



International Partnership
for Hydrogen and Fuel Cells
in the Economy

China Update

44th IPHE Steering Committee Meeting
24 – 25 November 2025
Riyadh, Kingdom of Saudi Arabia

Policies and Initiatives *China*

Proposal on Formulating the 15th Five Year Plan for National Economic and Social Development

2025/10/23, Beijing, the Central Committee of the Communist Party of China (CPC)

Forward looking layout of future industries

Exploring diverse technological routes, typical application scenarios, feasible business models, and market regulatory rules

Promoting quantum technology, biomanufacturing, hydrogen energy and fusion energy, brain computer interfaces, embodied intelligence, and sixth generation mobile communication as new economic growth points

The first (set) of major technical equipment in the energy field (fifth batch)

2025/9/19, Beijing, the National Energy Administration

1. Integrated testing platform for hydrogen production through megawatt proton exchange membrane electrolysis of water
2. Hundred kilowatt level reversible solid oxide fuel cell device
3. Green electricity hydrogen production coupled with coal chemical integrated energy control system
4. Wide power fluctuation adaptable megawatt scale PEM electrolysis reactor directly coupled with renewable energy
5. High power flexible off grid photovoltaic dynamic electrolysis hydrogen production system
6. 100 kg vehicle mounted liquid hydrogen system
7. Complete set of 90 MPa liquid driven hydrogen compressor equipment

Demonstration and Deployment *China*

Taonan City Wind Power Coupled Biomass Green Methanol Integrated Demonstration Project

2025/7/15, Baicheng, Jilin, Shanghai Electric Group Co., Ltd

50,000 tons of green methanol annually (current first phase)

Including:

- 2 × 300 tons/day pure oxygen biomass fluidized bed gasification equipment
- 67.2 MW wind power
- 8200 Nm³/h hydrogen production equipment
- 100000 Nm³ hydrogen storage equipment
- 1 million tons of green methanol annually (future 3 phases)



Demonstration and Deployment *China*

Da'an City Wind Solar Green Hydrogen Synthesis Ammonia Integration Project

2025/7/26, Baicheng, Jilin, State Power Investment Co., Ltd (SPIC)

- 800 MW wind and solar installed capacity
- 40 MW/80 MWh energy storage
- 46,000 Nm³/h mixed hydrogen production system
- (including 50 sets of PEM and
- 39 sets of alkaline hydrogen production units)
- Annual output of 32,000 tons of green hydrogen and 180,000 tons of synthetic ammonia



Demonstration and Deployment *China*

Hydrogen Energy Pilot Projects in the Energy Sector (First Batch) – Pilot Project

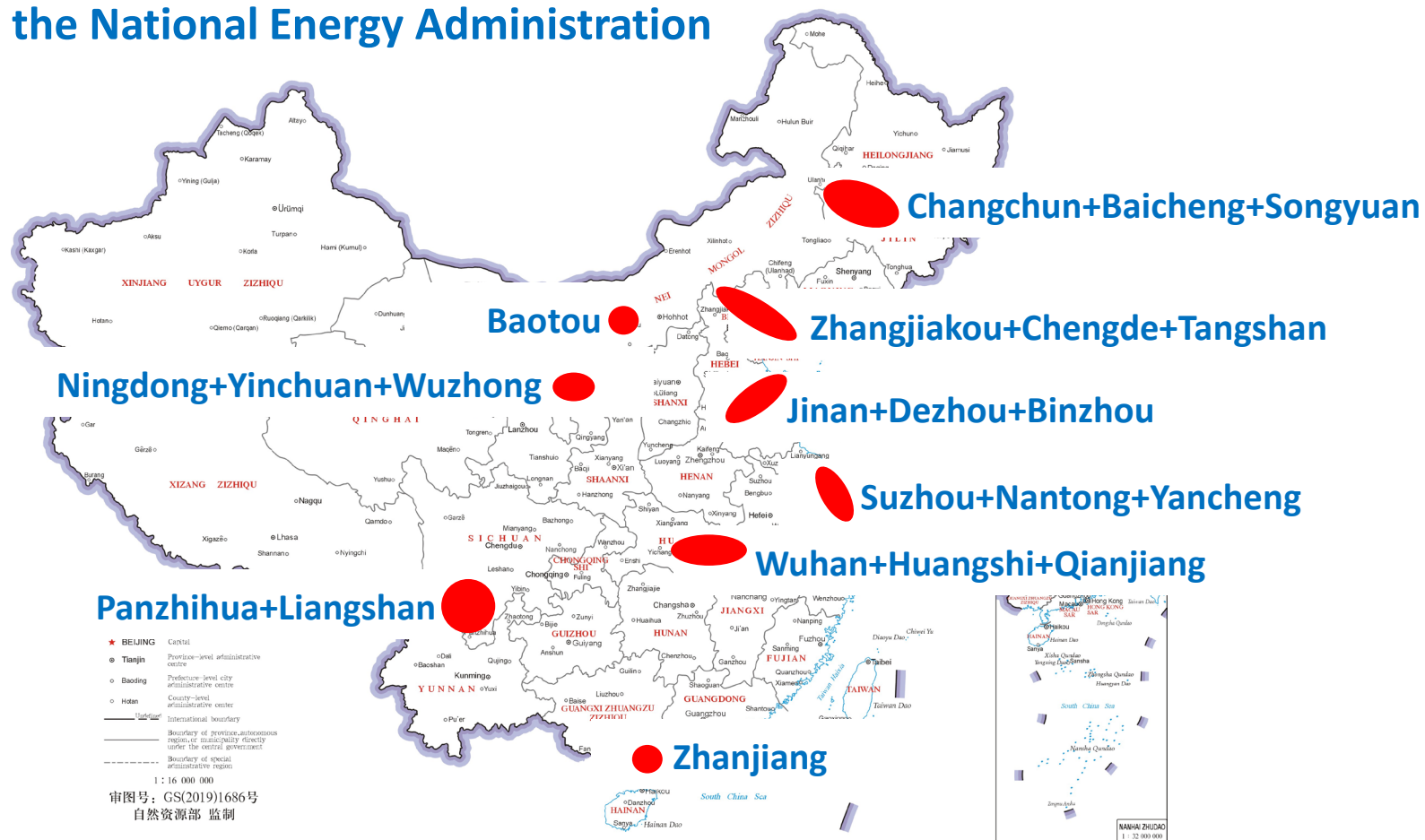
2025/10/16, Beijing, the National Energy Administration

Pilot project area	Pilot project direction	Number
Production	Large scale hydrogen production and integration	11
	Advanced flexible off grid hydrogen production	2
	Comprehensive development of clean low-carbon hydrogen energy	8
Storage and transportation	Large scale and long-distance transportation	3
	High density and diversified storage	4
Application	Green substitution of refining and coal to oil and gas	3
	Hydrogen ammonia fuel power supply	1
	Long term and long-lasting operation of hydrogen energy storage	2
	Comprehensive application in the field of energy	2
Common support	Hydrogen energy demonstration and experiment platform	4
	Hydrogen energy low-carbon transformation	1
Total		41

Demonstration and Deployment *China*

Hydrogen Energy Pilot Projects in the Energy Sector (First Batch) – Pilot Region

2025/10/16 , Beijing, the National Energy Administration



Key Collaboration *China*



China - IRENA Cooperation Steering Committee Meeting

2025/10/24, Suzhou, Jiangsu, the National Energy Administration & IRENA

Wang Hongzhi

Director General of the National Energy
Administration of China

Francisco La Carmela

Director General of IRENA

Representatives from:

- Ministry of Ecology and Environment of China
- China - IRENA Cooperation Office

Leaders of five special working groups on
hydrogen energy, energy transformation,
hydropower, solar energy, and power grid.



National Standards

2025/8/29, Beijing, the State Administration for Market Regulation & the National Standardization Administration

No.	Standard name	Implementation date
GB/T 19158-2025	Fully wrapped carbon-fibre reinforced aluminium lined gas cylinders used on containers or skids for transportation or skids for fuelling station of compressed hydrogen	2026/03/01
GB/T 35544-2025	Fully-wrapped carbon fiber reinforced cylinders with an aluminium liner for the on-board storage of compressed hydrogen as a fuel for land vehicles	2025/12/01
GB/T 46104-2025	Power fluctuation adaptability testing methods of water electrolysis system for hydrogen production	2025/12/01

Thank you



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