

Case Study 2 – Biomass Power Generation

Client: Heliuss Energy Plc

Project: Technical Experts Report

Project Outline:

The Client intended to issue shares on AIM, a market operated by the London Stock Exchange Plc to generate capital to finance the project management and early operation of a large biomass power station and the development of several small projects. Renewable Energy Consultants conducted a Technical Expert's assessment of the proposed 65 MWe biomass power station and the generic design for a 5 MWe biomass power station.

The Client had applied for planning consent for the development of the power station, together with biomass processing facilities to produce bio-ethanol and biodiesel on the same site. The Client intends to proceed with the construction of the infrastructure and the biomass power station in advance of the development of the transport bio-fuels processing facilities. The biomass power station would use residues from the biofuel facilities and imported biomass as its fuels. The greenfield site, of adequate size, lay in an area allocated to employment activities and was bounded by other industrial sites to the north and south. It had good access road links to nearby port facilities and motorways.

The Client also intends to install a number of 5 MWe biomass power plants, where economically viable, at unspecified sites within the brewing and distilling industries for the combustion of co-products such as dewatered draff or pot ale. The Client has signed a two year development agreement for biomass power generation technology.

Renewable Energy Consultants Role:

A report was prepared by Renewable Energy Consultants based on the terms of reference which covered:

- Review the current status of biomass power stations around the world, looking specifically at the size and type of plant installed, the feedstocks used as fuels and the operational experience
- Review the proposed 65 MWe power plant in relation to the size of plant, biomass boiler technology, fuels proposed, location and infrastructure, operation and maintenance and the project programme
- Review the proposed 5 MWe biomass power plant offered from a supplier.