

A thick black L-shaped frame surrounds the text. The top horizontal bar is at the top left, the left vertical bar is on the left side, and the bottom horizontal bar is at the bottom right.

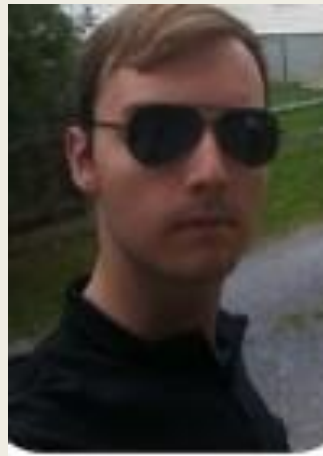
EXAMINATION OF THE RENEWABLE FUELS STANDARD

Presented By: Leyla Battista on March 2, 2018

Team Members: John Johnson, Shehan Navaranthe, & Alex Vore

About Me & the Team

- Originally from Huntsville, AL
- Senior at Auburn University
- Biosystems Engineer
- Member of the Consortium for Advanced Bioeconomy Leadership & Education grant
- Public policy working group
- The Team: Alex Vore, Shehan Navaranthe, John Johnson



Project Objectives & Deliverables

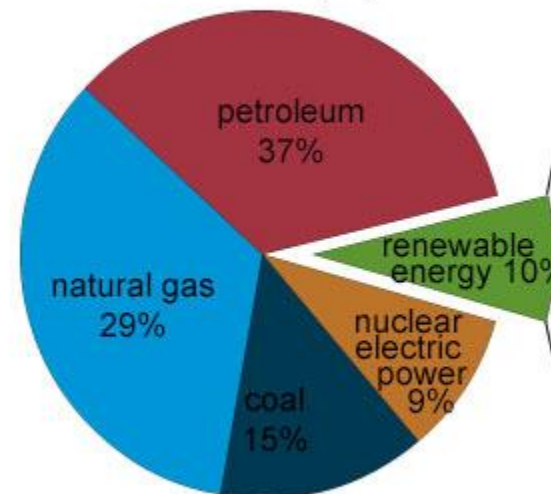
- Analyze RFS, examine available resources, awareness levels of college students
- Provide objective fact based resources aimed at increasing understanding among policymakers and the general public
- Gain an understanding of the best methods by which to reach young audiences
- “Fast Facts” sheet, PowerPoint presentation, and project website

The Problem

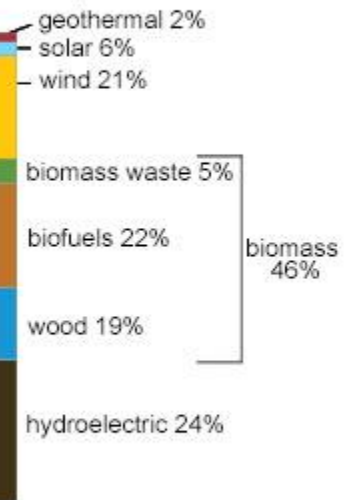
- Long document with yearly update documents
- Immense level of detail
- Lack of a clear and concise overview
- Deliberate complication of the standard
- Lack of truly objective sources
- Long, detailed, biased sources, and intimidating
- Lack of awareness and/or understanding among younger generations
- Information not communicated effectively

U.S. energy consumption by energy source, 2016

Total = 97.4 quadrillion
British thermal units (Btu)



Total = 10.2 quadrillion Btu



biomass
46%

Note: Sum of components may not equal 100% because of independent rounding.

Source: U.S. Energy Information Administration, *Monthly Energy Review*, Table 1.3 and 10.1, April 2017, preliminary data



Source: US Energy Administration

The standard impacts air quality by encouraging the use of lower polluting fuels.

RFS sets mandatory ghg reduction levels for renewable fuel, biofuels, diesel and cellulosic diesel.

A life cycle analysis of each fuel type is conducted to understand the true environmental effects of its use.

Standard aims to encourage domestic energy production through ethanol fuel blending, renewable fuels, and any other alternative energy production methods.

The ultimate goal is to diversify United States energy portfolio and reduce reliance on foreign oil.

Lower GHG Emissions

Increase Biofuel Use

Renewable Fuels Standard

Energy Independence

Corporate Responsibility

The program sets standards that show what percentage of an importer's fuel volume must be renewable.

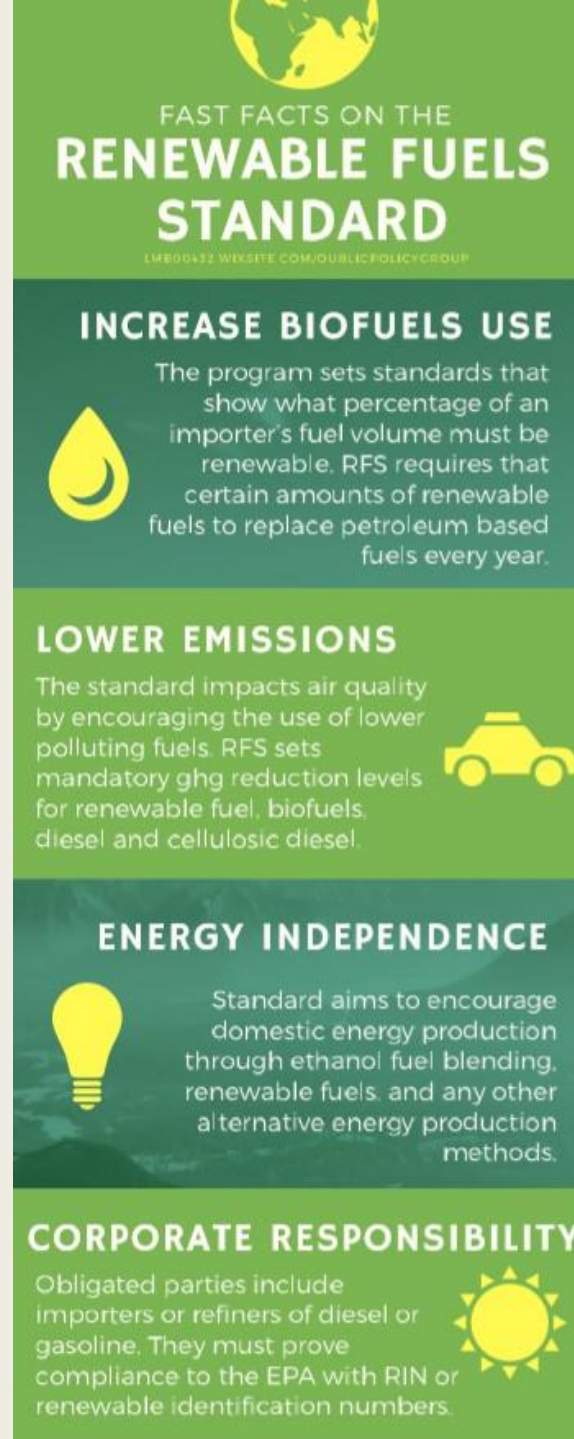
RFS requires that certain amounts of renewable fuels to replace petroleum based fuels every year.

Obligated parties are required to comply. Obligated parties include importers or refiners of diesel or gasoline. They must further prove compliance to the EPA.

RIN or renewable identification numbers are used to keep track of compliance, acts as a receipt for proof of fuel blending and are tradeable in industry.

Fast Facts Sheet

- Main objectives, history, impacted categories, RIN
- Colorful
- Easy to read, “skimmable”, not intimidating
- Does not use charged words or indicate support or opposition



FAST FACTS ON THE RENEWABLE FUELS STANDARD
LMB00432 WEBSITE.COM/PUBLICPOLICYGROUP

INCREASE BIOFUELS USE
The program sets standards that show what percentage of an importer's fuel volume must be renewable. RFS requires that certain amounts of renewable fuels to replace petroleum based fuels every year.

LOWER EMISSIONS
The standard impacts air quality by encouraging the use of lower polluting fuels. RFS sets mandatory ghg reduction levels for renewable fuel, biofuels, diesel and cellulosic diesel.

ENERGY INDEPENDENCE
Standard aims to encourage domestic energy production through ethanol fuel blending, renewable fuels, and any other alternative energy production methods.

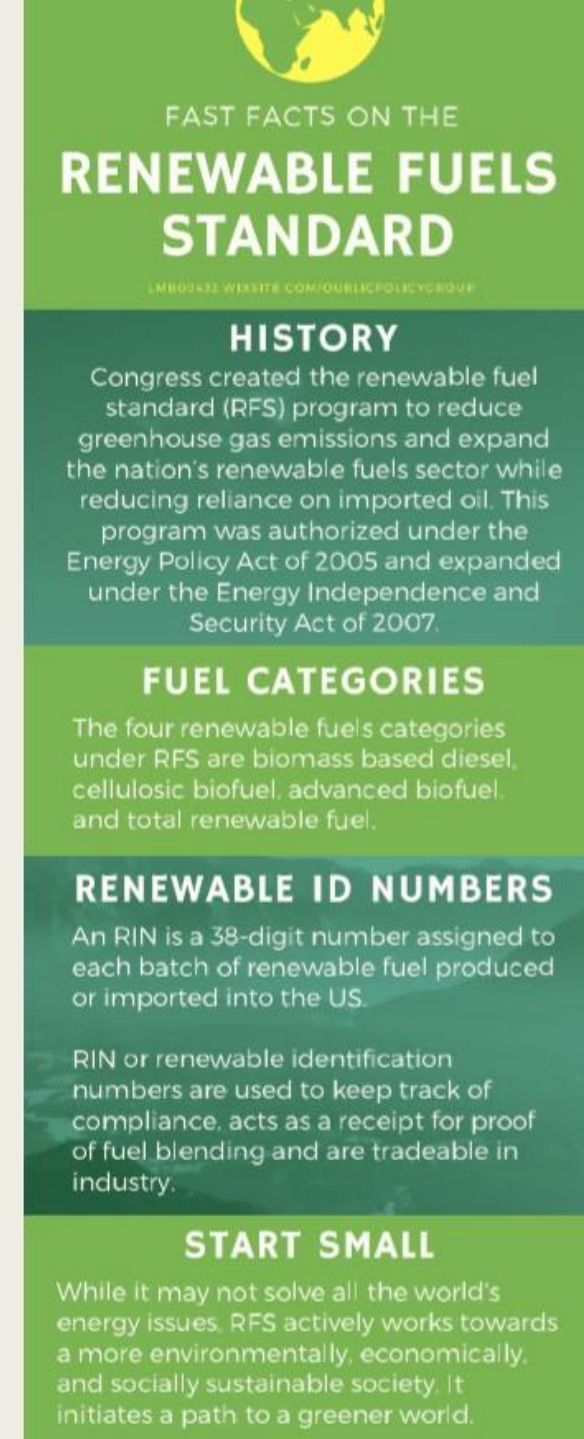
CORPORATE RESPONSIBILITY
Obligated parties include importers or refiners of diesel or gasoline. They must prove compliance to the EPA with RIN or renewable identification numbers.

HISTORY
Congress created the renewable fuel standard (RFS) program to reduce greenhouse gas emissions and expand the nation's renewable fuels sector while reducing reliance on imported oil. This program was authorized under the Energy Policy Act of 2005 and expanded under the Energy Independence and Security Act of 2007.

FUEL CATEGORIES
The four renewable fuels categories under RFS are biomass based diesel, cellulosic biofuel, advanced biofuel, and total renewable fuel.

RENEWABLE ID NUMBERS
An RIN is a 38-digit number assigned to each batch of renewable fuel produced or imported into the US.
RIN or renewable identification numbers are used to keep track of compliance, acts as a receipt for proof of fuel blending and are tradeable in industry.

START SMALL
While it may not solve all the world's energy issues, RFS actively works towards a more environmentally, economically, and socially sustainable society. It initiates a path to a greener world.



FAST FACTS ON THE RENEWABLE FUELS STANDARD
LMB00432 WEBSITE.COM/PUBLICPOLICYGROUP

INCREASE BIOFUELS USE
The program sets standards that show what percentage of an importer's fuel volume must be renewable. RFS requires that certain amounts of renewable fuels to replace petroleum based fuels every year.

LOWER EMISSIONS
The standard impacts air quality by encouraging the use of lower polluting fuels. RFS sets mandatory ghg reduction levels for renewable fuel, biofuels, diesel and cellulosic diesel.

ENERGY INDEPENDENCE
Standard aims to encourage domestic energy production through ethanol fuel blending, renewable fuels, and any other alternative energy production methods.

CORPORATE RESPONSIBILITY
Obligated parties include importers or refiners of diesel or gasoline. They must prove compliance to the EPA with RIN or renewable identification numbers.

HISTORY
Congress created the renewable fuel standard (RFS) program to reduce greenhouse gas emissions and expand the nation's renewable fuels sector while reducing reliance on imported oil. This program was authorized under the Energy Policy Act of 2005 and expanded under the Energy Independence and Security Act of 2007.

FUEL CATEGORIES
The four renewable fuels categories under RFS are biomass based diesel, cellulosic biofuel, advanced biofuel, and total renewable fuel.

RENEWABLE ID NUMBERS
An RIN is a 38-digit number assigned to each batch of renewable fuel produced or imported into the US.
RIN or renewable identification numbers are used to keep track of compliance, acts as a receipt for proof of fuel blending and are tradeable in industry.

START SMALL
While it may not solve all the world's energy issues, RFS actively works towards a more environmentally, economically, and socially sustainable society. It initiates a path to a greener world.

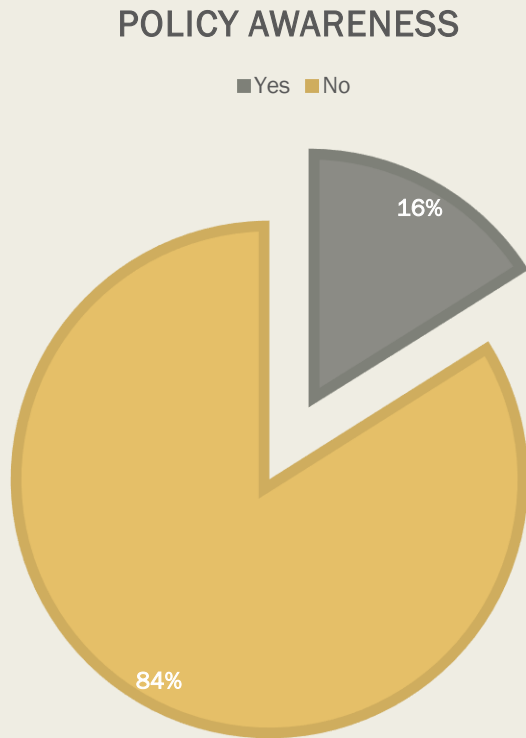
Bridging the Millennial Gap

- New methods of staying informed
- Numerous social media platforms
- Unique ways of communicating
- Different learning needs from previous generations
- Sometimes perceived as apathetic

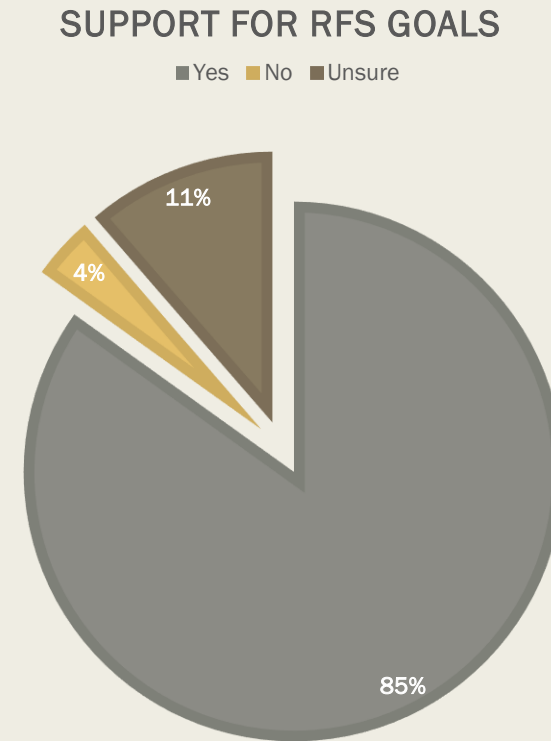


Millennial “Speed Survey” Results

Do you know what the Renewable Fuels Standard is?



Do you think it is important that society depend less on fossil fuels and foreign oil?

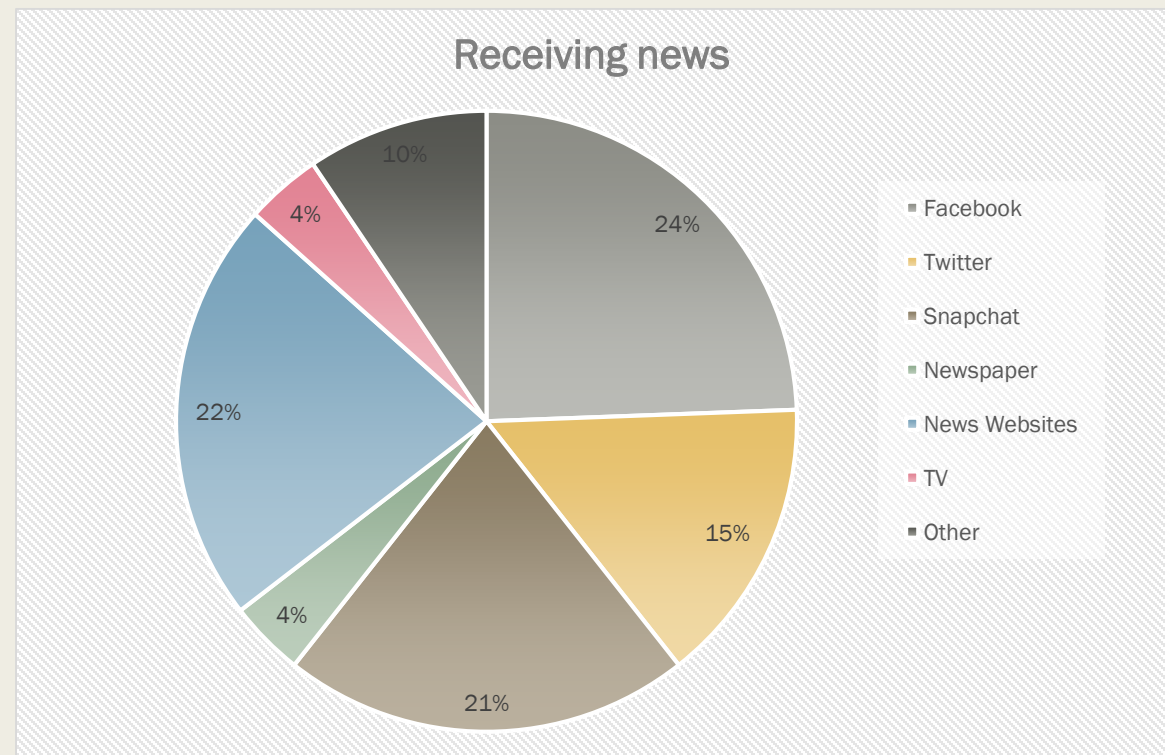


*Survey was of 200 college age students between the ages of 17 and 24.

Reaching the New Generation

What is your most preferred method of receiving news?

News Platform	Responses
Facebook	62
Twitter	38
Snapchat	54
Newspaper	10
News Websites	56
TV	10
Other	24



Thank you for your time.

Note from the CABLE team:

Thanks to Eric McAfee for your support of our project and Jim Lane for allowing us to attend ABLC Next and present at ABLC 2018. And to all the industry members that have supported our program. You are greatly appreciated.

Resources:

“Overview for Renewable Fuel Standard.” January 2017. Environmental Protection Agency. Web.

“Federal Registrar: RFS.” December 2017. Environmental Protection Agency. Web.

US Energy Administration Agency. Web. 2017

<https://www.epa.gov/renewable-fuel-standard-program>
<https://www.cbo.gov/publication/52828>
<http://www.ethanolrfa.org/policy/regulations/renewable-fuel-standard/>

- Objective resources
- Increased education initiatives
- Initiatives geared towards the preferences of young audiences
- Constructive use of social media
- Keeping Facebook and Twitter up to date and active
- Making material “approachable”
- Free food and other comforting distractions



This project is supported by Agriculture and Food Research Initiative Competitive Grant no. 2016-08177 from the United States Department of Agriculture (USDA) National Institute of Food and Agriculture