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BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT  
COMMISSION OF THE STATE OF CALIFORNIA  
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**PETITION TO AMEND THE  
HIGH DESERT POWER PLANT**

**Docket No. 97-AFC-01C**

**SECOND REVISED COMMITTEE RECOMMENDED DECISION  
GRANTING INTERIM RELIEF TO DROUGHT-PROOF THE FACILITY\***

This Second Revised Committee Recommended Decision Granting Interim Relief to Drought-Proof the Facility (Decision) contains the rationale of the California Energy Commission (Energy Commission) in determining whether to grant interim relief to the High Desert Power Plant (HDPP). This Decision also discusses the exemption from the California Environmental Quality Act (CEQA) to the granting of interim relief, provided by Executive Order B-29-15.<sup>1</sup>

**Background**

The HDPP is an 830-megawatt (MW) water-cooled, natural-gas-fired, combined-cycle electric generating facility located in the City of Victorville in San Bernardino County. The HDPP was certified by the Energy Commission on May 3, 2000 (Original Decision)<sup>2</sup>, and began commercial operation in April 2003.

The Original Decision characterizes the issue of water resources as the most highly contested area in the proceedings.<sup>3</sup> The Mojave River is the major surface drainage within the project vicinity, flowing approximately one mile east of the HDPP.<sup>4</sup> This surface water is connected to the groundwater, with the Mojave River being fed by some of the groundwater.

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\* This Decision supersedes the "Revised Committee Recommended Decision Granting Interim Relief to Drought-Proof the Facility" (TN 211669, filed on May 27, 2016) (May 27 Decision). Revisions in the attached Conditions of Certification highlight the changes between the conditions made in this Decision against those contained in the last Energy Commission Decision dated September 26, 2014. (TN 203108). Additions are shown in **underline** and deletions are shown in ~~strikeout~~. Changes that do not affect the substance (for example, typographic errors or formatting changes) are not shown.

<sup>1</sup> Executive Order B-29-15 was issued by Governor Edmund G. Brown Jr., on April 1, 2015.

[https://www.gov.ca.gov/docs/4.1.15\\_Executive\\_Order.pdf](https://www.gov.ca.gov/docs/4.1.15_Executive_Order.pdf).

<sup>2</sup> [http://www.energy.ca.gov/sitingcases/highdesert/documents/2000-05-03\\_HD\\_DECISION.PDF](http://www.energy.ca.gov/sitingcases/highdesert/documents/2000-05-03_HD_DECISION.PDF)

<sup>3</sup> *Id.* at 208.

<sup>4</sup> *Id.* at 209.

Groundwater serving the area around the HDPP comes from the Mojave Basin; specifically, the HDPP is located in the Alto Subarea, one of five subareas in the Mojave Basin.<sup>5</sup> The Original Decision found that the Mojave Basin was severely overdrafted; that is, more water is pumped or used from the basin than is replaced.<sup>6</sup> Replacement of the water used in the Mojave Basin occurs from a variety of sources, including rainfall, irrigation, reclaimed water from waste water treatment plants operated by the Victor Valley Water Reclamation Authority (VWRA), and the importation of State Water Project (SWP) water.<sup>7</sup>

The overdraft of the Mojave Basin led to litigation to determine the native natural water supply and individual water production rights of producers within it. The litigation resulted in an adjudication of individual water production rights within the Mojave Basin (the Judgment) that was affirmed by the California Supreme Court in August 2000.<sup>8</sup> The Judgment named the Mojave Water Agency (MWA) as Watermaster, and is designed to ensure that proper water balances are maintained in each subarea through a combination of natural supply, imported water, water conservation, water reuse, and transfers of production allowances between producers.<sup>9</sup>

The Mojave River also supports a mesquite bosque that provides habitat to several state and federally listed species, as well as species of special concern. Any decrease in riparian flows would likely result in impacts to available habitat and significantly affect protected species. Because of the interconnection between the Mojave River and the groundwater basin, any use of groundwater might impact the riparian habitat near the HDPP.

The Original Decision thus limited the source of cooling water for the HDPP to SWP water, either delivered directly to the HDPP or by the HDPP creating a “water bank” through aquifer injection.<sup>10</sup> The HDPP was specifically precluded from using any other source of water, including reclaimed water.<sup>11</sup> The Original Decision therefore concluded that any potential impacts to the Mojave River and its associated habitat would be mitigated by the HDPP “banking water” and by ensuring that the HDPP did not cause any reductions in discharges or banked water flows.<sup>12</sup>

In 2008, HDPP submitted a petition to the Energy Commission to amend the original conditions of certification to allow it to use reclaimed water for a portion of its water needs.<sup>13</sup> The Energy Commission granted the request on November 18, 2009, authorizing the HDPP to use reclaimed water to meet up to one-third (approximately

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<sup>5</sup> *Id.* at 212.

<sup>6</sup> *Id.* at 210.

<sup>7</sup> *Id.* at 211-212.

<sup>8</sup> *City of Barstow v. Mojave Water Agency* (2000) 23 Cal.4th 1224, 99 Cal.Rptr.2d 294, 5 P.3d 853.

<sup>9</sup> *Original Decision* at 2110-212.

<sup>10</sup> *Id.* at 213-215; 222; 230-231; see also Conditions of Certification Soil & Water-1 and Soil & Water-4.

<sup>11</sup> *Id.*

<sup>12</sup> *Id.* at 138-139.

<sup>13</sup> TN 47547.

1,000 acre-feet per year (AFY)) of its project cooling water needs (the 2009 Amendment).<sup>14</sup> As part of this approval, the Energy Commission further required the HDPP to provide, by December 31, 2011, a study analyzing the feasibility of converting the HDPP to 100 percent reclaimed water use.<sup>15</sup> This December 2011 deadline for the feasibility study was ultimately extended to November 2014 to allow for adequate testing at the facility based on the source of the reclaimed water (treated wastewater from the City of Victorville's industrial plant or from the VVWRA domestic treatment plant).<sup>16</sup>

In April 2014, HDPP submitted an "Amendment Petition for Alternative Water Supplies to Address Drought-related Reliability Impacts" (2014 Amendment Petition) to modify the conditions of certification. First, the 2014 Amendment Petition requested the ability to send backwash streams to the City of Victorville industrial wastewater treatment plant in order to improve the water quality of the reclaimed water received from that plant. Second, the 2014 Amendment Petition sought authority for the HDPP to use groundwater from the Mojave Basin that it had obtained under the provision of the Judgment.<sup>17</sup>

On September 10, 2014, the Energy Commission partially granted the 2014 Amendment Petition (the 2014 Amendment). The Energy Commission modified Condition of Certification SOIL&WATER-1, allowing the HDPP to use groundwater from the Mojave Basin only if reclaimed water of sufficient quantity or quality was not available. The Energy Commission further limited the HDPP's ability to use groundwater to water years 2014/2015 and 2015/2016,<sup>18</sup> and to a maximum of 2,000 AFY in each of those water years. HDPP was also required to file a petition to amend by November 1, 2015, that would either implement reliable primary and backup water supplies that are consistent with state water policies or that would allow construction of an alternate cooling system, such as dry cooling.<sup>19</sup>

The feasibility study required under the 2009 Amendment was provided to the Energy Commission on November 3, 2014.<sup>20</sup> HDPP argues that the Alto Subarea is not in a condition of "overdraft" and that the Judgment has resulted in groundwater sustainability. HDPP also argues that the quantity and quality of reclaimed water make it infeasible to use it exclusively for cooling purposes.<sup>21</sup>

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<sup>14</sup> The amount authorized was 1000 acre-feet. While the Original Decision and subsequent amendments have not set a firm limit on the amount of water the HDPP requires to operate, the Petition lists 3090 acre-feet as the limit of groundwater. Thus, it appears that 3090 acre-feet of water is needed annually for plant operation.

<sup>15</sup> TN 54277.

<sup>16</sup> TN 60649, 62362.

<sup>17</sup> TN 202211.

<sup>18</sup> The water year runs from October 1 to September 30. (TN 203108.)

<sup>19</sup> TN 203108.

<sup>20</sup> TN 203306.

<sup>21</sup> TN 203306, 206454, 206468.

Energy Commission staff (Staff) provided its response to the feasibility study on October 9, 2015. Staff's analysis argues that, in most cases, there is sufficient reclaimed water available to meet the cooling requirements of the HDPP and that use of reclaimed water from the VVWRA is preferred to using groundwater from the adjudicated Mojave Water Basin. Staff further argues that the HDPP's use of up to 1,600 acre-feet of groundwater from Mojave Water Basin for emergency backup would be acceptable.<sup>22</sup>

### **Current Proceedings and Interim Relief**

HDPP filed a Petition for Modification to Drought-Proof the High Desert Power Project (Petition) on October 30, 2015, which proposed amending Condition of Certification SOIL&WATER-1 to add a "Loading Sequence" for the sources of water to be blended with reclaimed water at the HDPP, maximizing the use of reclaimed water as the primary supply, in order to operate the facility reliably. The other sources are 1) water directly from the SWP; 2) banked SWP water; and 3) adjudicated groundwater from the Mojave Basin; they would be blended in that order of preference. The HDPP proposed a limit of 3090 acre-feet of groundwater in any given year on a five-year rolling average.<sup>23</sup>

On January 13, 2016, the Energy Commission appointed a Committee consisting of Karen Douglas, Commissioner and Presiding Member, and Janea A. Scott, Commissioner and Associate Member, to conduct proceedings on the Petition.<sup>24</sup>

The Committee has conducted a series of public meetings with the parties to resolve the issues presented by the Petition. In addition to the positions of Staff and HDPP, Intervenor California Department of Fish and Wildlife (CDFW) argues that, despite the Judgment and the actions of MWA as Watermaster, the Alto Subarea is still in a condition of groundwater "overdraft." Because of this, CDFW asserts that the proposed use of over 3,090 AFY of reclaimed water could have a detrimental effect on groundwater recharge in the Alto Subarea, and, as a consequence, on the habitat necessary to support state and federally listed species and species of special concern. CDFW thus argues that SWP water should continue to make up the majority of water used for plant cooling purposes.<sup>25</sup>

The parties have filed testimony and documentation regarding the Petition in preparation for evidentiary hearings. However, the Committee has found that additional evidence is required to resolve the Petition. Specifically, the Committee would like to see additional evidence addressing CDFW's concern about the impact of diverting recycled water to HDPP. In addition, the Committee may request further analysis of the impacts of percolation, including water quality impacts.<sup>26</sup> As such, evidentiary hearings may be delayed beyond the expiration of the 2014 Amendment.

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<sup>22</sup> TN 206321, 210083.

<sup>23</sup> TN 206468, pp. 5-7, 32-34.

<sup>24</sup> TN 207552.

<sup>25</sup> TN 210565.

<sup>26</sup> TN 210667.

The permission to use groundwater granted by the 2014 Amendment expires at the end of the current water year (September 30, 2016). HDPP has stated that it requires time before the end of the water year to secure supplies for the next water year (October 1, 2016, to September 30, 2017). HDPP alleges that it has certain entitlements to SWP water, but taking that water has been problematic because of its quality. HDPP has also noted that the quantity of water available varies greatly, subject to complete curtailment in emergency conditions.<sup>27</sup>

HDPP also requests that it be allowed to pursue an alternate method for groundwater banking: percolation. One reason for HDPP's request is the need to "clean" SWP water before injection. To do so, the plant must be operating.<sup>28</sup> HDPP does not believe that percolation requires such "cleaning." Moreover, HDPP currently has an agreement with the City of Victorville authorizing groundwater banking only through injection. The City of Victorville in turn has master agreements with MWA regarding groundwater recharge. Therefore, any change to the method of SWP water banking is dependent on modifications to these agreements. HDPP has stated that it needs immediate relief to make the required changes to the various agreements in order to take its full allotment of SWP water in this water year.

With these issues in mind, the Committee issued its "Committee Recommended Decision Granting Interim Relief to Drought-Proof the Facility" on May 6, 2016 (May 6 Recommended Decision).<sup>29</sup> Consideration of the May 6 Recommended Decision by the full Energy Commission was originally scheduled for the May 17, 2016 business meeting.<sup>30</sup> However, upon receiving comments from HDPP<sup>31</sup> and Staff,<sup>32</sup> the Committee continued the matter to the June 14, 2016, business meeting,<sup>33</sup> and scheduled a status conference on May 23, 2016.<sup>34</sup>

After considering the discussion at the May 23, 2016 status conference, the Committee issued the May 27 Decision. The revisions were guided by two principles. First, the interim relief is designed to be temporary, lasting only until the end of the 2016-2017 water year (September 30, 2017). The Committee did not recommend any changes to the existing conditions of certification beyond those needed for this limited time relief.

Second, as was explained at the May 23, 2016, status conference, the Committee has not conducted evidentiary hearings in this matter to assess the information provided to it by the parties. Without such hearings, we will modify the Original Decision to the minimum extent necessary to provide interim relief, leaving the Committee to address

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<sup>27</sup> TN 206468, p.18.

<sup>28</sup> TN 210301, p. 29

<sup>29</sup> TN 211402.

<sup>30</sup> TN 211401.

<sup>31</sup> TNs 211378, 211442.

<sup>32</sup> TN 211438.

<sup>33</sup> TN 211481-1.

<sup>34</sup> TN 211481-2.

the long-term issues regarding the potential impacts of operation of the HDPP on water and biological resources in the Mojave River Basin.

Following publication of the Decision, the Committee held a continued status conference on June 2, 2016.<sup>35</sup> At that time, the Committee was presented with a “Stipulation between the High Desert Power Project, LLC, California Energy Commission Staff, and California Department of Fish and Wildlife in Support of Proposed Amendments to Soil & Water Conditions of Certification to Provide for Interim Drought Relief” (Stipulation).<sup>36</sup> The Stipulation seeks amendments to Conditions of Certification Soil & Water-1, -4, -5, -6, -12, -13, and -22. We will address the parties’ requests, as contained in the Stipulation, as relevant to the Conditions of Certification described below.

### **Executive Order B-29-15**

On January 17, 2014, Governor Edmund G. Brown Jr. proclaimed a State of Emergency due to the ongoing drought in California. On April 1, 2015, the Governor issued Executive Order B-29-15 (Executive Order), paragraph 25 of which provides:

The Energy Commission shall expedite the processing of all applications or petitions for amendments to power plant certifications issued by the Energy Commission for the purpose of securing alternate water supply necessary for continued power plant operation. Title 20, section 1769 of the California Code of Regulations is hereby waived for any such petition, and the Energy Commission is authorized to create and implement an alternative process to consider such petitions. This process may delegate amendment approval authority, as appropriate, to the Energy Commission Executive Director. The Energy Commission shall give timely notice to all relevant local, regional, and state agencies of any petition subject to this directive, and shall post on its website any such petition.<sup>37</sup>

Paragraph 26 of the Executive Order also provides, in part, that for purposes of carrying out the directives in paragraph 25, the California Environmental Quality Act (CEQA) is suspended until May 31, 2016.<sup>38</sup> For actions initiated prior to May 31, 2016, such as this Petition, the suspension of CEQA continues “for the time required to complete them.”<sup>39</sup> Additionally, on November 13, 2015, Governor Brown issued Executive Order B-36-15, that extended the provisions of Executive Order B-29-15 until the drought state of emergency is terminated.<sup>40</sup> Finally, Executive Order B-37-16 was issued on May 9, 2016, proclaiming that the orders and provisions of Executive Order B-29-15 to

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<sup>35</sup> The June 2, 2016, status conference was a continuance of the May 23, 2016, status conference. (TN 211615.)

<sup>36</sup> TN 211710.

<sup>37</sup> [https://www.gov.ca.gov/docs/4.1.15\\_Executive\\_Order.pdf](https://www.gov.ca.gov/docs/4.1.15_Executive_Order.pdf).

<sup>38</sup> *Id.*

<sup>39</sup> *Id.*

<sup>40</sup> [https://www.gov.ca.gov/docs/11.13.15\\_EO\\_B-36-15.pdf](https://www.gov.ca.gov/docs/11.13.15_EO_B-36-15.pdf)

still be in full force and effect, except as modified, and gave additional direction to state agencies to transition temporary emergency water restrictions to permanent, long-term improvements in water use<sup>41</sup>. Therefore, we conclude the exemptions created by Executive Order B-29-15 continue in effect.

As set forth above, the HDPP is a water-cooled power plant. At present, its ability to use Mojave Basin groundwater expires on September 30, 2016. In order to maximize its use of SWP water, HDPP requires certain changes to the Conditions of Certification to allow for percolation, in addition to the already-authorized injection. As a consequence, we find that the Petition and the granting of interim relief to the HDPP fall within the scope of the Executive Order.

The Executive Order states that power plant certification and amendments are exempt from Title 20, section 1769 of the California Code of Regulations and from CEQA. Section 1769 addresses the process and procedures for reviewing amendments, while CEQA codifies a statewide policy of environmental protection. Accordingly, we need not conduct environmental review before granting interim relief. While we find that the Petition for Interim Relief falls within the ambit of the Executive Order, the Executive Order does not preclude the Energy Commission from exercising its discretion under the Warren-Alquist Act to assess the costs and benefits in approving such projects.<sup>42</sup>

### **Aliso Canyon State of Emergency**

On January 6, 2016, Governor Edmund G. Brown Jr. issued an Emergency Proclamation (January 2016 Proclamation) addressing the gas leak at the Aliso Canyon storage facility.<sup>43</sup> The January 2016 Proclamation called on the Energy Commission, the California Public Utilities Commission, and the California Independent System Operator (CAISO) to coordinate and take all necessary actions to ensure the reliability of the natural-gas and electricity supplies during the moratorium on gas injections into Aliso Canyon. This joint agency coordination resulted in the creation of a joint agency reliability team that also collaborated with the Los Angeles Department of Water and Power and Southern California Gas Company (SoCalGas).

The joint agency team issued the “Aliso Canyon Action Plan to Preserve Gas and Electric Reliability for the Los Angeles Basin” (Action Plan)<sup>44</sup> and the “Aliso Canyon Risk Assessment Technical Report” (Technical Report).<sup>45</sup> The Action Plan identified Aliso Canyon as essential to the overall reliability of both gas and electrical systems in

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<sup>41</sup>[https://www.gov.ca.gov/docs/5.9.16\\_Executive\\_Order.pdf](https://www.gov.ca.gov/docs/5.9.16_Executive_Order.pdf). For convenience, we will refer to Executive Orders B-29-15, B-36-15, and B-37-16 collectively as the “Executive Order”.

<sup>42</sup> Pub. Resources Code §§ 25523, 25525.

<sup>43</sup> <https://www.gov.ca.gov/news.php?id=19264>.

<sup>44</sup> [http://www.energy.ca.gov/2016\\_energypolicy/documents/2016-04-08\\_joint\\_agency\\_workshop/Aliso\\_Canyon\\_Action\\_Plan\\_to\\_Preserve\\_Gas\\_and\\_Electric\\_Reliability\\_for\\_the\\_Los\\_Angeles\\_Basin.pdf](http://www.energy.ca.gov/2016_energypolicy/documents/2016-04-08_joint_agency_workshop/Aliso_Canyon_Action_Plan_to_Preserve_Gas_and_Electric_Reliability_for_the_Los_Angeles_Basin.pdf). (Action Plan).

<sup>45</sup> [http://www.energy.ca.gov/2016\\_energypolicy/documents/2016-04-08\\_joint\\_agency\\_workshop/Aliso\\_Canyon\\_Risk\\_Assessment\\_Technical\\_Report.pdf](http://www.energy.ca.gov/2016_energypolicy/documents/2016-04-08_joint_agency_workshop/Aliso_Canyon_Risk_Assessment_Technical_Report.pdf) (Technical Report).



the Los Angeles Basin.<sup>46</sup> To address the possible curtailment of gas deliveries to electrical generating facilities reliant on Aliso Canyon, the Action Plan recognizes that CAISO may call on out-of-basin operators that do not rely on natural gas supplied from Aliso Canyon.<sup>47</sup> The Technical Report further states that, “There are some gas-fired resources located in southern California that can take gas service from other pipelines other than those of SoCalGas, for example, the High Desert Generations facility. These resources can be used to help mitigate gas curtailments to gas-fired resources on the SoCalGas system but may not serve to mitigate local transmission constrained areas such as Orange County.”<sup>48</sup>

HDPP operates on a gas source that is not reliant on Aliso Canyon.<sup>49</sup> The record does not definitively establish that HDPP will be required to provide substitute power generation in the event of natural-gas delivery curtailments in the Los Angeles region. However, we may infer that because HDPP operates on natural gas provided from a different source, it may be called on to help mitigate any curtailment of natural-gas electrical generating facilities in the Los Angeles region.

### **Interim Relief**

The parties (HDPP, Staff, and Intervenor CDFW) have agreed that some form of interim relief is necessary. Staff and HDPP have suggested that HDPP be granted an additional two years of Mojave Basin groundwater use, similar to that granted under the 2014 Amendment.<sup>50</sup>

We agree that a narrowly tailored interim relief is appropriate to address immediate needs and provide time to develop the record to resolve the issues presented by the Petition. Therefore, we grant interim relief to the HDPP by amending Condition of Certification Soil & Water-1 and adding Condition of Certification Soil & Water-22, as set forth in Exhibit “A” to the May 27 Decision.

As set forth above, on June 2, 2016, the Committee received the Stipulations, seeking amendments to the Conditions of Certification Soil & Water-1 and deletion of Condition of Certification Soil & Water-22 as contained in the May 27 Decision. The Stipulation also contains proposed modifications to Conditions of Certification Soil & Water-4, -5, -6, -12, and -13, to provide for percolation to build the HDPP’s groundwater bank. We will address the parties’ requests, as contained in the Stipulation, as relevant to the Conditions of Certification described below.

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<sup>46</sup> Action Plan at 8.

<sup>47</sup> *Id.* at 28.

<sup>48</sup> Technical Report at 46.

<sup>49</sup> Original Decision at 50, 76, 78-80.

<sup>50</sup> TN 210800 (Transcript of March 15, 2015, Prehearing Conference); TN 210088 (Petitioner’s Opening Testimony), pp. 31-33; TN 211258 (Staff’s Proposed Changes to Provide Interim Relief).

## **Soil & Water-1**

### **A. Loading Sequence**

Although the Petition contains a “loading sequence” regarding the hierarchy of cooling water sources at the plant and one was included in the May 6 Recommended Decision, we did not include it in the May 27 Decision’s amended Condition of Certification Soil & Water-1 as HDPP, Staff, and CDFW agreed at the May 23, 2016 status conference that flexibility is needed in the short term and a loading sequence is not needed for interim relief.

In the Stipulation, the parties agree to a “loading sequence”<sup>51</sup> that affirms reclaimed water as the primary water supply. In the event that the quality or quantity of reclaimed wastewater is insufficient, the Petitioner is allowed to use SWP water, obtained directly from SWP or from the HDPP’s groundwater bank.<sup>52</sup> If SWP water is not available directly, or if the amount of available banked groundwater is less than certain thresholds in water years 2015/2016 and 2016/2017, the Petitioner may blend reclaimed wastewater with MRB Water Rights.<sup>53</sup>

This Decision accedes to the parties’ request and restores a “loading sequence” to Condition of Certification Soil & Water-1. By temporarily extending and potentially increasing the use of reclaimed wastewater, the Energy Commission does not intend to allow Petitioner to vest into any particular amount or source of water. Consequently, the Energy Commission reserves the right to modify the amount of and access to reclaimed water as a source of cooling water in the ultimate decision on the Petition.

### **B. Water Usage Limitation**

In the May 27 Decision, we amended Condition of Certification Soil & Water-1 to continue to contain an upper limit on the use of water, increasing the cap from 3090 AF<sup>54</sup> to 5000 AF per calendar year.<sup>55</sup> Based on comments received from CDFW and the Petitioner during the May 23, 2016 Committee Conference, the May 27 Decision then added a further precautionary measure allowing HDPP to exceed the cap where the California Independent System Operator issues exceptional dispatch instructions to HDPP. In the Stipulation, the parties requested the cap on total water use be eliminated.

This Decision accedes to the parties’ request and strikes the limit from Condition of Certification Soil & Water-1. We believe that an upper limit on the amount of water to be used is an issue that will need to be addressed in the ultimate resolution of the Petition. However, at this time, none of the parties agree with the limit contained in the May 27

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<sup>51</sup> TN 211710, pp. 1-2.

<sup>52</sup> Under the Stipulation, the calculation of available groundwater in the bank shall be calculated under the terms of Condition of Certification Soil & Water-5. We will refer to this as “available banked groundwater” in our discussion.

<sup>53</sup> TN 211710, p. 1.

<sup>54</sup> As contained in the May 6 Decision.

<sup>55</sup> Petitioner’s Opening Testimony (TN 21088) p. 28.

Order. The Committee would like the benefit of receiving additional evidence and argument from the parties on the advisability of setting an over-all cap on water usage, as well as the appropriate limit to be set. We thus continue the discussion of an upper limit, including the appropriate set point and imposition, to future proceedings.

### C. Percolation

As set forth above, the only method by which the HDPP may currently bank groundwater is through injection. In the Original Decision, the Energy Commission found that, unless adequately mitigated, the project's pumping of banked water could cause a decline in the base flow of the Mojave River, which would in turn result in adverse effects on riparian vegetation and, ultimately, on species dependent on that vegetation.<sup>56</sup> To address that concern, the Conditions of Certification, particularly Conditions of Certification Soil & Water-4, -5, and -6, require the use of a groundwater model that reflects the hydrogeologic and hydraulic properties of groundwater interaction with the Mojave River. This model considers the loss of injected water through dissipation, both over time and distance, between the place of banking and the location where and time when it was withdrawn.<sup>57</sup>

HDPP seeks to add the ability to percolate as an additional method of banking SWP water. To do so, agreements between HDPP and the City of Victorville and/or the MWA will be required. In discussing percolation with the parties at the May 23, 2016, Status Conference, issues regarding potential impacts to groundwater quality from percolation, calculation of the amount of water available to HDPP after percolation, and the oversight of percolation were raised. HDPP stated that percolation will allow it to bank up to 6,000 AFY of SWP water this year as opposed to only 1,000 AFY if only injection were permitted. Both Staff and CDFW recommended that percolation be allowed in order to maximize the storage of SWP water while it is available.

In the May 27 Decision, we agreed that allowing this short-term use of percolation would be beneficial to the project by adding new Condition of Certification Soil & Water-22 that would allow percolation until the earlier of (1) the final determination of the Petition or (2) the end of the next water year (September 30, 2017). To address the concerns of properly determining the amount of water available for later withdrawal, the Committee continued the protocols provided in the Original Decision: Conditions of Certification Soil & Water 4, 5, and 6. The May 27 Decision reserved consideration of the issue for future Committee proceedings on the Petition, if necessary. The other issues raised, including the need for the project to meet certain milestones in the amount of water banked, were to be considered during the longer-term resolution of the Petition.

In the Stipulation and at the June 2, 2016, status conference, the parties requested that the Committee replace the proposed Condition of Certification Soil & Water-22 with

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<sup>56</sup> Original Decision at 215.

<sup>57</sup> Id. at 215-216.

revisions to Conditions of Certification Soil & Water-4, -5, -6, -12<sup>58</sup>, and -13. Instead of using the requirements of the existing model for calculating dissipation, the Stipulation-proposed changes would allow MWA to determine the amount of percolated water available.

This Decision declines to substitute the language in the Stipulation for Condition of Certification Soil & Water-22, as proposed in the May 27 Decision. As set forth above, issues surrounding water, including the HDPP's banking of water, were extensively litigated in the proceedings culminating in the Original Decision. In creating the original Conditions of Certification, the focus was on ensuring that the HDPP did not create an impact on the groundwater basin that would affect the riparian habitat of the Transition Zone. As it related to groundwater banking there were two concerns: appropriate calculation of the amount of available water through dissipation (and, in the case of percolation, evaporation) and impacts to the water quality in the aquifer. The Committee is mindful of the Judgment and has no interest in usurping the jurisdiction of MWA as Watermaster. However, while authorizing the Petitioner to reach an agreement with MWA allowing percolation, the Energy Commission has an obligation to assess whether such an agreement provides adequate mitigation for impacts associated with percolation, if any. Applying the existing language of Conditions of Certification Soil & Water-4, -5, and -6 allows the Energy Commission to meet that responsibility in the context of Interim Relief. As it relates to resolving the question of an appropriate limit on water usage beyond the term of the Interim Relief, the Committee would like to receive evidence on significant effects, if any, associated with percolation and withdrawal; how the Judgment and MWA's role as Watermaster can help inform this evaluation; and best ways to mitigate any significant impacts, if any.

At the June 2, 2016, status conference, the Petitioner also requested that the ability to percolate water be made permanent in the interim order. Petitioner argued that the short timeframe for percolation authorized in the May 27 Order would make it difficult to obtain the best terms for any contract with MWA.

The Energy Commission recognizes that the time limit originally established in the May 27 Decision may inhibit Petitioner's ability to reach an agreement with MWA regarding percolation, but defers creating a permanent right to percolate to future proceedings for this project. This Decision thus extends the deadline for percolation to September 30, 2018. Again, the Committee would like the benefit of additional evidence, analysis, and argument from the parties in the long-term proceedings on this Petition regarding percolation before making its use permanent. This evidence may include improvements to the existing models used to address the previously identified impacts resulting from injection into the groundwater aquifer, as well as additional effects that may arise from percolating groundwater.

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<sup>58</sup> During discussions at the June 2, 2016, status conference, Petitioner admitted that no change to Condition of Certification Soil & Water-12 was needed as its requirements had already been satisfied. We therefore do not include it in our analysis.

## Next Steps

This Decision only addresses interim relief. Further processing of the Petition will be in conformity with the Scoping Order filed by the Committee on June \_\_\_\_, 2016.<sup>59</sup>

### FINDINGS OF FACT and CONCLUSIONS OF LAW

1. The HDPP requires water for cooling in order to operate.
2. Pursuant to the 2014 Amendment, the HDPP currently has the ability to use groundwater from the Mojave Basin until September 30, 2016.
3. The Aliso Canyon Natural-Gas Storage Facility may be unable to provide sufficient natural-gas supplies to natural-gas-fired electrical generating facilities in the Los Angeles basin.
4. The Action Plan, prepared by the California Public Utilities Commission, the Energy Commission, the CAISO and the Los Angeles Department of Water and Power, recognizes that natural-gas-fired electrical generation facilities that rely on natural gas from sources other than Aliso Canyon may be called upon to provide power.
5. The HDPP does not obtain natural gas for plant operations from the Aliso Canyon Natural-Gas Storage Facility.
6. Executive Order B-29-15, as extended by Executive Orders B-36-15 and B-37-16, creates an exemption from CEQA for amendments to power plant certifications for the purpose of securing alternate water supply necessary for continued power plant operation.
7. Providing water to the HDPP on an interim basis falls under the exemption created by Executive Orders B-29-15, B-36-15, and B-37-16.
8. In exercising the discretion granted to the Energy Commission under Public Resources Code sections 25523 and 25525, the limited amount of time during which this interim relief applies minimizes the impacts on the environment while allowing this facility to continue to operate during the resolution of the remaining issues of the Petition.
9. Consideration of the Petition is exempt from California Code of Regulations, title 20, section 1769, pursuant to Executive Orders B-29-15, B-36-15, and B-37-16.
10. Consideration of the Petition is exempt from Division 13 (commencing with section 21000) of the Public Resources Code and regulations adopted pursuant to that Division the California Environmental Quality Act, California Public Resources Code section 21000 et seq., as well as any regulations adopted pursuant to pursuant to Executive Orders B-29-15, B-36-15, and B-37-16.
11. Consideration of the evidence and facts offered in the Petition continues to be subject to the discretion of the Energy Commission under the Warren-Alquist Act,

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<sup>59</sup> TN \_\_\_\_\_

California Public Resources Code section 25000 et seq., including, but not limited to sections 25523 and 25525.

The Committee hereby submits its Amended Revised Committee Recommended Decision Granting Interim Relief to Drought-Proof the Facility for the High Desert Power Project, (Docket Number 97-AFC-01C).

The Committee recommends that the interim relief be approved, subject to the conditions of certification set forth herein, and that the Energy Commission grant the Project Owner an amended license to construct and operate the project.

Dated: June 9, 2016, at Sacramento, California

*Original signed by*

KAREN DOUGLAS  
Commissioner and Presiding Member  
High Desert Power Plant Amendment  
Committee

*Original signed by*

JANEA A. SCOTT  
Commissioner and Associate Member  
High Desert Power Plant Amendment  
Committee

**EXHIBIT “A” TO SECOND REVISED COMMITTEE RECOMMENDED DECISION  
GRANTING INTERIM RELIEF  
FOR THE HIGH DESERT POWER PLANT<sup>60</sup>  
97-AFC-01C**

**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 and/or appropriately treated recycled waste water, and/or an alternative water supply obtained from the Mojave River Basin (MRB) consistent with the “Judgment After Trial” dated January 1996 in *City of Barstow, et al., v. City of Adelanto, et al.* (Riverside County Superior Court Case No. 208568) (collectively, “MRB-Adjudicated Water Rights”) as administered by the Watermaster (the “Judgment”).

- a. ~~Whenever~~ **The project owner shall implement an interim “Loading Sequence” in the following order:**

**1. The project owner will use** recycled waste water of quality sufficient for project operations **as the primary water supply, to the extent it** is available to be purchased from the City of Victorville, the project owner shall use direct delivery of maximum quantities of such water for project operations. ~~Whenever the quantity or quality of~~ **and its quality is sufficient to maintain cooling tower functions and reliable operation of the facility.**

2. If there is insufficient recycled waste water ~~is not~~ **of quality or quantity** sufficient to support project operations, the project may supplement **maintain cooling tower functions and reliable operation of the facility.** recycled **waste** water ~~may be~~ **blended** with **either (a) directly available** SWP water **or (b)** banked SWP water from the four HDPP wells as long as the amount of **banked SWP** water used does not

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<sup>60</sup> **Underline** and ~~strikeout~~ highlight the changes between the Conditions of Certification effective under the 2014 Amendment and those made in this Order.

exceed the amount of water determined to be available to the project pursuant to SOIL&WATER-5, and/or.

**3. If there is insufficient directly available SWP Water of quality or quantity sufficient to maintain cooling tower functions for reliable operation of the facility and the amount of banked SWP water determined to be available to the project pursuant to SOIL&WATER-5 is less than 4,000 acre-feet (AF) in water year 2015/2016 (ending September 30, 2016) and less than 5,000 AF in water year 2016/2017 (ending September 30, 2017), the project owner may blend recycled waste water with MRB Adjudicated Water Rights. Water Rights to achieve the required cooling tower blowdown rate or cooling tower functionality, subject to the limitations contained above.**

**4. The Project Owner shall consume no more than 2,000 AF in water years 2014/2015 (October 1, 2014 – September 30, 2015) and no more than 2,000 AF of MRB Water Rights in water year 2015/2016 (October 1, 2015 – September 30, 2016) of MRB Adjudicated Water Rights and the and no more than 2,000 AF in water year 2016/2017 (October 1, 2016 – September 30, 2017). The** acquisition, use and transfer of MRB Adjudicated Water Rights shall comply with the Judgment and Rules and Regulations of the MWA Watermaster.

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.

- b. The project owner shall report all **on or before the 15<sup>th</sup> of each month, the** use of water from all sources **for the prior month** to the Energy Commission CPM on **in acre-feet. The** monthly ~~The project owner~~ **report** shall submit a Petition to Amend (PTA) no later than November 1, 2015 that will implement reliable



~~primary and backup HDPP water supplies that are consistent with state water policies or an alternate cooling system like dry cooling.~~**include acre-feet usage by source, as well as total.**

~~d. (Item Deleted)~~

~~e.-c. The project's water supply facilities shall be appropriately sized and utilized to meet project needs. The project shall make maximum use of recycled waste water for power plant cooling given current equipment capabilities and permit conditions.~~

~~f. The project owner shall continue with the feasibility study evaluating the use of 100 percent recycled water for evaporative cooling purposes and other industrial uses. The feasibility study shall be completed by the project owner and submitted to the CPM.~~

**VERIFICATION:** The project owner shall provide final design drawings of the project's water supply facilities to the CPM, for review and approval, thirty (30) days before commencing project construction. The project owner shall submit to the CPM documentation showing the agreements entered into between the project owner, MWA Watermaster, and water right owners in MRB regarding the acquisition, use and transfer of MRB Adjudicated Water Rights. The project owner shall report all use of water from MRB **in acre-feet** to the Energy Commission CPM on a monthly basis **for each supply: Recycled Water, SWP, Water, Banked SWP Water, and MRB Water Rights.**

The project owner **monthly report** shall **contain a brief statement on (1) the water quantity and water quality of the supplies available in the prior month and (2) a summary of efforts to use available supplies to** provide a biannual report on the progress being made on the project design for use of 100 percent recycled **cooling** water for power plant cooling. ~~The report shall include information related to project modifications that may be needed for using up to 100 percent recycled water. The first report shall be due six months after adoption of this condition of certification, and the final feasibility report shall be submitted to~~ **operations, build** the CPM no later than November 1, 2014. ~~Verifying compliance with other elements of Condition SOIL&WATER 1 shall be accomplished in accordance with the provisions of the Verifications for Conditions 2, 3, 6, 20, and 21 as appropriate.~~

The project owner shall submit a PTA no later than November 1, 2015 that will implement reliable primary and backup HDPP water supplies that are consistent with state groundwater bank, and/or preserve the HDPP water bank, policies or an alternate cooling system like dry cooling.

The final feasibility study should contain, but not be limited to, the following information:

~~I- Water Supply~~

~~A. Potential sources of recycled water, its current and projected use, and alternative pipeline routes~~

~~B. Adequacy of recycled water supplies to meet plant operation demand (provide future projections of supply and demand considering annual volumes, monthly patterns of plant water use vs. availability of water supply, and peak day supply and demand)~~

~~C. Quality of existing and recycled water supplies~~

~~D. Water treatment requirements for existing and recycled water supplies~~

~~E. Cooling cycles of concentration for existing and potential recycled water supplies~~

~~II- Cooling & Process Needs~~

~~A. Consumptive water uses e.g.: cooling tower make-up, evaporative cooling of CTG inlet air, CTG compressor intercooling, and STG condensation; CTG NOx control; CTG power augmentation; boiler water makeup~~

~~B. Space requirements for additional treatment of recycled water supplies vs. space available on the plant site~~

~~C. Water balance diagrams for recycled water use and wastewater discharge for average and peak conditions to include distinctions in using existing vs. recycled water~~

~~III- Wastewater Treatment Disposal~~

~~A. Method (existing discharge via sewer system to WWTP, dedicated brine return line, deep well injection, or zero liquid discharge (ZLD) recovery)~~

~~B. Available capacity & operating limitations~~

~~IV- Economic Costs of Existing Source and Recycled Sources (where applicable)~~

~~A. Capital costs~~

- ~~1. water supply pipeline~~
- ~~2. water supply pumping station(s)~~
- ~~3. well(s)~~
- ~~4. water treatment system~~
- ~~5. wastewater pipeline & facility capacity charge~~
- ~~6. permitting (PM 10, Legionella, discharge quality and quantities)~~
- ~~7. Right of Way and Easement acquisitions~~
- ~~8. engineering, procurement, construction inspection and testing~~
- ~~9. biologic surveys/environmental assessment reports~~

~~B. Annual (operating and maintenance) Costs~~

- ~~1. existing and recycled water purchase cost~~
- ~~2. chemicals (cooling tower & water treatment)~~
- ~~3. labor~~
- ~~4. energy (water supply pumping, water treatment)~~
- ~~5. wastewater discharge fee~~
- ~~6. solids disposal (class of waste, transportation & landfill fees)~~

~~C. Project Life—Identify project life~~

~~D. Total Project Cost (base case)~~

~~E. Installed cost per watt~~

~~F. Total Annualized Cost—expressed as the uniform end-of-year payment (AIP) of  
Capital Costs + Annual Costs~~

~~G. Cost of Capital~~

~~H. Debt to equity ratio~~

~~I. Average debt service coverage ratio~~

~~V. Expected Effects on Electric Customers~~

~~A. Description of existing electricity rate structure and current rates to customers  
using existing water source~~

~~B. Description of expected electricity rates to customers using recycled water over  
remaining life of the plant~~

~~VI Environmental Considerations for the use of Recycled Water~~

~~A. Describe the potential effects of recycled water use on the generation of hazardous waste and on the quality of its wastewater discharge~~

~~B. Describe the potential impacts to public health through the use and discharge of recycled water~~

~~C. Describe the potential effects of recycled water use and discharge on the degradation of water quality and its potential to be injurious to plant life, fish, and wildlife~~

~~D. Describe potential effects on existing water rights or entitlements~~

~~VII Discussion of applicable California Water Code provisions.~~

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**SOIL & WATER-22.**

**Until September 30, 2018, and notwithstanding the existing Soil & Water Conditions of Certification, the project owner may percolate SWP water consistent with an agreement with MWA (or modification to any existing agreement regarding SWP water banking), provided that the amount of percolated water that will be available to withdraw for power plant cooling shall be calculated in the same manner as for injected SWP water pursuant to Conditions of Certification Soil & Water 4, 5, and 6.**

**VERIFICATION: If the project owner and MWA are able to reach an agreement or modify existing agreements regarding use of existing MWA facilities for the percolation of SWP water, the project owner shall provide a copy of such agreement or modified agreements, and any subsequent modifications to the CPM, within 10 days of their finalization.**