August 3, 2010

California Energy Commission
Dockets Unit
1516 Ninth Street
Sacramento, CA 95814-5512

Subject: GENESIS SOLAR, LLC REPLY TO THE SECOND OPENING BRIEF OF CURE – EVIDENTIARY HEARING DAY 2 TOPICS
GENESIS SOLAR ENERY PROJECT
DOCKET NO. (09-AFC-8)

Enclosed for filing with the California Energy Commission is the original of GENESIS SOLAR, LLC REPLY TO THE SECOND OPENING BRIEF OF CURE – EVIDENTIARY HEARING DAY 2 TOPICS, for the Genesis Solar Energy Project (09-AFC-8).

Sincerely,

Ashley Y. Garner
In accordance with the Committee direction at the evidentiary hearings held on July 12, 13 and 21, 2010 Genesis Solar, LLC (Genesis) submits this Reply Brief in response to the Second Opening Brief of CURE, as follows:

I. 

INTRODUCTION

CURE contends incorrectly that the GSEP needs an entitlement from the Colorado River in order to pump California Groundwater and asserts that the Commission cannot proceed with approval of the GSEP because it failed to properly analyze groundwater pumping impacts. CURE has completely neglected the Committee’s prior findings in its Scoping Order and the evidence and has misstated the laws applicable to both assertions.

II. 

GSEP’s PROPOSED USE OF GROUNDWATER DOES NOT REQUIRE AN ENTITLEMENT OF COLORADO RIVER WATER AND WILL NOT RESULT IN ANY UNMITIGATED IMPACTS

CURE painstakingly includes numerous citations in its brief to the complex body of law that comprises the Law of the River. While the citations are impressive, CURE fails to
answer the fundamental question. How can a state agency like the Commission require an entitlement to Colorado River water, when the federal agency with exclusive jurisdiction granted by the United States Supreme Court, the United States Bureau of Reclamation (Bureau) has never required a project like the GSEP to obtain an entitlement of Colorado River water to pump California groundwater? The answer is clear. The Bureau does not recognize the wells in the Chuckwalla Valley, or in the Palo Verde Mesa for that matter, as pumping from the mainstream of the Colorado River water. That is why they have never sought to require an entitlement or sought to enjoin such pumping. This is clear in the case of the many wells pumping in and around the Colorado River including the Blythe Energy Project which has been pumping groundwater for years at a location much closer to the Colorado River than the GSEP.

A. The Accounting Surface is Inapplicable to the GSEP and the GSEP Will Not Pump Water From the Mainstream of the Colorado River

As Genesis has contended since the beginning of this project, pumping of California Groundwater would not require an entitlement. CURE has criticized Genesis testimony in that it did not include citations to case law that it has the rights to pump California groundwater. Since such a proposition is so widely accepted citation seemed unnecessary. To be clear, use of water in California is governed by Article 2 Section 10 of the California Constitution. It is well settled in California law that an owner of property has the right to put underlying groundwater to reasonable and beneficial use on overlying land. (See Katz v. Walkinshaw (1903) 141 Cal. 116). This right is called an overlying right and it is a real property right. As such the right to use groundwater pursuant to an overlying water right is part and parcel of the land.¹

CURE attempts to confuse the issue by pointing to a complex set of laws which is commonly known as the Law of the River. Conveniently CURE fails to interpret any of those laws. It is clear that the Supreme Court recognized that the United States Bureau of Reclamation (Bureau) has the ability to regulate the consumptive use the Colorado River water, including underground pumping from the mainstream of the Colorado River. What CURE, and to some extent Staff, have relied on is the supposition that the 2006 Supreme Court Decree² somehow changed the Law of the River. CURE makes this allegation to misdirect the Committee into believing that something has changed to distinguish this project from all of the other wells which pump California Groundwater in and around the Colorado River that have never been required to secure an entitlement. What makes this assertion even more ludicrous is that the specific language in the 2006 Supreme Court Decree relied on by CURE has been the Law of the River in every

¹ The Federal government, as a property owner, enjoys the same rights as any other property owner to the use of groundwater. (See In re Waters of Hallett Creek Stream System (1988) 44 Cal.3d 448). Thus, the Federal government holds overlying rights to the use of water underlying the subject land and may grant Genesis the right to use this water. BLM manages the land at issue and is processing the application for a right-of-way (ROW) for the GSEP. Genesis has requested that the ROW (as modified by the Plan of Development) expressly authorize the use of groundwater for the project.¹ If approved, the ROW will be subject to the condition that all activities on the property are performed in accordance with the Plan of Development. Therefore BLM has the right to convey the right to use groundwater and may do so pursuant to the ROW.

**Supreme Court Decision since 1963.** Specifically, that language comes from the June 1963 decision that became the first of six decrees titled *Arizona v. California* (1964) 376 U.S. 340, and it has been carried through subsequent decrees up to and including the 2006 decree\(^3\), reading:

(A) "Consumptive use" means diversions from the stream less such return flow thereto as is available for consumptive use in the United States or in satisfaction of the Mexican Treaty obligation;

(B) "Mainstream" means the mainstream of the Colorado River downstream from Lees Ferry within the United States, including the reservoirs thereon;

(C) Consumptive use from the mainstream within a State shall include all consumptive uses of water of the mainstream, including water drawn from the mainstream by underground pumping, and including, but not limited to, consumptive uses made by persons, by agencies of that State, and by the United States for the benefit of Indian reservations and other federal establishments within the State;... (Id. at p. 340)

No intervening decision/decree ever changed the definition or application from the original opinion of 1963 through the 2006 decree. Simply stated, the Law of the River relative to groundwater pumping has not changed since 1963.

The only thing that is new is the proposition by the United States Geologic Survey (USGS) of methods that might be used to account for groundwater pumping from the Colorado River mainstream. This includes the Accounting Surface method, which has been discussed for years but has never been adopted as part of the Law of the River. One basic limitation of the methods proposed by the USGS is that they rely on the definition of a Colorado River Aquifer which contains groundwater that may be tributary to the river over geologic time. The definition of the Colorado River Aquifer is based solely on elevation and limited information regarding geology, and does not consider known variations in aquifer conditions or hydrogeology. As such, it is not a predictor of whether specific groundwater pumping is actually capable of interacting with the river and, if so, whether it happens over the course of a few years, millennia, or eons.

No party to this proceeding contends that these studies are part of the Law of the River and therefore should be treated as law. Even with these conservative assumptions, unlike CURE, the USGS recognized that even if a tributary groundwater basin is connected to surface water such as the Colorado River in “geologic time”, this does not mean that pumping from the groundwater would be pumping from the mainstream of the Colorado River. If that were the case, there would be no distinction between state groundwater law and surface water rights anywhere in the state. By logical extension anytime someone pumped groundwater, they would “in geologic time” potentially affect a surface water body.

\(^3\) Id., at p. 153
The USGS further limited its conservative assumptions to groundwater that lies below the theoretical Accounting Surface. In other words the studies cited by CURE recognize in model that not all water from tributary groundwater basins would be treated as waters being pumped from the mainstream of the Colorado River. Even applying this simplistic model, it is undisputed that the GSEP will not cause the static groundwater table to drop below this theoretical Accounting Surface. CURE essentially relies on the USGS studies to establish a theoretical connection between the Chuckwalla Valley and the Colorado River but completely ignores that the USGS-proposed accounting method is based on the premise that only the waters below the Accounting Surface could possibly be connected to the Colorado River.

CURE cites in its Opening Brief that every agency agrees that the GSEP needs an entitlement. That is simply untrue. It is also telling that conspicuously missing from this list of agencies that apparently agree with CURE is the Bureau, the federal agency with exclusive jurisdiction to require users of Colorado River Water to do so pursuant to an entitlement and quite frankly the only agency that should matter. See the Genesis Opening Brief for the straightforward analysis of the Colorado River Board letter. In summary, the Colorado River Board and Metropolitan Water District letters cited by CURE do not purport to prove that the GSEP is diverting water from the mainstream of the Colorado River, and therefore do no more in that regard than any of CURE’s evidence. CURE misconstrues the agency letters and USGS studies as equating pumping from the Colorado River Aquifer with pumping from the Colorado River mainstream, when nothing in these documents purports to make this connection. These groups simply state that “if it is determined that these wells are, in fact, pumping Colorado River water, a contract with the Secretary of the Interior would be required”.4 (emphasis added)

Staff’s contention in the RSA (Exhibit 400) that the GSEP may impact the Colorado River by interfering with long term underground flows to it are contested by Genesis based on consideration of actual hydrogeologic conditions between the river and the GSEP. Staff and Genesis agree that the GSEP would not be required to secure an entitlement of Colorado River Water in order to legally pump groundwater in the Chuckwalla Valley.5

B. Staff’s CEQA Analysis of Potential Impact to Colorado River Does Not Demonstrate the GSEP Requires an Entitlement of Colorado River Water

Since CURE cannot rely on any determination that the GSEP will actually pump from the mainstream of the Colorado River and even the proposed Accounting Surface rule indicates the GSEP would not be pumping groundwater that would be replaced by Colorado River water, CURE is left with attempting to twist Staff’s CEQA analysis into proof that the GSEP needs an entitlement of Colorado River Water. CURE contends that the GSEP is actually pumping groundwater from the Colorado River some 30 miles

4 CURE’s Exh. 546; July 2, 2010 letter from Gerald Zimmerman, Colorado River Board
5 Exhibit 60, Revised Opening Testimony – Soil and Water Resources, page 6, Staff Counsel’s summary of Staff Position (7/12/10 RT 8-16); and Exhibit 400 Revised Staff Assessment, page C.9-95
away. Nothing in the record supports this broad assertion. Staff’s analysis at most assumes that the Chuckwalla Valley Groundwater Basin communicates with the Palo Verde Mesa Groundwater Basin and in order to streamline the project Genesis has agreed to mitigate any interference between the flow across this boundary.\(^6\) Genesis does not agree that any effect on the flow across this boundary would result in a determination that the GSEP will pump water from the mainstream of the Colorado River. Staff’s assertion that somehow the affect across this boundary would impact the Colorado River ignores the actual hydrogeologic conditions in the Palo Verde Mesa and Palo Verde Valley. Even if there was some affect, the Law of River does not require an entitlement for an “affect”. It only requires an entitlement if the GSEP would pump from the mainstream of the Colorado River. That would mean that the GSEP would have to actually move water from the Colorado River into its wells, a physical impossibility based on simple hydrogeologic principals when one considers actual groundwater conditions in the Palo Verde Valley. There is absolutely no evidence in the record that the GSEP will pump from the mainstream of the Colorado River and the Committee should ignore CURE’s open threats of a federal lawsuit.

III.

STAFF’S ASSESSMENT AND GENESIS’ ANALYSIS OF THE WATER USE BY GSEP IS SUFFICIENT TO MEET, IF APPLICABLE, ANY REQUIREMENT UNDER THE CALIFORNIA WATER CODE TO COMPLY WITH LORS AND CEQA

CURE contends that the Committee cannot proceed with approval of the GSEP because it did conduct a Water Supply Assessment (WSA) pursuant to Government Code section 10900. The case cited by CURE actually supports approval of the GSEP in that the substantial evidence before the Committee clearly meets the purpose and express provisions for which the Water Code may require a Water Supply Assessment under CEQA. CURE again elevates form over substance. The fact is that the record in this matter has more than sufficient analysis and information about the water supply to satisfy all of the elements contained in a Water Supply Assessment (and more) for the GSEP.

As stated by the court in Center for Biological Diversity v. County of San Bernardino (2010) 184 CalApp4th 1342, at 1360:

“The purpose of a WSA is "to ensure that local land use authorities will thoroughly consider the availability of water supplies before approving major new developments," and "to respond to... CEQA litigation concerning water supply." (Tepper, New Water Requirements for Large-Scale Developments (Jan. 2005) 27 L.A. Law. 18, 20, 21, italics added.) "Historically, concerns about water availability in California were addressed after, rather than before, new housing construction," a situation that "led to courts and the legislature expressing their

\(^6\) 7/13/10 RT 4-14 summarized and confirmed at page 26
frustration with determinations of water availability after housing construction was completed and with the attendant reliance on water that was not 'real' or 'wet.' " (Id. at p. 18.)

While the application of the WSA has traditionally only been applied in the urban context as indicated above and referenced by CBD in Gray v. County of Madera, 2008, 167 Cal.App.4th 1099 at p. 1131, the most recent holding in CBD (which does not overrule Gray) has expanded the application of a WSA requirement to the rural areas of the state, whether there is a public water system or not. However, a simple reading of the WSA requirements in Water Code (§10910) clearly indicates that the whole scheme of the WSA is about protecting public water systems and whether a given project would use or otherwise impact that public water supply. A closer reading of the requirements for a WSA shows the following provisions specifically apply to assessing the effects on public water supply systems.

§10910
(c)(4): a discussion of water supplies for up to 20 dry years
(d)(1): identify water rights/entitlements in project area
(d)(2): identify any public system or government right to the water
(e): identify other public water systems using the source water
(f): if groundwater is used:
• identify the urban management plan
• describe the water basin (and whether adjudicated or not)
• describe water pumped by the public system in last 5 yrs
• describe water pumped from the basin by the public entity
• discuss sufficiency of basin to meet project need
(g): governing body of public water system is to detail the assessment

All of the above elements have been thoroughly analyzed by Genesis as documented in its Groundwater Resources Investigation (WorleyParsons, 2010). This is despite the fact that Genesis will not be using a public water supply and there are no public water supply systems proposed. Genesis has installed test wells completed in five aquifer zones, an observation well, a multi-depth pressure transducer assembly, conducted four pump tests under various conditions with measurements at various depths, conducted geophysical subsurface investigation across the area, and has performed a three dimensional modeling analysis to predict the effect of the project pumping on the groundwater surface for the entire life of the project.7 These studies indicate the proposed pumping for the GSEP will not significantly impact groundwater supplies or sustainability in the Chuckwalla Valley. Further, Staff proposed, and Genesis has agreed to a very detailed well monitoring program to ensure that the GSEP will not result in significant impacts to existing wells, even though they may be a good distance away from the GSEP proposed well field. No additional assessment is required.

Therefore, the Committee can rest assured that a very detailed analysis of the potential impacts from groundwater pumping for the GSEP sufficient to survive any potential

7 Exhibits 27 and 43; see also Exhibits 11 and 48
challenge by CURE in court that the analysis did not satisfy the requirements contained in the holdings of *CBD* or *Gray*.

**A. The Project’s Water Demand**

CURE contends that the record does not contain evidence of the Project’s Water Demand. Apparently CURE has failed to read Exhibit 1, the Application For Certification (AFC) in this proceeding. Exhibit 1, p. 3-15 contains information that clearly identifies how much water will be used and for what purpose including an estimate of the amount of water for mirror washing. Additionally, Genesis has provided a complete water balance which allowed Staff to review and double check the values contained in Genesis’ estimates.\(^8\)

**B. The Project’s Water Supply**

As discussed above, the GSEP is not pumping Colorado River water and therefore does not need an entitlement. Genesis has proven that the aquifer has the capacity to supply the GSEP, even more so now that it has accepted Staff’s Dry Cooled Alternative and reduced its water demand to a little over 200 acre feet per year.

**IV. THE PROJECT WILL NOT RESULT IN UNANALYZED AND UNMITIGATEDSIGNIFICANT OFFSITE IMPACTS ON VEGETATION**

**A. The Project Has Been Adequately Analyzed and, With the proposed Mitigation, Will Not Cause Hydrological Impacts to Downstream Vegetation**

CURE claims that the GSEP will result in impacts downstream of the discharge point that have not been analyzed. However, CURE then claims that the mitigation required for these very same impacts that it claims were not analyzed is insufficient. It is not true that the impacts have not been analyzed, it is that CURE disagrees with Staff’s conclusions. Staff assumed impacts downstream as a worst case scenario and proposed mitigation by requiring as CURE correctly points out purchasing one half acre for *every acre of offsite wash disturbed*. To place this in perspective, this is the same as assuming the GSEP would be constructing another 125 MW solar field (disturbing approximately 1,000 additional acres) merely to compensate for potential impacts to washes downstream of the discharge points. This is overly conservative and ignores that the design of the drainage system is to spread out the discharge as quickly as possible so that it will return to natural sheet flow conditions. CURE claims that is not sufficient with any evidence. Staff stated in its RSA:

> while the wash-dependent vegetation downslope of altered drainages would eventually be lost, that loss would be slow and gradual. Staff

---

\(^8\) Exhibit 1, p. 3-47 and Table 3.10-2
anticipates that wash-dependent vegetation downstream of the Project deprived of flows would continue to provide habitat for years and possibly decades after the Project is constructed, although eventually it would die (if deprived of flows) or be indirectly affected by erosion and sedimentation along reaches below the stormwater channel discharge points.\textsuperscript{9}

It is inconceivable that the downstream impacts would be almost half of what the impacts of grading the site would be, but out of an abundance of caution Staff has required mitigation anyway. CURE’s claim that this would not be enough is without merit and not based on any evidence.

B. The Project has Been Adequately Analyzed and, With the Mitigation Proposed by Genesis and Staff, Will Not Cause Significant Impacts to Downwind Vegetation from Erosion and Soil Mobilization

CURE’s witness, Dr. Okin, testified that “the surfaces on the western side (of the project) are incredibly stable if undisturbed….The pavement actually protects a huge amount of material underneath that is wind erodable. …On the west side, you have the potential of actually creating a new aeolian source where there wasn’t one.”\textsuperscript{10} CURE then makes the leap, without any substantiation, that the project’s construction of the western solar field will result in a large, exposed surface that will continually erode, causing significant impacts to downwind vegetation from dust deposition.\textsuperscript{11} CURE’s lengthy discussion essentially ignores the mitigation in the RSA\textsuperscript{12} that the project will coat the surface with a dust suppressant specifically developed to prevent wind erosion on such surfaces.

Dust suppressants have been used successfully for decades, and common sense will tell you that there will be continual advances in the technology. Also, there are effective PM\textsubscript{10} suppressants (http://www.valleyair.org) for arid environments, environmentally safe, and withstand light traffic of the sort that will occur on the solar fields during operation. As set forth in the RSA, dust suppression is more than adequately analyzed and mitigated relative to the effected topic areas.\textsuperscript{13} If for no other reason, Genesis must use an efficient suppressant to comply with the Conditions of Certification, but more importantly because the project’s solar technology would not operate efficiently if dust were continually coating the surfaces.

///

///

\textsuperscript{9} Exhibit 400, pages C.2-72-73
\textsuperscript{10} CURE Opening Brief Day 1, p. 12 (referencing 7/21/10 RT 69-70
\textsuperscript{11} Ibid
\textsuperscript{12} Exhibit 400, Soil & Water 1
\textsuperscript{13} Soil and Water 1 (DESCP); Soil and Water Appendix B (WDR); Worker Safety 8 as well as AQ-SC3, 4 and 7
V.

CONCLUSION

CURE fails to present any evidence that the GSEP will not comply with applicable LORS or will result in significant unmitigated impacts. While CURE claims that the analysis is flawed, it once again, waited until the last minute at testimony and evidentiary hearings to present its arguments. For a group that claims it has assisted the Commission in protecting the environment, it did not bring its experts to discuss these issues openly in any workshop in the Genesis proceedings, and engaged in typical sandbagging tactics not designed to seek a path forward but to stall, delay and just plain oppose. While Genesis has complained about such tactics to no avail, we urge the Committee to see through them, not be threatened by CURE’s claims that the Commission can be sued successfully and make the appropriate findings in accordance with the evidence and the arguments herein.

Dated: August 3, 2010

/original signed/

Scott A Galati
Counsel to Genesis Solar, LLC
APPLICATION FOR CERTIFICATION FOR THE
GENESIS SOLAR ENERGY PROJECT

APPLICANT
Ryan O’Keefe, Vice President
Genesis Solar LLC
700 Universe Boulevard
Juno Beach, Florida 33408
e-mail service preferred
Ryan.okeefe@nexteraenergy.com

Scott Busa/Project Director
Meg Russel/Project Manager
Duane McCloud/Lead Engineer
NextEra Energy
700 Universe Boulevard
Juno Beach, FL 33408
Scott.Busa@nexteraenergy.com
Meg.Russell@nexteraenergy.com
Duane.mccloud@nexteraenergy.com
e-mail service preferred

Matt Handel/Vice President
Matt.Handel@nexteraenergy.com
e-mail service preferred

Kenny Stein,
Environmental Services Manager
Kenneth.Stein@nexteraenergy.com

Mike Pappalardo
Permitting Manager
3368 Videra Drive
Eugene, OR 97405
mike.pappalardo@nexteraenergy.com

Kerry Hattevik/Director
West Region Regulatory Affairs
829 Arlington Boulevard
El Cerrito, CA 94530
Kerry.Hattevik@nexteraenergy.com

APPLICANT’S CONSULTANTS
Tricia Bernhardt/Project Manager
Tetra Tech, EC
143 Union Boulevard, Ste 1010
Lakewood, CO 80228
Tricia.bernhardt@tteci.com

James Kimura, Project Engineer
Worley Parsons
2330 East Bidwell Street, Ste.150
Folsom, CA 95630
James.Kimura@WorleyParsons.com

COUNSEL FOR APPLICANT
Scott Galati
Galati & Blek, LLP
455 Capitol Mall, Ste. 350
Sacramento, CA 95814
sgalati@gb-llp.com

INTERESTED AGENCIES
California-ISO
e-recipient@caiso.com

Allison Shaffer, Project Manager
Bureau of Land Management
Palm Springs South Coast Field Office
1201 Bird Center Drive
Palm Springs, CA 92262
Allison_Shaffer@blm.gov

INTERVENORS
California Unions for Reliable Energy (CURE)
c/o: Tanya A. Gulessierian,
Rachael E. Koss,
Marc D. Joseph
Adams Broadwell Jospeh & Cardoza
601 Gateway Boulevard,
Ste 1000
South San Francisco, CA 94080
tgullessierian@adamsbroadwell.com
rkoss@adamsbroadwell.com

Mr. Larry Silver
California Environmental Law Project
Counsel to Mr. Budlong
e-mail preferred
larrysilver@celproject.net

Californians for Renewable Energy, Inc. (CARE)
Michael E. Boyd, President
5439 Soquel Drive
Soquel, CA 95073-2659
michaelboyd@sbcglobal.net

Lisa T. Belenky, Senior Attorney
Center for Biological Diversity
351 California St., Suite 600
San Francisco, CA 94104
lbelenky@biologicaldiversity.org

Ileene Anderson
Public Lands Desert Director
Center for Biological Diversity
PMB 447, 8033 Sunset Boulevard
Los Angeles, CA 90046
landerson@biologicaldiversity.org

OTHER
Alfredo Figueroa
424 North Carlton
Blythe, CA 92225
lacunadeaztlan@aol.com

Docket No. 09-AFC-8
PROOF OF SERVICE
(Revised 7/23/10)
DECLARATION OF SERVICE

I, Ashley Y. Garner, declare that on August 3, 2010, I served and filed copies of the attached: GENESIS SOLAR, LLC REPLY TO THE SECOND OPENING BRIEF OF CURE – EVIDentiARY HEARING DAY 2 TOPICS dated August 3, 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: [http://ww.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;

____ 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. 09-AFC-8
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.

____________________________________
Ashley Y. Garner