POLYTECHNIK Biomass Energy Pty Ltd

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Dairy giant Volac goes renewable

On July 10th, 2017 a new chapter in its rich history for Volac International's Felinfach production site near Lampeter in Wales, started with the inauguration of the new biomass to energy plant.

HRH Prince of Wales opened the state of the art biomass plant built to provide sustainable energy while greatly reducing the dairy plant's carbon footprint and operating costs.

The Prince of Wales has said he finds it "unbelievable" when people ask why tackling "terrifying environmental issues" should be a priority.

(Source: www.newsletter.co.uk, By: PA reporters)



(Image: Copyright © 2017 Whole Picture)

Mr. Lukas Schirnhofer, managing director of Polytechnik, meeting HRH Prince of Wales during the opening ceremony representing a proud moment in the more than 50 yearlong family business's history.

The biomass plant is unique due to the fact that it is a cogeneration plant producing electrical energy while providing process energy for the dairy processing. In fact it is expected that the power plant could provide about 65% of the factory's electrical power and up to 50% of the heat.

The power plant consists of 2 biomass-fired thermal oil boiler plants (design 13 bar / 340°C, 10 MWth each), which supply an ORC turbine (Turboden 28 CHP). The turbine and generator produce 3.0 MW of electricity. The waste heat of around 13.5 MW is used for processing purposes (dairy). In order to accommodate process-related fluctuation in the heat



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requirements, there are re-cooling plants in the outside area. More about the reference at <u>https://biomass.polytechnik.com/en/chp/volac/</u>.



During the planning and construction of the whole boiler and energy generation plant, special attention was paid to future highly efficient operation as well as operational safety.



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The plant uses wood as a fuel which is sourced locally from sustainably managed forests. The wood comes to the site in various forms; either round wood (which is chipped on site), saw mill residue (from local saw mills) and a small amount of brash (tree trimmings from the harvesting of trees).

The technology provider entrusted with the project was Polytechnik Biomass Energy from Lower Austria. In fact this is not the first project Polytechnik has built for the dairy industry.

Since 2007, Tirol Milch (Wörgl, Austria) has been using steam energy from its biomass plant built by Polytechnik, running on wood residue from the area.

James Neville, Volac CEO, said: "Our major investment of £38 million in the plant enables Volac to generate sustainable energy to meet the growing needs of our business at Felinfach. It has enabled us to reduce carbon emissions from our Felinfach operations and reduce the carbon footprint of our products. Through this investment we have been able to employ an additional five staff from the local community."



(Image: Copyright © 2017 Whole Picture)

The investment has also generated additional revenue and job opportunities for the local community. The fuel logistics which require several daily deliveries of biomass or biomass chipping on site have been contracted to local specialized companies.



Volac International (<u>www.volac.com</u>) is a privately-owned business based near Cambridge, UK. The company has seven production facilities (five of them in the UK, one in The Netherlands, and one in Malaysia) where the company manufactures and supplies high quality dairy nutrition products

to the global market. It plays a leading role in the dairy industry. Volac has been producing high quality nutritional dairy products for over 40 years.

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Polytechnik Biomass Energy is a leading supplier of advanced biomass to energy, combustion solutions, heat and cogeneration plants, and emission control systems.

We are able to provide our customers with state-of-the-art technology for the use of biomass for energy generation. Polytechnik engineers, supplies and installs biomass-fuelled boilers with a thermal output ranging from 300 kW to 30,000 kW.

For power production, steam and ORC turbines with a standard electrical output from 100 kW to 20,000 kW are available. We specialize in over 200 biomass fuels. A family owned company with around 250 employees worldwide, established in 1965, we build more than 150 MW of biomass plants annually.

Polytechnik is committed to excellence. This is reflected in its ISO certifications for our Quality (ISO 9001), Health and Safety (OHSAS 18001) and Environmental (ISO 14001) Management Systems.

To service and support the Australasian market Polytechnik Biomass Energy established and office in New Zealand in 2008.

For support, enquiries and/or questions please contact:

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Polytechnik's Australasian boiler family:



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