



March 10, 2016

New Edmonton biorefinery to convert non-food plant oils, fats into renewable transportation fuels

EDMONTON – An Edmonton company is reaching the final stage of its project to build a biorefinery that will convert non-food canola oil and waste fats into next-generation, renewable transportation fuels that can replace or blend with conventional fuels.

The company, SBI BioEnergy (SBI), has been working on scaling up its novel “catalytic” processing technology for the past three years, thanks to **\$1.4 million** in funding from Alberta Innovates Bio Solutions. The process creates no emissions, generates no waste and costs less than other alternative fuel technologies.

In just a few weeks SBI expects to move into its newly built facility in the Edmonton Research Park, which will house a demonstration refinery capable of producing up to 10 million litres of renewable fuel per year. Commissioning the plant will take several months, but SBI hopes to start producing by year’s end. The company’s next goal will be to build a full-scale commercial biorefinery that will produce up to 240 million litres/year by 2018.

SBI is able to produce renewable diesel, gasoline and jet fuel. AI Bio provided the funding to SBI in 2013 to advance its proprietary process from the lab to a demonstration-scale plant.

“Public investment helped move this innovation along to the stage where SBI has shown it can produce these unique, drop-in and replacement fuels derived from non-food Alberta farm products, and do so at a larger scale” said Steve Price, CEO of AI Bio.

“This will not only provide a new market for agricultural producers and companies, it will also help to diversify the provincial economy and bring environmental benefits by filling a technological gap and advancing the renewable fuel industry in Alberta.”

SBI uses a proprietary catalyst instead of hydrogen in its processing. It uses no water or chemicals and generates no waste. In addition, the process is continuous rather than producing fuel in batches, so further efficiencies are achieved.

“This is new technology, invented in Alberta. It comes at the right time in the right place and the market is huge,” says SBI President and CEO Dr. Inder Pal Singh, a chemist who founded the company. Alberta is currently importing 300 million litres per year of renewable diesel, primarily from overseas, to blend with conventional fuel, he noted.

“AI Bio funding was critical in helping us move from proof of concept bench scale to the demonstration stage,” Singh said. “AI Bio also assisted me in making the right connections because (the agency) works with so many people. This has been very helpful.”

Alberta Innovates Bio Solutions is a provincial government agency that leads and co-ordinates science and innovation to grow prosperity in Alberta's agriculture, food and forest sectors.

In addition to AI Bio funding, SBI has received about \$460,000 in support from Alberta Innovates Technology Futures.

Also on March 10, the Alberta government announced the [Climate Change and Emissions Management Corporation \(CCEMC\)](#) has earmarked a **\$10 million contribution** for SBI to continue its work.

- 30 -

Media inquiries:

Julia Necheff, Communications Specialist
Alberta Innovates Bio Solutions
780-641-9534 (office), 780-918-1625 (mobile)
Julia.Necheff@albertainnovates.ca

Backgrounder

[SBI BioEnergy](#) uses naturally occurring plant oils and waste fats to make its clean, renewable transportation fuels (diesel, gasoline and jet fuel). Feedstocks include off-grade canola oil, waste cooking oil, animal fat from rendering plants and "tall oil," a natural byproduct from wood pulp operations. SBI can also use other non-food oilseeds (such as camelina and carinata mustard) from crops grown on marginal land unsuited for food production.

SBI is in negotiations with major energy companies to supply them renewable diesel and renewable gasoline. Commercial refiners are currently importing alternative fuels for blending with conventional product to meet legislated fuel standards. SBI also plans eventually to market renewable jet fuel.

In addition to renewable fuels, the SBI technology produces a co-stream of high-purity glycerine, a value-added chemical that can be sold for the manufacture of food products, pharmaceuticals and cosmetics.

Because the chemical structure of SBI's renewable fuels is identical to petroleum-based products, it is a step up from other alternative fuels such as biodiesel. Renewable fuels bring significant advantages – they can fully **replace** conventional, petroleum-based fuels with no engine modifications required or they can easily be **blended** with petroleum products (referred to as a drop-in), says SBI's president and CEO, Dr. Inder Pal Singh.

For these reasons, refiners prefer renewable diesel over biodiesel, says Singh. Biodiesel does not blend freely with petroleum diesel, and requires considerably more infrastructure for storage, transportation and blending. SBI's capital cost is 75 per cent lower and its operating cost is about 50 per cent lower, compared to other biorefineries, he says.