

# **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

	<b>EPA RFS</b>	<b>UK RTFO</b>	<b>UC LCFS Recomm'd.</b>
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 (gCO<sub>2</sub>e/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

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