

Ceimici unveils biodiesel catalyst

Ireland-based biodiesel technology company Ceimici Novel has launched a new catalyst for biodiesel production.

The Smart Catalyst system is heterogeneous and is simply recovered using filtration. No unwanted by-products are produced.

Smart Catalyst technology provides for a scalable and continuous biodiesel manufacturing. The process operates at atmospheric pressure and at low temperature. The reaction is complete in less than 10 seconds.

Smart Catalyst produces glycerol at 98+ %. This redefines the current low value waste stream as a co-product stream with full value. Further, additional

value may be obtained by processing glycerol to derivatives such as glycerol formal, glycerol carbonate or glycidol. This development opens up biodiesel manufacture to SME's by substantially reducing the cost of entry. Current installations are readily and inexpensively retrofitted delivering lower operating costs, improved plant utilisation and a substantial increase in capacity. ●

Fagen provides biomass plant EPC

US-based engineering, procurement and construction (EPC) company Fagen will handle duties for the 100 megawatt (MW) Nacogdoches Generating Facility, seen as the largest single-boiler biomass project in the US.

Southern Company subsidiary Southern Power announced in October it had acquired the proposed project in East Texas from

American Renewables.

Construction is expected to be complete by Q3 2012 at a cost of approximately \$475-500 million (€316.9-333.5 million).

Minnesota-based Fagen has already signed up several other contractors to handle various elements of the project. Finland-based industrial machinery company Metso will supply a biomass boiler to the Nacogdoches Generating Facility in Sacul, Texas, US.

The deal, booked in Q4 2009, comprises a boiler and a distributed control

system. The biomass boiler plant, due to become operational in 2012, will use bubbling fluidised bed (BFB) technology and will be fired on waste wood from logging and mill activity, as well as urban wood waste from clearing, tree trimming and pallets.

Mitsubishi Heavy Industries' subsidiary Mitsubishi Power Systems Americas is providing the steam turbine.

Wolf Material Handling Systems will build the truck receiving, processing, storage, reclaim and fuel delivery systems, which together encompass the

biomass fuel handling system.

The plant is to be fuelled by an estimated 907,184 tonnes of biomass from municipal wood waste and wood-products industry leftovers such as tree branches and stumps left by logging operations and trimmings, sawdust and other wood residues from mills. Southern expects to source the fuel from a 75-mile radius.

Power from the plant will be sold to Austin Energy under a 20-year contract. The city has a goal of getting 30% of its energy from renewable sources. ●

New ethanol process cools food versus fuel debate

Sydney, Australia-based Alternative Fuels has developed a novel co-production process that creates a human food product in conjunction with ethanol production, helping the food versus fuel debate.

The food product significantly improves the viability of the ethanol production process; giving potentially equal

returns to the ethanol itself.

Alternative Fuels Corporation contracted the development of the technology to Agritechnology, a research and development company established in 1985. The novel concept is based around using existing well founded technologies in a new way to create food products to suit existing large scale and growing markets. The technology has been tested and proven with various ethanol feedstocks

including cereal starches and sugars. The process does not significantly affect the traditional by-products.

Agritechnology has demonstrated the technology and product marketability on semi-technical scale, and engineering design and costing studies confirm the value of proceeding to pilot plant phase on Agritechnology's existing pilot plant, equivalent to a production capacity of 250,000 litres a

year of ethanol.

Alternative Fuels secured initial investment interest for the project from a publicly-listed company, an Australian venture capital fund and was selected by Australian Federal Government for funding via an Ausindustry grant.

Alternative Fuels Corporation is currently taking the technology to the market, initially undertaking pilot plant operations followed by licensing or outright sale of the technology. ●