

The Next Generation Fuels Act



Bill Summary - S. 944/H.R. 2434

The Next Generation Fuels Act cleans up our nation's fuel supply and transitions light duty vehicles to use low carbon, high octane fuels to cut costs, reduce greenhouse gas (GHG) emissions, improve air quality, and increase fuel efficiency, all while supporting agriculture's contribution toward addressing energy security and climate change and decarbonizing transportation. The bill ensures a low carbon and low cost octane source like ethanol substitutes for toxic, expensive aromatics added for octane, giving drivers a cleaner option that costs less.

Why Do We Need It?

- **The Next Generation Fuels Act would cut fuel costs, cut emissions and shore-up energy security for the long run.**
 - Recent high fuel prices show the need for a more diverse fuel supply and greater energy independence.
 - Looking to the future, transportation must be cleaner to cut harmful carbon and toxic tailpipe emissions.
 - Consumers want greater choice and affordability in the transition to cleaner vehicles and fuels.

How Does The Next Generation Fuels Act Work?

Low Carbon High Octane Fuels

- Requires automakers to use new 95 and 98 Research Octane Number, or RON, fuels to certify new vehicles for emission and fuel economy standards, beginning with model years 2028 and 2033, respectively.
 - Octane in fuels prevents premature engine combustion. **The higher the octane, the greater the engine efficiency, lowering emissions.**
 - RON is a better measure of octane for today's fuels and vehicles. Today's regular gasoline is about 91 RON.
 - High octane fuels, such as 98 RON, allow automakers to meet stricter emission standards and improve vehicle fuel efficiency by 5 to 7 percent. Current fuel limits advanced engine design features that would help meet stricter standards, increase miles per gallon and maintain more fuel and vehicle choices.
 - New 95 and 98 RON fuels would support mid-level ethanol blends like E20 to E30, supporting rural economies with increased demand.
- Requires octane sources used in the new fuels to result in at least 40 percent fewer GHG emissions than unblended gasoline, lowering emissions compared to current market fuel. Establishes a **clean octane standard** by limiting the aromatic hydrocarbon content of all gasoline to an annual average of 17.5 percent by volume beginning in 2027.
 - Limiting aromatic hydrocarbons replaces toxic petroleum-based components with cleaner renewables like ethanol, which lowers tailpipe emissions to improve air quality and human health.
 - Modeling by the University of Illinois at Chicago's Energy Resources Center shows that by encouraging increased ethanol use, this legislation will reduce aromatics-related mortalities by 1,400 cases.

Environmental modeling by the University of Illinois at Chicago's Energy Resources Center shows The Next Gen Fuels Act will reduce GHG emissions by **2 billion metric tons** saving **\$86 billion** in monetized damages by 2040.

New Vehicle Design/Warranty and Retail Fueling Infrastructure

- Requires automakers, beginning with the 2028 model year, to design and warrant vehicles for use with 95 RON fuel and ethanol blends up to 25 percent, increasing to 98 RON and up to 30 percent blends with model year 2033.
- Requires retailers and automakers to incorporate devices into fueling equipment and vehicles that ensure vehicle compatibility with the new fuels and prevent misfuelling. Requires all new refueling infrastructure to be compatible with higher ethanol blends effective January 1, 2026.
- Updates the CAFE/GHG weighting factor for flex fuel vehicles to 0.21, supporting production of more vehicles that run on low carbon alternative fuels like E85, which costs less than gasoline.

Regulatory Harmonization for Higher Ethanol Blends

- Removes unneeded and outdated barriers preventing low carbon, high octane blends from entering the market by ensuring all ethanol blends receive the same Reid Vapor Pressure (RVP) treatment as 10 percent blends, like E15.
- Streamlines EPA approval of fuel blends with up to 30 percent ethanol to ensure cost-effective options to maximize carbon reduction are available to meet the new RON standards.
- During the past year, as fuel prices have been high, ethanol has been priced up to \$1 less per gallon than unblended gasoline at the wholesale level. Drivers who choose E15 have been saving up to 20 cents or more per gallon. **Blending more ethanol lowers fuel prices, and higher ethanol blends cost less.**

Complements Other Clean Fuel Policies

- Corn growers support market-based clean fuel policies that incentivize low carbon fuels like ethanol. The Next Generation Fuels Act would complement other clean fuel policies, making more space in every liquid fuel gallon for low carbon ethanol. That means greater decarbonization per gallon and ensures liquid fuels remain competitive and affordable in the transition to low carbon transportation.

The Department of Energy's Argonne National Laboratory shows ethanol's carbon intensity is

44 to 52 percent lower
than gasoline's carbon intensity.

Ethanol's carbon intensity has
declined 23 percent since 2005
according to Argonne's GREET lifecycle analysis.

With continued voluntary, on-farm sustainability improvements, soil carbon sequestration, and carbon capture technology, ethanol can reach net zero emissions.