CPV Sentinel, LLC

August 15, 2008

Mr. John Kessler
California Energy Commission
1516 Ninth Street
Sacramento, CA 95814

Re: CPV Sentinel Energy Project (docket 07-AFC-3)

Dear Mr. Kessler:

The purpose of this letter is to provide a preliminary analysis of the alternative water supply plans presented in the Preliminary Staff Assessment (PSA) for the CPV Sentinel Energy Project (Project) relative to the water supply plan proposed by CPV Sentinel. We are in the process of conducting additional analysis, including additional groundwater modeling, to illustrate the points discussed below, and we will submit a more comprehensive analysis of the water supply alternatives with our overall comments on the PSA.

Sentinel Water Supply Plan

CPV Sentinel has carefully analyzed all aspects of its water supply plan, including consideration of alternative options to ensure that the proposed water supply plan for the Project will not adversely impact water resources in the State or in the Upper Coachella Valley groundwater basin. The plan has several interrelated elements which compliment one another to ensure that the Project not only avoids potential adverse impacts, but in fact results in a net benefit to water resources.

Importation

The Upper Coachella Valley Groundwater Basin is a closed system. Thus, any water use results in a net loss of water resources that can only practically be mitigated by the importation of new water supplies to the basin. The Project will import more than 108% of its water demand to ensure that the Project increases the total water supply in the basin. Since the Project would use water from the Mission Creek Sub Basin, all of this imported water will be recharged in the Mission Creek sub basin. In addition, the Project has agreed to pay an extraction fee to Desert Water Agency (DWA), equivalent to the groundwater replenishment assessment paid by other groundwater pumpers in the basin, to contribute to DWA's ongoing replenishment program aimed at correcting the long-

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term overdraft within the basin. These measures not only avoid potential exacerbation of the overdraft in the basin but, in fact, work to ameliorate the potential overdraft created by water use by others within the basin.

Conservation

CPV Sentinel has also developed a freshwater conservation program with DWA which will conserve much more freshwater within the Upper Coachella Valley Groundwater Basin than the Project will consume. Freshwater conservation is achieved in two innovative ways. First, degraded reclaimed water will be developed to supply the Palm Springs National Country Club to replace the freshwater currently used by the golf course. Second, CPV is paying the cost of retrofitting existing retail users irrigation systems with high-tech ET irrigation controllers with a proven track record of achieving reductions in the landscape irrigation use by water users. The development of recycled water and the conversion of the Palm Springs National Country Club to recycled water use will conserve more than 1,000 acre-feet per year of fresh water and the retrofit of existing water users' irrigation system with ET controllers will save between 480 and 640 additional acre-feet per year of fresh water. All of these freshwater savings will occur within the Upper Coachella Valley Groundwater Basin. Both the Whitewater Sub Basin and the Mission Creek Sub Basin will benefit from the freshwater savings.

Comparison to Staff Alternatives

In the PSA, the CEC staff has evaluated alternatives to the Project water supply plan. As detailed in the discussion below, there are many disadvantages that make the alternatives less beneficial to the regional water resources relative to the proposed plan:

- The alternatives do not include the importation of new water supplies, which would cause an overdraft of the Upper Coachella Valley Groundwater Basin and the Mission Creek Sub Basin in particular.
- The alternatives achieve far less freshwater conservation than the CPV Sentinel water supply plan and are therefore less effective in implementing policies to conserve fresh water.
- The alternatives impede development of logical future uses of recycled water in the Mission Springs Water District (MSWD) service area.
- The alternatives presume an ability to obtain water supply contracts with MSWD, which has proven impossible to date.
- The alternatives cause significant adverse environmental impacts which are avoided with the CPV Sentinel water supply plan.

- The alternatives are uneconomical compared to the CPV Sentinel water supply plan.
- The greater cost of the alternatives are economically infeasible in the context of CPV's existing contract to supply energy to Southern California Edison under the Edison Power Purchase Agreement (PPA).

The alternatives will cause overdraft of the Mission Creek Sub Basin, in stark contrast to the Applicant's proposed water supply plan.

All of the wastewater from the Horton Wastewater Treatment Plant (HWTP) that presently exists is beneficially recharged into the Mission Creek Sub Basin. Use of this water by the Project would reduce one-for-one the amount of water that is recharged, resulting in a loss of groundwater within the basin. Without replacement via imported water this would lead to an overdraft of the basin. Similarly, the use of water from wells 28 and 30 without replacement via water importation would cause an overdraft of the sub basin. The PSA notes that this overdraft would contribute cumulatively to a projected overdraft in the basin which would occur with or without the Project. As described in the PSA, the overdraft of the basin would contribute to significant environmental impacts including the loss of critical biological habitat, increased pumping lifts for existing groundwater users and a degradation in water quality in the groundwater basin.

CPV Sentinel has developed a project-specific recharge program in which DWA would spread 100 acre-feet of imported water into the basin for every 92 acre-feet of water supplied to the power plant. This imported water supply replacement is over and above the replacement of groundwater that would result from the ongoing replenishment program of DWA. Use of HWTP wastewater to supply the Project would not be levied a replenishment assessment by DWA, in contrast to the CPV Sentinel water supply plan. Thus, none of this wastewater would be replaced via existing replenishment programs. The water pumped by wells 28 and 30 would require payment of the replenishment assessment and thus contribute to the ongoing replenishment program of DWA. However, a significantly lower portion of the Project's water demand would be replaced with imported water under an alternative where a portion of the water supply is supplied with wastewater for which no fee would be assessed.

In our comprehensive submittal, we will provide ground water modeling simulations which make it clear that the CEC staff alternatives would cause a significant adverse impact to the water supplies of the Upper Coachella Valley Groundwater Basin and the Mission Creek Sub Basin, while CPV Sentinel's water supply plan would benefit the groundwater basin and sub basin.

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The alternatives result in far less freshwater savings than the applicant's proposed water supply plan and are thus less effective in furthering CEC and State policies.

Direct use of reclaimed water by the Project avoids direct use of fresh water as proposed in CPV Sentinel's water supply plan. However, the applicant has developed an innovative offset program to conserve fresh water in the basin with a far greater net effect than the staff proposed alternatives. The benefits of the applicant's proposal compared to the alternative direct use of reclaimed water are directly comparable in terms of the freshwater savings that they would achieve.

CPV Sentinel's water supply plan will conserve between 1,500 acre-feet and 1,700 acre-feet per year of fresh water in the Upper Coachella Valley Groundwater Basin. These savings are independent of the pattern of water use by the power plant. In contrast, freshwater savings that could result from direct use of reclaimed water from the HWTP are dependent upon the amount of water that would actually be used by the Project, and the portion of those demands that could be supplied with recycled water from Horton. This is therefore a much more complex analysis requiring an estimate of the water use by the power plant and an estimate of the amounts of recycled water that could be supplied for the power plant. Based on our analysis, which will be provided in detail in our comprehensive submittal, CPV Sentinel's water supply plan achieves more than 3 times the freshwater savings of the staff alternatives. All of the above freshwater conservation occurs within the Upper Coachella Valley Goundwater Basin, and much of the savings from the ET controller retrofit program can be achieved within the Mission Creek Sub Basin. Moreover, to the extent that the applicant's conservation program reduces pumping within the Whitewater Sub Basin, under the allocation formulas that exist for imported water, the existing recharge program of DWA would increase in the Mission Creek Sub Basin. Thus, the freshwater savings which accrue in the groundwater basin yields benefits to both sub basins regardless of where they occur.

The alternatives reduce the future opportunities for recycled water development from Horton Wastewater Plant.

The best use of wastewater from the HWTP into the future is continued recharge of the groundwater basin. This is particularly evident when considering the potential impacts of reducing the beneficial recharge which are described below. Of primary consideration is the fact that the Project is a load following power plant or peaking power plant which would operate relatively infrequently. By contrast, the irrigation demands in the region are quite stable and constant throughout the year. In the PSA, the staff suggests that the

Project would be given a priority over other uses in order to maximize the recycled water supply which could be provided to the Project. This suggestion would reserve recycled water for an infrequent use by the power plant and prevent development of the supply for much more efficient uses of recycled water.

CPV Sentinel examined the potential to serve recycled water to both the Desert Dunes Golf Course and the Palm Springs National Country Club. In both cases, the water demands of the golf courses were relatively stable throughout the year. Peak demands of the golf courses were approximately 1.3 to 1.5 times the annual average demand of the golf course. Both courses utilize approximately 1,000 to 1,100 acre feet per year of water with a peak-flow requirement of approximately 1.3 to 1.5 million gallons per day. Serving this type of demand from a supply of 2.9 MGD recycled water would yield annual recycled water use of approximately 2,000 to 2,200 acre-feet per year. In sharp contrast, the Project would use water for between zero and 30 percent of the hours in a year. Thus, the average demand of the power plant, based upon a 15% on-line time is only 550 acre-feet per year (0.5 MGD) compared to a peak demand of more than 2.9 MGD.

Thus, the Project would only utilize approximately 15% of the supply which is reserved to serve it; whereas a typical golf course would use approximately 65% of the annual water supply reserved for its use. So the reservation of recycled water supply for a future irrigation demand, such as an existing or future golf course in the vicinity of HWTP, would result in approximately 4 times the use that would result from reserving this water supply for the power plant.

CEC staff alternative 2 involves a second additional 6-mile long pipeline, and the use of water from existing MSWD wells that supply potable water

Under CEC staff alternative 2, MSWD would sell CPV Sentinel fresh water from existing District potable water wells 28 and 30 in lieu of CPV Sentinel having its own wells on site. Wells 28 and 30 are located remotely from the Project site, and would require a new pipeline of approximately 6.4 miles in length at an estimated cost to CPV Sentinel of about $6 million. In addition, CPV Sentinel would be required to install two new wells for MSWD, which based on recent drilling experience in this area would total about $3 million. CPV Sentinel would be exposed to future arbitrary cost increases, as MSWD could re-set its water rate to CPV Sentinel at any time in the future merely by majority vote of its Board. In addition, should water supplies be interrupted by equipment failure, the Project would be reliant upon MSWD to repair wells and the pipeline, undercutting the reliability of the Project and exposing CPV Sentinel to significant cost penalties under

its power purchase agreement with Southern California Edison. Furthermore, this alternative would include the additional environmental impact of building a six mile pipeline.

This alternative increases significantly the initial capital cost to CPV Sentinel, undercuts the reliability of the Project, exposes CPV Sentinel to significant contractual cost penalty risks, deprives Sentinel of achieving one of its key objectives of providing competitively priced electricity and results in increased environmental impacts compared to CPV Sentinel's base water supply plan. This is therefore not a feasible alternative.

The alternatives presume an ability of the CPV Sentinel to secure a water supply agreement with the Mission Springs Water District

The staff presents an evaluation of costs and the feasibility of using recycled water from the HWTP based upon representations from the MSWD staff that the District is willing and able to enter into an agreement to supply water to the Project. The statements of the MSWD staff letter run contrary to the statements and actions of MSWD staff and board members over the past year and a half. During that period of time, CPV Sentinel remained continuously open to discussions with MSWD regarding a possible water supply agreement. While MSWD staff and board members have periodically engaged in discussions with CPV Sentinel, at other times staff and board members have expressed open opposition to the Project and any proposal to serve it water. While the full MSWD Board has never taken a formal position with respect to the Project or MSWD's willingness to serve water to the Project, the board rejected a proposal from two board members to form a two-member committee to discuss options and negotiate with CPV Sentinel. Certain board members have been openly hostile to the Project and CPV Sentinel. MSWD staff remains essentially unchanged, and only one board member has changed during this time. Thus, notwithstanding the expression of interest set forth by the MSWD staff, past actions indicate that MSWD is either unable or unwilling to identify a feasible alternative for supplying water to the Project and to develop an agreement for doing so.

The alternatives to CPV Sentinel's water supply plan would likely cause a significant adverse environmental impact.

The most obvious adverse impact from the staff's alternatives, as described above, is that the alternatives would cause overdraft of the Mission Creek Sub Bbasin. Beyond this impact, and even presuming that some mitigation plan, such as the applicant's proposal

for project-specific recharge of the Mission Creek Sub Basin, could avoid this significant adverse environmental impact, the alternatives inherently result in significant environmental impacts which are avoided with the applicant's plan.

The only potentially adverse impact that the staff has identified from CPV Sentinel's water supply plan is that the project specific recharge might not fully offset the drawdown of the basin in the vicinity of the Mesquite Hummocks caused by the Project's groundwater use. Applicant believes that this concern results from the extreme conservatism that staff requested be utilized in the applicant's prior groundwater modeling. These assumptions overstate the potential impacts of the Project on the Mesquite Hummocks. Moreover, CPV Sentinel will offset impacts by paying the mitigation fee to the Multi Species Habitat Conservation Plan, which will include funding of a deep irrigation program for the mesquite hummocks.

Most important, however, is that the staff alternatives have an even greater potential to impact the Mesquite Hummocks. The beneficial recharge from the HWTP is much closer to the Mesquite Hummocks than the proposed Project pumping wells. Thus, the loss of this recharge to serve the Project would have a greater and more significant potential impact to the Mesquite Hummocks. The applicant has conducted groundwater modeling simulations to analyze these effects, which will be provided with its comprehensive submittal.

The HWTP beneficial recharge is in an important place in the basin for an additional reason. The HWTP is much closer to the MSWD and CVWD wells in the basin than the applicant's pumping wells. Thus, the loss of recharge from HWTP has a much greater impact on the production wells within the basin. A comparison of the estimated drawdown at production wells from the reductions in recharge at HWTP compared to the potential impacts from the same set of assumptions for the applicant's plan will be provided in our comprehensive submittal.

The location of HWTP recharge is also important to protecting water quality within the basin. At the Southeastern end of the sub basin, there is very poor water quality, likely attributable to outflow from the Desert Hot Springs Basin. In CPV's investigation of possible service to the Desert Dunes Golf Course it was learned that water quality in the golf course's wells was substantially lower in water quality than the Horton wastewater quality. The high fluorides and high TDS of this water suggest strongly that the water is originating in the Desert Hot Springs basin. Although this poor quality water has historically flowed out of the basin, the lowering of water levels due to overpumping by existing users has begun to reverse the hydraulic gradient within the basin and this poor

quality water will tend to migrate into the high-production areas of the basin where Mission Springs Water District and Coachella Valley Water District's large production wells are located. The HWTP recharge appears to provide and important hydraulic mound within the basin which substantially protects these high-production wells from the much poorer water quality to the south and east.

The alternatives are uneconomical compared to the CPV water supply plan.

CPV Sentinel has reviewed the economics presented by CEC staff in the PSA, and as summarized in Tables 16 and 17 of PSA section 14.12. CPV Sentinel agrees with much of the CEC economic assessment, but there are several cost items that are significantly omitted or understated in the CEC assessment. In summary, the CEC staff alternatives 1 and 2 result in a combined capital cost and annual operating cost, expressed as a net present value cost increase, of approximately $33 million and $40 million, respectively. This does not include the possible cost related to schedule delay caused by a complete change to the water treatment system. To meet the guaranteed in-service date under the Southern California Edison PPA, the water treatment system detailed design is underway, as it is on the critical path for the project. Under the PPA, delays penalties of approximately $6 million per month apply. Although it is not clear exactly what delay may be experienced, any change to either of the CEC staff alternatives carries a risk of incurring delay penalties.

The greater cost of the alternatives are economically infeasible in the context of CPV's contract to supply economically attractive energy to Southern California Edison under the Edison Power Purchase Agreement (PPA).

This section will be written in more detail together with backup in our comprehensive submittal, but the main point is that the pricing in the competitively bid PPA was based on straight use of well water, with no importation of water other than indirectly via the replenishment assessment. The project applicant has since incurred the significant additional cost of adding water importation and a freshwater conservation program without any pricing or schedule relief under the PPA. By adopting the CEC staff alternatives, the applicant would have to absorb the equivalent of an additional $33 to $40 million in present value or 3.2 to 4.0 mills per KWH expressed as power pricing. This is more than a doubling of the incremental cost of water. Given the fixed pricing in the PPA, and the fact that the fuel is a direct pass-through cost, the increase cost for these alternatives represents a very high percentage of the small remaining non-fuel power pricing. Such a cost increase cannot be tolerated without a re-negotiation of the PPA and

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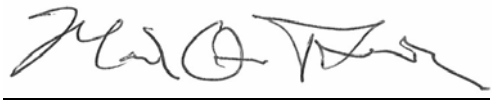
subsequent approval by the CPUC, a scenario that is unlikely to occur. Even if it were possible to re-negotiate and obtain CPUC approval, this would in turn cause a significant delay, make it impossible to deliver needed power by the summer of 2010 and could invoke the schedule penalties under the PPA of $6 million per month.

In summary, we believe our water plan meets the CEC and State water policies, satisfies CEQA, is economically feasible and is superior in each of these areas than any of the CEC staff alternatives. We look forward to submitting a more comprehensive analysis and to the detailed discussions at the PSA Workshop. Please do not hesitate to contact me with any questions.

Sincerely,



Mark Turner
Project Manager

cc: Melissa Jones
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