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STATE OF CALIFORNIA
Energy Resources Conservation and
Development Commission

In the Matter of:

Docket No. 08-AFC-8A

The Application for Certification for
the Hydrogen Energy California
Project

SIERRA CLUB STATUS REPORT No. 9

Pursuant to the Revised Committee Scheduling Order for the Hydrogen Energy California (“HECA”) project, issued on March 27, 2013, and the September 23, 2013 request to all Parties, Intervenor Sierra Club respectfully files this Status Report No. 9.

Sierra Club thanks CEC and DOE Staff for the public workshops held on September 17-19 in Buttonwillow. Sierra Club appreciated Staff’s careful consideration of outstanding issues during the workshops and hopes the trend continues in future workshops in order to fully inform Staff’s assessment. Given the complexity of issues to be resolved and substantial bulk of still outstanding information, Sierra Club respectfully requests that Staff prepare a revised Preliminary Staff Assessment (“revised PSA”).

Intervenors’ Availability for Next Workshop

The local concern over this controversial project continues to grow. Even though many locals were in the middle of their busiest time of year, hundreds of community members still appeared and voiced their concerns about this project during the public workshop. Sierra Club appreciates that CEC Staff will accommodate the local community’s limited availability during the fall harvest by scheduling another set of workshops in late October/early November, this time with the Commissioners in attendance.

Counsel for Sierra Club is not available October 21–25, 31 or November 1. Tom Franz of the Association of Irrigated Residents (“AIR”) will be unavailable between October 10–24. Beau Antongiovanni of HECA neighbors, a local farmer who has shared his expertise on local water supply with the Commission during the public workshops, is not available from October 29–November 9. To accommodate these parties, we request that the Commission schedule the next workshop starting October 28, with water supply as one of the first items on the agenda. A starting date of November 12 would be an alternative.

Progress on Resolution of Issues/Existing Obstacles to Resolution of Issues

Air Quality / Public Health / Environmental Justice

As proposed, HECA would affect environmental justice communities already suffering from the poorest air quality in the nation and lowest health outcomes in the state. The HECA project site is located near the environmental justice communities of Tupman, Buttonwillow, and Wasco. Arvin and Lamont, downwind communities of color, and other environmental justice communities will be affected by open-top coal trains along the 650-mile rail route. The City of Bakersfield is the most polluted city in the nation for fine particulate matter and third-most polluted city for ozone. Kern County has one of the lowest rankings for health outcomes in California, a higher death rate due to cancer and asthma than the rest of the state, and rising rates of Valley Fever.ⁱ Sierra Club views these as insurmountable issues for the proposed project.

As local community member and AIR representative Tom Frantz eloquently pointed out at the recent public meetings, there *are* places where no new major sources of pollution should be permitted. If there were ever such a place, it is Kern County. We understand that Staff is willing to consider a HECA neighbor’s suggestion that would provide funds for advanced lung care equipment at the local hospital as mitigation for new emissions from the project, but frankly that would be an appalling after-the-fact measure to try to mitigate unacceptable levels of damaging air pollution that could and should be avoided. Cesar Campos from the Central Valley Environmental Justice Network pointed out that residents in the area do not have sufficient access to health care to deal with health impacts resulting from the proposed project’s emissions. A new coal plant should not be sited in an area where the environmental justice population is already suffering from severe air pollution and health problems.

The San Joaquin Valley Air Pollution Control District did not adequately analyze the impacts of the proposed project, nor did it give sufficient attention to hundreds of public comments. The Commission’s CEQA responsibilities require it to mitigate air quality impacts despite the District’s pro forma rubber-stamp of this project. Sierra Club submitted 125 pages of extensive legal and technical comments to the Air District on its

preliminary determination of compliance (“PDOC”), yet the Air District essentially ignored public comments and issued its final determination of compliance (“FDOC”) a few weeks later with only minor changes. Sierra Club will be submitting comments summarizing issues that were not adequately resolved by the Air District’s FDOC along with other outstanding air quality issues which include, but are not limited to, the following:

- The project’s air pollution emissions must be offset by *real*, local, contemporaneous measures that effectively mitigate air quality impacts. Though the Air District is willing to rely on 30-year old credits that were never valid in the first place and were traded in violation of conditions required by EPA, under CEQA, the CEC cannot allow HECA to rely on decades-old, invalid emission reduction credits to offset emissions in this already overburdened airshed but must require additional post-baseline mitigation.
- Sierra Club agrees with CEC Staff that the 1:1 SO_x to PM_{2.5} interpollutant offset ratio proposed by the Air District is inadequate. Sierra Club urges CEC Staff to require HECA to acquire offsets at the 4.1:1 ratio since this ratio was developed by the Air District itself to bring to bring the air basin into compliance with national ambient air quality standards for PM_{2.5}.
- The best available control technology (“BACT”) requirements for the Project’s cooling requirements under California state law and the federal Clean Air Act require the use of dry rather than wet cooling and enclosed ground flares rather than elevated flares for HECA.
- The Wasco coal terminal and surrounding rail lines are littered with coal, which is of significant concern to the local environmental justice communities. Rail cars filled with coal must be covered and other conditions imposed to prevent leakage from the bottom of rail cars.
- CEC Staff indicated at the September 17-19 workshop that it is developing conditions of compliance for demonstrating HECA’s compliance with EPA’s Mercury and Air Toxics Standards (“MATS”). Sierra Club requests that CEC Staff evaluate the use of a continuous emissions monitoring system for particulate matter and/or mercury emissions for demonstrating compliance with MATS limits.

These issues must be resolved in the revised PSA.

Greenhouse Gas Emissions/Power Plant Efficiency

Sierra Club supports CEC Staff's approach to include the approximately 100 MW of power needed for the air separation unit ("ASU") in the power plant efficiency analysis and the computation for compliance with the SB 1368 Emission Performance Standard since the ASU is an integral component of the proposed oxygen-blown gasification system. The ASU is an essential part of the HECA project because it supplies the high-purity oxygen necessary to operate the Applicant's selected gasifier at the specified gross output and is required for CO₂ capture. Sierra Club disagrees with Staff that HECA would be a reasonably efficient power plant. According to Staff's own analysis in the PSA, this project would be extremely inefficient as a power plant when assessed based on net added electricity to the grid, providing only 53 MW of added power to the grid during its maximum electricity production, and pulling 62 MW from the grid during maximum fertilizer production.ⁱⁱ This issue must be fully investigated and disclosed in the revised PSA.

CO₂ Well Blowouts

Given the recent news of well leakage in Mississippi and Louisiana due to enhanced oil recovery operations, the potential for CO₂ well blowouts is an outstanding issue that must be addressed. Sierra Club looks forward to Staff fully investigating this issue in the revised PSA.

Traffic

The local community has many concerns regarding the proposed traffic analysis. For example, local roads were not built to withstand the truck traffic that this project would bring, local schools have safety concerns regarding school bus stops along potential truck routes, and HECA would increase existing traffic problems that cause long car idling periods (which should be considered in the project's air quality analysis as well).

Sierra Club's traffic expert pointed out that the trip generation forecasts assume that there will be an average of two workers per vehicle during construction and during operation, yet carpooling is voluntary in the PSA and there are no proposed monitoring or enforcement mechanisms. Absent validation of the carpool assumptions, the PSA's analysis must be revised to assume one worker per vehicle.

Water Supply

Sierra Club supports Staff's robust water supply analysis in the PSA. The PSA identified many significant unresolved issues in the Applicant's proposal to use 7,500 acre-feet per year of water. Local farm manager Beau Antongiovanni clarified how the proposed water supply is currently being used to irrigate salt-intolerant crops like alfalfa.

It appears the proposed water supply is not actually degraded water given that this water supply is currently being used for crop irrigation. So far, the Applicant has not investigated alternative water supplies, nor has it properly evaluated dry cooling as an alternative to minimize water use. The Commission requires all projects to evaluate dry cooling. Sierra Club shares Staff's concerns regarding the availability of water supply for 25 years and that the pumping could interfere with existing wells, cause salt water intrusion into the aquifer, and exacerbate overdraft in the Kern County basin. Considering persistent drought in the West, which recently prompted federal farm officials to declare nearly the entire state of California a drought disaster area and is predicted to be exacerbated by climate change, and the reliance of the country on the Central Valley as its breadbasket, Sierra Club finds that use of aquifer water for industrial purposes is unacceptable. These and other similar issues must be addressed in the revised PSA.

Biological Resources

As the PSA correctly pointed out, significant information gaps remain regarding impacts on biological resources. Staff must obtain additional study data and analyses for the revised PSA.ⁱⁱⁱ

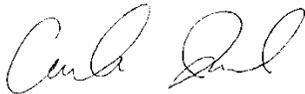
Alternatives

Sierra Club appreciates that Staff is considering alternatives in detail including dry cooling and wet-dry cooling, a natural gas-fired combined-cycle power plant with carbon capture and storage, a biomass boiler, alternative sites, and water supply alternatives. Given the scope and enormity of project impacts, the revised PSA must include alternatives it previously eliminated such as reduced use of coal and an enclosed ground flare and flare recovery system.

Dated: September 30, 2013

Respectfully submitted,

Signed:



ⁱ PSA at 4.8-121 -122.

ⁱⁱ PSA at 1-7.

ⁱⁱⁱ PSA at 4.2-114 -115.