ACE 2024 FLY-IN

& Government Affairs Summit

american coalition for ethanol SM

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PRIORITY ISSUES

E15 YEAR-ROUND

After missing the statutory decision deadline by more than a year and a half, EPA finally announced a rule in February allowing E15 year-round in eight Midwest states, but postponed the effective date to April 28, 2025. EPA's unjustified delay will increase tailpipe pollution and pump prices this summer unless additional actions, such as the emergency waivers in 2022 and 2023, are taken for 2024. It also underscores the importance of legislation ensuring permanent, nationwide E15 year-round, which is our highest priority for Congress.

We urgently need the Biden Administration to provide nationwide access to E15 this summer through its emergency waiver authority

Congress should enact **S. 2707**, the Nationwide Consumer and Fuel Retailer Choice Act to allow E15 year-round. We also support **H.R. 1608**, the Consumer and Fuel Retailer Choice Act

UNLOCK NEW MARKETS AND TAX CREDITS

USDA recently approved a 10-state Regional Conservation Partnership Program (RCPP) led by ACE to access new markets and tax incentives based on climate smart agricultural practices which can maximize ethanol's ability to significantly decarbonize the transportation and aviation sectors.

Treasury should apply the GREET model to ensure ethanol qualifies for the 40B sustainable aviation fuel (SAF) and 45Z clean fuel production tax credits. Treasury must include climate-smart agriculture practices, as illustrated by ACE's RCPP, in the GREET model for 40B and 45Z

Legislation we encourage Congress to support:

SAF Accuracy Act **(S. 1958 and H.R. 4862)** – to ensure agricultural feedstocks qualify for the SAF market;

Adopt GREET Act **(S. 3055 and H.R. 6152)** – to require the GREET model for determining lifecycle GHG emissions of biofuels under the Renewable Fuel Standard; and

Farm to Fly Act **(S. 3637, H.R. 6271)** - to support the development of SAF through USDA.

REMOVING BARRIERS TO HIGHER BLENDS

EPA is pushing an unrealistic requirement for battery electric vehicles (BEVs) to represent 67% of all sales by 2032. Rather than EPA arbitrarily picking winners and losers, we urge Congress to support the following market-based legislation enabling technologies to compete on a level playing field.

- Next Generation Fuels Act **(S. 944, H.R. 2434)** – to improve fuel efficiency and reduce emissions. This legislation sets high octane fuel standards, requires vehicle and infrastructure compatibility with higher blends, restores incentives for Flexible Fuel Vehicles (FFVs), and allows E15 year-round.

- Flex Fuel Fairness Act **(S. 2635, H.R. 6508)** – to provide manufacturers incentives for FFVs by acknowledging the emission benefits of E85 and flex fuels.

E15 BACKGROUND

The Clean Air Act prohibits the sale of gasoline with a Reid vapor pressure (RVP) in excess of 9 psi during the high ozone "summer" season (June 1 – Sept. 15). To allow the use of E10 year-round, Congress amended the Clean Air Act in 1990 to provide a 1-psi RVP waiver for fuel blends "containing gasoline and 10 percent ethanol" (the highest ethanol content in gasoline at the time).

In 2011, EPA approved E15, a fuel with slightly lower evaporative emissions than E10, for use in all light-duty vehicles made in model year 2001 and after. EPA did not allow an RVP waiver for E15 at the time. We support bipartisan legislation in Congress to essentially provide E15 and E10 the same RVP waiver and gasoline blendstock. (Because EPA only has volatility limits in conventional gasoline areas during the "summer" season, E15 can be sold outside the June 1 – Sept. 15 time frame).

Today, more than 95 percent of all U.S. vehicles are approved to use E15. Nearly 3400 retail sites offer E15 across 30 states.

E15 typically costs 5 to 25 cents per gallon less than E10 and 40 cents to $1.00 less than non-ethanol gasolines. E15 also has a higher-octane rating, so allowing the sale of this fuel would give consumers the option to buy a higher quality product for less money.

The use of E15 and E85 helped the U.S. reach a record high national ethanol blend rate in 2023 of 10.42%

E15 TIMELINE

May 30, 2019: EPA rule extending the RVP waiver to E15. Oil refiners challenge EPA's regulation in the D.C. Circuit.

July 2021: The D.C. Circuit reverses EPA's 2019 regulation. Congress introduces legislation for E15 year-round.

April 2022: Several Midwestern governors petition EPA to sell E15 without interruption in their states.

April 2022: President Biden directs EPA to issue temporary, emergency waivers so E15 can be sold during the 2022 summer months.

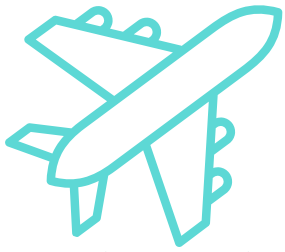
April 2023: EPA issues temporary, emergency waivers so E15 can be sold during the 2023 summer months.

February 2024: EPA decision to allow E15 year-round in Illinois, Iowa, Minnesota, Missouri, Nebraska, Ohio, South Dakota and Wisconsin, but postpones effective date to 2025.

EPA's unjustified delay will increase tailpipe pollution and force people to pay more at the pump this summer unless additional actions, such as the emergency waivers in 2022 and 2023, are taken for 2024. It also underscores the importance of legislation ensuring permanent, nationwide E15 year-round, which is our highest priority for Congress.

- **We urgently need the Biden Administration to provide nationwide access to E15 this summer through its emergency waiver authority**
- **Congress should enact S. 2707, the Nationwide Consumer and Fuel Retailer Choice Act to allow E15 year-round.** We also support H.R. 1608, the Consumer and Fuel Retailer Choice Act

CLEARING THE RUNWAY FOR ETHANOL-TO-JET SUSTAINABLE AVIATION FUEL (SAF)



GREET IS THE GLOBAL GOLD-STANDARD GHG MODEL

The best available science regarding the lifecycle GHG impacts of transportation and aviation fuels is reflected in the U.S. Department of Energy's Greenhouse gases, Regulated Emissions, and Energy use in Technologies (GREET) model, developed by the scientists at the Argonne National Laboratory. With 45,000 registered uses around the world, GREET is the global gold-standard GHG model and serves as the basis for the carbon intensity estimates of all fuels regulated under the California Low Carbon Fuel Standard (LCFS), Oregon Clean Fuels Program, and Washington Clean Fuel Standard. What's more, Congress directed the Treasury Department to utilize the GREET model to determine carbon intensity for the 45Z Clean Fuel Production and 45V Clean Hydrogen tax credits within the Inflation Reduction Act.

According to GREET, corn ethanol GHG emissions are at least 50% cleaner than the GHG emissions of gasoline on average. A peer-reviewed study published by researchers at MIT, Tufts, and Harvard, reinforces this fact, and given improvements within ethanol facilities and climate-smart agriculture, the researchers indicate corn ethanol's carbon footprint will continue to decline over time.

CLEARING THE RUNWAY FOR ETHANOL TO PRODUCE SAF

In December 2023 the Treasury Department agreed to recognize the GREET model as a "similar methodology" to determine the GHG emissions of sustainable aviation fuel (SAF) under IRA section 40B.

SAF is a renewable alternative to conventional, petroleum-based jet fuel that could be used in today's aircraft and immediately improve the environmental impacts of air travel. The U.S. alone used 25 billion gallons of aviation fuel in 2023, and the Biden Administration has launched the ambitious SAF Grand Challenge to support 3 billion gallons of SAF by 2030 and 25 billion gallons by 2050.

Feedstocks used to produce SAF include oilseeds, fats, oils, and greases, and other agricultural products. Corn ethanol is also a readily available feedstock for SAF. Ethanol-to-jet is a type of SAF that would serve as a new market in the future. An analysis from the Department of Energy found that "there is great potential to produce SAFs with potentially zero or negative GHG emissions through a combination of cleaner production technologies and sustainable farming practices."

SAF with lifecycle GHG emissions at least 50% cleaner than conventional jet fuel qualifies for the 40B tax credit. The value of this credit is determined on a sliding scale, equal to $1.25 plus an additional $0.01 for each percentage point by which the lifecycle GHG emissions reduction exceeds 50%.

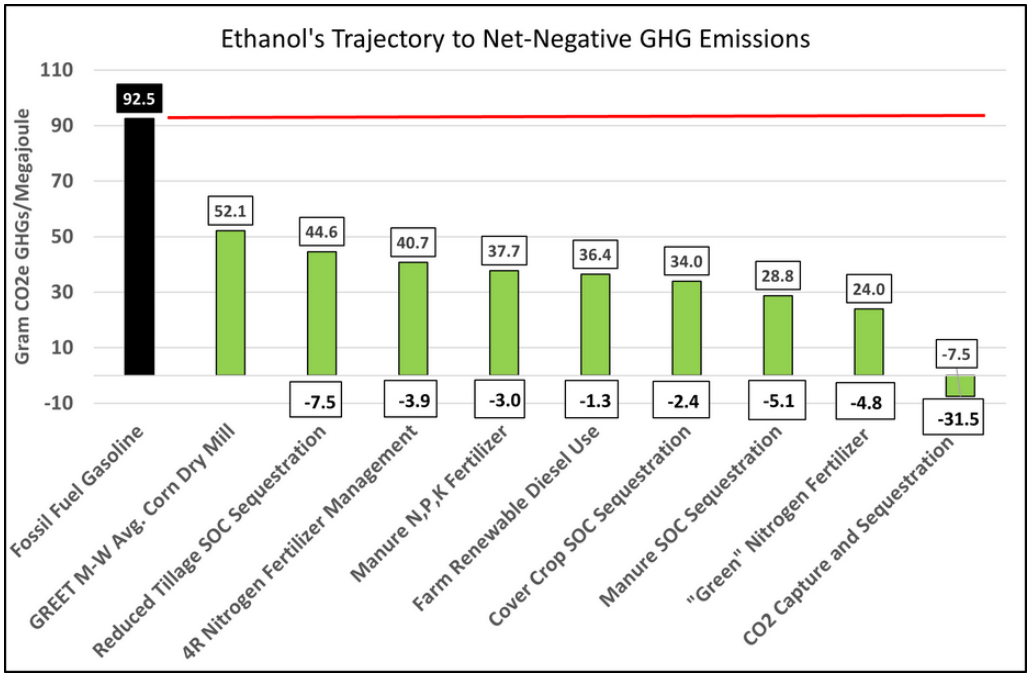
While President Biden has pledged that "farmers would be providing 95 percent of SAF in the next 20 years," **the Treasury Department needs to apply the GREET model and climate-smart agriculture practices to ensure ethanol qualifies for the 40B SAF tax credit.**

Legislation we encourage Congress to support:

·SAF Accuracy Act (S. 1958 and H.R. 4862) – to ensure agricultural feedstocks qualify for the SAF market

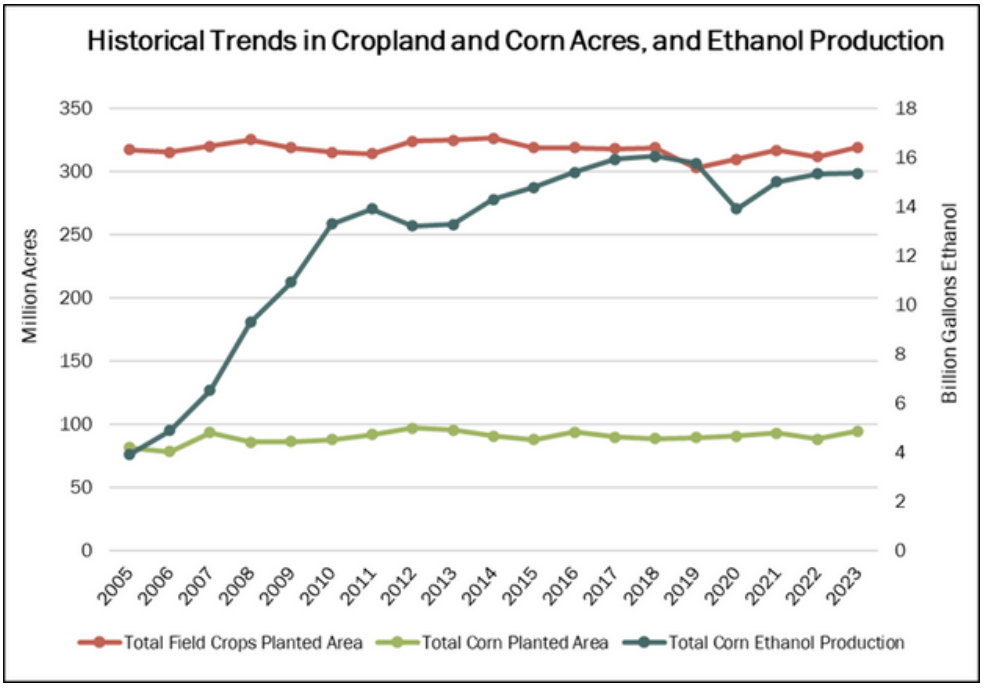
·Adopt GREET Act (S. 3055 and H.R. 6152) – to require the GREET model for determining lifecycle GHG emissions of biofuels under the Renewable Fuel Standard

·Farm to Fly Act (S. 3637, H.R. 6271) - to support the development of SAF through USDA



While the carbon intensity of gasoline is expected to remain relatively high, the combination of climate-smart agriculture practices, green ammonia for nitrogen fertilizer, and carbon capture and sequestration (CCS) puts corn ethanol on a unique trajectory to reach net-zero and even net-negative GHG emissions. This trajectory is based on the 2023 GREET model and Feedstock Carbon Intensity Calculator module.

If modeling used by Treasury gives proper value to the GHG reductions from these practices and technologies, corn ethanol should qualify as a feedstock for SAF under the 40B credit and exceed the minimum requirements needed to qualify for the 45Z clean fuel production credit.



Total cropland and corn acres largely remained unchanged while ethanol production increased in the U.S. This means increased ethanol production was achieved by farmers producing more bushels of corn on the same acres (higher corn yields) and shifting of crops without inducing more land use changes.

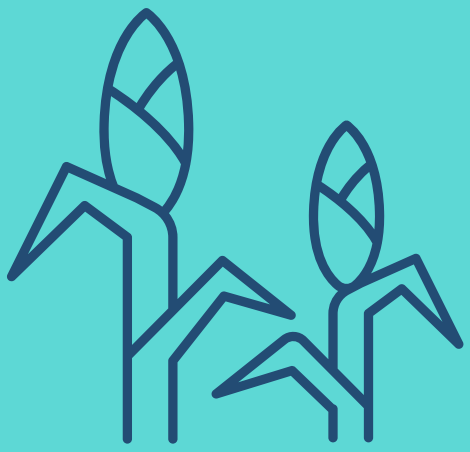
UNLOCKING NEW MARKETS AND TAX CREDITS BASED ON CLIMATE-SMART AGRICULTURE

USDA's Natural Resource Conservation Service (NRCS) recently funded a 10-state Regional Conservation Partnership Program (RCPP) led by the American Coalition for Ethanol (ACE) to unlock corn ethanol access to clean fuel markets and new tax incentives, such as the 45Z clean fuel production credit, based on the adoption of climate-smart agricultural practices which reduce greenhouse gas (GHG) emissions.

The NRCS RCPP funding will help farmers adopt reduced tillage, nutrient management and cover crops on nearly 100,000 acres across 167 counties surrounding 13 ethanol facilities partnering with ACE to implement the project in the 10-state region of Illinois, Indiana, Iowa, Kansas, Minnesota, Missouri, Nebraska, Ohio, South Dakota and Wisconsin. The sites were strategically chosen to provide the project's scientific team with statistically significant data regarding the GHG effect of conservation practices in different soil types and climates.

FINANCIAL INCENTIVES FOR FARMERS IN 10 STATES

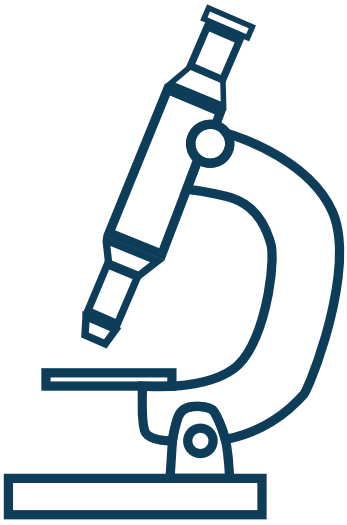
ACE's RCPP will provide $18.75 million for farmers in 167 eligible counties across 10 states to adopt conservation tillage, nutrient management, or cover crop practices.



CURRENT BARRIERS

Despite the potential for climate-smart ag practices to reduce GHG emissions from ethanol, market regulators generally do not consider on-farm carbon reductions towards GHG emissions targets.

These regulators want better localized quantification, verification, and modeling protocols before granting access to low carbon fuel markets and new tax credits.



OUR SCIENTIFIC APPROACH TO QUANTIFY THE BENEFITS OF CLIMATE-SMART AG

ACE's RCPP includes a technical team of scientists from land-grant universities who will measure and quantify the soil health and GHG benefits resulting from the adoption of approved conservation practices.

The Department of Energy's (DOE) Sandia National Laboratory will use the data collected by land-grant scientists to calibrate existing models and address gaps currently preventing farmers and ethanol producers from monetizing climate-smart agriculture practices in clean fuel markets and tax credits.

ACE's project will create a quantification and modeling approach that can be incorporated into modeling systems, such as GREET, free to use by farmers and ethanol producers. Quantification of GHG benefits will be a step toward accessing clean fuel markets and new tax credits

THE BIG PICTURE OPPORTUNITY: SECURING ACCESS TO NEW MARKETS AND TAX CREDITS

Researchers at MIT and Harvard verify that average corn ethanol reduces GHGs by about 50% compared to gasoline and indicate corn ethanol's carbon intensity will continue to get better thanks to innovations on the farm and in ethanol facilities.

Expanding low carbon ethanol usage is one of the best ways to make significant reductions in GHGs from transportation and aviation sectors. USDA estimates U.S. farmers currently store over 20 million tons of carbon per year and that they can store an additional 180 million metric tons/year representing 12-14% of U.S. carbon emissions through the adoption of conservation practices.

The RCPP will leverage USDA resources to secure access for farmers and ethanol companies to new clean fuel markets and tax credits.

CLEAN FUEL PRODUCTION CREDIT (45Z)

45Z is a new technology-neutral tax credit for transportation fuel (used in a highway vehicle or aircraft) produced and sold between 2025 and 2027. Credit values are based on the GHG emissions or carbon intensity (CI) of the fuel compared to a baseline CI of 50 kilograms CO_2 equivalent/mmBTU. The statute specifies use of the GREET model to determine GHG emissions (for nonaviation fuel). The value of 45Z is $0.02 cents per gallon for each CI point under 50 kg CO_2e/mmBTU.

- **Treasury should apply the latest GREET model and include climate-smart agriculture practices, as illustrated by ACE's RCPP, for the 45Z clean fuel production tax credit**

REMOVING BARRIERS TO HIGHER ETHANOL BLENDS

EPA is pushing an unrealistic requirement for battery electric vehicles (BEVs) to represent 67% of all sales by 2032. EPA's proposal aims to force an astonishing transition requiring BEVs to represent an average of 78% of all sales of sedans, 68% of all pickup sales, and 62% of all crossover and SUV sales by 2032. The Agency also mistakenly presumes these BEVs will operate on 'zero-carbon' electricity 100% of the time and ignores the low carbon benefits of ethanol.

The Alliance for Automotive Innovation has said "a lot has to go right for this massive – and unprecedented – change in our automotive market and industrial base to succeed, especially as 284 million light-duty vehicles across the country (that average 12 years in age) remain on the roads." As of last year, EVs accounted for just over 1% of all light-duty vehicles. In fact, automakers such as Ford and Mercedes-Benz have recently announced they are backtracking from plans to electrify their vehicle offerings because of lack of consumer interest.

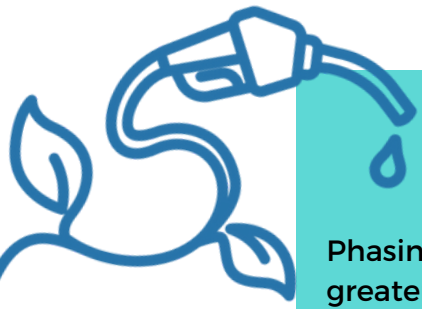
Rather than allowing EPA to arbitrarily pick winners and losers, we urge Congress to support the following market-based legislation enabling technologies to compete on a level playing field. Both of these bills are more practical alternatives to mandating EVs.

FLEX FUEL FAIRNESS ACT (S. 2635, H.R. 6508)

This bipartisan, bicameral legislation provides manufacturers incentives to produce Flexible Fuel Vehicles (FFVs) by acknowledging the emission reduction benefits of the FFVs operating on E85 and flex fuels.

With nearly 6000 E85 retail locations across the U.S. and 25 million FFVs on the road, this legislation would provide an immediate opportunity for significant reductions in GHGs and tailpipe emissions, and set the stage for additional pollution cuts as more FFVs are produced.

Nearly 6,000 E85 locations for the 25 million Flex Fuel Vehicles on the road



Next Generation Fuels Act (S. 944, H.R. 2434)

Phasing in higher gasoline octane levels through greater use of low carbon renewable fuels would:

1. Reduce greenhouse gas (GHG) emissions to help decarbonize transportation.
2. Improve air quality for better health outcomes.
3. Increase vehicle fuel efficiency to meet stricter fuel economy standards.
4. Support rural economies with low carbon biofuel and corn demand.

Notable Provisions

High-Octane Vehicles

Beginning with model year (MY) 2028, manufacturers must design new vehicles to use fuel with a 95 Research Octane Number (RON) or higher. The requirement increases to 98 RON with MY 2033, provided EPA has determined 98 RON fuel can be readily available nationwide. EPA has a Dec. 31, 2031, deadline to make the determination. Beginning with MY 2028, automakers must warrant new vehicles to operate with up to E25. The warranty requirement increases to blends up to E30 for MY 2033 and later vehicles.

E40 Retail Infrastructure Standard

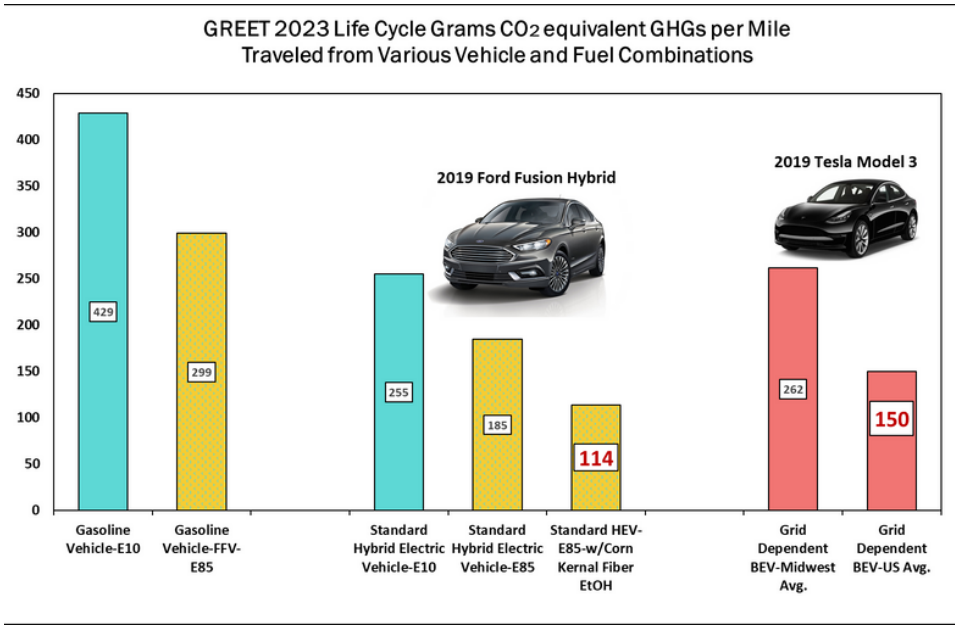
Requires new refueling infrastructure to be compatible with higher ethanol blends of at least 40 percent effective Jan. 1, 2026. Fuel dispensers are already certified for ethanol blends up to 25 percent, and manufacturers are now certifying dispensers for up to E40 following new testing.

Removes Reid Vapor Pressure (RVP) Barriers for Ethanol Blends Above E10

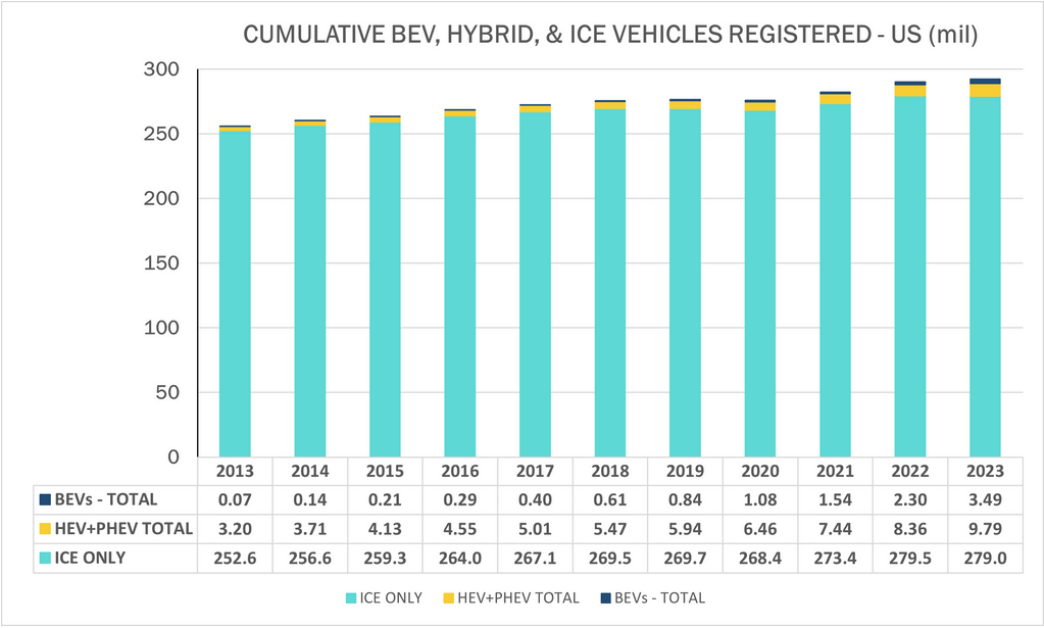
Ensures all blends (including E15) enjoy the same RVP treatment as E10.

Flexible Fuel Vehicles

The bill re-establishes incentives for automakers to increase the number of flexible fuel vehicles (FFVs) on the road able to operate on up to E85.



With transportation decarbonization policy focused almost solely on battery electric vehicles (BEVs). ACE is proving ethanol is part of the climate solution. Recognizing hybrids and FFVs both have lower emissions than gasoline vehicles, ACE combined the two technologies into a 2019 Ford Fusion hybrid FFV. The center section of the chart shows real-world GHG emissions from over 30,000+ miles of actual driving, and to the right are projected GHG emissions from the 2019 Tesla 3 Long Range, adjusted to reflect driver reports and a Car and Driver 40,000+ mile study showing the vehicle's observed range was 80 miles less than the stated 310 miles on a full charge.



	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
BEVs - TOTAL	0.07	0.14	0.21	0.29	0.40	0.61	0.84	1.08	1.54	2.30	3.49
HEV+PHEV TOTAL	3.20	3.71	4.13	4.55	5.01	5.47	5.94	6.46	7.44	8.36	9.79
ICE ONLY	252.6	256.6	259.3	264.0	267.1	269.5	269.7	268.4	273.4	279.5	279.0

As the US battery electric vehicle (BEV) fleet has grown to over 3 million over the past decade, the hybrid (HEV) and plug-in hybrid (PHEV) fleet expanded by 6.5 million to almost 10 million during the same time, and the total number of ICE-only vehicles registered in the US grew by nearly 27 million, to nearly 280 million on the road in 2023. While BEV numbers increase, the best opportunity to impact GHG emissions immediately and dramatically is through increased use of higher ethanol blends like E15 and E85 in the 289 million hybrids and ICE vehicles on the road today and for many years to come.

American Coalition for Ethanol

The American Coalition for Ethanol (ACE) is the nation's grassroots ethanol advocate. Our nearly 300 members are the heart and soul of the ethanol industry. They include owners and investors in U.S. biorefineries, farmers, and people supplying goods and services. ACE members put a human face on the benefits of ethanol.

Over the past five years, ACE has been leading the effort to ensure ethanol and farmers are part of the solution to reduce carbon pollution. Our work involves policy development and validation of the real-world carbon savings modern-day corn and ethanol production can deliver at scale.

Today's average corn ethanol reduces greenhouse gas (GHG) emissions by 50 percent compared to gasoline, so we do not need to wait for electric vehicles, and an entirely new supply chain to support them, to immediately tackle climate change.

Greater carbon savings are right around the corner. Climate-smart farming, ethanol production technology innovations, and the capture and sequestration of CO2 puts ethanol on a near-term trajectory to reach both net-zero and net-negative GHG emissions, something no other low carbon fuel can match.

As policymakers consider steps to curb carbon pollution, ACE members believe congress must ensure year-round availability of low-carbon E15 and must reward farmers and ethanol producers for being part of the solution.

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