

Biogas Plant INLAND EMPIRE



Location:	California, USA
Construction Period:	2006
Input:	Cow manure, food waste
Fermenter:	Steel tanks, 2 x 4,500 m ³
Special Features:	Gas storage 15 bar, local biogas grid
Costs:	about \$ 5,000,000

Two steel tank digesters, with a volume of 4,500 m³ each, were constructed and integrated into the existing biogas plant of INLAND EMPIRE. Cow manure and food waste (like cheese whey), are stored in several reception tanks and pumped alternately into the digesters. By passing through heat exchanger the substrate is heated before entering the digesters. The digesters are operated in the mesophilic temperature range. The digested substrate is dewatered using a rotary press. The solid phase is transported, composted and used as fertilizer and the liquid phase is treated in a highly sophisticated waste water plant. The produced biogas is desulphurized in an external desulphurization plant, compressed to 200 psi (1,4 MPa), stored in pressure tanks for daily buffering and fed into a local biogas grid. Different companies such as a Co-Gen or a desalination plant are connected to this biogas grid and produce the power they require internally.

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Responsibility of Krieg & Fischer Ingenieure GmbH:
Detailed Final Construction Plans, Tenders, Start-up