

Amersfoort wastewater treatment plant

Full energy self-sufficient WWTP with nutrient recovery



Project aims

The Amersfoort WWTP was converted into a full energy self-sufficient facility for treatment of wastewater and centralised processing of sludges. Furthermore, produced surplus heat is available for future sludge drying.

Specifications

Planning and turnkey execution as EPC contractor by ELIQUO WATER & ENERGY BV, Barneveld, NL, a sister company of ELIQUO STULZ. Delivery of the LysoTherm® plant for thermal sludge disintegration by ELIQUO STULZ.

Solutions

- Mechanical primary and waste activated sludge thickening
- WASSTRIP®^{*)} phosphate stripping
- Modified belt filter presses for mechanical sludge thickening on 12 % DS ahead of digestion
- LysoTherm® 3 x 80 m³ modules for thermal sludge disintegration
- CHPs 3 x 500 kW_{el} / 550 kW_{th}
- Pearl®^{*)} for recovery of phosphate as Crystal Green®^{*)} fertiliser

Special features

The new facility may annually process up to 12,225 tons of dry solids and then produces 11 million kWh electricity and 900 tons Crystal Green® ready to use fertiliser.

The entire WWTP and sludge facilities perform energy autonomous. Furthermore, at full capacity, a surplus of approx. 2,000,000 kWh/a maybe is supplied to the national power grid. This is sufficient to provide 600 households with Green Electricity.

Customer

Waterboard Valleien Veluwe, Netherlands

Project completion period

Start: November 2014

Commissioning: March 2016

Total project value

Approx. 10.5 million Euro

^{*)} Systems of the Ostara Nutrient Recovery Technologies Inc.