

has the potential for higher outputs from this source and from food processing wastes. With the rapidly advancing technologies of cellulose hydrolysis however, there is the potential for Canada to produce very large quantities of fuel grade ethanol from wood and other lignocellulosic feedstocks.

The province of Saskatchewan has recently announced the building of a 3 million gallon per year ethanol plant, using barley as a feedstock, as well as a feasibility study for a pilot plant to produce ethanol from lignocellulose. The Province of Quebec, through its alternative energy corporation Nouveler, is financing the development of a methanol plant using gasified wood as feedstock.

Canadian expertise in beverage alcohol production including design of distilleries is considerable, and some of these companies are beginning to explore foreign markets for design and construction of fuel alcohol plants.

In Manitoba, a beverage distillery is being converted to produce ethanol from barley for gasoline blending. Manitoba has removed the provincial road tax on gasohol.

2.12 Peat

The resource base in Canada for peat is one of the largest in the world, but the development of this resource has not been pursued to any extent. There have been some studies on the feasibility of using peat for power generation in eastern Canada (New Brunswick), and Hydro-Quebec Research Institute (IREQ) has carried out feasibility studies on using gasified peat to produce electricity in remote areas where peat is abundant, and two thermal plants using gasified peat are at the final planning stage.

Harvesting peat is a particular problem in Canada because of the climate and environmental concerns, and some research is going on to find methods of harvesting throughout the year. In addition, some gasification R&D is being applied to peat, including fluidized bed combustion. In Newfoundland, which has no coal, the pulp and paper industry, with funding from the federal and provincial governments, is experimenting with the use of peat mixed with mill residues to fire steam boilers.

2.13 Conservation and Efficiency

Along with the development of oil supplies in Canada, and the substitution of domestic resources, including renewable energy, for oil demand, conservation and