

Low Carbon Fuel Standard Compliance and Enforcement Working Group Meeting

October 4, 2007

California Environmental Protection Agency



Air Resources Board

Agenda

- Introduction
- Working Group Objectives
- Staff Presentation
- Group Discussion
- Future Meetings

Objectives

- Develop a carbon intensity accounting methodology
- Establish a tracking and reporting system
- Certification/auditing process
- Compliance and penalties

Background

Similar Initiatives in US and Europe

- U.S. EPA Renewable Fuel Standard (RFS)
- UK Renewable Transportation Fuel Obligation (RTFO)

Compliance and Enforcement Requirements in US EPA Renewable Fuel Standard (RFS)

- Apply to renewable fuel (produced from plant/animal products or wastes)
- Generate renewable identification number (RIN) and report to EPA
- Attest engagement to verify the accuracy of RIN reports
- Product transfer documents (PTDs) to ensure traceable transactions of renewable fuels
- Liabilities and Penalties

Compliance and Enforcement Requirements in UK Renewable Transportation Fuel Obligation (RTFO)

- Apply to biofuel
- Renewable transportation fuel certificates (RTFC)
- Carbon accounting methodology/tool
- Evidence of land use
- Biofuel sustainability reporting
- Independent verification

Compliance and Enforcement Recommendations in UC LCFS Reports

- Apply to all transportation fuels (liquid, gaseous fuels, and electricity, etc.), including bio and renewable fuels.
- Lifecycle based default and opt in system for the carbon intensity of fuels
- Third party certification/auditing
- Allow compliance by paying a fee
- High penalties for willfully misreporting data

Comparison

	EPA RFS	UK RTFO	UC LCFS Recomm'd.
Scope	Renewable fuels	Bio fuels	All transportation fuels
Major component	RIN	RTFC	GHG intensity
Carbon accounting	N/A	A combination of verified process data and default values	Default & opt in system
Certification	Attest engagement	Independent verification	Third party auditing
Tracking	PTD	Chain of custody	Chain of custody
Compliance	Civil penalties	Buy out price	Pay fee/penalties

Potential Carbon Intensity Accounting Methodology

- Based on WTW lifecycle analysis
- Easy to use
- Cover a wide range of fuel pathways
- A default and opt in system
- Allow for trading and banking mechanism

Potential Compliance Report

- Fuel type
- Fuel feedstock
- Feedstock origin
- Volume of fuel
- Carbon intensity (gCO₂e/MJ)
- Impact of land use change
- Accuracy level

Tracking and Reporting System Considerations

- What to report?
- When to report? (monthly?)
- Create appropriate chain of custody
- Recordkeeping

Certification/Auditing Process

- Periodical certification
- Random auditing
- Inspection?
- Protocols to verify the accuracy of claimed credits
 - Carbon intensity
 - Evidence of land use
 - Chain of Custody

Open Discussion

Future Meetings

- Frequency of meetings
- Dates/Times
- Tentative Agenda

For More Information

- Contact us:

Jing Yuan, Ph.D.

(916)322-8875; jyuan@arb.ca.gov

Wei Li, Ph.D.

(916)323-2790; wli@arb.ca.gov

- Visit our website at:

<http://www.arb.ca.gov/fuels/lcfs/lcfs.htm>