

Wilton 10 Biomass-fueled Boiler

SembCorp Utilities UK Limited

Wilton International Site, Northeast England

Key milestones

Contract award	December	2004
Start of erection	January	2006
Commercial operation	June	2007

Plant data

Main building height	37 metres
Building volume	20,000 m ³
Piling	2,000 metres

Steam data

Boiler output	92 MWth
Steam data	92 bar(a), 482°C
Steam flow	132.6 t/h
Feedwater temperature	195°C

Design performance

Flue gas exit temperature	144°C
Emissions	
SO _x	153 mg/Nm ³
NO _x	300 mg/Nm ³
CO	215 mg/Nm ³
Particulates	24 mg/Nm ³

Fuel data

	Recycled wood 40%, green wood 40%, SRC 20%
Sulfur, dry	0.03%
Ash, dry	1.6%
Moisture, as received	42.5%
LHV, as received	9.4 MJ/kg



Proven bubbling fluidized-bed technology

Foster Wheeler Global Power Group's bubbling fluidized-bed (BFB) technology offers excellent efficiency and availability. Over 140 BFB boilers designed and supplied by the company are in use around the world.

BFB boilers are ideal for firing biofuels with high moisture content and difficult ash characteristics, or fuels that are difficult to handle with very low levels of emissions. This makes them particularly well-suited for the wood waste from the forest products industry and for the short rotation coppice (SRC).

A test burn of SRC delivered from the UK was performed by Foster Wheeler in Finland specifically for the Wilton project.

