August 5, 2013

VIA ELECTRONIC POSTING
Comment List: 2013-sp-update-ws

Mr. David Mallory
California Air Resources Board
1001 I Street
Sacramento, CA 95814

Subject: HECA Comments on AB 32 Updated Scoping Plan Process

Dear. Mr. Mallory:

Hydrogen Energy California LLC (HECA) appreciates the opportunity to comment on the first update to the *AB 32 Scoping Plan*. HECA is in the process of developing a clean and reliable alternative energy solution that uses Carbon Capture Utilization and Storage (CCUS) and will provide significant economic and environmental benefits to Kern County and the State of California, while advancing California's long-term greenhouse gas (GHG) reduction strategy.

Comment Summary

- The Updated Scoping Plan should recognize that CCUS advances California towards pre-2020 AB 32 GHG emission reduction goals.
- CARB should remain fuel neutral when promoting CCUS projects.
- The successful completion of an industrial-scale CCUS project in California will be viewed by the public as a case study of AB 32's ability to promote advanced technology that can be duplicated in other jurisdictions in California and around the country.
- The Updated Scoping Plan should highlight the importance of support mechanisms for CCUS, including the adoption of a Quantification Methodology for CCUS.
- CARB should be consistent with the goals of the Governor and the California Legislature by providing more in-depth policy support for CCUS.

Project Background

As one of the first of its kind, HECA's integrated gasification combined cycle project will bring together safe and commercially proven technologies into a single multipurpose operation that will generate a stable and predictable new source of clean, low-carbon electricity using hydrogen; minimize greenhouse gases released into the atmosphere; capture, store and utilize carbon dioxide (CO_2) for enhanced oil recovery; and produce a much-needed local source of low-carbon fertilizer.

Because of its importance to the United States as an alternative energy project of the future, HECA is co-funded by the U.S. Department of Energy's Office of Fossil Energy, and administered by the National Energy Technology Laboratory. When completed, the 300-

megawatt HECA facility will produce low-carbon electricity to meet California's considerable energy demand while minimizing GHG emissions. HECA will produce lower air emissions by more than 90% relative to a conventional coal plant and approximately 80% relative to a natural gas power plant. And the project will capture more than 3 million annual tons of GHG gases that would have otherwise been emitted into the atmosphere.

California refineries routinely ship petroleum coke to other nations, where it is typically burned, releasing CO_2 emissions directly into the atmosphere. Instead of burning this fossil fuel, the HECA project will turn coal and petroleum coke into clean hydrogen energy and fertilizer while permanently capturing the associated CO_2 before it is emitted into the atmosphere.

HECA is owned by SCS Energy, one of the nation's leading independent developers of clean power. The project has the support of the U.S. Department of Energy as a safe and cost-effective way to produce clean energy.

Comment Details

The HECA project is progressing through the California Energy Commission's (CEC) application process and is scheduled to break ground in 2014 and begin operations in 2018. This is a near-term timeline that will enable the project to start sequestering CO_2 prior to 2020, and therefore assist in achieving the State's AB 32 goal of rolling back GHG emissions to 1990 levels by the end of this decade.

The original 2008 Scoping Plan relegated CCUS to an insignificant status by including the discussion of CCUS in the chapter titled "A Vision for the Future." This placed CCUS outside the current measures that were deemed feasible for the reduction of GHG emissions by 2020. However, since the publication of the 2008 Scoping Plan, the HECA project has progressed substantially and is now on the verge of becoming a reality in California. **The Updated Scoping Plan should recognize that CCUS is a near-term solution and not just a potential long-term vision.**

CARB's approach toward CCUS should be updated to reflect the new developments in this field and the versatility of this technology. At the initial June 13, 2013, workshop on the Updated Scoping Plan, CARB presented only one slide on CCUS. That slide characterized CCUS as a technology with challenges to overcome, grouping it alongside nuclear power. That single slide also stated CARB Staff's preference for the use of CCUS in the context of natural gas electrical generation rather than presenting the technology as fuel neutral. The discussion regarding CCUS should reflect the fact that CCUS is a fuel neutral technology that is a realistic opportunity for California today. In fact, the HECA project, which is sourced primarily with coal and petroleum coke, is the only CCUS project moving forward in California that has reached this advanced stage of the permitting process. It is a project that will bridge the gap between what has been contemplated only in theory and what can be achieved in practice. **The Updated Scoping Plan should accurately reflect the fact that CCUS is a fuel neutral technology and should not give preferential treatment to any fuel over another.**

Recognizing and supporting a project such as HECA can put California in the forefront of this technology as an industry leader. The successful completion of the HECA project will demonstrate California's and AB 32's leadership position on several fronts. First, California's success with HECA will be a tangible example of the State's ability to develop exportable policies that other jurisdictions can follow. One of the foundational policy principles of the Cap-and-Trade program is to adopt policies in California that could and would be mirrored by other states and regions. The 2008 Scoping Plan sets forth very clearly the position that California should not use command and control regulations to get to the 2020 goal because other jurisdictions would not follow such a path. Creating a carbon market is surely a big step in that direction. But that achievement is further strengthened when putting a price on carbon results in alternative thinking and transformational technologies. Second, the fertilizer component of the project will make California a net exporter of low-carbon fertilizer, instead of importing nearly all of its fertilizer from the Gulf states. And third, California would be demonstrating that fossil fuels can still be used responsibly by eliminating their harmful GHG emissions, showing the rest of the world a responsible path forward. **CCUS can be instrumental in helping California achieve both its 2020 AND 2050 goals, and the Updated Scoping Plan should promote policies that assist in making that a reality.**

The existing Cap-and-Trade Regulation already contains the accounting mechanism needed for emission reductions associated with CCUS projects, referred to as a Quantification Methodology, or QM. CCUS technology cannot move forward without the administrative framework provided by an adopted QM. **The Updated Scoping Plan should promote and highlight the importance of the development of this support mechanism for CCUS.**

HECA is siting this new facility in California because of the State's leadership role in requiring GHG reductions through policy initiatives supported by the Governor, the Legislature, and energy regulatory agencies, including the California Public Utilities Commission, CARB and the CEC. In order to account for and recognize the benefits of a bold project like the HECA project in California, and to send the exportable policy signals that will lead to further investments in CCUS, **CARB should provide more in-depth policy support for CCUS**.

Thank you for the opportunity to provide these comments on behalf of HECA. For additional information, please contact Tiffany Rau at 310-469-8683 (trau@heca.com) or Jon Costantino at 916-552-2365 or (jcostantino@manatt.com)

Sincerely,

/s/ James L. Croyle

James L. Croyle
Chief Executive Officer