



A GREEN LIGHT **FOR CLEAN ENERGY**

Europe's first commercial fuel cell power plant
in the megawatt class

www.friatec.com

KEY FACTS FUEL CELL

High efficiency and reliability, low environmental pollution and minimum noise emission



FuelCell Energy Solutions
Ultra-Clean, Efficient, Reliable Power

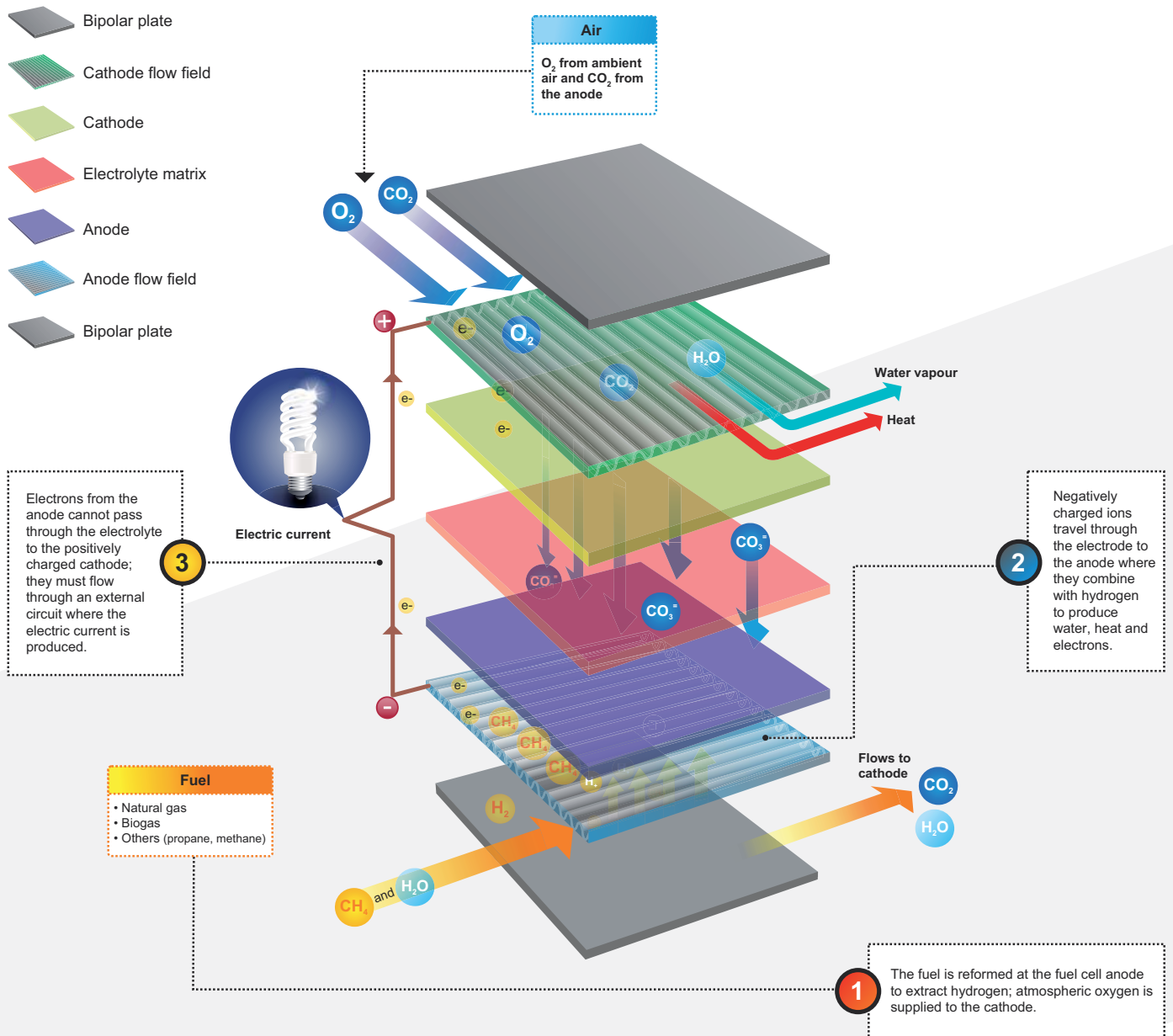
- Energy partner: E.ON Connecting Energies GmbH
- Manufacturer: FuelCell Energy Inc. / FuelCell Energy Solutions GmbH
- Type: DFC® 1500 EU
- Installation dimensions: 15 x 20 m
- Rated electrical power: 1,400 kW
- Efficiency approx. 47 %
- Operating time approx. 8,000 h/a at 95 % availability
- In-plant electricity output approx. 11.2 GWh annually
- Fuel cell technology: MCFC (molten-carbonate fuel cell)
- Operating temperature: 580 °C to 675 °C (high temperature)
- Exhaust air temperature (approx. 370 °C) at operating temperature
- Extracted heat: up to 750 kW (90/70 °C) -> approx. 6,000 MWh annual heat energy
- Internal reforming of natural gas to hydrogen
- Lower CO₂ emissions (reduction approx. 3,000 t/year)
- Virtually no emission of nitrogen and sulfur oxides (SO_x und NO_x), as there is no combustion
- Chemical process: $\text{CH}_4 + 2\text{H}_2\text{O} = 4\text{H}_2 + \text{CO}_2$
- Commissioning summer 2016



OPERATING MODE

DFC[®] FUEL CELL

A fuel cell combines hydrogen and oxygen to produce electricity, heat and water using a highly efficient electrochemical process that prevents the emission of virtually any pollutants.



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Further information::

<http://www.eon-connecting-energies.com/en/solutions/on-site-generation.html>

<http://www.fc.es.de/produkte-dienstleistungen/produkte/>

<http://www.friatec.com/rd/fuelcell>

Aliaxis
UTILITIES & INDUSTRY

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