

## **Overview: National Renewable Fuel Standard Program**

- This EPA rule makes changes to the Renewable Fuel Standard (RFS2) program as required by the Energy Independence and Security Act of 2007 (EISA).
- The rule sets the full EISA renewable fuels volume standard at 12.95 billion gallons for 2010.
- EISA established new specific annual volume standards – increasing annually to reach at least 36 billion gallons per year by 2022.
- The rule also establishes volume standards for specific categories renewable fuels:
  - **2010 Conventional Renewable Standard:** 12 billion gallons of corn ethanol or other qualifying renewable fuel.
  - **2010 Biomass-Based Diesel Standard:** 1.15 billion gallons, which combines the 2009 and 2010 standards, including special provisions to account for the 2009 biomass-based diesel volume requirements in EISA.
  - **2010 Cellulosic Standard:** 6.5 million gallons. While this is significantly less than the 2010 EISA standard, a number of companies and projects appear to be poised to expand production over the next several years and we are optimistic that this rule will provide the opportunity and certainty necessary for the market to begin to expand.
- In order to qualify for these new categories, fuels must demonstrate they meet certain minimum greenhouse gas reduction standards, based on lifecycle assessment, in comparison to the petroleum fuels they displace. Based on EPA's current modeling of specific fuel pathways, the agency has determined that the following fuels qualify:
  - Ethanol produced from corn at a new natural gas-fired facilities with advanced technologies
  - Biobutanol from corn starch
  - Ethanol produced from sugarcane complies as advanced
  - Biodiesel from soy oil and renewable diesel from waste oils, fats, and greases complies for the biomass-based diesel category
  - Diesel produced from algal oils complies as advanced
  - Cellulosic ethanol and cellulosic diesel (based on currently modeled pathways) comply with as cellulosic biofuels
  - The rule also provides a process to efficiently evaluate and establish new fuels and feedstocks such as sorghum and other crops.
- **Requirements for Feedstock Producers:** EISA requires that the feedstocks used to produce fuels for this program to be made from "renewable biomass." This limits both the types of biomass and land the biomass may come from. These restrictions generally apply to two feedstock sectors: the agricultural sector and the non-agricultural sector. Today's rule provides the requirements necessary to approve feedstocks for use in this program.
- **Overview of Impacts of the RFS2 Program**
  - **Petroleum Consumption, Energy Security and Fuel Costs:** We estimate this program will replace about at 7 percent of expected annual gasoline and diesel consumption in 2022, decrease oil imports by \$41.5 billion, and to result in additional energy security benefits of \$2.6 billion.
  - **Greenhouse Gas Emissions:** When fully implemented in 2022, renewable fuels are expected to reduce greenhouse gas emissions by 138 million metric tons -- equivalent to the annual emissions of 27 million passenger vehicles.
  - **Agriculture Sector and Related Impacts:** In 2022, the increased use of renewable fuels is expected to expand the market for agricultural products such as corn and soybeans and open new markets for advanced biofuels – increasing net farm income by an estimate of \$13 billion dollars – or more than 36 percent – in 2022.
  - **Emissions and Air Quality:** Increased use of renewable fuels will also impact emissions. Some emissions are expected to increase and others to decrease. The impacts of these emissions on criteria air pollutants will vary from area to area. EISA directs the agency to further evaluate these potential impacts and to mitigate, to the extent possible, any adverse impacts.