DOCKETED

Docket Number:	97-AFC-01C
Project Title:	High Desert Power Plant (COMPLIANCE)
TN #:	203034
Document Title:	Opposition to Staff Recommendation
Description:	This projects conditions cannot be amended without reopening the entire proceeding.
Filer:	Gary Ledford
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Submitter Role:	Intervenor
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Party in Intervention
In Pro per

STATE OF CALIFORNIA

Energy Resources Conservation
And Development Commission

In the Matter of:	)	Docket No. 97-AFC-01C
	)	
	)	Opposition to
	)	High Desert Power's Amendment
	)	Petition Alternative Water Supplies
The Application for	)	to Address Drought Related
For the High Desert Power Project	)	Reliability Impacts
[HDPP]	)	
	)	
	)	

DIRECT TESTIMONY OF GARY A LEDFORD PARTY IN INTERVENTION ON WATER AND WATER RELIABILITY FOR COOLING THE HIGH DESERT POWER PROJECT And VICTORVILLE 2 HIBRID

Now more than 14 years after a group of responsible citizens began advising this Commission that the use of SWP water for Wet Cooling would not work for a number reasons in the HDPP, and after a representative of HDPP at the time under sworn testimony stated they **would never** use Reclaimed Water from the VVWRA, conditions of approval were placed on HDPP to protect the High Desert Citizens from the waste and unreasonable use of their water.

Since that time;

1. HDPP got the Reclaimed Water condition amended,
2. A new Project was proposed and Licensed in 2008, called the Victorville 2 Hybrid Project 07-AFC-1, also proposed to be using Recycled Water, See Exhibit A
3. Victorville Hybrid has not started construction and recently was granted a time extension, See Exhibit B
4. HDPP conditions of approval required Banking 13,000 AF of water within five years that condition was modified to 15 years, and has not been completed yet.
5. When the use of Reclaimed water for HDPP was granted they were to have completed a "Study" on the "Use" of Reclaimed Water, the study dates have been modified three times and the next date is November of this year, only several weeks away.
6. This study necessarily needs to include the companion project located on the same George Air Force Base Site, and using the same water.
7. Underlying assumptions on the amount of water to be processed by VVWRA have changed since two new treatment facilities are under construction in Apple Valley and Hesperia, that will curtail the amount of Reclaimed Water Available.
8. The value of reclaimed water in an over drafted basin that needs the reclaimed water for other uses.

HDPP finds themselves in the untenable situation of the California **Drought.** Where they have not banked the water needed to bridge the drought as contemplated at the time of licensing and are using Reclaimed Water that in the process they were prohibited from using.

This is not a "Surprise", the issue of "Reliability" was exhaustively discussed and the conditions imposed on the HDPP, were the result of months of evidentiary proceedings.

The record in HDPP is clear on "reliability." when Hearing Officer Valkosky, asked the Acting Manager of the MWA if it was a matter of **"take your chances,"** he was told, "yes" as illustrated in the following transcript excerpt:

> HEARING OFFICER VALKOSKY: "Okay, so again, just to relate it to this particular project, the City of Victorville, on

behalf of the applicant, will be coming back every year, and **it's pretty much take your chances** depending on the availability of water?"

Acting MWA Manager Mr. Cauoette: "That's correct"[1]

The Applicant chose it's method of cooling and its method of storing and banking water for such an occasion. It is presently impossible to tell just how unsuccessful this portion of the banking of 13,000 acre feet of water is, because the "Staff Report" does not tell us exactly how much water has been banked over twelve years, only that there is about one year available, however the only "Reliable Method of Cooling" for this project along with others as they seek re-certification or new licenses is Dry Cooling.

CEC Staff Testimony October 8, 1999, by Linda Bond at page 122 lines 1-8. The Public was assured:

MR. LEDFORD: "So that I'm really clear on this. In the event that you go below a thousand acre feet of water in the water bank, the project would have to shut down, is that correct?"

MS. BOND: "Yes. They cannot withdraw any more water once they reach the point that there's only a thousand acre feet of that buffer in the groundwater system."

Looking again to the record, SWRCBR 75-58, by plain its reading, states it applies to planning power plants who consider the use of fresh inland water for cooling. The Resolution states:

"The purpose of this policy is to provide consistent statewide water quality principles and guidance for adoption of discharge requirements, and implementation actions for power plants which depend upon inland waters for cooling. In addition, this policy should be particularly useful in guiding planning of new power generating facilities so **as to protect beneficial uses of the State's water resources and to keep the consumptive use of freshwater for power plant cooling to that minimally essential for the welfare of the citizens of the State.**

The most compelling testimony from all the witnesses is found in the record, first in the Final Decision

B. Water Resources

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[1] Hearing Transcript October 7th 1999, page 336 lines 8 - 14

This was the most highly contested area in these proceedings. Applicant, Staff, CDFG, and CURE believe that, with implementation of appropriate Conditions of Certification, the HDPP will create no significant adverse impacts to the area's water resources. An Intervenor, Mr. Gary Ledford, strongly disputes the propriety and the impacts of the project's proposed water supply plan. He does not oppose development of the project, per se, but rather basically contends that allowing the project to use imported water for its intended consumptive use gives HDPP a greater amount of water at a reduced rate than other producers in the Basin and thus creates an inequity. (Ledford s Brief on Reopened Hearings and Revised Comments , March 7, 2000, p. 20; see also 1/27/00 RT 24.) More specifically, Mr. Ledford believes: HDPP will receive twice the amount of water at a reduced rate than all other producers in the basin; a will serve letter providing for a continuous and uninterruptible source of water is necessary prior to project certification; CEQA analysis by the water agencies is necessary; the projects water facilities are actually intended to serve the redevelopment of George Air Force Base; and the projects consumptive water use is prohibited by the California Constitution. (Ledfords April 14, 2000 comments, pp.10 -11 .) Several public commenters echo Mr. Ledfords concerns. (See, e.g., 1/27/00 RT 51-56; 2/18/00 RT 78, 90-92.)

These modeling results establish that the project's water supply plan, if properly defined in Conditions of Certification, will not cause or contribute to the depletion of water resources in the area and will actually result in a slightly beneficial effect. (10/7/99 RT 238-239, 328-29; 10/8/99 RT 132-33, 145-46.) To ensure these results, several witnesses explained what the Conditions of Certification must require. (see Ex. 142.)

Briefly, the key provisions are:

• the HDPP will use only imported SWP water for cooling uses; **other water may not be substituted for this purpose** (10/7/99 RT 272:7-13, 275:5-12, 291:16-19, 306:13 to 307:3);

• at all times, including prior to commencing operations and at the conclusion of operations, a balance of 1000 acre-feet (after accounting for dissipation) must be stored in the project's water "bank" (10/7/99 RT 199, 206, 209; 108/99 RT 116);

• if at any time the water balance in the bank is at 1000 acre-feet, the HDPP **must shut down** (10/7 7/99 RT 208; 10/8/99 RT 26, 122, 124);

The witnesses acknowledged, however, that if water is unavailable from any source then the project could not operate. (9/16/99 RT 164-66.) Conversely, if the question of water supply reliability is satisfactorily answered (and sufficient water is in fact available for the project), then the project will operate reliably. (9/16/99 RT 170 -71.) Mr. Ledford contends that the HDPP should not be certified since it does not have a **reliable** water supply. (Ledford's March 7, 2000 Brief, p. 7.) The availability of water is discussed in detail in the "Soil and Water Resources" portion of this Decision, infra.

Since the project's water supply plan relies on the "use" of SWP Water destined to supply and recharge the MRB and on several future agreements that are not in existence it is impossible. "A reliable supply of water is necessary . . . to operate reliably" [DEC pg. 77]. To issue a certificate to a project without a reliable supply of water **clearly violates the Warren Alquist mandate directing** ". . . the CEC to study, . . . other advances in power plant cooling . . ." to provide reliable power supplies. [Section 25601(d) WAC]

The staff's compelling testimony on "reliability" is in a table of "IMPACTS NOT YET EVALUATED". The table, part of staff's final testimony states, there is **"Significant probability of the project failing due to unavailability of SWP water."** [DEC - Ex. 146A page[s] 3 & 4; CRT 2-18- 2000 pg.[s] 189 - 216]

The Fifth District Court of Appeal found in Kings County Farm Bureau v. City of Hanford, that " . . . the failure to evaluate whether the agreement was feasible

and to what extent water would be available for purchase was fatal to a meaningful evaluation . . .".

What exactly did the conditions issued to the HDPP say if there was no water?

CONDITIONS of CERTIFICATION

SOIL&WATER-1 The only water used for project operation (except for domestic purposes) **shall be State Water Project (SWP)** water obtained by the project owner consistent with the provisions of the Mojave Water Agency's (MWA) Ordinance 9.

a. Whenever SWP water is available to be purchased from MWA, the project owner **shall use direct delivery** of such water for project operation.

b. Whenever water is not available to be purchased from the MWA, the project owner may use SWP water banked in the seven HDPP wells identified in Figure Number 1 of the Addendum Number 1 to the Evaluation of Alternative Water Supplies for the High Desert Power Project (Bookman-Edmonston 1998) as long as the amount of water used does not exceed the amount of water determined to be available to the project pursuant to **SOIL&WATER-5.**

c. If there is no water available to be purchased from the MWA and there is no banked water available to the project, as determined pursuant to **SOIL&WATER-5**, **no groundwater shall be pumped**, and the **project shall not operate**. At the project owner's discretion, **dry cooling may be used instead**, if an amendment to the Commission s decision allowing dry cooling is approved.

e. The projects water supply facilities shall be appropriately sized to meet project needs.

Volumes could be resubmitted – but a simple reading of the Decision in this case tells the story.

Staff proposes to ignore and fully gut these conditions, while reliable power is essential to California – without water there will be no reason to worry about power. Throughout California crops have dried up, fish hatcheries are drying up and being abandoned, multitudes of Californians are drying up their lawns, but somehow – it seems the Staff at the CEC, seems to think the conditions – worked on for a couple of years back in 1998 – 2000 should now be ignored.

Kicking the ball down the road and "willy nelly" amending portions of the Ordered Certification of the HDPP, when one portion affects others is not the proper method of reviewing this project.

For the group of concerned citizens – especially Jack Beinscroft who recently passed away and was the expert who had the foresight to understand why this power plant would not be reliable, I request that the conditions that were put in place at the specific request of the HDPP and with their sworn testimony that would never use either recycled water or water from the Alto Basin Water, not be amended, and Mandate the Dry Cooling Alternative approved and implemented as the project was conditioned on.

Any other solution goes against the reason for Public Participation and development of mitigation on valid issues – clearly addressed and none of which are a surprise.

At the very least this hearing should be continued until after the Recycled Water Study has been completed and Public Evidenceary Hearings on this proposed modification can be Noticed and held.

Respectfully submitted:

September 4, 2014

GARY A. LEDFORD
PARTY IN INTERVENTION
IN PRO PER

DECLARATION OF
GARY A. LEDFORD

I, Gary A. Ledford, declare as follows:

1. I am presently a resident of Colorado, but own real estate and business interests in the Victory Valley.
2. For at least the last Thirty years I have paid taxes on real estate situated in the High Desert and under the jurisdiction of the Mojave Water Agency (hereinafter "MWA").
3. I intervened in 97-AFC-1 and am a bonafide party.
4. I lived in the Victor Valley for a period of over 20 years and have built over 1,200 homes in the Valley, primarily for Senior Citizens over the age of 55.
5. I have also been responsible for several commercial projects in Apple Valley.
6. Over the past 40 years I have broad-based experience in the design and construction business.
7. Over the past 30 years I have been actively involved in the adjudication of water and water rights in the Mojave Water Agency Boundaries.
8. I was aware that cooling for HDPP process required the 100% consumptive use of this water.
9. The cumulative impacts associated with the use of 4,000-acre feet of consumed water in cooling towers, plus the additional 3,200 acre-feet of water in Victorville 2 Hybrid, when the alternative for Wet/Dry Cooling would mitigate the water impacts to a level of non-significance was virtually overlooked in HDPP even though many of the CEC staff recommended the Dry Cooling Alternative.
10. Attached is my modified Direct Testimony, which I believe was supported by the record in this case.
11. I shortened the old testimony to see how that several of predicted impacts would happen – has happened.
12. California needs reliable energy and not at the expense of the public that rely on water to live and enjoy food eat, and lawns in their front yards.

13. Exhausting 100% of water vapor to the atmosphere is not in the best interests of the people of California.

14. This is a State wide issue and needs to be addressed for the benefit of all the residents of the State of California.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct to the best of my knowledge and belief.

Executed this 4th day of September 2014.

Gary A. Ledford
Taxpayer

DIRECT TESTIMONY OF GARY A LEDFORD ON CONTINUING USE OF WATER FOR THE HIGH DESERT POWER PROJECT AND THE REQUEST TO MODIFY THE CONDITIONS

I. INTRODUCTION

More than Fourteen years ago this Intervenor and others attempted to identify a single and focused issue to be addressed by HDPP and the CEC Staff. The issue of Water, its relationship to the proposed use by HDPP of this valuable resource. In its Errata filed with this commission on September 2, 1999, CEC Staff states:

> "Mr. Gary Ledford has provided written rebuttal testimony, comments on the proposed conditions of certification and oral comments at the workshop which are not reflected in the attached errata."

While it is fully acknowledged that the ground water basins are in a state of severe and critical overdraft, the added effects of draught in California has recently manifested itself in ways that were identified as making this project **unreliable**.

Most of what is provided here was provided in the initial hearings – but for review of the Applicants request, Intervenor has highlighted the issues that need to be reconsidered for the project to be reliable.

II. THE PROMISE

The Public took a very active role in the issue of water for cooling HDPP, and as the process unfolded, conditions of approval were put into place that the CEC staff believed would prevent the issues that the Public raised from causing any water issue to be again an issue with the Public. Various Parties entered into written and/or verbal Stipulations in relation to these conditions. The Public was "Promised", that if HDPP could not meet the conditions that as determined pursuant to:

SOIL&WATER-5, **no groundwater shall be pumped**, and the **project shall not operate**.

III. THE HIGHLIGHTS OF THE PREVIOUS RECORD

> "In 1990, water producers within the Mojave River Basin (an area of approximately 3,600 square miles and home to about a quarter of a million people) were confronted with an alarming water

supply problem. Since the mid-1950's, the annual demand for water from the Basin' had exceeded the annual natural supply - resulting in a continuous and ever increasing "overdraft." **Rapid urban development in the 1980's had exacerbated the problem by dramatically increasing the demand on the already overdrafted system"**. [bolding and underling added by Ledford for emphasis][2]

"By 1990 the cumulative overdraft on the Basin exceeded one million acre feet. If the situation is allowed to go unchecked, **the result will be ground subsidence, decreased water quality, increased costs to pump from constantly increasing depths, destruction of the underground storage capacity, and, ultimately, complete exhaustion of the underground supply**." [bolding and underlining added by Ledford for emphasis][3]

The adjudication was started to adjudicate vested water rights to "Natures Free Production", which the parties to the adjudication were advised was recharged into a common pool of the water. Referred to in the adjudication as the TeaCup Theory. The "theory" was, since all producers in the common pool were equally responsible for the overdraft, so also should be the cure. Everyone was to share equally. The Fourth Circuit Court stated it clearly, **"Where the reason is the same, the rule should be the same".**[4] Farmers were promised that over a five-year period they would be paid handsomely for their **"Free Production Allowance".** That is the way this has worked out, Farming in the High Desert has virtually been eliminated and Farmers have sold or leased their water rights. The sum total of Farmers FPA is nearly 100% used in the plan to cure the overdraft.

The fourteen years since the HDPP project was commenced, HDPP wants to weigh in and purchase and/or lease Free Production Allowance, for their 100% consumptive use project, because there is NO water in the SWP pipeline and therefore their plant has become unreliable.

The first question that needs to be asked is what happened to the "Banking"

1. "Banking" was approved, since that time did HDPP Bank to be consumed in the Cooling Towers, in order to equitably comply with the intent of the Physical Solution, wherein all "Producers" must buy Replacement Water on a two for one basis?

While this was the subject of much debate, the equitable principals of the adjudication were that every producer be treated alike. If the VVWD was allowed to take SWP water for an independent 100% consumptive use project, this in and

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2 Mojave Water Agency [Respondents' Opening Brief on the Merits to the California Supreme Court, Dated October 23, 1999.

3 Ibid: Footnote No:1

4 Opinion of 4th Circuit Court of Appeal

of itself is precedent setting and would prevent the ability of the MWA to fulfill its obligations under the terms of the judgement.

2. Does the use of SWP Water for the 100% Consumptive use of water comply with Water Resources Control Board Resolution No.75-58.

In the present critical state of emergency in California we re-request that the CEC reconsider what the "State Water Resources Control Board Resolution 75-58, says when it discourages the use of fresh inland water for power plant cooling and encourages the use of wastewater or **other alternative non-potable water sources, such as wet/dry cooling**. . . .Particularly in water-short areas."[5]

3. Does the use of SWP Water for the 100% Consumptive use of water comply with the California Constitution Article X, Section 2, referring to Highest and Best Use?

The California Constitution Mandates That Beneficial Uses Of Water Resources Be Maximized!

The overriding policy of the State of California is to maximize the beneficial uses of its scarce water resources. This policy is expressed in Article X, Section 2, of the California Constitution, which states in pertinent part:

> "It is hereby declared that because of the conditions prevailing in this State the general welfare requires that the water resources of the **State be put to beneficial use to the fullest extent of which they are capable**, and that the waste or unreasonable use or unreasonable method of use of water be prevented, **and that the conservation of such waters is to be exercised with a view to the reasonable and beneficial use thereof in the interest of the people and for the public welfare.**..."

5 CEC Staff Soil and Water page

IV. State Water Project

The approved Conditions provided the HDPP (1997a; Bookman-Edmonston 1998a,b) intends to use State Water Project water for the power plant water supply whenever this water is available. At the time of the approval there was not a water purveyor that provided to the Energy Commission an unconditional "Will Serve" letter, indicating that it has the necessary water rights to provide an uninterrupted water supply for this project.

Total MWA entitlement to SWP water is approximately 50,000 acre-feet, plus a further possibility of 25,000 acre-feet of Berrenda Mesa Water.

V. THE DROUGHT

The potential for drought conditions was addressed in the approval process.

SWRCB (1998) and DWR estimates that the SWP has a 65 percent chance of delivering 3.25 million acre feet and an 85 percent chance of delivering 2.0 million acre feet in any given year under 1995 water demands. **The calculated average annual delivery during a repeat of the 1928-1934 drought under these assumptions is estimated by SWRCB (1998) to be about 2.1 million acre feet per year. For year 2020 estimated demands, the model shows that full deliveries (4.2 million-acre feet) will occur less than 25 percent of the time, but that approximately 3 million acre feet will be available 70 percent of the time.**

Given the uncertainty, MWA (1994; 1998) estimates that on a best case the average of 70 percent of the agency's SWP entitlement will available. This does not reflect other water sources that MWA may receive water from. Using the Basic contract and Berrenda Mesa purchase, the MWA can only assume it can deliver approximately 53,000 acre feet of water annually. Certainly not nearly enough water to cure the overdraft.

This year MWA has no DWR water to deliver to HDPP; this Intervenor is advised that there is not sufficient water in its water bank to provide water to the project.

VI. THE PROPOSAL TO AMEND CONDITIONS

The Proposal to amend the conditions to allow for the second time a change in the Conditions of approval that the Applicant clearly knew they were at "Risk" for, seems to indicate it is no big deal.

It is a big deal! Staff proposal to Rubber Stamp a Change in the Conditions is not acceptable.

The Public Process in California is designed to be open to identify project problems prior to implementation, and the promise not to "Ever" do something supported by the Applicants sworn testimony, now flies in the face of those that advised the CEC that the probable outcome would not work.

The conditions were put in place to assure the public that they could rest assured that their worries had been addressed.

This Intervenor and a qualified group of testifiers provided evidence, Roy Hampsen, a registered Civil Engineer and the former Director of California State Water Resources Control Board testified about why water should not be used for cooling. Roy has since passed away.

Additionally Jack Beinscroft, a registered Civil Engineer and former director of the Mojave Water Agency – testified about why the project would not work. Jack has now passed away.

The proposal as drafted appears to be in hopes that no one will notice and that the CEC will not review even the section on Water in the "Decision", which at the very least told most of the story about the concerns of the citizenry in the High Desert over the use of Water for Cooling.

It also leads to more questions than answers, when it proposes using "Banked" water from MWA – that will be needed by the citizens of the High Desert to meet their own domestic needs during these drought times.

It then suggests that HDPP can simply buy Free Production Allowance from the Farmers who went out of business to reliably operate the Power Plant, but it does not tell how or how much, this will cost – or what the availability of this water is.

In the Thirteenth Annual Report of the Water Master can put some clarity http://www.mojavewater.org/files/20AR1213.pdf Appendix B, we can determine that in 2013 there was 19,258 acre feet of unused production – nearly all of it has been leased to municipal entities for either makeup or replacement water obligations.

Assuming for sake of argument that the full amount of water required for HDPP consumptive use could be acquired. In order to gain 3,000 acre feet of 100% consumptive use water, HDPP would have to purchase 10,000 acre feet of Free Production Allowance [FPA], with a 40% ramp down to arrive at 6,000 acre feet for its consumptive use. Add to that the amount of Water needed for the companion Victorville 2 Hybrid project currently licensed, another 3,200 acre-feet, it would take 100% of the net unused production.

Currently the cost per acre foot is estimated to be around $5,000 per acre foot of FPA, or a total of 50 Million Dollars, just to acquire the FPA to make the

HDPP reliable. Since most of the water is being leased to the municipal producers already the question of whether or not FPA is even available in the amount required is doubtful and certainly not assured.

The question of whether or not in drought years the MWA should be using their own Banked water for Cooling the Power plant when the conditions specifically prohibit it is also one that needs to be fully addressed.

VII. Is Dry Cooling a Viable Alternative Or Is it the only Alternative to make HDPP a Reliable Power Resource for California?

Based on the evidence presented in this case in 2000 and as provided by CURE, Ledford and the MWA, the following determinations in relation to Wet Cooling vs. Dry Cooling should be made.

1. The HDPP is not complying with the original conditions of approval and based on the conditions imposed after months of Public debate, will not be able to operate unless Dry Cooling is implemented, a process fully acknowledged in the Conditions of approval.

2. HDPP has failed to demonstrate that Dry Cooling is not a viable alternative.

3. Many projects have been built in California that required Dry Cooling.

4. Projects in similar climates and elevations are now operating using Dry Cooling

5. The unrefutted testimony and exhibits demonstrate that HDPP project as proposed will potentially result in significant impacts on water resources. In addition, State Water Resources Control Board Resolution 75-58 discourages the use of fresh inland water for power plant cooling and encourages the use of wastewater or other alternative non-potable water sources.

6. Based on these findings, Several CEC staff members testified that dry cooling or wet/dry cooling is feasible and was the preferred alternative to the use of fresh inland water waters for HDPP cooling.

7. Several CEC Staff members have recommended that Dry Cooling be implemented as it will mitigate to a level of non-significance water resources. These CED Staff members testimony is as follows:

a. **Power Plant Efficiency - Steve Baker:** "While utilization of dry cooling would yield a small drop in efficiency, the benefits of dry cooling in terms of water supply outweigh any such disadvantage."

b. **Waste Management - Ellen Townsend-Smith:** The State Water Resources Control Board Resolution 75-58 discourages the use of fresh inland water for power plant cooling and encourages. . Or other non-potable water sources. The policy also requires the evaluation of dry cooling and wet/dry cooling as a means of water conservation. No new conditions of certification will be proposed by staff for waste management to mitigate the effects of either dry of wet/dry cooling alternatives.

c. **Power Plant Reliability - Steve Baker:** As a part of staff's analysis of soils and Water Resources, **staff identified that the project as proposed could potentially result in significant impacts on water resources.** In addition, State Water Resources Control Board Resolution 75-58 discourages the use of fresh inland water for power plant cooling and encourages the use of wastewater or other alternative non-potable water sources. Based on these findings, staff has identified that dry cooling or wet/dry cooling may be feasible alternatives to the use of fresh inland water waters for HDPP cooling. **Any reliability impacts on the electric system due to reduced availability on hot days should be insignificant.**

d. **Public Health - Obed Odomelam:** The fresh water conserving policies of the State Water Resources Control Board points to Dry Cooling as an appropriate Alternative to wet cooling in power plants. **The Commission staff has noted this fact in identifying dry cooling as appropriate for the proposed project.**

e. **Noise - Steve Baker:** As a part of staff's analysis of soils and Water Resources, staff identified that the project as proposed could potentially result in significant impacts on water resources. In addition, State Water Resources Control Board Resolution 75-58 discourages the use of fresh inland water for power plant cooling and encourages the use of wastewater or other alternative non-potable water sources. Based on these findings, staff has identified that **dry cooling or wet/dry cooling may be feasible alternatives to the use of fresh inland water waters for HDPP cooling.** The potential for increased cooling tower noise emissions, however is inconsequential for the HDPP.

f. **Visual Resources - Gary D. Walker:** The use of wet/dry cooling would reduce but not eliminate the potential for cooling tower plumes

. . . Overall the difference in visual impact compared to the proposed project would be negligible.

g. Finally at this juncture – it should be noted that Robert Sarvey, filed an opposition to the use of Reclaimed water in favor of Cry Cooling on October 21, 2009, this request was summarily denied by the Staff and the Commission. See Exhibit "C"

VIII. Significance Criteria: Definition of Negative Impacts

The significance criteria for evaluating impacts of the HDPP must take into account:

a. the acute overdraft of the region's aquifers;
b. the progressive decline in riparian habitat;
c. the ongoing reduction of Mojave River base flows in the vicinity of the project and to downstream users;
d. the extreme uncertainty surrounding the long-term availability of water in the vicinity of the project
e. the severity of the current and projected future groundwater situation;
f. use of SWP Water will create significant adverse environmental impacts or exacerbate existing unmitigated environmental impacts that have been caused by the proposed purveyor of water;
g. proposed water banking water will be used by adjacent wells in the overdrafted basin and there will be no way to account for the water loss to other wells;
h. The project will well field will exacerbate the cone of depression with the cumulative pumping and overproduction in this pressure zone, lower water levels, creating a reverse pressure away from the river. This will cause negative impacts to the local base flow of the Mojave River;
i. the project's cumulative impacts with current overproduction and future proposed overproduction of non replenished ground water will cause negative impacts on Mojave River flow that will affect downstream communities;
j. That the project will cause negative impacts to groundwater levels in the Mojave River Alluvial Aquifer.
k. The adopted Water Management Plan mandates the overdraft be cued first, before there is surplus water.
l. CEC Staffs admits there is not enough water to fully cure will prevent the proposed 4,000 acre of water being recharged into the Alluvial Aquifer.

IX. FINDINGS OF FACT

1. The project's potential demand for water affects surface and groundwater supplies in an area of severe groundwater overdraft, not subject to any natural recharge;[CEC Staff]
2. Groundwater overdraft within the Alto Subarea in 1990 was 19,900-acre feet per year. [MWA]
3. If Wet Cooling is used100% of the water used in the Cooling Towers will be consumptively Used.[CURE][CEC Staff][Ledford][Badly Mesa]
4. The use of Water for Cooling Towers in a Critically Overdrafted Ground Water Basin, when the overdraft has not be cured is not the Highest and Best Use of Water.[Ledford] [VVWD Brief to supreme Court]
5. According to the evidence before this commission there will not be enough Water available from the SWP to meet the demands of curing the overdraft and future growth in the Victor Valley based on existing MWA Contracts.[MWA] [Beebe] [Bookman-Edmonston] [Malcolm Pirnie] [Decision 1619] [Judgement after Trial]
6. Part of the Cure to the Overdraft in the Judgment for the Adjudication of Water Rights is a "Two for One" replacement of water. [Dendy] [Hansen] [Principals of the Physical Solution] [Ledford]
7. The High Desert Power may be allowed to use State Project Water, on an interim and interruptible basis only if it is obligated to pay the Two for One replacement cost.[MWA] [Rowe] [Ledford] [Badly Mesa]
8. The Commission has the obligation as the Lead Agency to insure that the Victor Valley Water District has the ability to serve this project, and has provided un-refutable evidence that it has cured it's already serve overdraft condition.
9. The commission cannot approve a project that does not have a fully unconditional "Will Serve" letter to provide uninterrupted water for this project. **The contrary is to submit either the project to potential failure** or the public to the consequences as the courts wrangle whether or **not the plant should be shut down**.
10. **The commission should mandate "Dry Cooling"** for all future projects in California, because the cumulative impacts of evaporating water to the atmosphere and denying water to the residents of this state is not the Highest and best Use of Water Resources.

CONCLUSIONS AND RECOMMENDATIONS

CEC Staff concluded in 2000 that allocation of SWP imported water supply to the project will cause a significant environmental impact unless the overdrafted conditions in the vicinity are mitigated to a level of non-significance. There is

simply no assurance that can be done. In fact CEC Staff acknowledges **that there is no mechanism to secure a long-term commitment of SWP water to the project.** Given increased demand for this water, **prolonged drought** or court decisions regarding the adjudication, the project will not always be able to secure SWP water.

This is not a rubber stamp and some selected modified conditions – this would require reopening this case, and modifying significant portions of the final decision, based on any and all new facts.

At the very least evidentiary hearings need to be held and a full progress report needs to be circulated to all interested parties to determine how that HDPP has complied or not – in all the conditions relative to water.

Based on the foregoing conclusions and recommendations and findings of fact, DRY COOLING should be mandated for continued certification of the HDPP, and the commission should implement a "Cumulative Impacts Analysis of the Potential Impacts of using SWP Water in any new Power Plant Project, based on the Highest and Best Use of this valuable resource that is owned by the Public.

Executed this 4th day of September 2014.

Gary A. Ledford
Taxpayer

CALIFORNIA ENERGY COMMISSION

VICTORVILLE 2 HYBRID POWER PROJECT

Application For Certification (07-AFC-1)
San Bernardino County

FINAL COMMISSION DECISION

JULY 2008
(07-AFC-1)
CEC-800-2008-003-CMF

EXHIBIT "A"

B. SOIL AND WATER RESOURCES

This section focuses on the soil and water resources associated with the project, including the project's potential to induce erosion and sedimentation, adversely affect water supplies, and degrade water quality. The analysis also considers site contamination and any potential cumulative impacts to water quality in the vicinity of the project. Mitigation measures are included in the Conditions of Certification to ensure that the project will have no significant impacts on the environment and that it will comply with all applicable laws, ordinances, regulations, and standards.

SUMMARY AND DISCUSSION OF THE EVIDENCE

1. Soil Resources

The soils at the proposed Victorville site consist of deep, moderately well to excessively drained soils on low river terraces and alluvial deposits. Surface soils typically consist of sandy loam, a substratum of sandy loam, and thin strata of loamy sand, sand and clay loam. In general, soils of the project are highly permeable and have low to moderate water erosion potential. However, the coarse texture of the soils causes them to be highly vulnerable to wind erosion. (Ex. 200, pp. 4.9-12 - 4.9-13.)

The evidence shows that potential adverse impacts caused by soil erosion and stormwater flows during construction and operation would be mitigated through the use of Best Management Practices (BMPs), a Drainage, Erosion, and Sedimentation Control Plan (DESCP), a Storm Water Pollution Prevention Plan (SWPPPs), and compliance with General National Pollutant Discharge Elimination System (NPDES) Permits for Discharges of Storm Water Associated with Construction and Industrial Activities that are included in Conditions of Certification **SOIL&WATER-1, -2** and **-3**. (Ex. 200, pp. 4.9-19 – 4.9-23.)

2. Groundwater

A Phase I Environmental Site Assessment (ESA) was conducted for the proposed Victorville 2 site. (Ex. 36.) The evidence shows that the site has always been vacant, undeveloped land except for one existing single-family residence. Evidence of past or present hazardous substance use, storage or disposal was not observed on the property during the site reconnaissance. (Ex. 200, p. 4.9-13.)

The site is within the George Groundwater sub-basin which includes an upper perched aquifer and a deeper regional aquifer system. Portions of the perched aquifer system in the vicinity of the SCLA have been contaminated with trichloroethylene (TCE) from leaking underground tanks and/or because of historical military activities. The Federal Environmental Protection Agency has added George AFB to the Superfund National Priority List. Along the routes for the Victorville 2 sanitary wastewater pipeline and transmission lines, the TCE groundwater plume is present in the lower aquifer, approximately 210 to 250 feet below ground surface. The presence of TCE in the groundwater is a Recognized Environmental Condition (REC). An REC is the presence or likely presence of any hazardous substances or petroleum products on a property under the conditions that indicate an existing release, past release, or a material threat of a release of any hazardous substance or petroleum products into structures on the property or in the ground, groundwater, or surface water of the property. (*Id.*)

3. Project Water Supply and Treatment

The proposed project will be located in the Mojave Basin. The Mojave Basin is situated about 80 miles from Los Angeles and is part of the Mojave Desert Region. The Mojave Water Agency (MWA) defines the Mojave Basin as the surface-water drainage basin of the Mojave River, which encompasses about 3,800 square miles. (Ex. 200, p. 4.9-6.)

The natural water resources of the Mojave Basin are extremely limited. The Mojave River is the primary natural source of both surface water and groundwater recharge for the region. However, the river is usually dry. Flows are unpredictable and unreliable. Due to the nature of flow in the Mojave River, groundwater has served as the primary water supply for the region. Groundwater use began for agriculture in the 1800s and has accelerated in recent years with rapid urban growth as people relocated from the Los Angeles area. With the development of groundwater, regional water use has exceeded natural recharge, resulting in reductions in stream flow and groundwater recharge, declines in groundwater levels and groundwater overdraft. (*Id.*)

In 1990, the city of Barstow and the Southern California Water Company initiated a lawsuit that alleged that upstream groundwater production had overdrafted the Mojave River groundwater basin. This lawsuit led to the Adjudication of the Mojave Basin. A settlement was reached in 1996, to which over 200 parties agreed and specified a "physical solution" intended (1) to ensure that downstream users are not adversely affected by upstream use, (2) to raise money to purchase imported water supplies, (3) to encourage water conservation, and (4) to maintain and conserve the riparian resources of the Mojave River. Regional water use and implementation of the Adjudication is now managed by the court-appointed watermaster, the Mojave Water Agency. (*Id.*)
The Adjudication established a minimum flow requirement in order to maintain riparian habitat in the Mojave River and to support the transmission of storm flows to the downstream subareas. Storm flows are important to downstream communities, such as Barstow, because these flows are the primary source of the groundwater recharge in the lower subareas.

Recycled water is discharged into the Mojave River by the Victor Valley Water Reclamation Authority (VVWRA) in compliance with a Memorandum of Understanding with the California Department of Fish and Game (CDFG) dated June 27, 2003. The current balance of recycled water, which represents excess,

unsold supply, is for the most part discharged to the river. That discharge, added to natural flows, has been sufficient to meet the requirements of the Adjudication without the need for imported surface water. (Ex. 200, p. 4.9-7.)

State water policy, set forth in State Water Resources Control Board Resolution 77-1, encourages and promotes the use of recycled water for non-potable uses. SWRCB Resolution 75-58 states that fresh inland waters should only be used for power plant cooling if other sources or other methods of cooling would be environmentally undesirable or economically unsound. The Energy Commission has adopted a similar policy. California Water Code section 13551 requires the water resources of the state to be put to highest use of which they are capable. Section 13552.6 specifically identifies power plant cooling tower use as a wasteful or unreasonable use of fresh water when recycled or other degraded water is reasonably available. Thus, the Victorville 2 project must use recycled or other degraded water if it is to comply with state law and policy.

Soil and Water **Table 1** summarizes the proposed project's water needs. The Victorville 2 project would have two sources of water. Recycled water would be the primary water supply for project process needs during operations, and groundwater that serves local municipal needs would be used to meet the project's potable water demands. Groundwater is also proposed to be used as the project's operational backup water supply. (Ex. 200, p. 4.9-14.) Victorville Water, a division of the city of Victorville, which operates the area's domestic groundwater supply system, would provide the potable groundwater supply. Recycled water would be supplied by VVWRA. A 1.5-mile pipeline will be constructed from the VVWRA treatment plant to the Victorville 2 project to supply recycled water to the project. Water will be trucked from the treatment plant to the Victorville 2 construction site for dust suppression until the pipeline is constructed. (Ex. 200, p. 4.9-15.) During construction, recycled water would be used to meet the all of the project's non-potable water demands, including for dust suppression and compaction. During the first stage of construction grading

for the power block area, the Applicant estimates that the daily maximum water demand would be 65,000 gallons per day (gpd). During the next stage for grading of the solar field, average daily water use would increase to a maximum of 650,000 gpd. During non-grading construction periods, the average daily water demand would be about 58,000 gpd. *(Id.)*

During operations, recycled water would be used for cooling, other process needs, mirror washing, fire protection and landscaping. The Applicant estimates plant operations will require a maximum annual water supply of 3,150 AFY, including 46 AFY for mirror washing. The average maximum daily rate would be 2,603 gallons per minute (gpm) and the peak daily rate would be 2,965 gpm. The effect of the project's recycled water use would be to reduce return flows and thereby remove water from the basin's hydrologic system. Recycled water used by the project, except for landscape irrigation, would be completely consumed through evaporation. (*Id.*)

Soil & Water - Table 1

Victorville 2's Annual Water Needs

Water Use	Maximum Annual Use (acre-feet/year)	Water Supply Source	Water Supplier
Process Water[1]	3,150	Recycled Water	Victor Valley Water Reclamation Authority (VVWRA)[2]
Process Water Backup Supply	45[3]	Groundwater	Victorville Water[4]
Potable Water	3.6	Groundwater	Victorville Water[4]

[1] Operational process water uses include cooling, other process needs, fire protection and landscaping. Potable groundwater will serve as the backup water supply for the project's process demands.

[2] City of Victorville has an agreement to purchase all VVWRA recycled water production in excess of required discharges to the Mojave River

[3] The Applicant's worst-case assumption is that the backup water demand would be no more than 45 acre-feet annually (Data Request 78).

[4] City of Victorville purchased the Victor Valley Water District, the primary potable water supplier to the city of Victorville, on August 15, 2007. The new name for this service provider is Victorville Water.

(Ex. 200, p. 4.9-16.)

VVWRA is increasing its production of recycled water. Any excess is discharged to the Mojave River. The nearby High Desert Power Plant (HDPP), which currently uses California Water Project water in conjunction with an aquifer storage and recovery program, may begin use of recycled water in the near future. HDPP initiated negotiations with the city of Victorville in 2005 to purchase a maximum of 1,750 acre-feet of recycled water annually. Use of recycled water by HDPP would require the review and approval of a project amendment by the Energy Commission, which has not been filed by the owner of HDPP. However,

it is reasonable to assume that such an amendment would be permitted and that HDPP would begin using recycled water by 2009. (Ex. 200, p. 4.9-34.)

With the additional use of recycled water by HDPP, there would initially be a slight 2-year reduction in the amount of excess recycled water discharged to the Mojave River during 2010 and 2011, as compared to 2007. However, beginning in 2012, recycled water discharges to the Mojave River would again exceed baseline excess discharges of 6,600 acre-feet as estimated for 2007, owing to the increase of recycled water production attributable to new business and residential developments in the city of Victorville. (Ex. 200, p. 4.9-30.)

Project use of recycled water would not be growth-inducing because it would have no effect on regional population growth or housing development. In addition, discharges to the Mojave River from the VVWRA facility would not be reduced below baseline levels. To ensure that recycled water use will not exceed the amount evaluated and permitted by the Energy Commission, we adopt Condition of Certification **SOIL & WATER-7**, which establishes the project's annual water-use limit and specifies requirements for metering and reporting recycled water use. (Ex. 200, p. 4.9-32.)

Although the project's use of recycled water would reduce the amount of recycled water available for other uses, we find that this is not a substantial adverse impact. Furthermore, the amount of available recycled water product is expected to increase as the area population grows, further lessening the extent of any impact. In addition, state law and policy mandate the use of recycled water by the project.

The Applicant proposes to comply with Titles 17 and 22 of the California Code of Regulations, which address the use of recycled water. Under these regulations, the project owner is required to prepare an Engineer's Report describing the production, distribution and use of recycled water and to obtain review and

approval from DHS. The Engineer's Report will verify that VVWRA's recycled water meets the standards for unrestricted use and that the plumbing constructed for the Victorville 2 project is inspected for prevention of backflow and cross connection with the potable water supply. We adopt Condition of Certification **SOIL & WATER-5** to monitor and ensure compliance with DHS requirements. (Ex. 200, p. 4.9-41.)

4. Wastewater

The Applicant proposes two separate wastewater-collection systems for Victorville 2. The first is the process wastewater system, which collects all wastewater generated from operation of the plant and delivers it to the zero liquid discharge (ZLD) system. The ZLD System will recover about 90 percent of the wastewater for reuse by Victorville 2, and will concentrate the solids into a salt cake for disposal to a landfill. Plant drainage consisting of leakage and drainage from facility containment areas would be collected in a system of floor drains, sumps, and pipes within the Victorville 2 and discharged to an oil/water separator. The oil-free water will be reused in the cooling tower.

The second wastewater-collection system proposed by the Applicant is the sanitary system. The sanitary system would collect wastewater from sinks, toilets, and other sanitary facilities for discharge to the VVWRA's Adelanto Interceptor sewer pipeline. No significant water or soil related impacts are expected due to wastewater collection and disposal if the project owner complies with Condition of Certification **SOIL & WATER 6** which we adopt in this decision. It requires that the project owner treat all process wastewater with a ZLD system in accordance with a ZLD management plan. (Ex. 200, p. 4.9-25.)

5. Water and Wind Erosion

The Victorville 2 project site will be subject to wind and water erosion during construction and operation. Approximately 1.5 million cubic yards of earth will be moved during construction.

The Applicant has prepared a draft DESCP providing conceptual plans for erosion and drainage control measures during the construction phase of Victorville 2. We find the plan is reasonable and the sequence for implementing BMPs will avoid significant adverse impacts. (Ex. 200, p. 4.9-20.) Conditions of certification **SOIL & WATER-2, 3, and 4** will require the implementation and maintenance of drainage and erosion control measures according to plans as specified in the DESCP, Industrial SWPPP and Water Quality Management Plan (WQMP) respectively. We find that through the proper application of BMPs, the impact to soil resources from water and wind erosion during construction will be reduced to a level that is less than significant.

a. Stormwater

Without mitigation, runoff from the Victorville 2 site would exceed pre-development runoff due to the increase of impervious areas in proportion to the overall site. Therefore, the Applicant will design the drainage features for the site in accordance with the City of Victorville's Standard Specifications for Public Improvements and San Bernardino County's Hydrology Manual and Water Quality Management Plan Program. (Ex. 200, p. 4.9-25.) We find the Applicant has identified a reasonable plan and sequence for implementing BMPs in order to avoid significant adverse impacts caused by alteration of the site. Conditions of Certification we adopt in this Decision will ensure the proper implementation of these plans.

b. Flooding and Tsunami

The Victorville 2 site is not located within the 100-year floodplain of the Mojave River as defined by FEMA. Although the Victorville 2 post-construction stormwater runoff will exceed the pre-construction volume, the Applicant proposes to capture all site stormwater runoff in retention basins that will encourage infiltration and will attenuate any discharges so that they do not exceed the pre-developed runoff rates. The project would not be exposed to tsunami given its inland location and distance from any water body with large surface area. (Ex. 200, p. 4.9-28.)

Dry washes cross through the transmission line alignment. The dry washes are considered ephemeral streams that develop runoff in response to precipitation, and soon after go dry again. The Applicant does not propose to place any poles or towers within the drainages, and would instead span the transmission conductor across them. Therefore, the project would not contribute to adverse flooding effects or disturb riparian habitat. (Ex. 200, p. 4.9-29.)

6. Cumulative Impacts and Mitigation

Temporary and permanent disturbances associated with construction of the project would cause accelerated wind- and water-induced erosion. However, we conclude that the implementation of proposed mitigation measures within the construction SWPPP and the DESCP would ensure that the project's contribution to soil and water resources impacts from water and wind erosion would not be cumulatively considerable.

Industrial wastewater streams would be eliminated by the use of a ZLD system and impacts from sanitary wastewater are not expected to contribute to a cumulative impact on surface-water or groundwater degradation.

The project's use of both recycled water and groundwater will have some impact on the area's limited water supplies. However, ever-increasing production of recycled water is expected to result in an overall surplus of recycled water in the next few years. The project's water use even when viewed in conjunction with other water uses, is not cumulatively considerable and will not contribute to a cumulatively significant impact.

FINDINGS AND CONCLUSIONS

Based upon the evidence, we find and conclude as follows:

1. Potential adverse impacts caused by erosion and stormwater flows during construction and operation would be mitigated with the development and implementation of an effective stormwater pollution prevention plan and a drainage, erosion, and sediment control plan.
2. The water supply for the project is consistent with state water conservation and use policies.
3. The proposed use of recycled water would not adversely impact the contributions recycled water currently makes in restoring flows to the Mojave River in accordance with the objectives delineated in the Memorandum of Understanding between Victor Valley Water Reclamation Authority and California Department of Fish and Game.
4. Recycled water is the most degraded quality water supply reasonably available to the project.
5. The proposed use of recycled water for the project's process water needs would not cause a significant adverse environmental impact or adversely affect current or future users of recycled water.
6. The project would not be located within the 100-year flood plain, and would not exacerbate flood conditions within the vicinity of the project.
7. The proposed recovery of process wastewater using Zero-Liquid-Discharge technology is consistent with state water use and conservation policies.

Based on these findings, we find that Victorville 2 would not result in any unmitigated, significant project-specific or cumulative adverse impacts to Soil or Water Resources and would comply with all applicable LORS with implementation of the Conditions of Certification set forth herein.

CONDITIONS OF CERTIFICATION

SOIL & WATER-1: The project owner shall comply with the requirements of the general National Pollutant Discharge Elimination System (NPDES) permit for discharge of stormwater associated with construction activity. The project owner shall develop and implement a construction stormwater pollution prevention plan (construction SWPPP) for the construction of the Victorville 2 site, laydown area, and all linear facilities.

Verification: The project owner shall submit to the compliance project manager (CPM) a copy of the construction SWPPP prior to site mobilization and retain a copy on site. The project owner shall submit copies to the CPM of all correspondence between the project owner and the Lahontan Regional Water Quality Control Board regarding the NPDES permit for the discharge of stormwater associated with construction activity within 10 days of its receipt or submittal. Copies of correspondence shall include the notice of intent sent to the State Water Resources Control Board, and the board's confirmation letter indicating receipt and acceptance of the notice of intent.

SOIL & WATER-2: Prior to site mobilization, the project owner shall obtain CPM approval for a site-specific drainage, erosion, and sediment control plan (DESCP). The DESCP must ensure proper protection of water quality and soil resources, demonstrate no increase in off-site flooding potential, include provisions for sediment and stormwater retention from both the Power Block and Solar Field to meet San Bernardino County requirements, address exposed soil treatments in the Solar Field for both road and non-road surfaces, and identify all monitoring and maintenance activities. The DESCP shall contain elements 1 through 9 below outlining site management activities and erosion- and sediment-control BMPs to be implemented during site mobilization, excavation, construction, and post construction (operating) activities.

1. **Vicinity Map** – A map(s) at a minimum scale 1"=100' shall be provided indicating the location of all project elements (construction site, laydown area, pipelines) with depictions of all significant geographic features including swales, storm drains, and sensitive areas.

2. **Site Delineation** – All areas subject to soil disturbance for the Victorville 2 (project site, laydown area, all linear facilities, landscaping areas, and any other project elements) shall be delineated showing boundary lines of all construction areas and the location of all existing and proposed structures, pipelines, roads, and drainage facilities.

3. **Watercourses and Critical Areas** – The DESCP shall show the location of all nearby watercourses including swales, storm drains, and drainage ditches. It shall indicate the proximity of those features to the Victorville 2 construction, laydown, and landscape areas and all transmission and pipeline construction corridors.

4. **Drainage Map** – The DESCP shall provide a topographic site map(s) at a minimum scale of 1"=100' showing existing, interim, and proposed drainage swales and drainage systems and drainage-area boundaries. On the map, spot elevations are required where relatively flat conditions exist. The spot elevations and contours shall be extended off site for a minimum distance of 100 feet.

5. **Drainage of Project Site Narrative** – The DESCP shall include a narrative of the drainage measures necessary to protect the site and potentially affected soil and water resources within the drainage downstream of the site. The narrative shall include the summary pages from the hydraulic analysis prepared by a professional engineer and erosion control specialist. The narrative shall state the watershed size(s) in acres that was used in the calculation of drainage features. The hydraulic analysis shall be used to support the selection of BMPs and structural controls to divert off-site and on-site drainage around or through the Victorville 2 site and laydown and linear areas.

6. **Clearing and Grading Plans** – The DESCP shall provide a delineation of all areas to be cleared of vegetation and areas to be preserved. The plan shall provide elevations, slopes, locations, and extent of all proposed grading as shown by contours, cross sections, or other means. The locations of any disposal areas, fills, or other special features shall also be shown. Existing and proposed topography shall be illustrated by tying in proposed contours with existing topography.

7. **Clearing and Grading Narrative** – The DESCP shall include a table with the quantities of material excavated or filled for the site and all project elements (project site, laydown area, transmission and pipeline corridors, roadways, and bridges) whether such

excavation or fill is temporary or permanent, and the amount of such material to be imported or exported.

8. **Best Management Practices Plan** – The DESCP shall identify on the topographic site map(s) the location of the site specific BMPs to be employed during each phase of construction (initial grading, project element excavation and construction, and final grading/stabilization). BMPs shall include measures designed to prevent wind and water erosion.

9. **Best Management Practices Narrative** – The DESCP shall show the location (as identified in 8 above), timing, and maintenance schedule of all erosion- and sediment-control BMPs to be used prior to initial grading, during all project element (site, pipelines) excavations and construction, final grading/stabilization, and operation. Separate BMP implementation schedules shall be provided for each project element for each phase of construction. The maintenance schedule shall include post-construction maintenance of structural-control BMPs, or a statement provided about when such information will be available.

Verification: No later than 60 days prior to commencement of construction, the project owner shall submit a copy of the DESCP to San Bernardino County and the Lahontan Regional Water Quality Control Board (Lahontan RWQCB) for review and comment. No later than 30 days prior to commencement of construction, the project owner shall submit the DESCP with the county's and Lahontan RWQCB's comments to the CPM for review and approval. The CPM shall consider comments by the county and Lahontan RWQCB before approval of the DESCP. The DESCP shall be consistent with the grading and drainage plan as required by Condition of Certification **CIVIL 1**, and relevant portions of the DESCP shall clearly show approval by the chief building official. The DESCP shall be a separate plan from the SWPPP developed in conjunction with any NPDES permit for Construction Activity. The project owner shall provide in the monthly compliance report a narrative on the effectiveness of the drainage, erosion, and sediment-control measures and the results of monitoring and maintenance activities. Once operational, the project owner shall update and maintain the DESCP for the life of the project and shall provide in the annual compliance report information on the results of monitoring and maintenance activities.

SOIL & WATER-3: The project owner shall comply with the requirements of the general NPDES permit for discharges of stormwater associated with industrial activity. The project owner shall develop and implement an industrial stormwater pollution prevention plan for the operation of Victorville 2.

Verification: The project owner shall submit to the CPM a copy of the industrial SWPPP for operation of the Victorville 2 prior to commercial operation,

and shall retain a copy on site. The project owner shall submit copies to the CPM of all correspondence between the project owner and the Lahontan RWQCB regarding the general NPDES permit for discharge of stormwater associated with industrial activity within 10 days of its receipt or submittal. Copies of correspondence shall include the Notice of Intent sent by the project owner to the State Water Resources Control Board.

SOIL & WATER-4 The project owner shall comply with the requirements of the Water Quality Management Plan Program for managing stormwater during project operations as normally administered by the San Bernardino County Public Works – Environmental Management Department. The project owner shall develop a Water Quality Management Plan that incorporates these requirements during project design and implement the plan for the operation phase of Victorville 2.

Verification: At least 60 days prior to the commencement of construction, the project owner shall submit copies of the Water Quality Management Plan for operation of the Victorville 2 to the San Bernardino County Public Works – Environmental Management Department for review and comment and to the CPM for review and approval. The project owner shall submit copies to the CPM of all correspondence between the project owner and the San Bernardino County Public Works – Environmental Management Department regarding the Water Quality Management Plan within 10 days of its receipt or submittal.

SOIL & WATER-5 The Victorville 2 shall use recycled water for all non-potable plant construction and operation uses including cooling, mirror washing and landscape irrigation. The Victorville 2 shall comply with all requirements of Title 22 and Title 17 California Code of Regulations. Prior to delivery of recycled water to the Victorville 2 for any purpose, the owner shall submit a Title 22 Engineer's Report and copies of any review comments from the review by the Department of Health Services (DHS) and the Lahontan Regional Water Quality Control Board (RWQCB), for review and approval by the CPM.

Verification: 60 days prior to commencement of construction, the project owner shall submit to the CPM the water supply and distribution system design and Engineer's Report for the Production, Distribution and Use of Recycled Water and copies of any comments from DHS and the Lahontan RWQCB for review and approval by the CPM. The water supply and distribution system design shall be included in the final design drawings submitted to the CBO as required in Condition of Certification **CIVIL 1**.

The Engineer's Report for the Production, Distribution and Use of Recycled Water shall be prepared in accordance with Title 22 and Title 17 of the CA Code of Regulations, the Health and Safety Code, and the Water Code. The project owner shall comply with any reporting and inspection requirements set forth by the DHS and Lahontan RWQCB to fulfill statutory requirements. The project

owner shall submit copies to the CPM of all correspondence between themselves and DHS or the Lahontan RWQCB within 10 days of receipt or submittal.

SOIL & WATER-6 The project owner shall treat all process wastewater streams with a zero liquid discharge (ZLD) system that results in a residual solid waste. The solid waste shall be disposed of in the appropriate class of landfill suitable for the constituent concentrations in the waste. Surface or subsurface disposal of process wastewater from the Victorville 2 is prohibited. The project owner shall operate the ZLD system in accordance with a ZLD management plan approved by the CPM. The ZLD management plan shall include the following elements:

A. A flow diagram showing all water sources and wastewater disposal methods at the power plant;

B. A narrative of expected operation and maintenance of the ZLD system;

C. A narrative of the redundant or back-up wastewater disposal method to be implemented during periods of ZLD system shutdown or maintenance;

D. A maintenance schedule;

E. A description of on-site storage facilities and containment measures;

F. A table identifying influent water quality; and

G. A table characterizing the constituent concentrations of the solid waste or brine and specifying the permit limits of the selected landfill.

The Victorville 2 operation and wastewater production shall not exceed the treatment capacity of the ZLD system or result in an industrial wastewater discharge.

Verification: At least 60 days prior to the start of commercial operation, the project owner shall submit to the CPM evidence that the final design of the ZLD system has the approval of the CBO. At least 60 days prior to the start of commercial operation, the project owner shall prepare a ZLD management plan for review and approval by the CPM. The ZLD management plan shall be updated by the project owner and submitted to the CPM for review and approval if a change in water source or infrastructure is needed.

In the annual compliance report, the project owner shall submit a status report on operation of the ZLD system, including dates and length of disruptions, maintenance activities performed, volumes of interim wastewater streams stored on site, monthly volumes of residual salt cake or brine generated, and results of

at least one annual sampling of the waste solids or brine comparing the constituent concentrations to the permit limits of the landfill. The annual compliance report shall contain an evaluation of whether the ZLD is being operated within the parameters described in the ZLD management plan. The ZLD management plan shall be updated by the project owner if the CPM has determined it is necessary based on the project owner's annual compliance report(s).

SOIL & WATER-7 The project owner shall use tertiary treated recycled water supplied from the City of Victorville's Recycled Water System as its primary source for process water including cooling, fire protection and landscape irrigation. Annual usage (excluding fire suppression) shall not exceed 3,150 acre-feet. Prior to the use of recycled water for commercial operation, the project owner shall install and maintain metering devices as part of the water supply and distribution system or verify that the water supplier will provide adequate metering or billing to the project owner to document project water use as required to monitor and record in gallons per day the total volume(s) of water supplied to the Victorville 2 from this water source. The metering devices shall be operational for the life of the project.

Verification: The project owner shall prepare an annual summary, which will include the monthly range and monthly average of daily water usage in gallons per day, and total water used on a monthly and annual basis in acre-feet. For years subsequent to the initial year of operation, the annual summary will also include the yearly range and yearly average water use by source. For calculating the total water use, the term "year" will correspond to the date established for the annual compliance report submittal.

At least sixty (60) days prior to commercial operation of the Victorville 2, the project owner shall submit to the CPM evidence that metering devices have been installed and are operational for the recycled water supply and distribution system.

SOIL & WATER-8 The project owner shall use potable water supplied from Victorville Water (city of Victorville) for potable purposes and emergency backup for process needs in case of interruptions in the recycled water supply. The annual uses of groundwater shall not exceed four acre-feet/year for potable purposes and 45 acre-feet/year for backup process needs. The project owner shall monitor and record in gallons per day the total volume(s) of groundwater supplied to the Victorville 2 for domestic use. Prior to the use of potable water for commercial operation, the project owner shall either install and maintain metering devices as part of the water supply and distribution system or verify that the water supplier will provide adequate metering or billing to the project owner to document project water use as required. The metering devices shall be operational for the life of the

project. The city (or Victorville Water) shall pre-purchase 45 acre-feet of SWP water through MWA's 'Claim Program' to be used for recharge and storage in the Alto Subarea groundwater basin and dedicated for use as emergency backup water supply for project process needs. To the extent groundwater is used for process needs during the life of the project, additional water shall be pre-purchased to restore 45 acre-feet of banked water in the Alto subarea groundwater basin

Verification: The project owner shall prepare an annual summary of the amount of water used for potable purposes. The summary shall include the monthly range and monthly average of daily water usage in gallons per day, and total water used on a monthly and annual basis in acre-feet. For years subsequent to the initial year of operation, the annual summary will also include the yearly range and yearly average water use. For calculating the total water use, the term "year" will correspond to the date established for the annual compliance report submittal. The annual summary shall also provide a chronological accounting of the SWP water pre-purchased for recharge and storage in the Alto Subarea groundwater basin and used as emergency backup water supply for project process needs. If the pre-purchase of SWP water for Victorville 2 is part of a larger program that the city is conducting to meet its overall potable water demands, the city shall provide the accounting for the overall program with the water dedicated and banked for Victorville 2 clearly delineated to show additions and withdrawals to the 45 acre-feet dedicated for project emergency backup supply.

At least sixty (60) days prior to commercial operation of Victorville 2, the project owner shall submit to the CPM evidence that metering devices have been installed and are operational. Potable water use reporting may be based on metering or billings from the supplier.

At least sixty (60) days prior to commercial operation of Victorville 2, the project owner shall submit to the CPM evidence that it has pre-purchased a minimum of 45 acre-feet of SWP water to be used for recharge and storage in the Alto Subarea groundwater basin and dedicated for use as emergency backup water supply for project process needs.

SOIL & WATER-9 Prior to site mobilization the project owner shall obtain a Permit for Industrial Wastewater Discharge and comply with the wastewater discharge limitations, pretreatment requirements, peak flow restrictions, dewatering discharges, payment of fees, and monitoring and reporting requirements of Victor Valley Water Reclamation Authority as applicable for construction.

Verification: At least 30 days prior to Victorville 2 site mobilization, the project owner shall provide the CPM with a copy of its Permit for Industrial Wastewater Discharge from Victor Valley Water Reclamation Authority as applicable for construction. The CPM shall be notified in writing within 10 days of any reported

non-compliance with Victor Valley Water Reclamation Authority's discharge requirements, including corrective measures for non-compliance and the results of implementing those

CALIFORNIA ENERGY COMMISSION
1516 NINTH STREET
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STATE OF CALIFORNIA
ENERGY RESOURCES CONSERVATION
AND DEVELOPMENT COMMISSION

In the Matter of:	)	Docket No. 07-AFC-1C
	)	
VICTORVILLE 2	)	STAFF'S ANALYSIS
HYBRID POWER PROJECT	)	AND RECOMMENDATION
	)	Regarding the Requested Extension of
	)	the Deadline for
	)	Commencement of Construction
	)	(Title 20, Section 1720.3)

INTRODUCTION

On February 28, 2007, the City of Victorville filed an Application for Certification with the California Energy Commission (Energy Commission) to construct and operate the Victorville 2 power plant. As proposed, the project will be a 563 megawatt (MW) hybrid natural gas-fired combined cycle and solar thermal power plant. The Project would be located at the Southern California Logistics Airport on a 300 acre site, in Victorville, California. On July 16, 2008, by adoption of Order No. 08-0716-2, the Energy Commission issued its final decision (Decision) approving the Application for Certification (AFC) and granting the City of Victorville a certificate to construct and operate the Project.

On March 28, 2013, the City of Victorville timely filed a Petition to Extend the Deadline to Commence Construction pursuant to Title 20, California Code of Regulations, section 1720.3, requesting that the deadline be extended for a period of five years.

ANALYSIS

Title 20, California Code of Regulations, section 1720.3 provides as follows:

> Unless a shorter deadline is established pursuant to Section 25534, the deadline for commencement of construction shall be five years after the effective date of the decision. Prior to the deadline, the applicant may request, and the commission may order, an extension of the deadline for good cause.

EXHIBIT "B"

Under the plain language of section 1720.3, the deadline to commence construction is five years after the effective date of the decision. By operation of law, if construction has not commenced, the certificate for a given project therefore expires on a date certain five years from the date of certification unless the Commission grants an extension for good cause.

Good cause is not defined within the Public Resources Code or in the Commission's regulations, and appears to be a flexible concept subject to the individual facts of a given circumstance. Good cause is "largely relative in [its] connotation, depending upon the particular circumstances of each case" (*R.J. Cardinal Co. v. Ritchie* (1963) 218 Cal.App.2d 124, 144).

As California courts have noted, the nature and extent of the showing necessary to satisfy the good cause requirement for an extension must, of necessity, vary with the circumstances of each case (*Chalco-California Corp. v. Superior Court of Los Angeles County* (1963) 59 Cal 2d 883).

Indeed, the term "good cause" is "not susceptible of precise definition [and] its definition varies with the context in which it is used. (*Zorreno v. Unemployment Ins. Appeals Board* (1975) 47 Cal.App.3d 434, 439)

To preserve certification of a project for which construction has not yet begun within the first five years of project approval, the project owner has the burden to show good cause for an extension. Failure to meet that burden results in the lapse of the project's certification. By force of regulation, section 1720.3 subjects every certification to a five-year term in the absence of any construction activity.

Staff reviewed the Petition filed by the City of Victorville requesting a five-year extension of the construction deadline, and has taken into consideration several factors in its analysis of whether good cause exists. These include whether the City of Victorville has been diligent in its attempts to begin construction of the facility, whether factors outside the City of Victorville's control have prevented the construction of the project, and a comparison of the amount of time and resources that would have to be spent in processing any required amendments to the project if extension is granted as opposed to the amount of time and resources that would be spent in processing a new AFC if the extension were denied.

1. Diligence

The AFC for this project was filed in February 2007, and the Energy Commission granted the license to construct and operate the facility in July 2008. The City had previously acquired a Services Agreement with Inland Energy, Inc., after which an initial kick-off meeting was held and numerous pre-construction documents were submitted for review and approval by Commission staff. Furthermore, the City has reported that it expended significant efforts to secure a power purchase agreement, and has continued