THE NEXT GENERATION FUELS

Bill Summary

The Next Generation Fuels Act would transition the gasoline supply to higher octane fuel in order to reduce greenhouse gas emissions, improve air quality, increase fuel efficiency, and grow future demand for corn.

Low Carbon High Octane Fuels

- Requires the Environmental Protection Agency (EPA) allow automakers to use a new 98 Research Octane Number, or RON, fuel to certify new vehicles for emissions and fuel economy, making 98 RON fuel available no later than January 1, 2022.
    - › RON is the measurement of gasoline properties related to how the fuel combusts in engines; today's regular gasoline is about 91 RON.
    - › Advanced engine design features are limited by 91 RON. Higher octane fuels, such as 98 RON, allow automakers to meet stricter emission standards and improve vehicle fuel efficiency from 5 to 7 percent.
    - › A new 98 RON would support mid-level blends like E25 and E30 which would generate new corn grind.
- Requires octane sources used in the new 98 RON fuel to result in at least 30 percent fewer greenhouse gas (GHG) emissions than unblended gasoline, reducing emissions by at least 11 percent compared to current regular gasoline. Establishes a clean octane standard by limiting the aromatic hydrocarbon content of gasoline to an annual average of 17.5 percent by volume.
    - › This requirement ensures the progress already made to lower emissions, by replacing harmful petroleum-based gasoline components with cleaner renewable fuels, would continue.

Regulatory Harmonization

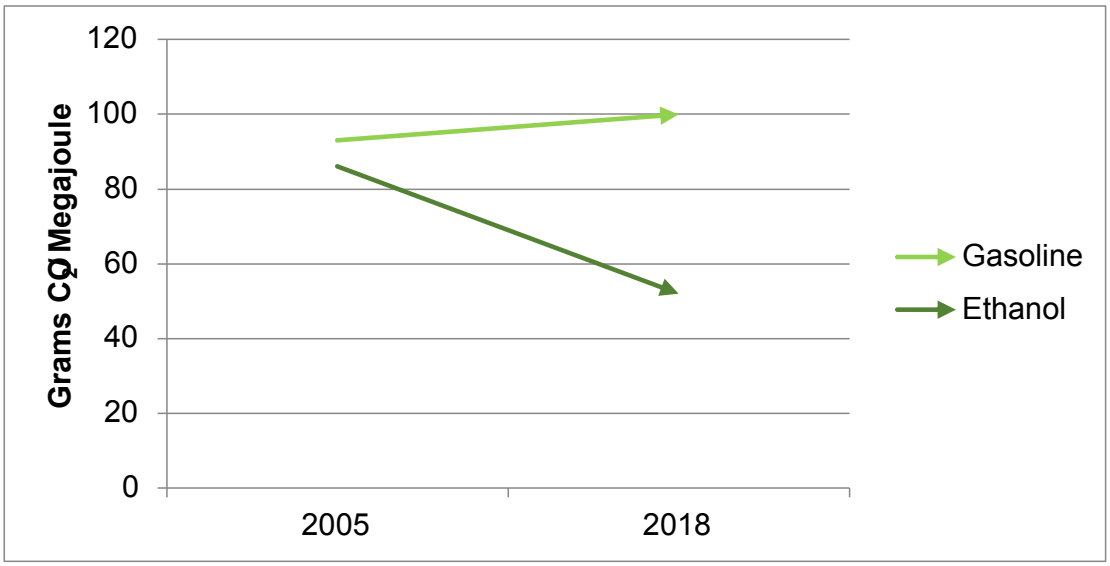
- Removes unnecessary and outdated regulatory barriers preventing more high octane, low carbon blends from entering the market by ensuring all ethanol blends greater than 10 percent receive the same Reid Vapor Pressure (RVP) treatment as 10 and 15 percent blends.
- Updates the R-Factor, part of the EPA formula used to calculate vehicle fuel efficiency, to 1.0 to support low carbon fuel use and reflect modern engines.
- Streamlines EPA approval of fuel blends up to 30 percent ethanol to ensure cost-effective options are available to meet the 98 RON standard but without creating a mandate
- Requires the EPA to replace the flawed Motor Vehicle Emissions Simulator (MOVES) model with one that accurately represents real-world fuels and vehicles currently in the market.

Vehicle and Fueling Infrastructure

- Requires automakers, beginning with the 2024 model year, to warrant vehicles for use on 98 RON fuel and ethanol blends up to and including 30 percent.
- Requires all new refueling infrastructure to be compatible with higher ethanol blends effective January 1, 2024.
- Re-establishes Corporate Average Fuel Economy (CAFE) and GHG credits for flex fuel vehicles, providing meaningful credits to automakers for production of vehicles that run on low carbon fuels, like E85, and encouraging production of vehicles that could also use high octane, low carbon fuel like 98 RON.

Ethanol as an Octane Source

- Ethanol's carbon footprint is shrinking. 2018 USDA analysis shows today's ethanol reduces GHG emissions by 39 to 43 percent, with potential to improve to 70 percent fewer GHG emissions than gasoline. The Department of Energy Argonne National Laboratory GREET model shows ethanol's average carbon intensity is 41 percent lower than that of baseline gasoline today.



High Octane is Low Carbon

- By increasing the octane rating of the nation's fuel, automakers will be able to use advanced engine design features that improve vehicle fuel efficiency from 5 to 7 percent. Current fuel standards limit the use of these advanced engine technologies, leaving automakers with few options to achieve higher fuel economy standards.
- The Next Generation Fuels Act requires that sources used to increase gasoline's octane rating result in at least 30 percent fewer GHG emissions than unblended gasoline, reducing GHG emissions by at least 11 percent with higher ethanol blending compared to today's standard 10 percent ethanol blend.
- By requiring that octane come from low carbon sources, liquid fuels are further decarbonized as vehicle technologies advance. This requirement, coupled with a new limit on harmful aromatics content, ensures progress already made on lowering emissions by replacing harmful gasoline components with cleaner renewables continues and prevents backsliding with more fossil fuels.

Low Carbon Octane Benefits

- By getting more miles per gallon, increased fuel efficiency reduces emissions from transportation fuel. Blending more low carbon ethanol further decreases GHG emissions and improves air quality and benefits our health.
- Ethanol, due to its high octane rating and other properties, is an efficient octane source. Priced lower than unblended gasoline, ethanol is also the most cost-effective octane source, providing the greatest efficiency gains at the least cost to drivers while displacing the most harmful components of gasoline.
- For farmers and rural communities, low carbon, high octane fuel supports long-term biofuel demand and enables biofuels to be a greater part of the solution to reduce carbon emissions.

Learn more about the benefits of high-octane low-carbon fuel at ncga.com/octane

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