

ABOVE AND BEYOND E10

One refreshingly bright spot in the ethanol market in 2020 was that, despite the pandemic-induced reduction in fuel demand, market opportunities for E15 and flex fuels like E85 continued to grow.

The number of gasoline marketers and retailers offering E15 and E85 flex fuels increased steadily throughout the year. There are now more than 2,150 stations across the country offering E15 and nearly 5,050 offering E85 to consumers. That remarkable increase in E15 and flex fuel infrastructure was largely driven by USDA's Higher Blends Infrastructure Incentive Program, or HBIIP, which provides fuel retailers with the resources to empower real fuel choice.

RFA worked directly with hundreds of marketers and retailers to encourage participation in this important program and expand ethanol market opportunities. Every applicant RFA helped through the HBIIP process—three dozen companies with stations in 128 cities across 22 states—was successful in securing grant funding!

Moreover, virtually all automakers now explicitly approve the use of E15, and future growth opportunities for the fuel appear almost limitless. BMW and Mini vehicles even go a step further, as the manufacturer continues to approve the use of E25 blends in all models.

Ironically, as the infrastructure for E85 and other flex fuels continues to grow, the number of flex fuel vehicles being offered to consumers continues to fall. Only two automakers—Ford and General Motors—are offering FFVs in model year 2021, and just 11 models overall will be available, with four available only to fleet purchasers. That's down from more than 80 different models from eight manufacturers being available to consumers as recently as model year 2015. RFA continues to strongly advocate for more FFVs and fairness in how alternative fuel vehicles are incentivized under fuel economy and greenhouse gas regulations.

As we look to the future and the need to address global climate change in a more meaningful way, the need for vehicles and infrastructure accommodating higher level ethanol blends will only increase. RFA will continue to lead the way to assure that state and federal policies allow higher ethanol blends to lead the fight to reduce carbon emissions, lower fuel prices, and provide more options at the pump for consumers.



THE FOLLOWING MODEL YEAR 2021 VEHICLES ARE AVAILABLE AS FLEX FUEL VEHICLES (FFVs):

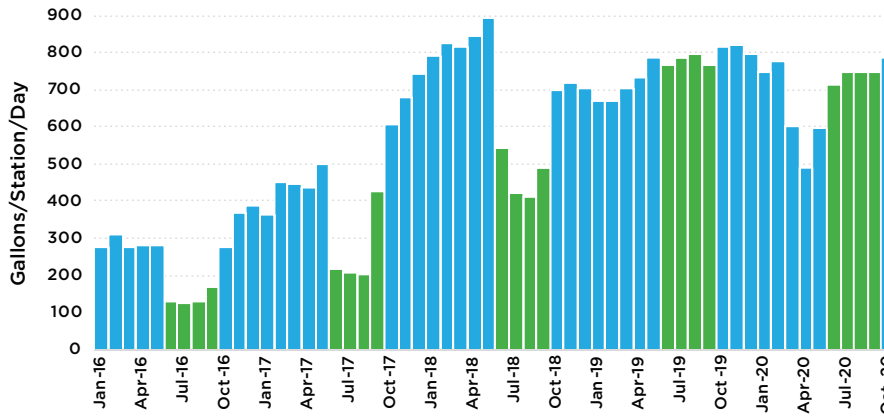
- Ford Explorer 3.3L
- Ford Police Interceptor Utility 3.3L
- Ford F150 3.3L
- Ford F150 5.0L
- Ford Super Duty (F250, F350) 6.2L
- Ford Transit 3.5L

FLEET ONLY:

- Chevrolet Silverado 5.3L
- Chevrolet Silverado HD 6.6L
- GMC Sierra 5.3L
- GMC Sierra HD 6.6L



MINNESOTA AVERAGE E15 SALES



Source: RFA based on Minnesota Dept. of Commerce data

E15 APPROVAL STATUS FOR CONVENTIONAL LIGHT-DUTY VEHICLES

- E15 Approved by Automaker in ALL Models
- E15 Approved by Automaker in SOME Models
- E15 Approved by EPA only; NOT Approved by Automaker

MODEL YEAR :	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Market Share*
BMW Group**											
BMW											1.9%
Mini											0.2%
Daimler Group (Mercedes-Benz)											
FCA (Chrysler, Dodge, Fiat, Jeep, RAM)											12.8%
Ford Motor Co. (Ford, Lincoln)											
GM (Buick, Cadillac, Chevrolet, GMC)											17.3%
Honda Motor Co. (Honda, Acura)											
Hyundai Motor Co. (Hyundai, Kia)											
Mazda											
Mitsubishi Motors Corp.											
Nissan Motor Co.											
Infiniti											0.6%
Nissan†											6.1%
Subaru‡											
Tata Motors (Jaguar, Land Rover)											
Toyota Motor Corp.											
Lexus											1.9%
Toyota											12.3%
Volkswagen Group											
Audi											1.3%
Porsche											0.4%
Volkswagen											2.2%
Volvo Car Group											
All Others											

* Internal combustion engine (ICE) models only

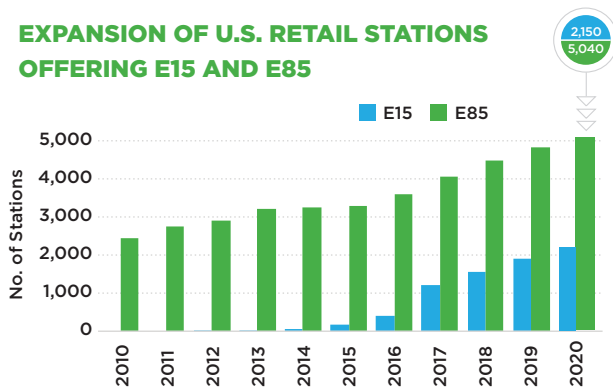
** Approves the use of up to 25% ethanol blends

† Approves the use of E15 in Rogue/Rogue Sport, Altima, Maxima, Versa & Titan. Approves the use of E10 in GT-R & NV Passenger/Cargo. Manuals not available to-date: Armada, Frontier, Murano, Pathfinder, Sentra & Z Coupe.

‡ Approves the use of E15 in Outback, Legacy, Impreza, Ascent & Crosstrek (2.0L engine). Approves the use of E10 in Forester & Crosstrek (2.5L engine). Manuals not available to-date: WRX/WRX STI & BRZ.

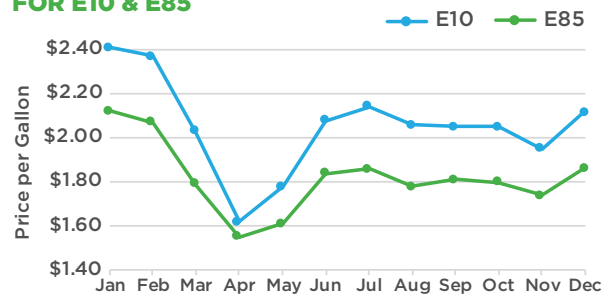
Sources: Auto manufacturer owner's manuals, GoodCarBadCar.net

EXPANSION OF U.S. RETAIL STATIONS OFFERING E15 AND E85



Source: RFA

2020 NATIONAL AVERAGE RETAIL PRICES FOR E10 & E85



Source: RFA based on data from E85prices.com