Infrastructure Grant Program
Information Day, London

Ian Williamson
Air Products
5th December 2008
Air Products Overview

- Global gases, chemicals, equipment and services provider
- Serving technology, energy, healthcare and industrial markets
- Industry safety leader
- $10 billion in sales
- Operations in more than 30 countries
- >20,000 employees
- Owns and operates over 700 plants
- Designed and built over 2000 plants
- Fortune 500 company
- Known for our innovative culture and operational excellence
Air Products pioneered the first large scale production of liquid hydrogen for possible use as military aircraft fuel in the late 1950’s.

Worldwide leadership position in third party hydrogen production and distribution > 50% market share

Safely operate more than 60 hydrogen production and processing facilities in several countries

- Broad range of hydrogen supply modes and complete hydrogen technology
- 15+ years building hydrogen fuelling stations portfolio
- Active in UK hydrogen arena, HFP, JTI etc
- Driving advancement of the hydrogen fuel economy
World leaders in Hydrogen Fuelling

- 100+ stations worldwide
- 85,000 + safe fuellings
- Standard and customised systems
- 200, 350 and 700 barg dispensing
Series 100 is optimised to meet the needs of small fleets/early adopters

- Low cost - simple to install, minimal utilities
- Compact, relocatable
- Integrated system, modular
- Easy to operate
- Quick – capable of fast fill
- Integral safety features
March 2008 Launch of Hydrogen Fuelling station at University of Birmingham

Funded by AWM as part of Energy Futures Program

Air Products S100 Fuelling station, fuelling 5 hydrogen microcabs operating on campus
• September 2008 Launch of Hydrogen Fuelling station at Loughborough University

• Funded by EMDA

• Air Products S100 Hydrogen Fuelling station, pictured filling the Envbike
Hebridean Hydrogen Park
Phase 2: Infrastructure - H2seed

- May 2008 Announcement that AP will supply hydrogen fuelling station to CnEs – Western Isles Council
- Vehicle fuelling and cylinder filling capability
- System operational early 2008

Electricity from biogas

H₂ production - water electrolysis

Air Products Fuelling station

Application
● October 2008 Announcement that AP will supply S100 hydrogen fuelling system + green hydrogen store for Hydrogen Mini Grid

● Funded by Yorkshire Forward as part of the Objective 1 investment programme

● Installation complete early 2008
Air Products to supply hydrogen infrastructure for London Bus project: New delivery concept fuelling 10 hydrogen buses

Liquid hydrogen tanker with capability to deliver liquid or high pressure gas

Distribution & cost benefits of transporting large quantities of hydrogen

Other opportunities

Utilisation of Hydra to replenish other hydrogen fuelling stations

Hydra enables lower cost infrastructure as less equipment needed on the ground
Thank you
tell me more
www.airproducts.com