

**Presentation Topic:**

Biomethanation, Power-to-Methane, Synthetic methane

**Presentation title:**

Power-to-Methane: Commercially-Ready Solution for Decarbonization and Energy Storage

**Abstract**

Electrochaea's power-to-methane technology is a process that uses microorganisms, Archaea, to convert CO<sub>2</sub> and green hydrogen into renewable synthetic methane (e-methane). This technology not only provides a sustainable solution for transforming CO<sub>2</sub> emissions into valuable fuels but also addresses the growing need for energy storage and carbon management in an era of decarbonization. E-methane produced with Electrochaea's technology can be easily stored in existing gas grid infrastructure. By integrating renewable energy sources, Electrochaea's biomethanation contributes to creating a circular economy, providing a viable, efficient pathway for decarbonizing industries.

Electrochaea has completed the engineering for the first standardized 10 MWe plant, designed for commercial operation using raw biogas or pure CO<sub>2</sub> as feedstock. A 10 MWe plant can produce several million Nm<sup>3</sup>/year of e-methane, replacing the use of fossil natural gas.

We will share our strategy on the commercial roll-out of our patented biomethanation technology and provide insight on markets for e-methane worldwide.