

# **Hydrogen: the development of policy and programmes in the UK**

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# Significance of hydrogen and fuel cells to UK Energy Policy

- one of a number of long term energy options
- UK believes in a portfolio approach, underpinned by evidence-based analysis
- UK has been trying hard to improve the evidence base

# Evidence Base

- UK Strategic Framework for Hydrogen Energy in the UK (2004), and the Government's response (2005)
- UK Fuel Cells Development and Deployment Roadmap (2005)
- Renewables Innovation Review (2004)
- Energy White Paper (2003) and Energy Review (2006)

# Key UK energy policy drivers

- the key priority is cost-effective CO<sub>2</sub> reduction technologies which will contribute to a 60% reduction by 2050
- additional objectives include increased energy security, economic benefits, and the ability to influence the international debate



## Key conclusions

- Hydrogen is most relevant to transport
- Fuel cells relevant to stationary power generation, transport, and niche applications

# Technology Push & Market Pull:

- Grant programmes for R,D, & D will focus on areas that address the priorities identified in UK Energy Policy.
- Two primary issues are relevant to the UK's interest in Hydrogen and Fuel Cells:
  - H2 as a fuel for fuel cell-based transportation (from 6 distinct H2 energy chains)
  - Fuel Cells as a route to improved efficiency power generation (both micro and large scale CHP and primary power)
- Other areas may be addressed if they can be shown to have potential for national economic development.
- It is important to recognise that all technologies are developing and not yet commercially viable. Careful attention is being given to socio-economic issues, market demand measures, codes, regulations, standards and actions on these issues should be pursued now.



# Existing Programmes (1)

- Research Councils
- DTI
  - Technology Programme
  - Demonstration Programme
- Other
  - Cenex
  - Department for Transport



## Existing Programmes (2)

- Local and Regional Initiatives
  - PURE project (Unst)
  - Scottish Enterprise
  - Welsh Development Agency
  - London



## **Future changes to the funding landscape**

- Energy Technologies Institute
- Environmental Transformation Fund
- Low Carbon Transport Innovation Strategy