Public Workshop to Discuss Potential LCFS Regulation Revisions Including Addition of Third-Party Verification

Industrial Strategies Division

July 29, 2016
Sacramento, CA

California Environmental Protection Agency
Air Resources Board

Outline

- Pathway Processing Update
- Improving Credit Quality by Optimizing Reporting and Verification for Alternative Fuels
- Harmonizing Reporting/Verification with MRR for Fossil Fuels
- Verification Details for Alternative Fuels
- Other Regulatory Improvements
  - Hydrogen – Monitor compliance with SB1505
  - Know Your Customer Check
  - Innovative Crude Provision
  - Other Changes to Reporting

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Status Update on Processing Fuel Pathways

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Pathway Processing > Reporting &Verification > Fossil Fuel Reporting > Verification Details > Other Regulatory Improvements

Anticipated Pathway Release Dates

Fuels	Anticipated Release Date	CI Effective Date
Ethanol	March 31, 2016	1st quarter 2016
BD/RD	June 30, 2016	2nd quarter 2016
CNG/LNG/L-CNG	**September 30, 2016**	**3rd quarter 2016**
Others	**September 30, 2016**	**3rd quarter 2016**
All Provisional Fuel Pathways	ASAP (and not limited by schedule above)	Quarter certified
New Pathway Applications	4th quarter 2016 and beyond	Quarter certified

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Pathway Processing > Reporting &Verification > Fossil Fuel Reporting > Verification Details > Other Regulatory Improvements

Certified GREET 2.0 Pathways (through Q2, 2016)

Application Type	Recertification		New		Total
Fuel Type	Tier 1	Tier 2	Tier 1	Tier 2	
Ethanol	**73**	**9**	**49**	**0**	**131**
Biodiesel/Renewable Diesel	**22**	**4**	**20**	**2**	**48**
Total	95	13	69	2	**179**

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Status of Pathways to be certified in Q3, 2016

Status	Re-cert		New		Total
	Tier 1	Tier 2	Tier 1	Tier 2	
CNG/LNG/L-CNG					
Completed	21	0	0	0	**21**
In-Progress	30	0	6	0	**36**
Yet to be reviewed	15	3	6	2	**26**
Total	66	3	12	2	**83**
Others					
Completed	0	0	0	0	**0**
In-Progress	0	10	0	0	**10**
Yet to be reviewed	0	0	0	0	**0**
Total	0	10	0	0	**10**

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Pathway Processing > Reporting &Verification > Fossil Fuel Reporting > Verification Details > Other Regulatory Improvements

New Pathways Submitted (after January 31, 2016)

Pathways			Total
	Tier 1	Tier 2	
Ethanol	64	0	**64**
BD/RD	21	0	**21**
CNG/LNG/L-CNG	13	0	**13**
TOTAL	**98**	**0**	**98**

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Potential Regulatory Items

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Improving Credit Quality by Optimizing Reporting and Verification for Alternative Fuels

Goals

- High credit quality – credits match true low carbon fuel use and represent valid emission reductions
- Timely credit issuance – low carbon fuel producers do not experience unnecessary lags between fuel production and monetizing credit value

Considerations

- Buyer's due diligence and impact of visible unique credit IDs (UIDs)
- Reporting requirements
- Verification scope and timing

Can credit quality be improved?

Just One Basic Counterparty Alignment Example:

2015 LCFS Misaligned Reporting

Fuel Type	Fuel Volume (gal)	Credits	% of Total Credits	Value*
Biodiesel/ Renewable Diesel	2,735,952	18,936	0.3%	$1,174,032
Ethanol	21,783,654	126,647	2.3%	$7,852,114

2016 Q1 LCFS Misaligned Reporting

Fuel Type	Fuel Volume (gal)	Credits	% of Total Credits	Value*
Biodiesel/ Renewable Diesel	131,642	1,508	0.09%	$171,912
Ethanol	4,782,546	2,413	0.14%	$275,082

**For VWA credit price of $62 for 2015 and $114 for 2016.*
Source: ARB's Monthly LCFS Credit Transfer Activity Reports http://www.arb.ca.gov/fuels/lcfs/credit/lrtmonthlycreditreports.htm

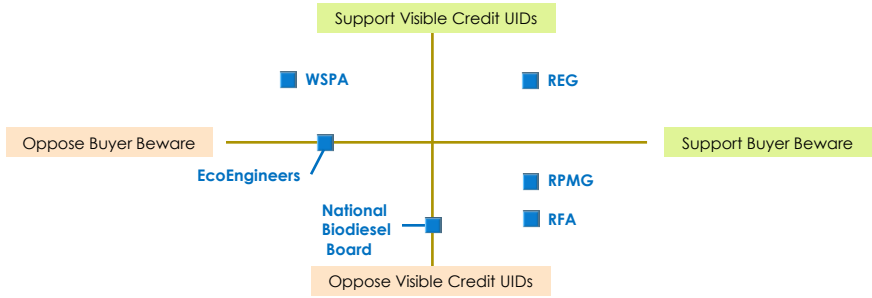
June 2nd Discussion of UIDs

- UIDs (an alpha numeric code unique to each credit) could be assigned when a credit is first generated in the LRT-CBTS
- Ability to track a credit throughout its lifecycle
- Credit traceability enhances ARB monitoring & enforcement for LCFS
- If visible to counterparties, allows buyer of credits to perform due diligence on source of credits even if not purchasing from the initial credit generator

Stakeholder Feedback on UIDs and Relationship to "Buyer Beware"

Summary of stakeholder feedback on visible UIDs

- Relationship to 'buyer beware' concept and due diligence
- Relationship to verification
- Liquidity and fungibility, including concerns about UIDs enabling unwarranted buyer discrimination based on credit type
- Administrative burden



High-Level Stakeholder Feedback on Verification

- Cost of verification
- Frequency and scope of verifications
- ARB should specify risk-based sampling approach
- Harmonize with, and do not duplicate, other programs
- Avoid delay in credit issuance
- Consider exemptions and thresholds

June 2nd Verification Proposal

Quarterly verification requirements

- Reporting Parties
  - LRT-CBTS transactions verification
- Fuel Pathway Holders
  - High risk pathway contributors to Carbon Intensity (CI)
  - Fuel volumes – total production, imports & FTM demonstration

Annual verification requirements

- Fuel Pathway Holders
  - CI verification (including site visit)

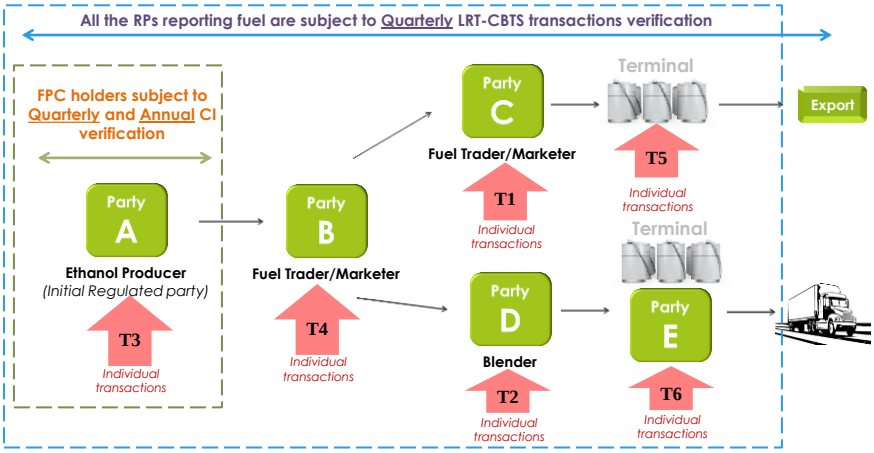
Reporting requirements

- Quarterly reporting with quarterly reconciliation
- Annual report

Credit IDs Visible to Counterparties?

- No

June 2nd Proposal Example *(using Liquid Alternate Fuel)*



- A fuel transaction can be reported at any point of the chain even if the upstream transactions are not recorded by the system.
- Potential for misalignment of fuel volumes reported for a transaction, thus requiring reconciliation process along the entire supply chain.

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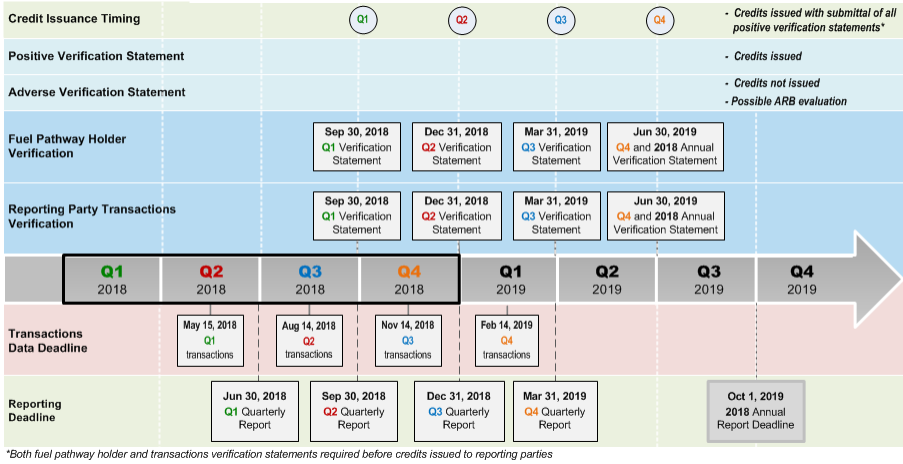
June 2nd Proposal Reporting and Verification Timeline



*Both fuel pathway holder and transactions verification statements required before credits issued to reporting parties

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First Alternate Proposal

Quarterly verification requirements

- Only Initial Regulated Party (first reporter of the fuel)
  - LRT-CBTS transactions verification
  - FTM demonstration

Annual verification requirements

- Fuel Pathway Holders
  - CI and production volume verification (site visit)

Reporting requirements

- Closer to real time reporting through a push-pull system for each fuel batch similar to the federal Renewable Fuels Standard (RFS)
- No quarterly reconciliation needed
- No misaligned fuel volumes or credits

Credit IDs Visible to Counterparties?

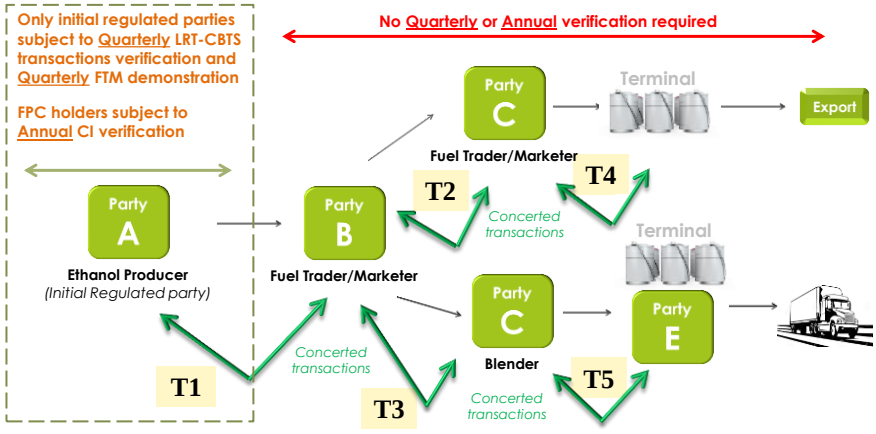
- No

First Alternate Proposal (cont'd)

Reporting requirements

- Liquid Alternate Fuels, Hydrogen, Renewable Natural Gas, Fossil LNG and L-CNG
  - 15 days to report a transaction (except purchase) from the date of transaction
  - 15 days to confirm an incoming purchase transaction
  - Eliminates need for reconciliation period
- Electricity and Fossil CNG
  - 30 days after the end of quarter
  - No business partner

First Alternate Proposal Example *(using Liquid Alternate Fuel)*



- At any point in the chain, fuel can only be reported if it was reported by the upstream party i.e. a push-n-pull model like RFS (or LCFS credit transaction).
- As this system works like a bank, it also prohibits over drafting of fuel along the chain.
- This will require more frequent fuel reporting (within 15 days from the production or title transfer of fuel) to ensure the fuel can be reported downstream swiftly.

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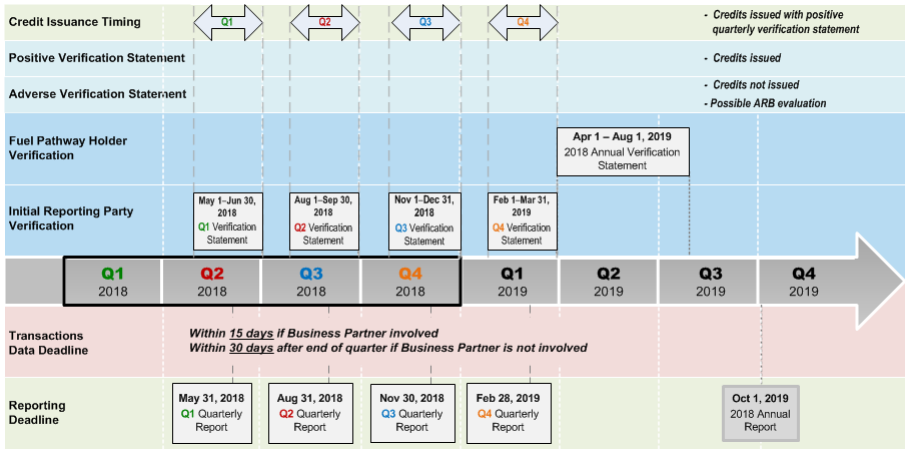
First Alternate Proposal Reporting and Verification Timeline



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Second Alternate Proposal

Quarterly verification requirements

- None

Annual verification requirements

- All Reporting Parties
  - LRT-CBTS transactions verification
- Fuel Pathway Holders
  - CI and production volume verification (including site visit)

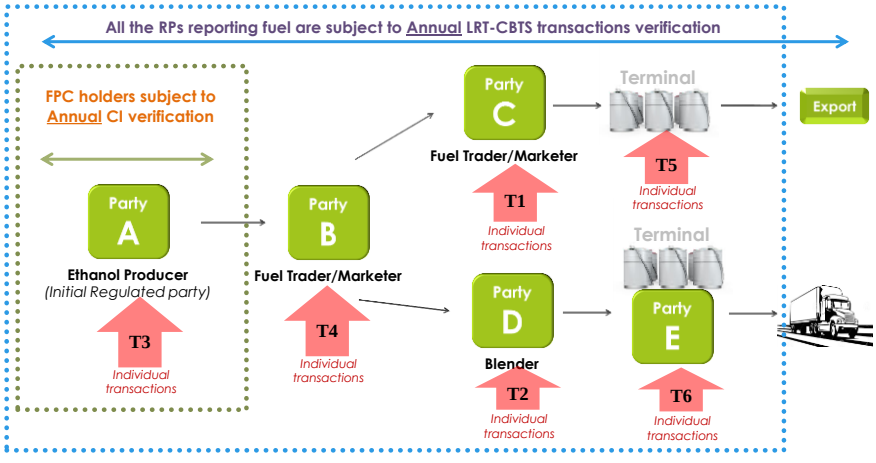
Reporting requirements

- Quarterly reporting with quarterly reconciliation
- Annual report

Credit IDs Visible to Counterparties?

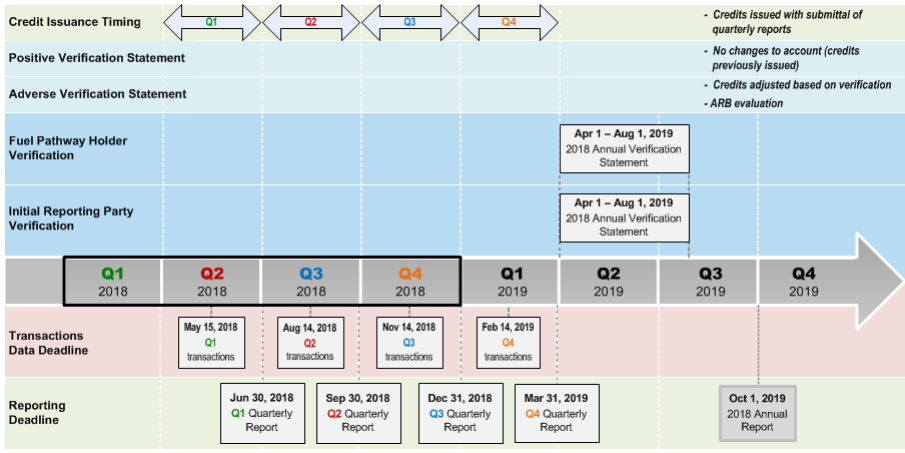
- Yes

Second Alternate Proposal Example *(using Liquid Alternate Fuel)*



- **Allow fuel transactions to be reported as discrete events at any point of the chain even if the upstream transactions are not recorded by the system.**
- **Potential for misalignment of fuel volumes reported for a transaction, thus requiring reconciliation process along the entire supply chain.**
- **Credits released in the market without any verification, resulting in increased likelihood of invalidation events. Potential of increased uncertainty in the market, more disputes and extra admin burden on ARB.**

Second Alternate Proposal Reporting and Verification Timeline



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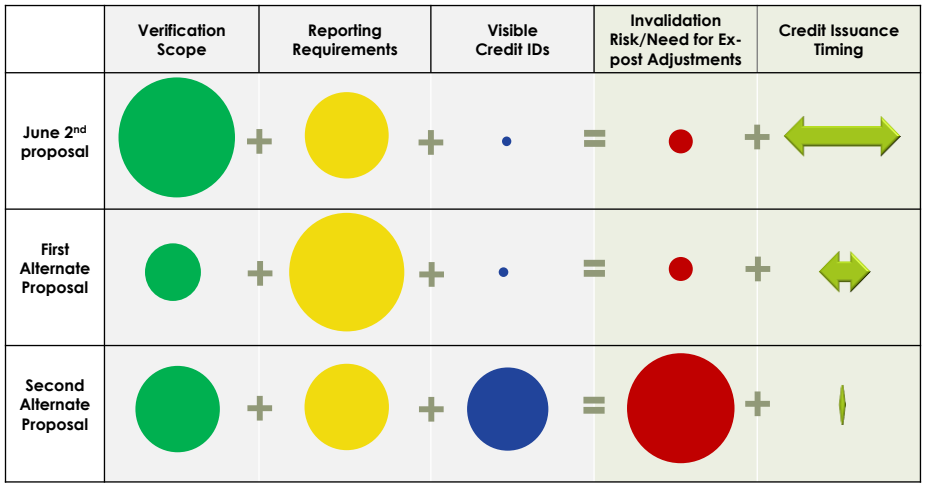
Interdependency of various aspects of LCFS program



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	June 2nd Proposal	First Alternate Proposal	Second Alternate Proposal
Reporting frequency for alternate fuels	**Quarterly** and **Annual**	**Quarterly** • **15 days to report fuel transactions with BP.** *EPA RFS require within 5 days.* • ***30 days after end of quarter to report without BP***	**Quarterly only**
Annual verification requirements	**FPC holders** subject to **Annual CI verification.**	**FPC holders** subject to **Annual CI verification.**	**FPC holders** subject to **Annual CI verification.** **All RPs** reporting fuel are subject to **annual volume verification**.
Quarterly verification requirements	**All RPs** reporting fuel are subject to **Quarterly volume verification**. **FPC holders** subject to **high-risk CI verification and FTM demonstration**.	**Only first reporters of fuel** are subject to **quarterly volume verification and FTM demonstration**.	No quarterly verification
Reconciliation	**Volume reconciliation needed** at the end of **every quarter.**	**No volume reconciliation needed.** *Reconciliation takes place at the time of each transaction. Fuel transaction will only be recorded if it matches the BP's input.*	**Volume reconciliation needed** at the end of **every quarter.**
Credit issuance timing	**Quarterly** with a **6 month delay** from quarter end. Only after all RPs are verified by the verification deadline for a quarter. **LONG**	**Quarterly** with **no major delays.** Credits are issued as soon as the initial regulated party gets volume and FTM verified. **SHORTER** *About 30 days more than* → **SHORTEST**	**Quarterly** with **no delays.** As soon as quarterly reports are submitted.
Credit issuance hold ups	a) Non-positive CI verification statement. b) Non-positive volume verification statement anywhere in the chain	a) CI or volume verification statement **only for producer or importer** is not positive. b) If an upstream RP does not report timely, downstream reporting can be affected. (Provision to avoid such situation)	No initial hold ups.
Credit invalidation risk	**Low** As all the issued credits are verified	**Low** As all the issued credits are verified	**High** As credits are not verified until the year end. Could result in increased uncertainty in the market.
Verification cost to parties	**Cost intensive for all RPs.** Even for those not benefiting from LCFS credits. $$$	**Cost only to the LCFS credits benefiters. No direct verification cost to other RPs.** Market will balance this cost by distributing through LCFS credit prices. $	**Relatively lower costs, but to all RPs.** All RPs to subject to cost of verification. $
Credit UIDs	Not visible	Not visible	Visible

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Pathway Processing > **Reporting &Verification** > Fossil Fuel Reporting > Verification Details > Other Regulatory Improvements

Clarifying ARB's Approach to LCFS Credit Invalidation

- We want to make it clear that, in almost all cases, ***the first party ARB will seek to recover invalid credits from is the initial credit generator***
- If the credit generator has insufficient credits--or if it is clear that the buyer has fault--ARB wants to retain flexibility to invalidate credits held by a party other than the generator of the credits
- Stakeholder feedback requested: How can ARB reinforce/clarify?

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Harmonize Fossil Fuel Reporting/Verification with MRR

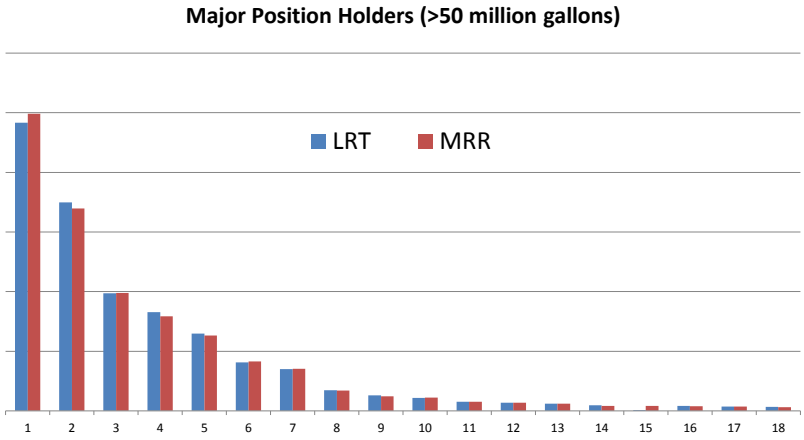
Reporting for Petroleum-Based Fuels

- Verification of deficits is needed due to issues similar to those discussed for credits
- Still considering change in point of obligation for petroleum-based fuels to align LCFS and MRR reporting and verification:
  - Ease administrative burden and eliminate duplicative reporting and verification
  - Reduce reporting frequency (quarterly reporting would no longer be required for CARBOB and Diesel)

Reporting for Petroleum-Based Fuels (cont'd)

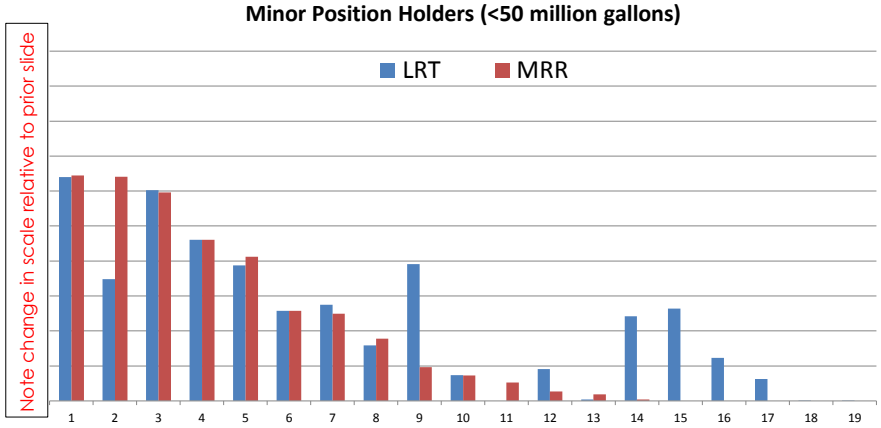
- Annual reporting for CARBOB and Diesel could be done under MRR using California Electronic Greenhouse Gas Reporting Tool (Cal e-GGRT) for fuel:
  - Delivered across the rack
  - Supplied via bulk transfer system
  - Imported and delivered for distribution outside the bulk transfer/terminal system
- Stakeholder Feedback
  - Generally in opposition
  - Primarily driven by concerns about timing to adjust firm-specific IT systems for LCFS and potential interactions with similar discussions in RFS

Comparison of Reported Volumes for 2014 (CARBOB + Diesel)



Pathway Processing > Reporting &Verification > **Fossil Fuel Reporting** > Verification Details > Other Regulatory Improvements

Comparison of Reported Volumes for 2014 (CARBOB + Diesel)



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Questions?

Feedback related to
proposed amendments
should be sent to LCFSWorkshop@arb.ca.gov
by August 12, 2016

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Details of Proposed Concepts for Verification

Risk-Based Approach

Stakeholder Feedback

- Clarify risk-based approach and define high-risk parameters
- Clearly define lifecycle boundaries and verification requirements
- Risk assessment frequency based solely on verifier judgement

Risk-Based Approach

Response

- *Areas of "high risk" will be discussed as part of verifier training and guidance*
- *Defining specific areas may result in limiting verifier discretion to identify additional risks as issues emerge during verification services*
- *Monitoring plan, developed and maintained by pathway applicant, will discuss accounting and data management practices and systems for CI inputs*
- *CI input values with highest quantification risk and greatest impact on certified CI will be included in verifier training*
- *Verifier sampling plan will rank sources of highest to lowest risk based on verifier review*
- *Verifier risk assessment may include:*
  - *Unique facility operations and number of FPCs per facility*
  - *Accounting and data management practices and systems*
  - *User-specific CI inputs*

Monitoring Plan

Stakeholder Feedback

- Explain the concept of a 'Monitoring Plan' further

Response

- *Monitoring plan created by fuel pathway applicant for the purpose of detailing applicant's methods and data monitoring for CI inputs*
- *The monitoring plan must include sufficient detail to evaluate whether fuel pathway holder is monitoring and collecting the data to support the certified CI*
- *Monitoring plan elements as discussed during June 2nd workshop*

Material Misstatement and CI Variability

Stakeholder Feedback

- The materiality threshold is undefined in the proposed regulation
- Allow for CI variability to account for production variability
- Clearly define 'material misstatement' and 'reasonable assurance'

Response

- *The 2015 LCFS re-adoption specified that the CI must not be exceeded in a calendar year, so 2-year and 3-year verification frequencies do not align with current requirements*
- *Verifiers devise sampling/evidence gathering strategy to evaluate for material misstatement of CI*
- *Proposed definitions for verification material misstatement, reasonable assurance, similar to Mandatory GHG Reporting Regulation and Cap and Trade Offsets*

Proposed Definitions for Verifications

- **Reasonable Assurance** – A high degree of confidence that submitted data and statements are valid (same as MRR and C&T).
- **Positive verification statement** – Verification statement rendered by a verification body attesting that the verification body can say with reasonable assurance that the reported information (fuel volume per fuel pathway code or certified CI value) is free of material misstatement.
- **Material Misstatement of Certified Carbon Intensity** – A discrepancy, omission, misreporting, or aggregation of the three, identified in the course of LCFS verification services that leads an LCFS verification team to believe that a certified CI value is understated more than 5 percent. *[causing an over-generation of credits]*
- **Material Misstatement of Fuel Volume By Fuel Pathway Code** – A discrepancy, omission, or misreporting, or aggregation of the three, identified in the course of verification services that leads a verification team to believe that the quarterly fuel volume by fuel pathway code reported in the LRT contains errors greater than 5 percent.

Accreditation

June 2nd Proposal	New Considerations

ARB proposes to offer specialist training in 2017
• Fuel Transactions Specialist Verifier
  • 2 yrs. experience related to transactions, accounting, and contractual agreements
• Fuel Life Cycle Specialist Verifier
  • 2 yrs. experience related to life cycle greenhouse gas emission technical analyses for transportation fuels and experience related to the fuel technology
	• Recognizing C&T Offsets VBs
	• Recognizing MRR fuel transactions specialist
	• Creating LCFS-specific VB application process to recognize QAP providers

Verification Harmonization

Stakeholder Feedback

- Avoid duplicating existing regulatory and voluntary programs

Response

- *Staff considering to allow for flexibility to combine site visits by same verifier to assess conformance with multiple programs*
- *Staff considering to allow QAP providers to apply for VB accreditation as soon as regulation amendments are adopted*

Comparison with U.S. EPA RFS QAP

LCFS Proposal	RFS2 QAP
• Mandatory	• Voluntary
• At least 1 site visit per year; considering ongoing remote monitoring	• At least 2 site visits per year or 1 site visit with ongoing remote monitoring
• Verifier and VB oversight by ARB	• U.S. EPA approval of verification plans
• Independent reviewer employed by VB	• Verification oversight by Professional Engineer and Certified Public Accountant
• Individual verifier registration, training, and accreditation; Verification Body accreditation	• QAP provider registration
• COI: Financially independent; does not verify own work (rotation and no consulting)	• COI: Financially independent

Costs and Economic Impact

Stakeholder Feedback

- June 2nd proposal adds significant cost, economic impact
- Final cost is dependent on program scope, requirements, and level of rigor required
- A reasonable cost-benefit analysis and economic impacts assessment has not been conducted

Response

- *Considering revised proposals to reduce verification costs while ensuring high credit quality and timely credit issuance*
- *Considering additional optional thresholds and exemptions*
- *Conducting economic assessment of potential adverse impacts pursuant to DOF and APA requirements*

Preliminary Economic Impacts Analysis

- Cost survey will be conducted to reflect the option selected
- Survey will include:
  - Examples of fuel production types and quarterly fuel volume reports
  - List of the type of documents subject to verification
  - Number of staff and type of training required
  - Definition of material misstatement, reasonable assurance

Questions?

Feedback related to
proposed amendments
should be sent to LCFSWorkshop@arb.ca.gov
by August 12, 2016

Other Regulatory Enhancements

Senate Bill 1505 Background

- SB 1505 (Lowenthal, 2006) requirements include:
  - Hydrogen must be made from 33 percent renewable resources
  - Hydrogen vehicles must reduce GHG emissions by 30 percent as compared to gasoline vehicles on a per mile basis
- These requirements apply on a state-wide basis:
  - To hydrogen dispensed from state funded stations initially, and
  - To all stations after transportation use reaches 3,500 MT annually

Proposing to monitor statewide compliance under the LCFS reporting framework

For more info: http://www.arb.ca.gov/msprog/hydprod/hydprod.htm

LCFS Amendments to Regulated Parties for Hydrogen

- Currently hydrogen is designated as an opt-in fuel
- Draft proposal will:
  - Require that hydrogen providers register, report, and generate credits for all H_2 used in on-road transport
  - Give priority to the station operator as the regulated party with hydrogen producer second in line
  - Provide several Lookup Table pathways to reduce cost and effort in getting CI values
  - Provide some additional flexibility for hydrogen to meet the renewable energy requirements of SB 1505

Pathway Processing > Reporting &Verification > Fossil Fuel Reporting > Verification Details > **Other Regulatory Improvements: Hydrogen**

Stakeholder Feedback

- Air Products is opposed to moving regulated party to the station operator
- Some stakeholders asked for clarity on the use of renewable electricity and renewable natural gas for H_2 production

Response

- *Engaged in further discussions with many stakeholders on proper point of regulation, and*
- *Providing more clarity on the use of renewable sources today*

Pathway Processing > Reporting &Verification > Fossil Fuel Reporting > Verification Details > **Other Regulatory Improvements: Hydrogen**

Qualifying Renewable Electricity Sources for H_2 and Charging Stations

Proposing two options for additional flexibility for renewable electricity used at EV charging stations and to produce H_2

- Option 1 (Green Tariff Shared Renewables) remains unchanged
- Option 2 would include new renewable projects that:
  - Are located within the same EDU territory as the H_2/charging station(s)
  - Are developed expressly for supplying station's power demand
  - Meet the renewable eligibility requirements in the CEC's Renewables Portfolio Eligibility Guidebook
  - Do not produce RECs or other attributes recognized under any program except RFS2

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Pathway Processing > Reporting &Verification > Fossil Fuel Reporting > Verification Details > **Other Regulatory Improvements: Hydrogen**

Qualifying Renewable Sources of Biogas for H_2, CNG, LNG

- Clarify current accepted practice – biomethane procured from offsite sources may be used for H_2 production and CNG/LNG fueling
- Restrictions include:
  - Biomethane source must have a certified LCFS pathway CI
  - Biomethane is injected as fossil gas into a system physically interconnected to California's natural gas pipeline and withdrawn in a manner and at a time consistent with the transport between the injection and withdrawal points
  - Produces no renewable energy certificates or renewable attributes recognized or credited by any jurisdiction or regulatory program, with the exception of the RFS2
- New Regulatory Guidance will be developed to establish standard documentation requirements for such transfers

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Pathway Processing > Reporting &Verification > Fossil Fuel Reporting > Verification Details > **Other Regulatory Improvements: Know Your Customer**

Know Your Customer

- Received strong stakeholder feedback opposing the use of KYC
- Propose to offer alternative means of complying:
  - Identification documents may be submitted to individual's **employer** (reporting party registered in LRT-CBTS) in lieu of ARB, with attestation certifying identity and confirming non-felon status
  - Proof of open bank account in country in which reporting party is located may be submitted with written attestation
- Propose to add new registration requirement: Entity registering for LRT-CBTS account must designate either
  - Primary or alternative account representative with primary residence in California, or
  - Agent for service of process in California
- Executive Officer may review and audit documentation; must be provided within five calendar days of request

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Pathway Processing > Reporting &Verification > Fossil Fuel Reporting > Verification Details > **Other Regulatory Improvements: Innovative Crude**

Innovative Crude

- June 2nd workshop identified an inconsistency between the innovative crude and the California average crude provisions, whereby:
  - Innovative crude credit may incent additional supply of high intensity crude to California refineries
  - May result in an increase in the California crude average CI and the assessment of incremental deficits on all California refineries
- Stakeholder feedback was unanimously opposed to any change based on this issue at this time
- Response: We will not propose changes to address this issue in this rulemaking

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Other Changes to Reporting

Credit Transaction Reporting Timing

June 2nd Proposal

- Accurate and timely reporting of credit activity
- Seller must submit Credit Transfer Form (CTF) within 3 days (previously 10 days) of reaching agreement
- Buyer must confirm the transaction within 3 days (previously 10 days) of reaching agreement
- Reduces number of pending transfers and credits at a given point

Stakeholder Feedback

- Insufficient time, especially in the event of a holiday

Pathway Processing > Reporting &Verification > Fossil Fuel Reporting > Verification Details > **Other Regulatory Improvements: Other Changes to Reporting**

Credit Reporting Deadline Clarification

- Add definition of "Deadline" and enhance definition of "Day"
  - "Day" means a calendar day unless otherwise specified as a business day. A day as it refers to in this subarticle begins at midnight, 12:00 a.m. PT, and lasts until 11:59 p.m. PT the next evening.
  - "Deadline" means 11:59 p.m. PT of the particular day whenever any act is appointed by this subarticle to be performed on the particular day. If a deadline falls upon a holiday or weekend, then the next business day will be considered as the effective deadline for that occurrence.
- Allows enough time to report a credit transfer in event of a holiday
- Ensures accurate and timely reporting of credit activity

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Credit Reporting Deadline Clarification (cont'd)

Scenario 1

Monday	Tuesday	Wednesday	Thursday	Friday
Credit Transfer Agreement Date	Day 1 for Seller			
	Sale Reported	Day 1 for Buyer	Day 2 for Buyer	Day 3 for Buyer

Scenario 2

Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday
Credit Transfer Agreement Date	Day 1 for Seller	Day 2 for Seller	~~Day 3~~ Weekend	Day 3 for Seller			
				Sale Reported	Day 1 for Buyer	Day 2 for Buyer	Day 3 for Buyer

Scenario 3

Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday
Credit Transfer Agreement Date	Day 1 for Seller	Day 2 for Seller	~~Day 3~~ Weekend	~~Day 3~~ Public Holiday	Day 3 for Seller			
					Sale Reported	Day 1 for Buyer	Day 2 for Buyer	Day 3 for Buyer

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Pathway Processing > Reporting &Verification > Fossil Fuel Reporting > Verification Details > **Other Regulatory Improvements: Other Changes to Reporting**

Reporting Units for CNG & L-CNG

- June 2nd proposal: Reporting in standard cubic feet (scf) and conversion from lbs to scf no longer required, instead:
  - The amount of fuel dispensed at fast fill stations must be reported in gasoline gallon equivalent (GGE)
  - The amount of fuel dispensed at time (slow) fill stations must be reported in Therms as shown on utility bills
- Updated Proposal Based on Stakeholder Feedback: the amount of fuel dispensed must be reported in Therms as shown on utility bills (even for fast fill stations)
- Allows consistent reporting of fuel
- Prevents conversion errors

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Pathway Processing > Reporting &Verification > Fossil Fuel Reporting > Verification Details > **Other Regulatory Improvements: Other Changes to Reporting**

Reporting of Fueling Facilities

For Electricity, Hydrogen and Natural Gas Stations

- New requirement to register Fueling Facility ID and Company ID in AFP
- Quarterly Reporting of fuel amount dispensed at each individual fueling facility
  - Report Facility ID and Company ID for each fueling facility
- Prevents double counting of fuel reported and credits generated
- Ensures fuel used for transportation

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LRT-CBTS Account Management

- Clarification about LRT-CBTS account management practices
- Account will be subject to suspension or closure if:
  - Account eligibility criteria not met
  - Account management requirements are not completed

Potential Clarifying Amendments to Obtaining Fuel Pathways

- Challenges with current regulatory language:
  - Repetitive text for Tier 1 and Tier 2 pathways
  - Data requirements not specified in detail for all Tier 1 pathways
  - Fossil CNG as Tier 1 fuel is burdensome to applicants
  - Fuel transport mode (FTM) is limited in scope
  - Feedstocks undefined
- Proposed Solutions:
  - Reorganize and streamline Section 95488 for clarity
  - Add specificity to all Tier 1 requirements
  - Add Fossil NG pathway to Lookup Table to expedite certification
  - FTM to be part of ongoing verification
  - Define feedstocks

Proposed Definitions for Feedstocks (1)

Used Cooking Oil (UCO)

Fats and oils derived from animal or plant sources which have been used by restaurants or commercial food processors to prepare products primarily destined for human consumption. Any material intentionally rendered unsuitable for its original use does not meet this definition.

Tallow and Animal Fats

Inedible fats from the rendering industry. Solid fat extracted from the tissues and fatty deposits of animals such as cattle, sheep, pork, poultry, etc.

Proposed Definitions for Feedstocks (2)

Municipal Solid Waste (MSW)

Any type of post-consumer waste as defined by California Code 40191 which is commonly accepted by a municipal landfill.

Food Waste

The portion of MSW that consists of wastes derived from pre- and post-processed plants and animals (excluding those wastes generated at rendering facilities) for the explicit creation of products for human and/or animal consumption. This includes, but may not be limited to, those foods and scraps processed or produced at restaurants, hospitals, food distributors, schools and residences.

Proposed Definitions for Feedstocks (3)

Urban Green Waste

The portion of MSW that consists of materials resulting from residential and municipal landscaping activities such as leaves, grass clippings, tree branches and tree removals.

Urban Wood Waste

The portion of MSW that can include sawn lumber, trim, shipping pallets and other wood debris from construction and demolition clearing and grubbing activities.

Proposed Definitions for Feedstocks (4)

Inedible Corn Oil

Oil recovered from thin stillage and/or the distillers grains and solubles produced by a dry mill corn ethanol plant or other non-food grade corn oil from food processing operations.

Distiller's Grains and Solubles

The residual starch, fiber, protein, oil, and minerals produced after fermentation of grains such as corn, sorghum and wheat.

Proposed Definitions for Feedstocks (5)

Agricultural Residues

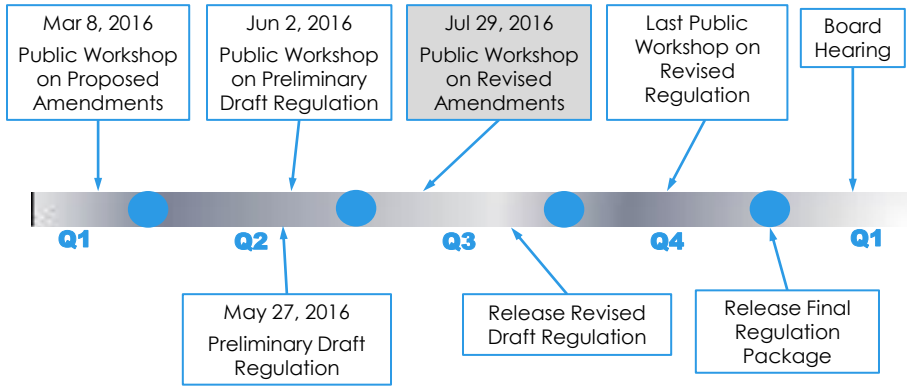
Residues that remain on the field following crop harvesting (e.g., wheat straw, stover).

Agricultural Processing Residues

Residues that result from industrial processing of agricultural crops (e.g., bagasse, cobs, nut shells, husks).

Rulemaking Schedule

Rulemaking Timeline



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Questions and Feedback

Feedback related to these proposed regulatory amendments should be sent at LCFSWorkshop@arb.ca.gov
Feedback by: August 12, 2016

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

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