



**INDUSTRY** Heat and power plants  
**APPLICATION** Hydrogen production

### Ultrapure water for 50 MW PEM electrolyzer

Grundfos Water Treatment has designed and manufactured the water treatment solution for the world's first large-scale commercial e-Methanol production facility commissioned by European Energy.

The hydrogen is being supplied by a 50 MW PEM (Proton Exchange Membrane) electrolyzer plant by Siemens Energy that requires a steady supply

of 10,000 litres of ultrapure water per hour with a conductivity below 0.1  $\mu\text{S}/\text{cm}$ .

The water treatment solution includes the reverse osmosis unit type RO-PLUS with high-recovery technology. The unit excels by saving both water and energy, achieving a water recovery rate of 90%, and is equipped with energy-efficient e-pumps.

#### Technical data

- Water source: city water without chlorine
- Flow rate: 10  $\text{m}^3/\text{h}$
- Conductivity: < 0.1  $\mu\text{S}/\text{cm}$

#### Units in plant

- Antiscalant dosing type DDA 7.5-16
- Reverse osmosis unit type RO C3-9 with E-pumps type CRNE 15-10
- Reverse osmosis unit type RO-PLUS C3-12+3 with E-pumps type CRNE 20-8
- Membrane degassing unit type MDU
- Electrodeionization unit type EDI 2-5000e
- Mixed bed polisher type EUREX

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