
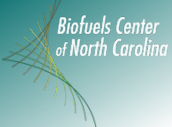



RFS2 vs. 2008 Farm Bill
An introduction to policy driving or hindering the biofuels industry and updates from capitol hill

Presented by

Steve Wall, Biofuels Center of North Carolina
Michele Dunn, BioFeedstock Industry Association
Wesley Dunn, BioFeedstock Industry Association

Transitioning from the Bucket to the Barrel



**The Renewable Fuel Standard Program:
An Overview and Update**

Steve Wall
Director of Policy and Environmental Issues
Biofuels Center of North Carolina
May 8, 2013

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Overview of Webinar Content


- ❑ Background on Renewable Fuel Standard Program (RFS2)
- ❑ Current RFS2 Policy Issues
- ❑ Biofuels Trivia

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Terms to Know

- ❑ Renewable Fuels or Biofuels
- ❑ Biomass
- ❑ Cellulosic Feedstocks




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North Carolina's Strategic Plan for Biofuels Leadership

"Create large capacity for liquid fuels sold in North Carolina that come from biofuels grown and produced within the state."



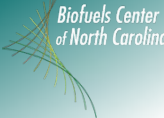
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North Carolina's Biofuels Campus Oxford, N.C.



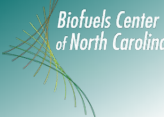
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Renewable Fuel Standard (RFS2) Program

- ❑ The RFS program originally enacted in 2005 through the Energy Policy Act.
- ❑ In 2007 the Energy Independence and Security Act expanded the program to RFS2.
- ❑ RFS2 mandates increasing levels of renewable fuel production culminating in 36 billion gallons of production by 2022.

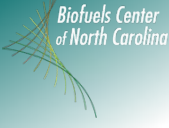
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Benefits of RFS2

- ❑ According to EPA increased use of renewable fuels will lead to:
 - 1) Reduced dependence on foreign sources of oil;
 - 2) Reduced price of transportation fuels;
 - 3) Reduced greenhouse gas emissions; and
 - 4) Increased U.S. farm income.

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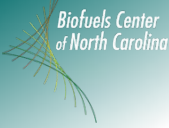


**Biofuels Trivia
Question # 1**

Which former US President said, “We must never again be caught in a crisis where the US is dependent on any other country for the energy we need to produce our jobs, to heat our homes, and to furnish our transportation.”

A	Richard Nixon
B	Jimmy Carter
C	Ronald Reagan
D	Bill Clinton

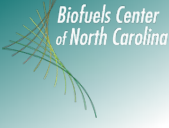
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Framework of RFS2

- ❑ The U.S. Environmental Protection Agency administers the program and issues regulations.
- ❑ Gasoline and diesel suppliers (obligated parties) required to include biofuels per share of fuel sales.
- ❑ Obligated parties comply with RFS2 through credits: Renewable Identification Numbers (RINs)

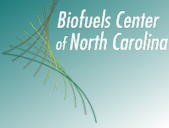
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RFS2 Fuel Categories

- Four categories of renewable fuels in RFS2:
 - 1) Total renewable fuels (corn ethanol fits here);
 - 2) Advanced biofuels;
 - 3) Biomass based diesel; and
 - 4) Cellulosic biofuels.

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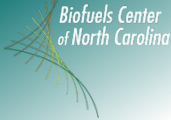


Biofuels Trivia Question #2

Henry Ford originally intended the Model T to run on what type of fuel?

A	Kerosene
B	Ethanol
C	Gasoline
D	Biodiesel

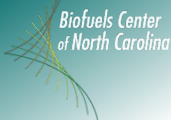
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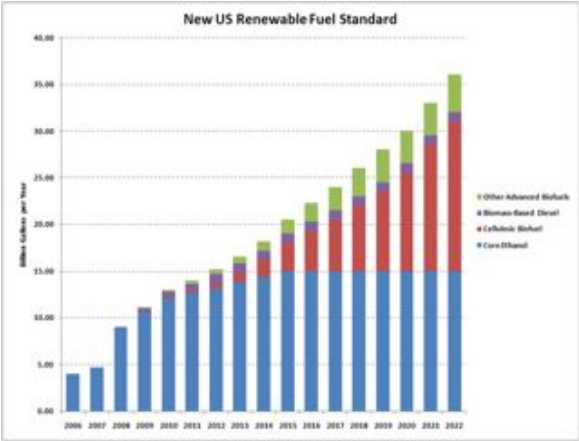
RFS 2 Fuel Categories

- Two key points about the categories
 - 1) Each category has its own annual volume requirements; and
 - 2) Each category has specific greenhouse gas emissions reductions thresholds.

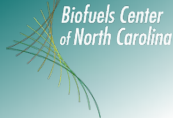
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RFS2 Fuel Category Volumes



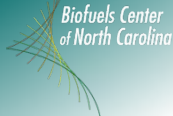
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RFS2 Fuel Category GHG Reductions

Biofuels Category	Threshold Reduction
Renewable Fuel	20%
Advanced Biofuel	50%
Biomass-based Diesel	50%
Cellulosic Biofuel	60%

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Biofuels Trivia Question #3

What type of fuel do NASCAR race cars use?

A	Gasoline
B	E-10
C	E-15
D	E-85

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RFS2 Fuel Pathways



- ❑ EPA fuel pathway process limits the types of feedstocks that can be used to make renewable fuel.
- ❑ “Renewable biomass” definition places limits on the land that renewable fuel feedstocks can come from.

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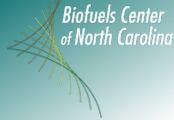
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RFS2 Fuel Pathways

- ❑ Some cellulosic crops already approved:
Switchgrass &
Giant Miscanthus
- ❑ Other cellulosic crops waiting approval:
Arundo donax &
Biomass Sorghum



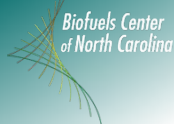
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Renewable Biomass

- ❑ RFS2 requires fuel to be made from feedstocks that meet “renewable biomass” definition.
- ❑ Excluded under the “renewable biomass” definition are:
 - 1) land cleared or cultivated after December 19, 2007; and
 - 2) tree crops, tree residues and other biomass obtained from federal lands.

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Biofuels Trivia Question #4

In North Carolina leftover grease from the State Fair is turned into biodiesel. How much grease does the State Fair generate each year?

A	5,000 gallons
B	10,000 gallons
C	15,000 gallons
D	20,000 gallons

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RFS2 Hot Topics

- ❑ Policy uncertainty
- ❑ Blend wall
- ❑ Cellulosic volumes
- ❑ Land use issues

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Policy Uncertainty

- ❑ Legislation has been introduced in the current Congress to modify and to eliminate RFS2.
(HR 1461, HR 1462)




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Blend Wall

- ❑ Current usage of ethanol blended into the nation's fuel supply is reaching its limit.




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Cellulosic Volumes

- ❑ EPA's projections for the amount of cellulosic biofuels produced have not matched actual production rates leading to lawsuits.



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Land Use Issues

- Rising global demands for food and energy in coming years place increased attention on how we utilize our land.



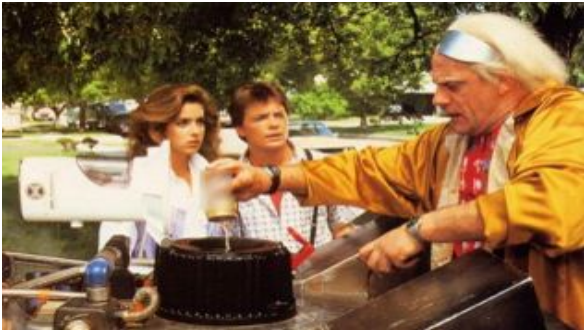
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Biofuels Trivia Question #5

What type of fuel did the Flux Capacitor use?

A	Gasoline
B	E-85
C	Biodiesel
D	?



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The Pushme-Pullyou of Biofuels Policy

The circular firing squad of Congress,
Federal Agencies and Public Misconceptions

Michele Dunn and Wesley Dunn

Policies Programs and Propaganda

- Renewable Fuel Standard (RFS)
- Title IX (Energy Title) Farm Bill
- Defense Production Act (DPA) MOU
- EPA Regulations and Pathways
- Tax Policy
- Congress
- The Industry Itself



Renewable Fuel Standard

Why It Is Important

- The mandates provided under the program are a key driver of any potential funding coming from commercial sources and assures a market place to new fuels

Why They Want To Kill It

- Confusion with Corn Ethanol
- Food vs. Fuel
- Small Engine Damage
- Environmental Concerns
- Blend Wall
- It Isn' t Petroleum



Title IX Energy Title Farm Bill

- Biomass Crop Assistance Program (BCAP)
- Rural Energy for America Program (REAP)
- Bio-Refinery Assistance Program



Biomass Crop Assistance Program BCAP

- The only federal program to help establish new energy crops.
- Aids in the use of existing material (corn stover, forest waste) as biomass for advanced fuels
- Bridges gap between planting and sales to refiners (usually three years)



Title IX UNDER ATTACK

- Caught up in the Farm Bill Fiasco
- Seen as a crop subsidy
- General distaste of renewable energy by some conservatives
- Several failures in loan guarantee program
- Money grab as an offset from both parties
- Initial misuse of some programs



DPA MOU

- A joint \$510 million initiative under the Defense Protection Act between Department of Defense (DOD), United States Department of Agriculture (USDA) and Department of Energy (DOE) that will spur development and support of a sustainable commercial advanced biofuels industry for national security.



DPA MOU IOU

- Faces strong opposition by some members in Congress who just hate everything
- Some infighting between the three agencies involved
- General budget woes



EPA

The Agency Everybody Loves To Hate



EPA Pathways to Nowhere

- Extremely long waiting period (up to two years) to receive a pathway
- Unclear jurisdiction over approved feedstocks
USDA vs. EPA
- Extremely long waiting period to receive a pathway...



Tax Policy

- Securing Optionality Between Existing Tax Provisions
Providing a range of tax options for those seeking to build new plants will expedite deployment of advanced biofuels.
- Stable tax policy equal to other energy sectors



CONGRESS

- There isn't enough time in ten days to explain all the ways CONGRESS has been a hindrance to Advanced Biofuel Policy
- Watch the news
- Read the papers
- Vote



We Have Seen The Enemy And He Is Us

- The Renewable Energy Sector as a whole tends to be very territorial.
- First Generation vs. Second Generation
- Renewable Definition
- No Uniform Definition of Biomass
- Environmental Community
- Chemical vs. Biofuels
- Technology and Feedstock Wars

 BIOFEEDSTOCK
INDUSTRY ASSOCIATION

It's Always Darkest Before Dawn

Considering the attacks on the Biofuel Industry
as a whole, let's hope this is true.

 BIOFEEDSTOCK
INDUSTRY ASSOCIATION

For Additional Information

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Our special thank you to
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