

Electrochaea Launches New Energy Technology in Denmark Partners with global giants to convert waste CO2 into renewable natural gas

ST. LOUIS, MO, WASHINGTON, D.C. and COPENHAGEN, DENMARK (Sept. 19, 2011) – [Electrochaea LLC](#) announced today it has launched a subsidiary in Denmark where it plans to test its renewable natural gas technology with [E.ON](#), one of the world's largest investor-owned energy companies, Denmark's [University of Aarhus](#) and energy trading firm, [Nordjysk Elhandel](#).

Electrochaea's new technology diverts waste carbon dioxide from entering the atmosphere to convert excess electric power into usable, storable energy, in the form of methane, the main component for natural gas.

Waste carbon dioxide is widely available and can be derived from a variety of sources such as farms, power plants or breweries. Excess electric power can be found from natural sources such as wind or solar panels.

Electrochaea's new technology puts the excess energy to work, distributing it back into the gas grid.

"There are huge market imbalances today, and they are getting bigger as more electrical power is generated from natural resources," says Mich Hein, CEO and founder of Electrochaea. "With our technology, we are able to grab excess electrical power, store it for long periods of time and distribute it as natural gas."

"Working with Electrochaea on this exciting new biogas technology dovetails with our strategic priorities: providing cleaner & better energy," says Michael Dalby, Strategy Manager of E.ON Danmark A/S.

Technology conceived at the University of Chicago

Electrochaea was founded in the U.S. in September, 2010, with technology conceived by Dr. Laurens Mets at the University of Chicago. Now it is launching its European operations in Denmark with plans to hire 12 people in the first year.

Electrochaea plans to test the new technology in Denmark with the Danish division of E.ON, the University of Aarhus, and Nordjysk Elhandel.

International engineering firm [NIRAS](#) was instrumental in the negotiations with each of the parties and will also remain actively involved in the field demonstration of Electrochaea's technology.

Hein expects testing will take 12 to 18 months. If the technology performs as expected, the first commercial facility will be in operation within the next three years, using Denmark as a steppingstone to reach the rest of the European market.

Denmark – a Leading Cleantech Center

After researching a range of countries, Electrochaea selected Denmark for its field demonstration because it is one of the world's leading cleantech centers with a well-established network and infrastructure for testing smart grid technologies.

Denmark has one of the most modern natural gas grids in Europe with one entity, the Danish transmission system operator (TSO) [Energinet.dk](#), operating the gas grid as well as the electrical grid. Denmark also has supportive governmental programs for identifying and funding the development of new cleantech technologies.

In addition, the Danish government has an ambitious strategic plan to make the country fully independent of fossil fuels by 2050.

“As a small company your biggest risks are the investment of capital, personnel resources and technology,” says Hein. “All of this is dependent on a regulatory framework to be profitable, and that framework can change within the 3-5 years it takes to get the technology on the market. Denmark has a long history of stable regulatory progression and meeting its goals on development of clean energy.”

[Invest in Denmark](#), a confidential and free one-stop service under the Ministry of Foreign Affairs of Denmark, introduced Electrochaea to Denmark and its partners.

Peter Johan Plesner, Cleantech team leader from Invest in Denmark, says that Electrochaea's decision to launch the technology in Denmark will help strengthen the cleantech cluster in the country.

“The scope of Electrochaea's project is a perfect fit for the Danish energy strategy of becoming 100% fossil fuel free by 2050,” says Plesner. “We are thrilled that our assistance has facilitated the testing of such an innovative technology in Denmark. Cleantech companies, government agencies and research institutions in Denmark work together closely to make new cleantech technologies workable and profitable.”

Invest in Denmark is a sponsor at [RETECH 2011](#) (Sept. 20-22) in Washington D.C., the largest business event for renewable energy in the U.S., together with more than 3,000 government, utility, technology and finance professionals from 50+ countries who are key drivers in green growth in the U.S. and around the world.

About Electrochaea

Electrochaea is commercializing a disruptive, scalable technology to convert electric power into methane, the principal component of natural gas. Using CO₂ as a feedstock gas, power can be efficiently converted to renewable natural gas for power storage, for transportation fuels, or for transmission via a natural gas network.

This technology was conceived by Dr. Laurens Mets at the University of Chicago as a way to reuse waste CO₂ and as a power storage medium by converting CO₂, electrical power and water into methane, and oxygen. Electrochaea will provide a new tool for CO₂ mitigation, power storage and transmission by converting electrical energy into chemical energy in the form of methane, a universal fuel with a large existing infrastructure for storage, distribution and efficient conversion to heat and power.

Electrochaea is one of several new energy companies launched by St. Louis-based [Nidus Partners LP](#), a unique collaboration between proven entrepreneurs and strategic corporations who, together, are commercializing renewable, sustainable and transformative energy technologies.

For more information, please visit www.electrochaea.com or www.niduspartners.com.

About Invest in Denmark

As part of the Ministry of Foreign Affairs of Denmark, Invest in Denmark is a confidential and free customized one-stop service for foreign companies looking to set up business or research activities in Denmark.

For more information, please visit www.investindk.com.

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