that specifically target identified sources of mortality and diminished reproductive success. The USFWS Draft Revised Recovery Plan (USFWS 2008a) provides recommendations for such management actions, but also acknowledges the uncertainty in linking implementation of those actions with quantitative, measurable benefits to desert tortoise populations. Documenting the effectiveness of recovery actions at a population level is very challenging for a species like desert tortoise, because of its long generation time (25 years) and low detectability (Boarman and Kristen 2006). Furthermore, because desert tortoise simultaneously face multiple synergistic threats in many parts of their range, it is difficult to separate which management action contributes to which benefit (Boarman and Kristen 2006).

Therefore, staff believes it is appropriate to combine habitat acquisition with management actions to mitigate impacts of this Project. Notwithstanding the uncertainties associated with quantifying the benefits associated with specific management actions, resource agency staff and scientists relying on experience and the best available science have identified a number of management actions as critical in ensuring recovery of the species The following management actions are supported by the analysis and conclusions in the USFWS Draft Revised Recovery Plan (USFWS 2008a) and by recommendations from the Renewable Energy Action Team (REAT)

agencies. Staff has concluded that the actions described below, combined with habitat acquisition, would fully mitigate Project impacts by reducing desert tortoise mortality and improving survivorship of adult and juvenile desert tortoise:

- I-10 Fencing: Unfenced, well-traveled roadways are a significant source of mortality for desert tortoise (Boarman 2002; von Seckendorff Hoff and Marlow 2002; Boarman and Sazaki 1996). Desert tortoise exclusion fencing that minimizes this source of mortality is one of the recommended recovery actions in the USFWS Draft Revised Recovery Plan (USFWS 2008a). Fencing of I-10 was recognized in the NECO Plan as an essential element of desert tortoise recovery (BLM CCD 2002, p. 2-29, Table 2-7 and Map 2-9). Installation of desert tortoise exclusion fencing on both sides of I-10, combined with improvements for desert tortoise access at undercrossings, would reduce mortality and enhance connectivity between desert tortoise populations north and south of I-10. This is staff's highest priority enhancement action as it would remedy a significant and ongoing source of desert tortoise mortality. The funding for fencing and undercrossing improvements would need to be sufficient to support regular, long-term inspection, maintenance, and repairs.
- Reclamation of Closed Routes, Habitat Restoration, and Signage: Some of the adverse effects of off-highway vehicle use on desert tortoise include mortality on the surface and below ground, collapse of desert tortoise burrows and damage to annual and perennial plants and soil crusts (USFWS 2008a, Boarman 2002a). Many OHV routes in the Chuckwalla DWMA have been officially closed to protect desert tortoise and other sensitive resources, but continue to receive illegal OHV use. Habitat restoration and vertical mulching¹ on these routes would increase adult and juvenile survivorship by reducing a source of mortality and improving availability of suitable forage. Signage of closed routes would reduce risk of illegal vehicle use and increases effectiveness of law enforcement. Staff recommends vertical mulching, signage, and habitat restoration on no fewer than 25 routes within the Chuckwalla DWMA. The program of route rehabilitation would include funding for long term management and maintenance of the reclaimed routes.
- Sahara Mustard Control: Sahara mustard (Brassica tournefortii) is one of the
  most common invasive weeds in desert tortoise habitat. Approximately 19,000
  acres of the highest quality desert tortoise habitat in the Chuckwalla DWMA are
  now densely infested with Sahara mustard. A Sahara mustard control program to
  reduce the infestation and diminish the spread of this invasive weed would
  enhance survival and reproduction of desert tortoise by improving foraging
  habitat. Such a control program would also benefit other native plant and wildlife

<sup>&</sup>lt;sup>1</sup> Vertical mulching is a reclamation technique for closed routes that involves placing material such as live vegetation, rocks, dead shrubs and various woody material within the confines of a closed roadway surface, both on the ground surface and in a vertical manner. The material is placed in a way that conforms with adjacent vegetation and terrain and to make the routes "disappear" into the surrounding landscape. Decompaction and mulching techniques must extend at least to the visual horizon, especially where the closed routes intersect with other routes.

species (Barrows et al. 2009). The Sahara mustard control program would focus on reducing seed production in large established populations; eradication of small new populations soon after they appear and before a significant soil seedbank can establish itself; minimizing opportunities for Sahara mustard vectors such as OHVs to infest treated areas; and increasing public awareness of these vectors. Funding would need to be included for eradication and control efforts over 10 years, with ongoing management and maintenance for an additional 20 years.

The REAT agencies would work together to integrate these acquisition and enhancement mitigation measures, with similar mitigation from other renewable projects along the I-10. Funds from individual energy projects that are deposited to the REAT account can be pooled in order to acquire contiguous blocks of quality wildlife habitat that will provide for wildlife connectivity and climate change adaptation. Funds can also be used to improve existing management programs or develop new beneficial management programs for existing conserved lands. Implementation of the recovery actions listed above would be overseen by the REAT agencies to ensure a cohesive, regional strategy for mitigation for the impacts of the I-10 solar projects, and to achieve consistency with the conservation and mitigation targets of the DRECP.

Staff continues to work on the exact language for Biology Conditions of Certification.

### **Cultural Resources**

The BLM is consulting with the Advisory Council on Historic Preservation, the State Office of Historic Preservation, Native American groups, and the public at large on the development of a Programmatic Agreement for the proposed action to address cultural and historic resources. Energy Commission staff will continue to work collaboratively with the BLM and other agencies to contribute to the development of the Agreement, but will write conditions of certification providing for the mitigation of impacts to known cultural resources. As mentioned in the SA/DEIS, staff also expects to propose additional mitigation measures to provide for the appropriate treatment of cultural resources discovered during construction.

Cultural Resources staff has concluded that they can best fulfill their responsibilities regarding regional cumulative impacts from this and nearby projects by designing mitigation strategies for the Chuckwalla Valley and Palo Verde Meas as a whole. Rather than hiring multiple companies to produce reports in isolation from each other, with results that are difficult to compare and synthesize, staff's coordinated mitigation will standardize terminologies, increase statistical sample sizes, and focus research questions. Energy Commission staff will save time by creating overarching mitigation measures that will serve for most projects. This will leave staff more time to focus on the unusual cases that are bound to come up for each individual project and Areas of Potential Effects (APE). A more regional approach is also an advantage for BLM, since the federal agency manages this land at a regional scale. Staff sees regional mitigation

as an advantage for the applicants as well, as it will involve pooling their resources and therefore reducing their overall cultural resources costs.

To start, staff intends to coordinate the cultural resources mitigation of three solar projects proposed by NextEra and Solar Millenium for the I-10 corridor between Blythe and Desert Center, that is, the Blythe Solar Power Project, Genesis Solar Energy Project, and Palen Solar Power Project. These three projects share two broad types of cultural resources defined by staff as Cultural Landscapes: prehistoric trails and destination sites associated with the Prehistoric Trails Network (PTN) Cultural Landscape; and historical military training sites associated with the World War II Desert Training Center California-Arizona Maneuver Area (DTC/C-AMA) Cultural Landscape.

Staff essentially proposes that the Project Owners share staffing for some portions of cultural resources mitigation, and necessarily, share funding of this staffing. Staff proposes three cultural resources specialists to be shared by the three solar projects: a PTN Principal Investigator and Prehistoric Archaeologist, a PTN Senior Ethnographer, and a DTC/C-AMA Senior Ethnohistorian. These specialists would establish historic contexts and research questions and goals, which Project Owners would then apply to refine assumptions regarding resources assumed to be located on their project sites. Staff is currently investigating financial mechanisms for an endowment and what agency or third party would manage the funds and hire the Senior Specialists.

Staff concludes that the proposed Genesis Solar Energy Project (GSEP) would have a significant direct impact on 27 historically significant archaeological resources and significant indirect impact on 254 contributors to a historically significant cultural landscape. Staff expects the field portions of data recovery efforts needed for 24 of 27 sites to be brief. The staff recommended mitigation includes:

- Hire the three senior specialists described above to write historic and prehistoric contexts and research designs specifically for these two landscapes, which can be applied to sites found at all three projects, and to write National Register of Historic Places nominations for the landscape.
- For 9 small prehistoric sites: mapping, surface collection, limited subsurface exploration to be certain no buried deposits are present.
- For portions of 3 large temporary camps (PTN Cultural Landscape contributors CA-Riv-0260, CA-Riv-0663, CA-Riv-9072) along the ancient shores of Ford Dry Lake that will be destroyed by construction: mapping, surface collection, mechanical subsurface excavation, and excavation of the features found. Mapping and sample surface collection for portions that will be avoided.
- For 15 DTC/C-AMA Cultural Landscape contributors: mapping and in-field artifact analysis.

- Full time construction monitoring during grading and grubbing of site footprint until upper surface of Qoaf alluvium is reached. Aerial photos will help with this process, but this must be confirmed in person by an archaeologist.
- Full time construction monitoring of linear corridor during grading and utility trenching. Spot checking of trenches by a geomorphologist.
- Indirect impacts to 254 PTN contributors: construct a barbed wire fence along Palen-McCoy Wilderness boundary, and around the 2 geoglyphs. Hire an ethnographer (one of the shared specialists above) to interview local Native American groups and lead site visits for those desiring to go to PTN sites in GSEP vicinity. Learn about potential ethnographic impacts to these resources and possible mitigation. Design and implement a monitoring program for these sites that addresses both archaeological and ethnographic concerns.
- Write reports describing the results of all of this work and provide data for NRHP nominations
- Write and publish articles for a peer-reviewed journal and make presentations to the public.

Finally, staff finds that GSEPs incremental contribution to cumulative impacts to cultural resources is cumulatively considerable. The implementation of the mitigation measures above, and the two additional cumulative mitigation measures below, will contribute to the reduction of these impacts, however. Additional measures under consideration will be more formally presented in staff's testimony, due out in June:

- Hire a GIS technician to in-put GIS data for 2,500 archaeological sites into the BLM Palm Springs Office's GIS database.
- Donate \$20,000 to the non-profit Cultural Conservancy in support of the Salt Song Trail Project, an oral history and education project.

### **Soil & Water Resources**

Staff continues to work on the development of particular aspects related to both SOIL&WATER-15 (Colorado River impacts), and SOIL&WATER-18 (Water Policy compliance). Staff has not yet received proposed water programs from the applicant that would allow the project to come into compliance with Commission water policy. Details of mitigation measures related to Colorado River impacts remain those stipulated in the Staff Assessment, namely that:

- The Project owner shall first consider the use of dry cooling for project operation, and mitigate any remaining project impacts on the Colorado River.
- If dry-cooling is not used for project operation then the activities may include water conservation projects in the following order of priority: Zero Liquid Discharge systems, increase cycles of concentration in the evaporative cooling process, hybrid cooling, payment for irrigation improvements in Palo Verde Irrigation District, purchase of water rights within the Colorado River Basin that will be held in reserve, and/or BLM's Tamarisk Removal Program.
- The activities proposed for mitigation will be outlined in a Water Supply Plan that will be provided to the CPM and AO for review and approval.
- If the project owner has filed an application to the Colorado River Board to obtain an allocation of water from the Colorado River, regardless of wet or dry cooling technology implementation.
- The Project owner can choose to refine the estimate of the quantity of water attributed to flow from the Colorado River by implementing SOIL&WATER-19. If a lesser volume of water is determined to be diverted from the Colorado River as a result of project pumping pursuant to SOIL&WATER-19, that lesser volume shall be replaced in accordance with this Condition
- The project owner shall implement the activities reviewed and approved in the Water Supply Plan in accordance with the agreed upon schedule in the Water Supply Plan. If agreement on identification or implementation of mitigation activities cannot be achieved the project owner shall immediately halt construction or operation until assurance that the agreed upon activities can be identified and implemented.

**SOIL&WATER-19** will also remain in the form staff initially proposed in the March 26, 2010 Staff Assessment, including the option for the Project owner to refine the estimates of the amount of subsurface water flowing from the Colorado River due to project pumping. As with the Staff Assessment, these estimates may be used for determining the appropriate volume of water for mitigation in accordance with **SOIL&WATER-15**. The Project owner shall do the following to provide an estimate for review and approval by the AO and CPM:

- The Project owner shall conduct a detailed analysis of the contribution of Colorado River water to the PVMGB from the Projects groundwater extraction activities. The detailed analysis shall include:
  - a. The development of a conceptual model

- b. The use of a numerical model.
- c. Reporting of the results of the modeling effort
- d. Estimation of the contribution of Colorado River water and groundwater from the adjacent Palo Verde Valley Groundwater Basin to the Palo Verde Mesa Groundwater Basin as a result of Project groundwater extraction in the CVGB.
- The analysis shall include development of a conceptual model that includes a
  detailed description of the: geology; hydrogeology; boundary conditions; aquifer
  homogeneity/heterogeneity, recharge estimates, discharge estimates, flow regime
  and water balance.
  - The development of the conceptual model shall be based on existing data. In instances where available data is deficient, assumptions shall be developed along with the basis of the assumptions. The conceptual model shall be the basis for the numerical model.
- 3. The development of the numerical model shall include development of the grid orientation, cell size, and layering in sufficient detail to provide information concerning inflow from adjacent groundwater basins and boundaries including the Colorado River and the adjacent Palo Verde Valley Groundwater Basin for the life of the project. Model input data shall be developed for each of the boundary conditions and aquifer properties identified in the Conceptual Model.

The numerical model shall be run under steady-state conditions using groundwater heads from existing wells in the basin. The numerical model shall include calibration of the model with existing conditions including simulation of groundwater levels. The model shall be based upon an industry standard model whose code is available in the public domain. The creation and calibration of the model shall use the following techniques/requirements set forth in:

- a. ASTM D5447 Application of a Ground-Water Flow Model to a Site-Specific Problem
- b. ASTM D5490 Comparing Ground-Water Flow Model Simulations to Site-Specific Information
- c. ASTM D5609 Defining Boundary Conditions in Ground-Water Flow Modeling
- d. ASTM D5610 Defining Initial Conditions in Ground-Water Flow Modeling
- e. ASTM D5981 Calibrating a Ground-Water Flow Model Application
- f. ASTM D5611 Standard Guide for Conducting a Sensitivity Analysis for a Ground-Water Flow Model Application

- 4. The numerical model shall be calibrated and shall consist of comparing model results with actual field measurements and adjusting model parameters within predefined limits to improve the agreement between model estimates and actual data. Model calibration shall be completed for a specific time period that represents a period for which sufficient field data (e.g. groundwater levels) are available. Initial calibration efforts shall be completed for "steady-state" conditions when groundwater pumping was minimal.
- 5. The Project owner shall conduct transient groundwater model runs (including analysis) of the proposed project from construction through operation for the life of the project. The model shall use the information developed in Item (1).
- The Project owner shall conduct an analysis of the anticipated increased inflow (in afy) from the Colorado River and adjacent Palo Verde Valley Groundwater Basin during the life of the project.
- 7. The Project owner shall provide a statistical analysis identifying the accuracy of the results of the model as well as the information developed in Item (6) in terms of percent error.
- 8. The Project owner shall present the results of the development of the conceptual model, numerical model, calibration, transient runs and sensitivity analysis in a report for review and approval by AO and CPM.

### Conclusion

Staff anticipates publishing the Revised Staff Assessment for the Genesis Solar Energy Project as scheduled, on June 11, 2010. Staff will be available to answer questions and elaborate on this Status Report during the May 28, 2010 Status Conference.



# 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 GENESIS SOLAR ENERGY PROJECT

### Docket No. 09-AFC-8

## PROOF OF SERVICE (Revised 5/20/10)

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# **DECLARATION OF SERVICE**

I, <u>Maria Santourdjian</u>, declare that on <u>May 27, 2010</u>, I mailed hard copies of the attached <u>Status Report #3 for Genesis Solar Energy Project (09-AFC-8)</u>. 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: [http://www.energy.ca.gov/sitingcases/genesis\_solar].

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;
Х	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 <b>NOT</b> 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 ( <i>preferred method</i> );
OR	
	depositing in the mail an original and 12 paper copies, as follows:
	CALIFORNIA ENERGY COMMISSION

Attn: Docket No. <u>09-AFC-8</u> 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.

Originally Signed by Maria Santourdjian