

## Table of Contents

U.S. Senate Date: Wednesday, February 24, 2016

Committee on Environment  
and Public Works Washington, D.C.

STATEMENT OF:	PAGE:
THE HONORABLE JAMES M. INHOFE, A UNITED STATES SENATOR FROM THE STATE OF OKLAHOMA	3
THE HONORABLE BARBARA BOXER, A UNITED STATES SENATOR FROM THE STATE OF CALIFORNIA	6
JANET MCCABE, ACTING ASSISTANT ADMINISTRATOR FOR AIR AND RADIATION, ENVIRONMENTAL PROTECTION AGENCY	10
HOWARD GRUENSPECHT, DEPUTY ADMINISTRATOR, U.S. ENERGY INFORMATION ADMINISTRATION	17
RONALD E. MINSK	66
LUCIAN PUGLIARESI, PRESIDENT, ENERGY POLICY RESEARCH FOUNDATION, INC.	71
BROOKE COLEMAN, EXECUTIVE DIRECTOR, ADVANCED BIOFUELS BUSINESS COUNCIL	76

HEARING ON OVERSIGHT OF THE RENEWABLE FUEL STANDARD

Wednesday, February 24, 2016

United States Senate

Committee on Environment and Public Works

Washington, D.C.

The committee met, pursuant to notice, at 10:00 a.m. in room 406, Dirksen Senate Office Building, the Honorable James Inhofe [chairman of the committee] presiding.

Present: Senators Inhofe, Boxer, Vitter, Barrasso, Crapo, Wicker, Fischer, Rounds, Carper, Whitehouse, Merkley, Gillibrand, and Markey.

STATEMENT OF THE HONORABLE JAMES M. INHOFE, A UNITED STATES  
SENATOR FROM THE STATE OF OKLAHOMA

Senator Inhofe. Our meeting will come to order.

The Renewable Fuel Standard is not necessarily a partisan issue; it is often a geographic issue, supported and opposed by Republicans and supported and opposed by Democrats all for different reasons. The Senate is currently considering energy legislation on the Floor and, like we do at every opportunity, Senators on both sides of the aisle have proposed changes to the RFS, expanding ethanol use, eliminating ethanol use, and eliminating the mandate altogether. That is where I fall.

Since Congress enacted the RFS in 2005 and expanded it in 2007, the world has changed. America now produces more oil at home, imports less from abroad, consumes less gasoline, and emits less carbon from oil-based fuels. Most of the rationale originally justifying the RFS has disappeared. All we have left is an unstable program rooted in the EPA's waiving entire portions of annual requirements, allowing imported soybeans and ethanol from South America to count towards the RFS and regularly missing implementation deadlines.

This year, the EPA was so far behind schedule that they were forced to propose three years of volume requirements in a single package. The 2014 volumes were 730 days late, the 2015 were 365 days late, and the EPA's mismanagement of the RFS has

been rife with frequent delays, litigation, and even fraud from imaginary biodiesel production. EPA has hurt every party involved, from corn producers to refiners.

Now, at the heart of today's discussion is the fact that it is time for Congress to revisit the RFS. In fact, Congress must revisit the RFS by 2022, when the tables in the Clean Air Act end, or U.S. fuels policy will be left in the hands of the EPA, and I think we agree that is not good.

EPA mismanagement is compounded by concerns that the compliance market is not working properly. Biofuel production has not reached the levels that were expected when the program was created. In recent years, gasoline demand has leveled partially as a result of EPA's vehicle efficiency requirements, while the RFS has increased. Biofuels are more expensive than gasoline.

Oklahoma is full of gas stations advertising. Where is my sign here? You see this on almost every corner in Oklahoma as you go through, a sign saying that it is very clear what the people want in the State of Oklahoma. Yet, regardless of consumer demand, EPA is pushing increased ethanol brands like 15 percent and higher to levels that can corrode engines and void vehicle warranties. These are just a few of the reasons why I continue to oppose RFS, which I have done since it was expanded in 2007.

I am pleased to have both the EPA and the EIA here today, as they are uniquely positioned to provide us valuable insight into the implementation and future of the RFS. Our other witnesses will discuss the impact EPA's management has on program participants and the economy, and they will raise some potential ideas to fix this broken mandate.

Today's hearing is an opportunity to reassess the longevity of RFS, the achievability in the statute volumes, EPA's administration of the program, and the potential of ramifications to America's energy security and the environment. I look forward to this.

What time did we decide the vote was this morning?

Senator Boxer. Noon.

Senator Inhofe. Noon. Okay. I was right?

Senator Boxer. I was wrong.

Senator Inhofe. Well, you have every right to be wrong.

Senator Boxer. I hate to say those words, I was wrong.

Senator Inhofe. All right. Well, we will recognize you since you are wrong.

Senator Boxer. Thanks a lot. Not on this subject.

[The prepared statement of Senator Inhofe follows:]

STATEMENT OF THE HONORABLE BARBARA BOXER, A UNITED STATES  
SENATOR FROM THE STATE OF CALIFORNIA

Senator Boxer. Congress created the Renewable Fuel Standard to promote a strong domestic renewable energy industry, reduce our dependence on foreign oil, and cut dangerous emissions of carbon pollution that cause climate change. These are exactly the types of goals our Country should be focused on, and the RFS is designed to accomplish these while also creating jobs.

A central focus of the program is to encourage the development of fuels such as cellulosic ethanol and advanced biofuels which can turn waste into fuel. By this measure, the program is on track to be successful. By 2022, the RFS program will reduce carbon pollution by 138 million metric tons, which is nearly the annual emissions of 27 million cars.

Now, some of my colleagues and others testifying today are going to criticize the RFS, as is their right. To those who claim that the RFS will raise gasoline and food prices, it is best to start with the facts.

First, the EPA has shown that complying with the RFS does not increase gas prices. Second, the price of corn today is roughly the same as it was in 2007, when the RFS was established. The critics making these claims want to repeal or

undermine the RFS. Frankly, that will benefit the oil companies and I believe will hurt the American people.

The implementation of the RFS has not been perfect, I admit that, but the law is sound. Congress designed the RFS to be managed in a flexible common sense way. We gave EPA the authority to make certain adjustments when necessary.

As I have said before, legislative changes to the RFS are not needed, and I will do everything in my power to stop any legislation to modify or undermine this landmark law. We should first focus on making sure the law we have on the books works. That is why I am pleased that we are having this oversight hearing which gives us the opportunity to examine the program. I do believe in greater energy security, giving consumers a choice, and reducing carbon pollution.

Yesterday, in the lead story of The New York Times, it was reported that sea level rise is the highest it has been in 28 centuries. That is 2,800 years. So climate change is upon us and the RFS plays an important role in addressing the cause of that climate change, and that is why I believe we need to continue it and we need more biofuels in the marketplace. The U.S. should be a leader and should not fall behind other parts of the world like Brazil, China, Europe, which continue to invest heavily in production of biofuels.

Now, I do disagree with the EPA on this. I think that the biofuel targets EPA included in its final rule last year were low, were unnecessarily low. EPA should be setting stronger biofuels volume targets that drive investments and innovation and make progress toward cleaner advanced biofuels.

We now have a much better sense of what sustained support of renewable biofuels can do. For example, there are now multiple advanced cellulosic ethanol refineries in the United States that are producing fuel. One of these plants in Iowa is the largest cellulosic ethanol plant in the world and will produce fuel that has 90 percent less carbon emissions than gasoline. This is important progress, but much more could be done. So, moving forward, I urge EPA to set robust targets that result in increased investments in both biofuels production and the infrastructure necessary to bring these fuels to market.

Mr. Chairman, this is another glaring case where you and I come at it differently, but it is with great respect that I thank you for holding these hearings, and I look forward to hearing from our witnesses.

[The prepared statement of Senator Boxer follows:]

Senator Inhofe. Very good.

We will start with you, Ms. McCabe, and we will move on to  
Mr. Gruenspecht.

STATEMENT OF JANET MCCABE, ACTING ASSISTANT ADMINISTRATOR FOR  
AIR AND RADIATION, ENVIRONMENTAL PROTECTION AGENCY

Ms. McCabe. Thank you very much, Chairman Inhofe, Ranking Member Boxer, and other members of the Committee. I am very pleased to be here this morning and have the opportunity to testify on the Renewable Fuel Standard program and on EPA's recent final rule setting the annual volume standards for 2014, 2015, and 2016, and the biomass-based diesel volume requirement for 2017.

The RFS program began in 2006 under the Energy Policy Act of 2005. The program's requirements were then modified by the Energy Independence and Security Act of 2007, EISA. The stated goals of that law include moving the United States toward "greater energy independence and security," and increasing "production of clean renewable fuels." The law established new volume targets for renewable fuels, reaching a total of 36 billion gallons by 2022, including 21 billion gallons of advanced biofuels.

The amended statute also included a number of new provisions, including greenhouse gas emission thresholds for qualifying biofuels. After an extensive notice and comment process, including working closely with our Federal partners at the USDA, the Department of Energy, and others, EPA finalized

regulations to implement these requirements, and those regulations went into effect in July 2010.

The law requires EPA to issue annual standards for four different categories of renewable fuels: total fuel, advanced fuel, biomass-based diesel, and cellulosic fuel. These standards designate the percent of each biofuel category that producers and importers of gasoline and diesel must blend into transportation fuel, heating oil, and/or jet fuel. On November 30, 2015, we issued a final rule to establish the annual volume standards for cellulosic biofuel, biomass-based diesel, advanced biofuel, and total renewable fuel that apply for the years 2014, 2015, and 2016, and we also established the applicable volume of biomass-based diesel, which is also referred to as biodiesel, that will be required in 2017 in accordance with the requirements of the rule and the law. The Clean Air Act requires EPA to issue renewable fuel standards by November 30 of each year for the following year and 14 months in advance for biomass based diesel category.

With this final rule, EPA established volume requirements that will increase the amount of biofuel in the market over time, going beyond historic levels. The final standards provide for ambitious yet achievable growth, and strongly incentivize growth in advanced fuels that achieve substantial greenhouse gas reductions compared to the transportation fuels that they

replace. When Congress passed the RFS provisions, it set annual targets for renewable fuel that increase every year through 2022. It also included tools, known as the waiver provisions, for EPA to use to adjust those statutory targets in specified circumstances, including where the statutorily prescribed volumes could not be met.

Biofuel use over the past decade has increased significantly, especially for ethanol and biodiesel, and recently we have seen important developments in the production of advanced renewable fuels, including cellulosic biofuels. This is encouraging because cellulosic biofuels are the biofuels that have the lowest lifecycle greenhouse gas emissions. Most of the growth in the law's renewable fuel targets for 2015 and beyond comes from these advanced cellulosic biofuels. We are committing to doing what we can to encourage and support production and blending of such fuels to maximize reductions in greenhouse gases.

Our recently issued final rule seeks to ensure that the growth of renewable fuel production and use continues, consistent with Congressional intent. It uses the waiver authorities in a judicious way to establish ambitious but responsible and achievable standards. The final rule addresses three years' worth of standards, and sets the volume requirement for biodiesel for a fourth year. For 2014 and 2015, we

finalized standards at levels intended to reflect the actual amount of biofuel used domestically. For 2016, and for 2017 for biodiesel, the standards we have finalized through use of the waiver authorities provides for significant increases over past levels. Those final volumes for total and advanced fuels reflect our consideration of two essential factors: first, that the market can respond to ambitious volume targets; and second, that there are limits today to the volumes that can be supplied to consumers.

Many of our stakeholders, and indeed many in Congress, rightly want to know why some of the volume targets established in the statute cannot be reached. There are several reasons: slower than expected development of the cellulosic biofuel industry and the resulting shortfall in cellulosic biofuel supply, a decline in gasoline consumption rather than the growth projected in 2007, and constraints in supplying certain biofuels to consumers, ethanol at greater than 10 percent of gasoline, in particular.

Our final rulemaking includes a discussion of this last constraint, known as the "E10 blend wall." If gasoline demand is flat or trends downward, increasing the amount of ethanol used in the fuel pool will require significantly greater use of fuels with higher ethanol content, such as 15 percent ethanol,

or E15, or blends of up to 85 percent ethanol, or E85, which can be used in flexible fuel vehicles.

EPA has taken steps to enable the use of higher-level ethanol blends, including granting partial waivers for the use of E15 in certain light-duty cars and trucks beginning with model year 2001. USDA has also put resources into expanding ethanol fueling infrastructure. At the same time, EPA recognizes that there are currently real limitations in the market to the increased use of these higher ethanol content fuels, including current near term limits on fueling infrastructure.

So our final rule balances those two dynamics. Our final volumes reflect substantial growth over past historic volumes and we believe these volumes are achievable and necessary and consistent with Congress's clear intent to drive renewable fuel up. We are also taking other steps within our administration of the RFS program to improve the quality, transparency, and efficiency of our petition review for new biofuels pathways that can count under the RFS program, and I can talk about those more in response to comments.

So we recognize that this is a challenging statute, that we have a particular job that Congress gave us to implement it, and intend to continue doing that in the best way we can, working with all interested stakeholders.

So thank you. I am sorry I went on a little bit too long. It is a complicated subject matter, but I thank you for being here today.

[The prepared statement of Ms. McCabe follows:]

Senator Inhofe. Thank you, Ms. McCabe.

Mr. Gruenspecht, you are recognized.

STATEMENT OF HOWARD GRUENSPECHT, DEPUTY ADMINISTRATOR, U.S.  
ENERGY INFORMATION ADMINISTRATION

Mr. Gruenspecht. Chairman Inhofe, Ranking Member Boxer, members of the Committee, I appreciate the opportunity to be before you today. The Energy Information Administration is a statistical and analytical agency within the Department of Energy. By law, EIA's data analyses and projections are independent, so my views should not be construed as representing those of the Department or any other Federal agency.

My testimony has eight main points. First, the RFS is not expected to come close to the legislated target of 36 billion gallons of renewable motor fuel use by 2022. All of EIA's referenced case projections since enactment of the present RFS targets in 2007 reflect a shortfall, which in 2022 reaches more than 18 billion credits in our current reference case. Virtually all of the shortfall involves cellulosic biofuels.

Second, substantial increase in biofuels use would require moving beyond the present low percentage blends of ethanol and biodiesel that account for nearly all current biofuels consumption.

Third, the hope that large volumes of liquid cellulosic biofuels would be available within a decade following adoption of the 2007 RFS targets has not been realized. The actual supply of liquid cellulosic biofuels was less than one-tenth of

one percent of the legislated RFS target for biofuels in 2015. In mid-2014, EPA began issuing cellulosic RFS credits for compressed natural gas and liquid natural gas derived from landfills and other biogas recovery facilities that exist independently of the RFS programs. Cellulosic biogas, which, unlike liquid cellulosic biofuels, does not displace petroleum use, provided more than 97 percent of total cellulosic biofuels credits in 2015.

Fourth, ethanol faces demand, distribution, and regulatory challenges that make it difficult to increase its use as a motor fuel. Ethanol has three distinct roles in motor fuels markets: providing octane, adding to fuel volume, and providing energy content. Ethanol has achieved great success in the first two roles, where it is supported by factors independent of the RFS. While these two uses also provide some energy content, additional use of ethanol as an energy content source faces significantly higher economic hurdles, as illustrated in Figure 1 of my written testimony, and therefore depends more directly on the RFS.

Fifth, current EIA projections, shown in Figure 2, show a declining trend in motor gasoline use, as has already been touched on, a significant change from projections made prior to 2010. The current projections do not reflect proposed fuel economy standards for heavy-duty trucks, which, if finalized,

would significantly reduce projected diesel fuel use.

Reductions in projected gasoline use since 2007 mainly reflect higher fuel economy standards, slower economic growth, certainly in the late ops, possible changes in consumer behavior, and, until recently, higher gasoline prices. Lower gasoline demand has likely affected the timing of some current RFS compliance challenges, but unlike other factors in this testimony it is not a major cause of past and projected shortfalls in biofuels use relative to legislated targets.

Sixth, actual and projected reliance on oil imports is significantly lower than it was when the expanded RFS program was enacted in 2007, shown in Figure 3 of the testimony, reflecting the combined effects of more robust domestic petroleum production and lower petroleum demand. Biofuels added in response to the RFS program have played only a small part in reducing past and, in our case, projected net import dependence, given the likelihood that ethanol would continue to be used as an octane and volume source independent of the RFS.

Seventh, the near and longer term costs of the RFS depend on the price of oil, the price of agricultural commodities used to produce biofuels, and future implementation decisions. All else equal, lower oil prices tend to raise the cost of RFS compliance. Again, ethanol is really used almost exclusively to provide octane and volume, and that is not really driven by the

RFS. Biodiesel use is more directly driven by the RFS program and the availability of biodiesel tax credits, and there is some discussion of that in my written testimony.

And I guess my final point is that EIA remains actively engaged in matters related to the RFS, obviously not in a policy way. We provide data on biodiesel and ethanol production and ethanol blending. We provide information to EPA with short-term forecasts for motor fuels use and cellulosic biofuels production, and we also develop longer term projections.

So thank you again for the opportunity to testify.

[The prepared statement of Mr. Gruenspecht follows:]

Senator Inhofe. Well, thank you very much, Mr. Gruenspecht.

Senator Boxer and I are going to try to get this meeting over with before the vote that comes up, so we are going to go ahead, and I would ask my colleagues to try to hold your questions to five minutes.

First of all, Ms. McCabe, you base your annual volume mandates on tables in the Clean Air Act that are listed out through 2022. Could you please explain what happens to the program after 2022? And isn't the RFS turned over completely to the EPA if it is not met at that time?

Ms. McCabe. My understanding, Senator, is that Congress set those volumes through at least 2022 and did not provide for additional volumes afterwards.

Senator Inhofe. Is that yes, then?

Ms. McCabe. Yes, EPA would continue to administer the program, implement the program, as Congress set it out through that time.

Senator Inhofe. Okay. Now, the second question I am going to ask you to respond for the record. And I might add the last time we asked you to respond for the record was September 29th. That request was made by several of us, including Senators Boxer, Wicker, Fischer, and me, and we still haven't heard back. So I would like to have you make a note of that so we can hear

back from you. And when I say we want to get the answer to the second question for the record, we would like to get that within three days, how is that?

Corn ethanol was grandfathered into the RFS even though it does not meet the greenhouse gas requirements for the program. Given the tendencies of this Administration to favor products that emit few or no greenhouse gases to advance its climate change agenda, when the RFS is turned over to the EPA, what role will corn ethanol play in the RFS, and would it continue to receive a 15 billion gallon mandate or would its place in the RFS diminish? Again, that will be for the record.

Third question, when you proposed the volume for 2014, you did it by the mandated deadline. Why did it take you 730 days to finalize those volumes?

Ms. McCabe. You would like me to answer both questions?

Senator Inhofe. No, just the third question.

Ms. McCabe. To explain the timing?

Senator Inhofe. Yes, why it took 730 days. Be very short.

Ms. McCabe. So, as has been explained, this is a program that Congress intended to evolve over time. It is very complex because of the way ethanol feeds into the fuel system and the development of other fuels. I think Congress recognized, and we always knew, that there would come a time when there would come kind of a threshold moment in the program where the

congressional mandates would require that increasing amounts of fuel beyond what is known as the E10 blend wall would come to pass, and the 2014-2015 has been the time when that milestone occurred. It provided significant challenges, as you know.

There are very divergent views among the people who are affected by the RFS about how EPA should exercise the responsibility that Congress gave it, and that led to the 2014 rule being delayed.

Senator Inhofe. Okay, that is fine, because I am running out of time here. So that is the reason for the 730 days delay.

Mr. Gruenspecht, how has the increased domestic supplies of crude oil, which we all recognize is out there, since the expansion of the RFS in 2007, and in more recent years, impacted the goal of energy security and energy independence?

Mr. Gruenspecht. Mr. Chairman, I think in 2005 one measure that is used is net import dependence on liquid fuels, and that was 60 percent. Now we are sort in the mid-20 percent range. That is a combination, again, of both the more domestic production and the increased fuel economy, lower demand.

Senator Inhofe. All right. The second question I have for you is in the latest RFS rule EPA projected the demand volumes for gasoline without ethanol and with higher blends of ethanol 15 to 85 percent. Now we are talking about the EPA at this time. They predict demand for ethanol-free gas would drop significantly in 2016, while demand for higher ethanol blends

will increase. Now, do these projections align with the EIA projections of demand for these fuels? To what degree have EPA's past annual volume mandates aligned with the fuel demands projected submitted to them by the EIA? And I might add that I don't believe that is going to be very accurate in my State of Oklahoma.

Go ahead.

Mr. Gruenspecht. Well, that is a long and complex question. Projections of E85 and E15 are very difficult, I think. Looking at the data, we do know how much easier oil comes out of refineries, but the hard part is there can be blending further down the line. So it is hard to figure that out.

Senator Inhofe. All right, it is hard to figure that out. Let's use that for the record, then, because my time has almost expired. I do have one short question, and that is based on your current projection, is it possible that the RFS will be able to achieve the final targets of 36 billion gallons contained in the Clean Air Act by 2022, or could it be easier?

Mr. Gruenspecht. We certainly don't have that in our projections, as I noted in my testimony. We think the shortfall of about 18 billion gallons of credits in 2022.

Senator Inhofe. All right, thank you.

Senator Boxer.

Senator Boxer. Thank you so much, Mr. Chairman.

Ms. McCabe, the biofuels industry said it can produce more biofuels than EPA provided for in the final rule issued on November 30th, 2015, and this final rule undercuts investments in biofuels, particularly in cellulosic biofuels. How do you answer that criticism?

Ms. McCabe. Well, thank you, Senator Boxer. We actually think that the rule does what it is supposed to, which is to support the increased development and use of these fuels. We did look very carefully at what was going on in the industry. We spent a lot of time reaching out to individual companies to make sure we know what is going on. And as has been recognized, in certain parts of the industry there has been real challenges in getting those fuels into the market. The levels that we set represent significant, substantial growth over historic levels.

Senator Boxer. Okay, so just because I have other questions, basically, you disagree with the industry. They tell you they can do more; you're saying no, you can't. Is that right?

Ms. McCabe. Well, there are different parts of the industry and some are more robust than others, so we take all the information that we get and we try to do the best job --

Senator Boxer. Wait a minute. I am just saying you disagree with them.

Ms. McCabe. With certain --

Senator Boxer. When they say that your final rule undercuts investments in biofuels, particularly cellulosic, you don't agree with it. That is all I am trying to establish.

Ms. McCabe. That is right.

Senator Boxer. Okay.

Ms. McCabe. Yes.

Senator Boxer. Now, we have heard repeatedly that EPA and the Obama Administration are interested in deploying low carbon technology, right? Cellulosic ethanol is the lowest carbon fuel in the world. Yet, companies that produce cellulosic ethanol have expressed concern that EPA's use of its waiver authority will limit, rather than expand, the use of this fuel in the future.

Do you agree that production of cellulosic ethanol is important for meeting our Nation's commitment to reduce carbon pollution? And what is EPA doing to expand the production of cellulosic ethanol moving forward?

Ms. McCabe. I do agree that development of cellulosic fuels is absolutely critical and the most central part of Congress's intent when they put this law into effect. The EPA is not the only actor in the field of developing and changing our transportation fuel system. We have very specific responsibilities under the statute and we are doing several

things. One is issuing volumes. That is my most important job as head of the Air Office, is to get those volumes out so that that signal is there, that clear signal.

We also have the responsibility of approving new pathways. People come to us with innovative new fuels that are very carbon reducing, and we, in the recent year, have revamped our process for doing that so that we can move those applications through very expeditiously, including a category called efficient producer, so that we are able to push those pathways through. We work closely with the USDA and DOE on programs that they have to also help.

Senator Boxer. Okay, I think we are getting lost here because I am very specific about the waiver authority, so let me ask it a different way.

Ms. McCabe. Okay.

Senator Boxer. How do you reconcile the statement that you made: "This final rule represents EPA's commitment and continued support for the steady growth in renewable fuel use," that is your statement, with EPA's decision to use a waiver to reduce the overall volume? You said yourself that is the most important thing you do, but you have given yourself a waiver below the level Congress intended. You could go down. So how do you reconcile on the one hand saying we are committed and the other talk about this waiver?

Ms. McCabe. Senator, our review of the information that we had about what could be reasonably but ambitiously achieved in the years that we are supposed to set standards led us to conclude that the statutory volumes simply were not achievable if we were doing our job in a responsible way. So we used the authority that Congress provided to waive those standards, but only to the degree that we thought was absolutely necessary in order to continue to provide that signal for growth.

Senator Boxer. Okay. I just think it is important to note that when you say something so unequivocally, and then the policy allows you to cut back the volumes, it is a mixed signal to folks out there who are making investments.

Is EPA on track to release the 2017 biofuel volumes in time to comply with the deadline in the law?

Ms. McCabe. Yes, we are.

Senator Boxer. Good. And do you think that this loss of investor confidence that I talk about is a concern, and how do you plan to address it moving forward?

Ms. McCabe. By meeting our deadlines, by continuing to send that strong clear signal that volumes should be growing as Congress intended, and by doing our job to keep approving new types of fuels to get into the system.

Senator Boxer. Well, thank you. I just hope that when we make a commitment, we don't undermine it with waivers and other

things. Thank you.

Senator Inhofe. Thank you, Senator Boxer.

Senator Rounds. Thank you, Mr. Chairman.

Administrator McCabe, I have a copy of the Clean Air Act, and specifically the Renewable Fuel Standards post 2022, and I would like to focus on that. It says that the administrator shall promulgate rules establishing applicable volumes of advanced biofuel, cellulosic biofuel, and biomass-based diesel. I see no mention of corn ethanol.

Being from an ag State, where we have spent considerable resources developing this industry, based in large part on this Federal mandate, and a large sector of our economy depend upon this industry today, this seems to be of real concern to me and to a lot of folks in South Dakota and the upper Midwest.

I want to be very clear on something. In your opinion, does the Clean Air Act explicitly provide for corn ethanol to be a part of the RVO totals post 2022?

Ms. McCabe. Well, Senator, you have noted a clear element of the law that Congress provided, which is it did not set a specific standard for corn ethanol. Corn ethanol is clearly a very important bio-based fuel that has been used and is increasingly used, and it helps, it is one of the fuels that helps fill up the standards and the targets that Congress set and that EPA then implements. I really cannot speak to what a

future EPA would do in 2022 after the table that Congress put forth.

Senator Rounds. But you have significant volumes right now that we are not meeting today, correct? There are volume requirements that are out there today that the EPA has looked at and said, look, we are not going to meet these.

Ms. McCabe. That is correct.

Senator Rounds. Even though the shortage has been running in terms of the bio products themselves, not necessarily in the corn ethanol portion of the mandate?

Ms. McCabe. The concern and the reason that we felt that the waiver was appropriate was the ability to get those renewable fuels, whatever they are, into the transportation fleet and actually being used.

Senator Rounds. So even though we couldn't meet the volume requirements because the other products, and the other products would include those items which are still identified as biofuel, cellulosic biofuel and biomass-based diesel, those were all falling short of the goals even though you did have access to larger proportions and there could have been more corn ethanol produced to meet those volumes. Is that a fair statement, we could have produced more corn-based ethanol to help meet those volume requirements, and yet the EPA had indicated at this stage of the game you simply couldn't meet the total volume

requirements because those other three weren't meeting their end?

Ms. McCabe. Well, corn ethanol cannot meet the nested requirements for cellulosic and advanced biofuel because it doesn't meet those requirements.

Senator Rounds. Although it does a very good job in terms of meeting the volume guidelines and it does do a very good job of meeting and improving octane levels within a fuel.

Ms. McCabe. But it has to be able to get into the vehicles and be used.

Senator Rounds. Right. So let me just move on, then.

Sir, just a question, Mr. Gruenspecht. Right now we have basically a time period from 2022 where there is no more mandate for the use of corn ethanol in the Federal programs, and yet at the same time, in your testimony, you identified that it is an excellent source for octane and it is an excellent source or it is a qualifying source for volume requirements. We have CAFE standards coming up in the year 2025, where we are going to have I think the average is 54, 55 miles per gallon that we are expecting. In order to reach that, there has been considerable discussion that I have been a party to that indicates that we are going to want higher octane ratings for fuel in order to meet those volumes.

Could you share a little bit of any background you may have

or any discussion that you have been involved with, any information that you have indicating the need for octane boosters in order to meet new CAFE requirements by the year 2025, three years after the end of this mandated portion of the RFS for corn ethanol? I see a gap between 2022 and 2025.

Mr. Gruenspecht. We have really not been looking closely at that, I would say.

Senator Rounds. Do you think it maybe should be considered?

Mr. Gruenspecht. It is a possibility that there is talk about looking to higher compression, different fuel engines as, I want to not say as opposed to, but in conjunction with this notion of using biofuels as blends for gasoline, but we have not looked at it.

Senator Rounds. Sure. But in terms of higher compression engines, the need for a higher octane rating helps, doesn't it?

Mr. Gruenspecht. I am not an expert in that area, but I would believe that to be the case.

Senator Rounds. And I think in your opening testimony you indicated the need or at least the fact that corn ethanol was a very good source or a good source for octane improvement or an octane adder in the fuels that we use in vehicles today.

Mr. Gruenspecht. That is correct. Like when we phased out MTBE, I guess following the Energy Policy Act of 2005, there was

a very large demand for ethanol to play a role in gasoline and, in fact, the use of ethanol was far in advance of the RFS requirements at that time. That need has kind of been filled, at least with respect to gasoline used in current types of engines.

Senator Rounds. And the next gap will be 2025 with new CAFE standards with higher mileage requirements.

Mr. Gruenspecht. Well, the CAFE standards, I believe, but those are really more suited for my colleague, but I believe they go up not in a step, but go up gradually over between now and 2025.

Senator Rounds. Thank you.

Thank you, Mr. Chairman.

Senator Inhofe. Thank you. Senator Carper?

Senator Carper. Thanks.

Mr. Gruenspecht, have you ever testified before Congress before? Is this your first hearing?

Mr. Gruenspecht. No, no, no.

Senator Carper. Do you remember your first hearing?

Mr. Gruenspecht. I do.

Senator Carper. Who chaired that one?

Mr. Gruenspecht. Up on the fourth floor of a building on the other side of the dome.

Senator Carper. Whose committee was it?

Mr. Gruenspecht. It was in front of you.

Senator Carper. And Tom Ridge. Committee on Economic Stabilization.

Mr. Gruenspecht. Many miles.

Senator Carper. It is great to see both of you again. Thanks for joining us.

I think it was 2005 when Congress and President George W. Bush got together and enacted the RFS legislation for a couple of reasons: one, to diversify our Nation's energy portfolio; second, to strengthen the economy, particularly the economy of rural communities, by encouraging certain agricultural commodities that contribute to biofuel production; and maybe a third would be to bolster the U.S. standing in emerging segments of the energy technology market; and a fourth would be to protect our environment. There are other objectives as well, but those are four pretty big ones.

How are we doing?

Ms. McCabe. Well, I think the biofuel story has been a real success story in the United States. There has been tremendous growth in, as you say, rural America; lots of jobs created in economic opportunity there. We have seen American innovation come forward with interesting and innovative fuels, and they continue to do so. As we get increased amounts of these fuels into our transportation fleet, our emissions of

greenhouse gases go down, and that is a very good thing.

Senator Carper. Mr. Gruenspecht, how are we doing against those four? We like to use metrics around here, and we said the reason why we were enacting this legislation was to address at least these four issues. I just went through those. How are we doing in terms of meeting them?

Mr. Gruenspecht. Clearly, the use of biofuels has increased quite a bit. I think in the case of ethanol, it probably doesn't have that much to do with the RFS program. In terms of biodiesel, I think, as I said in my testimony, it probably does have more. Really, those are the two main sources of biofuels that we are using. Again, I have been taught never to assume what other people were thinking, but I think that maybe in 2007 people thought there would be a lot of cellulosic biofuels, and basically there aren't. Again, it turned out maybe to be more challenging than some people have thought.

Senator Carper. That is probably an understatement. Thank you.

Ms. McCabe, do you believe that somehow RINs could be used as a vehicle to incentivize consumers to purchase E85 fuel?

Either of you could take a shot at it, but do you think we can somehow figure out how to use RINs as a way to help incentivize consumers to purchase E85 fuel? And, if so, could

that result in real economic incentives to fuel retailers to install required infrastructure?

Ms. McCabe. Look, consumers will buy fuel based on the things that they think about, which is price and fuel that works for their needs.

Senator Carper. And convenience.

Ms. McCabe. And convenience. That is right. So a lot of the work that we have done looking across the industry and what they are doing has been to examine how those fuels are getting into the marketplace and whether they are attracting people and whether they are buying them. The RINs are a device that Congress put in the law that EPA has implemented actually to make the system workable for the obligated parties so that everybody doesn't have to actually produce the liquid gallons themselves.

But I think that the system needs to work so that those fuels become attractive to people and Congress, in setting up the RFS, I think recognized that those fuels needed a boost along the way, and that was why they set up the program the way they did.

Senator Carper. All right, thank you.

This could be a question for either of you. Later today I am going to be meeting with a lot of farmers from Delaware, and when you make your way, Mr. Gruenspecht, to Bethany Beach, one

of the finest five star beaches in America, you drive through a place where we raise corn and soybeans and we raise a whole lot of chickens on DelMarVa Peninsula, as you know. I like to say we have, for every person in Delaware, 300 chickens. A lot of chickens. And they eat a lot of corn, and when the price for corn was going up, up, up, up, up, we heard a lot of pushback, a lot of pushback from our ag community, including some of the people I will be meeting with later today.

From your perspectives, has the RFS had any significant effect on the price of corn since its inception?

Ms. McCabe. Well, I am not an expert on commodity prices; I think there are folks who have looked at that and people have different views about it, so I don't want to offer an expert opinion on it.

Senator Carper. How about an inexpert opinion?

Ms. McCabe. I have heard from some sources that they believe that prices have gone up to a certain extent on these commodities as a result of the RFS, but there are many factors, of course, that go into any commodity prices.

Senator Carper. Okay.

And a quick yes or no question, if I could, Mr. Chairman.

Is EPA on track to proposing an RFS rule for 2017?

Ms. McCabe. We are. Yes.

Senator Carper. Thank you. End of questions.

Senator Inhofe. Senator Wicker?

Senator Wicker. Thank you, Mr. Chairman. I must say I share the Chair's skepticism about this whole idea.

I appreciate the testimony of Mr. Howard Gruenspecht and would simply note what he said at the outset. He is here on behalf of an agency giving us data and analysis, and I think his testimony is very compelling about how wrong and mistaken Government can be over time. The testimony indicates that this RFS was based on an inaccurate premise, that the projections were wrong. RFS compliance is now going to cost a lot more than it was expected to be.

On page 5 of Mr. Gruenspecht's testimony it said earlier projections of growth were inaccurate; actual and projected reliance on all imports was lower. So I would simply submit that it is pretty compelling testimony that we surely are capable of getting it wrong here in the United States.

Ms. McCabe, let me just use my remaining four minutes to make this one point about small refiners and hardship exemptions. I have several small refiners in my State who are concerned about the impact of the Renewable Fuel Standard on their business and their ability to create jobs and support the families in their area. Small refiners are concerned that RFS, as it exists, has created an economically untenable situation for many companies.

In the original RFS rule, EPA encouraged qualified small refiners to seek a hardship exemption. EPA said this would appropriately address the needs of affected parties. However, EPA has begun to phase out hardship relief without receiving feedback from small refineries, without public notice and comment, and without revising the regulation that articulates the hardship standard.

I ask unanimous consent, Mr. Chairman, that the following letter be submitted for the record. It refers to a company, the Hunt Southland Refining Company in Mississippi, that has twice petitioned for a hardship exemption but has heard nothing from EPA. If this company is unable to obtain such an exemption, many of its well-paying jobs will be put at risk.

On page 2 of the letter the author says to me as a Senator they hope that I and my colleagues will consider the following actions: review with the EPA its rule and the disproportionate impact it has on small refineries; number two, insist EPA utilize appropriate standards as articulated by Congress for hardship waivers; and, three, review with EPA the correct parties who should be obligated for compliance under the Renewable Fuel Standard.

[The referenced information follows:]

Senator Wicker. So in the minute and a half we have left, Ms. McCabe, what about this? What about the seeming change in direction where the hardship exemption was encouraged at first and then we have had a hard time getting a follow-through?

Ms. McCabe. Well, thank you for the question, Senator Wicker. Respectfully, I would describe it a little bit differently. When Congress passed the law, they exempted small refiners through 2011, and the law then sets up a process for EPA to consider hardship waivers in consultation with the Department of Energy, who has established, after an intensive study of this issue, a set of metrics that they evaluate for every hardship petition we receive.

We take these incredibly seriously; these are very serious petitions that we get from people, and we need to make sure that we are consulting with DOE, we are looking at those metrics, we are being fair. This is a competitive issue, and in the last year for which we issued waivers, which was 2013, we got, I think, 13 waivers and we granted half of them and denied half of them. And those reflect a very serious, very fact-based inquiry into each petition.

So I would not at all say that we have taken a position that we are phasing out those waivers; we take very one of them very, very seriously, and we will grant them if appropriate.

Senator Wicker. Well, I hope that is correct, and I would

simply point out that what I am hearing is that there are companies that have applied and received no answer at all. So I hope you will address that.

Ms. McCabe. The reason for that is we need to know the final volumes before we can actually evaluate the petitions. Nobody's compliance obligations began until that rule was finalized, so as soon as that rule was finalized, we began reviewing those petitions that were pending.

Senator Wicker. Thank you, ma'am.

Senator Inhofe. Thank you. Senator Merkley?

Senator Merkley. Thank you very much, Mr. Chair.

I want to go back to the cellulosic side of things. When I first came to the Senate, we had a Senator from North Dakota who said that North Dakota is the Saudi Arabia of wind energy, and a senator from Nevada saying Nevada is the Saudi Arabia of solar energy, and a county commissioner of Douglas County, from where I was born, saying Douglas County could be the Saudi Arabia of cellulosic ethanol and, indeed, because there is so force mass there.

But the cellulosic industry said the following: "EPA's two year delay in finalizing the rule created untenable uncertainty and shook investor confidence in the RFS program. Bio estimates that investment in the biofuel sector has experienced a \$13.7 billion shortfall due to EPA's delays in proposed changes.

Unfortunately, this final rule exacerbates the problem as EPA has acknowledged this delay allowed obligated parties to act as if the law did not exist. The delay increased carbon emissions by millions of tons over the past two years compared to what could have been achieved with required use of biofuel."

I have heard this ongoing frustration about the rulemaking process and the Senator from California, Barbara Boxer, was noting that the level was set at a level that the industry said was below what they could meet, but that added to investors being very reluctant to get in; that the Administration wasn't ready to be aggressive in this area.

So I guess it is more of a comment. You have already answered the question from your perspective, but I will just add my concerns that this is a tool that has been underutilized and inconsistently applied in a way that has damaged the development of this industry.

You are welcome to comment if you would like, but not for too long, because I have something else I want to talk about.

Ms. McCabe. No, just very quickly, Senator. I appreciate all the comments that you made. We don't like missing deadlines at all, and we are committed to having this program be back on track and keep it there so that those signals will be sent as they are intended to be.

Senator Merkley. So I want to thank you very much.

I want to switch subjects to the challenge we had in Portland, Oregon. The U.S. Forest Service decided to do an innovative study looking at samples of moss in the city because the moss draw all of their sustenance from the air; therefore, they are kind of like a little air monitor. And when they started analyzing the moss samples taken throughout the city, they found these hotspots for cadmium and arsenic.

It looks there is going to be a little hotspot on lead, though I am not sure that is as well-developed yet; they are still working on the data. But the graph on the cadmium was dramatic and it turns out these two hotspots correspond to two glass factories.

My understanding is that the EPA said they were exempt from regulation for arsenic and cadmium because they only produce their glass in batches, rather than having a continuous furnace. I must say citizens thought that seemed like a pretty arbitrary thing. You have a plant producing substantial quantities of pretty toxic substances for human health.

So one of the requests that Congressman Blumenauer, Senator Wyden and I have made is for the EPA to look at this very carefully and see if this is an oversight that needs to be remedied.

Ms. McCabe. Yes, Senator. I am quite familiar with this situation. I have been in close contact with Regional

Administrator McLerran over the last couple of weeks and really want to commend the agencies in Oregon for being so proactive on this issue. I hope you know that Oregon is a real leader in evaluating and taking action on toxic chemicals.

We are looking very closely at the rules that were last adopted in 2008, I think. We are also looking across the Country to see what other facilities are like this, and we will take appropriate actions.

Senator Merkley. I do appreciate Dennis McLerran's prompt response to the letter that Senator Wyden and I sent in which we are asking for full extensive cooperation. Can we count on the EPA to be a full partner in evaluating the health of the citizens impacted by this cadmium and this arsenic?

Ms. McCabe. Well, there are other agencies in the Federal Government who are more expert in evaluating health impacts, including the ASTDR, who is working with the Health Department in Oregon, so we want to make sure we are offering support in the areas where we have clear expertise, and right now that is in air monitoring, in looking at these facilities, understanding their emissions better, understanding what control technologies might be available, looking at how these facilities are regulated. And we will work fully with the health agencies on the Federal level and with the environmental and health agencies in Oregon.

Senator Merkley. Thank you. I appreciate that commitment. I can't overstate how much concern there is among the citizens who live in these zones of contamination that have been just recently identified, so in every possible way you can help, including encouraging other parts of the Federal Government to lend their expertise would be much appreciated.

But the other point, and I will just close with this, is that this is kind of a landmark event of utilizing moss as a cheap, inexpensive way to monitor the quality of air, so I would like to see the EPA look at this very closely because the tests that cost many hundreds of dollars with a monitor, or thousands of dollars, can be done for just a fraction of that by testing the moss, and I think this has just not been recognized before. I think this is something of a breakthrough. And if it turned up these two hotspots in Portland, then maybe this use of moss study should be something that we should undertake. I think the entire study was \$20,000. It would be utilized in other urban zones. And I am imaging you are looking at that, but I want to encourage that.

Ms. McCabe. Yes, sir, we really are. I have had exactly the same thought pattern as you have. Not all cities are as blessed with moss as Portland, but I definitely think it is something that we need to be looking into.

Senator Merkley. The Portland rain does well once again.  
Thank you.

Senator Inhofe. Thank you, Senator Merkley.

We are going to try to hold on to our five minute rule because we would like to get this over with before the vote takes place at noon.

Senator Vitter?

Senator Vitter. Thank you, Mr. Chair.

And thanks to both of you for your work and for being here today.

Ms. McCabe, traditionally, ethanol has cost less than unfinished gasoline, so that has been a significant market incentive to maximize ethanol in a blend. Recently, that has reversed. That is a big change and a lot of folks say ethanol costing more than unfinished gasoline is perhaps a new normal. How does that affect your assumptions that were used when writing the 2014-2016 rule, and will you be doing a new economic analysis for the 2017 rule that takes this into account?

Ms. McCabe. Well, each time we do the volume standards, of course, our main goal is to satisfy Congress's intent to meet or come as close as we can meet responsibly to the statutory volumes that Congress put in place, and I think everybody understands that prices fluctuate over time, but Congress's mandate was pretty clear that we needed to do the best job we

could to meet those mandates. So in 2010, when we did the initial rule, we did an exhaustive analysis and cost-benefit regulatory impact analysis, and when we set the annual volumes those rulemakings are following that initial analysis. So it is very difficult for us to do an individual and exhaustive analysis looking at all those factors in setting the annual volumes rule and meet those statutory requirements and schedule.

Senator Vitter. So that means you wouldn't do a new analysis regarding this for the 2017 rule?

Ms. McCabe. We wouldn't, but we will be looking at and getting information from Howard and his staff on projections about fuel use and fuel availability and all those sorts of things.

Senator Vitter. Okay. This program has been plagued by a lot of difficulties, and the one I hear about the most is enormous uncertainty because of EPA's inability to issue RVOs on time. And you have been asked if you are on track for 2017; you said yes. Let me just ask it a slightly different way. Can you commit to issuing a final rule for 2017 RVOs on time?

Ms. McCabe. It is my intent to issue that rule on time.

Senator Vitter. So you will commit to us that is going to happen on time, as opposed to the last several years?

Ms. McCabe. I am making a personal commitment. I don't control the world. I can't predict unforeseen circumstances,

but it is EPA's intent to meet that deadline.

Senator Vitter. Okay. The 2016 rulemaking included some really aggressive assumptions about how much ethanol can be used in the fuel supply, so compared to that how much E0 was used in the U.S. last year and how much does the rule assume will be used this year?

Ms. McCabe. We get differing views from different stakeholders about the way you characterize the volumes. Our understanding of the amount of E0 used is that it is a very, very small percentage of the fuel pool.

Senator Vitter. And what is assumed for E0 for the current rule?

Ms. McCabe. I don't remember the exact number off the top of my head, Senator, but we will get it for you.

Senator Vitter. Okay. EPA also assumed that at least 200 million gallons of E85 will be used this year; yet in previous years way, way less than that was used. Why do you believe that is going to change really overnight?

Ms. McCabe. Well, we believe that there are a lot of efforts, including those supported by the USDA, to encourage and enhance the availability of E85 in the system, and we think our job under the statute is to set standards that encourage the development and increased use of these fuels, so that is the analysis that we use to get to that level.

Senator Vitter. You agree, though, that the forecast is way above anything historical?

Ms. McCabe. We can all pick our own adjectives. I would agree that it is an increase, and that is what we understand our job to be under the statute.

Senator Vitter. What percentage increase are we talking about?

Ms. McCabe. Let's see, for total renewable fuel it is --

Senator Vitter. I am talking about E85.

Ms. McCabe. I will have to get you that.

Senator Vitter. Okay, you can submit it to the record.

Ms. McCabe. Yes.

Senator Vitter. I think that will bear out it is an enormous increase. And then in the rule EPA assumes more than 300 million gallons of E15 can be sold, yet I understand only a little more than 100 stations carry that. How do you expect that to happen?

Ms. McCabe. Well, again, I think that the signals that are sent through the volumes that we establish in the rule are intended to push the market. I will say, too, that there is no formula, there is no exact delivery of precise numbers of volumes in any particular category that need to be produced and used in order to satisfy. The market will decide how to meet those mandates.

Senator Vitter. Okay, thank you.

Senator Inhofe. Thank you, Senator Vitter. Senator Markey?

Senator Markey. Thank you, Mr. Chairman, very much.

There is no question that climate change is real, it is happening. We have to find alternative ways of providing for the transportation system in our Country. That is what the Renewable Fuel Standard was intended to accomplish. We still import 4.3 million barrels of oil a day; Saudi Arabia, Iraq, other countries in the Middle East. Very dangerous. This helps to contribute to the lowering of that standard. The beauty of the biofuels revolution is that it can happen anywhere. Back in the 19th century, Massachusetts was the energy capital of the United States when Herman Melville was writing by whale oil lamps about Captain Ahab in his pursuit of Moby Dick. But right now, in Massachusetts, we have scores of smaller companies all trying to find ways of inventing the new biofuels of the future because it is a technological revolution that is absolutely potentially revolutionary.

Under the RFS, EPA is tasked with reviewing and improving new pathways for feedstocks, technologies, and types of fuel. It is an important part of the program to ensure the carbon benefits of renewable fuels. It is not an easy task. If Congress increased the resources for the EPA, would it speed up

the approval process and get more U.S. companies producing biofuels?

Ms. McCabe. Well, actually, Senator, we undertook an effort in the Office of Transportation and Air Quality to relook at our process for reviewing those applications and greatly streamlined it. We are getting better at it. We were able to provide more clarity to applicants so that we could move the applications through very quickly and we are really doing that so we have this efficient producer category. So I think we are adequately resourced to keep these applications moving through.

Senator Markey. Okay, great. With lower oil prices globally and in the marketplace here in the United States, American consumers are now moving towards larger vehicles, and they are actually driving more as well. So are you factoring that into your 2017 rulemaking?

Ms. McCabe. Well, as I have said, our main job is to do the best we can to meet Congress's intent in terms of growing these volumes.

Senator Markey. I guess what I am asking you is that is going to drive the price of gasoline up again, the larger vehicles being purchased, the additional gasoline needed for those large vehicles, and the fact that people are driving more. So it is likely to drive up the prices, so are you factoring in

higher gasoline prices as a likelihood in terms of the equation which you create on the relative efficacy of producing biofuels?

Ms. McCabe. Well, we look to sources like EIA to provide us with information about predicted gasoline use and different fuel use, so to the extent that those considerations come in to those projections of fuel use they would be folded into our consideration and the information we consider.

Senator Markey. So you don't make your own independent evaluation, it is an EIA determination as to whether or not the price of gasoline is likely to go up because of this increase in consumption?

Ms. McCabe. Well, our job is to look at all the information that we can get and to consider what will happen in the fuel pool to make our best judgment about what fuels are available and what fuels will be used.

Senator Markey. And in terms of the relative benefits of the RFS compared to continued consumption of gasoline, gasoline is a mix of chemicals, including toxic aromatic hydrocarbons like benzene and toluene and silane, and once these compounds come out of a car's tailpipe they can cause serious heart and other diseases that impact the American people. Under the 1990 Clean Air Act amendments, the EPA has to take action to control the use of aromatic hydrocarbons in fuel. What has the EPA done about these toxic compounds?

Ms. McCabe. This is a very serious issue, as you recognized, and gasoline is incredibly complicated chemically, so we pay a lot of attention to this. EPA rules have regulated benzene and particulate emissions from diesel fuel. These are major rules that help bring toxic emissions down. And we are continuing to look at other ways to reduce toxics emissions from transportation fuel.

Senator Markey. I would recommend that to you. These are very toxic chemicals that are mixed in with the gasoline. They are not mixed in with other renewable fuels alternatives, and I just think that is a factor that the Committee should understand in terms of the overall public health benefits for our Country, and I would ask you to take an additional look at that in terms of looking at the cost-benefit analysis, and I would ask the Committee, as well, to look at what the price is that our public health pays by having these very toxic chemicals be built into our gasoline formulas.

I thank you, Mr. Chairman.

Senator Inhofe. Thank you, Senator Markey. Senator Barrasso?

Senator Barrasso. Thank you, Mr. Chairman.

Ms. McCabe, before I read my question on the Renewable Fuel Standard, I would just like to turn briefly to the EPA's so-called Clean Power Plan. Earlier this month, the U.S. Supreme

Court granted what the Solicitor General described as an extraordinary and unprecedented request to stay the EPA's regulations. The Court's stay is in effect until the litigation over the EPA's regulation is resolved. So a week later Todd Stern, who is the Administration's Special Envoy for Climate Change, was asked whether the United States would still go ahead and sign the Paris climate agreement. Mr. Stern responded by saying, we're sticking to our plan to sign.

I find the Administration's decision on signing this Paris climate deal to be nothing short of reckless. It is like signing a loan for a luxury car after you have already been laid off, lost your job. Sure, it is possible you will be rehired, but there is a strong likelihood that you will be out of work when the bills come due.

So my question to you is, if the Court does strike down the EPA's so-called Clean Power Plan, how does the EPA intend to meet the United States' obligation under the Paris agreement?

Ms. McCabe. Well, Senator, there are a number of programs that the United States had in mind in developing our commitment under the Paris agreement; the Clean Power Plan is not the only one. EPA is not the only actor in the space to reduce emissions of harmful greenhouse gases, and we are committed to continuing to work with all stakeholders to develop and implement those programs.

I would also point out that the evidence of the increasing use of renewable fuels and energy efficiency is very robust. Those types of energy are growing even without the extra push of the Clean Power Plan. So we see those trends going in the right direction.

Senator Barrasso. So you are saying today to this Committee that you can meet, or the United States can meet the obligations without the Clean Power Plan?

Ms. McCabe. I am saying that there are a number of programs already contemplated, and 2025 is many years away. I think everybody expected that there would continue to be efforts made to reduce carbon emissions across the wide range of opportunities.

Senator Barrasso. So to meet the U.S. obligations, you do not need the Clean Power Plan. That is what you are saying? That is your testimony?

Ms. McCabe. I am saying that there are many opportunities. I am also confident that the Clean Power Plan will ultimately be upheld and go into effect. But these are important goals and the United States is committed to meeting them.

Senator Barrasso. Well, the EPA's own lawyer said this was an extraordinary and unprecedented stay request, so I am having trouble understanding your confidence that the Court will uphold the Clean Power Plan. There has been a change in the Court with

the death of Justice Scalia. It just seems that the Administration is acting recklessly on the hope that who is elected president and what happens with a Supreme Court nominee, rather than just realizing and admitting that you can't keep the promises that you made in Paris, that the Administration has made in Paris, if the Court rules against the Clean Power Plan.

Ms. McCabe. Well, the stay issued by the Court had no explanation; it was not a statement on the merits of the rule at all. Courts sometimes issue stays while litigation is going forward, and that is how we see this one.

Senator Barrasso. That is not how you see it. The EPA's own lawyer, the U.S. solicitor general, called it extraordinary and unprecedented, so it is not a routine sort of a thing.

Ms. McCabe. For the Supreme Court to step in, that was unprecedented. But there is no expression of any consideration of the merits of the Clean Power Plan; it is a procedural step.

Senator Barrasso. Last September, over 50 organizations called on Congress to act and fix the Renewable Fuel Standard. These groups included many humanitarian organizations, government watchdog groups, environmental groups, food producers. I read your testimony. I noted that you didn't call on Congress to fix the Renewable Fuel Standard, even though the humanitarian groups did it, the government watchdog groups did it, environmental groups did it, food producers did it.

Is the Administration's position that Congress should ignore these groups and doesn't really need to fix the Renewable Fuel Standard?

Ms. McCabe. Well, sir, our job is to implement the laws that Congress passes, and we live in a democracy where everybody can come forward and ask Congress to make various changes. We are doing what we are supposed to do, which is to implement the laws that you gave us.

Senator Barrasso. So is it the EPA's position that the concerns from these humanitarian organizations like Oxfam, ActionAid have with the RFS are misplaced?

Ms. McCabe. No, we recognize legitimate concerns raised by a variety of groups and we are happy to provide technical assistance as Congress might request on whether there are things that could be done to improve or change the RFS, and we would be happy to do that if Congress decides to go forward that way.

Senator Barrasso. So, Mr. Gruenspecht, with regard to this specific issue, these humanitarian groups have argued that the RFS hurts millions of people in poverty in the United States and across the world by driving up food prices. You said that EIA remains actively engaged in matters related to this program. Would you be willing to examine the impact of the Renewable Fuel Standard has had on wholesale food prices, specifically prices of corn, soybeans, wheat, dairy, beef, pork, poultry?

Mr. Gruenspecht. I think that is a bit outside of our role, but we could certainly work with others in the U.S. Government on that. Department of Agriculture would have a role. It is really a function of both demand and supply, and there is clearly a supply side of this as well as a demand side. But there are definitely agricultural products being used for fuel that affects the demand for agricultural products. That, in part, is why some people like the thing and why other people don't like it.

Senator Barrasso. Well, thank you. I would like to follow up with you and work with you, because I think it would benefit all of us.

Thank you, Mr. Chairman.

Senator Inhofe. Thank you, Senator Barrasso. Senator Whitehouse?

Senator Whitehouse. Thank you very much, Chairman.

A lot of the attention to the Renewable Fuel Standard involves the struggle between, as your colleague just said, the agricultural interests, for whom this is a new market and who are very positive about it, and the fossil fuel interests, for whom this is a competitor and who are not happy about it. Both big agriculture and big oil are extremely capable, really almost to a fault, of making their voices heard in Congress; they are two of the more enormous sumo wrestlers in our political

struggles, and my concern is that EPA look out for and protect some of the smaller interests that are involved with the Renewable Fuel Standard, one being biodiesel companies.

Until we have a proper price on carbon, they are not going to get a fair shot in the marketplace, so the Renewable Fuel Standard needs to support them. I think a true economy would show that that was a valuable proposition, but under the present market failure they are stuck and it takes the Renewable Fuel Standard to help them.

The prospect for algae-derived fuels is, I think, a really interesting possibility. The Navy is already working its way into jet fuel contracts, and helping that industry to protect itself I think is one of the goals of the Renewable Fuel Standard. Advanced cellulosic, not just turning corn into ethanol, but looking at new things, is something that I think has a lot of potential. All of these are industries that big interests would like to see strangled in the crib, and yet they have enormous potential if they can get through their early stages.

So I hope that in the future (a) you will be punctual about getting these rules out on time, and (b) that you will take into consideration the period of innovation in those industries where we can potentially earn extraordinary social returns if they can move through their early stages and into a more robust economic

picture, maybe even one day be able to stand up against the mighty sumos of fossil and ag.

The other thing I would like to ask you to be sure to pay attention to is the ocean State and offshore engine in a marine environment is at considerable greater risk of water contamination when ethanol levels in the fuel get up too high. Again, the big interests like agriculture and fossil fuels I don't think give a red hot damn about a fisherman and his motor offshore, but I do think it is important that there continue to be a supply chain that is available to the fishing community and people who are boaters to make sure that they are not put at risk by the harm that too much ethanol can do in a marine environment. It is a different environment than terrestrial engines, and I hope you would be aware of that as well as you proceed. Keep those things in mind.

Ms. McCabe. Yes, we certainly do. And we definitely hear from that community expressing those concerns.

Senator Whitehouse. Yes. If your engine goes out on the side of the road, you call AAA. If your engine goes out four miles out, you have a whole different set of problems.

Ms. McCabe. Right. Right.

Senator Whitehouse. Okay, as long as you are paying attention to that, I appreciate it. And as long as you are keeping your eye on the little interests that could one day be

big interests and not allow them to be overlooked and/or strangled in the crib by the big interests, that would be all I would ask of you.

Ms. McCabe. I think our recent standard showed a very steady trajectory for biodiesel in particular, which is exactly the point that you are making.

Senator Whitehouse. And for what it is worth, it is my understanding that under a four to four Supreme Court decision, the challenged regulation stands.

Ms. McCabe. That is my understanding as well.

Senator Whitehouse. So I think if the Court's membership doesn't change, that improves the standing of the Clean Power Plan considerably. And the one thing that I think would be reckless would be to undue the Clean Power Plan or fail to take alternative steps that can help reduce our dependence on carbon and the carbon pollution that is having such dire effects on so many lives right now. Thank you.

Senator Inhofe. Thank you, Senator Whitehouse. Senator Fischer?

Senator Fischer. Thank you, Mr. Chairman. I appreciate your holding this hearing today.

Nebraskans, of course, certainly understand the importance of the Renewable Fuel Standard. Our State has answered the call to invest in the domestic renewable fuel production since the

policy's inception. Nebraska is the largest ethanol producing State west of the Missouri River. We have 25 active ethanol plants, with an annual production capacity of over 2 billion gallons. These plants represent more than a \$5 billion investment in the State and they provide direct employment for about 1,300 Nebraskans.

So at a time when we are seeing such innovation, we are seeing such growth potential for biofuels, I think it is extremely concerning that the EPA completely disregarded the law and congressional intent by issuing a final rule that lowers the mandated RVOs for 2014, 2015, and 2016. These RVOs are below the levels required by statute and it jeopardizes years of progress and investment in the biofuels industry.

It is important to provide certainty for all the parties concerned, and that is from producer to consumer. So the EPA's final rule puts at risk major investments and production capabilities. Ensuring the successful operation of the RFS is an important part of realizing greater domestic energy security.

Ms. McCabe, yesterday the University of Nebraska informed me that the Department of Energy awarded the University a \$13 million grant to fund research focused on the benefits of using grain sorghum as a renewable fuel source and, additionally, last year the USDA announced the Biofuels Infrastructure Partnership, which will offer up to \$100 million in competitive grants to

State-led efforts to test and evaluate innovative approaches to marketing higher biofuels blends such as the E15s and the E85s.

In your testimony you discuss working closely with both the USDA and the DOE when you finalized the regulations that implement the RFS requirements, and earlier today you said that the Agency actions you felt provide a signal for growth. However, I don't think they do. I think when you set volumes below the statute, that does not encourage growth.

So could you please expand on this partnership that we are looking at, that you are looking at, on how lowering those mandated RVOs is going to signal to other Federal agencies, let alone the private industry and the producers out there, your commitment, the Agency's commitment to that research and development? And you can talk about the big guys in the room, whether it is oil or ag, but I am trying to represent Nebraskans. I am trying to represent family farms who have seen growth because of this. I am trying to represent rural communities who are being affected by what I view as your arbitrary rulings here.

Ms. McCabe. Thank you, Senator. Well, I certainly hope they are not arbitrary. We certainly lay out a lot of our thinking that led to those final numbers.

I hadn't heard about the University of Nebraska grant. That is great. I will just let you know that EPA has approved

grain sorghum as an advanced biofuel, so we are doing our job to help move that along, so that is great.

Senator Fischer. Good.

Ms. McCabe. The way I would answer your question, Senator, and I appreciate that there are many people who believe that we should not have granted the waiver and we should have set the volumes at the statutory, but let me just tell you how much growth our volumes require.

So between 2014 and 2016 those volumes need to grow, of total renewable fuel, by 1.8 billion gallons, or 11 percent. That is significant growth. And our job, we believe, is to evaluate and make sure that the levels we set will be ambitious, but will not be impossible to achieve. And people certainly can disagree with us, and they have, but our evaluation was that going as high as the statutory volumes was just not achievable in a one-year timeframe, which is the time period that Congress gave us to set these volumes.

Senator Fischer. But isn't that sending the wrong message? I could name a number of instances where goals set by agencies are not met, and we don't see agencies going in and saying, where they are not going to be met, let's lower them. This is a case where that happened.

Ms. McCabe. Well, Congress gave us that tool and told us set it at the statutory volume or, if you believe that certain

conditions are met, use your waiver authority.

Senator Fischer. Which projects, I think, a message of uncertainty.

Ms. McCabe. Well, I hope not. We are clearly putting the numbers out there. We are back on track to do these in a timely way, and the industry, wherever they are in the industry, can see in our volumes continued and steady growth. It is not as much as Congress anticipated, but it is continued and steady growth, and I would say not insignificant given the challenges in the marketplace.

Senator Fischer. Thank you.

Senator Inhofe. Thank you, Senator, and thank you for your patience.

We will now dismiss this panel and we would ask panel two to please come to the table.

We will now start with opening statements. I would ask each of our panelists to confine your opening remarks to the five minutes. We are trying to get all of this completed before the vote that is going to take place at noon.

Mr. Minsk, would you start?

## STATEMENT OF RONALD E. MINSK

Mr. Minsk. Thank you. Good morning, Chairman Inhofe, Ranking Member Boxer, and members of the Committee. My name is Ron Minsk, and I thank you for inviting me for the chance to talk about the Renewable Fuel Standard.

From 2013 to 2015 I was privileged to serve as a Special Assistant to the President for Energy and Environment at the White House, where I participated in the interagency review process for the Renewable Fuel Standard. Since leaving the White House, I have had the chance to reflect further on the difficult challenges confronting policymakers faced with the task of implementing RFS in a world and energy sector that has radically changed since the program was last amended, in 2007.

Managing the RFS program over the past three years has presented EPA with particularly difficult policy decisions. It is important for me to note that I believe the RFS has an important role to play in promoting the use of second generation biofuels, an important policy objective, especially when oil prices are low and there may be a natural tendency to pay less attention to our long-term energy future.

Additionally, given the constraints of the statute and the current rules, I believe that EPA found a reasonable middle ground in establishing the volumetric obligations for 2014, 2015, and 2016. There is no doubt that the program faces

challenges stemming from the evolution of the crude oil markets that we have heard about, but I believe there are opportunities within the statute or by making modest changes to it that can substantially improve upon the operation of the program and help it to better achieve its goals of getting more renewable fuel into our fuel supply in the most efficient manner possible.

Between 2002 and 2015, ethanol consumption grew from 2 billion to 14 billion gallons due in part to the RFS and the United States consumed almost 2.1 billion gallons of biodiesel last year. These levels of consumption represent a measure of success for the RFS, but its success has not been uniform. It has largely failed to give advanced fuels and cellulosic ethanol into the market. It has also failed at getting meaningful volumes of blends of ethanol in excess of 10 percent into the market.

As a result, our main concern that we can continue to see high and volatile RIN prices as a consequence of trying to force the market through the blend wall and because of tightness in the RIN market that is resulting from high volumetric obligations and long-term uncertainty with the program.

While I am skeptical that as currently structured the program will substantially increase the volume of cellulosic or higher blends of ethanol in the fuel supply, I see three paths to reducing the cost of the RFS while still promoting the use of

second generation fuels. First, EPA could set lower volumetric obligations for conventional renewable fuels below the blend wall, but EPA is unlikely to do so because it views that as inconsistent with the purpose of the statute.

Second, Congress could either lower volumetric mandates for conventional fuel or replace the volumetric mandate for conventional renewable fuel with a mandate that fuel be blended to a specified percentage of conventional renewable fuel that is below the blend wall. That approach can guaranty conventional ethanol producers of a substantial portion of the annual volume of 15 billion gallons that the RFS established, but would eliminate most of the compliance costs associated with the current conventional fuel mandate.

A third alternative would be for EPA to change the point of obligation by rulemaking from importers and refiners to the terminal rack, a point in the supply chain to withdraw fuel gases before being distributed to retail outlets. Changing the point of obligation is clearly within EPA's existing legal authority and it can boast a mildly incentive to blend renewable fuel within the obligation to do so, substantially reducing the compliance cost of the program while preserving its goals of promoting renewable fuels.

EPA considered placing the obligation to blend at this point when setting up the program back in 2009 and 2010. It

chose, however, to place the obligation on the relatively small number of refiners and importers, rather than what was thought was a large number of downstream blenders and terminals to simplify the program. EPA recognized the risks of this approach and indicated it would monitor the program over time and revisit this issue if necessary. Since then it has become clear that this approach has created poor incentives and undermined the purpose of the program. Moreover, it appears that moving the point of obligation might reduce the number of obligated parties and is not likely to increase it meaningfully.

EPA could lower the cost to improve the operation of the program by moving the obligation to blend from the refiner or the importer to the terminal rack. I believe that this represents the best opportunity for policymakers to address some of the difficult problems presented by the blend wall and move towards achieving the fundamental first order goal of the RFS, which is getting more renewable fuels into the market.

Thank you for the invitation to speak today and I am happy to answer any questions.

[The prepared statement of Mr. Minsk follows:]

Senator Inhofe. Thank you, Mr. Minsk.

Mr. Pugliaresi?

STATEMENT OF LUCIAN PUGLIARESI, PRESIDENT, ENERGY POLICY  
RESEARCH FOUNDATION, INC.

Mr. Pugliaresi. Chairman Inhofe, Ranking Member Boxer, thank you so much for the opportunity to talk about our research on this very important issue.

Energy Policy Research Foundation, of which I am the President, has been around since 1944. We do independent research on a large number of issues affecting petroleum markets and energy.

I think we have really nailed the issue of the shift in our energy security. In fact, our net imports are now down to 4 million barrels a day, about four and a half, and three-quarters of those actually come from Canada. So what I would like to do is go to the basic problem of the blend wall and what happens to gasoline prices as we cross the blend wall.

If you model a range of likely compliance cost alternatives, which become quite narrow, from 2017 to 2022, and we adopt the RFS mandate as mandated by statute, our calculations show that our real obligations would increase gasoline prices from 30 to 50 cents a gallon. By the way, this is right off the CBO numbers. They have gone up substantially because the gasoline prices, I would point out, came down.

So the fundamental problem with the program is not ethanol, it is not the use of biofuels; it is the mandate. Gasoline

blenders for years have needed ethanol for octane and all the things we have talked about today.

The uncertainties and cost price risk include not only operational impediments such as minimal and consumer resistant adoption of more flexible fuel vehicles, but a range of binding constraints that restrict routine adjustments to market signals; changes in corn prices, biodiesel costs, technical limitations on volumes of advanced biofuels consumer demand. So the real issue here is the availability of lower cost compliance options become very narrow after we cross 10 percent biofuels into the gasoline pool.

So how can we reform the program? I think if you think about the RFS program, it is really two programs. We have blend stock produced from ethanol, which is working, well integrated into our U.S. fuel system and everything else. In fact, E10 today is sold in every State, and more than 90 percent of U.S. gasoline contains up to 10 percent ethanol.

Corn ethanol is now a mature industry. Actually, in 2015 the Country exported over 850 million gallons of corn ethanol. By 2020, 2022, renewable fuel associations think they can get up to 2 billion gallons. So many of the remaining technologies in the biofuel industry are uneconomic either because they are too costly to produce or technically constrained by blending volumes below 10 percent.

So this leads me to think about how we proceed. As we look back on the U.S. energy legislation policies, even going back to the 1970s, we cannot be stunned by this sort of disappointment. In an attempt to either promote the development of alternatives to petroleum or to insulate consumers from price volatility, we often lost a lot of productive responses. Price controls created enormous problem with smaller refiners and took us years to reform the program. If you remember the policies implemented under the Power Plant Industry Fuel Use Act, for years we prohibited the use of natural gas in the utility sector; we were only permitted to use coal.

So I think that one of the issues we want to sort of confront here is how do we deal with these kind of conflicting concerns over more biofuels and the potential to increase the price of gasoline. So there is a much larger concern for the Congress I think to address here, and that is the risk to economic recovery. Lower gasoline prices are yielding annual savings to the U.S. economy of \$129 billion, about \$1,000 per household. These savings to consumers are essential to expanding economic growth.

Chairman Inhofe and Senator Boxer, both your States are getting a lot of pain in the petroleum sector. We have had enormous reductions in the capital expenditures in the petroleum sector, and historically how we sort of recover from these areas

is that the benefit to consumers of these savings from lower oil prices help to generate economic growth in the economy. So the concern we have going forward is we have the pain. Let's make sure, as we implement this program, that we also give the consumers the opportunity to get the gain.

[The prepared statement of Mr. Pugliaresi follows:]

Senator Inhofe. Thank you, Mr. Pugliaresi.

Mr. Coleman.

STATEMENT OF BROOKE COLEMAN, EXECUTIVE DIRECTOR, ADVANCED  
BIOFUELS BUSINESS COUNCIL

Mr. Coleman. Good morning, Chairman Inhofe, Ranking Member Boxer, and members of the Committee. My name is Brooke Coleman. I am the Executive Director of the Advanced Biofuels Business Council. The Council represents worldwide leaders in the effort to develop and commercialize the next generation of advanced and cellulosic biofuels. I have submitted lengthy written testimony and you will be thrilled to know that I am not going to rehash it here, but I want to start with a general observation about the Renewable Fuel Standard.

I think it is safe to say that the RFS is a political lightning rod. The question is why. There are those who say the RFS doesn't work. But I think if you look at the trajectory of the biofuels industry and who is being forced to change, you will have your answer.

In just 10 years, the biofuel industry has emerged to create hundreds of thousands of jobs and displaced the need for billions of gallons of petroleum imports annually. If you look at perhaps the most criticized biofuel, ethanol, you will find that it also happens to be the most disruptive to the status quo. The ethanol industry now supports hundreds of thousands of U.S. jobs in more than two dozen States and now threatens to

bring consumer choice to the pump. The ethanol industry is a target for a reason.

And now we are innovating. The United States is now home to the largest cellulosic ethanol plant in the world, DuPont's facility in Nevada, Iowa, as Senator Boxer pointed out. DSM's facility in Emmetsburg, Iowa will produce enough renewable electricity as a co-product to power itself and the grain ethanol facility next door. Quad County's first generation ethanol plant in Galva, Iowa now produces cellulosic ethanol from corn fiber using a technology that also reduces energy inputs. Quad County's fuel is 126 percent better than gasoline from a carbon perspective, a carbon sink.

But disrupting monopolies does not come easily. Our adversaries have enough money to buy voices and fill the airwaves with allegations about the RFS. But is anything they are saying actually true? There are allegations about corn ethanol and food prices, but corn prices are lower today than when the RFS was passed and food industry profits are soaring. Higher ethanol blends like E15 will ruin cars, they say, except that the Department of Energy found no problems with E15 or E20 in 86 cars tested for 120,000 miles each.

Oil ran a commercial during the World Series claiming that ethanol is worse for climate than gasoline, except the USEPA, the California Resources Board, and the national labs all agree

that they are wrong.

On the issue of pump prices, don't take my word for it. Former Shell Oil President John Hofmeister recently stated, "We need a competitor for oil. We need to open the market to replacement fuels. Competition will drive transportation fuel prices down structurally and sustainably." This is exactly what is happening with the RFS.

Energy economist Phil Verleger, who advised oil, Presidents Ford and Carter, recently said the U.S. renewable fuels program translates to consumers paying between 50 cents and \$1.50 less for a gallon of gasoline by adding the equivalent of Ecuador to an extremely tight world liquid fuel markets.

If there is one thing we should all agree on, it is this: Having one option to power cars and trucks runs contrary to the fundamental premise of competition that underpins our economic system, and if we do not control that resource it leaves us vulnerable to foreign cartels often working against us. And that is where I would like to close, by putting the RFS into context of recent trends in global oil markets.

There are those who want policymakers to believe that times have changed, that we don't need the RFS anymore because of the U.S. oil boom and low gas prices. But really nothing has changed. When we got hit with record high oil prices in 2008, Americans transferred nearly \$1 trillion to OPEC countries in

just six to eight months paying for motor fuel, a predicament that threw the Country into recession. Now Saudi Arabia and certain OPEC countries are hitting us with the other end of the stick by openly colluding to make oil so cheap that U.S. shale and deep water drillers cannot compete. And I know the effects of what the Saudis are doing are hitting home in Oklahoma as well, and it is working.

U.S. oil rig counts have fallen off a cliff; U.S. tight oil and deep water drilling operations are going belly up, putting Americans out of work. It is nice to pay \$1.50 for gas, but what is actually happening is foreign oil cartels are using their market position to snuff out competition and repossess the U.S. fuel energy sector. Ironically, that is exactly what the oil industry hates about the RFS, that it threatens their chokehold over the American consumer at the pump.

If I could leave you with one thought, it is this: Congress made a commitment and investors have spent billions in private capital to answer the call to create these fuels. The RFS corrects a noncompetitive marketplace and is on the cusp of giving Americans a choice at the pump. It also happens to be the best advanced biofuels policy in the world.

What we do not need is for Congress to change a good law. What we do need is help convincing the Obama Administration to block out the noise and administer the program as designed and

on schedule.

We appreciate and believe Ms. McCabe when she says that EPA is committed to deploying advanced biofuels, but there are things we must do in the next RFS rule to make this vision a reality.

Thank you for the privilege of speaking before you today. I look forward to your questions.

[The prepared statement of Mr. Coleman follows:]

Senator Inhofe. Wow.

All right, Mr. Pugliaresi, if the RFS were to go away, which I would like to see happen, how much corn-based ethanol do you expect refiners would use, if they didn't have the mandate?

Mr. Pugliaresi. Parts of the petroleum industry have used ethanol for 35 years. It is a very important integrated blend stock.

Senator Inhofe. I said how much, though.

Mr. Pugliaresi. I think we would say close to 10 percent.

Senator Inhofe. All right. And what role in the domestic and international market do you see for corn ethanol without mandates or subsidies?

Mr. Pugliaresi. As I said, the U.S. corn ethanol is a mature industry, it is cost effective, and I believe they will continue to be a force of exports for the U.S. as well.

Senator Inhofe. Okay, exports. Very good.

Mr. Minsk, you worked on this issue in the Obama Administration and have been very clear that the program is dysfunctional. Am I correct in that?

Mr. Minsk. I wouldn't say that the program is dysfunctional. I think that there are certainly opportunities to improve it.

Senator Inhofe. I misread your statement, then. I understand that. But still it is not working the way you would

like to see it work. How is that?

Mr. Minsk. I think that there are certainly opportunities to improve its operation, yes.

Senator Inhofe. Right. Okay. One of your ideas to fix the RFS is to make blenders obligated parties. If we did this, there would be thousands of obligated parties. Does it make sense to give the EPA additional enforcement responsibilities when they can't currently manage the program?

Mr. Minsk. So the idea is not to make thousands of blenders obligated parties. The idea is to move the point of obligation to the terminal rack, the distribution point from which trucks pick up the fuel and deliver it to retail stations; not the retailers themselves.

And Valero, which is an obligated party, submitted documentation to EPA that is in the docket this past fall, analysis which I put as an appendix to my testimony, that showed that there they identified I think about 107 companies that would be obligated parties. And while that is not a complete list, it is probably a pretty good list. You can see it is attached to the testimony.

So, again, it is not the individual stations that may blend if they have a blender pump, but it is the distribution facility, which is where much of the blending happens, which is what I have identified as a better point of obligation.

Senator Inhofe. Well, thank you. Senator Boxer?

Senator Boxer. Thanks, Senator.

Mr. Coleman, Mr. Pugliaresi says that now that U.S. oil production has increased it is time to change the RFS, and my chairman believes that as well. What is your response to this view?

Mr. Coleman. Well, unfortunately, the increase in oil production is going to prove to be a temporary achievement because essentially what is going on is the Saudis collaborating with Russia, to a degree Iran, Iraq are slamming down the price of oil to destroy this progress.

Senator Boxer. So you are saying it is a short-term phenomenon?

Mr. Coleman. It is a short-term phenomenon.

Senator Boxer. We shouldn't act hastily when just a few years ago or a couple years ago we were saying, oh, my God, we have to become more self-sufficient.

Mr. Coleman. And I think putting it in the context of EIA forecasts, there are EIA forecasts we all pay attention to. One of them is not what is going to happen in oil markets because they don't have a mind-reader. So when Russia and the Saudis decide that they are done pounding on these U.S. enterprises, they are going to shut the spigots down, increase price, double or triple the price of gasoline, and there is not a thing we can

do about it if we don't have alternatives.

Senator Boxer. Well, we have lived through that before, haven't we?

Mr. Coleman. We have.

Senator Boxer. Mr. Coleman, since its start, has the RFS program led to any increase in the price consumers pay for gasoline at the pump? Will the RFS increase gas prices if we continue to increase renewable fuel production as called for by Congress?

Mr. Coleman. No. There has been no gas price increase. With all due respect to the modeler next to me, what they did is they modeled a scenario that would never happen. They modeled a scenario where EPA basically acted completely irresponsibility and hammered statutory volumes into the marketplace as if the statute is rigid and not adjustable. So from our perspective, that is not a model worth listening to.

EPA has come out and said it does not increase gas prices. The White House has gas prices do not increase gas prices. So we are adding supply to a tight marketplace, and that brings down gas prices and creates competition.

Senator Boxer. Good point.

Mr. Pugliaresi, my sense is you represent the oil companies basically, is that accurate?

Mr. Pugliaresi. I absolutely don't.

Senator Boxer. Okay.

Mr. Pugliaresi. Actually, our largest sponsors in the last couple years were the Defense Department.

Senator Boxer. But isn't it true that your organization originally was called the Petroleum Industry Research Foundation?

Mr. Pugliaresi. It was. Oddly enough, the board thought that all the interesting petroleum issues had been solved and wanted to do a broader --

Senator Boxer. But I think it is important that people understand this because Media Matters points out the various huge grants you have received from big oil.

Mr. Pugliaresi. That is incorrect.

Senator Boxer. You didn't receive \$168,000?

Mr. Pugliaresi. We receive independent funding from the petroleum industry, even foundation money, but the largest support in the last few years came from the Department of Defense.

Senator Boxer. Okay. Well, I want the record to show that there is a Media Matters article. I would ask unanimous consent to place it in the record.

Senator Inhofe. Without objection.

[The referenced information follows:]

Senator Boxer. Thank you.

Mr. Minsk, my final question is to you. Do you think it is important that we do what we can to get that carbon out of the air so we can try our best to reduce the ravages of climate change?

Mr. Minsk. Absolutely I do, and I think that the RFS has an opportunity to do that. Part of what I think is important about my proposal is I think that if we implement this, it actually has a better chance of getting higher blends into the market at a lower cost, and that creates room for the fuels that are going to be created by the RFS. So I am not sitting here trying to disassemble it; I am trying to figure out how to make it better.

Senator Boxer. I appreciate that completely.

Mr. Minsk. So that is the whole purpose behind this proposal.

Senator Boxer. I appreciate that very much.

Thank you, Mr. Chairman.

Senator Inhofe. Thank you, Senator.

I thank our witnesses for appearing. I thank you for your patience.

We are dismissed to go vote.

[Whereupon, at 11:53 a.m. the committee was adjourned.]