

This chapter describes the formation and organization of the 2011 LCFS Advisory Panel (Panel), the Panel's mission, and the process by which the Panel completed its tasks.

## **II. Background on the 2011 LCFS Advisory Panel**

### *A. Introduction*

On April 23, 2009, the California Air Resources Board (ARB or Board) approved the Low Carbon Fuel Standard (LCFS) regulation for adoption. The regulation became effective on April 15, 2010. Section 95489 of the regulation requires the Executive Officer to conduct two reviews of the LCFS program in a public process. These reviews will address a broad range of implementation topics and may include recommended amendments to the regulation. Staff will present the results of these reviews to the Board by January 1, 2012, and January 1, 2015.

To assist with the reviews, the Executive Officer is required to convene an Advisory Panel with which he will consult on the reviews. The regulation specifies that the Panel should include representatives of 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; academia; public health; and other stakeholders and government agencies, as deemed appropriate by the Executive Officer.

Staff initiated the process by soliciting prospective panelists in a process that included distributing a notice<sup>1</sup> via the "LCFS" and "fuels" listserves and posting the application for the Panel on ARB's LCFS public web page. About 60 applications were submitted by various stakeholders. ARB staff recommended prospective panelists based on several factors, including experience of the applicant, the organizations represented in order to establish a broad base of representation, and supporting documentation such as letters of recommendation. Staff recommendations were shared with the Executive Officer and interested Board members before being finalized. Thirty nine stakeholders were ultimately selected for the Panel, along with four alternative members.

Over the course of a year, the Panel met a total of five times, with three of those meetings spanning two days. During these meetings, the Panel was presented with a range of materials that included agendas, outlines, draft chapters, and presentations made by individual panelists that reflected their perspectives. These materials were made available to the public on the LCFS Advisory Panel webpage,<sup>2</sup> and the meetings could be attended by any interested party via teleconference or webinar. After the meetings, panelists and the public were given anywhere from one to three weeks to provide written comments on materials presented; the comments received were posted on the LCFS Advisory Panel webpage for public review.

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<sup>1</sup> [http://www.arb.ca.gov/fuels/lcfs/workgroups/advisorypanel/082310advisory\\_panel\\_invitation.pdf](http://www.arb.ca.gov/fuels/lcfs/workgroups/advisorypanel/082310advisory_panel_invitation.pdf).

<sup>2</sup> <http://www.arb.ca.gov/fuels/lcfs/workgroups/advisorypanel/advisorypanel.htm>.

The final report represents a compilation of staff recommendations, panelist recommendations, and a summary of the range of panelist opinions based on the topics outlined in the regulation.

*B. Panel Composition*

As specified in the regulation, the Panel was comprised of representatives from the California Energy Commission; the California Public Utilities Commission; fuel providers; storage and distribution infrastructure owners/operators; consumers; engine and vehicle manufacturers; environmental justice organizations; environmental groups; academia; public health; and other stakeholders and government agencies, as deemed appropriate by the Executive Officer.

Following a solicitation for Panel participants, interested organizations and individuals submitted applications, curricula vitae, and letters of recommendation. With input from Board members, ARB staff selected the panelists from the application pool with expertise in the areas to be reviewed.

Members of the Panel, including their affiliation, are shown on the LCFS Advisory Panel webpage previously noted.<sup>3</sup>

*C. Public Involvement*

As noted, all Panel meetings were open to the public, and appropriate time periods were set aside for members of the general public to speak. Further, stakeholders were encouraged to submit written comments through the Panel's website noted previously.

ARB staff developed a report of findings with recommendations based on panelist and public feedback. This report includes not only staff recommendations but also panelists' recommendations and, when appropriate, a spectrum of panelist opinions on the range of topics covered by the review. This review process provided staff with invaluable insight on how the LCFS program is moving forward and elements that could be strengthened to improve and secure the longevity and the benefits of the LCFS.

*D. Scope of Work*

The Panel discussed and provided input on issues focusing on the implementation of the LCFS. Specifically, section 95489(a) of the regulation defines the minimum scope of the two required program reviews. Each review is to include the following topics:

- (1) The LCFS program's progress against LCFS targets;
- (2) Adjustments to the compliance schedule, if needed;
- (3) Advances in full, fuel-lifecycle assessments;
- (4) Advances in fuels and production technologies, including the feasibility

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<sup>3</sup> Panelists are listed in <http://www.arb.ca.gov/fuels/lcfs/workgroups/advisorypanel/membersv.4.pdf>.

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- and cost-effectiveness of such advances;
- (5) The availability and use of ultralow carbon fuels to achieve the LCFS standards and advisability of establishing additional mechanisms to incentivize the use of higher volumes of these fuels;
  - (6) An assessment of supply availabilities and the rates of commercialization of fuels and vehicles;
  - (7) The LCFS program's impact on the State's fuel supplies;
  - (8) The LCFS program's impact on State revenues, consumers, and economic growth;
  - (9) An analysis of the public health impacts of the LCFS at the state and local level, including the impacts of local infrastructure or fuel production facilities in place or under development to deliver low carbon fuels, using an ARB approved method of analysis developed in consultation with public health experts from academia and other government agencies;
  - (10) An assessment of the air quality impacts on California associated with the implementation of the LCFS; whether the use of the fuel in the State will affect progress towards achieving State or federal air quality standards, or result in any significant changes in toxic air contaminant emissions; and recommendations for mitigation measures to address any adverse air quality impacts identified;
  - (11) Identification of hurdles or barriers (e.g., permitting issues, infrastructure adequacy, research funds) and recommendations for addressing such hurdles or barriers;
  - (12) Significant economic issues; fuel adequacy, reliability, and supply issues; and environmental issues that have arisen; and
  - (13) The advisability of harmonizing with international, federal, regional, and state LCFS and lifecycle assessments.

The Panel provided comments and feedback to ARB staff for incorporation into this report. Along with the staff's assessment, the report includes Panel findings and recommendations to the degree that there was general agreement on an issue. In order to ensure that the range of viewpoints on any particular subject were adequately represented, ARB staff provided panelists with several opportunities to provide edits and feedback on all documents for which comments were solicited.

The regulation required ARB staff to evaluate the above topics and to solicit the Panel to participate in the review by commenting on the staff evaluations. Based on discussions with the Panel during the first meeting, staff added two additional topics, High Carbon Intensity Crude Oil (HCICO) and credit trading, to the list of 13 that were required to be included in this review.

Though there were 15 topics covered under the 2011 program review, there are several workgroups predating the Panel that helped to inform the Panel by providing data, technical details, and recommendations during the review process. These workgroups<sup>4</sup> included:

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<sup>4</sup> See <http://www.arb.ca.gov/fuels/lcfs/workgroups/workgroups.htm>.

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- High Carbon Intensity Crude Oil Workgroup;
- Sustainability Workgroup;
- Biorefinery Siting Workgroup;
- LCFS Reporting Tool Workgroup;
- LCFS LUC Expert Workgroup; and
- LCFS Electricity Workgroup.

To the extent feasible, the findings from these and other LCFS workgroups have been incorporated into the review report that was considered by the Panel.

At its kick-off meeting, the Panel discussed its charge and overall priorities. This discussion was used to further focus the Panel's work.

### *E. Report Structure*

As noted, the regulation calls out various areas for program review, many of which overlap in some way. Because of this overlap, the report has been structured to group similar and related topics together. In some cases, where a topic calls out several different broad ideas, those have been split and addressed separately in the appropriate sections of the report. Each chapter begins with a description of the topics that are addressed in the chapter, reciting the regulatory text for a clearer understanding of what can be found in each chapter.

As appropriate, each chapter provides a review of ARB staff's original work from the 2009 rulemaking. This includes both the conclusions that staff reached for a particular subject matter and the rationale behind those conclusions. The chapter then discusses how the panelists and staff proceeded to review the topic, identifies new conclusions that can be drawn from the work of staff and panelists, and notes recommendations from the staff and panelists for moving forward. In many cases, this 2011 program review occurred so early in the LCFS program that there are not enough empirical data to properly assess the topic. In these cases, staff and panelists have worked together to qualitatively assess the progress to the extent feasible and then discussed what further steps would be taken for later reviews in order to assess further the progress of the program.

### *F. Advisory Panel Structure*

#### *1. Overall Structure*

Mr. Richard Corey, Chief of the Stationary Source Division, Air Resources Board, served as Chair of the Panel, with Michelle Buffington acting as Co-Chair. A professional facilitator was brought in to run the meetings. With input from the Chair, the facilitator helped prepare meeting agendas, prepare minutes, and assist with report preparation. In addition to the panelists, outside experts were invited to particular

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meetings to provide information that may be useful to the Panel in developing its comments.

Staff established a model for releasing information to the Panel as follows:

- Draft outlines were distributed at least one week prior to a Panel meeting.
- During the meeting, panelists had open periods of time where they could discuss additions or modifications to the outline. In some cases, panelists offered their own expertise to help support or refute details contained in the outlines. In addition to comment periods built into the meetings, staff also provided a public comment website where both panelists and the public could submit written comments.
- Depending on the degree of panelist participation, some topics warranted an additional sub-workgroup to be formed. Some of these workgroups were led by ARB staff (e.g., economics workgroup, credit trading workgroup). On the other hand, some panelists formed their own workgroups, which then provided reports back to the Panel. Such reports then helped to inform various chapters of the staff report (e.g., the independent work on investments, advisability of including a flexible compliance alternative).
- From these outlines and panelists' work products, draft chapters were written and presented to the Panel.
- Panelists were given time to comment both during the meeting (if the chapter was presented during a meeting) and through the public comment website.
- These draft chapters were then included in the complete draft report that was distributed two weeks before the Panel's October meeting; this was done to provide the Panel with a final opportunity to comment before the report was submitted to the Board in December 2011.

### 2. *Panel Meetings*

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.<sup>5</sup> The Panel met five times in an effort to review staff's analyses and develop its recommendations for consideration by the Board. Several of these meetings were two days long, as requested by panelists during the first meeting. Panel members and the public could attend the meetings both via telephone and webinar. Meeting materials (e.g., meeting agendas, meeting summaries, presentations, documents to be reviewed) were posted on ARB's web site in a timely fashion, which provided Panel members and the general public with ample time to review the documents prior to the meetings. The meetings focused on high-level discussions regarding staff's analyses/assessments of specific topics called out in the regulation, as well as the work that other panelists were contributing for the report.

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<sup>5</sup> See "A Handy Guide to The Bagley-Keene Open Meeting Act 2004," which is available at [http://www.arb.ca.gov/fuels/lcfs/workgroups/ewg/hg\\_ca\\_open\\_meetings\\_act.pdf](http://www.arb.ca.gov/fuels/lcfs/workgroups/ewg/hg_ca_open_meetings_act.pdf).

G. *Summary*

This Panel provided input in the form of expert opinions, data, white papers, and presentations for staff to complete the 2011 review of the LCFS regulation. With this information and information that staff gathered, staff prepared a report that covers details of how the panelists and staff proceeded to review the topic, new conclusions that can be drawn from the work of staff and panelists, and recommendations from the staff and panelists for moving forward. In those cases where there was insufficient information to make quantitative conclusions about the program (due to its infancy), staff and panelists have worked together to qualitatively assess the progress to date. We then collaborated on a discussion of further steps that could be taken to assess the progress of the program in a later review.