

The major component is the Energy from the Forest (ENFOR) program, which finances innovative R&D on biomass energy issues such as improved forest productivity, soil fertility, harvesting technologies, improved combustion technologies including the use of fluidised bed systems, and associated environmental issues. In-house research at the Department of Energy, Mines and Resources includes combustion technology and performance testing of wood-burning appliances;

- Forest Industry Renewable Energy (FIRE) program, which provides direct financial incentives to any industry or commercial establishment to use wood wastes or other biomass resources instead of fossil fuels;
- Development and Demonstration of Resource and Energy Conservation Technology (DRECT) program funds the development of new technologies to produce energy from industrial and municipal wastes;
- the Federal-Provincial cost-shared demonstration agreements include biomass projects, with some 25% - 30% of the total funding going to demonstrations of technologies for biomass such as wood gasifiers and municipal waste burning equipment;
- the off-oil incentive grant under COSP will be available for conversion from oil to wood;
- the distribution system expansion funding under COSP may be applicable for the development of wood supply infrastructure and related issues.

As well as the direct combustion of biomass to produce heat and/or electricity, Canada is active in conversion technologies, including gasification and the production of fluid fuels such as ethanol and methanol. Canada has, however, many other options (oil sands and other non-conventional oil, propane, compressed natural gas, liquid fuels from coal) which may be more competitive economically. Biomass and wastes do have three important advantages: they are renewable (if properly managed); they are more evenly distributed across the country, thus helping to moderate problems of regional resource distribution; and they call for labour intensive operations and may therefore confer socio-economic benefits on remote/rural regions.

The following are some of the key areas in which Canada has expertise: