

## GreenField Federal Pre-Budget Consultation - Submission 2015

### Executive Summary

As Canada's largest ethanol producer and an innovator in the renewable fuels industry, GreenField Specialty Alcohols Inc. (GreenField) knows that our country's energy future should not be overly dependent on a single fuel source. Successfully diversifying our fuel mix with clean-burning, renewable fuels and biobased products is essential to meet our country's needs, protect our environment, and ensure Canada's economic prosperity long into the future.

GreenField has built a strong record of success in Canada by providing biobased specialty alcohols and ethanol. We have done this while being a stable and secure customer for Canadian corn farmers, driving economic growth and employment in rural areas, and consistently supplying cleaner burning fuels for Canada's driving public. We are also proud to be on the forefront of scientific development and the commercialization of cellulosic ethanol and biobased products.

GreenField has more than 400 Canadian employees working at state-of-the-art facilities located in Ontario (Chatham, Tiverton, Johnstown, and Brampton), and in Quebec (Varenes).

We want to continue to support the government's priorities for economic growth, increased global competitiveness, and innovation. **For the 2015 Federal Budget, GreenField recommends that:**

- 1) Cellulosic Biofuels be exempted from federal excise taxes;**
- 2) A tax credit for fuel pump technology turnover be created; and**
- 3) A biorefinery fund be created to promote new renewable fuels technologies and sustainable products.**

The ethanol that GreenField makes is proven to reduce harmful greenhouse gases (GHGs) by over 60% compared to fossil fuels and make meaningful reductions to hydrocarbon emissions and aromatic compounds – which are known carcinogens, as well as emissions of smog-forming particulates and carbon monoxide. New engineering developments continue to improve ethanol's score on these important indexes.

The more biofuels we use in our fuel pool, the greater the environmental and health benefits will be. There are no technical barriers to expanding inclusion requirements for ethanol 5 to 10%, and biodiesel from 2 to 5%; doing so will encourage greater investment in Canada and Canadian businesses. At the same time, expanding renewable diesel use into other sectors such as marine, rail, mining, power engines, and oil sands expansion would make significant emissions reductions from otherwise extremely carbon intensive industries.

GreenField's policy recommendations would:

- Increase the competitiveness of Canada's domestic cellulosic ethanol producers through policy platforms for emerging technologies;
- Ensure consumer choice at the fuel pump by supporting new infrastructure; and
- Support innovation and commercialization of new renewable fuels technologies and biobased products.

With an understanding of current fiscal realities, these recommendations will ensure that Canada's domestic renewable fuels industry continues to evolve and grow alongside Canadian businesses.

### Priorities

#### **1. Increasing competitiveness of Canada's domestic cellulosic biofuels producers through policy platforms for emerging technologies that exempt cellulosic biofuels from federal fuel taxes.**

Cellulosic biofuels are on the cusp of commercialization in Canada and will play an instrumental role in the growth of the current domestic biofuels industry - which returns more than \$3 billion to the Canadian economy and removes more than 4 million megatonnes of carbon from the environment each year. Next-generation biofuels will also represent an important segment of the overall clean technology industry in Canada.

GreenField is already using technologies that can convert agricultural waste, forestry residue and even solid municipal waste into cellulosic biofuels. Cellulosic biofuels reduce GHG emissions by up to 87% (compared to petroleum) and, by design, solve multiple environmental problems at once. However, Canada cannot fully realize its potential for domestic cellulosic ethanol production without addressing the intense competition from other jurisdictions.

The United States has already made significant investments and policy changes to help bridge the gap between research and commercialization of these innovative new products. This includes a specific blender's tax credit for cellulosic fuels and a mandated requirement as part of their renewable fuels standard. The result is that Canada is being left behind. The best way to ensure that renewable fuel mandates can continue to be met with domestic production is through policy mechanisms that drive domestic consumption and ensure a level playing field for Canadian businesses.

In order to advance production and drive consumption of cellulosic biofuels in Canada, GreenField proposes exempting cellulosic biofuels from the current excise tax on fuel. Presently, the federal excise tax (FET) on gasoline is 10 cents per litre. The *Regulations of the Federal Excise Tax Act* should be amended to zero-rate (or exempt) the cellulosic biofuels portion of any sales of blended gasoline in Canada. This would enable the value of the FET exemption to accrue to the cellulosic biofuels producer.

As demonstrated with similar treatment for other commodities, this small tax measure will encourage domestic production, retain cellulosic biofuels in Canada, and ensure economic and environmental benefits accrue locally – where it matters most. From the perspective of a Canadian business we can see how the absence of competitive policy measures, designed to promote the use of cellulosic biofuels in

Canada, supports the selling of Canadian cellulosic biofuels into the United States market. This allows businesses to capture aggressive price premiums associated with the Renewable Fuels Standard compliance credits for cellulosic biofuels, the production tax credits for cellulosic biofuels and the accelerated depreciation for cellulosic biofuels facilities.

Based on existing and proposed projects, the total cost of a **Cellulosic Fuel Excise Tax Exemption** from Jan. 2015 to Jan. 2016 would be approximately \$8 million (based on 80 million litres of production). The total cost of a Cellulosic Fuel Excise Tax Exemption from Jan. 3 2016 to Jan. 2017 would be approximately \$15.2 million (based on 152 million litres of production).

## 2. Ensuring consumer choice at the fuel pump by supporting new infrastructure.

Starting in 2017, North American automakers are required to improve their fuel economy under the Corporate Average Fuel Economy (CAFE) standards. By 2025, vehicles in Canada will have to more than double their efficiency and run, over a fleet average, at 54 miles per gallon.

The overwhelming consensus from domestic vehicle manufacturers is that the compliance pathway must include both technological change from manufacturers and new fuels to drive that technology. These manufacturers have publicly stated that they need a fuel that has a higher octane rating to drive the smaller, lighter engines that these new fuel economy standards will require.

***There is no cheaper and cleaner source of octane than ethanol.*** Ethanol and ethanol-blended gasoline (like E20 or E30) is the lowest cost source of octane available. These higher renewable content blends deliver the increased level of octane required to drive smaller high-compression engines while reducing tailpipe emissions. Ethanol has a blending octane rating of 113, and as a result, higher-level ethanol blends are uniquely poised to help automakers achieve stricter fuel economy and emissions requirements. In fact, European auto manufacturers have called for ethanol blends in the 20% range, and Brazil has a requirement for 27% ethanol in its gasoline.

Fueling infrastructure turnover requires time to build out properly. By way of example, there are over 3.5 million vehicles on Canada's roads that can take up to 85% ethanol (E85). In the United States, there are over 3,000 E85 pumps, and thousands of others that offer mid-level ethanol blends. The United States is seeing the growth of commercial pumps offering 10-20% biodiesel directly to consumers. In Canada there are four pumps that offer E85 to consumers and none that offer higher biodiesel blends at commercial sites. Canadian consumers do not have access to any alternatives to petroleum products.

GreenField recommends that the government encourage existing pump turnover and new market entrants by providing tax incentives – through either a direct tax credit or capital cost allowance depreciation – to those individuals who want to offer consumers these alternative fuels. It bears repeating that similar programs in the United States successfully provide a much needed incentive to encourage the turn-over of thousands of pumps that offer higher renewable content to consumers.

The reality is that if Canada does not make these investments, the fuel economy regulations put in place to improve fuel efficiency will be completely ineffective. Consumers need access to the same fuels used for vehicle testing in order to take advantage of the new technology required by the regulations. If not,

consumers will simply be forced to pay additional costs for technology that is predicated on fuels that are not available to them. The ultimate result being higher cost vehicles with no discernable environmental benefits.

We believe that this proposal will help to build-out much needed infrastructure in our communities, and that now is the time to undertake the work necessary to properly build-out Canada's fueling infrastructure so that higher-octane fuel blends are available to consumers and Canada achieves the environmental goals set out in fuel economy regulations.

### **3. Supporting innovation and commercialization of new technologies in the bioeconomy by supporting biorefineries.**

Canada has a vibrant clean technology sector. Policy platforms are needed to help attract critical investment dollars to Canada, support pre-commercial demonstrations, and close the funding gap so that new renewable fuels and biobased product technologies are developed and successfully commercialized in Canada.

To date, GreenField has been able to benefit from successful programs offered by foundations such as Sustainable Development Technology Canada (SDTC) and, in turn, has helped to advance Canada's bioeconomy. With funds received by the SDTC, GreenField has been able to explore self-sufficient and sustainable biorefineries, improve the efficiency of ethanol production, and embark on a pilot project for the production of lignocellulosic ethanol. This is the innovation that lies at the heart of Canada's energy future.

The SDTC TechFund™ has been an unparalleled success in helping numerous clean-tech companies like GreenField demonstrate the viability of their technology. There has not been a great deal of post TechFund developments, and SDTC needs a way to demonstrate the successes of TechFund technologies moving into the larger marketplace.

GreenField was pleased to see the recapitalization of the SDTC TechFund™, and wants to see continued government leadership in attracting investment to Canada. While there are ample TechFund success stories, a fund to support commercialization within the broader bioeconomy would help companies like GreenField bring their innovation to the greater public.

As recognized by a report prepared by McKinsey and Company for Natural Resources Canada and SDTC, the bioeconomy is a fertile area for growth in the global marketplace. But, in order to be commercially viable, a transition fund for these new technologies is needed. Around the world, many other jurisdictions are making strategic investments to attract research and development and further the commercialization of these nascent technologies. Those jurisdictions are drawing investment away from Canada where we have a decided natural resources advantage.

GreenField proposes creating a **biorefinery fund** for innovation and commercialization in the bioeconomy. This new fund will ensure that new technologies developed in Canada are effectively

commercialized and brought to market in Canada. To be eligible for this proposed fund, GreenField believes the following are key features of eligible projects:

- Feedstock Agnostic – No crop limitations should apply provided that the biomass is sustainable/renewable.
- GHG Reduction – Drive carbon use out of products and/or reduce the overall lifecycle footprint of a substitute when compared to the traditional petroleum product.
- Focus on Commercialization in innovative products and technologies - Short of a First-in-Kind Provision, but focusing on innovation in Canada.
- Seeks to increase efficiencies of current processes to help improve the footprint of current operations. This specifically includes feedstock pre-treatment and/or including the quality of existing biomass.
- Stacking provisions which are consistent with current Treasury Board Guidelines (70%).

GreenField recommends that all un-deployed capital from the original \$500 million dollar NextGen Biofuels Fund™ be redirected to this new biorefinery fund. Any capital that is currently committed, but not deployed specifically into a project under the NGBF, should be rededicated to the new biorefinery fund after 2017.

So doing will specifically contribute to research, development, innovation and commercialization in Canada.

We would welcome the opportunity to appear before the Committee at hearings in Toronto or Ottawa.

Sincerely,

Malcolm West  
Chief Financial Officer  
GreenField Specialty Alcohols Inc.

[Malcolm.West@gfsa.com](mailto:Malcolm.West@gfsa.com)

416-304-1900 x8428