

# **Low Carbon Fuel Standard Compliance and Enforcement Working Group 2 Meeting**

**January 7, 2008**

California Environmental Protection Agency

---



**Air Resources Board**

# Agenda

- Introduction
- Summary of Last Meeting
- What We Have Learned
- Federal Energy Act
- Staff Updated Recommendation
- Policy Issue: Fuel vs. RINs
- Next Meeting

# Summary of Last Meeting

(Dec. 13, 2007)

- Structure of RIN
- ARB Approaches
- Stakeholder Presentations

# Structure of RIN

- RIN is a 38-character numeric code generated by producers/importers

KYYYYCCCCFFFFFFBBBBRRDSSSSSSSSSEEEEEEEEE

K = RIN assignment code (1=assigned, 2=unassigned)

YYYY = Year batch is produced/imported (when it leaves the facility)

CCCC = Company registration ID

FFFFFF = Facility registration ID

BBBBB = Producer assigned batch number

RR = Equivalence Value for the renewable fuel

D = Renewable type code (1=cellulosic; 2=non-cellulosic)

SSSSSSSS = RIN Block Starting Number

EEEEEEEE = RIN Block Ending Number

# Problems of Applying Current RINs to LCFS

(Dec. 13, 2007)

- Fuel type, feedstock, and feedstock origin are not explicitly indicated in the RIN
- Any party is allowed to transfer fuel without assigned RINs, or with a different number of assigned RINs than were received with fuel

# ARB Approaches

- Staff had proposed (Dec. 13, 2007):
  - Adding extra digits to RIN
  - Adding more information on PTD
- Staff are now thinking:
  - Coordinate with U.S. EPA
  - Work with federal RIN system

# Stakeholder Presentations

(Dec. 13, 2007)

## ■ Valero

- Introduction of RIN
- Ethanol plant feedstock market
- Ethanol market
- Using RINs for LCFS compliance

## ■ Lawrence Livermore National Lab

- Determine bio-carbon content of transportation fuels by carbon-14 analysis

# What We Have Learned from Stakeholder Inputs

- Biofuel Is Fungible
- RINs Are Fungible



# Biofuel Feedstock is Fungible

- Biofuel feedstock market is fungible, field or farm specific feedstock is not segregable.
- Facility ID in RIN could identify fuel type, feedstock, and processing characteristics.

# Biofuel Is Fungible

- Current biofuel market is largely fungible
  - Producer → Marketer A → Marketer B ...  
→ Obligated Party
  - Ethanol commingled at truck racks, rail cars, terminals

# RINs Are Fungible

- Transfer of RIN differs from transfer of custody
  - Biofuel custody transfer
  - Biofuel title (ownership) transfer
  - RIN moves only with title transfer

# Requesting additional tracking beyond RIN is difficult

- Disrupt the biofuel market
- Limit the market fungibility
- Increase biofuel costs
- Decrease biofuel transport capacity
- Result in biofuel shuffling

# Federal Energy Act of 2007

- Federal *Energy Independence and Security Act of 2007* was in place on Dec.19, 2007
- Volume requirement of renewable fuel (by 2022)
  - Renewable fuel: 36 billion gal
    - Advanced renewable fuel: 21 billion gal
      - Cellulosic biofuel: 16 billion gal
- At least 20% GHG reductions from renewable fuel produced by new facility

# Impact of Federal Energy Act

- U.S. EPA now focuses on 2<sup>nd</sup> phase of Renewable Fuel Standard (RFS2) rulemaking
  - Emphasizing on tracking of the increased volume of renewable fuels
  - Timeline: end of 2008
- GHG emission accounting is on hold in RFS2

# Staff Updated Recommendation

- Work with federal RIN system

# Basic Reasons

- Many challenges with the proposed approaches (Dec. 13, 2007) have been identified
- Great changes are occurring on RIN (RFS2)
- Good time for ARB to work with U.S. EPA to make sure the changes in RIN in favor of LCFS



# Updated Recommendation: Fuel Type, Feedstock & Origin Issue

- Obtain renewable fuel facility registration data from U.S. EPA
- Request facilities that process multiple feedstocks provide additional information to segregate
- Develop renewable fuel facility specific default values
  - Fuel type
  - Feedstock
  - Processing characteristics
- Make feedstock origin default values independent with facility

# Policy Issue: Fuel vs. RINs

- Does all of the renewable fuel used to comply with LCFS need to be physically in CA?
- Or, is only the LCFS credit (RIN) required to be used in CA?

# Policy Issue: Fuel vs. RINs, Cont'd

## ■ Require RINs, but not fuel to come to CA

### – Pros

- Would not waste energy and increase GHG transporting the fuel to California
- Works with the existing RFS distribution system, fuel is still fungible
- Minimizes market disruption and save renewable fuel costs
- Through market force, LCFS should incent more production of low carbon intensity biofuel

### – Cons

- Tracking and enforcement is more difficult
- Potential double counting of GHG benefits with other federal, state and local programs
- Potentially lose the synergy of having multiple low carbon fuel production facilities in California

# Open Discussion

# Next Meeting

- Dates: Feb. 13, 2008
- Time: 1:30pm – 4:30pm
- Location: Cal/EPA Building – Room CR550  
1001 I St. – Sacramento – CA 95814

# For More Information

## ■ Contact us:

Jing Yuan, Ph.D.

(916)322-8875; [jyuan@arb.ca.gov](mailto:jyuan@arb.ca.gov)

## ■ Visit our website at:

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