Hydrogen Program for Chinese Taipei

Bureau of Energy
Ministry of Economic Affairs
Hydrogen Infrastructure Technology Development & Fuel Cell System Applications

Hydrogen Infrastructure Technology Development

Goal

Distributed Hydrogen Production/Storage technology and H₂-based Energy Economy Development

- Hydrogen Production/Storage
- H₂ Economy Evolution Applications

2005: US$ 4.7 M
2006: 6.4 M
2007: 8.4 M
2008: 8.3 M

PEMFC Application Development Goal

3 kW Stationary, Distributed PEMFC CHP System Applications and Development

- System Durability Improvement & Cost Reduction
- PEMFC Applications & Demonstration

Hydrogen Energy Technology Demonstration and Commercialization

Establishment of a New Energy Resource Station by 2008

Renewable Energy Integrated Demonstration and Commercialization

PEMFC CHP System Demonstration and Commercialization
A Concept of Hydrogen Energy Technology Demonstration (a Mini Hydrogen Highway)

Hydrogen Station

Southern Taiwan Science Park

Fuel Cell Bus

ITRI Southern Campus

Refining & Manufacturing Research Institute - Chiayi
Proposed New Energy Technology Demonstration Site

Hydrogen Infrastructure

Fuel Cells & Green Building

Advanced Solar Energy
CHP System Technology Development

- Air Pump
- System Control Board
- Passive Humidifier

1 kW PEMFC (H₂) Combined Heat & Power System
3 kW PEMFC (Reformate) Combined Heat and Power System

Hydrogen Workshop for APEC Economies
16 May 2005
Portable System Technology Development

STACK
- Nominal voltage at terminal: 25V DC
- Nominal current at terminal: 40A
- Peak power: 1.5 kW
- Continuous power: 1 kW

SYSTEM
- Nominal voltage at terminal: 110 V AC
- Continuous power: 800 W
- Dimensions (LxWxH): 480x300x480mm
- Weight: approx. 30 kg