

2009 IEPR- Geologic Carbon Sequestration
Docket Number 09-IEP-1P Written Comments



My name is Will Johnson, President of Visage Energy, and I am a former energy banker. It appears that the Air Resources Board Scoping Plan fails to acknowledge the immediate impact CCS could have as a climate change mitigation tool and several regulatory decisions concerning CCS have yet to focus on the key business issues related to the deployment of CCS in California. Conversely, there appears to be an unrealistic and uneconomical bias in favor of renewable energy limiting California's climate change mitigation options. The IEA, EIA, WEC, JGCRI, EPRI, and the IIASA anticipate that CCS will provide the largest carbon emissions reductions this century. It is reasonable to deduce that if this bias in California is not corrected in the near-term future, California may not successfully achieve its goal of achieve significant carbon emissions reductions while still providing economically reliable electricity generation.

My extensive energy lending background has provided the foundation for the deductions expressed herein. In 1972, I joined Citibank in the Capital Goods Department, lending hundreds of millions of dollars to GE, Westinghouse, and Combustion Engineering. In 1973, I was assigned to the Energy Systems Department at Citibank and financed coal, oil, gas, and nuclear electric generation plants at East Coast utilities. In 1977, I joined the Bank of California and financed jack-up drilling rigs, semi-submersibles, drill-ships, small refineries, oil majors, and California utilities. In 1982, I became a Vice President at Banque Paribas, lending funds to California utilities, small refineries, and the Kern River Cogeneration project. During the past 19 years, I have been the President of an energy consulting firm and natural gas marketing and.

During the May 18, 2009 IPER Workshop, I discussed my thoughts concerning this matter with Commissioner Byron. He asked that, in addition to my verbal testimony, that I submit my comments in writing so that he could further analyze my comments. Those written comments are presented below:

There are several major areas in which there are regulatory shortcomings with respect to the deployment of CCS:

- The ARB Scoping Plan appears to underestimate the potential impact that CCS could have on assisting California to achieve the emissions reduction goals of Assembly Bill 32. This is surprising considering the CPUC's support of the Hydrogen Energy California project feasibility study and the Stimulus Package allocation of billions of dollars for CCS deployment. Nevertheless, the Scoping Plan does not anticipate even one ton of carbon emissions reductions from a CCS project between now and the 2020 timeframe.
- Regulators appear to view renewable energy in isolation without considering the broader consequences of its rapid deployment.
 - (a) Given the intermittent nature of renewable energy, the costs and emissions profile from the back-up fossil fuel fired generation should be considered when weighing the benefits of renewable energy.
 - (b) Utilizing CCS to capture CO₂ from the back-up fossil generation would optimize and significantly lower the amount of CO₂ emissions associated with renewable energy.
 - (c) California legislators who are attempting to increase the RPS from 20% to 33% appear to have a complete disregard for the costs and emissions associated with the required back-up generation. Moreover, this decision would encourage IOUs to utilize higher levels of natural

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gas peakers as opposed to the larger more efficient baseload units, which could be equipped with CCS. This increase would also exacerbate the difficulties and increase the cost of integrating renewable energy into the system.

- (d) A Clean Energy Portfolio Standard (CEPS) vs. RPS has been proposed by Senator Coleman the Former Senator of Minnesota. In that document, CCS compliments renewable energy and provides that some recognition and incentives should be given to power that lowers CO₂ emissions by utilizing CCS (See attached document).

Conclusion:

Perhaps an economic analysis estimating the monetary benefits associated with the utilization of petroleum coke produced in California and incremental revenues and State royalties to be derived from EOR projects associated with CCS deployment is necessary. A portion of these quantifiable benefits (e.g. utilization of petcoke instead of limited natural gas) and incremental revenue could potentially be utilized to provide the necessary incentives to encourage future CCS deployment in California.

If there is Regulatory interest in analyzing the business issues delineated above, Visage Energy would be willing to work with the select Staff members of the ARB, CEC, CPUC, and industry partners to produce this analysis. This information could then be considered for inclusion within the IPER report.