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Docket Number:	12-AFC-02
Project Title:	Huntington Beach Energy Project
TN #:	201969
Document Title:	Applicant's Comments on Preliminary Staff Assessment, Part B (April 7, 2014)
Description:	Applicant's Comments on Preliminary Staff Assessment, Part B (April 7, 2014)
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Organization:	Stoel Rives LLP
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Submission Date:	4/7/2014 12:44:21 PM
Docketed Date:	4/7/2014

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April 7, 2014

Ms. Felicia Miller, Siting Project Manager
California Energy Commission
1516 Ninth Street
Sacramento, California 95814

Re: Huntington Beach Energy Project (12-AFC-02)
Applicant's Comments on Staff's PSA Part B

Dear Ms. Miller:

On March 7, 2014, the California Energy Commission (Commission or CEC) Staff published Preliminary Staff Assessment, Part B (PSA Part B) for the Huntington Beach Energy Project (HBEP or the Project). Herein please find Applicant AES Southland Development, LLC's (Applicant) comments on PSA Part B. As discussed during the April 3, 2014 PSA Part B Workshop, Applicant will be submitting information regarding construction noise (Biological Resources), construction PM_{10} and $PM_{2.5}$ modeling (Air Quality), and additional details supporting the cost information and feasibility set forth herein related to pipeline and water treatment (Soil & Water Resources/Alternatives) on or before April 22, 2014.

With respect the Staff's Alternatives analysis, Applicant concurs with Staff's conclusion that the environmentally superior alternative is the proposed HBEP. Applicant, however, has various comments related to Staff's Alternatives analysis as set forth below.

Staff conducted an analysis of alternative cooling technology and alternative water supply without first identifying a significant impact from the construction or operation of HBEP that these alternatives reduce or avoid. Staff makes the assertion, without providing any engineering analysis to support such assertion, that retrofitting Huntington Beach Generating Station (HBGS) Units 1 and 2 with an air cooled condenser (ACC) would "…result in the generating station operating at slightly less efficiency than the proposed HBEP." (PSA Part B at p. 1-5, 2nd full paragraph.) Applicant contends that HBEP's efficiency will be significantly better than the current efficiency of HBGS Units 1 and 2. Based on the Commission's 2012 Quarterly Fuel and Energy Report, the net heat rate of HBGS was 11,112 British thermal units per kilowatt-hour (Btu/kWh) on a higher heating value (HHV) basis or approximately 10,000 Btu/kWh on a lower heating value (LHV) basis using what is considered the most efficient cooling technology – once-through cooling. Adding ACCs to HBGS Units 1 and 2 - while ignoring the need to

retrofit/replace other plant equipment - would result in a thermodynamically less efficient Rankine cycle due to a less efficient cooling system and condenser and would increase the facility's parasitic load, which would therefore make the existing heat rate of 11,112 Btu/kWh even less efficient. For comparison purposes, HBEP's expected net heat rate on a HHV basis is approximately 8,250 Btu/kWh and 7,427 Btu/kWh on a LHV basis[1], which is approximately 25 percent lower than the current heat rate of HBGS Units 1 and 2 without the added electrical load associated with the ACCs which would further reduce the efficiency of HBGS Units 1 and 2. Retrofitting Units 1 and 2 with any feasible alternative cooling technology would render these units less efficient, resulting in a greater difference in thermal efficiency when compared with HBEP.

For similar reasons as those outlined above, Applicant also disagrees with Staff's similar statement at the end of this paragraph (PSA Part B, p. 1-5, 2nd full paragraph) relative to retrofitting the existing HBGS Units 1 and 2 with wet cooling towers, wherein Staff determined that wet cooling using secondary treated effluent and a new water treatment system at the existing HBGS "would result in the generating station operating slightly more efficiently than the proposed HBEP." Staff does not provide any engineering analysis to support this conclusion, which effectively states that retrofitting the existing steam generators at HBGS would result in an efficiency increase of more than 25 percent. A wet cooling system would result in a less efficient thermodynamic cycle and also add additional parasitic electrical load to the existing steam generators, resulting in a less efficient HBGS. Therefore, based on overall efficiency, HBEP as proposed with ACCs is significantly more efficient than the alternatives suggested by Staff of retrofitting existing HBGS Units 1 and 2 with either ACCs or wet cooling towers. In addition to the significant advantage of HBEP as proposed with ACCs as compared to the Staff's alternatives, HBEP also results in a significant reduction in air emissions on a megawatt per hour basis as compared to existing HBGS Units 1 and 2 as currently configured and as compared to Staff's alternative reconfiguration of existing HBGS Units 1 and 2 with either ACCs or wet cooling towers.

In addition, the proposed HBEP, which will use potable water from the existing HBGS connection to the City of Huntington Beach potable water system for industrial process and makeup water, results in a significant reduction in the use of water as compared to either the existing configuration of HBGS Units 1 and 2 or Staff's suggested alternative of retrofitting existing HBGS Units 1 and 2 with wet cooling towers using treated water from Orange County Water District (OCSD) Plant 2 (*i.e.,* treated to ocean discharge levels but not treated to Title 22 reclaim standards). HBEP's proposed continued use of potable water from the City of

[1] HBEP Application for Certification (AFC), Section 2 Project Description, p. 2-4.

Huntington Beach for industrial process and makeup water does not result in a significant impact to water resources; rather, is a net benefit to water resources compared to existing conditions and eliminates the need for construction and operation of a new treated water pipeline from OCSD Plant 2 to HBEP (which would also need to be a force main as HBEP is upgradient of OCSD Plant 2). Therefore, alternative cooling or water supplies as analyzed by Staff in all cases result in greater impacts than the proposed HBEP.

A. Generation Technology Alternatives

The analysis on page 6-11 of PSA Part B, under the heading "Air Quality," should note that the Competitive Power Ventures (CPV) Sentinel's combustion turbines would also emit higher NOx and CO emissions relative to HBEP due to the differences in the South Coast Air Quality Management District's (SCAQMD) best available control technology (BACT) requirements for these two pollutants. For instance, CPV Sentinel's allowable NOx emission rate in pounds per megawatt-hour (lb/MWH) is 0.077 whereas HBEP's NOx is 0.64 lb/MWH.[2] Assuming the same number of operating hours, the CPV Sentinel's combustion turbines would result in 17 percent higher NOx emissions than HBEP's combustion turbines. The same holds true for CPV Sentinel's emissions, as HBEP's allowable PM_{10} emissions are 4.5 lb/hr and CPV Sentinel's are 5.0 lb/hr.

B. Alternatives Table 1[3]

- Under the heading "Geology and Paleontology" on page 6-15, Table 1 indicates that the risk of strong seismic shaking for the No-Project Wet Cooling Retrofit is similar to HBEP. However, this conclusion contradicts the discussion on page 6-25 in that it fails to reflect the risk of or potential for fault disruption due to the construction and operation of a new treated water supply pipeline, which would increase the potential risks associated with the No-Project Wet Cooling Retrofit alternative. Thus, the impacts are in fact "Greater than HBEP" and Table 1 - and the text on pages 6-25 and 6-26 - should be revised accordingly.

[2] Sentinel's NO_x emission rate based on 7.95 lb NO_x/hr (Amended FDOC Table A Emissions per Turbine) and 103 MWs. HBEP's NOx emission rate based on 11 lb NOx/hr (PDOC Table 3.2 at 66 °F) and 172 MWs (PDOC Table 2.1).

[3] Alternatives Table 1 at pp. 6-14 - 6-17 of PSA Part B.

- Under the heading "Water Supply" on page 6-16, Table 1 concludes that impacts to water supply of the No-Project Wet Cooling Retrofit will be similar to HBEP. However, Staff's analysis of Soil & Water Resources (pages 6-29 - 6-30) does not include a discussion of impacts to water supply. (*See* Part C, *infra*, regarding lack of analysis.)

- Table 1 concludes that the cumulative traffic impacts of the No-Project Wet Cooling Retrofit will be less than HBEP, but acknowledges that project level traffic impacts of this alternative would be greater than HBEP. There is no explanation as to how Staff reached the conclusion that the cumulative traffic impacts would be less than HBEP.

C. No-Project Alternative Analysis

- Applicant agrees that the No-Project alternative would likely involve the operation of HBGS in some form (dry cooled, wet cooled with secondary treated effluent, or wet cooled with ocean water).

- Staff assumes that the No-Project alternative would necessarily result in continuation of HBGS (and therefore power generation at the site). However, Staff failed to identify the continued operation of HBGS with the use of once-through cooling (OTC) in its No Project Alternatives analysis. While the primary goal of the OTC Policy is to reduce the use of once-through cooling by 93 percent at coastal power plants, the 2013 Integrated Energy Policy Report (2013 IEPR) notes that the "OTC Policy included a mechanism to adjust compliance schedules for OTC facilities if the energy agencies requested such delays." (*See* 2013 IEPR, CEC-100-2013-001-CMF at p. 133.) Such an adjustment in the schedule for decreasing OTC water use could be implemented for purposes of maintaining grid reliability. Due to the unexpected, permanent retirement of the San Onofre Nuclear Generating Station, grid reliability in the Los Angeles Basin is of the utmost priority.

- With respect to Staff's No-Project assumptions, while there is a potential that HBGS Units 1 and 2 could continue to generate electricity in some capacity, Staff and the CEC should be mindful of the potential for the No-Project alternative to result in retirement of HBGS Units 1 and 2. The cost and economics (e.g., rate of return) of retrofitting HBGS Units 1 and 2 is a business decision that would have to be considered by the Applicant. Retirement of HBGS without replacement generation, however, would not meet any of the project objectives and would be counter to CAISO's projection of the need for replacement generation.

- The discussion of Cultural Resources concludes that the No-Project ACC Scenario would have less impacts on cultural resources than HBEP. (*See* PSA Part B at p. 6-24.) However, the discussion acknowledges that the Edison Plant is not a historical resource. (*Id*. pp. 6-23 - 6-24.) Based on this, there is no support for Staff's conclusion on page 6-24 that demolition of the HBGS would have greater cultural impacts than retaining HBGS.

- Staff's conclusions regarding Socioeconomic impacts of the No-Project alternatives compared to HBEP are not supported. Alternatives Table 1 and the summary analysis in the Socioeconomic discussion section (PSA Part B, p. 6-28 to 6-29) indicate that the potential to induce substantial population growth for both No-Project alternatives is less than HBEP. However, there is no potential for substantial population growth from HBEP (*see* PSA Part A, p. 4.8-13), thus neither of the No-Project alternatives can have a lesser impact than HBEP. The same is true regarding the potential to necessitate replacement housing and the potential impact to police, schools, and parks and recreation. (See PSA Part A, p. 4.8-14 to 4.8-17.) The conclusion that the No-Project alternatives will have lesser impacts in these areas is, therefore, unsupported.

- The discussion of soil and water resource impacts from the No-Project Wet Cooling alternative fails to discuss the need to construct a treatment facility and cooling tower on site at HBGS, as well as the need to construct a new water pipeline (forced main) from OCSD Plant 2 to HBGS, both of which would further increase soil and wind erosion (PSA Part B, p. 6-29). This section also fails to discuss the potential impacts to water supply of this alternative. The discussion acknowledges that the OCSD Plant 2 effluent stream is currently being discharged to the ocean. (PSA Part B, p. 6-40.) The discussion fails to acknowledge, however, that the wet cooling alternative would utilize significantly more water than the proposed HBEP and, although treated effluent is currently being discharged to the ocean, there is a potential for OCSD or others to use that water for other purposes in the future. If HBGS were to employ wet cooling utilizing OCSD Plant 2 effluent, it would result in unnecessarily increasing the project's water consumption at the expense of potential future uses of the treated water for other purposes. This discussion also fails to acknowledge the potential water quality impacts associated with a wet cooled alternative and the significant increase in wastewater discharge associated with the wet cooling alternative as compared to HBEP. (*See* Water Code § 13550(a)(4).)

- Table 1 and the discussion of the No-Project alternatives conclude that visual impacts of the No-Project alternatives would be similar to or less than HBEP, but the discussion of visual impacts fails to acknowledge that the existing 200' stacks would be retained under these No-Project alternatives (see PSA Part B, p. 6-26 (re retention of 200' stacks) compared to PSA Part B, p. 6-31 (no discussion of remaining stacks in discussion of visual impacts) and, therefore, the overall visual quality of the No-Project alternatives would be worse than the Project.

D. "Recycled" Water Supply Alternative

- As noted above, HBEP's proposed continued use of potable water from the City of Huntington Beach for industrial process and makeup water does not result in any significant impacts to water resources. Pursuant to CEQA, the environmental analysis must evaluate a reasonable range of feasible alternatives that would avoid or substantially lessen any of the significant effects of the project. Because the proposed project does not result in significant impacts to water resources, there is no basis for evaluation of an alternative water supply as such an alternative does not meet the requirements of CEQA.

- The discussion of Soil and Water Resources continues to refer to OCSD Plant 2 as producing "recycled water." This is inaccurate. OCSD Plant 2 treats effluent to secondary standards prior to discharge to the ocean, and, therefore, the correct term for the OCSD Plant 2 water stream is secondary treated effluent. Plant 2 effluent may meet some State of California recycled water quality standards, but it is not authorized for reuse. The Santa Ana Regional Water Quality Control Board (Regional Board) has not issued water recycling requirements for OCSD Plant 2 effluent. OCSD's recent Mission Statement states that the potential reuse of Plant 2 effluent should be studied, and it is Applicant's understanding that OCSD is working on a recycled water usage study. That study, however, is not complete, and, thus, there is no public information available that clarifies OCSD's intent. A range of options may emerge; however, until OCSD clarifies its intent, and until the Regional Board issues water recycling requirements for Plant 2, the secondary treated effluent from Plant 2 should not be referred to as "recycled water."

- The discussion of the Recycled Water Supply alternative relies on the description of the required recycled water facilities that is included in the No-Project (HBGS) Wet Cooling scenario, which fails to address whether there is sufficient space on the HBEP project site for the on-site treatment facility necessary to attain the water quality standards required for boiler water supply and industrial process makeup water. This issue should be

addressed in the overview of the alternative (PSA Part B, p. 6-36) and in the land use discussion (PSA Part B, p. 6-38).

- The Soil and Water discussion states that the Recycled Water Supply Alternative would use treated water in the same manner described in the No-Project Wet Cooling scenario. (PSA Part B, p. 6-39.) This is inaccurate as the Recycled Water Supply alternative would not use treated water for cooling and would only use treated water for boiler water supply and industrial process makeup water at substantially less volume than HBGS. (*Id*.) This section also addresses the potential feasibility of the Recycled Water Supply alternative, but does not discuss the potential impacts to soil and water. In particular, as with the No Project Wet Cooling Scenario, the potential impacts of soil and wind erosion would be greater than the proposed HBEP because of the additional construction of the pipeline, treatment facilities and storage tank, and for the wet cooling tower to support HBEP Blocks 1 and 2. (PSA Part B, p. 6-29.)

- The discussion of the Recycled Water Supply alternative should acknowledge that, overall, this alternative results in greater environmental impacts than the proposed HBEP.

Feasibility of Recycled Water (Alternatives pp. 6-40 - 6-41)

As noted in both the AFC and Applicant's January 21, 2014 Comments on Staff's Supplemental Analysis to PSA Part A, the approximate $1.6 million cost associated with the new pipeline relates solely to construction costs. Although Staff notes on page 6-40 that the costs are construction related, Staff fails to consider that costs associated with the pipeline would actually be far greater than $1.6 million, as that figure only includes materials and labor for pipeline construction and does not include, for example, permitting, land/easements, interference with existing utilities, jurisdictional agreements for pipeline routes, or other related costs. Thus, Staff's reliance on $1.6 million for pipeline costs is far below the actual costs associated with actual installation, use, and maintenance of the pipeline. Upon receipt of PSA Part B, Applicant prepared a more refined estimate of pipeline costs, indicating a total capital cost of approximately $7 million. This cost is based on a shorter route (1.4 miles) along the Huntington Beach Channel, rather than the longer options (1.9 to 2.8 miles) described in PSA Part B. Thus, the longer pipelines would have a cost greater than the $7 million identified by Applicant. In addition, pipeline operations and maintenance (including pumping costs) adds approximately $286,000 per year.

In a similar vein, Applicant noted in the AFC and again in Applicant's January 21, 2014 comments that the approximate $2.0 million cost associated with an onsite treatment facility relates solely to the construction of such a facility with a base assumption that water meeting recycled Title 22 water quality standards would be the supply. The actual costs associated with the treatment and use of secondary treated effluent are far greater than $2.0 million. Upon receipt of PSA Part B, Applicant prepared a more refined estimate of treatment costs, indicating a total capital cost of approximately $8.8 million for the installation of an additional filtration and disinfection system. In addition, treatment operations and maintenance adds approximately $286,000 per year.

Over the 30-year life of the project, annualized capital costs plus operations and maintenance for both the conveyance and treatment systems results in costs of approximately $1.6 million *per year*, using a discount rate of 5 percent.[4] Based on this information, costs will be much higher than the simple figures relied on by Staff in their "feasibility" analysis. (*See* PSA Part B at p. 6-40.)

None of the above discussion touches on another important factor when discussing the feasibility of using secondary treated effluent as the source for industrial process water at HBEP. Equipment space requirements are also a key component of such water use. To process Plant 2 secondary treated effluent at the HBEP site, an additional footprint of at least 13,000 square feet would be required for an onsite treatment system. Based on the proposed HBEP configuration, this much area is only available at the HBEP site after the existing HBGS Units 1 and 2 are demolished. Because the Applicant is required to maintain as much existing generating capacity as possible for power system reliability, HBGS Units 1 and 2 cannot be demolished until HBEP Block 2 is operational. Therefore, construction of a water treatment system at the HBEP site is not even possible until after HBEP is fully operational (Blocks 1 and 2).

Lastly, a treated effluent water source alternative with onsite treatment also would generate greater wastewater discharges than the proposed HBEP. Backwash flows from the additional treatment and filtration units would add approximately 117,000 gallons per day to the planned HBEP wastewater discharges, with additional weekly discharges of 17,500 gallons from other backwash streams. This would more than triple the planned average wastewater discharges to the ocean. In addition, the more robust water treatment process would result in higher levels of constituents in the waste stream, which would also require additional treatment to meet ocean

[4] Note that this estimate does not take into account any cost associated with the use of secondary treated effluent from OCSD.

water discharge standards. In addition, the onsite treatment system would require an estimated 576 pounds per day of chlorine to operate the disinfection process. This factor must be considered when evaluating whether recycled water use is appropriate. (*See* Water Code § 13550(a)(4).)

All of the foregoing information demonstrates that using secondary treated effluent from OCSD Plant No. 2 is not feasible, is economically unsound, and is unreasonable - further supporting Applicant's conclusions in Applicant's January 21, 2014 Comments on Staff's Supplemental Focused Analysis, PSA Part A [TN#201582].[5] Specifically, the source of the available water is not of adequate quality for the uses and is not available for the uses, the water cannot be furnished at a reasonable cost to Applicant, and there are water quality impacts from such use, thus not meeting the requirements of Water Code section 13550.

Moreover, the use of potable water at HBEP is allowed under various state policies, including State Water Resources Control Board (SWRCB) Resolution Nos. 75-58, 77-1, and 2009-0011, as well as the Commission's Integrated Energy Policy Report (2003). SWRCB Resolution 75-58 and the 2003 IEPR both prohibit the use of fresh inland waters for powerplant cooling unless "use of other water supply sources or other methods of cooling would be environmentally undesirable or economically unsound." (Res. 75-58 at p. 4; 2003 IEPR at p. 40 (emphasis added).) The Energy Commission interprets "environmentally undesirable" to mean the same as having a "significant adverse environmental impact" and "economically unsound" to mean the same as "economically or otherwise infeasible."[6]

HBEP is a dry cooled facility and will not use potable water for powerplant cooling. Applicant agrees with the underlined statements on page 6-18 of PSA Part B wherein Staff states that "the HBEP would utilize potable water for industrial processes (e.g. evaporative cooling blowdown makeup) and no significant impacts have been identified from this use. . . ." (Emphasis in original.) Applicant reiterates that the SWRCB and Energy Commission policies prohibit the use of potable water for cooling. As acknowledged by Staff, HBEP would not use potable water for

[5] Applicant's January 21, 2014 comments, which contain a detailed discussion why use of recycled water at HBEP is contrary to law, is not required by State Water Policy, and is infeasible, are incorporated herein by reference.

[6] "'Feasible' is defined under CEQA and by the CEC in its siting regulations as being "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social and technological factors." (14 Cal. Code Regs. § 15364; 20 Cal. Code Regs. § 1702(f); *see* 2003 IEPR at 40.)

cooling purposes; rather, HBEP would be using potable water solely for industrial processes (blowdown makeup).

As the foregoing evidence demonstrates, even if considering Resolution 75-58 and the 2003 IEPR standards for a non-cooling use of potable water, using secondary treated effluent from OCSD Plant No. 2 is clearly economically unsound. The CEC considers that "economically unsound" means the same as "economically or otherwise infeasible." As discussed above, recycled water for HBEP is not currently available, nor is it capable of being accomplished in a reasonable period of time. Further, having access to merely secondary treated effluent at the site would involve exorbitant costs - not costs that are comparable to or less than the cost of supplying potable water to the project as is required by Water Code section 13550. Thus, using recycled water or secondary treated effluent at HBEP is clearly infeasible.

For the reasons set forth herein and in Applicant's January 21, 2014 comments, the requirements of Water Code section 13550(a) are not met. Recycled water is not "available" for HBEP nor is the cost of furnishing recycled water to HBEP comparable to, or less than, the cost of supplying potable water to the Project. The use of potable water at HBEP is consistent with LORS, including CEC policy, and will have a net beneficial impact on local water supplies.

I. AIR QUALITY

Applicant has various comments on the text, tables, and Conditions of Certification related to air quality. Each comment is discussed separately below.

- Air Quality Table 1 (Page 4.1-3) – The South Coast Air Quality Management District's (SCAQMD) Preliminary Determination of Compliance (PDOC) notes that the HBEP is subject to Title 40 Code of Federal Regulations (CFR) Part 52 Prevention of Significant Deterioration (PSD) review for oxides of nitrogen (NO_x), carbon monoxide (CO), and particulate matter with an aerodynamic diameter of 10 microns or less (PM_{10}) as the project area attains the federal ambient air quality standards (AAQS) for these pollutants.[7] The project area does not attain the AAQS for ozone or fine particulate matter ($PM_{2.5}$), which means that these pollutants are not subject to PSD review but are

[7] SCAQMD PDOC, page 40.

subject to federal New Source Review.[8] Therefore, please delete the reference to volatile organic compounds (VOC) from the 2nd row of Table 1 and add CO and PM_{10}.

- Existing Ambient Air Quality, page 4.1-7, 2nd paragraph – This paragraph indicates that PM_{10} and $PM_{2.5}$ background ambient air quality concentrations were determined using the Long Beach monitoring station. The Meteorological Conditions section of the PSA notes that the predominant annual wind direction (at the meteorological monitoring site considered representative of the HBEP site) is from the southwest. The Long Beach monitoring station is located to the northwest of HBEP. As noted in the HBEP dispersion modeling protocol (Appendix 5.1F of the Application for Certification AFC), the Mission Viejo monitoring station was selected for background PM_{10} and $PM_{2.5}$ based on the surrounding terrain and wind roses from the Costa Mesa, Long Beach, Anaheim, and Mission Viejo monitoring stations. The nearest complex terrain is located approximately 5.5 miles east-southeast of the HBEP site, and the wind roses suggest a westerly flow from Costa Mesa inland with flow toward the Mission Viejo monitoring station. Therefore, Applicant determined that the Mission Viejo monitoring station was the most representative monitoring station for PM_{10} and $PM_{2.5}$.
- Air Quality Table 4 and Air Quality Table 5, pages 4.1-10 and 4.1-12 – Applicant suggests converting the parts per million values to micrograms per cubic meter to allow a direct comparison to other tables that present background ambient air quality data.
- Air Quality Table 6, page 4.1-13 – The background values for 1-hour sulfur dioxide (SO_2) appear to be from outside the 3-year period noted in the paragraph at the top of the page. The maximum 1-hour SO_2 concentration measured at the Costa Mesa monitoring station for the latest 3-year period is 19 micrograms per cubic meter or 0.0095 parts per million.
- Proposed Operation Emissions, pages 4.1-15 and 4.1-16 – For clarity, please include emission tables showing both start-up and shutdown emissions and the routine (normal) operating emissions that form the basis of the daily and annual emissions presented in Air Quality Tables 10 and 11. This will provide the public with the ability to verify the accuracy of Air Quality Tables 10 and 11.
- Ammonia Emissions, page 4.1-17, 2nd paragraph – Please correct the acronym for the South Coast Air Quality Management District from "SCQMD" to "SCAQMD".

[8] HBEP's sulfur dioxide (SO_2) emissions do not exceed the PSD significant emission rate threshold of 40 tons per year and, therefore, are not subject to PSD review.

- Block 1 Operation and Construction of Block 2, Page 4.1-33, 1st paragraph: This paragraph concludes "Staff believes that PM10 emissions during this overlap period (up to 12 months) would cause a significant impact because they would cause a new violation of the 24 hour PM10 standard which is not expected to occur during routine operation (see Air Quality Table 14) and would also contribute to the existing violation of the annual PM10 standard. The significant PM impacts are mainly due to high background concentrations and fugitive dust emissions during the construction period." However, comparing the maximum HBEP construction/demolition PM_{10} and $PM_{2.5}$ emissions[9] of 28.95 and 10.29 pounds per day, respectively, to the SCAQMD's CEQA air quality significance thresholds for construction PM_{10} and $PM_{2.5}$ of 150 and 55 pounds per day,[10] respectively, shows that HBEP's construction emissions are not considered significant. Furthermore, as noted in the SCAQMD's PDOC,[11] Applicant is required to remit a Rule 1304.1 offset fee of approximately $3.2 million to the SCAQMD prior to receiving a Permit to Construct. SCAQMD Rule 1304.1(d)(1) states that the "Offset Fee proceeds paid pursuant to this rule shall be deposited in an SCAQMD restricted fund account and shall be used to obtain emission reductions consistent with the needs of the Air Quality Management Plan. Priority shall be given to funding air quality improvement projects in impacted surrounding communities where the repowering EGF projects are located." (Emphasis added.) In the Final Environmental Assessment for Proposed Rule 1304.1, the SCAQMD notes that the type of air quality improvement projects to be funded by the Offset Fee in the area adjacent to the repower project include "… mobile source implementation measures such as replacing on-road and off-road vehicles with natural gas, hybrid-electric, or all-electric vehicles; accelerated retirement of older vehicles; as well as installation of infill photovoltaic systems."[12] Using the Carl Moyer Program's cost effectiveness of $17,460 per ton of weighted (NO_x, PM_{10}, and VOC) emissions[13]

[9] *See* Applicant's Resubmission of Data Response, Set 4 (Updated Response to Data Request #104; Air Quality) (TN# 201570), dated January 17, 2014, at p. 3, Table 5.1A.60R Onsite and Offsite Construction Exhaust and Fugitive Emissions Summary.

[10] http://www.aqmd.gov/ceqa/handbook/signthres.pdf.

[11] *See* South Coast Air Quality Management District's Preliminary Determination of Compliance (TN# 201595) at p. 39.

[12] http://www.aqmd.gov/ceqa/documents/2013/aqmd/FinalEA/PR1304.1/FinalEA1304_1.pdf.

[13] 2014 Carl Moyer Memorial Air Quality Standards Attainment Program, Program Announcement "Year 16," SCAQMD Program Announcement (PA #2014-08).

reduced, the Applicant's Rule 1304.1 Offset Fee of approximately $3.2 million results in a potential of 168 weighted tons in local/regional emission reductions.[14] Assuming the SCAQMD expends only 20 percent of the Offset Fee in the project area within the first years of construction, the Offset Fee would fund 33.6 tons of weighted emission reductions, which would fully mitigate HBEP's total construction PM_{10} and $PM_{2.5}$ construction emissions of 15.2 and 4.9 tons, respectively. Finally, HBEP will enable the retirement of HBGS Units 1 and 2, resulting in the permanent reduction in air emissions to the project area. This reduction does not occur temporally with the construction impacts, but these emission reductions are real and quantifiable,[15] are not claimed as emission reduction credits by the SCAQMD as part of the HBEP New Source Review process, and will result in an improvement in the project area's air quality.

- HBEP Operation and Demolition of Units 1 and 2, Page 4.1-33, 2nd paragraph: Similar to the previous comments, HBEP's maximum construction/demolition impacts are less than significant when compared to the SCAQMD's CEQA construction thresholds. Moreover, funding the Rule 1304.1 Offset Fee results in sufficient air quality improvement reductions during the construction/demolition period to mitigate any air quality impacts to less than significant levels, and local air quality is improved due to the retirement of HBGS Units 1 and 2 and the emission reduction credits provided by the SCAQMD in compliance with Rule 1304(a)(2).
- HBEP Construction and Demolition of Units 3 and 4, Page 4.1-34, 1st full paragraph: Similar to the previous comments, HBEP's maximum construction/demolition impacts are less than significant when compared to the SCAQMD's CEQA construction thresholds, funding the Rule 1304.1 Offset Fee results in sufficient air quality improvement reductions during the construction/demolition period to mitigate any air quality impacts to less than significant levels, and local air quality is improved due to the retirement of HBGS Units 1 and 2.
- Localized Cumulative Impacts, page 4.1-42, last paragraph – Please revise the statement "staff recommended banked or new, owner-funded, emission reductions" to "offsets provided by the SCAQMD."

[14] The calculated emission reductions assume the SCAQMD uses eight (8) percent of the Offset Fee to administer the air quality improvement program, so the calculated emission reductions are based on $2.944 million dollars.

[15] *See* Applicant's Comments on SCAQMD's PDOC (TN# 201595) at pp. 99-103.

- Localized Cumulative Impacts, page 4.1-43, 1st paragraph – As previously noted, HBEP is subject to PSD review for NO_x, CO, PM_{10}, and greenhouse gases (GHGs). Please revise this paragraph accordingly.
- Air Quality Table 21, page 4.1-44 – The total project nitrogen dioxide (NO_2) impact presented in this table is inconsistent with the results of the Applicant's analysis. (*See* Applicant's 1-Hour NO2 Competing Source Inventory, dated October 18, 2013 (CEC TN #200949.) Applicant made similar comments on the SCAQMD's PDOC (*See* Applicant's Comments on the SCAQMD's PDOC, dated March 7, 2014 (TN# 201840).)
- Compliance with LORS, Regulation XVII, page 4.1-50, 3rd paragraph – The total project NO_2 impact presented in this paragraph is inconsistent with the results of the Applicant's analysis contained in Applicant's 1-Hour NO2 Competing Source Inventory (TN# 200949.) Compliance with LORS, Regulation XVII, page 4.1-50, 4th paragraph – The total peak 24-hour PM_{10} impact presented in this paragraph is inconsistent with the results of the Applicant's analysis contained in Applicant's 1-Hour NO2 Competing Source Inventory.

Conditions of Certification

- Condition AQ-SC3 Verification, B., page 4.1-56 – Verification B. Applicant suggests adding the following bold underlined language: "Copies of any **air quality-related** complaints filed with the air district or facility representatives in relation to project construction."

- Condition AQ-SC4 Verification, B., page 4.1-57 – Verification B. Applicant suggests adding the following bold underlined language: "Copies of any **air quality-related** complaints filed with the air district or facility representatives in relation to project construction."

- Condition AQ-SC6, page 4.1-59 – The second sentence of this Condition implies that the Compliance Project Manager (CPM) must approve any proposal to modify HBEP's air permit. Please delete the second sentence of Condition AQ-SC6 in its entirety.

- Condition AQ-28, Verification, page 4.1-74 – Condition AQ-28 specifies the source test report submittal dates for source testing required in Conditions AQ-16 to AQ-18. However, the verification requires submittal of a source test protocol on a timeframe

inconsistent with the verifications for Conditions AQ-16 to AQ-18. Applicant suggests deleting the first sentence of the Verification for Condition AQ-28.

- Condition AQ-30, Verification, page 4.1-75 – The Verification for Condition AQ-30 requires hourly ammonia results to be submitted in the Quarterly Operation Reports. To reduce the amount of information submitted in the Quarterly Operation Reports, Applicant suggests that the verification language be revised to only require the submittal of exceedances of the hourly ammonia slip limit. Condition AQ-30, Verification, page 4.1-75 – The Verification for Condition AQ-30 also requires the submittal of calibration results of the inlet NO_x monitor to the Compliance Project Manager (CPM) within 60 days of the calibration date. The inlet NO_x monitor will be calibrated once each 24-hour period, which would require continuous submittal of calibration results. Applicant suggests that a summary of the inlet NO_x monitor's calibration results be included in the Quarterly Operation Reports.

Air Quality Appendix AIR-1: Greenhouse Gas Emissions

- Conclusions, page 4.1-82, 4th paragraph – HBEP is described as a base load power plant. However, Subsection 2.4 of the HBEP AFC describes HBEP's expected capacity factor as "between 35 and 50 percent." A more accurate description of HBEP is a multi-stage generating (MSG) asset. (*See* AFC at pp. 2-52 - 2-53.)

- Project Operations, page 4.1-92, 3rd paragraph – As noted above, HBEP is not expected to operate as a base load facility and is expected to have a capacity factor between 35 and 50 percent.

- Project Operations, page 4.1-92, 3rd paragraph – This paragraph describes the New Source Performance Standard (NSPS) for GHGs as a "new" federal standard whereas the discussion on page 4.1-90 more accurately describes this proposed regulation. Please revise this paragraph to conform to the description of the GHG NSPS presented on page 4.1-90. As noted by staff, the equipment comprising HBEP is capable of complying with the proposed GHG NSPS, depending on how the equipment is operated. When the GHG NSPS is promulgated, the Applicant will be required to operate HBEP in compliance with the GHG NSPS.

- The Role of the ESEC Facility Additions in Local Generation Displacement, page 4.1-102 – Please remove all references to the El Segundo Energy Center (ESEC) from the document and update as necessary.

Air Quality Appendix AIR-2: Nitrogen Deposition Analysis

- Conclusion, Page 4.1-15, 2nd paragraph: Applicant agrees with the conclusions reached by Staff in its nitrogen deposition analysis that the air dispersion model does not account for transformation of nitrogen species, that the modeled HBEP nitrogen deposition represents an overestimate, and that HBEP operational NO_x emissions are mitigated through the purchase of Regional Clean Air Incentives Market (RECLAIM) Trading Credits. Therefore, Applicant requests that the nitrogen deposition assessment and conclusions presented in the Biological Resources section of the PSA Focus Supplemental Analysis[16] be revised to be consistent with the air quality nitrogen deposition conclusions and that Condition BIO-10 be deleted. Applicant raised this comment during the April 3 PSA Part B public workshop and Biological Resources Staff agreed with Air Quality Staff's conclusions that HBEP will not have any impacts related to nitrogen deposition, and stated Condition BIO-10 will be removed from the Staff Assessment.

II. PUBLIC HEALTH

- Site and Vicinity Description, page 4.7-4, 1st partial paragraph – HBEP's VOC emission concentration limit is 2 parts per million by volume (ppmv), not 1 ppmv.

- Construction Health Risk Assessment (HRA) for Diesel Exhaust, page 4.7-17, 1st partial paragraph –Staff states "Staff also recommends the applicant be required to ensure there won't be any public access to this area during construction/demolition. Moreover, since the risk value is higher than the public notification levels of SCAQMD (i.e. ≥ 10 in one million), staff also recommends the applicant be required to follow SCAQMD's notification procedures (SCAQMD, 2011)." As noted during the April 3 PSA Part B public workshop, Applicant is not opposed to following the SCAQMD's notification procedures. However, since the adjacent wetland and Tank Farm are fenced and the property owners - not Applicant - control access to such areas, Applicant requests that

[16] *See* HBEP PSA - Part A Supplemental Focused Analysis, beginning at p. 4.2-5 – Air Emissions – Nitrogen Deposition (TN# 201471).

Staff remove the recommendation that Applicant prohibit public access to these areas. Applicant raised this comment with Staff during the public workshop and Public Health Staff agreed to remove the recommendation that Applicant prohibit public access to the adjacent wetland and the Tank Farm areas.

V. CONCLUSION

HBEP is critical to maintaining electrical system reliability in Southern California. Applicant looks forward to receipt of Final Staff Assessment (FSA). Applicant believes that upon publication of the FSA, the Committee will be in a position to quickly move toward the Project's evidentiary hearing and a Final Decision approving the Project.

Respectfully submitted,

Melissa A. Foster

MAF:jmw