Quick Facts

LOCATION: Tillamook, OR, USA
INDUSTRY: Dairy Farm
EQUIPMENT: avus 1200
GAS TYPE: Biogas

The plant, situated within the foundation of a former World War II blimp hangar, will process manure from the equivalent of 5,000 milking Holsteins from Tillamook community dairies. Manure will be delivered in tanker trucks, and treated effluent will be returned to the dairies for agricultural applications. No substrates will be digested with the manure. The new system has three 1-million gallon insulated tanks — two for digestion and a third for “finishing” the effluent. There are also two 250,000-gallon storage tanks, one for receiving manure and the other for off-load back to the farms that are bringing manure to POTB. This modern biogas plant will provide electricity to the Tillamook People’s Utility District. POTB plans to sell the fiber by-product to nurseries and other horticultural users across the Pacific Northwest and northern California.

EQUIPMENT DETAILS

MODULE: avus 1200
TOTAL ELECTRICAL POWER: 1200 kW
CONFIGURATION: Container module
EXTRAS: Biogas Treatment System

The Port of Tillamook Bay (POTB), a 1,600-acre industrial park on the Oregon coast, ordered a complete $5.6 million manure anaerobic digester from DARITECH, including a highly efficient 1.2 MW 2G® avus biogas CHP system. The fully integrated prime mover of the CHP System is a 2G avus 1200 with an MWM core engine and a capacity of 1,200 ekW/h or 9,960 MW p.a. electrical power and 1,225 kWh/th of thermal power. In addition to the CHP unit, 2G Energy Inc. also supplied the complete gas treatment, including cooler, dryer/dehumidification, and the H2S removal system. The customer selected the 2G thermal heat distribution system including hydronic junction. It assures that the CHP maintains optimum thermal performance at any time in different load situations.