

Hydrogen Activities in Japan

T.ABE

Director General

**Hydrogen Energy Systems Technology Development Dept.
New Energy and Industrial Technology
Development Organization (NEDO)**

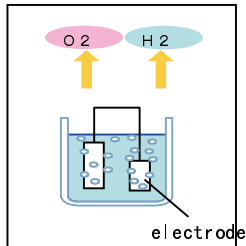
**Toward Hydrogen
IEA Renewable Energy Working Party Seminar
3 March, 2003**

Hydrogen Projects in NEDO

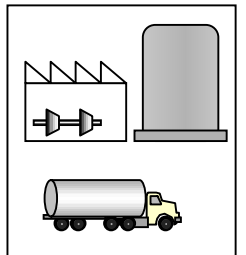
Fiscal Year Project	92	93	94	95	96	97	98	99	00	01	02	03	04	05	06	07	
Hydrogen Project		WE-NET Phase-1						WE-NET Phase-2			Development for safety use and infrastructure of H2						
Budgets(B. Yen)		7.8						8.1			4.8						

WE-NET Phase II Program

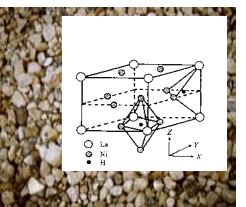
Continuance from phase I



T 8 :
Hydrogen
production



T 9 : Hydrogen
Transportation and
Storage
Technology



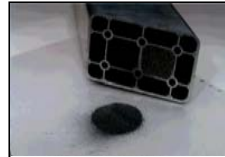
T 10 :
Cryogenic
Materials
Technology

T 11 :
Hydrogen
Absorbing Alloys
(over 3 mass%)

Start from phase II



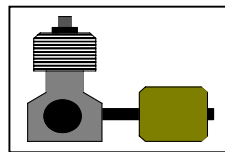
T 6 : PEFC
Utilizing Pure
Hydrogen.



T 5 : Hydrogen Vehicle
Systems



T 7 : Hydrogen
Refueling Station.



T 4 : Power generation
technology

Target of phase II

- Continuing from phase I
- Phase II of WE-NET focused on utilization of hydrogen from not only clean renewable energy but the fossil fuel to aim at short-term realization of introducing hydrogen energy into the society.

- Concentrate on short term realization
- Make an effort to aim at short-term realization of introducing hydrogen energy into the society
- Small-scale project (not large project)

Common item

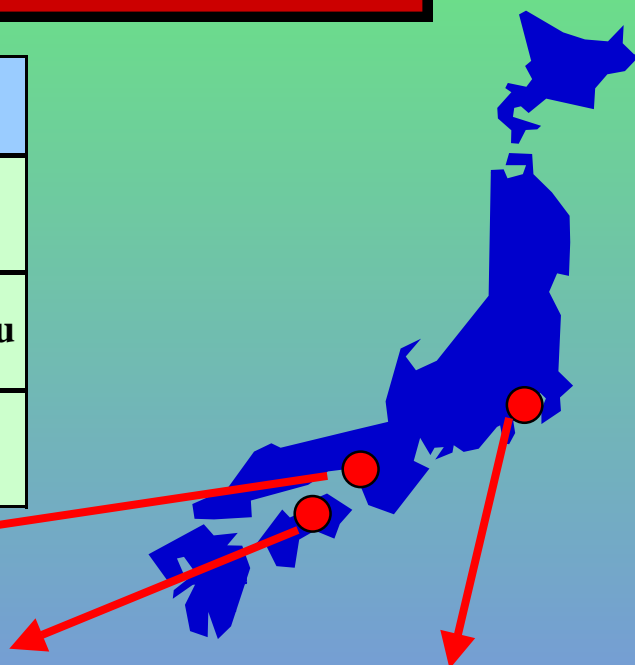
T 1 : Study of System Evaluation **T 2 :** Study of Safety Measures. **T 3 :** Integration for International Cooperation.

T 1 2 : Investigation and Study of Innovation and Leading Technology



H2 Refueling Station

Type of Station	H2 Production	Type of Vehicle	Pressure (MPa)	Filling-up time	Site
On-Site (Reform)	30 Nm ³ /h r	MH	1	10	Osaka
		CHG	35	5	
On-Site (PEM)		MH	1	10	Takamatsu
		CHG	35	5	
Off-Site		CHG	35	5	Tsurumi



Osaka : Osaka Gas Co.,



Accomplished : Feb. in 2002

Takamatsu : Shikoku Research Institute Inc.



Accomplished : Feb. in 2002

Yokohama : Tsurumi Soda Co.,



Accomplished : Aug. in 2002

Fuel Cell Vehicle and Hydrogen Supply Demonstration & Verification Test

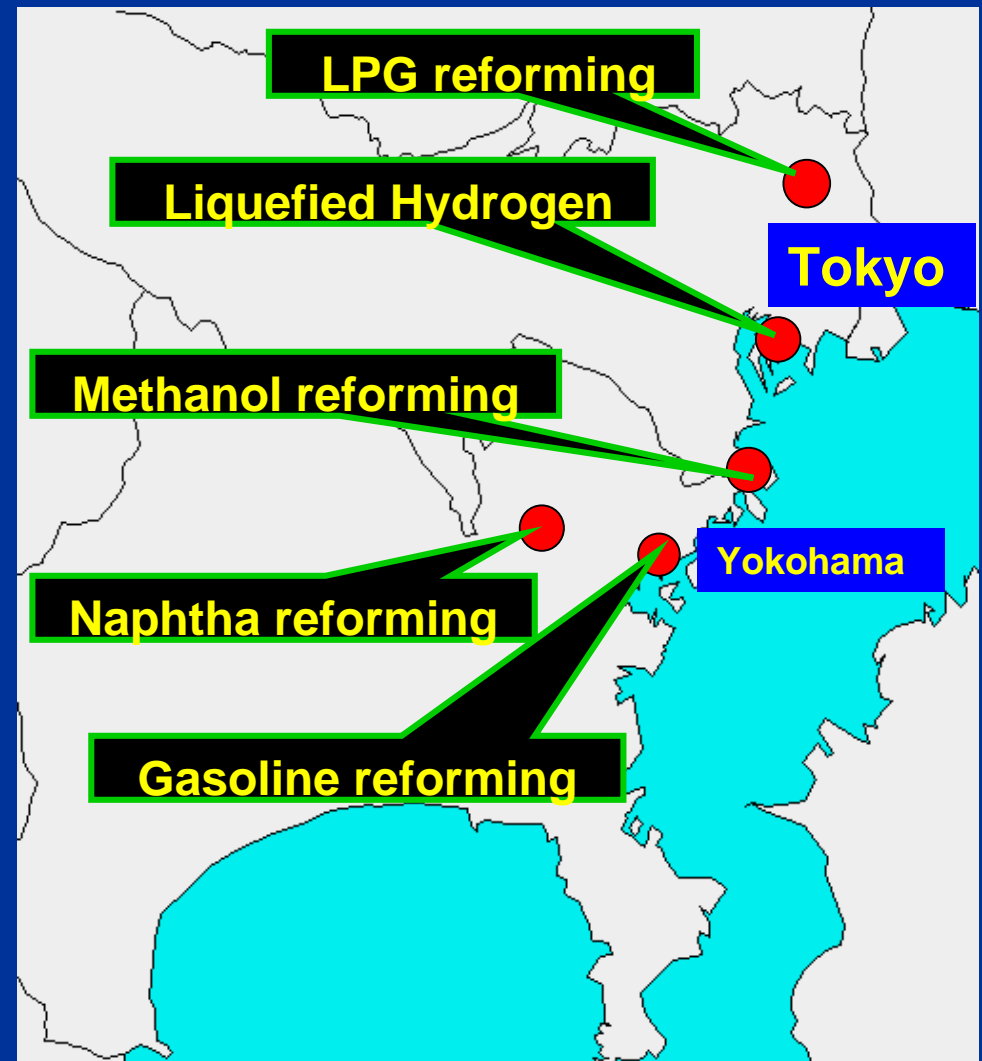
METI

Fuel Cell Vehicle

Japan Electric Vehicle Association

Hydrogen Supply Station

Engineering Advancement Association of Japan



Development for Safety Use and Infrastructure of H2 - Purpose -

**Safety development of
H2 for practical use**

**Development of high
efficient, low-cost
technology of H2**

**Infrastructure arrangement
for H2 practical use**

(Basic research of H2, standard)

Development for Safety Use and Infrastructure of H2

