

At a glance

Location

Seoul, South Korea

Commissioned

January 2011

Fuel

Liquid natural gas

Technologies

- Six C65 Capstone microturbines.
- A heat exchanger from Korean manufacturer SIN-AN.

Results

- The CHP system generates 390kW of electricity for residential consumption and 985kW of thermal power to heat the expansive swimming pool and luxurious sauna.
- Since January 2011, the microturbine system has operated continuously.
- The microturbine system supports 60% of the building's total electricity needs and more than 30% of its heating needs.
- The apartment complex is expected to save KRW 원1,121,150,000 annually.

Hannam Luxury Apartments

In Korea, a company's utility rate exponentially rises with increased energy consumption. As a result, some large energy consumers are opting out of utility power and turning to cost-saving, reliable Capstone Microturbines.

When design for the luxury Hannam apartment complex was underway in 2009, engineers decided to invest in six C65 microturbines to support the massive complex's energy needs and save money.

As the new 600-unit, 170,000-square-meter (1,829,863-square-foot) apartment complex was constructed in 2010, Korean distributor Samsung C&T Corporation, installed the microturbine system in a combined heat and power (CHP) application. Using liquid natural gas, the CHP system now generates 390kW of electricity for residential use and 985kW of thermal power to heat the complex's expansive swimming pool and sauna.

Since January 2011, the onsite microturbine system has operated continuously to support 60 percent of the building's total electricity needs and more than 30 percent of its heating needs. The result: comfortable residents and a manageable energy bill. In fact, the Hannam apartment complex is expected to save KRW 원1,121,150,000 annually.

Today, the foresight of Hannam owners is paying off as the grid-connected CHP system allows the owners to purchase less than half of the complex's electricity from the national utility company – a massive relief as utility rates continue to rise. ■

