

Biomethan/RNG - Plant Oregon USA



Location	Oregon, USA
Construction Period:	2018-2020
Input substrate	< 100.000 t/a Straw (approx. 70%), Poultry Manure, Dairy Manure
Fermenter:	Bolted steel tanks, 4 x 6,800 m³, 2 x 5,000 m³, Concrete tanks 1 x 4,700 m³ and 2 x 7,500 m³
Gas utilization	Biogas upgrading to biomethane (amine washing), 2,400 Nm³/h biomethane production, injection into the grid
Special Features:	Straw pre-treatment and feeding units. Process Water recycling. Integration of new equipment into existing facility.

This biogas plant is the expansion and conversion of an existing waste biogas plant to a straw and manure plant. Originally, food waste was fermented. In the new plant, straw (about 70 % of the feedstock), poultry manure and dairy manure are fed into the digesters. One of the biggest challenges is handling straw with a high dry matter content. This was realised through process water recirculation. The biogas is upgraded to biomethane with RNG (renewable natural gas) quality - the upgraded biomethane is fed into the gas grid.Six bolted steel tanks were added to the existing concrete tanks. The straw is ground and pelletised before being fed into the solids feed system. After a hammer mill, the material is fed into the fermenter tanks via a hopper pump. An amine scrubbing system was installed to treat the biogas.

Responsibility of Krieg & Fischer Ingenieure GmbH:

Conception, detailed and final construction plans, supervision of construction, start-up

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