



Foresterhill

The Central Campus Energy Solution

Turnkey Case Study

Location: Foresterhill Health Campus Energy Centre, Aberdeen

Challenge: To design and install a CHP plant capable of generating 55,000kg/hour or 34 MW of heating steam to service the needs of the building forming the newly completed Foresterhill Health Campus Energy Centre.

Solution: Installation of a three Cochran Dual Fuel Boilers and one Waste Heat Recovery unit, working alongside an existing Gas Turbine and wood chip-fired Biomass Boiler.

Results: The facility's three Cochran boilers and a biomass boiler have enabled the Campus to be completely self-sufficient in terms of heating. It also generates 90 % of its electricity requirement using a gas turbine. The Cochran Heat Recovery Boiler scavenges the exhaust heat of the turbine to generate additional 'free' steam.

Having previously supplied Aberdeen Royal Infirmary with steam boilers back in 1986, Cochran were contracted to provide the main steam generation equipment for the new Foresterhill Health Campus Energy Centre. Commissioned in June, the plant was operational by August 2012.

Foresterhill Health Campus Energy Centre

The energy centre provides heat in the form of steam to the Campus buildings. The facility combines a Biomass Boiler, installed by Cochran biomass partners Scot Heat & Power. This is fired with locally sourced woodchips generating 1.5MW. There are also three conventionally fired dual fuel Cochran Boilers and a Cochran Heat Recovery unit which generate a total of 34MW / 55,000kg/hour of steam.

Gas Turbine

The Foresterhill Energy Centre also features a Gas Turbine which generates 5.3MW, or around 90 % of all the electricity required by the Campus. The exhaust heat generated by the turbine is captured using Cochran's Heat Recovery Boiler which turns it into approximately 8.5MW of additional 'free' heating steam for the Campus.



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The Cochran Solution

Cochran's famous reliability, innovation and efficiency has made it the first choice for steam and hot water generation in hospitals and large educational facilities across the UK and beyond.

In the past 20 years, Cochran has installed more than 500 boilers in hospitals around the globe, generating over 2 million kg/h of steam. In a field where reliability is critical, those statistics attest to the exceptional standards the Company represents.

In addition to its UK work, Cochran has installed boiler equipment in numerous prestigious overseas medical facilities, including projects in the Gulf States, Egypt, Iraq, China and Hong Kong, Caribbean and West Africa.

In some cases the boilers being replaced were Cochran boilers up to 60 years old – an incredible testament to the durability of the product.

In recent years Cochran has also risen to become a world leader in highly efficient economisers, heat recovery units that harvest waste exhaust or process heat and the latest PLC combustion control technology - helping save every last fuel penny and reducing the global carbon footprint.



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