



Air Resources Board



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TO: Mary D. Nichols
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FROM: Richard W. Corey
Executive Officer

DATE: May 13, 2015

SUBJECT: SECOND ADVISORY PANEL REVIEW OF THE LOW CARBON FUEL
STANDARD PROGRAM

This memorandum and attached transcript serve as the second Advisory Panel review of the implementation of the Low Carbon Fuel Standard (LCFS) program, as required under Section 95489 of the LCFS regulation (Cal. Code Regs., tit. 17, § 95489). The report is the second of two formal reviews of the LCFS program that the Executive Officer is required to conduct in consultation with the LCFS Advisory Panel. The first report, Low Carbon Fuel Standard 2011 Program Review Report,¹ published in December 2011, includes results of the first mandatory program review.

The timing of this second review was prescribed by the existing LCFS regulation. The program review is not directly related to development of the new proposed LCFS regulation, but the review coincidentally occurred during the time staff was developing the new LCFS proposal. As a consequence, the Advisory Panel did not focus entirely on implementation of the existing LCFS, but also heard presentations about the proposed regulation and weighed in on what staff said might be included in the proposal. This meant that staff was able to consider input by members of the Advisory Panel as staff developed the new LCFS proposal last year.

As you know, the Air Resources Board (ARB or Board) held its first hearing on the new LCFS proposal in February 2015 and is tentatively scheduled to consider the proposed regulation for adoption in July 2015. The proposed regulation includes a suite of enhancements to provide a stronger signal for investments in and production of the

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http://www.arb.ca.gov/fuels/lcfs/workgroups/advisorypanel/20111208_LCFS%20program%20review%20report_final.pdf

The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our website: <http://www.arb.ca.gov>.

California Environmental Protection Agency

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cleanest fuels, offer additional flexibility, update critical technical information, and provide for improved efficiency and enforcement of the regulation.

The Board approved the original LCFS regulation in 2009 with the goal of reducing greenhouse gas emissions by achieving a ten percent reduction in the carbon intensity of transportation fuels used in California by 2020. The regulation became effective on April 15, 2010. It has been over five years since the Board's original action, and the core principles and policies of the LCFS regulation remain valid. Since the regulation went into effect, regulated parties have successfully operated under the LCFS program (see *Attachment A – The Low Carbon Fuel Standard is Being Successfully Implemented*). In short, the LCFS is working as designed and intended.

On July 15, 2013, the State of California Court of Appeal, Fifth Appellate District (Court) issued its opinion in *POET, LLC v. California Air Resources Board* (2013) 218 Cal.App.4th 681. The Court held that the LCFS would remain in effect and that ARB could continue to implement and enforce the 2013 regulatory standards while it took steps to cure California Environmental Quality Act and Administrative Procedure Act issues associated with the original adoption of the regulation.

The original regulation required the creation of an Advisory Panel to discuss and provide input on program implementation. The work of the Panel is to provide high level review of the rule and not to duplicate the efforts of other expert workgroups. The Advisory Panel includes representatives from the California Energy Commission; the California Public Utilities Commission; fuel providers; storage and distribution infrastructure owner/operators; consumers; engine and vehicle manufacturers; environmental justice organizations; environmental groups; academic institutions; public health entities; and other stakeholders and government agencies (see *Attachment B – 2014 Low Carbon Fuel Standard Advisory Panel Members*). The LCFS regulation requires the Panel to provide reports to the Board in 2012 and 2014. The 2014 Advisory Panel was in a unique position to contribute to efforts already underway to re-adopt the LCFS regulation.

The Advisory Panel met twice in 2014, on May 19 and October 6. At each meeting, the Panel focused on high-level discussions regarding analyses and assessments of the regulation. The Panel covered a range of topics that are specified in the regulation to be considered as part of the program review, including:

- Progress against targets.
- Adjustments to the compliance schedule, if needed.
- Advances in full, fuel-lifecycle assessment.

- Advances in fuels and production technologies, including feasibility and cost-effectiveness of advances.
- Availability and use of ultralow carbon fuels, advisability of establishing mechanisms to incentivize the use of higher volumes of these fuels.
- Assessment of supply availabilities and rates of commercialization of fuels and vehicles.
- Program's impact on State's fuel supplies.
- Impact on State revenues, consumers, economic growth.
- Analysis of public health impacts at State and local levels in consultation with public health experts.
- Assessment of the air quality impacts associated with the implementation of the LCFS.
- Identification of hurdles or barriers (e.g., permitting issues, infrastructure adequacy, research funds) and recommendations for addressing such hurdles or barriers.
- Significant economic issues, fuel adequacy, reliability, and supply issues, and environmental issues that have arisen.
- Advisability of harmonizing with international, federal, regional, and state LCFS and lifecycle assessments.

All panel meetings were public and complied with the requirements of the Bagley-Keene Open Meeting Act of 2004 and related rules, regulations, and policies. Panel members and the public were able to attend meetings both via telephone and webinar. Meeting materials, such as agendas and presentations, were posted on ARB's web site providing Panel members and the general public with time to review the documents prior to meetings.

Overall, the Panel engaged in thought-provoking conversations and discussed pertinent information to provide a thorough and diverse assessment of the current program. The Panel also provided suggestions for improvements and modifications, which were considered by staff in development of the proposed regulation and Initial Statement of Reasons (published January 2, 2015). Panel members held diverse views about the LCFS program and how it could be improved, and discussions were structured to encourage all input from Panel members rather than to reach consensus or majority recommendations of the Panel as a whole. The Panel focused in particular on the following topics:

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California Fuel Supply Projections

A lively discussion on fuel projection estimates for specific transportation fuels to be used in 2020 provided ARB staff with additional information to use in developing the regulation proposal for re-adoption. The discussion focused on the supply of sugarcane ethanol, cellulosic ethanol, renewable diesel, and natural gas, as well as the uncertainty in projecting fuel estimates.

Providing Stability to the Fuels Industry While Incorporating Best Available Information

Panelists discussed the need for including the most current scientific information in the regulation in a timely manner but also informed ARB staff of industry's need for certainty in the regulation. The discussion focused in part on the carbon intensity values for methane. ARB staff told the Advisory Panel that staff recognized the need to strike a balance between the desire to incorporate new information and at the same time provide stability for fuel providers' investment decisions, and committed to work with stakeholders on this issue.

Quantifying Program Benefits and the Regulation's Role in Incentivizing Investment

The Panel discussed the need for quantifying and publishing the benefits that the LCFS program has achieved so far, including how the program has affected investment in alternative fuel production. The discussion included mention of the regulation's impact on State of California co-funded projects currently in the pilot, early commercial, or expansion state that would not exist without the LCFS program. Some Panel members remarked that the LCFS is the most important driver in incentivizing investment in advanced fuels. Finally, Panelists mentioned that the LCFS is recognized as an important program not just in California, but across the U.S. and internationally, and not just in the fuel sector, but across the carbon abatement community.

Validity of Credits

Panelists asked whether ARB would consider a credit validation program. Citing past issues surrounding fraudulent renewable fuel credits under the federal Renewable Fuel Standard, the Panel asked ARB staff whether regulated parties would be held liable if credits are found to be invalid. The discussion included mention of ARB staff's efforts to

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reconcile reported data for 2011 and 2012, and current efforts to reconcile reported data for 2013. ARB staff said it was supportive of a credit validation program and will continue to pursue additional administrative strategies to ensure program integrity until such a program can be developed. Staff told the Advisory Panel that it did not believe a validation program could be designed in time to include in the 2015 re-adoption of the LCFS.

Cost Containment Strategies

The Panel considered the potential benefits and drawbacks of two approaches to cost containment: a credit window and a credit clearance. While some members of the Panel felt that price setting removes the free market aspect of the LCFS program, other members remarked that transportation fuels are already a regulated market, not a completely free market. Several Panelists commented that the cost containment proposal is reasonable and a desirable component of the regulation.

The LCFS regulation requires staff to present to the Board a report outlining each mandatory LCFS review. This memo summarizes the second review, and the complete transcript of the October 6, 2014 meeting is attached as the report (included on compact disc). Staff chose to transcribe the October meeting for the report because the discussion focused on details of the new LCFS proposal, as opposed to the general concepts presented at the May meeting. Staff is providing the transcript to Board members as documentation of panelists' diverse viewpoints and input in advance of the Board's consideration of the regulation in July.

If you have any questions regarding this update, or would like to further discuss the LCFS, please contact me at (916) 322-7077 or rcorey@arb.ca.gov.

Attachments