

Higher Blends, Higher Benefits

If our nation is to fully reap the benefits of ethanol's low-carbon attributes, the renewable fuel will need a larger share of America's gas tank. That's why RFA continues its efforts to expand the availability of E15 and flex-fuels like E85 at the pump, while simultaneously advocating for more flex-fuel vehicles on the road.

One key piece of this strategy is the U.S. Department of Agriculture's Higher Blends Infrastructure Incentive Program (HBIIIP), which provides matching grants for higher blend infrastructure projects around the country. USDA in December 2021 unveiled a plan to make an additional \$100 million available for the program to continue increasing the sales and use of higher blends of ethanol. Additional biofuel infrastructure funding of nearly \$1 billion was included in the Build Back Better Act in 2021, and RFA remains hopeful those provisions become law in 2022. Our work to assist retailers and marketers participate in these funding opportunities will continue into 2022.

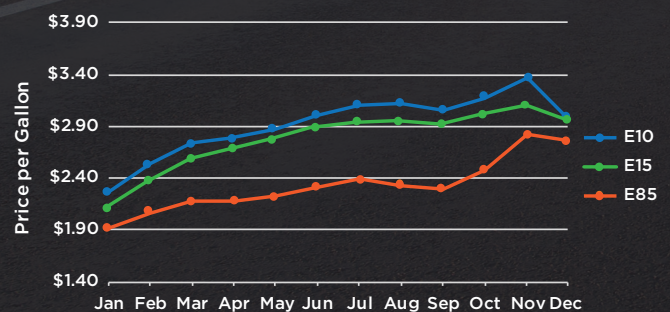
And while flex-fuels like E85 continue to gain in popularity, automakers continue to backtrack on their production of FFVs. For model year 2022, only Ford and GM offer FFVs; and of the 11 models available, five are for fleet purchases only. This is a marked difference from the more than 80 different models from eight manufacturers that were available to consumers as recently as the 2015 model year. RFA continues to strongly advocate for the production of more FFVs and fairness in how alternative fuel vehicles are incentivized under fuel economy and greenhouse gas regulations. One example of our advocacy was the introduction of the Clean Fuels Vehicle Act of 2021 by Sens. Amy Klobuchar (D-MN) and Joni Ernst (R-IA). The bill would establish an automaker tax credit for each FFV produced and restore certain compliance credits for FFVs under federal fuel economy regulations.



The following model year 2022 vehicles are available as flex-fuel vehicles (FFVs):

- | | |
|---------------------------------------|--------------------------------|
| • Ford Explorer 3.3L | Fleet Purchase Only: |
| • Ford F-150 3.3L | • Ford Police Interceptor 3.3L |
| • Ford F-150 5.0L | • Chevrolet Silverado 5.3L |
| • Ford Super Duty (F-250, F-350) 6.2L | • Chevrolet Silverado HD 6.6L |
| • Ford Transit 3.5L | • GMC Sierra 5.3L |
| • Ford Transit Connect 2.0L | • GMC Sierra HD 6.6L |

2021 NATIONAL AVERAGE RETAIL PRICES FOR E10, E15 & E85



Source: RFA based on data from E85prices.com



E15 APPROVAL STATUS FOR U.S. LIGHT-DUTY VEHICLES

| AUTOMAKERS / MODELS | MODEL YEAR | | | | | | | | | | | | MARKET SHARE * |
|--|------------|------|------|------|------|------|------|------|------|------|------|--|----------------|
| | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | | |
| BMW Group ** | | | | | | | | | | | | | |
| BMW | | | | | | | | | | | | | 2.2% |
| Mini | | | | | | | | | | | | | 0.2% |
| Daimler Group (Mercedes-Benz) | | | | | | | | | | | | | |
| Ford Motor Co. (Ford & Lincoln) | | | | | | | | | | | | | 12.4% |
| GM (Buick, Cadillac, Chevrolet & GMC) | | | | | | | | | | | | | 16.7% |
| Honda Motor Co. (Honda & Acura) | | | | | | | | | | | | | 9.9% |
| Hyundai Motor Co. (Hyundai, Genesis & Kia) | | | | | | | | | | | | | 9.5% |
| Mazda | | | | | | | | | | | | | 2.2% |
| Mitsubishi Motors Corp. | | | | | | | | | | | | | 0.6% |
| Nissan Motor Co. † | | | | | | | | | | | | | |
| Infiniti | | | | | | | | | | | | | 0.4% |
| Nissan | | | | | | | | | | | | | 6.1% |
| Stellantis (Alfa Romeo, Chrysler, Dodge, Fiat, Jeep, RAM & Wagoneer) | | | | | | | | | | | | | |
| Subaru ‡ | | | | | | | | | | | | | 4.2% |
| Tata Motors (Jaguar & Land Rover) | | | | | | | | | | | | | 0.7% |
| Toyota Motor Corp. | | | | | | | | | | | | | |
| Lexus | | | | | | | | | | | | | 2.3% |
| Toyota | | | | | | | | | | | | | 13.4% |
| Volkswagen Group § | | | | | | | | | | | | | |
| Audi | | | | | | | | | | | | | 1.4% |
| Porsche | | | | | | | | | | | | | 0.4% |
| Volkswagen | | | | | | | | | | | | | 2.4% |
| Volvo Car Group | | | | | | | | | | | | | |
| | | | | | | | | | | | | | 0.8% |

* Internal combustion engine (ICE) models only.

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

† Approves the use of E10 in QX80, Armada, NV & Sentra.

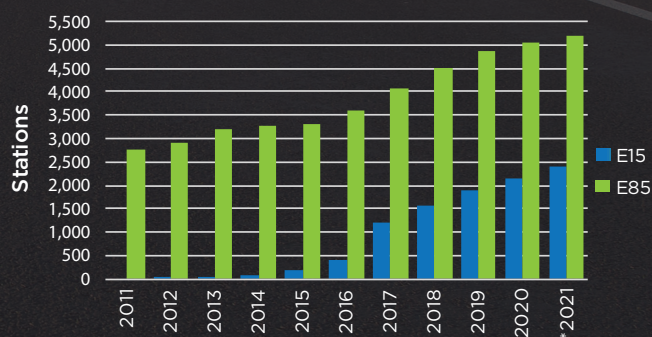
‡ Approves the use of E10 in 2.5L engines.

§ Approves the use of E10 in Golf.

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

■ E15 approved by automaker in ALL models
■ E15 approved by automaker in SOME models
■ E15 approved by EPA only; NOT approved by automaker

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



Source: RFA

*Estimated

