

## DOCKETED

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**STATE OF CALIFORNIA  
ENERGY RESOURCES CONSERVATION AND DEVELOPMENT  
COMMISSION**

In the Matter of:

**Docket No. 08-AFC-08A**

**HYDROGEN ENERGY CALIFORNIA**

**ENERGY COMMISSION STAFF REPLY BRIEF**

**I. INTRODUCTION**

On November 30, 2015, the project Applicant, Hydrogen Energy of California, (HECA), filed a request to the Committee overseeing the licensing proceeding to reinstate the licensing case which has been on a six-month suspension since July 3, 2015. In an order dated December 1, 2015, the Committee deemed HECA's request a Motion pursuant to California Code of Regulations, title 20, section 1716.5, and provided parties until December 15, 2015 to file any responses to the Motion. (TN 206811) As discussed below in Commission Staff's response, Staff believes HECA has not met the requirements set forth in the Committee's July 3, 2015 suspension order, titled *Committee Order Denying Motion to Terminate Application for Certification and Granting Request for Suspension*. (TN 205238-1) In the order, the Committee noted that if the project did not meet the informational requirements of the order, the Committee may move to terminate the Application for Certification, (AFC), pursuant to California Code of Regulations, title 20, section 1720.2. The HECA project should not continue on a limited suspension, but should be terminated and required to file a new AFC when the Applicant has a complete project.

## II. HISTORY

HECA originally filed its AFC on July 31, 2008 under docket No. 08-AFC-8. A revised AFC was filed on May 28, 2009 which was found to be data adequate on August 26, 2009. On May 2, 2012, an Amended AFC was filed under a new docket No. 08-AFC-08A. The Preliminary Staff Assessment assessing the AFC was published on June 28, 2013. ([http://www.energy.ca.gov/sitingcases/hydrogen\\_energy/index.html](http://www.energy.ca.gov/sitingcases/hydrogen_energy/index.html) )

## III. DISCUSSION

The July 3, 2015 suspension order is conditional and requires the Applicant to meet informational requirements prior to the end of the suspension period on January 6, 2016. In relevant part the order requires:

- 2. No later than the end of the suspension period, Applicant shall docket a report to the Committee providing the information and documentation requested in items a... and c below.*
- a. Documentation of an executed CO<sub>2</sub> off-take and carbon sequestration agreement, for a site that is both feasible and available for such use;*
- c. Completed docketed responses to all presently outstanding data requests from the parties. To the extent that any such outstanding data requests are no longer applicable due to changes in the HECA project since issuance of the data requests, Applicant shall provide a discussion of what changes to the project render the data requests inapplicable. To the extent possible, Applicant shall modify the inapplicable data requests so that they apply to the changes in the project and respond to those modified data requests. (TN 205238-1, pp.3-4.)*

## **A. Sequestration Information**

HECA has not met the sequestration informational requirements and cannot meet the requirements for the foreseeable future, which causes the duration of the HECA proceeding to be indefinite. HECA docketed its first Monthly Progress Report on July 31, 2015, and in the report informed the Committee that the Committee's first informational requirement ordered at paragraph 2 (a.) (referred to as "Milestone 1") would not be met because HECA intended to forgo any discussions with oil producers to purchase the CO<sub>2</sub>, and would instead seek a permit as a carbon-capture sequestration (CCS) project without enhanced oil recovery (EOR) associated with its carbon sequestration. (TN 205588) HECA added that, "The economic strength of the HECA project makes it financially feasible to do CCS without a revenue stream from the sale of CO<sub>2</sub> and to cover the cost associated with a CCS program." (TN 205588, p. 2)

With this new information reported to the Committee in its July 2015 monthly report, HECA also set forth a plan to perform extensive site characterization and site specific geological analysis from January 2016-December 2016 to assess the viability of the project site to sequester and store CO<sub>2</sub>. (TN 205588)

The future of the project now rests on the ability of HECA to obtain the necessary state and federal permits to drill a characterization well sometime in 2016 to perform "a pilot injection at the HECA site to obtain direct site-specific data on rock formations, including depths, thickness, porosities, and permeabilities of target storage and overlying sealing formations." (TN 205588, p. 7) Based on the Monthly Status Reports and its failure to respond to outstanding data requests, HECA has demonstrated its inability to confirm when site characterization will be determined and whether the injection of CO<sub>2</sub> will be viable or safe at the HECA project site.

HECA's potential simplifying of the project by not relying on a third party off-taker for its CO<sub>2</sub>, as previously proposed in prior versions of the project, is not relevant to the issue of meeting the Committee's informational requirements. HECA still needs a year to assess the site and is yet to determine whether injection points at other sites will be

necessary, which may necessitate agreements with third parties and linears for delivery of the CO<sub>2</sub>.

## **B. US EPA and Class VI Wells**

As noted in HECA's July 2015 Monthly Status Report, jurisdiction over the injection well(s) will be under the US EPA's Class VI certification program. (TN 205588, p. 7) The following summarizes the requirements by US EPA for Class VI wells: (See

<http://www2.epa.gov/uic/class-vi-wells-used-geologic-sequestration-co2>)

- Extensive site characterization
- Injection well construction requirements for materials that are compatible with and can withstand contact with CO<sub>2</sub> over the life of a geological sequestration project
- Injection well operation requirements
- Comprehensive monitoring requirements that address all aspects of well integrity, CO<sub>2</sub> injection and storage, and ground water quality during the injection operation and the post-injection site care period
- Financial responsibility requirements assuring the availability of funds for the life of a geological sequestration project (including post-injection site care and emergency response)
- Reporting and recordkeeping requirements that provide project-specific information to continually evaluate Class VI operations and confirm drinking water protection

The US EPA Region 9 Water Rights Division, which would be responsible for the permitting of the Class VI wells, has not reviewed any Class VI well permit applications. Region 9 informed Staff that based on the experience of other US EPA offices; it will take between 12 to 18 months from application submittal to issuance of a final permit. Given that HECA has estimated the full year of 2016 to perform the work required for the extensive site characterization, coupled with the EPA 12 to 18 month review, it is

reasonable to expect that a project application with a complete project description would not be ready for filing with the Commission until sometime in 2017 or even 2018.

### **C. Defined Project Description**

In *County of Inyo v. City of Los Angeles* (1977) 71 Cal.3d 185, the court declared that an accurate, stable, finite project description is an essential element of an informative and legally sufficient Environmental Impact Report under the California Environmental Quality Act (CEQA).

For Staff to develop an *accurate* and *stable* project description under the Commission's certified regulatory program, the Commission requires applicants to file detailed project information, (Cal. Code Regs., title 20, section 1704) and for the Commission, in a public hearing, to make a determination that the AFC is complete. (Cal. Code Regs., title 20, section 1709). This starts the 12 month proceeding and sets in motion the public process of project assessment and ultimately a Commission decision.

It is expected that during the course of any licensing proceeding, features of the project may be modified, but in this case the project found to be data adequate in August 2009, does not appear to be the project HECA is working towards.

Continuously changing projects consumes Staff and intervenor resources as analytical work has to be redone, takes away resources from the ability of Staff to review other viable projects and results in confusion for the public, as multiple iterations of project information complicates the record.

HECA is likely at least two years away from being able to fulfill the Committee's ordered milestones, and is therefore, unable to meet the requirement to provide data that applies to the changes in the project. Such information is necessary for a complete AFC, which Commission Staff can analyze.

#### **D. Outstanding Data Requests**

Because there is neither a defined nor complete project description, HECA cannot meet the requirement set forth by the Committee to provide “Completed docketed responses to all presently outstanding data requests from the parties.” (TN 205238-1, p.3) Without knowing the details of the CCS component of the project, HECA has not assessed which outstanding requests need responses to, and is unable to provide accurate and reliable information. Even if HECA provides some information, without a defined project description Staff would not be able to fully analyze the information provided.

HECA’s motion to reactivate the proceeding ignores the Committee’s order to docket all outstanding data requests. Instead, HECA’s motion misleads by asserting that, “Outstanding data requests relate primarily to facilities and activities that were to occur on and in the Elk Hills Oil Field for enhanced oil recovery (EOR and CO<sub>2</sub> sequestration.” (TN 206792, p. 2) Elk Hills is distinguishable from the HECA plant site and linears, and there remain outstanding data requests that demonstrate a failure to comply with the Committee’s Order.

An example of outstanding data requests for the project site and linears are Staff’s Cultural Resources data requests A139-149 (pedestrian surveys of the project linears) and A192-194 (test excavation and reporting on several archaeological resource sites). Prior to the Committee Order suspending the proceeding on July 3, 2015, HECA requested from Staff a time extension to respond to Cultural Resources data requests, and indicated that the project was looking into feasible and convincing avoidance measures for archaeological resources. HECA has yet to supply such information in data responses.

Another example of project site specific outstanding data requests includes a number related to biological resources covering botanical surveys, nitrogen deposition analysis, habitat mitigation for upland species and information on the re-initiation of Section 7 consultation under the Endangered Species Act as requested by the U.S. Department

of Energy. While there is other missing data, for purposes of this motion, these examples are sufficient.

#### **IV. Conclusion**

Versions of the HECA project AFC have been before the Commission for over seven years. It is reasonable to estimate that a well-defined, complete project will not be forthcoming until 2017 or even 2018. HECA has not met the requirements, and will not be able to meet the requirements of the July 3, 2015 Committee Order. Staff recommends that the project be terminated rather than continue to be held in suspense. Once the applicant has developed a complete project that would meet the informational requirements of section 1704, can demonstrate that they are in the process of securing a class VI permit from US EPA, and is able to include the economic and technical feasibility of a CCS project that would have no revenue from the sale of CO<sub>2</sub>, a new AFC would be appropriate.

Date: December 15, 2015

Respectfully submitted,

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