A new facility to demonstrate combined heat and power production from biomass gasification in a commercial setting, recently began operation in Vancouver, Canada. Junior Isles looks at this pioneering project.

**The BRDF is producing clean heat and electricity for the UBC campus from renewable bioenergy**

The BRDF has two main operating modes. The first is ‘thermal-only mode’, where the syngas from the gasifier replaces natural gas used to produce steam and hot water to meet the campus’ heating needs. The second is called ‘demonstration mode’, as it is the first site to use the technology for combined heat and power in a commercial setting. Here the syngas is conditioned to remove impurities and fed into GE’s Jenbacher gas engine to produce electricity. In addition, heat from the engine is recovered and directed to the district heating system. The combined heat and power system has a maximum output of 2 MW of power and 4365 kWe/hr (9600 l/hr) of steam. According to UBC, the engine has been running well since start up. Performance tests will be carried out during the first three months of operation. Once in full commercial operation, the BRDF is expected to produce up to 15 million kWh/yr of electricity.

Sauder noted: “In thermal mode it can run 24/7 at its full capacity.” The operation of this unit will provide solid data for projects in other parts of the world. GE believes there are significant opportunities in the Europe, India and Southeast Asia*

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