Hydrogen Workshop for APEC Economies
16 May 2005

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 H_2-based Energy Economy Development

☆ Hydrogen Production/Storage

☆ H_2 Economy Evolution Applications

	2005	2006	2007	2008
US$	4.7 M	6.4 M	8.4 M	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)

Refining & Manufacturing Research Institute - Chiayi

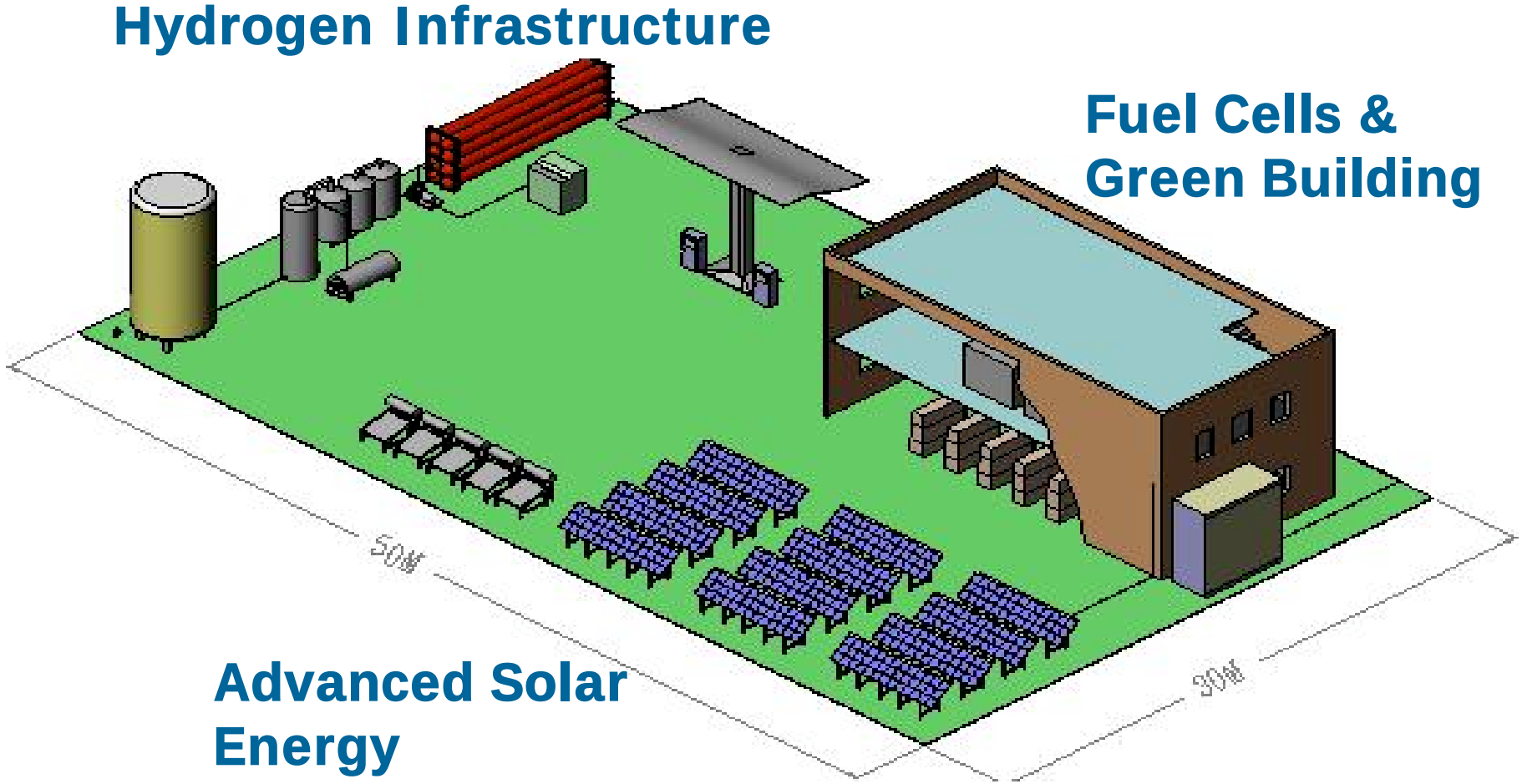
Southern Taiwan Science Park

Fuel Cell Bus

ITRI Southern Campus

Hydrogen Station

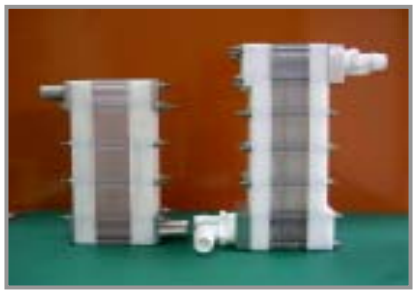
Proposed New Energy Technology Demonstration Site



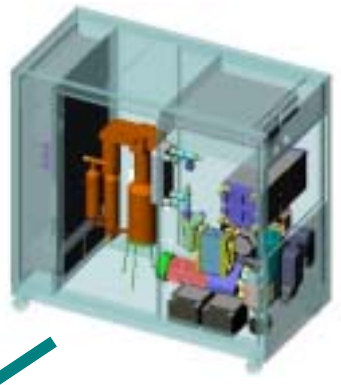
CHP System Technology Development

Air Pump

System Control Board



Passive Humidifier



1 kW PEMFC (H_2) Combined Heat & Power System

3 kW PEMFC (Reformate) Combined Heat and Power System

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

MH Hydrogen Storage

FC Stack

Humidifier

Power Conditioning Unit

PEMFC Test Center @ ERL/ITRI