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Comments on SCAQMD Revised Preliminary Determination of Compliance

Additional submitted attachment is included below.

May 5, 2014

Mr. Chris Perri
South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar CA 91765-4178

Subject: Huntington Beach Energy Project Revised Preliminary Determination of Compliance

Dear Mr. Perri:

This letter transmits my comments on South Coast Air Quality Management District's (SCAQMD) Revised Preliminary Determination of Compliance (PDOC) for HBEP. I have been following the Huntington Beach Energy Project (HBEP) siting case because I grew up in Huntington Beach and my elderly mother still lives there. I am an employee of the California Energy Commission but these comments are my own as a member of the public and do not represent the views of the Energy Commission.

In general, the Revised Preliminary Determination of Compliance (PDOC) is very technical and difficult for anyone who is not an air quality expert to follow. As such, if SCAQMD is genuinely trying to inform and engage the public it would help if the document would include more and less technical explanations of the rules, the assumptions and the caveats of the analysis. More specifically, my comments are as follows:

Harmful Particulate Pollution

Annual PM10 emissions from operating 6 turbines at the new HBEP, as permitted, will be 198,654 pounds. The project developers are proposing to transfer capacity from existing power plants to HBEP to offset the emissions. Existing power plants that would shut down are the Huntington Beach Generating Stations boiler units 1 and 2 and Redondo Beach boiler units 6 and 8.

The actual average annual PM10 emission from operating Huntington Beach Generating Station's boilers 1 and 2 between 2006 and 2012 was 14,521 pounds per year. (Source: SCAQMD PDOC Table B.6.) Redondo Beach units were operated very infrequently so they would have emitted even less. The principle is that shutting down the old power plants and replacing them with new ones would result in an even exchange so there would be no new negative impacts. However, the new power project in Huntington Beach

would result in a massive increase in emissions. Please explain if and why this is the intent of the exchange rule (1304 (a)(2)).

PM10 is among the most harmful of all air pollutants. When inhaled these particles evade the respiratory system's natural defenses and lodge deep in the lungs. PM10 can increase the number and severity of asthma attacks, cause or aggravate bronchitis and other lung diseases, and reduce the body's ability to fight infections. So with such a large increase in PM10 from the project, I'm very concerned about the health risks posed to Huntington Beach residents and to all people who would breathe the air affected by the proposed project.

Further, while Huntington's Beach's loss in clean air would be Redondo Beach's gain, it doesn't seem very fair or neutral.

The determination of compliance should explain how and why this exchange would result in the same air quality for the residents of Huntington Beach and all people living within 6 miles of the proposed HBEP.

Air Quality Modeling Inputs

The air quality modeling uses weather data from the station near John Wayne (Santa Ana) Airport. However, the weather there is not similar enough to weather conditions in Huntington Beach to be accurate. The weather in Huntington Beach has a stronger coastal influence and is characterized by frequent foggy days and nights due to inversions. The airport on the other hand is located inland and has more clear weather. In Huntington Beach, when the air is still, the emissions will also tend to remain in the area. This means that the harmful emissions will be more concentrated in Huntington Beach and have a greater negative impact than as modeled. The air quality modeling should use better weather assumptions.

Also, since SCAQMD has been trying to inform Huntington Beach residents about the hazards of breathing smoke from beach bonfires, the air quality modeling should include the emissions generated from these bonfires as part of the background emissions.

Effect on State Parks

The PDOC looked at how the project would affect visibility at Class II locations, such as state parks. The analysis assessed the following locations: Crystal Cove State Park, Water Canyon State Park, Chino Hills State Park and San Mateo Canyon Wilderness Area. The impact of the HBEP combined with the impact of the existing emissions was just barely below the allowable threshold at Crystal Cove and Water Canyon State Park. So SCAQMD said that

there would not be significant deterioration of visibility. The assessment should evaluate the impacts on the Class II location across the street from the proposed project: Huntington State Beach.

Health

Using a HARP model, the PDOC assesses the impacts of the project on health. However, it appears to me that the analysis treated the new power plant as if it wasn't going to be operated in a location where power plants have been polluting since the 1950's. The health impact of the new power plant should be assessed from the point of view of an elderly person who has spent much of their life exposed to emissions from a power plant.

Greenhouse Gases

The thermal efficiency of gas-fired generation is typically described by measuring its heat rate. The heat rate of a power plant expresses how much fuel is necessary (measured in Btu (British Thermal Units)) to produce one unit of energy (measured in kWh (kilowatt hour)). Therefore the heat rate of California's natural gas fired generation is obtained by dividing the total fuel used by the total energy produced. A lower heat rate indicates a more efficient system.

From 2001 to 2011 in California the average heat rate of all non-cogeneration forms of gas-fired generation has declined from 9,997 Btu/kWh to 7,855 Btu/kWh (Nyberg, Michael. 2013. *Thermal efficiency of Gas Fired Generation in California: 2012 Update*. California Energy Commission. CEC-200-2013-002).

The project when operated with fully permitted normal hours and fully permitted start up and shut downs will have a heat rate of 9,013 btu/kWh and assuming 8% equipment degradation rate will have a heat rate of 9,734 btu/kWh. This is higher than the current electricity system average heat rate and will be setting back the progress that California has been making to reduce greenhouse gases from the electricity system and is contrary to California law.

Thank you for the opportunity to comment.

Sincerely,

Monica Rudman

cc. Felicia Miller, California Energy Commission

