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**BEFORE THE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS  
SUBCOMMITTEE ON CLEAN AIR AND NUCLEAR SAFETY  
UNITED STATES SENATE  
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Mr. Chairman and members of the Subcommittee, I appreciate the opportunity to come before you today to testify on implementation of the renewable fuel provisions of the Energy Independence and Security Act of 2007 (EISA). The Act's aggressive new renewable fuel standards (RFS) will further our nation's goals of achieving energy security and reducing greenhouse gases by building on the successful RFS program established by the Energy Policy Act of 2005 (EPACT 2005).

Renewable fuels are a key element of a national strategy for addressing our energy security and the challenge of global climate change. The national renewable fuel standards, in combination with the vehicle fuel economy standards in EISA, will reduce emissions of greenhouse gases in the transportation sector and improve our energy security. The changes brought about by EISA are expected to prevent the release of billions of metric tons of greenhouse gases emissions into the atmosphere over the next several decades.

The Environmental Protection Agency is responsible for implementing the RFS program, and we are proud of our success to date in working with stakeholders in industry, states and the environmental community to build an effective program for

increasing the volumes of renewable fuel used by the transportation sector. In April 2007 we announced final regulations for implementing the RFS Program under EPACT 2005. The Agency worked very closely with both our federal partners and stakeholders to develop broad support for the program. This program was officially launched in September 2007. We believe our success is grounded on our close collaboration with stakeholders on the design and implementation of the program.

Since EISA was signed into law on December 19, 2007, the Agency has been working diligently to develop regulations to implement the new RFS program established by that legislation, commonly called RFS2. Our first and most pressing task was to issue a new renewable volume standard for 2008. The RFS program established by EPACT 2005 required 5.4 billion gallons of renewable fuel in 2008. The EISA legislation increased the standard to 9 billion gallons in 2008, with annual increases in mandated volumes resulting in 36 billion gallons being required in 2022. We published a notice implementing the 2008 volume requirement in the Federal Register on February 14 of this year.

While the RFS program established under EPACT 2005 provides a solid foundation for the new regulations, RFS2 includes new elements which add complexity to the program. As a result, the new EISA provisions require careful evaluation and considerable new analysis.

In this new undertaking, the Agency is following much of the same approach we used in developing the first RFS program. This includes obtaining critical input from our stakeholders throughout the rulemaking process. Since EISA was enacted less than seven months ago, the Agency has met with more than thirty different stakeholders, including renewable fuel producers, technology companies, petroleum refiners and importers, agricultural associations, environmental groups, gasoline and petroleum marketers, pipeline owners and fuel terminal operators. Agency technical staff have participated in numerous conferences and workshops, which have allowed us to reach a broad range of technical, programmatic and policy issue experts. We also continue to meet and collaborate regularly with the Departments of Energy and Agriculture. Through these meetings, EPA has sought input on the key RFS2 program design elements as highlighted in this testimony.

While EPA will draw from its experience in developing the original RFS regulations, it is important to understand that EISA made a significant number of changes to the RFS program. First, as mentioned previously, RFS2 increases the total renewable fuel volumes mandated to 36 billion gallons a year by 2022. This is nearly a five fold increase over the 7.5 billion gallons a year mandated under EPACT 2005 for 2012, and constitutes a 10-year extension of the schedule provided for in that legislation. EPA believes that the implications of this substantial increase are not trivial. Development of infrastructure capable of delivering, storing and blending these volumes in new markets and expanding existing market capabilities will be needed. In addition, the market's absorption of increased volumes of ethanol will ultimately require new "outlets" beyond

E10 blends (i.e., gasoline containing 10% ethanol by volume). A rule of thumb estimate is that E10 blends, if used nationwide, would utilize approximately 15 billion gallons of ethanol. Accommodating approximately an additional 20 billion gallons of ethanol-blended fuel is expected to require an expansion of the number of flexible-fuel E85 vehicles and their utilization of E85 and/or other actions. New emerging renewable fuel production technologies may hold potential to make gasoline and diesel-like fuels from renewable sources. The Agency will continue to monitor and evaluate the development of such technologies as we implement the RFS program over the coming years.

Second, beyond the significant increase in the volume mandate, EISA extended the RFS program to include both non-road gasoline and diesel fuel volumes. Under the regulations implementing EPCRA 2005, RFS volume requirements were applied only to producers and importers of on-road gasoline. The extension of this program to both non-road gasoline and diesel fuel volumes, along with the potential for opt-in by participants of the home heating oil and jet fuel markets is a significant change that may affect new parties, including a number of small businesses that have not been regulated under this program in the past.

Third, EISA has established new categories of renewable fuel. EPCRA 2005 established standards for two categories of renewable fuels: one standard for the total volume of renewable fuel; and a second standard for cellulosic ethanol requiring 250 million gallons beginning in 2013. RFS2 increased the number of renewable fuel categories and standards to a total of four, including total renewable fuel and three new

categories within that with unique volume requirements: advanced biofuels, biomass-based diesel and cellulosic biofuels. Industry will be required to demonstrate compliance with the four separate fuel standards. This will likely require the obligated parties, producers and importers, to forge new business relationships and contracts that are necessary to guarantee their compliance with the new standards. Establishing the necessary systems to track and verify the production and distribution of these fuels and demonstrate compliance with four separate standards will also require sufficient lead time to design and implement these new tracking systems. As in the current program under EPACT 2005, in the near term, some parties may not be able to comply by blending the renewable fuels, and thus may need to purchase or trade credits for the appropriate number and category of fuels to satisfy their volume obligations. It will be very important to conduct effective outreach with these parties to support a smooth implementation. In addition, certain requirements in RFS2 pertain only to renewable fuel production facilities that commence construction after the legislation was enacted. EPA will need to carefully consider how this new provision should be interpreted.

As part of its restructuring of the renewable fuel mandate, EISA increased the cellulosic biofuel mandate from 250 million to 1.0 billion gallons by 2013, with additional yearly increases to 16 billion gallons in 2022. EISA also provided a new definition of this fuel: cellulosic biofuel must be derived from renewable biomass, which includes requirements that place various limitations on the types of land from which the feedstocks are taken, and cellulosic biofuel must also have lifecycle greenhouse gas

emissions that are at least 60 percent less than the baseline lifecycle greenhouse gas emissions for petroleum based fuel (RFS2 established the baseline year as 2005).

Implementing these requirements will entail additional work by EPA as it develops its upcoming regulation. For example, the Act authorizes EPA in certain circumstances to adjust the cellulosic biofuel standard to a level lower than that specified in the law. However it requires in this circumstance that the Agency also make credits available for compliance purposes and provides instructions on how to establish a specific price for these credits. The Agency will therefore need to address several critical issues, such as the quantity of credits to be generated, to whom they will be available, the extent to which they can be traded, and the life of the credit.

RFS2 also established for the first time minimum volume standards for biomass based diesel fuel. These standards begin in 2009 at a half billion gallons and ramp up to one billion gallons per year in 2012 and thereafter. To qualify as biomass based diesel, the renewable fuel portion of the biomass based diesel blend must result in greenhouse gas emissions that are at least 50 percent lower than the baseline GHG emissions for petroleum based diesel fuel (RFS2 established the baseline year as 2005) and cannot be co-processed with a petroleum feedstock.

Fourth, EISA requires the Agency to apply lifecycle greenhouse gas (GHG) performance threshold standards to each category of renewable fuel. Congress provided a specific definition of lifecycle analysis that requires EPA to consider all stages of fuel

and feedstock production and distribution, from feedstock generation or extraction through the distribution and use of the finished fuel to the ultimate consumer. The Act also specifies that EPA take into account both direct emissions and significant indirect emissions such as emissions from land use changes.

EPA is currently developing a methodology that meets the EISA requirements. This effort builds on a substantial amount of work the Agency has done in this area, beginning with our analysis of the lifecycle GHG impact of the renewable fuel volumes required by the RFS1 program. EPA has expanded the methodology to include secondary agricultural sector impacts and land use changes. The Agency is continuing to further refine and improve our analyses as we prepare to implement the statute's lifecycle GHG performance thresholds.

Given the importance of lifecycle analysis to the success of the RFS2 program and the complexity of this work, the Agency has been working closely with stakeholders. Through multiple meetings with a broad range of groups--including the Departments of Energy and Agriculture, academics and lifecycle experts, environmental organizations, renewable fuel producers, and refiners--we have shared our approach and sought input on the key assumptions and modeling tools necessary to conduct a complete lifecycle analysis that meets the EISA criteria. These discussions have been extremely valuable to the Agency and we plan to maintain this high level of stakeholder engagement throughout the rule development process.

Fifth, RFS2 added a number of other new provisions, including changing the definition of renewable fuel feedstocks in a fundamental manner. The new law limits the crops and crop residues used to produce renewable fuel to those grown on land cleared or cultivated at any time prior to enactment of EISA, that is either actively managed or fallow, and non-forested. EISA also requires that forest-related slash and tree thinnings used for renewable fuel production pursuant to the Act be harvested from non-federal forest lands. Developing appropriate and enforceable regulations addressing these provisions requires extensive dialogue with USDA, USTR, the agricultural community and renewable fuel producers to better understand current practices and changes in practices that can be developed, implemented and enforced. The Agency has started these discussions and plans to continue this dialogue throughout the regulatory process.

Finally, in support of the rulemaking, we are assessing the many impacts of the EISA renewable fuel program. Assessments are underway to understand the impacts on emissions and air quality (greenhouse gases, ozone, particulate matter and toxics), water impacts (including water quality and consumption), agricultural sector impacts (including direct and indirect land use change), energy security, and economic impacts (such as cost of fuels and feedstocks). Detailed information will be needed for the draft regulatory impact analysis (RIA), which we intend to release with the proposed rules. These analyses will provide important information to the public and Congress on the many anticipated impacts of the new legislation.

With respect to other implementation issues, as you are aware, Texas Governor Rick Perry sent a letter to EPA Administrator Johnson on April 25 requesting a partial waiver of the 2008 RFS volume obligations required by EISA. Governor Perry requested the volume requirement be reduced by 50 percent, from 9 billion gallons in 2008 to 4.5 billion gallons, citing an “unnecessarily negative impact on Texas’ otherwise strong economy while driving up global food prices”. EPA issued a federal register notice on May 22, requesting public comment on this request. The comment period closed on June 23. We received over 15,000 comments, with over 150 substantive comments from a wide range of stakeholders including individual companies and associations representing renewable fuel producers, farmers, cattle, beef and poultry industries, the food and grain industries and many others. We have been evaluating these comments and other pertinent information and conducting the analysis necessary to support a decision by the Administrator. In compliance with statutory requirements, EPA is also consulting extensively with our colleagues at the Departments of Agriculture and Energy.

EPA has also been closely monitoring the aftermath of the mid-west floods to determine to what extent this natural disaster may impact the renewable fuel program. We have had multiple discussions with the USDA, DOE, renewable fuel producers, oil companies, petroleum marketers and state authorities. We are evaluating both impacts on feedstock (e.g. corn, soybeans, etc.) availability for use in ethanol production, as well impacts on fuel production and distribution systems. The extent of these impacts has not yet been fully determined. We will continue to coordinate and collaborate with DOE and USDA closely on this matter.

In closing, the Agency is moving forward with the development of regulations implementing the RFS2 provisions and is utilizing the successful approach we employed in developing the regulations for the original RFS program. We look forward to working closely with members of Congress and our many other stakeholders during this process.

Thank you, Mr. Chairman, and members of the Subcommittee for this opportunity. This concludes my prepared statement. I would be pleased to answer any questions that you may have.