

## **Solid fuel-fired gas turbine**

In the United States, a consortium has fabricated a solid fuel-fired gas turbine (SFGT) system that uses cheap fuels such as waste wood and other biomass fuels to generate electricity and system exhaust for on-site thermal applications. The consortium comprises Western Research Institute (WRI), Power Generating Inc. (PGI) and the United States Department of Energy.

The system, based on PGI's patented technology, burns solid fuels in a pressurized combustor and separates the hot gases for use in a gas turbine and generator. The pressurized combustion system also offers an eco-friendly process to eliminate certain volatile organic compounds. SFGT is ideal for use where power consumption and on-site thermal needs are in the 2 to 5 MWe range. These systems may also be used in tandem in case of larger requirements. WRI is testing a 500 kWe unit using wood fuel to produce low-cost energy while utilizing waste biomass fuels. *Contact: Mr. Vijay K. Sethi, Business Unit Manager, Energy Production and Generation, Western Research Institute, the United States. Tel: +1 (307) 7212 376; Fax: +1 (307) 7212 345; E-mail: vsethi@uwyo.edu.*