

Demonstration of Next-Generation PEM CHP Systems for Global Markets Using PBI Membrane Technology (Topic 7)

Plug Power, Inc.

- Funding

DOE Cost Share	Recipient Cost Share	TOTAL
\$3,550,732	\$3,550,741	\$7,101,473
50%	50%	100%

- Project Description: Plug Power Inc. proposes an international development and demonstration project within the framework of the existing European Union (EU) – United States (US) Cooperation Agreement on fuel cells. The proposed design, test and validation of a 5-kW proton exchange membrane (PEM), stationary, combined heat and power (CHP) fuel cell system will advance the state of the art of high-temperature PEM fuel cell technologies, and bring a domestic microCHP system design one step closer to commercialization. The resulting system—known as the NextGenCell—will operate on reformed gaseous hydrocarbon fuels and deliver a modular, scalable new generation of fuel cell design to the worldwide market. The technical achievements of the NextGenCell will be demonstrated on this continent and in Europe in three integrated prototype systems. One of the systems will be grid-connected at Plug Power’s state-of-the-art test facility in New York State. Another will be grid-connected and demonstrated in the Netherlands by team partner Plug Power Holland, and the third unit will be grid-connected and combined in a CHP system demonstration by our customer and team partner, Vaillant of Germany.

- Timeframe: 2 year project, starting in FY07

Sub-Contractors

Institutions
PEMEAS USA
PEMEAS Germany
Vaillant
Plug Power