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OVERVIEW OF RIN PROGRAM AND CURRENT TRENDS

COMPLYING WITH USEPA RULEMAKING

FOR
CALIFORNIA ENERGY COMMISSION
JANUARY 11, 2013



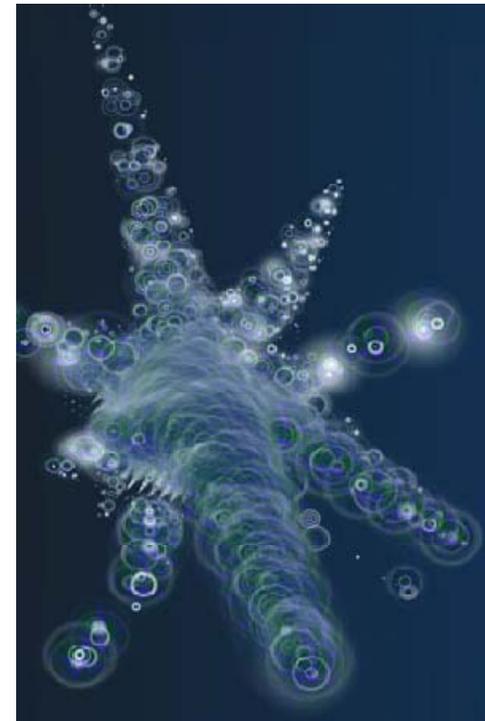


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Services

- Regulation & Policy
 - Registrations (domestic /international), Pathways, & Land Use
 - Facility planning
 - Federal liaison
- Engineering Consulting
 - RFS reviews and site audits
 - Permitting
 - Design & construction management
- Renewable Energy Identification Numbers (RINs)
 - Compliance software
 - RIN price index
 - Quality Assurance Plans
- Software Solutions
 - Traceability systems, Satellite imaging
 - Compliance automation
 - Data management



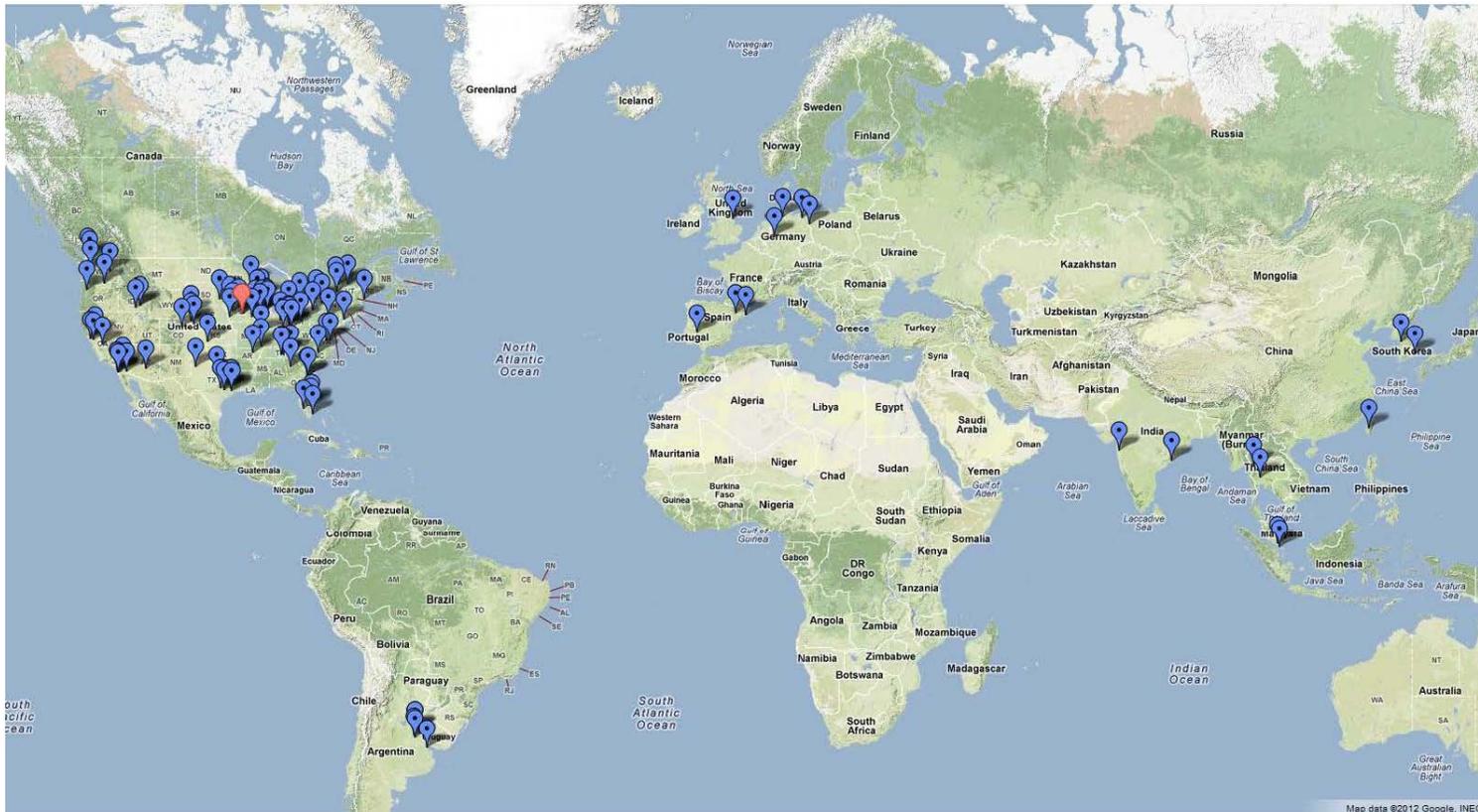


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Footprint Map – July 2012



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AGENDA

RFS OVERVIEW AND REGISTRATION

HOW RINS WORK

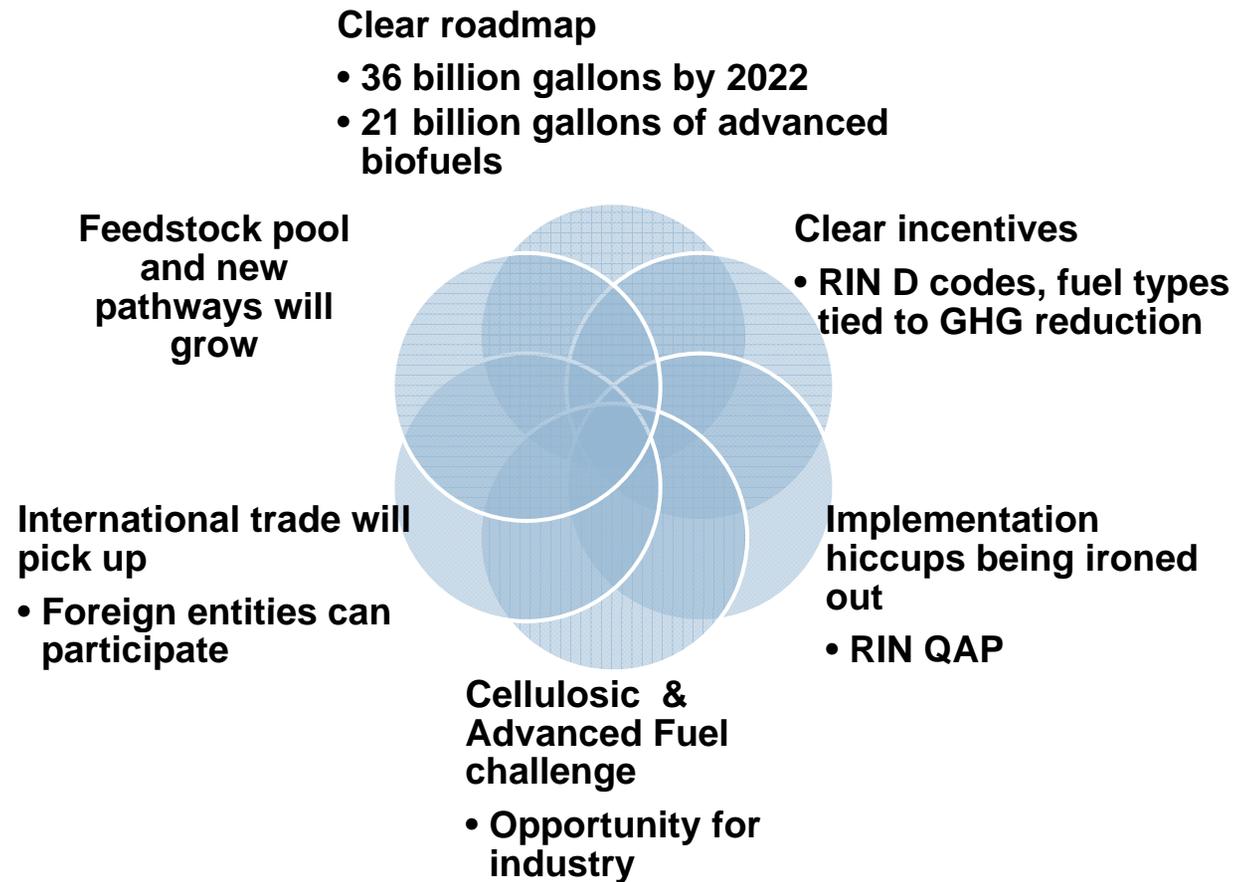
CURRENT ISSUES RELATED TO RIN FRAUD



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RFS2 overview





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Fuel Types and RIN D Codes

D Code	Fuel Type	Fuel	GHG Reduction Requirement
D3 RIN	Cellulosic Biofuels	Cellulosic ethanol, cellulosic naphtha, etc.	60%
D4 RIN	Biomass-based Diesel	Biodiesel, renewable diesel, etc.	50%
D5 RIN	Advanced Biofuels	Sugarcane ethanol, renewable heating oil, biogas, etc.	50%
D6 RIN	Renewable Fuel	Corn ethanol, etc.	20%
D7 RIN	Cellulosic Diesel	Cellulosic diesel	60%



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Renewable Fuel Volume Requirements for RFS2 (billion gallons)

Year	Cellulosic biofuel (D3/D7)	Biomass-based diesel (D4)	Advanced biofuel (D5)	Renewable Fuel (D6)	Total
2011	n/a	0.8	1.35	12.6	13.95
2012	0.00865	1	2	13.2	15.2
2013	tbd	1.28	2.75	13.8	16.55
2014	tbd	tbd	3.75	14.4	18.15
2015	tbd	tbd	5.5	15	20.5
2016	tbd	tbd	7.25	15	22.25
2017	tbd	tbd	9	15	24
2018	tbd	tbd	11	15	26
2019	tbd	tbd	13	15	28
2020	tbd	tbd	15	15	30
2021	tbd	tbd	18	15	33
2022	tbd	tbd	21	15	36



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2013 AB volume requirements

	Volume Mandate	In RIN Gallons
Advanced Biofuels	2,750	2,750
Biomass-based diesel	1,280	1,920
Other Advanced Fuels		830

- Projections for 2013 sugarcane ethanol imports:
 - 306 – 768 million gallons
- EPA estimate of 2013 domestic Advanced Biofuel production:
 - 150 million gallons



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Registration

- Without up-to-date registration, you may not be able to interact with EPA / EMTS properly or even interact at all!
- Documents required for Part 80 -
 - ▣ Completed CDX registration forms (signature page)
 - ▣ Copies of applicable air permits
 - ▣ A list of the facility's process energy sources
 - ▣ Facility specific requirements as per 40 CFR §80.1450(b)
 - ▣ Third party engineering review of facility
 - ▣ FFARS letter (Part 79 registration is a pre-requisite for Part 80)

<http://www.epa.gov/oms/regs/fuels/producers.htm>

EPAFuelsPrograms@epa.gov

Telephone: 202-343-9755

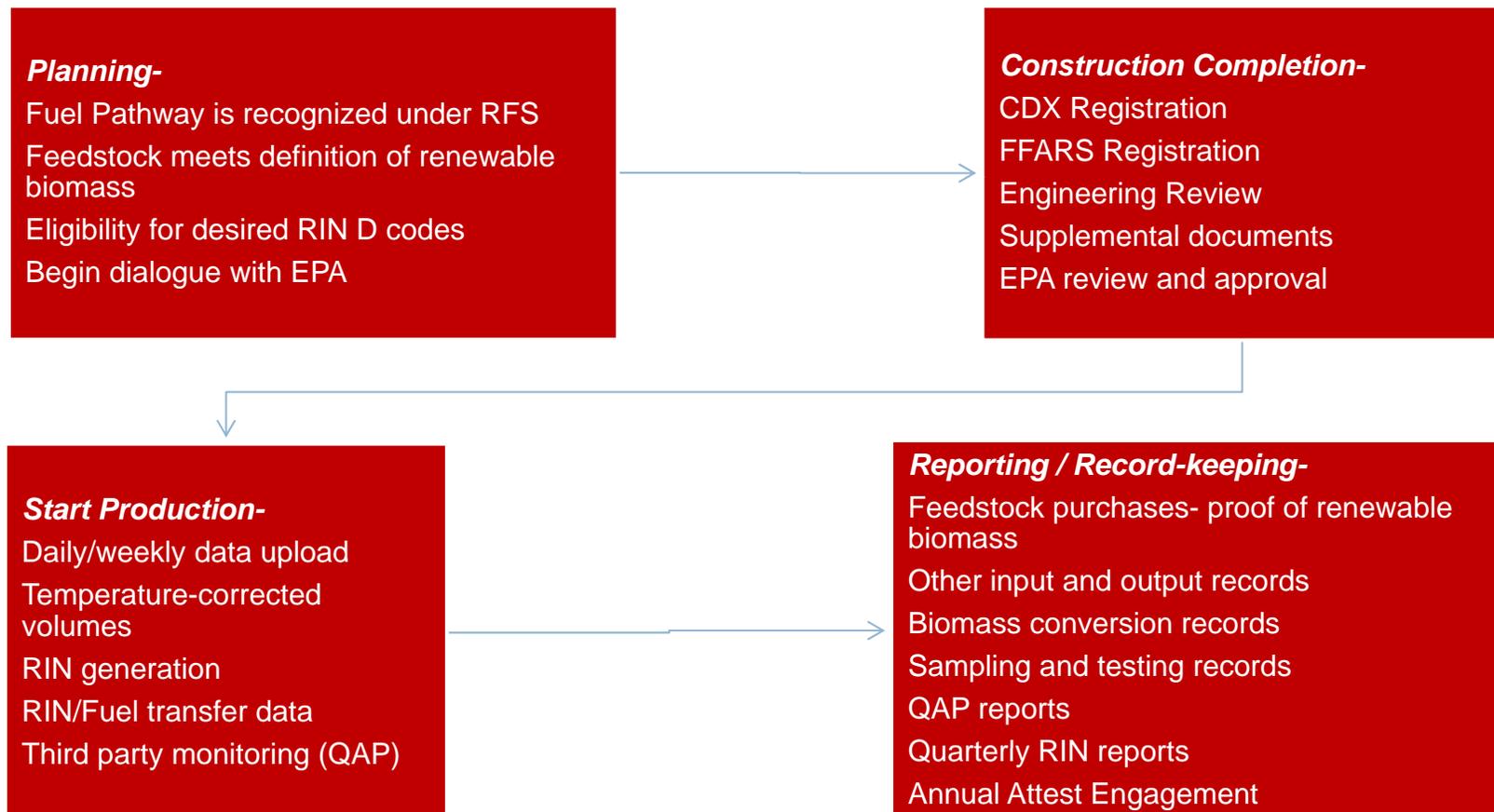
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From Registration to Production

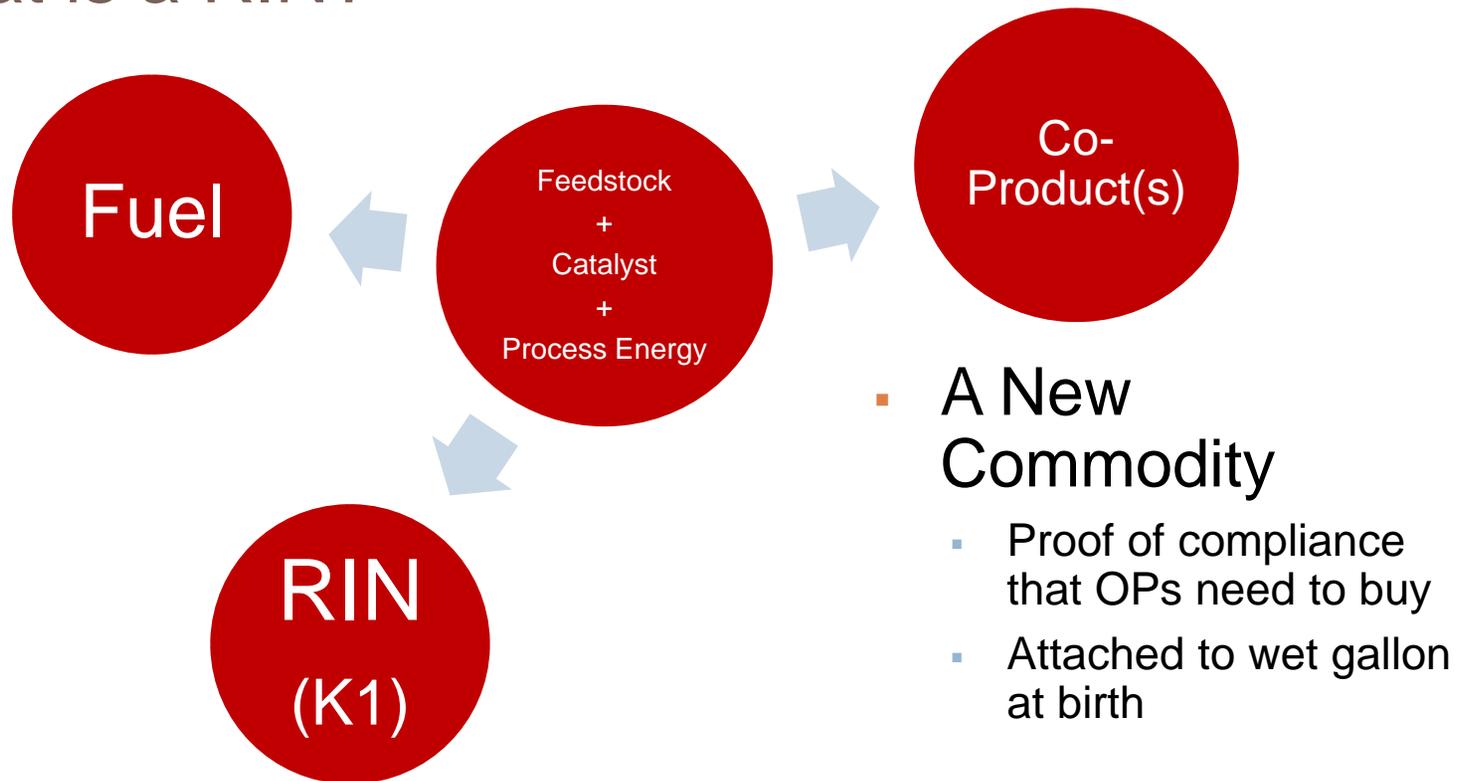




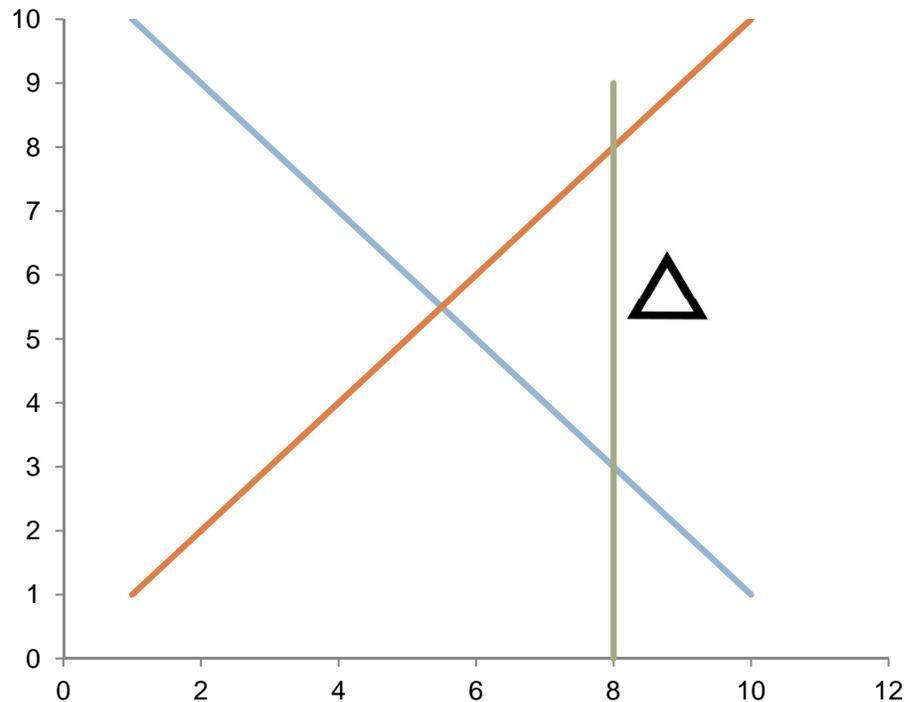
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What is a RIN?



What is a RIN?



- RIN prices bridge the delta between supply and demand caused by a mandate
- Secondary market after separation from wet fuel gallon



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RIN Separation Basics

RIN Separation is Highly Regulated
Errors in separation result in invalid RINs

- RINS are Separated
 - When fuel reaches obligated party,
 - Upon export
 - When blended to produce a transportation fuel, heating oil or jet fuel
 - When neat fuel is designated as or used without further blending as transportation fuel, heating oil, or jet fuel
 - Upward Delegation



If your operations do not allow you to separate a RIN, then you will surrender it with the fuel to party downstream.



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RIN Management Platform – Product Transfer Document



Transferor: 3697

Transferee: 4761

Transfer Date: 5/19/2011

PTD #: 10611BUR

Transferor: 3697

Transferee: 4761

EcoEngineers Test Producer

EcoEngineers Test Marketer

500 Diagonal Ave

100 Main Street

Des Moines, IA 50266

AnyTown, IA 50322

Generation Year: 2011

RIN Gallons: 10105

Fuel Gallons: 10105

Assignment: Assigned

RIN Type: D6 - Renewable Fuel

Associated reason: Standard Trade

Additional Information:

Bill of Lading/Invoice Number - 10611BUR

LCFS information:

Type of Fuel: Ethanol

Facility Producing Fuel: 70291

CI #: 90.1

Who is taking reporting obligation: Buyer / Seller

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D6 RIN Values

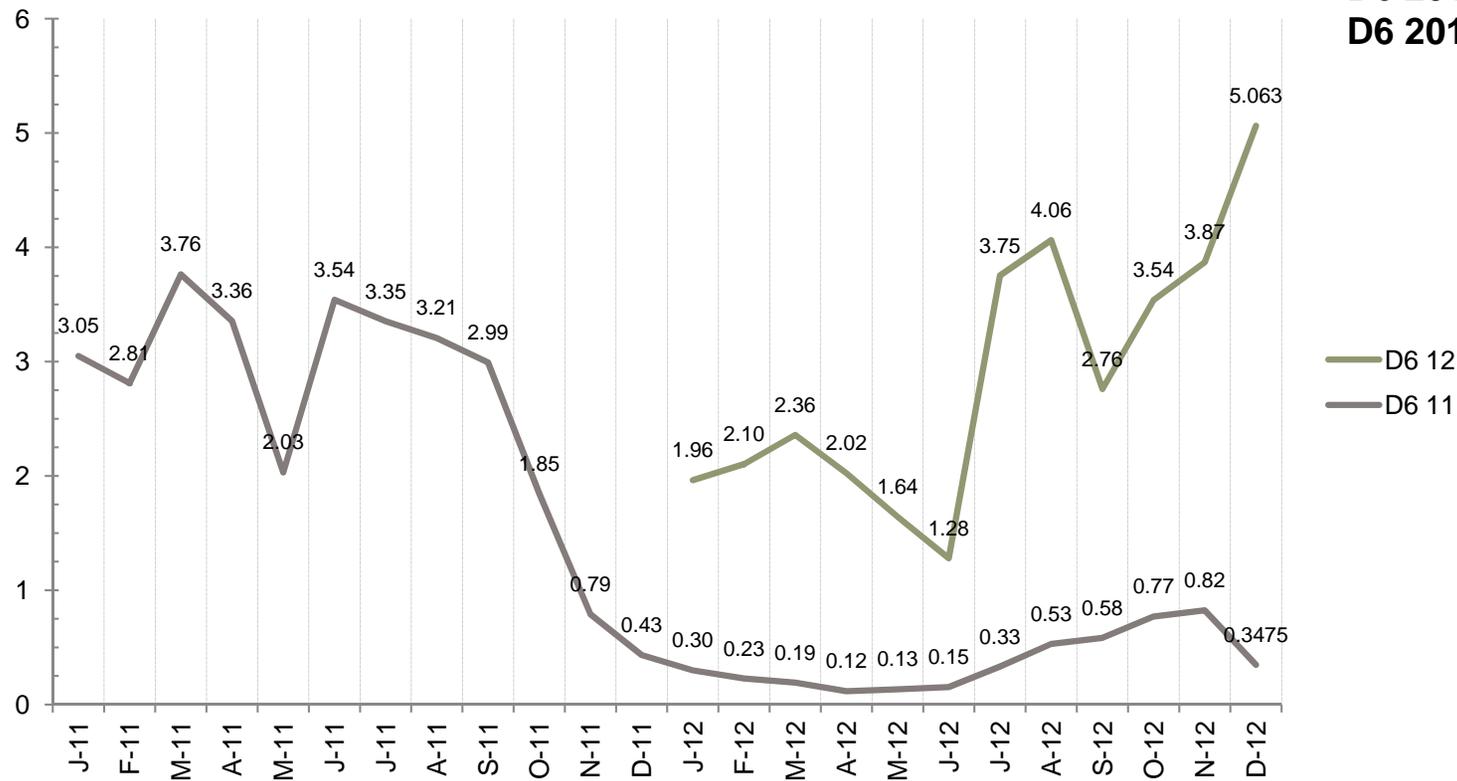
Jan 2011- Dec 2012 (Monthly Averages)

EcoEngineers RIN Index

Annual Average Price

D6 2012: \$0.0287

D6 2013: \$0.0709



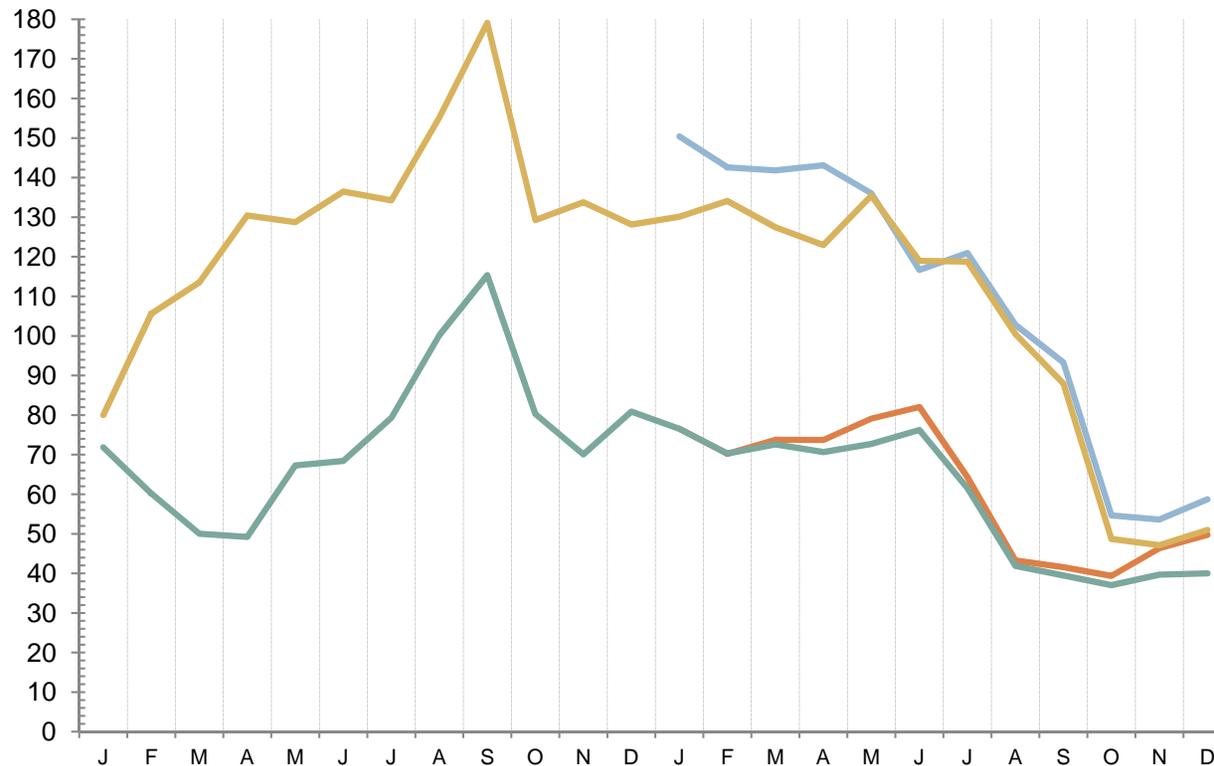


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D 4 & D5 RIN Values

Jan 2011- Dec 2012 (Monthly Averages)



EcoEngineers RIN Index

Annual Average Price

D4 2012: \$1.0955

D5 2012: \$0.6166



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EcoEngineers RIN Index – January 9, 2013, VWAP

2013 Vintage Indices

	Index Value	Change From Prior Day	Week Ago	Month Ago
D4	50.250	4.25	45.000	63.500
D5	44.000	5.50	41.000	42.500
D6	8.005	0.41	6.975	6.875

2012 Vintage Indices

	Index Value	Change From Prior Day	Week Ago	Month Ago
D4	45.451	4.45	44.151	55.180
D5	44.000	7.00	37.000	49.500
D6	6.770	0.90	5.350	5.000

2011 Vintage Indices

	Index Value	Change From Prior Day	Week Ago	Month Ago
D4	43.000	5.00	34.000	50.000
D5	36.000	6.00	30.000	40.000
D6	0.250	0.00	0.350	0.350



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RIN Fraud -The Problem

- ❑ Semi-frozen RIN markets
- ❑ Lack of trust
- ❑ Fool me once...
- ❑ Affecting biodiesel/ new fuels/ smaller and non-branded producers



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What is a RIN QAP

- A procedural and monitoring framework to assure that RINs entering commerce were validly generated.
- Expected to promote greater liquidity in the transfer and use of RINs.
- EPA is developing a rulemaking proposal, which is expected to be released Jan 2013



<http://www.epa.gov/oms/fuels/renewablefuels/qap.htm>



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Who is Affected?

- Voluntary
- Incentives for participation
 - ▣ Waiver of NOVs (OPs)
 - ▣ Waiver of RIN replacement obligation (OPs)
 - ▣ Access to RIN markets (Producers)
 - ▣ Premium pricing (Producers)

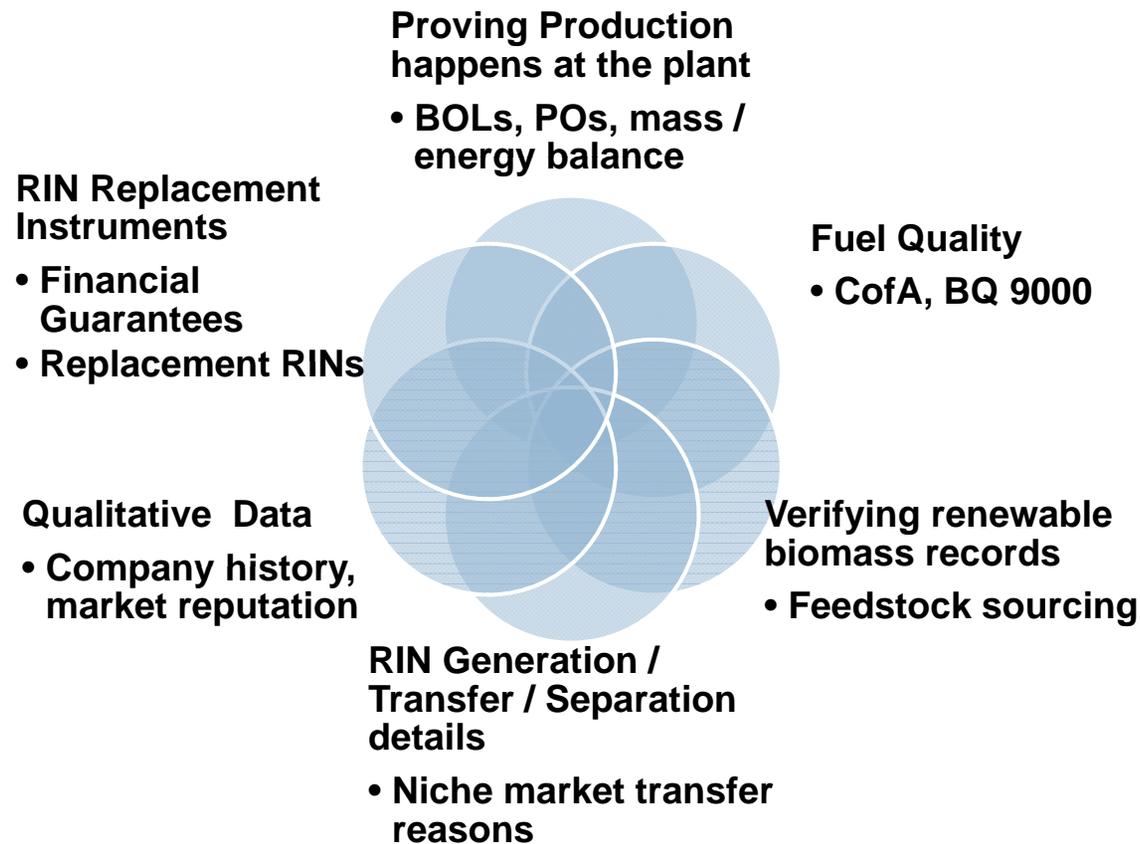
**Corn ethanol / branded products currently perceived as low risk.
Biodiesel / advanced / new fuels / pathways perceived as higher risk.**



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Elements of EcoEngineers RIN QAP





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RIN QAP Planning

- Review facility operations/ conversion process
- Identify checkpoints- inputs/outputs
- Identify document trail
- On-site audit / engineering review
- On-boarding and training
- Prepare for weekly/monthly reporting
- Corrective action
- Who takes replacement liability?

RIN Quality Assurance Plan

Emergent Green Energy, Inc.
Minneola, Kansas

Emergent BioFuels, LLC - Renewable Fuel and RIN Quality Assurance Plan - April 2012

PRODUCER AND THIRD PARTY ACCEPTANCE

The undersigned personnel have reviewed and are responsible for carrying out this RIN Quality Assurance Plan.

<i>[Signature]</i> <small>RCU, Director - S&O Virginia BioFuels Refinery, LLC 804-441-0228</small>	<u>4/24/12</u>
<i>[Signature]</i> <small>Virginia BioFuels Refinery, LLC 804-443-9258</small>	<u>4/25/12</u> RYAN FAULKNER
<i>[Signature]</i> <small>Virginia BioFuels Refinery, LLC 804-443-9258</small>	<u>4/16/12</u> Heather Schwarz
<i>[Signature]</i> <small>Partner/Third Party RIN Compliance Office James M. Adams, P.E. EcoEngineers, LLC 315-309-1279</small>	<u>5/10/2012</u>
<i>[Signature]</i> <small>Business Analyst, Linda Ackelstein, EcoEngineers, LLC 315-309-1279</small>	<u>5/10/2012</u>
<i>[Signature]</i> <small>Partner/Third Party Regulatory Compliance, Shashi Menon EcoEngineers, LLC 315-309-1279</small>	<u>5/10/2012</u>

COMPLIANCE AND CERTIFICATION MILESTONES

ISO 9001 CERTIFICATION:
Audit Date: N/A
Certification: N/A
THIRD PARTY ENGINEERING REVIEW:
Completion Date: May 2012
Contact Information: EcoEngineers, 315/309-1279, www.ecoengineers.us
THIRD PARTY RIN QUALITY ASSURANCE PLAN:
Completion Date: April 2012
Contact Information: EcoEngineers, 315/309-1279, www.ecoengineers.us
ONGOING THIRD PARTY RIN QUALITY ASSURANCE:
Start Date: April 2012 to Present
Contact Information: EcoEngineers, 315/309-1279, www.ecoengineers.us

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QAP Audit and Report Info on RIN Trading Platforms

[View Purchase Summary](#)

2012 D4

Producer	Independent Site Audit	Independent QAP	QAP Report	Bid	Volume	Purchase	Purchase Volume
To purchase all, enter your bid and check the box to the right.				\$ <input type="text"/>		<input type="checkbox"/>	
AMERICAN BIODIESEL INC (DBA) (4935)	<input checked="" type="checkbox"/>			\$ <input type="text"/>	10,200	<input type="checkbox"/>	<input type="text"/>
ARCHER DANIELS MIDLAND COMPANY (4898)				\$ <input type="text"/>	7,470	<input type="checkbox"/>	<input type="text"/>
BIODIESEL OF LAS VEGAS INC (5648)				\$ <input type="text"/>	118,686	<input type="checkbox"/>	<input type="text"/>
CRIMSON RENEWABLE ENERGY LP (4814)				\$ <input type="text"/>	6,656	<input type="checkbox"/>	<input type="text"/>
Cargill Biodiesel (3683)				\$ <input type="text"/>	124,925	<input type="checkbox"/>	<input type="text"/>
DEERFIELD ENERGY, LLC (4285)				\$ <input type="text"/>	14,921	<input type="checkbox"/>	<input type="text"/>
FINA, LLC (4839)				\$ <input type="text"/>	363	<input type="checkbox"/>	<input type="text"/>
Genuine Bio-Fuel, Inc. (3374)				\$ <input type="text"/>	33,750	<input type="checkbox"/>	<input type="text"/>
INCOBRASA INDUSTRIES LTD (4905)				\$ <input type="text"/>	21,477	<input type="checkbox"/>	<input type="text"/>
IOWA RENEWABLE ENERGY LLC (4698)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	View	\$ <input type="text"/>	40,793	<input type="checkbox"/>	<input type="text"/>
LOUIS DREYFUS AGRICULTURAL INDUSTRIES LLC (5393)				\$ <input type="text"/>	18,560	<input type="checkbox"/>	<input type="text"/>
MID-AMERICA BIOFUELS LLC (4887)				\$ <input type="text"/>	8,261	<input type="checkbox"/>	<input type="text"/>
MIDWEST BIODIESEL PRODUCTS LLC (4652)	<input checked="" type="checkbox"/>			\$ <input type="text"/>	603,263	<input type="checkbox"/>	<input type="text"/>
MINNESOTA SOYBEAN PROCESSORS (4527)				\$ <input type="text"/>	82,914	<input type="checkbox"/>	<input type="text"/>
NATURAL BIODIESEL PLANT LLC (4696)				\$ <input type="text"/>	1,758	<input type="checkbox"/>	<input type="text"/>

Current QAP Program

- 330,000,000+ Biodiesel GPY / 35 Facilities
- 200,000,000+ Ethanol GPY / 5 Facilities
- Access to insurance programs and indemnifications
- Expanding QAP Review Staff
- Training Market Participants
- Additional Automation via Software Interfaces
- Integration with other QA and environmental programs (LCFS , RED, etc.)



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