



Derek Mitchell

The Hydrogen Office – the next phase

May 2010

www.thehydrogenoffice.com

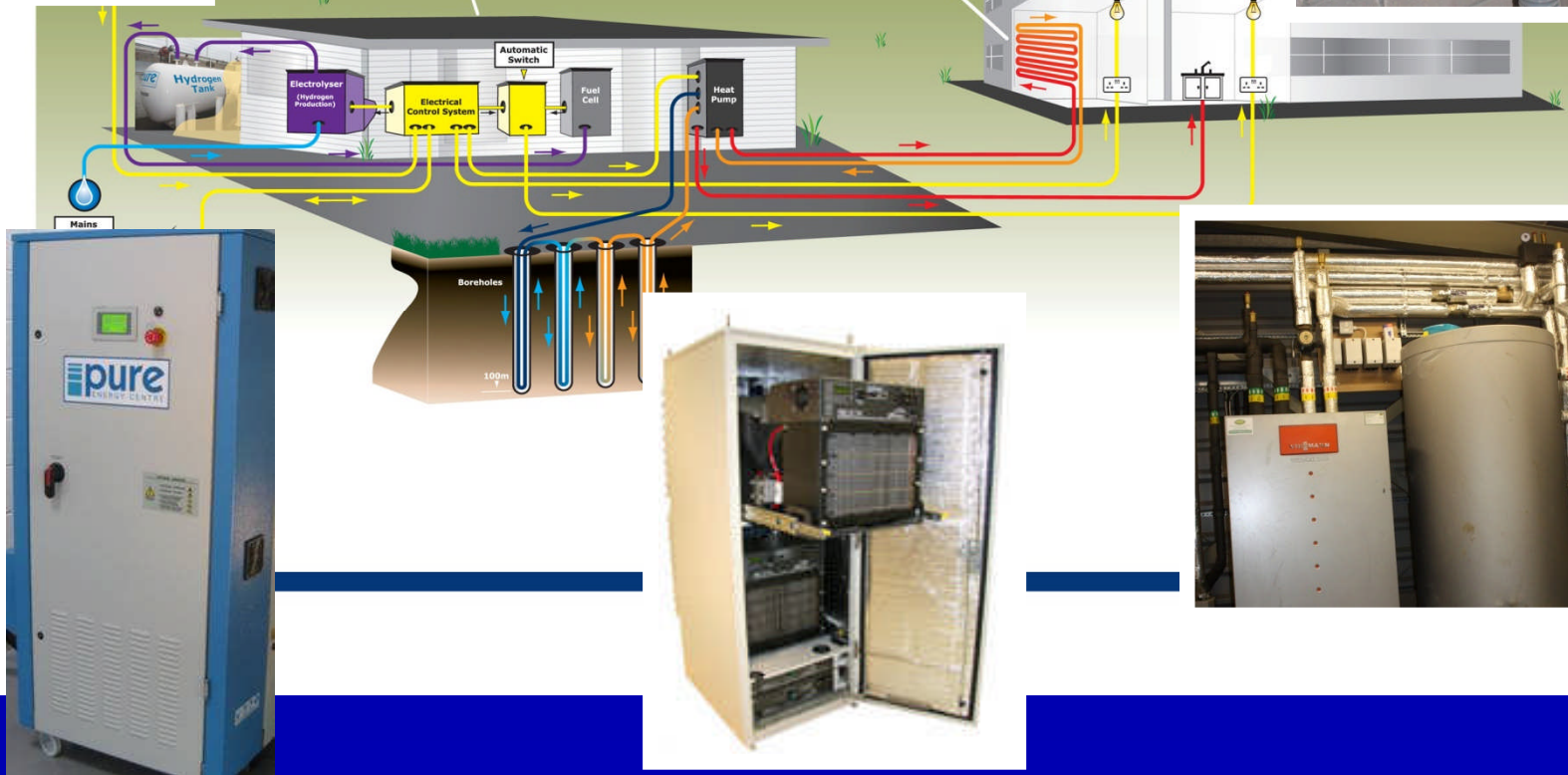
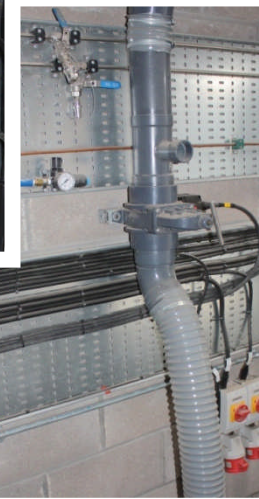
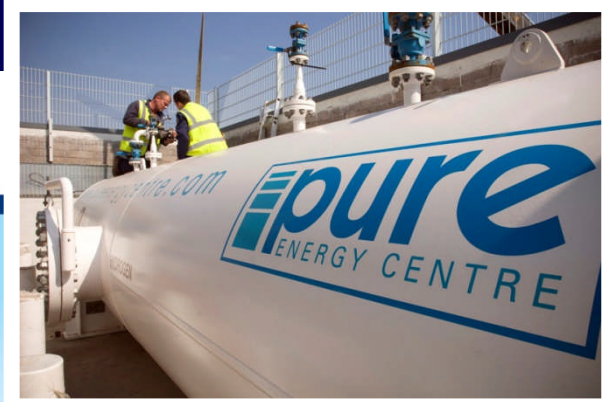
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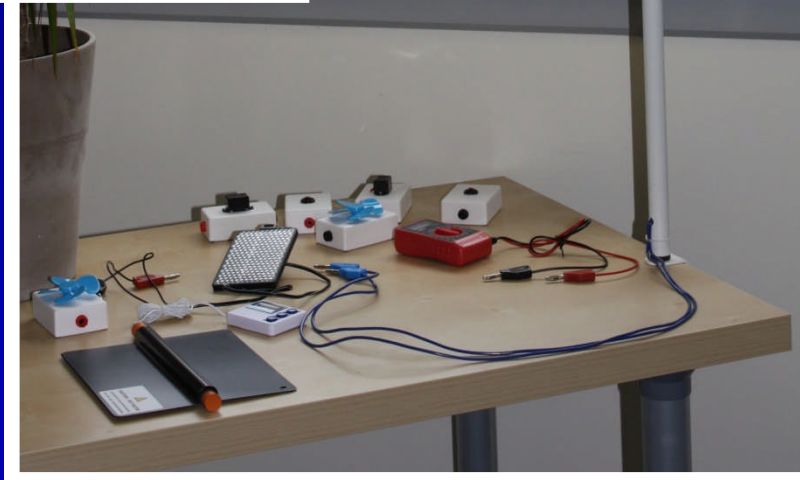
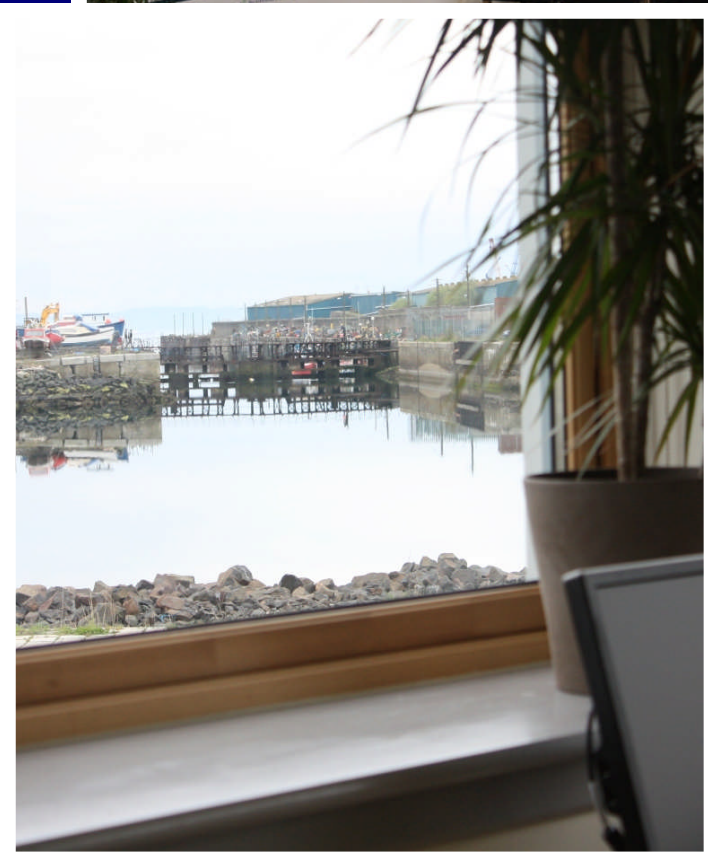


Project priorities

Working to support the accelerated development of the renewable, energy storage (hydrogen) and fuel cell industry, by:

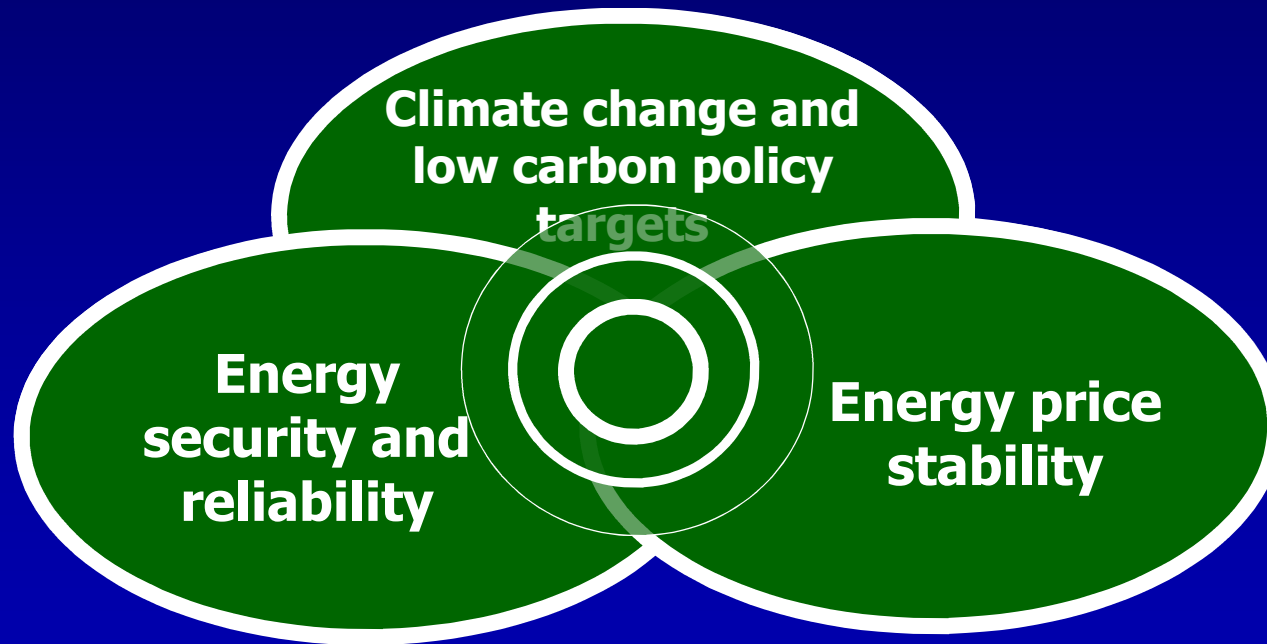
- Demonstration
 - Improving access to and understanding of the technology
 - Promoting the benefits
 - Challenging the barriers
- Promoting the opportunity for Scotland
- Facilitating research and development
- Supporting education and skills development







Driving forces – the Scottish opportunity



Scotland's renewable capacity

Scotland has an estimated 59GW of possible renewable capacity, capable of generating 213GWh of energy annually (Scotland's Renewable Resource 2001, Garrad Hassan) against an annual electricity demand of 35GWh (Scottish Government).

Energy storage technologies can enable Scotland to use its renewable energy assets more:

- **Efficiently;**
- **Ambitiously; and**
- **Widely**

However, there is very little storage currently been deployed

The role of market incentives to accelerate this sector?

Fuel cells

Support for CHP systems (up to 2KW) 10p/KWh electricity generated

Energy storage

Feed in tariffs – can they be used?

E.g. The existing scheme offers

100kw - 500kW (wind)	18.82p/KWh
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500kw - 1.5mw (wind)	9.4p/KWh
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Installed capacity versus capacity made available

Other??

Other Hydrogen Office Priorities

Research and development

ERDF funding to support:

- Knowledge and technology transfer (in partnership with SHFCA)
- 3 research positions with St Andrews University, Strathclyde University and Lews Castle College

Hydrogen Fuel Cell verification Centre

- A user verification facility for pre commercial hydrogen fuel cells



Priorities continued

Education

- Pilot schemes with schools and colleges in Fife
- Aim to roll these out across Scotland
- Hydrogen and Fuel Cell competitions



Thank you