

Public Meeting to Discuss LCFS Review Progress

July 25, 2011

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Agenda

- **Background on Panel**
- **Progress of Panel**
- **Summary and Next Steps**
- **Public Comments**

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Background

- **CA legislature adopts Global Warming Solutions Act (AB 32) in 2006**
- **Board passes LCFS April 2009**
 - Title 17, CCR, section 95480 et seq.
- **LCFS Board resolution includes mandated regulation reviews**
 - Title 17, CCR, section 95489

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Advisory Panel and Review are Regulatory Requirements

- **Executive Officer to conduct two reviews**
- **Required to convene an Advisory Panel**
- **Reviews will address a broad range of topics**
- **May include recommended amendments**
- **Reviews to the Board by January 1, 2012, and January 1, 2015**

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Program Review and Advisory Panel

- **Suggested in public comments during 45-day comment period for LCFS Board hearing**
 - At least two triennial reviews
 - Convene advisory panel
 - Enumerated list of program areas to review
- **Staff proposed at hearing and Board approved 15-day changes**
 - Two reviews in 2012 and 2015
 - Convene advisory panel, specified representation
 - Expanded list of program areas to review

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Scope of Review

- **Generally high level**
- **Not duplicative of workgroup efforts**
- **LCFS Workgroups:**
 - High Carbon Intensity Crude Oil Workgroup
 - Sustainability Workgroup
 - Biorefinery Siting Workgroup
 - LCFS Reporting Tool Workgroup
 - LCFS Electricity Workgroup

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15 Topic Areas of Review

- **Progress against LCFS targets**
- **Impact on State revenues, consumers, and economic growth**
- **Analysis of the public health and environmental impacts of the LCFS at the state and local level**
- **Potential issues with fuel adequacy, reliability, and supply**

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Panel Composition

- **Solicited applications through list serves**
- **Panel members include representatives of:**
 - **Government Agencies**
 - **Fuels Industry**
 - **Academia**
 - **Environmental Groups**
 - **Others**

Full list of members at:
<http://www.arb.ca.gov/fuels/lcfs/workgroups/advisorypanel/advisorypanel.htm>

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Panel Purpose

- Provide input for staff review of LCFS regulation
- Provide resources where necessary and available
- Suggest areas of improvement for the LCFS
- Provide key perspectives, and help ensure successful implementation of LCFS

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Workflow

Staff developed workplan, included panelist comments

Staff/Panelists generate outline topic papers

Panel/Public Review Period

Present to Panel for discussion and comments

Panel/Public Review Period

Draft of paper for final report sent to Panel for initial review

Panel/Public Review Period

Finalize paper, incorporate into report/present to Board

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Meeting Dates

Meeting	Activity
February 16, 2011	Advisory Panel Meeting
April 26, 2011	Advisory Panel Meeting
June 30 & July 1, 2011	Advisory Panel Meeting
July 25, 2011	Public Update
August 25 & 26, 2011	Advisory Panel Meeting
September 29, 2011	Public Update
October 27, 2011	Advisory Panel Meeting
December 8 & 9, 2011	Board Meeting

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Topics from February Meeting

- **Background on LCFS**
- **Informal Workplan**
- **Advisory Panel Guidelines**
- **Bagley Keene Review**
- **Updates on Method 2A/2B and Expert Workgroup Summaries**

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Topics from April Meeting

- **Detailed Workplan**
 - Included two additional topics, credit market and high carbon intensity crude oil (HCICO)
- **Outline for Technology Assessment Chapter**

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Workplan

- **Developed with panelist input**
- **Poses questions to address the topics called out in the regulation**
- **Developed strategies to answer questions**

*Latest version of the workplan can be found at:

http://www.arb.ca.gov/fuels/lcfs/workgroups/advisorypanel/20110616_workplan_v2.pdf

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Technology Assessment

- **Assessment of the current state of transportation fuel production technologies (Topic 4)**
- **Private investment in advanced biofuels**
- **Government investment in advanced fuels**
- **Discussion on the topic of “ultralow carbon fuels” (Topic 5)**
- **Draft chapter presented at June meeting**

Latest version of the chapter can be found at:

http://www.arb.ca.gov/fuels/lcfs/workgroups/advisorypanel/20110630_chapter4_technology_draft.pdf

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Topics from June Meeting

- **Outlines**
 - **Supply and Availability**
 - **Economic Impacts**
 - **Environmental Impacts**
 - **Credit Market**
 - **High Carbon Intensity Crude Oil (HCICO)**
 - **Technology Assessment Chapter**
 - **Included additional panelist outline on investment**
- <http://www.arb.ca.gov/fuels/lcfs/workgroups/advisorypanel/20110630E2Outline.pdf>
- **Panelist Presentations**

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Supply and Availability

- **Outline includes:**
 - **Supply and commercialization of transportation fuels**
 - **Supply and commercialization of infrastructure**
 - **Supply and commercialization of vehicles**
 - **Potential future demands for fuels**
 - **LCFS impact on supplies**
 - **Ability to meet the demands of the LCFS**
- **Draft chapter will be released before August meeting**

Latest version of the outline can be found at:

http://www.arb.ca.gov/fuels/lcfs/workgroups/advisorypanel/20110630_SupplyOutline_v2.pdf

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Panel Presentation on Supply and Availability

- **Western State Petroleum Association (WPSA) presented an illustrative example of potential non-compliance with the LCFS**
- **Prompted rigorous discussion amongst panelists**
- **Staff have solicited additional compliance scenarios from all panelists**

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Economic Analysis

- **Outline includes:**
 - Summary of the 2009 economic analysis
 - Updates to the cost-effectiveness of LCFS
 - Impacts on the state economy
- **Several panelists directly involved in the development of the analysis**
- **Draft chapter will be released before August meeting**

Latest version of the outline can be found at:

http://www.arb.ca.gov/fuels/lcfs/workgroups/advisorypanel/20110630_topic8&12_outline.pdf

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Environmental Analysis

- **Outline includes:**
 - A review of 2009 environmental impacts analysis
 - Discussion on multimedia evaluations
 - Staff's proposed review process for CEQA documents
 - Summary of the biorefinery siting guidance document
 - Discussion of any new impacts since 2009
- **Draft chapter will be released before August meeting**

Latest version of the outline can be found at:

http://www.arb.ca.gov/fuels/lcfs/workgroups/advisorypanel/20110630_topic9_outline.pdf

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Credit Market

- **Outline includes discussions on:**
 - Role of market
 - Role of ARB
 - Transparency
 - Monitoring
 - Ways to ensure long-lasting robust trading market
 - Summary of potential regulatory options
- **Due to regulatory amendments, draft chapter may be available by October**

Latest version of the outline can be found at:

http://www.arb.ca.gov/fuels/lcfs/workgroups/advisorypanel/20110630_Topic15_outline_v8.pdf

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High Carbon Intensity Crude Oil

- **Outline includes:**
 - Background on HCICO
 - Review of current HCICO provisions
 - A summary of 5 potential approaches to including HCICO in regulation
 - Discussion of these alternative approaches
- **Due to regulatory amendments, draft chapter may be available by October**

Latest version of the outline can be found at:

http://www.arb.ca.gov/fuels/lcfs/workgroups/advisorypanel/20110630_topic14_outline.pdf

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Panelist Presentations on HCICO

- **Skip York, Vice President of Wood MacKenzie**
 - Presented work completed for WSPA
 - Presentation can be found here:
http://www.arb.ca.gov/fuels/lcfs/workgroups/advisorypanel/20110630Wood_Mackenzie.pdf
- **Simon Mui, Scientist at National Resources Defense Council**
 - Presentation can be found here:
<http://www.arb.ca.gov/fuels/lcfs/workgroups/advisorypanel/20110630NRDC.pdf>

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Topics for August Meeting

- **Outlines include:**
 - Other Government Programs and Harmonization
 - Lifecycle Assessment
 - Meeting the Targets and Compliance Schedule
- **Draft chapters may include:**
 - Environmental Impacts
 - Economic Analysis
 - Supply and Availability

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Panel Deadlines

- **Draft report completed for panel review in October**
- **Report due to Board in December 2011**

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Next Steps

- **August Meeting**
 - **August 25 and 26, 2011**
 - **Time: TBD**
 - **Coastal Hearing Room**
 - **Will send out a reminder regarding attendance at the beginning of August**

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Public Comments

You can submit your comments on this meeting to the following website:

http://www.arb.ca.gov/lispub/comm2/bcsubform.php?listname=lcfsadvisorypanel-ws&comm_period=1

Please submit your comments by August 15, 2011.

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