Testimony of the Honorable James C. Greenwood
President and CEO, Biotechnology Industry Organization
Committee on Energy and Commerce
U.S. House of Representatives

July 24, 2013

I am Jim Greenwood, the President and CEO of the Biotechnology Industry Organization or BIO. BIO is the world's largest biotechnology organization, with more than 1,100 members worldwide and in all 50 US states. Within its broad membership, innovative industrial and agricultural biotechnology companies are developing new feedstocks and biological catalysts for production of a range of fuels from conventional ethanol to advanced biofuels, renewable chemicals, and biobased products. Because these feedstocks, biomanufacturing methods, and products are based on plants and biological processes, they are more efficient, sustainable and environmentally friendly. And, because these renewable fuels are produced from homegrown agricultural and forest biomass feedstocks, they help grow the American bio-based economy and reduce America's dependence foreign sources of oil.

How many of you think about America's advanced biotechnology when you think about biofuels? It is a little noticed fact that biotech innovation is underpinning the development of the US bio-based economy, revitalizing American's high-tech manufacturing sector and creating thousands of high skilled, value added jobs and careers.

Thanks to biotechnology, advanced and cellulosic biofuels are here today. The first gallons of cellulosic biofuels have been produced and delivered in Mississippi, with additional cellulosic biorefineries coming online this year and next in Florida, Iowa and Kansas. But it's not just biotechnology that's gotten us this far. Federal policy has played a major role in shepherding this technology across the valley of death to first commercial production. And, without question, the Renewable Fuel Standard (RFS) has been the single most important of these federal policies, which is why BIO is committed to the preserving the RFS as is.

The importance of federal policy is particularly critical in the transportation fuel sector. The U.S. transportation system is overwhelmingly reliant on petroleum fuels. Time and again this overreliance has put our nation's national security and economy at risk. Fuel

prices spikes both decrease demand for fuel and stall economic growth as America continues to recover from its economic recession. The 30 percent increase in the price of oil from October 2011 through April 2012 adversely affected household budgets and likely contributed to a slow rate of increase in consumer spending. According to Dean Maki, chief United States economist at Barclays Capital, a $10 increase in the price of oil shaves about two-tenths of a percentage point off America's growth rate and raises unemployment by one-tenth of a percentage point. Another study has shown that 10 of the 11 U.S. recessions since World War I have been preceded by significant oil price spikes. Even at a time when we have seen an increase in U.S. production of oil of roughly 2 million barrels per day over the past five years, this still only represents just over 2 percent in worldwide consumption. Hardly enough to mitigate the impact world events have on oil prices, such as the recent actions in Egypt.

However, the policy stability afforded by the RFS helps remove the instability in the fuel market. This is because biotechnology processes are developing alternative fuels in a cheaper, more efficient manner. Biofuel production under the RFS has already displaced nearly 10 percent of U.S. gasoline consumption and will account for more than 20 percent of U.S. transportation fuel use by 2022. These fuels, produced in America, help create not just domestic jobs but long lasting high tech careers, while offsetting the impact of foreign sources of oil on our economy. This research and development and early construction have already created more than 5,000 jobs here in the United States. And, according to a study conducted by Bio Economic Research Associates, once the RFS goal of 36 billion gallons of biofuels is achieved, the production of advanced biofuels here in the United States will create more than 800,000 jobs and generate $37 billion in economic activity.

Over the past five years, both domestic and foreign companies have invested nearly $5 billion within the United States towards the research,development and commercialization of advanced biofuels, including pilot and demonstration projects in nearly every state, and real steel in the ground for the first commercial biorefineries. Investors – including many international companies attracted by the economic opportunity here in the United States – are ready to commit additional dollars to commercialize this technology. The RFS is helping the US keep its global lead in biotech innovation and we can't afford to surrender our lead in this important field.

The RFS provides exactly the type of long-term, regulatory stability that is required to send a signal to investors. Congress gave EPA sufficient flexibility to administer the RFS when they adopted the RFS. The single most important thing Congress can do to reduce our nation's dependence on foreign oil, improve the environment, grow our bio-based economy

and create more high skilled, value added jobs and careers is to leave the RFS in place, as-is. We are just 1/3 of the way through the timeline Congress laid out in 2007 – we must stay the course or risk losing the progress we've made.