

Biogas-powered cogeneration supports green transition and CO2 reduction goals

At Egebjerg South Wastewater Treatment Plant in Svendborg Municipality, the attitude is that when they have gas production, they should utilise it. That's why they opted for XRGI[®] 15 BIOGENIC plants from EC POWER. This has created a clear win-win situation for the wastewater treatment plant.

"This is a solution that we expect to last for many years and that we can live with for many years. Overall, it has been a good project because it fits very well into our whole strategy of sustainability and green transition," says Morten Schytte, who is Production Manager and has the overall management and operational responsibility for the various operational subsidiaries of Svendborg Water and Waste.

Svendborg Water and Waste is a municipality-owned limited company, which consists of several subsidiaries – including a company responsible for wastewater in the entire municipality of Svendborg.

"We have six wastewater treatment plants, 800 km of sewers and around 200 pumping stations in the municipality, which we look after and operate," explains Morten Schytte.

One of the six wastewater treatment plants in the municipality of Svendborg is the Egebjerg South Wastewater Treatment Plant near Vester Skerninge. The plant treats wastewater from 20,000 person equivalents (PE), which gives an annual production of biogenic gas of about 78,000 m³.

This biogenic gas powers two XRGI[®] 15 BIOGENIC plants. All the heat produced by the BIOGENIC plants is used to heat the digester of the wastewater treatment facility. At the same time as producing heat, the plants generate 119,000 kWh of power annually, which can be sold to the grid.

Cogeneration is the right solution for Egebjerg South Wastewater Treatment Plant because they have a digester.



As a result, the wastewater treatment facility has a gas production that should be utilised rather than flaring the gas into the atmosphere.

“As long as we’re making CO₂, we might as well get some power out of it. We’re not removing CO₂, we’re replacing the CO₂ from fossil fuels, so it really makes sense,” explains Morten Schytte.

Egebjerg South Wastewater Treatment Plant is now using its gas production – in line with Svendborg Municipality’s climate and energy policy

“We could have just kept burning the gas in the torch. But it’s clear that the employees here could see that there were some prospects in using the gas for something other than letting it go to waste,” says Morten Schytte, when describing the situation before the wastewater treatment facility had its BIOGENIC plants installed.

The wastewater treatment facility’s use of CHPs running on biogenic gas is also in line with Svendborg Municipality’s overall climate and energy policy.

The goal is for the municipality as a business to be 100% converted to renewable energy by 2030.

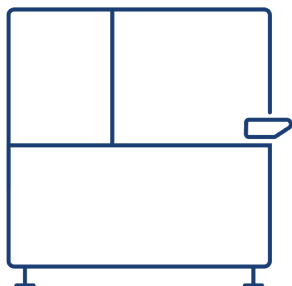
“From that point of view, it has been a great project,” Morten Schytte says about the two XRGI[®] 15 BIOGENIC plants, which were commissioned in 2018.

In general, they are happy with the EC POWER and XRGI[®] 15 BIOGENIC plants at Egebjerg South Wastewater Treatment Plant.

In part because they do not notice the plants in everyday life. “That’s the positive thing – they just stand there and produce power,” says Morten Schytte.

Flemming Pedersen, who is responsible for the daily operations at Egebjerg South Wastewater Treatment Plant, adds: “We have nothing but positive things to say about EC POWER!”

XRGI[®]
BIOGENIC



EGEBJERG SYD WASTEWATER TREATMENT PLANT IN FIGURES

Annual power production: 119.000 kWh

ENERGY CENTER
2 x XRGI[®] 15 BIOGENIC
Heat pump
Boiler

ENERGY CENTER performance
Export to the grid: 100 %
Heat coverage for the digester: 100 %

Person equivalents: 20.000 PE
Methane in vol. %: ca. 65

Commissioned: December 2018

Do you recognise the challenges?

Contact us for a non-binding meeting about the possibilities of cogeneration at your wastewater treatment facility.



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