

Status of Hydrogen and Fuel Cell Developments in Australia

Prepared for the November 2012 IPHE Steering Committee meeting

- ***Changes/News – What is new; central new developments?***

The Australian Renewable Energy Agency (ARENA) became operational on 1 July 2012. ARENA is an independent statutory authority tasked with the objectives of improving the competitiveness of renewable energy technologies and increasing the supply of renewable energy in Australia. This includes providing financial assistance for the research, development, demonstration, deployment and commercialisation of renewable energy and related technologies.

- ***Funding***

ARENA is currently finalising its General Funding Strategy, which will determine ARENA's principal objectives and priorities for the provision of financial assistance over the next three financial years.

Support for industrial-based research is available through the AusIndustry Climate Ready Initiative.

- ***Recent accomplishments***

The Australian Government currently supports hydrogen research primarily through the Australian Research Council.

Australia is keen to keep abreast of international developments in the sector. We consider that the IPHE makes a valuable contribution to the sharing of information on hydrogen and fuel cell developments and in fostering cooperation between government and industry. Australia will continue to keep a close watch on developments within IPHE.

- ***Policy development***

The development of renewable energy technologies is part of the Australian Government's commitment to a clean energy future. The Government is conducting a review of Australia's Renewable Energy Target (currently 20 per cent by 2020) and has committed \$17 billion in funding support for the Clean Energy Future plan announced on 10 July 2011. Importantly, on 1 July 2012, the Australian Government introduced a carbon price to the Australian economy, to achieve our long-term goal of reducing emissions by 80 per cent by 2050. Combined, these initiatives provide unparalleled support for the development and deployment of renewable energy in Australia.

- ***What are the aims/timeline for market preparation and Research & Development on Fuel Cell and Hydrogen Technologies?***

The Commonwealth Scientific and Industrial Research Organisation (CSIRO)-conducts research that covers a range of scientific capability and new technologies that are relevant to hydrogen, these include research into membrane and separation technologies and solar conversion of natural gas to syngas.

An Australian company formed by CSIRO, Ceramic Fuel Cells Limited, has commercialised a domestic combined heat and power system that can use natural gas or hydrogen, which is currently being evaluated in a trial program run by Ausgrid in the Hunter region.

Hydrexia, a spin-off from University of Queensland, is also commercializing hydrogen storage technologies.