

A Reality Check on API's "RFS Reality Gap" Report

September 19, 2013
Renewable Fuels Association

On September 17, the American Petroleum Institute (API) released a brochure entitled "The RFS Reality Gap." Through a series of charts, the API brochure unconvincingly attempts to make a case for repeal of the Renewable Fuel Standard (RFS). API rehashes disproven myths, uses manipulated charts and data, and omits key facts to suggest that the RFS is no longer necessary. In what has become a familiar refrain, API says the RFS should be repealed because of the so-called "blend wall," falling gasoline demand, the recent boom in fracking, and slower-than-expected progress on cellulosic biofuels.

It's time for a reality check. As the centerpiece of the Energy Independence and Security Act (EISA) of 2007, the expanded RFS has been the nation's most successful energy policy of the modern era. The program has reduced imports of petroleum products, lowered gas prices, enhanced farm income, and decreased emissions of greenhouse gases and tailpipe pollutants. The RFS has enabled ethanol to capture 10% of the gasoline pool—and that's exactly why API wants to put a stop to the program. They fear, if given the chance, ethanol and other biofuels will continue to win favor with consumers and take more of Big Oil's market share.

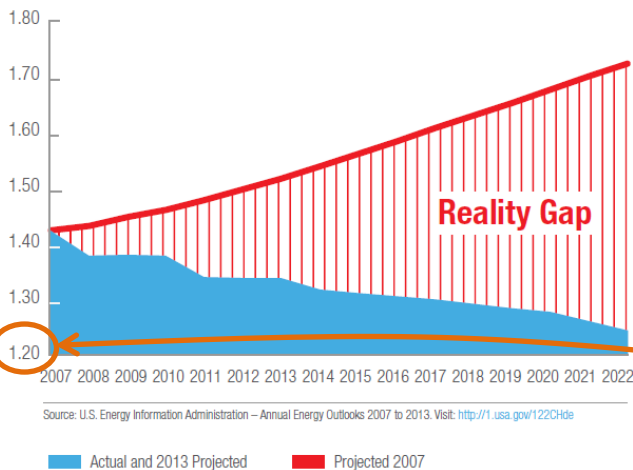
This document offers rebuttals to API's far-fetched arguments, tells the "rest of the story" that was conveniently omitted from the report's misleading charts, and underscores the importance of staying the course with the RFS.

API's Chart and Claims

WE ARE USING LESS GAS:

Motor Gasoline Consumption

(hundred billion gallons per year)



API ridiculously suggests the RFS is “broken” because actual gasoline consumption has been below the levels projected in 2007, the year Congress expanded the RFS as part of the Energy Independence & Security Act (EISA). Big Oil says falling gasoline demand accelerated the arrival of the so-called “E10 blend wall.” They contend that the “blend wall” caught them by surprise and they have no options for blending more ethanol. Oil companies say E15 and E85 are not viable options for breaking the “blend wall” because they didn’t invest in the infrastructure to distribute these fuels.

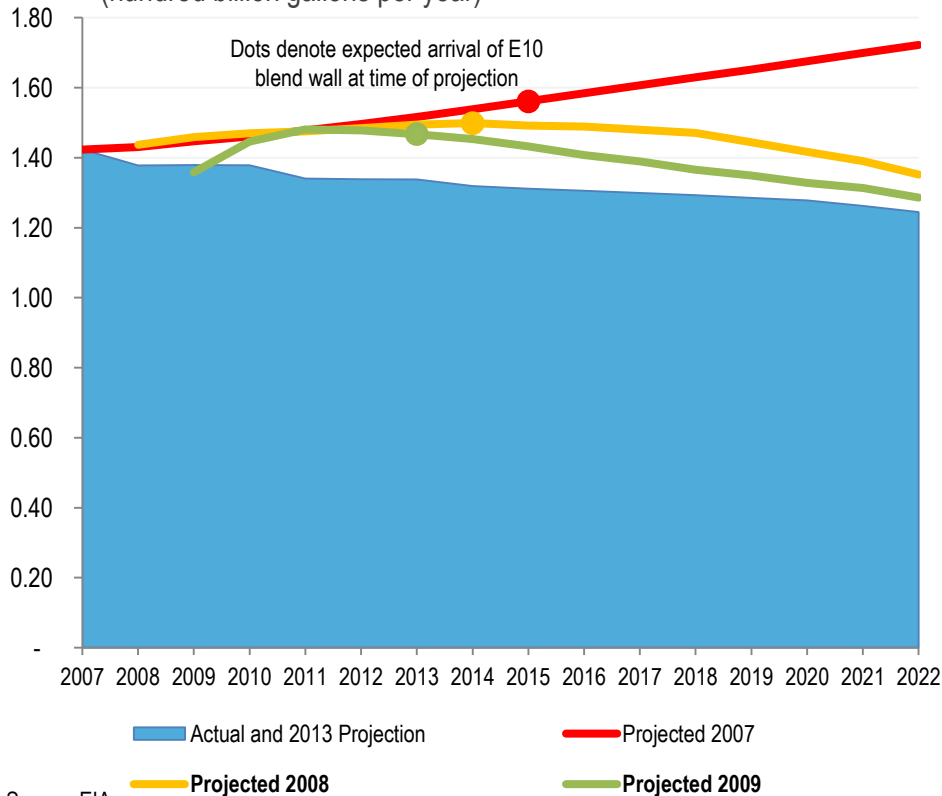
API begins the axis scale at 120 BG to exaggerate the size of the “gap” between 2007 and 2013 projections.

The RFA Reality Check

BY 2008, IT WAS CLEAR GASOLINE DEMAND WAS FALLING AND THAT THE RFS WOULD SOON DRIVE ETHANOL USE BEYOND E10

Motor Gasoline Consumption

(hundred billion gallons per year)



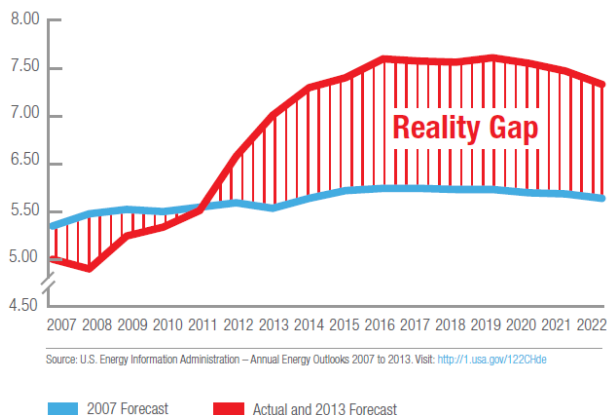
Even in 2007, it was well understood that the RFS would soon drive ethanol use beyond E10. After all, expanding ethanol use beyond its historical role as an additive was a central purpose of the RFS2! In 2007, it appeared the “blend wall” would be reached in 2015.¹ By 2008, it was obvious the blend wall would arrive sooner and it was evident that gasoline use would fall over the long term. And as early as 2009, it was clear the blend wall could hit by 2013. In early 2009, EPA wrote: “...we are projected to hit the E10 ‘blend wall’...by 2013.”² Yet, Big Oil sat idly by and refused to invest in the infrastructure to distribute the higher levels of ethanol needed to meet the RFS in 2013 and beyond.

API's Chart and Claims

Our energy security has improved with domestic crude oil production up:

Crude Oil Domestic Crude Production

(million barrels per day)



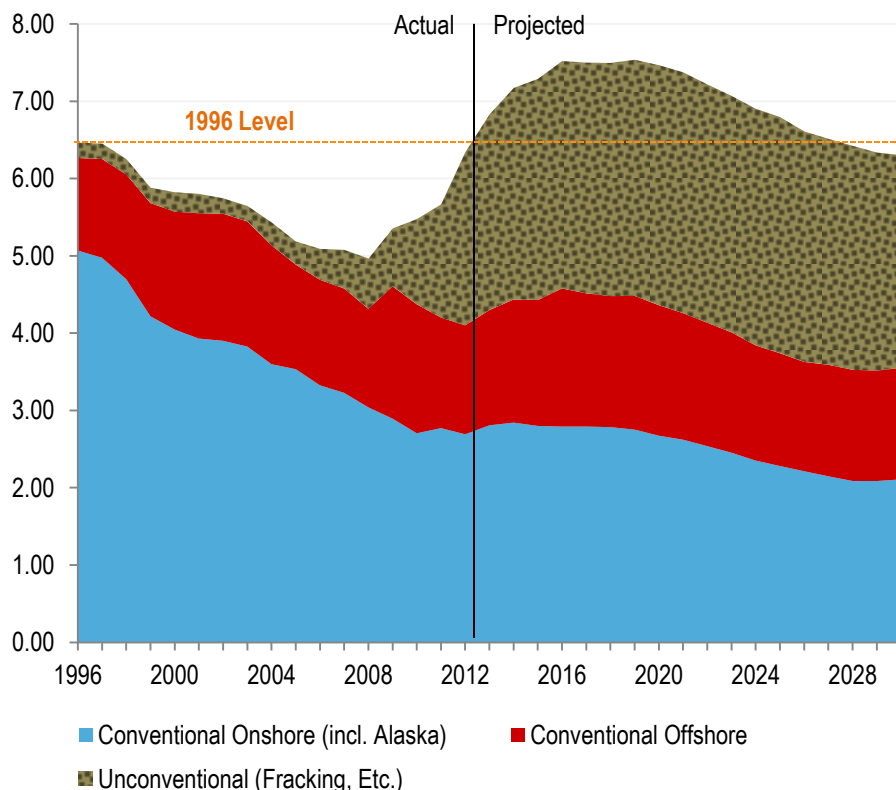
API suggests increased domestic oil production has made the U.S. more energy secure and eliminated the need for the RFS. They say the boom in hydraulic fracturing (“fracking”) will lead to further gains in U.S. oil supplies, obviating the need for increased renewable fuels production.

The RFA Reality Check

The fracking boom is no reason to abandon the RFS!

Domestic Crude Oil Production

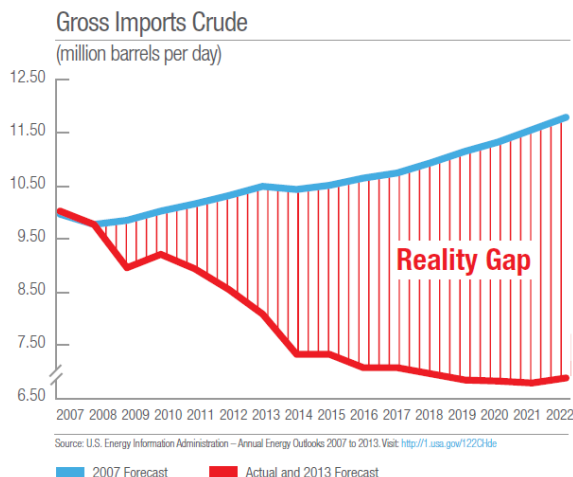
(million barrels per day)



Production of conventional crude oil has peaked in the U.S. and is in terminal decline. Thus, increases in domestic production are expected to come exclusively from carbon-intensive and environmentally unsustainable oil sources like tight oil from fracking. Deepwater offshore drilling is also expected to increase slightly. Still, even with the boom in fracking, 2012 oil production was less than in the late 1990s. Further, the current boom is projected to peak in 2019 and production declines to pre-2000 levels as shale plays begin to dry up and conventional oil continues to fall. Moreover, oil prices are projected to remain well above \$105/barrel even with the shale boom! In short, the emergence of fracking is no reason to abandon the RFS.

API's Chart and Claims

And imports are down:



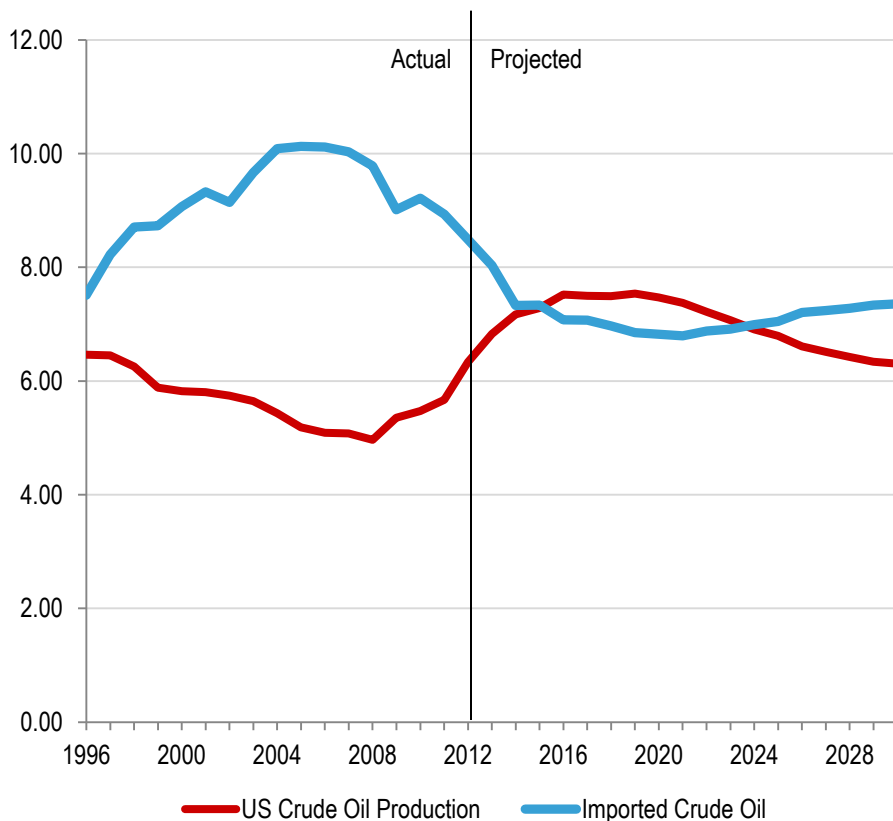
API claims the reduction in crude oil imports means we no longer need to pursue policies to enhance energy security, like the RFS. They claim current projections show the United States is approaching energy self-sufficiency.

The RFA Reality Check

We still import more crude oil than we produce domestically

Domestic Crude Oil Production vs. Crude Oil Imports

(million barrels per day)



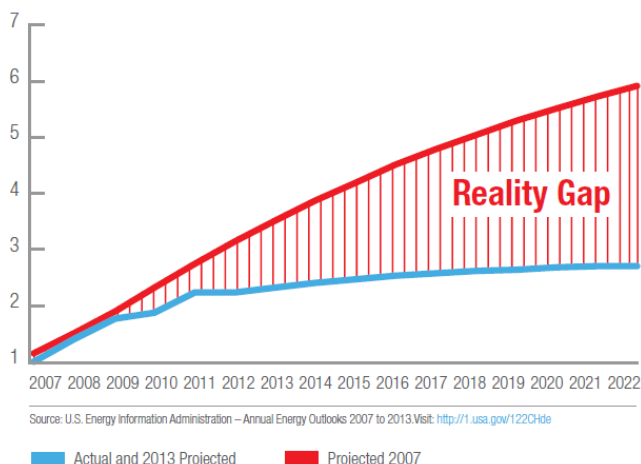
What API fails to mention is that we still import more than half of our crude oil! While increased domestic crude oil production has reduced crude oil import reliance from 66% in 2005 to 57% in 2012, EIA projections show the United States will continue to import roughly half of its crude oil through 2030, with imports being larger than domestic production in 2024 and beyond. By 2030, imports represent 54% of supply. That means the U.S. economy will continue to spend nearly \$1 billion per day on imported oil for the foreseeable future. The oil industry also conveniently omits that crude oil imports from the Persian Gulf hit a 4-year high in 2012, with imports specifically from Iraq and Saudi Arabia also reaching 4-year highs.

API's Chart and Claims

Consumers are not choosing flex-fuel vehicles:

Light-Duty Vehicle Stock: Ethanol-Flex Fuel

(millions of vehicles)



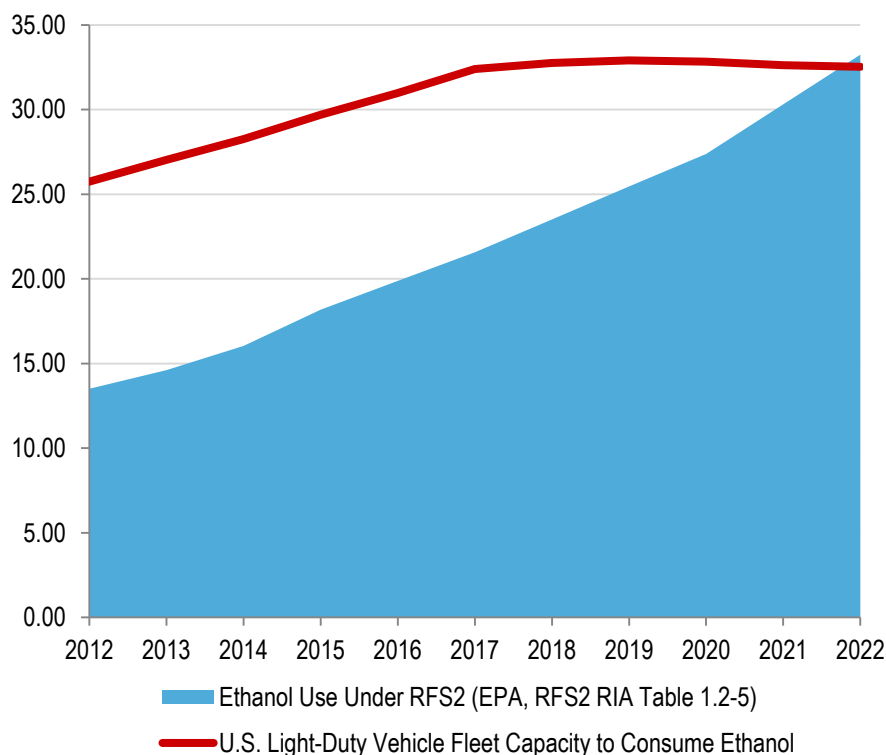
API suggests consumers aren't buying flex-fuel vehicles, despite the fact that EIA data show 2012 FFV sales were up 16% compared to 2011 and 206% compared to 2009!³ It is expected that FFVs will account for approximately 25% of the new vehicles sold in the United States in 2013. Meanwhile, roughly 45% of new vehicles sold in 2014 will be explicitly approved by the manufacturers for E15. Still, Big Oil suggests there aren't enough FFVs and E15-capable vehicles on the road today, or in the future, to consume the volumes of ethanol required by the RFS.

The RFA Reality Check

The U.S. vehicle fleet has ample capacity to consume the larger volumes of ethanol needed for future RFS compliance

RFS2 Ethanol Use and LDV Fleet Ethanol Capacity

(billion gallons)



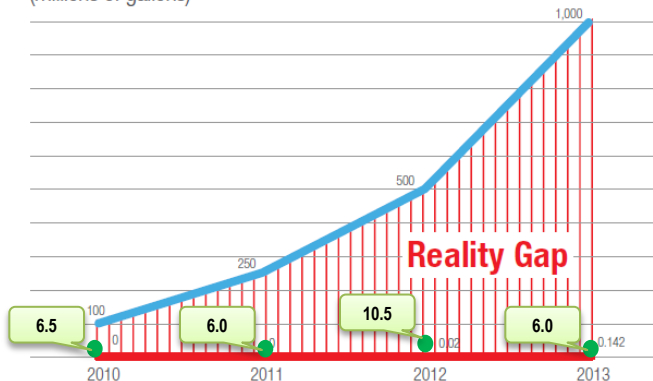
Contrary to Big Oil's rhetoric, vehicles are not the limiting factor in meeting RFS requirements moving forward. In fact, the 17 million FFVs on the road today could consume 7-8 billion gallons of ethanol! By 2018, the U.S. light-duty vehicle fleet will have the ability to consume roughly 33 billion gallons of ethanol.⁴ That's roughly the same amount of ethanol EPA projected would be necessary to meet the 2022 RFS requirements. Unlike the oil industry, automakers responded to the clear policy signals of the 2007 RFS by ramping up FFV production. Further, E85 demand has increased substantially in 2013 as ethanol's economic value and the RFS are enabling steep discounts to gasoline.

API's Chart and Claims

And advanced production projections have not materialized:

Cellulosic Biofuel Mandate

(millions of gallons)



Source: Energy Independence and Security Act of 2007. Visit: <http://1.usa.gov/16qPica> and Environmental Protection Agency. Visit: <http://www.epa.gov/otaq/fuels/rfsdata/2013emts.htm>

■ EISA Mandate ■ Actual Production (through end July 2013)

API argues that the RFS should be repealed because cellulosic biofuels have not been produced in the volumes initially specified in EISA. Oil companies suggest Congress didn't give EPA flexibility to administer the RFS requirements, even though EPA has waived more than 99% of the cellulosic biofuels requirements since 2010.

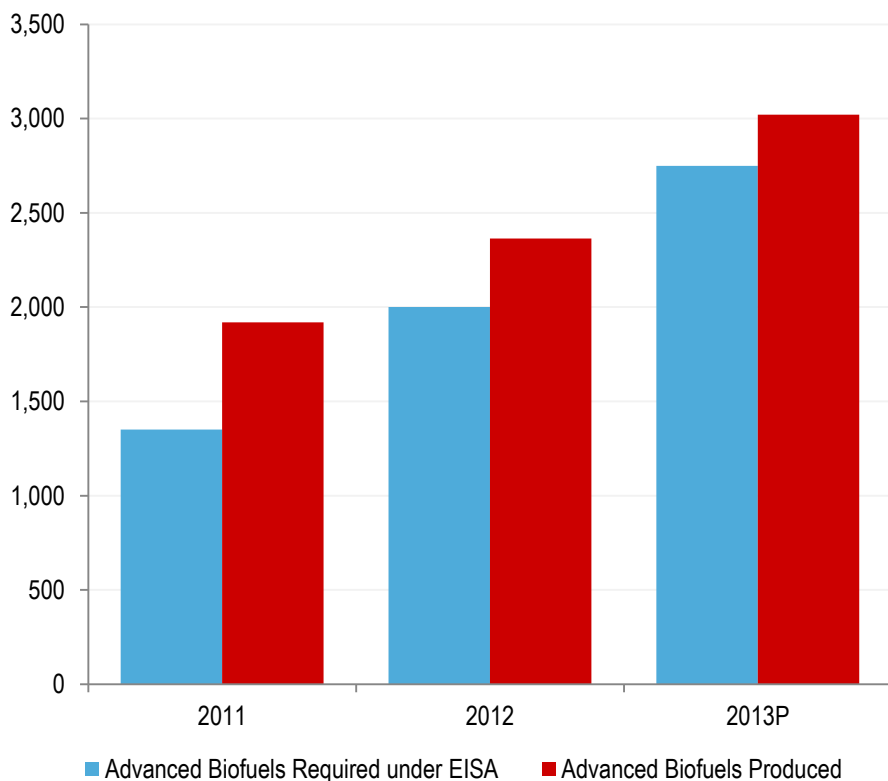
API's chart omits the fact that EPA has waived the EISA volumes every year. The actual cellulosic biofuel volumes required by law are depicted by the green dots.

The RFA Reality Check

Actual advanced biofuel production has exceeded projections

Advanced biofuel production and EISA volumes

(million ethanol-equivalent gallons)



While API claims advanced biofuel production has fallen short of EISA levels, EPA data shows otherwise.⁵ Advanced biofuel production has exceeded the EISA volumes every year so far. It is true that cellulosic biofuel commercialization has been slower than originally anticipated. But Congress gave EPA the authority to keep the advanced biofuel standard "whole" by allowing other advanced biofuels to offset the shortfall in cellulosic biofuel production. As a result, biodiesel, renewable diesel, waste-derived ethanol and other advanced fuels have met, and surpassed, EISA volumes. Also, EPA has the ability to reduce the advanced biofuel requirements if adequate supplies are not readily available. This demonstrates the flexibility EPA has to administer the RFS and make adjustments as necessary.

Source: EPA EMTS data and EISA

1. Table 1.2-5 of EPA's RFS2 Regulatory Impact Analysis (RIA) projected 18.18 billion gallons of ethanol would be needed to meet 2015 RFS requirements. The 2007 AEO projected gasoline demand in 2015 would be 156.1 billion gallons, meaning required ethanol usage would be equivalent to 11.6% of the gasoline pool—well above the E10 “blend wall.” By the time the 2008 AEO was published, it was already clear the “blend wall” would occur sooner and it was obvious that long-term gasoline demand would fall rather than continue to grow (i.e., EIA reduced its 2022 gasoline demand figure by 27% in the 2008 AEO).
2. See EPA. May 2009. “Draft Regulatory Impact Analysis: Changes to Renewable Fuel Standard Program.” EPA-420-D-09-001.
3. See http://www.afdc.energy.gov/uploads/data/data_source/10299/10299_afv_available.xlsx citing EIA.
4. Assumes: normal scrappage and vehicle turnover rates; light-duty fleet of 230 million LDVs through 2022; current rate of FFV production continues through 2016; maximum ethanol consumption by FFVs=75% of annual gasoline usage; maximum ethanol consumption by MY2001 and newer non-FFVs=15%; maximum ethanol consumption by all other LDVs=10%; annual gasoline consumption per vehicle decreases linearly by 9% from 2012-2022.
5. See EPA EMTS data. Available at <http://www.epa.gov/otaq/fuels/rfsdata/index.htm>. 2013 actual production is projected based on Jan.-Aug. actual production.