



Hydrogen Europe: European Hydrogen & Fuel cell Project Database

Project HEATSTACK

Production Ready Heat Exchangers and Fuel Cell Stacks for Fuel Cell mCHP

Fuel cells have shown great promise for residential micro-Combined Heat and Power (mCHP) generation due to their high electrical efficiency and ability to run on conventional heating fuels. Technology leaders in this sector are nearing commercial deployment following extensive field trials but high capital costs remain a key challenge to the advancement of this sector and mass market introduction in Europe. The HEATSTACK project focuses on reducing the cost of the two most expensive components within the fuel cell system; the fuel cell stack and heat exchanger, which together represent the majority of total system CAPEX. Cost reductions of up to 60% for each component technology will be achieved by: - Advancing proven component technologies through the optimisation of design, materials and production processes for improved performance and quality; - Developing and applying novel tooling for laser welding and automated production lines to remove manual processing steps; - Improving cycle times and reducing time to market; - Demonstrating design flexibility and production scalability for mass manufacturing (10.000 units per annum); and - Developing core supply chain relationships to allow for competitive sourcing strategies. The HEATSTACK project represents a key step towards achieving commercial cost targets for fuel cell mCHP appliances, bringing together leading technology providers in the fuel cell mCHP supply chain with extensive industrial expertise to accelerate the development towards volume production of the fuel cell stacks and heat exchangers. Cost reductions will be achieved through advanced design, development and industrialisation of core manufacturing processes. Improvements to component performance with advanced materials will reduce system degradation and improve overall system efficiency and lifetime.

Project Information

Type of project : Research

Timing : 01/04/2016 > 31/03/2019

Project website: <http://www.heatstack.eu/news-and-events/heatstack-production-ready-heat-exchang...>

Project Budget : 2.899.760 €

Funding

European Union through FCH JU: [Grant agreement 700564 - CORDIS link](#)

Project partners

Coordinator :

SENIOR UK LTD

Partners :

[University of Birmingham](#)

[Sunfire](#)

SENIOR FLEXONICS CZECH S.R.O.

VAILLANT GMBH

ICI CALDAIE SPA

PNO CONSULTANTS LIMITED

[Sub project\(s\)](#)

Sub project 1

Country: United Kingdom

Address: 59/61 HIGH STREET RICKMANSWORTH WD3 1RH LONDON HERTFORDSHIRE

Sub project categories

Research

Project Id: 985

This project datasheet was last updated on : 15.10.2018

Modify this project datasheet