

Proposed Framework for the LCFS Monitoring and Verification Program

March 8, 2016
Sacramento, CA

California Environmental Protection Agency
 **Air Resources Board**

Outline



- Background
- Existing GHG Verification Programs
- Proposed Oversight Structure
- Potential Scope of Monitoring and Verification
- Current Activities
- Rulemaking Schedule
- Next Steps

Key Messages From This Morning

- LCFS is transforming the transportation fuels pool
- LCFS is establishing a robust and dynamic credit market
- LCFS includes international fuel importers

Now is the time for Monitoring and Verification

3

Why is ARB Interested in LCFS Monitoring, Reporting and Verification?

- Program integrity and durability
- Safeguard against fraud
- Buyer confidence within LCFS credit market
- Pathway evaluation process efficiency
- Pathway carbon accounting and reporting accuracy
- Reporting consistency among pathway recipients
- Synergy with other ARB climate change programs

New Biodiesel RIN Fraud Cases

Categories: [Energy](#), [Environment](#), [Climate](#)
 April 2, 2016 - 10:00 AM EDT

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Science & Environment

Carbon credits undercut climate change actions says report

Why are mysterious UK businesses registering to trade carbon in Europe?

'Carrousel' frauds plague European carbon trading markets

Where there's smoke, organized criminal activity is said to be "underpinning the credibility" of the carbon trading system. [Photo: AP/Wide World](#)

By [Russell Mason](#), City Reporter
 1:57 PM GMT 30 Dec 2015
 41 Comments

The EPA has not yet announced any new provisions, but several such. Based on data from the EPA's annual report on greenhouse gas emissions, the agency said that the amount of carbon credits available in the market is "undercutting" climate change actions, according to a report from the International Energy Agency (IEA).

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4

Examples of Regulatory Programs

- **Cap-and-Trade Mandatory Reporting Regulation (MRR) Verification**
 - Mandatory third-party verification program
 - MRR requires verification of GHG emissions data reports by ARB-accredited verification body
- **Cap-and-Trade Offset Verification Program**
 - Mandatory third-party verification
 - Cap-and-Trade Regulation requires third-party verification of all GHG emission reductions or removal enhancements
- **U.S. EPA Renewable Fuels Standard (RFS) Quality Assurance Program (QAP)**
 - Voluntary third-party assurance program
 - Renewable fuel production audits and RIN verification conducted by independent third-parties via quality assurance plans (QAPs)

5

Examples of Voluntary Programs

- **Climate Action Reserve (Reserve) Verification**
 - Mandatory third-party verification
 - Reserve requires verification by an ISO-accredited and Reserve-approved verification body
- **Forest Stewardship Council (FSC) Certification**
 - Mandatory third-party certification
 - Forest managers/owners seeking FSC Certification hire accredited certification body to conduct process audits

6

Key Considerations for LCFS Monitoring and Verification

- LCFS carbon accounting based on complete life cycle analysis (LCA)
- Fuel carbon intensity (CI, gCO₂e/MJ) - Calculated using the CA-GREET2.0 model
- Large amounts of low CI fuels imported to CA
- CI values adjusted for indirect land use change (iLUC) impacts
- Market-based program in the fuel sector
- Considering chemical analysis to determine feedstock/fuel properties

7

How Does Monitoring and Verification Affect LCFS Credits?

- Ensure data quality when determining CIs and verifying accuracy
- Maintains current "Buyer Beware" policy
- Supports ARB auditing
- Greater transparency for the credit market improves confidence

8

Proposed Oversight Structure

- ARB Accreditation Oversight
- Verification Body Requirements
- Individual Verifier Requirements

9

ARB Accreditation – Proposed

- Verification bodies and individual verifiers must apply to ARB for accreditation prior to program participation
 - Ensures qualified and impartial verification services
- Considering recognition of International Accreditation bodies; Subject to International Accreditation Forum requirements
- LCFS accreditation requirements informed by model systems such as MRR, ANSI, ASI

10

Verification Body – Proposed Requirements

- Must be preapproved by ARB
- Must meet strict conflict of interest (COI) requirements
- Must conform to International Standards – ISO 14064-2, ISO 14064-3, ISO 14065, EN 16214-4, ISO 17025
- Verification services to be conducted by qualified team – Lead verifier, feedstock/fuel specific verifier, financial transactions expert, and independent reviewer
- Require professional liability insurance
- Must notify ARB of verification plan before conducting verifications – Approval of COI, Notice of Verification Services
- Subject to ARB audits

11

Individual Verifier – Proposed Requirements

- Must be accredited to perform LCFS Verifications
- Subject to assessment of material misstatement
- Subject to competency assessment (e.g., minimum requirements, number of years of experience, proper training)
- Service requests must come from ARB approved Verification Body
- Subject to ARB audits

12

Potential Scope of LCFS Monitoring and Verification

- Carbon Intensity
Third-party validation of fuel pathway application CI
Monitoring and third-party verification of approved CI values
- Fuel Volumes
Third-party monitoring and verification of fuel volumes produced and reported
- LCFS Credit Transactions
ARB verification of credit transactions

13

Carbon Intensity

- Audit of LCA parameters (facility location, process configuration, energy use, feedstocks, co-products, transportation distance, finished fuel) by ARB-accredited third-party verifiers to ensure accuracy of CI value
- **Validation:** Initial audit to confirm certification of fuel pathway
- **Verification:** Periodic verification of certified CI
- **Monitoring:** Ongoing monitoring of certified fuel pathway and CI

Feedback Questions/Considerations

- *What substantiating information is needed to confirm accuracy of user defined inputs?*
- *Should staff consider enhanced transparency of documentation (chain of custody of feedstock, fuel, co-products, etc.)?*
- *How to ensure international consistency?*
- *When should verifications occur?*

14

Fuel Volume

- Audit of fuel volumes by ARB-accredited third-party verifiers to ensure accuracy of reported information
 - Reported volumes – Production volume per feedstock, amount of fuel produced for CA, amount of fuel sold to CA
 - Facility operations and production capacity
- **Monitoring and Verification:** Periodic monitoring and verification of fuel volumes

Feedback Questions/Considerations

- *What substantiating information is needed to confirm accuracy of reported fuel volumes?*
- *Is there a need for greater transparency of documentation (chain of custody)?*
- *Any additional considerations for imported fuels?*
- *How to ensure international consistency?*

15

LCFS Credit Transactions

- ARB monitoring and oversight of credit transactions to ensure accuracy of credit transfer agreements to safeguard integrity of LCFS credit market
 - Credit transfers between parties – Agreement and facilitation between seller, buyer, third-party broker
 - Credit market reconciliations

16

Current ARB Activities

- Conduct site visits to fuel production facilities
- Evaluating need for analytical test methods to support verification audits
- Developing detailed internal verification audit protocols
- Evaluating standard data management practices of fuel producers
- Ascertain the typical business transaction documents required to confirm accurate CI value quantification
- Coordinating with other ARB climate change verification systems

17

Transparency

- Staff proposal to consider need for greater documentation transparency
 - Feedstock transfer documents
 - Co-product disposition
- Staff considering appropriate level of monitoring and verification public disclosure
 - Trade secrets
 - Confidential business information

18

Contact Information

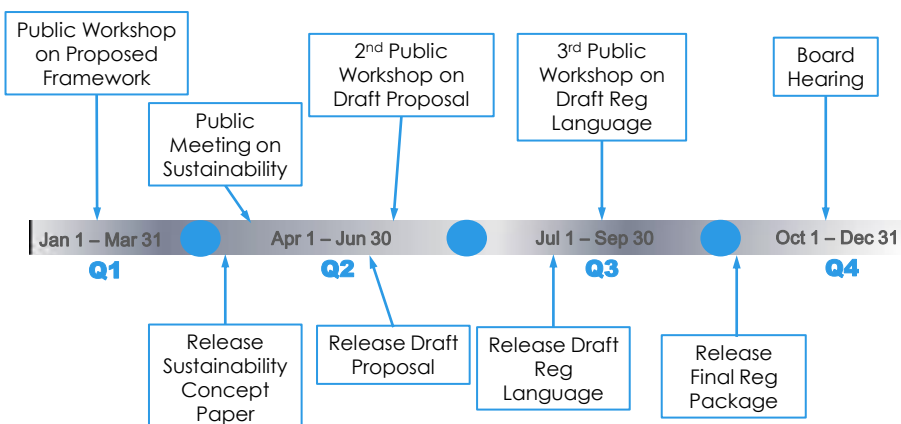
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19

Rulemaking Timeline



20

Next Steps

- Solicit comments
- Review comments and evaluate information received
- Develop Monitoring and Verification proposal
- Present Monitoring and Verification proposal at next workshop

21

More Information

Presentation may be found at

http://www.arb.ca.gov/fuels/lcfs/lcfs_meetings/lcfs_meetings.htm

Please send feedback to Ursula Lai at

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Feedback requested by

March 22, 2016

22

Questions?

THANK YOU