

DOCKETED

Docket Number:	12-AFC-02
Project Title:	Huntington Beach Energy Project
TN #:	203260
Document Title:	Robert Simpson Comments: PPMPD comments
Description:	N/A
Filer:	System
Organization:	Robert Simpson
Submitter Role:	Public
Submission Date:	10/24/2014 4:54:31 PM
Docketed Date:	10/24/2014

Comment Received From: Robert Simpson

Submitted On: 10/24/2014

Docket Number: 12-AFC-02

PPMPD comments

Additional submitted attachment is included below.

STATE OF CALIFORNIA
ENERGY RESOURCES CONSERVATION
AND DEVELOPMENT COMMISSION

In the Matter of:)
Application for Certification for the) Docket No. 12-AFC-02
HUNTINGTON BEACH)
ENERGY PROJECT)
)
)
_____)

Rob Simpson and Helping Hand Tools Comments on the RPMPD

Request for extension of comment period. We have discovered some documents that could be construed as responsive to our comments. The responses were not communicated to us. We are replying but have not had adequate time after discovery of the documents on the Docket to fully reply we request another week to reply. Helping Hand Tools and Rob Simpson submit the following comments on the RPMPD. We also respond to CEC Staff's 10-24-14 response to our "public comments".¹ We appreciate staff's acknowledgment of our public comments submitted on 10-3-14.² The RPMPD completely ignores our comments on the PMPD whether intentionally or by omission. The CEQA Guidelines³ requires: (a) The lead agency shall evaluate comments on environmental issues received from persons who reviewed the draft EIR and shall prepare a written response. The Lead Agency shall respond to comments received during the noticed comment period and any extensions and may respond to late comments. (c) The written response shall describe the disposition of significant environmental issues raised (e.g., revisions to the proposed project to mitigate anticipated impacts or objections). In

¹ [Energy Commission Staff's Response and Comments to the Revised Presiding Member's Proposed Decision and Response to Comments](#) TN# 203223 10-21-14

² [Helping Hand Tools- Comments: Comments on the PMPD and FDOC on Behalf of Helping Hand Tools](#) TN# 203163 10-3-14

³ California Code of Regulations Title 14 Division Chapter 3 Article 7. EIR Process Section 15088

particular, the major environmental issues raised when the lead agency's position is at variance with recommendations and objections raised in the comments must be addressed in detail giving reasons why specific comments and suggestions were not accepted. There must be good faith, reasoned analysis in response. **Conclusory statements unsupported by factual information will not suffice.** The RPMPD fails to comply with Section 15088 as the RPMPD completely ignores comments made by Rob Simpson and H2T. Below we address staffs response to our comments since the RPMPD failed to do so.

III. STAFF RESPONSE TO COMMENTS FILED BY HELPING HAND TOOLS

1. BACT for GHG Emissions and GHG Alternatives Emission Limits

a. HBEP Comparison with Combustion Turbine Combined Cycle (CTCC)

Comment from Helping Hand Tools (Tools): "...The HBEP GHG emissions are higher than any combined cycle project recently approved by the CEC... The heat rate of the HBEP is up to 22 % worse than the average modern combined cycle project. A review of current average heat rates in 2013 shows that the HBEP emits 14%-31% more GHG emissions than vintage plants approved by the CEC between 2000-2003... There is no reason to approve a combined cycle plant such as the HBEP with its low efficiency..."

Staff Response: Tools takes an **incredibly simple concept and attempts to make it complicated** to obscure the obvious – that the cheapest and most efficient power plants get dispatched first, but for some locational and reliability needs. In replacing relatively low capacity factor units at HBGS 1 and 2 and RBGS 6 and 8, HBEP is proposing higher capacity factors than these units' current actual capacity factors. However, to realize operations at any value approaching the proposed capacity factors, HBEP would have to be more efficient than whatever facilities it would displace. It is obvious that HBEP would be more efficient than HBGS 1 and 2 and RBGS 6 and 8, and would have to compete on the open market to realize more MWhs and capacity factor beyond those of HBGS 1 and 2 and RBGS 6 and 8. HBEP is not designed as a highly efficient CTCC, but rather as flexible generation that would operate with frequent starts and stops, including ramping up and down as the system needs dictate on a minute-by-minute basis. The operation of HBEP would balance thermal efficiency and facility flexibility (i.e. rapid start and fast ramping capabilities) across a wide range of operating load points, as indicated by its design as a multi-stage power generating facility and its operation in a high renewable / low GHG electricity system. HBEP would be designed and operated to achieve more flexibility to meet the electrical needs of an electrical system with a lot of intermittent/variable wind and solar elements. Highly efficient CTCC power plants do not necessarily have the flexibility inherent in the HBEP design.¹

Response Helping Hand Tools (Tools)

Staff alleges that, "Tools takes an **incredibly simple concept and attempts to make it complicated** to obscure the obvious – that the cheapest and most efficient power plants get dispatched first, but for some locational and reliability needs." Neither staffs reply to our comments or the RPMPD address H2T's comments that, "*The HBEP GHG emissions are higher than any combined cycle project recently approved by the CEC... The heat rate of the HBEP is*

up to 22 % worse than the average modern combined cycle project. A review of current average heat rates in 2013 shows that the HBEP emits 14%-31% more GHG emissions than vintage plants approved by the CEC between 2000-2003... There is no reason to approve a combined cycle plant such as the HBEP with its low efficiency...” Staff does not disagree that power plants approved and constructed over 10 years ago are more efficient than the current proposed HBEP. Staff ignores that these same 10 year old combined cycle power plants have ramping capabilities similar to the HBEP and are integrating renewables now. Staff then goes on to make an incredulous statement. **“Highly efficient CTCC power plants do not necessarily have the flexibility inherent in the HBEP design.”** Staff ignores its own testimony in the Carlsbad and Oakley and other power plant cases where staff touted the high efficiency and fast start capabilities of the newer modern fast start combined cycle power plants. For example in the Oakley FSA staff’s testimony was that, *“the OGS project offers the following noteworthy benefits. “Provides an efficient, reliable, and predictable power supply by using combined-cycle natural gas-fired combustion turbine technology capable of supporting the growing power needs of Contra Costa County. Use of state-of-the-art technology to provide operational flexibility and rapid-start and dispatch capability.”*⁴

Staffs Oakley GHG testimony states, *“The proposed OGS would be designed to provide flexible, dispatchable power with units that are short-starting and fast-ramping. The project would lead to a net reduction in GHG emissions across the electricity system that provides energy and capacity to California.”*⁵ **“The project’s GHG emissions per MWh would be lower than those of other base-load generation that the project would displace, and it offers superior operating flexibility and, thus, the OGS would contribute to continued improvement of the California and overall Western Electricity Coordinating Council system’s GHG emissions and GHG emission rate average.”**⁶

In the Carlsbad proceeding another fast start highly efficient combined cycle power plant CEC Staff testified that, **“CECP, as a peaking or mid-merit facility, would provide flexible, dispatchable, and fast start power that would not obstruct penetration of renewable energy. In general, combustion turbines can startup quickly, but the output of a large-scale combined cycle facility can be limited by the steam turbine to about 15 MW per minute.¹⁶ The CECP rapid response turbines, under hot start conditions, would be capable of ramping up to 150 MW of output within ten minutes and capable of a 45 minute complete startup cycle.”**⁷

Staff knows there is no reason to abandon combined cycle efficiency for fast start and fast ramping capability. Staff has plenty of experience in multiple proceedings and is familiar with fast start combined cycle technology. Even so as we explain later in our comments the HBEP’s touted flexibility is limited by its high GHG emitting profile and its noncompliance with the new Federal GHG Standard and the State EPS standard under normal operations.

b. HBEP Comparison with Combustion Turbine Simple Cycle (CTSC)

⁴ Oakley FSA Page 1-9

⁵ Oakley FSA Page 4.1-76 Brewster Birdsall

⁶ Oakley FSA Page 4.1-94

⁷ CECP FSA Page 6.1-17

Comment from Tools: "...the HBEP GHG emissions are higher than recently approved peaker plants. The HBEP has a projected CO₂ emission rate 7% higher than the Sentinel Peaking Project which utilizes GE LM-100 peaking technology... The Sentinel peaking project has a 7% lower heat rate..."

Staff Response: Tools attempts to draw a comparison between the emissions from HBEP and the Sentinel Peaking Project. However, there is no evidence in the record regarding the Sentinel Peaking Project. While it would be improper for the Commission to consider evidence that has not been introduced into the record, for the sake of responding to public comment staff nevertheless offers the following: Tools attempts to over-simplify an incredibly complicated issue when comparing HBEP to other technologies, such as the simple cycle technologies used on CPV Sentinel and Walnut Creek Energy Park projects (neither of which are a part of this proceeding). While these use the most efficient simple cycle combustion turbine generators (CTGs) currently available (the GE LMS100), the proposed heat rate (MMBtu/MWh) and CO₂ emission (lbs CO₂/MWh) of HBEP are lower than the actual heat rates of the operating LMS100s. Based on reported data, the heat rates of the above two peaking projects range from 9.48 to 10.24 Btu/MWhr and the CO₂ emissions range from 1,109 lbs/MWh to 1,198 Lbs/MWh. Actual heat rates will always vary by hour, season, time of day, maintenance interval, duty cycle, load points, elevation, and ambient temperature and humidity. For HBEP, the applicant and staff attempted to incorporate these effects into the calculated heat rate and emission factors. However, actual operations may still result in differences because market conditions will dictate actual use if HBEP becomes operational. Further, as California builds out their renewable generation, new and existing plants will be relegated to different roles that will evolve over time as intermittent/variable facilities come online, further changing actual GHG performance and rendering the simplistic comparisons by Tools moot at best, and misleading at worst. Please note the number cited by Tools for the Sentinel project, while not a part of the HBEP evidentiary record, is based on theoretical values from that particular Energy Commission Decision. The actual operating data demonstrated that the Sentinel project has higher heat rate and CO₂ emission values than in the Energy Commission Decision for Sentinel.

Response Helping Hand Tools (Tools)

Staff responds this time by saying , "Tools attempts to over-simplify an incredibly complicated issue when comparing HBEP to other technologies, such as the simple cycle technologies used on CPV Sentinel and Walnut Creek Energy Park projects. Staff conjectures that the proposed heat rate (MMBtu/MWh) and CO₂ emission (lbs CO₂/MWh) of HBEP are lower than the actual heat rates of the operating LMS100s. Based on reported data, the heat rates of the above Sentinel and Walnut Creek peaking projects range from 9.48⁸ to 10.24 Btu/MWhr and the CO₂ emissions range from 1,109 lbs/MWh to 1,198 Lbs/MWh." Staff neglects to mention that the HBEP is not operating and the actual heat rate of the HBEP is not available. The only comparable numbers are CEC Staffs HBEP estimated heat rate and the Staffs Sentinel projects projected heat rate. Just like the Sentinel's heat rate the HBEP actual heat rate will always vary by hour, season, time of day, maintenance interval, duty cycle, load points, elevation, and ambient temperature and humidity. Since the HBEP has never operated there is no actual heat rate to compare to the Sentinel's project actual heat rate. The only common denominator for comparisons of Sentinel and the HBEP heat rates are staff estimates which H2T used for its comparison. If staff has other actual heat rate data on projects with identical technology to the HBEP a comparison of actual to actual could be made.

⁸ . Staff is in error on the Sentinel Projects heat rate as the 2013 QFER data show the Sentinel actual 2013 heat rate averaged 8.99 Btu/MWhr. http://www.energyalmanac.ca.gov/electricity/web_qfer/Heat_Rates.php

c. HBEP and System-wide Heat Rate

Comment from Tools: "...The evidence shows that the HBEP has a heat rate in excess of the WECC Average... The Energy Commission established a precedent decision in the Final Commission Decision for the Avenal Energy Project (CEC 2009b), finding as a conclusion of law that any new natural gas-fired power plant certified by the Energy Commission must not increase the overall system heat rate for natural gas plants which is the weighted average heat rate for operating natural gas fired power plants in the WECC. This project with its excessive heat rate actually increases average heat rates in the WECC..."

Staff Response: HBEP will not violate the Avenal precedent decision (December 2009, 08-AFC-1, CEC-800-2009-006-CMF), which concluded that "[a]ny new natural-gas-fired power plant that we certify must:

- not increase the overall system heat rate for natural gas plants;
- not interfere with generation from existing renewables or with the integration of new renewable generation; and
- take into account the two preceding factors, reduce system-wide GHG emissions."

Again, Tools attempts to bring in matters that are not in the evidentiary record and therefore cannot be considered by the Commission in its decision. Staff nevertheless offers the following explanation in order to respond to public comment: As shown in a recent Energy Commission staff paper titled "Thermal Efficiency of Gas-Fired Generation in California—2014 Update,"² there are year-on-year variations in system wide heat rates (Figure 1, shown below), which are expected as the system works through droughts, the retirement of SONGS and economic downturns. But overall system wide heat rate trends are down, decreasing from approximately 10,300 Btu/kWh in 2001 to just over 8,500 Btu/kWh in 2013. However, given that the form and function of new natural gas facilities are evolving, Tools cannot demonstrate that HBEP would cause the overall system wide heat rate to increase as facility-on-facility displacement is complex and variable. This is also addresses the long construction period –if, upon completion, the last HBEP power block is less competitive than the first power block, it would be dispatched less frequently than the earlier power blocks would be dispatched. The more competitive and more efficient gas-fired generation will always be providing the integration and ancillary services needed in a high renewable/low GHG market. As shown in Figure 1, the overall natural gas heat rate should continue to improve and system-wide GHG emissions will continue to decrease, even with HBEP in service.

Response Helping Hand Tools (Tools)

CEC Staff states that facility – on facility displacement is a complex and variable and Tools cannot demonstrate that the HBEP could cause the system wide heat rate to increase. Tools agrees that speculating which power plants operations will be displaced by the HBEP is not only complex but is highly speculative considering that the HBEP will not be online for seven years or more. There is simply no evidence in the record what the system wide heat rate will be in 2020 and how the interplay of different generating technologies will develop. That's why staffs testimony that the HBEP will lower the system wide heat rate is entirely speculative. Staff cannot demonstrate that HBEP would not cause the overall system wide heat rate to increase because of the complexities of facility to facility wide displacement and the unknowns

surrounding system wide generation heat rates and operational flexibility in 2020. CEC staff accuses Tools of once again introducing evidence that is not in the record. Tools actually presents the only evidence in the record concerning HBEP’s comparison to the WECC system wide heat rate. That evidence is that the HBEP has one of the highest projected heat rates of all modern combined cycle plants. The record evidence is that the average heat rate of natural gas fired power plants is 7,201 Btu per kWh.⁹ The evidence in the record is that the HBEP heat rate exceeds the weighted average heat rate for operating natural gas fired Plants in the WECC.¹⁰ Staff admits that since the overall system wide heat rate trends are down, decreasing from approximately 10,300 Btu/kWh in 2001 to just over 8,500 Btu/kWh in 2013 one would expect the overall system heat rate to continue to decline but the HBEP’s projected heat rate is already higher than the average heat rate for natural gas power plants and the weighted average heat rate for operating natural gas fired Plants in the WECC. No matter how the CEC Staff, applicant or the RPMPD spins it you can’t put enough lipstick on this pig. Its heat rate is higher than the system side heat rate for natural gas plants and markedly higher than modern natural gas combined cycle plants certified in the last 10 years. The evidence in the record is irrefutable the HBEP already increases the system side heat rate in 2014. As staff states, “the overall natural gas heat rate should continue to improve and system-wide GHG emissions will continue to decrease, **even with HBEP in service**. Staff recognizes that the HBEP increases average system heat rate.

Greenhouse Gas Table 4
Weighted Average Heat Rate for Operating Natural Gas-Fired Plants¹ in the WECC 2010-2012

Year	Average Heat Rate (mmBtu/kWh)
2010	7,784
2011	7,995
2012	7,918

¹ Excludes cogeneration facilities

(Ex. 2000, p. 4.1-104.)

2. Federal New Source Performance Standard

Comment from Tools: “...In order to meet the federal GHG standards the project will not be able to operate under 90% load with only 1 turbine/HRSG operating and 80% load with two or three turbine/HRSG operating. The usefulness of the project in integrating renewables is severely limited since the project will not be able to operate under 80% load due to the Federal GHG performance standard...”

⁹ FSA Page 4.1-101

¹⁰ FSA Page 4.1-104

Staff Response: As discussed more fully above, actual GHG emissions from operation of HBEP would vary depending on actual operations and market conditions and cannot be finalized until actual operations occur. The estimated annual GHG performance of HBEP is 1,054 lb CO₂e/MWh, which would exceed US EPA proposed New Source Performance Standard (NSPS) for GHG emissions, 1,000 lbs CO₂/MWh. The rule is currently in draft form and has not yet been made final. Once the rule is finalized, HBEP may be required to limit certain operation profiles in order to meet federal GHG NSPS; HBEP could meet this standard by reducing its flexibility somewhat (for example, fewer hours at 70 percent turbine load.)³

Tools speculates that efforts by the project owner to improve efficiency or reduce certain operational configurations to comply with the NSPS render the project nearly unable to provide any integration or ancillary grid services. This assertion is false. Operators have managed evolving regulatory and customer requirements with project and process modifications from time immemorial. It is not reasonable to assert that HBEP would be obsolete upon startup, and staff expects and would require HBEP to comply with all applicable LORS.

³ Exhibit 2000, TN#202405, FSA, page 4.1-91

Response Helping Hand Tools (Tools)

We agree with staff that the HBEP doesn't meet the new Federal GHG standard under normal operations which is the point of our comments. We also agree with staff that HBEP could meet this standard by reducing its flexibility somewhat. What is ironic is that CEC staff is explaining that the projects exceptionally high heat rate for a combined cycle plant is justified by its flexibility. In the next breath staff admits that the HBEP's flexibility will be limited by the exceptionally high heat rate. CEC Staff's comments elaborate exactly why the high emitting GHG HBEP technology is not appropriate in a time where combined cycle efficiency and fast start and fast ramping are not mutually exclusive. The record is conclusive the project has a high GHG emission profile and its flexibility is limited by its high GHG profile.

Record evidence also shows that just to meet the California EPS standard of 1,100 pounds of CO₂ per MW the HBEP will have to limit operations below 70% output. The FDOC states that just to meet the California EPS standard of 1100 pound of CO₂ per MW hour the project will have to limit operations below 70% output. *"The HBEP CCGS will meet the California GHG emission performance standard of 1,100 pounds of CO₂ per net megawatt hour. As calculated in Appendix F, using a conservative annual operating schedule that includes all proposed startups and shutdowns, and all proposed hours of normal operation using load factors from 100% to as low as 70%, HBEP will emit CO₂ at a rate of 1,053.7 lb CO₂ per net megawatt hour."*¹¹ Also according to the FDOC after equipment degradation the project will not meet the State EPS standard.¹²

The CEQA Guidelines provide that the State, in its deliberations of the significance of a GHG impact from a project, should consider its overall effect in increasing or reducing emissions. (CEQA Guidelines, tit. 14, §15064.4, subd. (b)(1).) But equally important, it also includes consideration of the "extent to which the project complies with regulations or requirements adopted to implement a statewide . . . plan for the reduction or mitigation of [GHG]. The evidence in this proceeding shows that the HBEP will increase statewide emissions of GHG emissions because the projects GHG emissions are higher than the average GHG emission rate of natural gas fired power plants in the state. The HBEP is also

¹¹ HBEP FDOC page 143

¹² HBEP FDOC Page 144

not expected to comply with the States EPS standard or the new Federal GHG standards under normal operating conditions.

3. BACT for CO, VOC and PM10

Comment from Tools: "...The PMPD and the FDOC propose a 2ppm limit for CO emissions. A 2ppm CO limit is not BACT or LEAR for CO emissions... The FDOC and the PMPD propose a 2ppm VOC limit as BACT for the HBEP. The 2ppm VOC limits is not BACT/LEAR for CO emissions... The FDOC and the PMPD propose to control PM10/PM 2.5 emissions to 9.5 lb/hr with duct burners... The 7.5 pounds per hour limit represents BACT for this project since the Russell City Energy Center employs similar technology as the HBEP and has achieved this limit in practice..."

Staff Response: Once again, Tools attempts to bring in matters that are not in the evidentiary record, in this case an attempted comparison to the Russell City Energy Center, matters that therefore cannot be considered by the Commission in its decision. Staff nevertheless offers the following reply in order to respond to public comment:
The SCAQMD made the BACT determination for criteria pollutants based on a top-down analysis. Energy Commission staff agree with the BACT determination, and SCAQMD did not receive any comments from ARB or the US EPA. Staff notes that emission would be fully mitigated, and direct emissions impacts have been modeled to ensure emissions rates from the unit would not cause new exceedances of the standards. Lastly, differences in CO emission concentrations of 2 ppm or 1.5 ppm, or for VOC at 2ppm or 1 ppm are not environmentally significant. Since the Russell City Project was designed as a baseload facility, it is not useful to compare to the flexible HBEP design regarding PM, as emission rates vary with duct burning and duty cycle.

Response Helping Hand Tools (Tools)

Once again staff accuses Tools of referencing material that is outside the record of this proceeding. Staff claims that the SCAQMD did a top down BACT analysis but that is not contained anywhere in this record. The only top down BACT analysis presented in this record was conducted by the applicant in Appendix 5.1 of the AFC. Conspicuously staff fails to address Tools comments on CO BACT limits that are presented as evidence in the proceeding in AFC appendix 5.1. The evidence in the record is that, the Kleen Energy Systems was able to successfully demonstrate compliance with the CO emission limits of 0.9 and 1.5 ppmvd for unfired and fired operation, respectively.¹³ This is the appropriate BACT limit for the HBEP not 2 ppm averaged over 1 hour. The Palmdale Hybrid project has a 1.5 ppm CO limit in its PSD permit.¹⁴ Virginia Electric and Power Company's Warren County Facility has permitted limits of 1.2 and 1.3 ppmvd at 15% O₂.¹⁵ This information is in the record and staff does not dispute it. Staff also fails to dispute that a 1 ppm VOC limit is achievable and is being achieved on

¹³

http://www.energy.ca.gov/sitingcases/huntington_beach_energy/documents/applicant/AFC/Volume%202%20Appendices/HBEP_Appendix%205.1D_BACT%20Determination.pdf Page 2-8

¹⁴ After 3 year demonstration period.

¹⁵ <http://www.epa.gov/region9/air/permit/avenal/AvenalFinalResponse2Comments5-27-11.pdf> Page 20

current natural gas fired power plants and represent current BACT for the HBEP.¹⁶ The FDOC and the RPMPD propose a 2ppm VOC limit as BACT for the HBEP. The record demonstrates that the applicant has proposed and demonstrated in his BACT analysis that a 1 ppm VOC limit is achievable and is being achieved on current natural gas fired power plants.¹⁷

Staff's sole complaint about Tools BACT comments are that Tools referenced Russell City's 7.5pounds per hour permit limit in its permit and that information is not contained in the record. Staff does not dispute that it's true that the 7.5 pounds per hour PM-10 emission limit is BACT. Staff only disputes that it isn't in the record of the proceeding. The RPMPD and the FDOC do not require the proper BACT/ LAER emission limits and violate the State, District and Federal BACT requirements. The project does not comply with all air quality LORS and cannot be certified without compliance or override of State and Federal BACT provisions. Staff's comments that, "differences in CO emission concentrations of 2 ppm or 1.5 ppm, or for VOC at 2ppm or 1 ppm are not environmentally significant" are irrelevant and do not relieve the Commission from complying with air quality laws related to BACT/ LAER requirements.

4. District Rule 1325

Comment from Tools: "...The PMPD is incorrect according to the AFC the project has the potential to emit 108 tons per year of PM 2.5 therefore the project is required to provide PM 2.5 offsets and the FDOC and the PMPD violate district Rule 1325..."

Staff Response: After the AFC was filed, the applicant has changed its proposed operating profile by reducing the number of duct burning hours from 1200 hrs/year to 470 hours/year. This enabled AES to slightly increase non-duct-burner hours of operation (from 5,000 hrs/year to 5,900 hours/year) and keep PM2.5 emission below 100 tons/yr (@ 99.3 tons/yr). The FDOC and the FSA correctly use the updated operating profile. Therefore, Tools' comment on PM2.5 emissions selectively uses obsolete information. If HBEP becomes operational, annual source testing would be conducted to confirm that PM2.5 emissions do not exceed 100 tons/year using the US EPA Methods 201A/202 as called for in the rule, consistent with the federal Clean Air Act

¹⁶ "As shown in Table 2-4, the proposed VOC emission rate of 1.0 ppmvd (1-hour) without duct burners and 1.0ppmvd with duct burners(3-hour) for the HBEP is the lowest VOC emission rate demonstrated in practice or permitted for other facilities using good combustion practices and an oxidation catalyst.http://www.energy.ca.gov/sitingcases/huntington_beach_energy/documents/applicant/AFC/Vol%202%20Appendices/HBEP_Appendix%205.1D_BACT%20Determination.pdf Page 2-11

¹⁷ As shown in Table 2-4, the proposed VOC emission rate of 1.0 ppmvd (1-hour) without duct burners and 1.0ppmvd with duct burners(3-hour) for the HBEP is the lowest VOC emission rate demonstrated in practice or permitted for other facilities using good combustion practices and an oxidation catalyst.http://www.energy.ca.gov/sitingcases/huntington_beach_energy/documents/applicant/AFC/Vol%202%20Appendices/HBEP_Appendix%205.1D_BACT%20Determination.pdf Page 2-11

requirements for PM2.5 which form the basis for this rule.

Response Helping Hand Tools (Tools)

We appreciate the update. We did not selectively use any obsolete information as alleged.

5. Secondary Particulate formation from Ammonia Emissions

Comment from Tools: "...But the PMPD ignores the formation of secondary particulate from the projects 5 ppm ammonia slip which according to SCAQMD analyses will form as much as 251.9 tons to 1,511 tons of secondary particulate a year which is 2 to 15 times more PM10/PM2.5 than directly emitted from the project. In order to comply with CEQA the secondary particulate formation must be mitigated..."

Staff Response: Energy Commission and SCAQMD staff recommend limiting ammonia slip emissions to 5 ppm. This level of control is appropriate for avoiding unnecessary ammonia emissions, consistent with measures employed to reduce emissions of all nonattainment pollutant precursors to the lowest possible levels. Experience (and source tests) has shown that ammonia emissions typically start out low when the catalyst is new and increase slowly over the life of the catalyst until they reach their permitted emissions level. At this time, the catalyst is either cleaned or replaced. Most regions in California are "ammonia rich". That is, they are not ammonia limited. Dairies and fertilizer application contribute significantly to ammonia levels in rural areas, while automobile exhaust catalysts contribute ammonia in urban areas. In addition, mitigating SOx and NOx emissions from HBEP also avoids significant secondary PM10/PM2.5 impacts and reduces secondary particulate matter impacts to a less than significant level.

Response Helping Hand Tools (Tools)

It is well documented that ammonia emissions in the South Coast Air Quality Management District lead to the formation of secondary particulate. The SCAQMD has performed modeling for its rule 1105.1 that demonstrates that 1.5 tons of ammonia emitted can form from 1.5 tons to 6 tons of secondary particulate a day. SCAQMD has successfully defended its environmental analysis for its Rule 1105.1 in court¹⁸ Even if the project has minimal ammonia slip each and every ton of ammonia will form 1.5 to 6 tons of secondary particulate. The Staff and the RPMPD both find that unmitigated particulate matter emission are a significant impact. Staff's party line about limiting ammonia slip to 5 ppm does not change the fact that secondary particulate formation from ammonia slip will form more particulate matter than the project directly emits. Staff merely makes a generalized statement without any analysis to support the comment.

6. Hazardous Materials – Ammonia

Comment from Tools: "The existing Huntington Beach power plant has a urea to ammonia conversion unit. Currently urea pellets are transported and converted to ammonia onsite at the power plant. Use of urea pellets eliminates the impacts of transportation and storage of large amounts of ammonia for use in the SCR. That is the current environmental baseline. The PMPD proposes to allow the use of a 19% aqueous ammonia solution which has dangerous

¹⁸ Los Angeles County Superior Court (Case No. BS087190)

transportation and storage impacts. CEC Staff recognizes these impacts and even the potential for impacts from seismic activity. ‘An earthquake could also cause failure of the secondary containment system (berms and dikes), as well as the failure of electrically controlled valves and pumps. The failure of all of these preventive control measures might then result in a vapor cloud of hazardous materials that could move off site and affect residents and workers in the surrounding community.’ Despite this risk the PMPD allows the use of aqueous ammonia degrading the existing environmental baseline and endangering the local community in violation of CEQA. The storage of large amounts of aqueous ammonia also presents security issues related to terrorist attacks requiring additional security onsite to prevent such incidents. The use of urea pellets eliminates that risk. The PMPD should preserve the existing environmental baseline and prevent the transportation and use of aqueous ammonia and its acknowledged hazards.”

Staff Response: Staff analyzed the risk of tank failure during an earthquake in the FSA and found “*that tank failures during seismic events are not probable and do not represent a significant risk to the public.*” (Ex.2000, TN #202450, FSA, page 4.4-14) Staff’s evaluation of the proposed project, with proposed mitigation measures, indicates that the hazardous material use of 19% aqueous ammonia will pose no significant impact to the public. Therefore, the proposed use of aqueous ammonia is an acceptable alternative to the urea to ammonia conversion system currently used by the HBGS on-site. Staff modeled a potential worst-case event involving the total loss of containment of the entire contents of the full tank, and found that with the secondary containment requirements of condition of certification **HAZ-4** the resulting air-borne plume would not produce hazardous concentrations of ammonia vapor beyond the facility’s fence line (Ex.2000, TN #202450, FSA, page 4.4-10). Staff also reviewed the risks of a terrorist attack during construction and operation and proposed conditions of certification **HAZ-7** and **HAZ-8** for construction and operations site security which would “*ensure that neither this project nor a shipment of hazardous material is the target of unauthorized access*” (Ex.2000, TN #202450, FSA, page 4.4-15). Tools’ comment regarding the use of aqueous ammonia is therefore without merit.

Response Helping Hand Tools (Tools)

According to Staff, “*Staff modeled a potential worst-case event involving the total loss of containment of the entire contents of the full tank, and found that with the secondary containment requirements of condition of certification **HAZ-4** the resulting air-borne plume would not produce hazardous concentrations of ammonia vapor beyond the facility’s fence line (Ex.2000, TN #202450, FSA, page 4.4-10).* Tools would insist the death of a power plant worker inside the facilities fence line is a significant impact which should be mitigated. Apparently CEC Staff and the Commissioners do not share that view. If Staff or the commission considers the death of a power plant worker a significant impact the project should be required to use the urea system that now exists at the plant and protect the public as well as the power plant workers at the HBEP. Tool’s recommends the RPMPD be modified to protect even the power plant workers who are within the facility fence line by requiring the urea system that has already proven reliable at the existing facility.

7. Construction Emissions

Comment from Tools: “...The mitigation effectiveness of the street sweeping program has not been quantified and possibly may not be feasible due to traffic volumes on the Pacific coast Highway... The evidence in the record is that the street sweeping program may not be feasible and currently has no method of quantifying the mitigations effectiveness which is a violation of CEQA...”

Staff Response: The revised PMPD reflects the updated Construction Particulate Matter Mitigation Plan. A street sweeping program is not the only mitigation measure available for HBEP. As defined by AQ-SC6, construction emission reduction measures may also include local ban of leaf blowing or blowers; sodding of local parks or playfields; fireplace or woodstove replacements; offsets or emission reduction credits; or other measures that can provide local emission reductions coincident in timing with construction emissions. HBEP is required to prepare and implement a Construction Particulate Matter Mitigation Plan (CPMMP) that details the steps to be taken and the reporting requirements necessary. The plan must quantify the emissions reductions (equivalent to the reduction of at least 8.26 lbs/day PM10 and 0.79 lbs/day PM2.5 during the construction phase of the project). The plan must be reviewed and approved by Energy Commission staff before the project starts any ground disturbance.

Response Helping Hand Tools (Tools)

We appreciate staffs attempt to require real time mitigation for the projects construction PM emissions.

8. Compliance Status of all Facilities in California

Comment from Tools: "...AES owns and operates the Redondo Beach Project which has been a High Priority Violator of the clean air act for the last twelve quarters in a row according to the EPA. Accordingly the air permit cannot be issued until the Redondo Beach facility comes into compliance with SCAQMD Rule 1303..."

Staff Response: Tools attempts to bring in matters that are not in the evidentiary record, in this case an attempted comparison to the AES Redondo Beach facility, a matter that therefore cannot be considered by the Commission in its decision in the HBEP. Staff nevertheless offers the following reply in order to respond to public comment:

Tools cites the information from EPA's ECHO website. However, that information is incorrect. Staff has checked with EPA Region 9 and SCAQMD's enforcement personnel regarding the compliance status of AES Redondo Beach facility. Both agencies confirm that the Redondo Beach facility is currently in compliance with all permit requirements and no violations are currently open. All the previous violation cases have been addressed and closed, although the ECHO website is not up to date. Therefore, AES is in compliance with Rule 1303 b (5) B requirements, and the issuance of a permit for HBEP permit would not be affected by any potential violations at Redondo Beach or any other AES facility.

Response Helping Hand Tools (Tools)

We thank staff for checking the compliance status of AES's other facilities we do note however that the SCAQMD website lists an NOV for excess emissions for the Redondo Beach Project on June 13, 2014.¹⁹ There is no evidence on the web that this violation has been cleared.

The RPMPD states; Proposed Condition of Certification GEN-9

The July 2014 Report requests that we add Condition of Certification GEN-9 that would preclude the project owner from constructing a shoreline protective device in the tsunami run-up zone. (Ex. 4026, pp. 3, 23-25.)

¹⁹<http://www3.aqmd.gov/webappl/publicnotices2/SearchResults.aspx?&DateFrom=4/24/2014&DateTo=10/24/2014&CompanyName=AES>

In its rebuttal testimony, applicant states that it has neither proposed nor does it contemplate the construction of any shoreline protective devices. Applicant argues that, in the absence of any such plan, it is redundant and unnecessary and would seemingly invite us to identify every Local Coastal Plan policy and include such as a condition of certification. (Ex. 1137, p. 26.)

We agree with applicant. In the absence of any basis in the administrative record for the need to address an impact not caused by the project (the construction of a shoreline protective device), we find that proposed Condition of Certification GEN-9 is infeasible.

It is absurd to claim that a condition to not build a shoreline protective device is infeasible. The Commission should adopt the Coastal Commission's position based upon the underlying laws cited in the Coastal Commission's report. The revised PMPD to pains to exclude the Coastal Commission from all future review of the project. All references to Coastal Commission consideration that were removed from the revised PMPD should be returned to document. For instance the revised PMPD states;

If the CPM determines that the Plan and/or its Supplement require revisions, the project owner shall provide an updated version with the specified revision(s) for review and approval by the CPM. Copies of the revised Plan and/or the Supplement (if either is required) shall be provided to the City for review and comment. City staff requires seven copies of the revised Plan or Supplement. A copy of the revised Plan (if it is required) shall be provided to the Executive Director of the Coastal Commission for review and comment.

So the applicant can simply revise his plan to include a seawall or whatever other encroachment that it likes without Coastal Commission consideration.

The RPMPD fails to recognize that the Coastal Commission's conditions are predicated in laws that the Commission cannot simply override without admitting the impact. Failure to follow the Coastal Commission's guidance results in take of endangered species and violation of the Public Trust Doctrine also codified in the Federal Coastal Zone Management Act. The Decision should be clear that the project requires consultation with USFWS pursuant this license and the PSD permit prior to construction. If any of the Coastal Commission's recommendations are infeasible then the Commission must override the laws, mitigate the impacts and or deny the license.

The Revised PMPD states; At present, the California electricity system needs new, efficient, gas-fired generation to displace and replace less efficient generation, and to help integrate additional intermittent renewable generation.

Because the Revised PMPD removed the determination of Need for the facility it should not be built

The RPMPD states; The evidence shows that despite these measures, PM10 and PM2.5 impacts during the approximately 7.5-year project construction period would cause exceedances of healthbased ambient air quality. As further mitigation, applicant proposes, in Condition of Certification AQ-SC6, to prepare and implement a Construction Particulate Matter Mitigation Plan that could, among other options, include street sweeping (and) to provide

the equivalent of at least 8.26 lbs/day PM10 and 0.79 lbs/day PM2.5 of emissions reductions during the construction phase of the project. The applicant shall provide the records of the operation of the CPMMP in Monthly Compliance Reports

The PM Mitigation Plan is what this proceeding should have identified and detailed. To allow the applicant to make up some plan after the project is licensed and the public is excluded from participation is a dereliction of duty of the Commission and integrity of the licensing program.

we retain the review and comment functions of the USFWS and CDFW in the Conditions of Certification. The Commission has a history of soliciting the views of other agencies that have specific, relevant expertise in technical areas, such as biological resources. In this case, the HBEP will be located adjacent to a marsh that is being restored. Construction of the HBEP will take over seven years. These two factors thus make it prudent to include the expertise of the USFWS and the CDFW on biological resources, particularly regarding special-status species observed near the HBEP, as the project moves forward. We are mindful that the applicant is concerned with potential delays in obtaining and receiving comments from outside entities. However, the Commission routinely sends plans and other documents to local and state agencies that may be affected by a project. The Commission's experience is that its Compliance Project Managers can effectively manage the input, such as that specified in the Conditions of Certification for Biological Resources

We also find that special-status species, such as the light-footed clapper rail, are not currently breeding in Magnolia Marsh. We further note that it is speculative that the restoration activities in the marsh will, in the long-term, support nesting habitat of these bird species of special concern. (See discussion of the light-footed clapper rail, above.) We thus decline to impose Condition of Certification BIO-9.

This determination is inconsistent with the Coastal Commission's report and should be reversed

Coastal Commission requests that we increase the buffer contained in Condition of Certification BIO-7 to prevent indirect impacts on wetlands.

The Commission does not have the authority to impinge on the waters of the United States. The project must remain outside the 100 foot limit

The proposal by the California Coastal Commission to move all project related development at least 100 feet from nearby wetlands and ESHA is infeasible due to site configuration and construction constraints.

The License should therefore be denied

The RPMPD opens an issues of water resources that was apparently not adequately considered. It states;

Given the information in the UWMP, along with the analysis above regarding the source and uses of water by HBEP **and the steps being taken to address the overdraft of the groundwater basin from which some of the water for HBEP will come**, we find

that there is sufficient water to serve the project and that the impacts of obtaining the water from these sources have been adequately analysed.

We thus decline to implement **find** the changes to Condition of Certification **SOIL&WATER-8** suggested by the Coastal Commission in the July 2014 Report **to not be supported by the record and therefore infeasible.**

The PPMPD erred in determining that the Coastal Commission did not adequately create a record in this proceeding. The augmentation of the record in the PPMPD does not lead to the infeasible determination merely to the determination that the Commission did not adequately address the issue during the evidentiary hearings.

24. The groundwater basin is not now in a condition of overdraft nor is it predicted to be in the future from which HBEP would be served has not been found to be in a condition of overdraft by the California Department of Water Resources, This groundwater basin is being managed to by the Orange County Water District; the District considers the basin to be in overdraft condition and has an extensive program to address this overdraft.

25. There is sufficient water to serve the project and the impacts of obtaining the water from these sources have been adequately analyzed

26. The changes to Condition of Certification SOIL&WATER 8 suggested by the Coastal Commission in the July 2014 Report are not supported by the record and are therefore infeasible

The Project should use wastewater

We concur that a power facility, such as the HBEP, is a critical piece of infrastructure. However, we disagree with the Coastal Commission's description that these guidance and planning documents constitute LORS.

Furthermore, we are hampered by the lack of evidence in the record to support the approach argued for by the Coastal Commission. The documents cited by the Coastal Commission in its report are not part of the record of this proceeding, and therefore constitute hearsay which are insufficient to sustain a finding absent corroborating evidence. (Cal. Code Regs., tit. 20, § 1212, subd. (d).)

Instead, the evidence in the record supports the position of staff and applicant: that the approach to flood planning in the proposed decision is sufficient to protect against environmental impacts and to maintain safety and reliability. CEQA sets its impact threshold at the 100-year flood event level. (CEQA Guidelines, tit. 14, App. G, §IX, subd. (h).).

Simply claiming that the Coastal Commission LORs and not real does not make them disappear. The Commission should heed the LORs or override them.

The PPMPD states;

The site itself has one plugged oil and gas well located on the southwest portion of the project site, with additional At the evidentiary hearing on August 6, 2014, as discussed

above in the area of geological hazards and seismicity, Intervenor Rudman introduced the concept of “fracking” as affecting the viability of capped or abandoned oil wells. (08/06/14 RT 70:8-71:15.) However, Ms. Rudman did not present sufficient facts to show that fracking is likely to occur near or on the HBEP site so that approval of this project would limit oil production.

Adequate consideration of carbon sequestration has not occurred. The Commission has a duty to consider carbon sequestration at the onsite location. The cost must be compared with the cost of participation in the Carbon trading scheme

Flooding, Tsunami, and Seiche

The July 2014 Report also proposes that we impose new Conditions of Certification SOIL & WATER-8, GEO-3, GEO-4 and GEN-9 that share the following attribute: the inclusion of measures to protect the project from a 500-year event (either flood, tsunami, or sea level rise). (Ex. 4026, pp. 17-35.) In specific, the Coastal Commission has proposed new Condition of Certification GEO-3 that would require the project owner to prepare and submit a Facility Hazard Emergency Response Plan that would protect the project from both a 100-year event and a 500-year event, as well as sea level rise. The Condition would also require concurrence from neighboring property owners and the City of Huntington Beach. Implementation of this proposed Condition of Certification GEO-3 would also require changes to the final project design submittals required under Condition of Certification GEN-2. (Ex. 4026, pp. 3-4, 20-21.)

In the Soil and Water Resources section of this Decision, we reviewed the basis for the Coastal Commission’s insertion of a 500-year flood event into the design and implementation of the HBEP. We state again that the conditions of certification already contain sufficient mitigation for the potential impacts of inundation to even a critical facility such as the HBEP. Imposing additional mitigation would not be proportionate to the identified impacts nor necessary to comply with LORS. We thus find that Condition of Certification GEO-3 suggested by the Coastal Commission in the July 2014 Report is not supported by the record and therefore infeasible; we thus decline to impose it.

Condition of Certification GEO-3 suggested by the Coastal Commission in the July 2014 Report is not supported by the record and is therefore infeasible.

The Commission must reverse all refusals to abide by the law that the Coastal Commission identified

Intervenor Monica Rudman invites us to reopen the evidentiary record to incorporate the Coastal Commission **July 2014** Report as her rebuttal testimony. (Monica Rudman’s Rebuttal to Opening Briefs (TN 202979), pp. 2-3.) The Coastal Commission **July 2014** LAND USE 6.1-13 Report is already part of the evidentiary record and we thus deny Ms. Rudman’s motion to reopen the evidentiary record.

We nevertheless analyze each comment and proposed mitigation measure from

the July 2014 Report in this Decision. Consistent with the MOA, this Decision incorporates the Coastal Commission Report recommendations for further mitigation to the extent they are feasible and would not result in a greater adverse impact. The feasibility of any proposed mitigation in the July 2014 Report is measured, in part, against whether the record establishes the existence of an impact and whether the proposed mitigation is then proportionate to that identified impact. (See, e.g. CEQA Guidelines, tit. 14, §§ 15126.4(a)(4)(B); 15364.)

Robert Simpson/Helping Hand Tools made comments on the issue of whether the project is a coastal dependent development. Mr. Simpson argues that the facility should be sited elsewhere as no longer requiring ocean water for cooling. We note that this topic is addressed in the body of the Decision, citing to the long use of the site for power generation and the lessening of impacts by reusing existing infrastructure for water, sewer, transmission, and the like. This information is contained in the record, including in the Alternatives section. Mr. Simpson also calls into question the need for stacks that would exceed those allowed by the Huntington Beach Municipal Code zoning provisions. However, this issue is addressed in the portion of the Decision making the findings necessary for a variance and conditional use permit.

These responses are inadequate for me to consider I therefore disagree with them.

We also find infeasible disagree and decline to make the suggested change to eliminate the Huntington Beach City Parking area from use by the HBEP during construction. Restrictions are already in place that mandate that the city beach parking facility not be used on the weekends or on major summer holidays. (Ex. 1137, pp. 15-19, 28-30.) However, to ensure that any remaining impacts are appropriately reduced, we will amend Condition of Certification TRANS- 3 to limit use of the Huntington Beach City Parking Area to those times when the CPM determines that sufficient parking does not exist in other areas identified in this Decision. Accordingly, we conclude that this limitation on usage properly balances the need for construction parking with continued public access. The mitigation measure is thus proportionate to the impact identified.

Robert Simpson/Helping Hand Tools submitted comments on the use of the Huntington Beach Parking area. These comments are addressed above in response to the Coastal Commission July 2014 Report. Similarly, Mr. Simpson requests that the Commission deny the application or, alternately, require additional mitigation based on activities claimed to have occurred on areas outside the proposed HBEP area. We have described the limitation on our ability to consider use of lands outside the footprint of the HBEP as set forth in Figure 1.1-3 to the AFC. (Ex. 1001.) Moreover, the California Coastal Commission, which has jurisdiction over this issue, is currently investigating the matter. (Ex. 4026, pp. 6-11.)

21. The elimination of the use of the Huntington Beach Parking area for construction parking is infeasible as it is not proportionate to the impact to coastal access in light of existing limitation on its use.

22, The Coastal Commission's request to broaden the area of the HBGS available for the construction and staging of the HBEP is infeasible because of the existing site condition, uses, and ownership of the HBGS site.

Comments on the subject of visual resources were received from Jennifer Wilder and Kim F. Floyd following publication of the PMPD.

Appendix

The proposed project site's viewshed is within several scenic vistas and **is in an area that includes** scenic resources **in a developed coastal setting.**

All comments should be construed as allegations that the PMPD and revised PMPD erred in their determinations and that the license should be denied. I disagree with all responses to my and others comments.

Any further changes to the PMPD should be recirculated for public comment.

Rob Simpson and Helping Hand Tools
Rob@redwoodrob.com
27126 Grandview Ave Hayward CA 94543