

Largest biomass gasification facility

Future Energy Resources Corporation (FERCO), the United States, has achieved a major milestone in commercializing its SilvaGas™ biomass gasification process with the successful operation of its latest commercial-scale demonstration plant. FERCO designed and built the gasifier, the largest biomass gasification facility in the country, with technical support and funding provided by the United States Department of Energy.

On 11 August, the facility attained full operation capability and converted more than 285 t of wood chips into SilvaGas, a medium Btu natural gas substitute. More than 140 MWh of electric power, sufficient to power 6,000 homes, was generated using SilvaGas at the Burlington electric Department's McNeil generating plant. The SilvaGas process has demonstrated acceptance of a wide range of feedstocks, all of which can be converted into a clean burning medium Btu gas that can be used as a direct substitute for natural gas. Also, this process can be coupled with a conventional gas turbine to convert biomass into electricity at twice the efficiency of conventional biomass systems, while significantly reducing environmental impact compared to fossil fuel-based power plants – including the elimination of net carbon dioxide (CO₂) additions to the environment.