

June 21, 2011 CCEMC BACKGROUNDER

Background on renewable energy projects

Climate Change and Emissions Management (CCEMC) Corporation announces \$15 million in funding for renewable energy projects in northern Alberta

Three projects valued at more than \$129.9 million

The Climate Change and Emissions Management (CCMEC) Corporation announced that it plans to fund three renewable energy projects. The following summary of renewable energy projects includes descriptive information from project proponents, as well as media contact information.

Organization: West Fraser Timber

Project: Slave Lake Pulp Bio-Methanation Project

Location: Slave Lake, Alberta CCEMC funding: \$5 million Total project value: \$25 million

Estimated GHG emissions reduction over 10 years: 470,540

West Fraser is an integrated wood products company producing lumber, wood chips, LVL, MDF, plywood, pulp and newsprint. The company has operations in western Canada and the southern United States.

The Slave Lake Pulp Bio-Methanation Project involves the integration of an energy efficient anaerobic digestion system into the existing effluent treatment system. The system will treat effluent and generate a methane rich biogas while significantly reducing the energy, chemical consumption and sludge generation. The biogas will be used to generate electricity and heat for use in the pulping process.

Media inquiries

Rod Albers West Fraser Timber Manager, Energy and Bio-Product Development 780-849-0174 rod.albers@westfraser.com **Organization: High North BioResources Limited Partnership**

Project: High North RTP Project Location: High Level, Alberta CCEMC funding: \$5 million

Total project value: \$44.9 million

Estimated GHG emissions reduction over 10 years: 988,607

High North BioResources Limited Partnership is a 50/50 partnership created by Tolko Industries Ltd. and Ensyn Technologies Inc. to carry out the High North RTP Project.

Tolko Industries Ltd. is a private, Canadian-owned forest products company. Tolko is a major producer and marketer of lumber, veneer, plywood, oriented strand board, and kraft papers, with manufacturing operations across Western Canada. Tolko owns and operates the sawmill in High Level where the energy plant will be located.

Ensyn Technologies is the world leader in fast pyrolysis and the production of pyrolysis oil from forestry and agricultural biomass. Since 1989 Ensyn's technology has been used to produce pyrolysis-oil for bioenergy and bio-chemical applications. Ensyn formed Envergent Technologies a joint venture in 2008 with UOP a Honeywell company to deploy Ensyn's RTP technology globally as well as to develop a complementary technology to convert pyrolysis oil into transportation fuels.

The High North RTP Project will be the world's largest commercial fast pyrolysis plant. The facility will be capable of producing 75,000,000 litres (19.8 million U.S. gallons) of pyrolysis oil annually from 400 tonnes per day of sawmill residual biomass that is currently being incinerated with no energy recovery. This pyrolysis oil will be used to produce renewable energy in the form of electricity and heat that will be used in Tolko's sawmill at High Level. The renewable energy produced will reduce the greenhouse gas emissions by displacing fossil fuel based energy. The facility will also be capable of producing a renewable resin ingredient that can be used in the manufacture of wood panel products. The project is expected to create over 100 jobs during construction and approximately 20 continuing direct full time jobs.

Media inquiries

Sheri Greeno Communications Advisor Tolko Industries Ltd. 250-549-5341 Sheri.greeno@tolko.com Organization: Growing Power Hairy Hill L.P. Project: GPHH Integrated bioRefinery(TM)

Project Location: Hairy Hill, Alberta

CCEMC funding: \$5 million Total project value: \$60 million

Estimated GHG emissions reduction over 10 years: 932,078

Growing Power Hairy Hill L.P. ("GPHH") is a four-year old company. It is part of the 4BEL Group of Companies. 4BEL Corp. promotes, develops and helps finance utility-scale, clean energy projects around the globe. The corporate family includes www.Highmark.ca which owns patented waste-to-energy (bioGas) technology developed over 11 years at a cost of \$25 million, much of which is showcased in the GPHH Integrated bioRefinery(TM). It uses waste from agriculture, food processing & distribution, slaughterhouses, and municipalities (sewage and organics) while destroying pathogens and delivering soil nutrients. Sister company Alpha-J L.P. is patenting proprietary algae-growing and algae-harvesting technologies which dramatically enhance the economics of any algae-tech company. Further details can be found at www.GrowingPower.com.

GPPH is the world's first large scale carbon neutral bioFuel plant. By using waste to power its systems, and by producing byproducts that are all useful for agriculture, GPPH achieves "net zero" status. The GPPH Integrated bioRefinery ™ is powered by IMUS ™ from www.Highmark.ca, a technology for extracting useful energy from agricultural waste, while destroying all potentially harmful pathogens and reclaiming water. The plant will produce ethanol based on local cattle feed wheat, and will also produce a high-nutrient by-product that will supply food to a local cattle feedlot. The GPPH BioFuel plant will have an energy balance of 7:1, much higher than so-called "Generation 2" ethanol at 4:1, and far higher than conventional ethanol at 1.4:1 or gasoline from conventional oil at 0.8:1. Construction of the GPPH Integrated bioRefinery will also create 200 person-years of employment.

Media inquiries

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