

Nova Scotia Energy Research and Development Forum 2012

Kenny Corscadden

Biography

Dr. Corscadden is an electrical engineer with over 16 years academic and industrial research experience. He has held senior industrial research positions with a range of companies and has managed projects around the world with applications in energy conservation, primarily in the pulp and paper industry.

He is currently industry research chair in farm energy conservation at the Nova Scotia Agricultural College. His research program provides a holistic approach to energy conservation and management. He is currently involved in a number of projects that consider the implementation of renewable resources including wind assessment and technology and biomass fuel design and combustion

Presentation Abstract: Agricultural Biomass, Markets, Fuels and Applications

This presentation will address the potential of utilizing agricultural biomass in Nova Scotia. It considers land availability, identifies suitable crops and considers the challenges faced when using such material for combustion.

Agricultural biomass has the potential to serve three existing markets which include on farm use (in bale format), residential (in pellet and briquette form) and light industrial or commercial (in pellet form). The challenges associated with the integration into these markets include the economics of densification, preprocessing and the modification or development of hybrid fuel to mitigate high mineral content and subsequent combustion issues. Combustion technology, suitable for use with high mineral fuels and corresponding efficiency and emissions are also investigated.