

Project Case Study

Hoddesdon Biomass Plant



The largest waste gasification plant in the UK in operation since 2017.

Overview

In 2015, a project was commenced for the turnkey delivery of a biomass gasification plant in Hoddesdon in the county of Hertfordshire.

More than 90,000 tonnes of waste will be used as fuel. This will be generated by the local commercial and industrial sectors and will be supplied by two of the UK's leading waste suppliers.

The plant will generate 10 MWe of power. This represents a yearly net supply of green electricity to the grid of 76,000 MWh, enough to meet the needs of around 7,000 households. This is the largest waste-to-energy gasification plant in the UK.

What we did

The losses incurred if this critical plant were to be unable to operate for any period of time meant that the insurers for the project were extremely demanding with regard to the fire protection systems installed on this project. When protecting a power generation facility which by definition burns volatile material it is vital that the fire detection system is of the highest possible quality.

AFS designed, installed and commissioned a comprehensive fire protection system through the site, comprising;

Aspirating systems at high level in the reception and turbine halls

Flame detection and video hot spot detection in the fuel bunkers

Flame detection inside the fuel conveyors

Inert gaseous suppression systems in mission critical plant and control rooms

Project Scope



System Design



Supply & Installation



Commission

Overview

- **Critical Power Generation Facility:**
Comprehensive Siemens Detection System Throughout
- **Processing of Flammable Fuels:**
Detection Selected to Provide High Sensitivity Without False Alarms