

Novozymes is a \$1.6 billion USD global leader in industrial biotechnology. We have **over 5,000 employees** dedicated to advancing **sustainable solutions** for a host of industrial applications. Our company currently markets over 700 products into 30+ industries **in more than 140 countries**. Novozymes is unique in that we routinely invest over 14% of our sales back into R&D. We hold **over 6,000 international patents**, and our focus on innovation allows us to continually develop new business areas. As the **world leader** in industrial enzymes and microorganisms, Novozymes has the **financial, innovative and organizational strength** to continue to improve the efficiency and carbon footprint of many industrial applications, **including biofuels**.

The significant **positive** impact that a robust biofuels industry will provide our country **is undeniable**. Biofuels **added \$53 billion to the US GDP** in 2009 alone. And production of renewable biofuels – predominately ethanol - is keeping almost a **half a million people employed** in an economic climate that is challenging to say the least.

Domestic biofuel production also enables the US to achieve significant reductions in imported oil. According to figures from the Department of Energy, on a gasoline equivalent basis, US ethanol production surpassed the total volume of transportation fuels imported from

Saudi Arabia in 2009. In fact, if the current US ethanol industry were a foreign oil producer, only Canada would supply the US with more gasoline.

Along with the economic and energy security benefits, ethanol also provides environmental benefits. Corn based ethanol provides up to a 70% reduction in GHG emissions when compared to gasoline, and cellulosic ethanol holds the promise of reducing CO2 emissions by up to 90%.

Innovations within the liquid transportation fuel sector are critical if America is to achieve its dual goals of reducing both our dependence on foreign oil and our overall carbon emissions. While other emerging technologies such as electric-powered vehicles hold promise, and will become a larger part of our transportation mix in decades to come, biofuels are **available today** and do not trade one carbon intensive energy source, **gasoline**, for another, **coal-fired electrical generation**.

Novozymes has placed an unprecedented amount of resources on biofuels technology development. We have over **150 scientists** dedicated to these efforts. And in our cellulosic ethanol programs, we are leading the way with enzyme and process development in an effort to enable commercialization of the industry.

In February of this year, we delivered on the promise we made two years ago to deliver a commercially viable enzyme to the cellulosic ethanol industry by 2010. Our latest enzyme, Cellic CTec2 reduced enzyme cost from as high \$4.75/gal to around \$0.50/gal **in less than two years**. Our partners now have a commercially viable enzyme solution for their advanced processes. Our work in this area continues and we expect to advance this technology even further.

But moving from commercially viable to **commercially deployable** requires more than technological investments and developmental milestones. The industry needs strong, **consistent** leadership in Washington to ensure that the renewable fuels sector continues to grow.

To ensure that domestic biofuels are commercialized as envisioned in RFS2, Congress and the Administration need to accomplish

two key objectives:

First, we must allow the ethanol market to grow **without arbitrary limits**.

The current E10 formulation cap creates a situation where the volumes of fuel mandated in RFS 2 simply cannot be absorbed in the market.

In order to keep a robust biofuels market in growth mode, the EPA should grant the pending E15 waiver request. **Additionally**, Congress should consider incentives targeted towards getting more flex fuel vehicles on our roads.

Second, we need to maintain support programs for both the existing biofuels industry and the developing cellulosic-based applications.

House Bill H.R. 4940 and Senate Bill S. 3231 are currently referred to their respective committees. These bills extend through 2015 the income and excise tax credits for alcohol used as fuel, the cellulosic biofuel producer tax credits, and the reduced credit for ethanol blenders. It is critical that these revisions be made in order to provide **market certainty** that will allow additional investments in order for the biofuels industry to grow as predicated under RFS2.

Equally important, House Bill H.R. 5142, introduced last month by Rep. Schwartz will provide similar support for next generation biofuels investments. This bill, also known as the **GREEN JOBS Act of 2010**, extends the cellulosic Production Tax Credit through 2016

We would ask our Representatives and their staffs attending today to consider joining in this effort to advance the next generation of biofuels

commercialization – and we'd love to speak with any Senate members who are evaluating current bills to advance renewable energy.

In summary, at Novozymes, we see renewable biofuels as a critical component of our liquid transport fuel mix. Biofuels provides significant benefits to countries that adopt their use. Growth of this sector will provide our country with increased energy security, significant economic developments and a more secure, cleaner and safer future for the next generation.