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Biofuels and Bioenergy 2018 - Canadian bioenergy landscape: Key drivers and future potential

Ataullah Khan Mohammed

InnoTech Alberta, Canada

Biofuel is a fuel that is created through contemporary organic procedures, for example, farming and anaerobic assimilation, as opposed to a fuel delivered by land procedures, for example, those engaged with the development of non-renewable energy sources, for example, coal and oil, from ancient natural issue. Biofuels can be gotten straightforwardly from plants, or in a roundabout way from farming, business, local, or potentially modern squanders. Inexhaustible biofuels by and large include contemporary carbon obsession, for example, those that happen plants or microalgae through the procedure of in photosynthesis. Bioenergy is sustainable power source made accessible from materials got from organic sources. Biomass is any natural material which has put away daylight as synthetic vitality. As a fuel, it might incorporate wood, wood squander, straw, excrement, sugarcane, and numerous other results from an assortment of rural procedures. Worldwide vitality request developed by 2.9% and carbon emanations developed by 2.0% in 2018, quicker than whenever since 2010-11.Petroleum gas utilization and creation was up over 5%, probably the most grounded pace of development for both interest and yield for more than 30 years. Renewables developed by 14.5%, approaching their record-breaking increment in 2017, however this despite everything represented uniquely around 33% of the expansion in all out force age. Coal utilization (+1.4%) and creation (+4.3%) expanded for the second year straight in 2018, after three years of decrease (2014-16). The United States recorded the biggest ever yearly creation increments by any nation for both oil and gaseous petrol, by far most of expands originating from inland shale plays.

Canada is endowed with abundant natural resources and thecuountry has among the world's most productive agriculture and forestry sectors. Despite its abundance, biomass is not being utilized to its full potential due to lack of supply chain logisticsand low fossil fuel prices. The Biomass Quality Network Canada (BQNC) was established in 2016 through funding

from Agriculture Agri-Food Canada (AAFC) to support the advancement of the Canadian bio-products industry in four main sectors: Biochemicals, Bioenergy, Biofuels and Biomaterials.

BQNC supports the Canada's bio-products industry by enabling the selection, creation, adoption and maintenance of a central database of internationally recognized quality control and

assurance standards in coordination with other national and international standards organizations. Bioenergy has been part f the Canadian energy scene for more than 25 years, ranging from heat and power cogeneration, wood pellets, to liquid biofuels. The recent federal and provincial government directives on fossil carbon emission reduction are likely going to be the key drivers for the development of bioenergy markets in Canada. The talk will highlight the key findings of the BQNC bioenergy sector sub-committee pertaining to biomass resource availability and bioenergy potential with the aim of bridging the gap between supply chain, fuel (quality) and equipment suitability with a focus on central western Canada. Suitable recommendation on quality grading of common Canadian agricultural residues vis-a-vis ISO/

TC238 classification will also be presented

Biography:

Dr. Khan is the lead scientist for the Thermo Chemical Processing group at InnoTech Alberta and also an Adjunct Professor in the Process Systems Engineering, University of Regina. He is also the sector lead for bioenergy initiative at the BQNC (Biomass Quality Network Canada) and a technical ommittee member on Canadian Mirror Committee to ISO/TC 238:Solid Biofuels. At InnoTech Alberta, his research is focused on biomass thermochemical &thermocatalytic conversion pathways to bioenergy, biofuel, bio-chemical or biomaterials. He is a recipient of 2012 Paragon Award for Innovation for the development of innovative catalysts for feedand process- flexible hydrogen production. He has 3 patents, 1 book chapter, 2 reviews and 30 research articles to his credit. He also served as a Guest Editor for Special Issue on "Metal Oxides in Catalysis" in Molecular Catalysis Journal, Elsevier, 2018