



CountryMark

Countrymark Cooperative Holding Corp.
225 South East Street, Suite 144
Indianapolis, IN 46202-4059
Tel 800.808.3170 | Fax 317.238.8235
www.countrymark.com

WRITTEN STATEMENT OF
COUNTRYMARK COOPERATIVE HOLDING CORPORATION
AS SUBMITTED TO THE
SUBCOMMITTEE ON ENERGY AND THE SUBCOMMITTEE ON OVERSIGHT

Committee on Science, Space, and Technology
United States House of Representatives

On

Renewable Fuels Standard

THURSDAY, July 23, 2015

10:00 AM

Rayburn 2318

I. Introduction

Chairmen Weber and Loudermilk, Ranking Members Grayson and Beyer, and Members of the Subcommittees, thank you for giving me the opportunity to testify in today's hearing on the Renewable Fuels Standard (RFS). I'm Matt Smorch, and I serve as Vice President of Supply & Strategy for Countrymark Cooperative. As the EPA continues to develop and promulgate regulations regarding the Renewable Fuels Standard Program, I believe it is important for Congress to understand the nature of assumptions underpinning their efforts and how this process will impact and affect companies such as CountryMark.

CountryMark is the only farmer-owned integrated oil company in the United States and is recognized nationwide as a leader in the distribution of biodiesel and ethanol. The CountryMark refinery uses 100% American crude oil sourced from the Illinois Basin located in Illinois, southwest Indiana, and western Kentucky. Our refinery processes 28,000 barrels of crude per day, which represents only 0.15% of the entire domestic refining industry. Our capacity is 1/10 the size of the average refinery in our region. Even though CountryMark is small from an industry perspective, we have a large impact on the State of Indiana. CountryMark supplies over 65% of agricultural market fuels and 50% of school district fuels in the state.

CountryMark is a Small Business Refiner, and along with most other small business refiners, we are located in rural America. We, therefore, have our strongest economic impact in the rural communities we serve. In 2014, we purchased over \$750 million of crude oil from the Illinois Basin. These purchases provide income to the 40,000 royalty owners in the Illinois Basin. Our products are sold and distributed through our branded dealer network, providing solid employment throughout the rural communities of Indiana, and many of the surrounding states.

CountryMark's operations employ nearly 500 workers, mostly in the rural economy of southwest Indiana and southeast Illinois. In Posey County, Indiana alone, a county with only 26,000 residents, over \$30 million in wages and benefits are provided each year. CountryMark consistently ranks as one of the top three employers in Posey County.

As a result of companies like CountryMark, the Illinois Basin oil industry generates revenues in excess of \$2.5 billion per year and pays millions in taxes each year. This money stays in America's heartland, and provides much needed jobs in primarily rural communities.

CountryMark was started by its member cooperatives, which are owned and controlled by individual farmers within our trade territory. Over 130,000 farmers in Indiana, Michigan, Illinois and Ohio participate in these local cooperatives, through which they benefit from ownership in CountryMark. CountryMark's Board of Directors is controlled by farmers. Each year, profits are distributed back to farmers via the cooperative system. In the past five years, CountryMark has returned patronage refunds of \$213 million to its owners and the farm communities it serves.

II. CountryMark Sales Channel

CountryMark came into existence because the local cooperatives joined together to build a refinery in southern Indiana after the discovery of oil in the region. Our members wanted to ensure supply of quality fuels at market competitive prices. As a supply cooperative, CountryMark's mission is to provide those quality products that our members require for their independent fuel and lubricants businesses to be successful. Even though they own us through their investment, our members are not obligated to purchase our products. They only purchase products that the market desires and are profitable for their business. CountryMark works closely with our members to provide quality products that will be profitable for both parties.

Our member-owners are unique in that fuels and lubricants are only one aspect of their diversified business. Since they are heavily involved in agriculture, they are knowledgeable in the grain industry including corn and ethanol. Not only do our members supply seed, fertilizer and other farm needs to their local members, many own grain assets and are involved in buying and selling corn to ethanol producers. Arguably, our members are in the most sophisticated segment of the population with regards to grains, fuels, and the interplay of ethanol and corn. CountryMark has the unique position of being at the crossroads of petroleum and renewable fuels.

As such, CountryMark started using renewable fuels long before being required to do so by the Renewable Fuels Standard. Being a small refiner, CountryMark did not become an obligated party until January of 2011. Regardless, we started blending biodiesel in 2006 because our members and the segment of the marketplace that they served desired the product. CountryMark became a quality expert in biodiesel and a leader in sales. In fact, at one time, we operated four of the twelve direct biodiesel rack injection systems in the nation. CountryMark was recognized by Senator Richard Lugar with an Energy Patriot Award for our leadership in biodiesel. In 2008, we started blending 10% ethanol into our gasoline. Not only had the 10% ethanol blended gasoline (E10) become the accepted product in our market area, there were significant economic synergies with our refining operation that drove the

decision to blend before being required. We recognize that there is a place for ethanol in the gasoline pool as long as it is accepted by consumers and is economically competitive.

III. The E10 Blendwall is Real

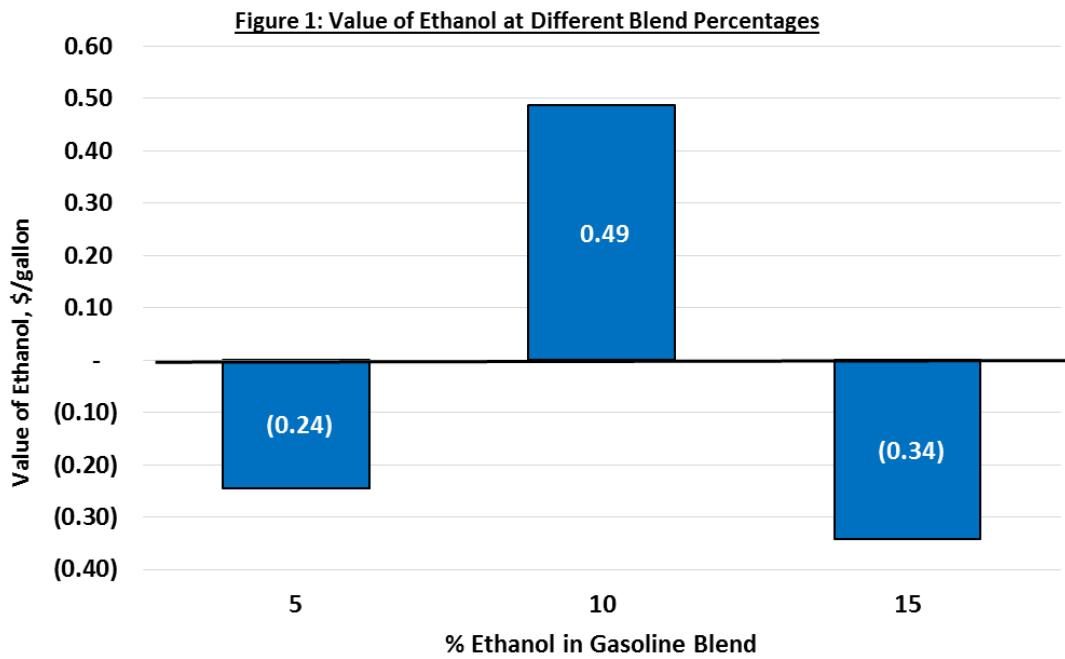
As defined by the EPA in the proposed standards for 2014 through 2016, the “E10 blendwall” represents the volume of ethanol that can be consumed domestically if all gasoline contains 10% ethanol and there are no higher-level ethanol blends consumed such as E15 or E85. It appears that EPA accounted for the blendwall in setting the 2014 and 2015 proposed standards for non-advanced biofuel or corn-based ethanol. The requirement for 2014 mirrors ethanol consumption of 13.25 billion gallons which equates to 9.7% ethanol in the blend and for 2015, the proposed 13.4 billion gallons of corn-based ethanol would equate to 9.7% ethanol in the blend based on EIA projections.

Even though EPA proposed standards for 2016 will exceed the blendwall, the marketplace reality is that E10 should be the maximum for several reasons: 1) the Clean Air Act (CAA) and subsequent regulations favor E10; 2) E10 is an economical compromise for the consumer and some refiners like CountryMark; and 3) the infrastructure required to dispense higher ethanol blends is prohibitive because low sales volumes do not provide a return on investment.

EPA regulations generated to comply with the CAA provide additional flexibility for ethanol blended gasoline. Title 40 Part 80 Subpart B Section 80.27 requires gasoline to have a Reid Vapor Pressure (RVP) of 9 pounds per square inch (psi) to be sold in the State of Indiana. EPA recognized that ethanol can contribute to the volatility of gasoline so specific blends between 9% and 10% ethanol (E10 blends) can be 1 psi above the standard limit – this is recognized as a 1 psi RVP waiver which is not available for higher ethanol blends. In essence, the E10 blendwall is created by the RFS, the CAA, and the physical properties of ethanol needing a RVP waiver which in turn favors the production of E10.

CountryMark started blending ethanol into gasoline in 2008, well before we were mandated to do so. CountryMark operates a proprietary pipeline and terminal system. We had ethanol blending infrastructure in place and were selling E10 blended gasoline. Our sales of E10 increased to the point where it made economic sense to switch to a lower octane base gasoline to accommodate the ethanol and take advantage of the additional octane that ethanol provides. When we analyze other ethanol blends, such as E15, this positive impact turns negative. Figure 1 shows the economic difference using current market conditions of different ethanol blends. This analysis is specific to CountryMark and may not represent the economics of other refiners; especially those that do not have terminal operations or

the ability to blend ethanol into their gasoline products.



For CountryMark, the ethanol blend that represents the economic optimum in today's market is E10. This is fundamentally driven by the fact that E10 is favored with the 1 psi RVP waiver. For different ethanol blends to be competitive, ethanol pricing would need to change to offset this disadvantage.

Today, E10 is the standard gasoline product in our market area and the majority of the country. Ethanol has a lower energy density than straight gasoline. In other words, there are less British Thermal Units (BTUs) per gallon in ethanol than gasoline. A gallon of ethanol contains 67% of the BTUs that gasoline without ethanol (E0) contains. For the consumer, as the percentage of ethanol increases, energy content decreases which translates to lower vehicle gas mileage. At E10, the effect on energy content is minimal – around 3%. Even though ethanol has lower energy per gallon, the consumer has accepted E10 as the standard gasoline in the market. Blends without ethanol now command a premium price over E10 and sales volumes are much lower than E10. This is reflected in ethanol consumption and the EPA's proposed standards for 2014 and 2015 which equate to a nationwide blend rate of 9.7%. Higher ethanol blends will have diminishing returns for the consumer due to lower gas mileage. This is especially apparent with E85, which has approximately 25% less energy per gallon than E10. Based on the economic impact to both consumers and refiners, higher blends such as E15 or E85 are facing and will continue to face a difficult road to becoming the standard gasoline in the market.

The infrastructure for higher ethanol blends is expensive for the independent gas station owner/operator. CountryMark members purchase products at wholesale from our terminal system and compete in the retail market to sell gasoline and diesel. CountryMark does not directly own retail facilities and does not subsidize infrastructure improvements unless it is related to branding. Therefore, our members and their partners own and operate retail stations. Typical retail station margins are small, less than a few pennies per gallon. In addition, most of our members' retail facilities are located in rural areas so gasoline sales are less than a half million gallons per year. These retail economics do not support the investment for dedicated infrastructure for higher ethanol blends. As an example, one of our members invested \$37,000 to install pumps and piping for an E85 system and they used an existing tank. Installation of a new dedicated tank for E85 is estimated to cost \$45,000. All combined a new installation to accommodate E85 or ethanol blend pumps would cost in excess of \$80,000 per station. Due to the high cost and the apparent lack of consumer acceptance/demand discussed in the next section, our members are not currently pursuing the installation of E85 or blender pumps.

IV. E85 is Not the Answer

In the proposed RFS standards for 2014-2016, EPA stated that the 2016 proposed standards would challenge the E10 blendwall and intentionally drive towards gasoline blended with higher ethanol percentages. It has been theorized that increased sales of E85 could be the answer to the E10 blendwall. Based on CountryMark's experience, E85 is not the answer.

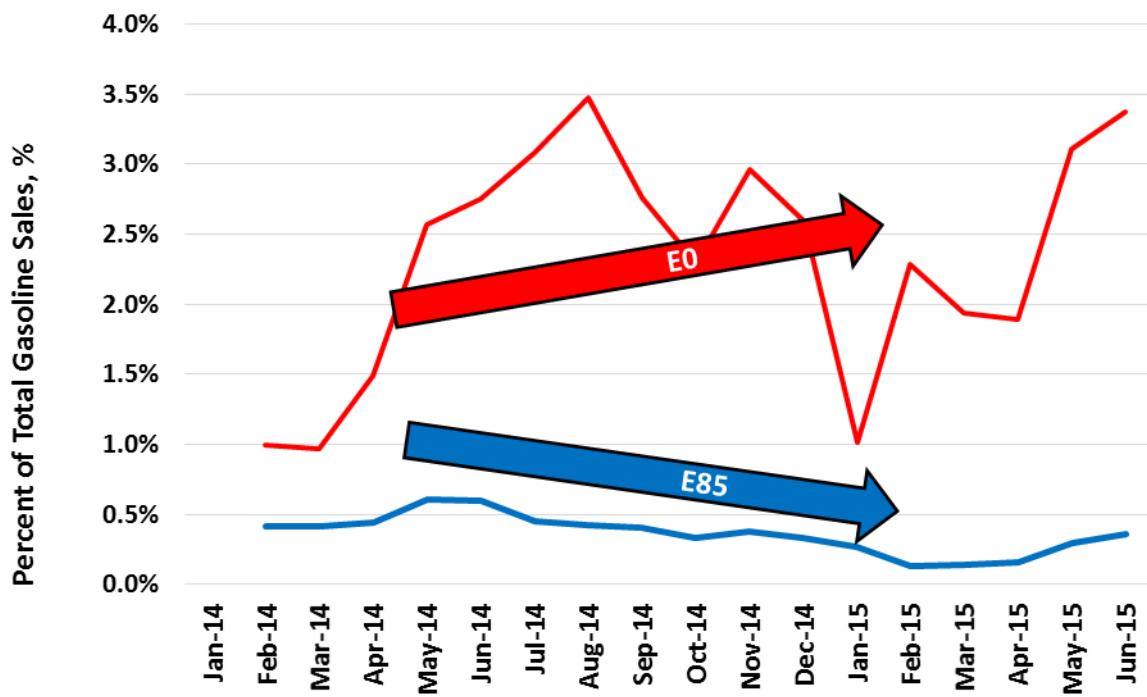
CountryMark sells E85 at our terminal racks and through our branded retail channel; however, we do not produce ethanol. All of the ethanol we sell, we purchase from various producers. We price our wholesale E85 product to recover our cost for purchased ethanol so basically it is a pass through to the customer.

Nationwide, it is estimated that only 6% of vehicles on the road today are flex fuel vehicles (FFV) and approximately 2% of retail stations offer higher ethanol blends. Being a Corn Belt state, the State of Indiana is above the national average in both FFV and infrastructure. Indiana has approximately 600,000 FFV out of 3 million passenger vehicles which is about 20% of the fleet. There are 211 gas stations in the state that offer E85. Currently, out of the 109 branded CountryMark stations, each owned and operated by independent businesses, 16 of those stations also sell E85. So 15% of CountryMark branded stations sell both E10 and E85. With this infrastructure and the high density of FFV, one would expect that E85 sales would make up a similarly high percentage of total gasoline sales. However, based on

CountryMark experience, especially the side-by-side comparison at retail stations that sell both E10 and E85, this is not the case.

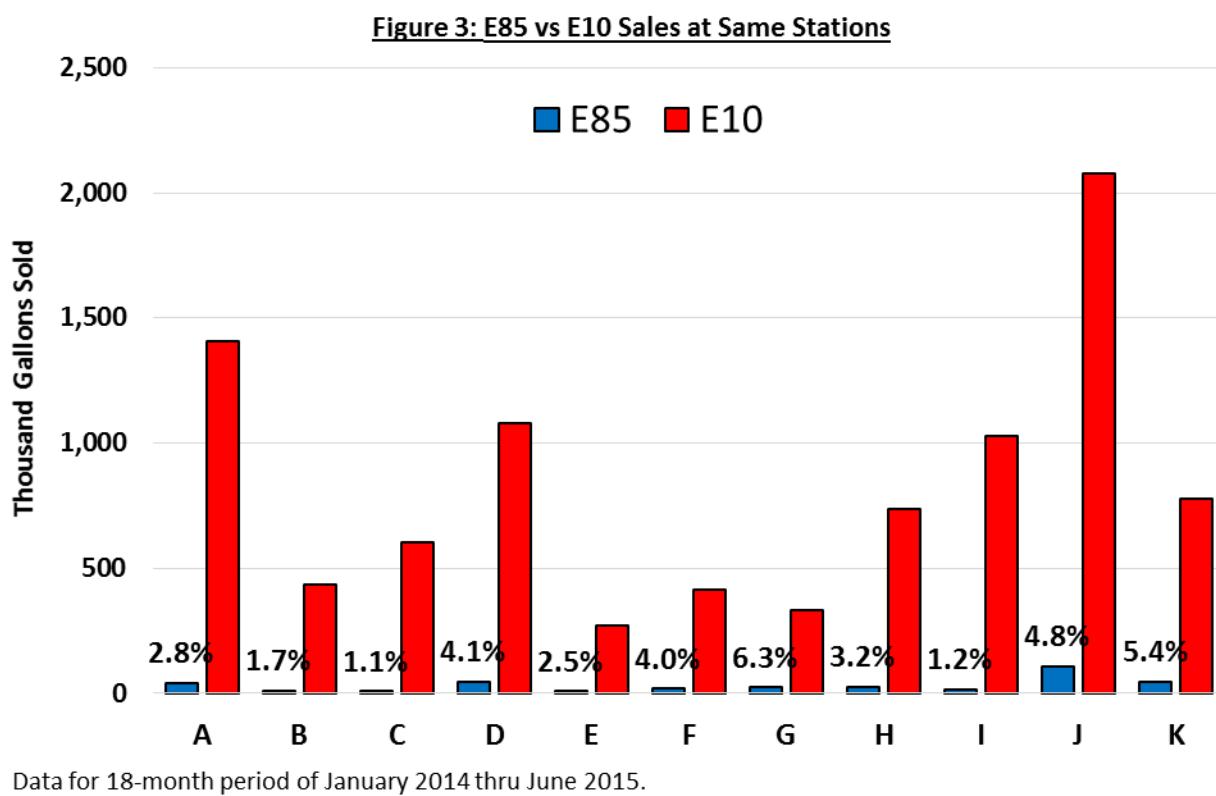
Figure 2 shows CountryMark's E0 and E85 sales as a percentage of total gasoline sales for the past 18 months. E0 is represented in red and E85 is represented in blue. This comparison provides some interesting observations. First, CountryMark's sales of gasoline without ethanol (E0) makes up a higher percentage of our total gasoline than E85 sales. On average, E0 sales make up 2.3% and E85 sales make up 0.35% of total gasoline sales. In other words, we sell 6.5 times more E0 than E85. Note that E85

Figure 2: E0 and E85 Sales as a Percentage of Total Gasoline Sales



sales have not exceeded 1% of total sales volume. While seasonally adjusted E0 sales are increasing, E85 sales are decreasing, signaling that customer acceptance is in decline. Anecdotally, there appears to be an increased interest in E0 gasoline based on customer service inquiries and requests for brand literature. In fact, one of our members recently converted E85 pumps back to E0 service at two locations. To expand the analysis, we compared E10 and E85 sales at retail stations that sell both products side-by-side.

Currently, sixteen CountryMark branded stations offer both E10 and E85. Figure 3 presents a sampling of those stations that compares E85 sales compared to E10 sales over the past 18 month period. For these stations, E85 comprises approximately 3.5% of total station sales.



With 20% of the vehicles in Indiana being able to use E85, one would expect that the percentage of E85 sales would be greater than the average 3.5% that we see from CountryMark data. If a typical vehicle travels 12,000 miles per year with an average mileage of 30 miles per gallon, that vehicle would use about 400 gallons per year of E10. Since E85 has 25% less energy per gallon, a similar vehicle would use 500 gallons per year of E85. If every FFV in Indiana used E85, expected sales for the entire state would be estimated at 300 million gallons. Since CountryMark sells about 12.5% of the gasoline consumed in Indiana, we would expect our E85 sales to be near 37.5 million gallons per year if there was complete customer acceptance. However, in 2014, CountryMark sold a little over 1 million gallons or about 2.7% of the amount that would have been expected if customers were fully purchasing E85.

If E85 is not the answer, people may argue that biodiesel can fill the gap. However, we have similar experience with biodiesel blends. Recall that we started blending biodiesel in 2006 and are considered a

leader in biodiesel blending. Our members and some of their customers wanted the product then and they still purchase it today; however, there are challenges. The main problem with biodiesel is cold weather properties. Biodiesel can start to gel at 35°F which causes filter plugging and vehicle operation problems. Because of this, our members do not purchase biodiesel starting November 1st through the middle of March. Biodiesel is not desired for nearly 40% of the year. In addition, even though we price biodiesel at the same price as diesel, we allow the customer to ultimately choose whether to purchase biodiesel or not – it is not a requirement. Within these constraints, currently, we average slightly less than 2% biodiesel in all of our diesel fuel.

In EPA's proposed standards for 2016, they "believe it is possible for the market to reach volumes perhaps as high as 600 million gallons (of E85) under favorable pricing conditions" and they present some scenarios in Table II.D.2.2 – Volume Scenarios Illustrating Possible Compliance with 3.40 Bill Gal Advanced Biofuel and 17.40 Bill Gal Total Renewable Fuel. The table provides E85 sales volumes between 100 and 600 million gallons. In 2014, EIA data shows that approximately 76.5 million gallons of E85 were supplied nationwide of which CountryMark sold 1.3%. To meet the EPA scenarios would require sales to increase between 31% and 684%. The EPA table also presents biodiesel volumes that when combined with EIA diesel consumption estimates would require 3.8% of the total diesel pool to be biodiesel. The EPA scenarios set an impractical and infeasible expectation for E85 and biodiesel use.

For CountryMark, the EPA's presented upper limit for E85 equates to 7.8 million gallons of sales per year. With the average annual sales for all gasolines at these 16 stations being 500,000 gallons per year, to meet the EPA projections nearly 100% of the gasoline sold would need to be E85. For biodiesel, EPA's projected 3.8% blend would be a 100% increase for CountryMark biodiesel sales. Due to the winter challenges with biodiesel, even requiring a 5% blend of biodiesel during the summer months would only result in an annual average of slightly over 3%.

Based on CountryMark experience, meeting both of these targets is infeasible. Experience shows that even with adequate availability of E85 in the market and sufficient FFV to use the fuel, consumers do not buy E85. In fact, E85 sales are decreasing and our members are converting E85 pumps back to E0 service. In addition, with a knowledgeable and supportive customer base, we cannot sell more than 2% biodiesel on average and reaching EPA's suggested levels is limited by winter operability. Therefore, E85 consumption and higher biodiesel blends should not be counted on to close the gap on the RFS mandates.

V. RFS Impact on CountryMark

CountryMark started selling ethanol blended gasoline and biodiesel long before being required to do so by the RFS. Being a small refiner, we did not become an obligated party until 2011. Therefore, we have only made slight changes to our operation due to the RFS. Since our customers are integrated with the agricultural community, they are high-end, knowledgeable users of renewable fuels – both ethanol and biodiesel. Even with this engaged customer base, our primary gasoline product is E10 and the sales of higher ethanol blends such as E85 only make up a small fraction of our sales. In addition, we can only sell slightly less than 2% biodiesel on an annual average of all diesel fuel.

Even with a customer base that favors renewable fuel blending when it comes to actual practice, CountryMark cannot blend enough renewable fuels to meet our annual obligation. This requires us to purchase Renewable Identification Numbers (RINs) in the marketplace. If the annual obligation continues to increase as indicated by the EPA there are only two options for compliance at this time:

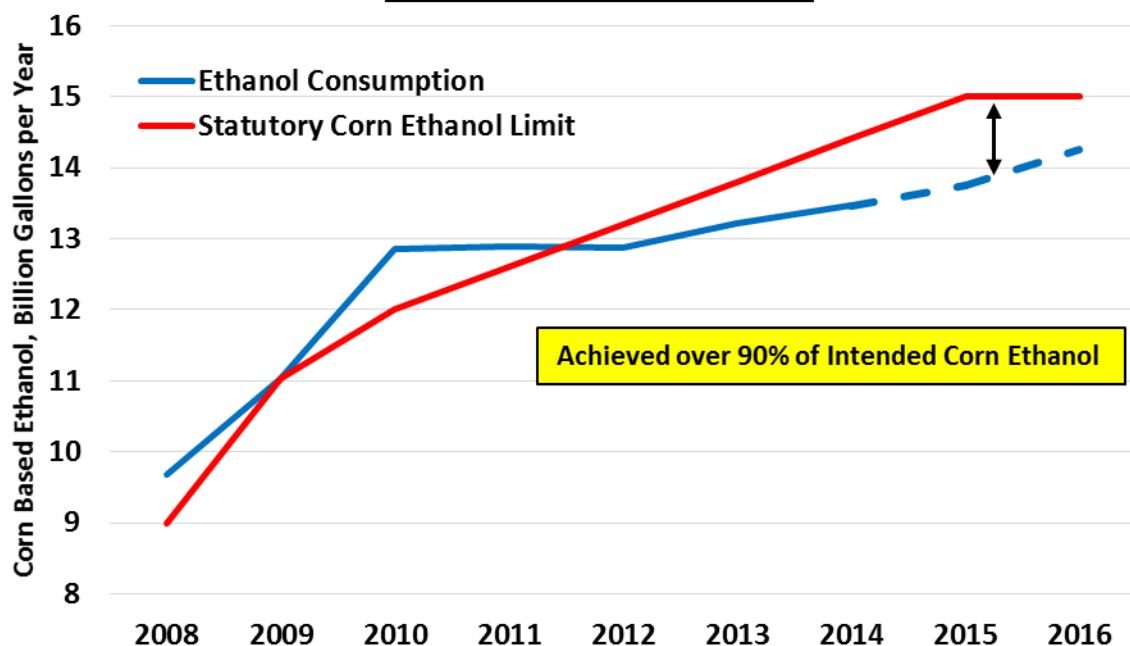
- 1) Purchase RINs to meet our obligation. For 2015, we are projecting a cost of over \$4 million for additional RINs needed for compliance. This number will continue to increase and will pose an economic burden on the company. This will also impact our farmer-owners in that it will reduce income and patronage refunds.
- 2) Blend additional biodiesel. Diesel fuel specification, ASTM D-975, allows for up to 5% biodiesel to be blended within the specification. One approach would be to blend 5% biodiesel from March through November and not provide a choice to our customers. This lack of choice may negatively impact diesel sales volumes. Plus, this approach would still require purchasing additional RINs for compliance.

In the end, the RFS mandates will put an economic burden on CountryMark which puts the company at risk. The 2016 proposed standards require growth of E85 sales to meet the volume obligations; however, CountryMark data shows that E85 sales are decreasing which will widen the compliance gap. In addition, even by requiring our customers to purchase 5% biodiesel blends, we will fall short of our obligation and need to purchase RINs. The only thing the RFS does is raise our operating costs because without the RFS and its associated mandates, CountryMark would most likely continue to sell E10 gasoline and biodiesel at the current levels.

VI. Effect on Farmers and Corn Demand

CountryMark is a farmer-owned cooperative and our members are heavily involved in agriculture. We are at the crossroads of petroleum and renewable fuels. Previously, E10 and the difficulties of selling higher ethanol blends including both E15 and E85 were discussed. If the reality of the E10 blendwall continued to be reflected in the annual RFS standards and ethanol blending was limited to 9.7% nationwide, we must ask ourselves what effect would that have on corn consumption for ethanol and subsequently our farmer owners?

Figure 4: Corn Based Ethanol Usage



On average over the last 5 years, 40% of the U. S. corn crop has gone to ethanol production. The amount of ethanol mandated by the RFS has done little to change this percentage +/- 3%. Figure 4 provides a comparison of corn-based ethanol consumption versus the statutory limit for corn-based ethanol in EISA. Ethanol consumption through 2014 is EIA data (solid blue) and the dash line are estimated production numbers based on the proposed RFS standards. EPA rightfully recognized the E10 blendwall and lowered the corn-based ethanol requirement below the statutory limit. Even with this lower limit, the RFS will have achieved over 90% of the intended corn-based ethanol. Even if the corn-based ethanol was set at statutory limit, the incremental corn going into ethanol production would be small. For example, an additional billion gallons of corn-based ethanol would have used less than 3% of the total 2014 corn production. Corn-based ethanol production has limited upside to absorb more corn

or a higher percentage of the corn crop. By any measure, the RFS will have consumed nearly all of its intended corn even if the annual standards are set at the blendwall. Therefore, setting the standards for corn-based ethanol with recognition of the E10 blendwall is a fair balance for providing the individual farmer owner with opportunities to sell corn for ethanol production while protecting their investment in CountryMark by not setting unachievable mandates.

VII. Conclusion

CountryMark started selling E10, E85 and biodiesel long before being required to do so by the RFS. To date, we have only made slight changes to our operation due to the RFS and without the RFS mandates we would continue to blend ethanol and biodiesel. Being part of a farmer-owned cooperative provides us with a knowledgeable customer base for renewable fuels – both ethanol and biodiesel. Even with this engaged customer base and selling ethanol and biodiesel blends, CountryMark cannot blend enough renewable fuels to meet our annual obligation under the RFS.

The solution for compliance does not include E85 because consumers do not want to purchase the fuel. Even though Indiana has a high density of FFV and CountryMark has a large percentage of stations that offer E85, data shows that on average E85 sales are only 3.5% of same store gasoline sales. Instead of E85 sales increasing, data shows they are decreasing at the same time that E0 blends being sold at a premium are increasing. These challenges point to the need for EPA to recognize that the E10 blendwall is real and set annual compliance obligations to recognize a maximum ethanol usage of 9.7% nationwide. This still meets over 90% of the original goal for corn-based ethanol which strikes a balance between corn growers and the reality of the blendwall. Otherwise, without practical ways to use renewable fuels that are accepted by the consumer, the RFS will become unworkable and companies like CountryMark will be financially threatened by the increased cost of purchasing RINs for compliance.

CountryMark appreciates the opportunity to testify today. As Congress continues to work through potential changes to the RFS that will strike a compromise for all parties and reflect the realities of the marketplace, CountryMark will continue to participate in this dialog.

Table of Acronyms

ASTM	American Society of Testing and Materials
CAA	Clean Air Act
BTU	British Thermal Unit (measurement of energy)
E0	Gasoline with 0% Ethanol
E10	Gasoline with 10% Ethanol
E15	Gasoline with 15% Ethanol
E85	Gasoline with 85% Ethanol
EIA	U. S. Energy Information Administration
EISA	Energy Independence and Security Act of 2007
EPA	U. S. Environmental Protection Agency
FFV	Flex Fuel Vehicles
PSI	Pounds per Square Inch (measurement of pressure)
RFS	Renewable Fuels Standard
RINs	Renewable Identification Numbers
RVP	Reid Vapor Pressure
U. S.	The United States of America