

August 8, 2013



RE: 12-ALT-02 - 2013 – 2014 Investment Plan Update

I would like to thank the staff of California Energy Commission for not only their time and dedication, but for the excellent work trying to provide the most complete and accurate assessments for the various fuel markets. Vopak has been in communication the past few years with staff, particularly Gordon Schemp, Tim Olson and Jim McKinney, and their supporting teams. Through their transparency and knowledge we have been able to achieve a better understanding of many different fuel markets and the product flows within those markets. The CEC staff has proven to be a valuable resource for our company and we hope that we have been of some value to CEC staff by sharing results of our internal and independent market studies.

Allow me to briefly tell you about Vopak. Vopak is the world leader in liquid bulk storage with an unmatched network of 84 terminals in 31 countries. We study product flows to determine where to build or add capacity in our global terminal network. In California Vopak operates 3 terminals within the Port of Los Angeles and the Port of Long Beach.

That brings me to my comments today involving the ethanol market in California. In 2010, we contracted with Stillman and Associates to study the effects of the Low Carbon Fuel Standard (LCFS) on the liquid bulk storage industry in Southern California. The LCFS was implemented to achieve a minimum of 10 percent reduction in the carbon intensity of California's transportation fuels by 2020. The study concluded that in order to achieve this goal, obligated parties of the regulation will have to blend transportation fuels with biofuels assigned with lower carbon intensity values. The study found Brazilian sugarcane ethanol would be key to the ability of California obligated parties to meet their requirements under the LCFS in the early years of its implementation. This type of ethanol that is most likely to come to California has a CI of 58.40, by far the lowest CI of any alternative transportation fuel currently available on a wide commercial scale. In comparison, the CI scores of corn ethanol are almost entirely in the range of 80's to 90's.

Vopak conducted its own internal study of the ethanol market in late 2011. That study was complete in September 2012 and we shared and discussed our findings with CEC staff in November 2012 at the CEC office. Vopak's study of the ethanol market sought to determine if the anticipated ethanol trade with Brazil warranted additional marine storage capacity in the Southern California region. The data showed that the LCFS created an additional demand for

lower CI ethanol above the RFS2 requirements. This ethanol would most likely be supplied from Brazil via all water routes to California or by unit train from Brazil to Houston and then by unit train to California. The all-water route proved to be more cost effective by \$4-8 per metric ton if storage was available at \$1.50 per barrel. Additionally, ethanol deliveries from the West Coast of South America had an even more significant cost advantage of approximately \$28 per metric ton.

A large increase in the demand for Brazilian-based sugarcane ethanol will take place over the next several years. The current marine-based storage infrastructure in California will be insufficient in handling these increased volumes; the state must expand its storage terminal infrastructure to help achieve the goals of the LCFS. Our study concluded that over 1,000,000 barrels of additional ethanol storage would be required to meet the mandates of the LCFS.

Last November Mike LaCavera (General Manager Vopak West Coast) and I accompanied Mayor Villaraigosa on a trade mission to Brazil. We met with members of the Brazilian Sugarcane Industry Association (UNICA) to discuss the future marine storage needs for ethanol exports. We continue to work with all UNICA members to bring the Brazilian ethanol trade flow into our Southern California terminals. We currently have 140,000 barrels of Brazilian sugar cane ethanol storage at our Long Beach terminal. We have been in discussions with both the Port of Los Angeles and the Port of Long Beach on expansion plans for additional ethanol storage and have begun working to permit existing tanks for ethanol storage.

We know from discussions with the UNICA members, California Air Resources Board staff, the CEC and obligated parties that there are many Brazilian ethanol producers interested in selling ethanol in California. There are already three Brazilian ethanol fuel pathways in the CARB LCFS look-up table, and we are aware of at least one Brazilian cellulosic ethanol producer that intends to apply for a new fuel pathway certification this year for the first of its planned plants, currently under construction.

From CARB's point of view, it's highly desirable that high volumes of Brazilian sugarcane ethanol are shipped to and sold in California over the next several years until other sources of low-carbon biofuels are commercially available in California. It's similarly desirable for the EPA, with its RFS2 requirements, since sugarcane ethanol is defined as an "advanced biofuel" under the Energy Independence and Security Act of 2007.

Last year Vopak applied for funding through the CEC Investment Plan under AB118, the Alternative and Renewable Fuel and Vehicle Technology Investment Program. The Commission has already recognized the need to provide funds for upstream biodiesel infrastructure because of its infrastructure requirements. Similarly, the CEC has already recognized the need for infrastructure grants relating to gasoline substitutes through E85 fueling infrastructure funding.

We now need upstream gasoline substitutes' infrastructure at the point of entry into California. Marine infrastructure to facilitate compliance with the LCFS is essential for the success of the LCFS. Vopak still holds hope that the CEC would look at some funding for ethanol projects in the 2014-2015 investment plan.

We look forward to working with the CEC in helping the state and industry achieve its greenhouse gas emissions goals by providing the infrastructure needed to meet the LCFS requirements. We appreciate the efforts of staff and the time of the Commission, we thank the CEC for accepting our comments today and welcome future discussions, workshops and hearings on this matter.

Very Truly Yours,

Anthony Santich

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