

## Biogas Plant RUDA



Location	Ruda, Italy
Construction Period:	2012
Input substrat:	triticale- and corn silage
Fermenter:	Concrete tank 4,970 m <sup>3</sup>
CHP	Gas engine 999 kW
Special Features:	Agricultural biogas plant, 1 first digester, 1 secondary digester with gas holder, 1 storage tank, thermophilic operation
Cost:	Ca. 4,000.000 €

The Ruda biogas plant is operated by Societa Agricola GEAM s.r.l. The Startup was in 2012. This biogas plant is a pure energy crop - dry fermentation design with thermophilic operation. The fully automated feeding system consists of one solid input device connected to a reception tank with a moving floor. From there, the input material is pumped into the primary fermenter. The biogas plant is designed for upright primary digester with a top mounted mixer and a secondary digestion tank with a gas holder roof. The effluent is stored in an open top tank. Produced Biogas is combusted in the combined heat and power (CHP) gas motor. The mechanical energy is converted to power in the generator. Heat from the motor and exhaust gas cooling is recovered for further utilization. The electricity is supplied to the Italian public grid and is paid for in accordance with the Italian renewable energy tariff system. The CHP heat is used to maintain thermophilic operation within the primary digester. After digestion, the effluent is used as a fertilizer.