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STATE OF CALIFORNIA
ENERGY RESOURCES
CONSERVATION AND DEVELOPMENT COMMISSION

In the Matter of:)	Docket No. 08-AFC-8A
)	
REVISED APPLICATION FOR)	APPLICANT'S RESPONSE TO
CERTIFICATION)	MOTION TO TERMINATE AFC
FOR THE HYDROGEN ENERGY)	
CALIFORNIA PROJECT)	

Hydrogen Energy California LLC (Applicant) hereby responds to Interveners' Motion to Terminate Application for Certification of the Hydrogen Energy California Project (HECA or Project) (the "Motion").

I. Scope of Inquiry Under 20 CCR 1720.2

The only relevant inquiry in a motion filed pursuant to Title 20 California Code of Regulations Section 1720.2 is whether the Applicant has pursued the Application for Certification (AFC) with due diligence.¹ Opinions about the project in general, or specific elements of the project, are irrelevant. Opinions about the project's compliance with applicable laws, ordinances, regulations and standards (LORS), or agency policies, are irrelevant. Opinions about the project's economic viability are irrelevant, as are opinions about the project's ability to obtain a power purchase agreement (PPA). Certain of these matters (e.g., LORS and policy compliance) can only be determined by the Commission upon completion of the AFC review process. Certain of these matters (e.g., economic viability and ability to obtain a PPA) are outside the scope of the AFC review process altogether.

Not only is inquiry into such matters irrelevant in the context of a motion filed pursuant to 20 CCR 1720.2, it would be improper for the Commission to grant a motion on the basis of such matters. To grant the Motion on the basis of Interveners' opinions as to these matters, or even on

¹ 20 CCR Section 1720.2(a) provides in pertinent part that "[t]he Committee or any party may, based on the applicant's failure to pursue an application or notice with due diligence, file a motion to terminate the notice or application proceeding."

the basis of the Committee's or Commission's current opinions as to these matters, would either: i) improperly short-circuit the AFC review process; or ii) improperly take into consideration matters outside the scope of the AFC review process.

In light of the foregoing, much of the Motion can be disregarded as irrelevant to the inquiry at hand. This includes Interveners' opinions that the Project is "ill conceived," "extremely controversial," and "unlikely to succeed."² It includes Interveners' opinions about whether or not the Project's proposed water supply plan complies with applicable LORS and policies.³ It includes Interveners' opinions regarding the Project's "precarious financial viability" and Applicant's ability to fully utilize federal grant monies or obtain a PPA.⁴ Interveners are entitled to their opinions regarding these matters, and, in some cases, may present evidence during the evidentiary proceedings to support their opinions, but such opinions and speculation have no place in the context of the Motion.

Cutting through the extraneous opinions and speculation, Interveners' appear to be contending that the failure of Applicant to deliver an agreement for the off-take of CO₂, and the resulting hiatus in activity at the CEC, amounts to evidence that Applicant is not pursuing the AFC with the requisite due diligence. Since this is the only potentially relevant inquiry raised in the Motion, the remainder of this response focuses on the actions of Applicant in pursuit of a CO₂ off-take agreement over the relevant period of time. Although irrelevant, we also briefly address the other two (or three) claims upon which Interveners' appear to base their motion: i) that the Project's water supply plan fails to comply with applicable LORS and policies; ii) that the Applicant will be unable to fully expend available federal grant monies; and iii) that Applicant has reduced the extent of its public outreach.

II. Applicant Has Exercised Due Diligence in Pursuit of a CO₂ Off-Take Agreement Necessary to Advance Review of the AFC

With respect to the relevant time period over which Applicant's actions should be evaluated, the last CEC-sponsored public workshop on the Project was held on November 20, 2013 on the Preliminary Staff Assessment/Draft Environmental Impact Statement (PSA/DEIS). Numerous documented activities related to the Project occurred after this date, including Applicant's work with Savage Services to obtain an amendment to the Conditional Use Permit (CUP) for the Wasco Coal Terminal to accommodate coal transfers for the Project. The Wasco City Council hearing on the CUP amendment occurred on March 18, 2014. Notwithstanding these more recent events, since the last formal CEC-sponsored activity occurred in November 2013 (roughly 18 months ago), Applicant will focus on its activities in pursuit of the AFC since that time.

While it is true that most of the activity that has occurred over the past 18 months has not directly involved the CEC staff or Committee, the activity was in pursuit of the AFC. As Interveners have correctly pointed out, as of the PSA/DEIS Public Workshops that occurred on September 17-19, 2013, perhaps the most important missing element necessary to advance review of the AFC has been an agreement with a CO₂ off-taker, or at least a more detailed

² Motion at 2.

³ Motion at 5-6.

⁴ Motion at 6-10.

understanding of the terms of the agreement. As the element most necessary to advance review of the AFC, activities to secure a CO₂ off-take agreement are clearly activities in pursuit of the AFC whether or not they involved directly the staff or Committee. As detailed below, Applicant has engaged in frequent and sustained actions intended to produce a CO₂ off-take agreement and advance review of the AFC. A month-by-month summary of those actions from November 2013 to the present is set forth below.

November 2013

- Applicant received indications from Occidental of Elk Hills (Oxy) that it wished to change the terms of the agreement with HECA for CO₂ off-take.
- Applicant worked to understand the details of Oxy's proposed changes.
- Applicant reinitiated activity to identify alternative CO₂ off-takers. Other oil fields exist within 10-15 miles of the Project site, including some with which Applicant had engaged in prior discussions regarding CO₂ off-take.
- Applicant met with C12 Energy, LLC, a Denver-based company that specializes in enhanced oil recovery (EOR) and CO₂ storage, to strategize regarding alternative local oil fields. Applicant signed a confidentiality agreement with C12 Energy.
- In mid- to late-November, Applicant received word from Oxy that it was prepared to re-enter discussions regarding a CO₂ off-take agreement and identification of specific commercial terms to be addressed.
- Applicant continued to explore options for a revised deal which might include Oxy, Oxy and C12 (or others), or potentially an EOR project with sequestration to follow.

December 2013

- Oxy informed Applicant that it was engaging a new enthusiastic team with the goal of finalizing an agreement for CO₂ off-take. Oxy stated that it wanted the deal to move forward.
- Applicant and Oxy met to discuss next steps to move forward toward a final agreement.

January 2014

- Applicant met with Oxy in mid-January. Oxy reiterated that it wanted to consummate a deal and laid out the issues that needed to be resolved from their perspective, which included concerns regarding supply interruption if HECA went off-line, and the desire to have flexibility about where best to use the CO₂ within Elk Hills and perhaps elsewhere over time. Oxy sought Applicant's support in working with regulators to allow for this operational flexibility. Other business terms, including damages provisions, were discussed.

- Toward the end of January, Applicant and Oxy had a call to discuss next steps and the requirements needed by the end of the first quarter of 2014 in order to satisfy U.S. Department of Energy (U.S. DOE) milestones.

February 2014

- Oxy announced its plans to separate its California assets, including the Elk Hills Oil Field, into a separate company to be known as California Resources Corporation (CRC).
- Applicant engaged in efforts to identify decision makers in to-be-formed CRC with responsibility for Elk Hills Oil Field and HECA.
- Oxy announced that separation would not be complete and CRC management team would not be in place until late 2014 or early 2015.

March 2014

- Applicant was informed by Oxy that divestment activities were stalling the ability to engage in negotiations on the off-take agreement, but that the belief remained that a CO₂ contract was needed with HECA.
- Applicant met with Oxy. Oxy confirmed that CO₂ at Elk Hills was something they still wanted, but that it could be as late as third quarter 2014 before an agreement could be reached in light of the ongoing activity related to the divestiture.

April 2014

- Applicant met with Oxy on April 25, 2014.
- Oxy reiterated the value of CO₂ for the Elk Hills Oil Field and confirmed that it was interested in acquiring CO₂ from HECA. Oxy stated that it was close to having the CRC management team in place and would then be in a position to re-engage in negotiations regarding a CO₂ off-take agreement.
- Applicant reiterated with Oxy that the CO₂ off-take agreement was the driver regarding permitting and the overall Project schedule to close. Oxy stated that it understood the need to reinitiate the CEC process.

May 2014

- Applicant met with Oxy on May 27, 2014.
- Oxy informed Applicant that the majority of the CRC management team was in place and had been given direction to resume discussions with Applicant.

- Outstanding commercial issues were discussed.
- Oxy reiterated its understanding that the CO₂ off-take agreement was the critical path item for the permitting schedule and the need to move the CEC process forward. Oxy stated that the schedule was also important to Oxy given its desire for the CO₂.

June 2014

- Applicant continued to have meetings and discussions with Oxy regarding a path forward.
- In early June, Oxy provided Applicant with a schematic laying out a path forward to construction, including necessary resources, CEC past and present data needs, and the development contract.
- Continued changes proposed by CRC management caused further delays in negotiations due to the project manager position being in flux.

July 2014

- Applicant was introduced to the new CRC Project Manager for the HECA relationship, Shawn Kerns, who was taking over the HECA relationship from Ivan Gaydarov. Ivan was to remain at CRC and was committed to staying involved with the project.
- Discussions with CRC indicate an ability to move forward in the third to fourth quarter timeframe.

August 2014

- On August 1, 2014, the newly appointed head of development for CRC, Shawn Kerns, and CEO of Applicant, Jim Croyle, had an extensive discussion on HECA. The outcome of the meeting was an agreed path forward based on the path forward developed in June. Mr. Kerns requested additional project materials so he could quickly get up to speed on the Project status and move quickly once the spinoff from Oxy was completed in the near future. Mr. Kerns noted that with transition activities, internal resources were limited, and he requested assistance from Applicant to bridge this gap, which Applicant agreed to provide.
- Additional discussions with CRC indicated that they were on schedule to complete the CRC spinoff from Oxy in the 3rd to 4th quarter timeframe, as previously announced.
- Mr. Kerns had extensive additional discussions with Mr. Croyle to get up to speed on the current status of the project and the changes that were made since SCS acquired the project from BP/Rio Tinto in 2011. They spoke about the schedule and path forward

originally provided to Applicant in June, and agreed that, in general terms, the schedule and plan made sense for both parties and was achievable.

- Todd Stevens, CEO of CRC, met with Julio Friedman of U.S. DOE in late August regarding HECA and CRC's role in the Project. Mr. Stevens indicated that he was positive about doing business with Applicant.

September 2014

- A revised and updated Letter of Intent, reflecting recent discussions between Applicant and CRC, was prepared and provided to CRC and U.S. DOE.

October 2014

- Mr. Croyle had numerous discussions with CRC regarding timing and priorities for negotiations with Oxy/CRC during their ongoing transition period to define a workable CO₂ off-take agreement.
- Due to the schedule of financing related to the CRC divestiture, CRC and Applicant agreed to re-engage when the CRC team returned from their equity/debt meetings in Europe in November.

November 2014

- Applicant held numerous discussions with CRC to discuss timing and priorities for negotiations. However, CRC was still focusing on their internal issues rather than HECA.

December 2014

- With CRC continuing to focus on internal issues, Applicant focused again on alternative plans for use and/or storage of CO₂ that could be used as a primary plan or backup plan for CO₂ output. Applicant still believed that CRC would become an off-taker of CO₂ at some point but is following up on leads for alternative use and storage.
- Applicant commenced communication with Lawrence Berkeley National Laboratories (LBNL) regarding potential storage opportunities for HECA's CO₂. LBNL has conducted extensive work, including geological studies and reports, regarding the storage potential for CO₂ in the San Joaquin Valley.
- Applicant had initial conversations with a potential alternative off-taker for CO₂ for EOR. The oil field is in close proximity to the Project site plant and even follows the current pipeline route for the first few miles. Initial discussions are positive with plans to continue discussions.

- While Applicant continues to communicate with CRC on timing and priorities for negotiation, it is working in parallel on alternate plans for use and/or storage of CO₂.
- Applicant's proposal is to pursue one of four possible alternative injection sites for either CO₂ geologic sequestration via Class VI wells and/or EOR injection.
- Applicant and LBNL have been communicating regarding its assistance to HECA. LBNL has communicated that there has been extensive technical work on various sites in the San Joaquin Valley that indicate sufficient capacity and geologic structure for HECA's volume of CO₂. LBNL also communicated they were interested in working with Applicant regarding CO₂ sequestration options.

January 2015

- Applicant has continued discussions with a potential off-taker for CO₂ for EOR.
- Applicant submitted a proposal to DOE to pursue possible injection sites for either CO₂ geologic sequestration via Class VI wells and/or EOR injection. In the proposal Applicant presented the potential injection sites based on technical work in the San Joaquin Valley which indicated sufficient capacity to store the proposed volume of CO₂.
- HECA and LBNL had follow-up communication regarding CO₂ sequestration options.

February - March 2015

- Applicant has continued discussions with a potential off-taker for CO₂ for EOR.
- HECA and LBNL had follow-up communication regarding CO₂ sequestration options.

The preceding summary of activity demonstrates that Applicant has diligently pursued a CO₂ off-take agreement as a necessary element in advancing the CEC's review of the AFC.

Through November of 2014, Applicant had a reasonable expectation that it could consummate an off-take agreement with Oxy/CRC. Oxy/CRC provided repeated assurances that it was interested in pursuing a CO₂ off-take agreement with Applicant. These assurances were provided not only to Applicant but to the U.S. DOE and came from senior level executives at Oxy/CRC. Applicant reasonably believed, and continues to believe, that these representations were made in good faith, and that Oxy/CRC was and continues to be interested in CO₂ from HECA. Unfortunately, events completely unrelated to HECA, and completely outside the control of Applicant, have prevented sufficient resources from being devoted to consummating what is admittedly a complex transaction. Given the resources that have been devoted to negotiations with Oxy/CRC and evaluation of the Elk Hills Oil Field, Applicant was understandably hesitant to move to alternative off-takers. Thus, Applicant's actions in pursuit of an off-take agreement with Oxy/CRC were persistent, sustained and reasonably expected to achieve the desired result.

When it became apparent that CRC was not able to devote sufficient resources and attention to completing negotiation of a CO₂ off-take agreement by the end of 2014 as it had projected, Applicant stepped up its efforts to identify and enter into discussions with alternative CO₂ off-takers. It enlisted the assistance of the West Coast Regional Carbon Sequestration Partnership (WESTCARB) and LBNL based on their extensive experience evaluating potential carbon storage locations in the vicinity of the Project. The initial results of these efforts have been positive. LBNL has expressed interest in the Project and reports that its “technical work to date in the San Joaquin Valley indicates that formations in proximity to the HECA site have sufficient capacity to store the proposed volume of CO₂.”⁵ Because some of the alternatives may involve sequestration only and not include enhanced oil recovery, Applicant also re-evaluated and made adjustments to the Project’s economic model to ensure that revenues associated with CO₂ sale for EOR are not necessary for the Project to be economically viable.⁶

The inability to finalize an agreement with Oxy/CRC has been a setback for the Project. Oxy has been an informal partner in the Project since the decision to relocate the Project to Kern County, and the Project site was chosen in part due to its proximity to the Elk Hills Oil Field. Applicant invested tremendous resources in negotiating a formal agreement with Oxy, and then CRC, and also delayed approaching other CO₂ off-takers for some time based on the reasonable expectation that an agreement could be reached with CRC. For reasons completely outside the control of the Applicant, that did not occur. However, the absence of a contract with CRC is neither an indication of a lack of due diligence on the part of the Applicant, nor a fatal blow to the Project as suggested by Interveners in the Motion.

In sum, Applicant has undertaken an aggressive course of action to obtain a CO₂ off-take agreement for the Project and thereby advance the AFC proceedings. The only reasonable basis for terminating the AFC that can be ferreted out of the Motion is Interveners’ assertion that Applicant has failed to diligently pursue this agreement. Since the actions summarized above clearly refute this assertion, the Motion must be denied.

III. Interveners’ Objections to Applicant’s Proposed Water Supply Plan are Irrelevant to the Motion

Interveners repeat in the Motion their frequently stated objections to the Project’s proposed water supply plan and express their opinion that it fails to comply with applicable LORS and Commission policy. Interveners also assert that Applicant has failed to fully analyze dry cooling alternatives. Interveners do not even attempt to link their opposition to the proposed water supply plan to a lack of due diligence on the part of Applicant. Interveners are not asserting here that Applicant has failed to act; they are merely expressing their dissatisfaction with Applicant’s actions.

Such claims may be appropriate for Interveners’ briefs following evidentiary hearings, with appropriate citations to evidence duly entered into the record, but they have no place in a Motion to terminate AFC proceedings. Decisions about the Project’s compliance with applicable LORS

⁵ January 7, 2015 letter from Elizabeth Burton of LBNL to James Croyle of HECA (attached).

⁶ The revenue from CO₂ sales was never a major component of the Project’s revenue stream.

and policies, and the feasibility of alternatives, can only be made by the Commission upon consideration of the entire evidentiary record as developed through the evidentiary hearings. Interveners cite to their own statements and to preliminary statements by staff contained in the PSA/DEIS as “evidence” to support their opinions. Until such statements are entered into the evidentiary record by a duly sworn witness subject to cross examination, they do not constitute evidence, and the parties’ opinions as to these matters are merely that. The entire AFC review process would be short-circuited if the Committee or Commission were to make a decision to terminate an AFC on the basis of one or more parties’ unsupported opinions about some component of the Project.

IV. Interveners’ Speculation Regarding the Ability of the Applicant to Fully Utilize Federal Grant Monies is Irrelevant to the Motion

Interveners correctly point out that certain federal grant monies are at risk of being lost given the current status of the Project.⁷ Interveners then assert that the Project is not financially viable in the absence of such grant monies.⁸ Finally, Interveners leap to the conclusion that these circumstances demonstrate a lack of due diligence on the part of the Applicant. Even if Interveners’ assertions regarding the Project’s financial viability were true, which they are not, there is no support for the proposition that the loss of the federal monies is somehow the result of a lack of due diligence on the part of the Applicant. As illustrated above, Applicant has exercised due diligence in attempting to obtain a CO₂ off-take agreement for the Project to advance the AFC process. To the extent that the Project has been delayed to the point that federal grant monies are at risk, this is due to circumstance not entirely within Applicant’s control. Interveners themselves suggest that the delay is, in part, attributable to the absence of a power purchase agreement, which they, in turn, attribute to recent well-publicized events in which Applicant played no part.

Finally, the fact that federal grant monies may be in jeopardy, and the impact that this might have on the financial viability of the Project, is outside the scope of the AFC review process. The Committee and the Commission are not required to, and do not, make inquiries into the financial viability of projects under review. Since lack of financial viability, even if it existed, would not be a legitimate basis for denying an AFC, it cannot be a basis for terminating an AFC proceeding.

V. Applicant’s Moderation of its Community Outreach is Not Evidence of a Lack of Due Diligence

While not identified as one of the three primary bases for the Motion, there are assertions throughout the Motion regarding the level of Applicant’s public outreach, and a suggestion near the end of the Motion that a diminished level of public outreach is further evidence of a lack of due diligence. Specifically, Interveners assert that Applicant has closed its public information center, failed to update its website, and failed to respond to press inquiries. Some of these assertions are, in fact, true, but even assuming they were all true, they do not demonstrate a lack of due diligence on Applicant’s part. As detailed above, Applicant has been focused on the

⁷ Motion at 6.

⁸ Id. at 10.

critical next step for the Project – obtaining a CO₂ off-take agreement, and has exercised due diligence with respect to this effort. Until such time as an agreement for the off-take of the CO₂ has been reached, review of the Project is essentially on hold, and there is no new information to disseminate via the public information center, the Project website, or the press. Applicant’s actions with respect to these matters are simply a reflection of current circumstances, not a lack of diligence in pursuing the Project.

VI. Conclusion

Intervenors’ Motion suffers greatly from unsupported opinion and speculation about various aspects of the Project that are completely irrelevant to the inquiry at hand – whether or not Applicant has exercised due diligence in pursuing the AFC. If one attempts to impose some logic on the Motion, the one relevant argument that Intervenors appear to be making is that the Applicant has failed to exercise due diligence in pursuing a CO₂ off-take agreement, and that this is tantamount to failing to pursue the AFC with due diligence. The problem with this argument is that it is not supported by the facts. To the contrary, the facts as set forth above, indicate that Applicant has continued to exercise due diligence in its efforts to obtain a CO₂ off-take agreement over the entire relevant period of time. To date, that agreement has not materialized, but not for lack of effort on the part of Applicant. Furthermore, recent activity on the part of Applicant has produced some promising opportunities for alternative CO₂ storage options.

For the reasons set forth above, the Motion must be denied.

DATED: March 18, 2015

Respectfully submitted,

/S/ MICHAEL J. CARROLL

Michael J. Carroll
LATHAM & WATKINS LLP
Counsel to Applicant

Attachment: January 7, 2015 LBNL Letter

January 7, 2015



James L. Croyle
CEO, Hydrogen Energy California
30 Monument Square, Suite 215
Concord, MA 01742
Dear Mr Croyle,

As the Technical Director of WESTCARB (West Coast Regional Carbon Sequestration Partnership), I would like to express our technical team's interest in the HECA project. I understand that the HECA project going forward intends to explore opportunities for geologic storage of captured CO₂ in saline formations or depleted and watered-out oil reservoirs in proximity to the HECA site.

Our technical team, composed predominantly of geo-scientists at Lawrence Berkeley National Laboratory and Lawrence Livermore National Laboratory, has performed regional characterization studies in the San Joaquin Valley, inclusive of potential storage sites around the HECA plant location at Buttonwillow, California. Should the HECA project intend to pursue options for storage in saline formations or depleted oil reservoirs in this area, our team's previous studies provide a foundation for down-selection and identification of optimal storage options for HECA. Our team has the expertise and experience with storage site characterization to support characterization of storage sites for the HECA project through sharing of these legacy study results and by performing further studies designed to assist in down-selection. The opportunities for storage in the central San Joaquin Valley under consideration may include opportunities to produce water for the purpose of storage formation pressure maintenance, but which also may have the ancillary benefit of providing a treatable water source. This project scenario would build upon conceptual studies performed by the Labs, complement other initiatives of the Department of Energy, and address the critical water resource shortage currently experienced by California.

Our technical work to date in the San Joaquin Valley indicates that formations in proximity to the HECA site have sufficient capacity to store the proposed volume of CO₂. The team who performed these studies is well positioned to pursue the more detailed studies necessary to downselect to optimized storage locations based on geologic, geographic and other criteria. Our team is experienced in providing the types of data and risk simulations required to assess the capacity and security of proposed storage sites to support permitting processes as well as to inform outreach activities to support project acceptance with other stakeholders and the public.

Please let me know if you require any further details and we look forward to the opportunity to work with HECA on this very important CCS project.

Yours sincerely,

A handwritten signature in black ink that reads "Elizabeth Burton".

Elizabeth Burton
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