

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 2nd 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

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