



International Partnership
for Hydrogen and Fuel Cells
in the Economy

Country Update: Japan

30th IPHE Steering Committee Meeting
Pretoria, South Africa
6 December 2018



1. Hydrogen Energy Ministerial Meeting

Japan hosted Hydrogen Energy Ministerial Meeting in October 2018. And Japan is planning to host the 2nd Hydrogen Energy Ministerial Meeting in autumn 2019.

2. G20 Ministerial Meeting on Energy Transitions and Global Environment for Sustainable Growth will be held in June 2019 in Japan.

3. METI is requesting JPY 64.1 billion (US\$ 600 million) for budget of FY2019.

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| Transportation | Target Number | Current Status | Partnerships, Strategic Approach | Support Mechanism |
|-----------------------------------|--|--|--|--|
| Fuel Cell Vehicles | 40,000 by 2020 200,000 by 2025 800,000 by 2025 | 2,824 As of September 2018 | - | <ul style="list-style-type: none"> Subsidy for purchase (national and local government initiative) |
| FC Bus | 100 by 2020 1,200 by 2030 | 5 As of October 2018 | - | <ul style="list-style-type: none"> Subsidy for purchase (national and local government initiative) |
| Fuel Cell Trucks | No target | - | - | <ul style="list-style-type: none"> Subsidy for R&D, demonstration (national government initiative) |
| Forklifts | 500 by 2020 10,000 by 2030 | 100 As of October 2018 | - | <ul style="list-style-type: none"> Subsidy for R&D, demonstration (national government initiative) Subsidy for purchase (national government initiative) |
| H ₂ Refueling Stations | Target Number | Current Status | Partnerships, Strategic Approach | Support Mechanism |
| 70 MPa On-Site Production | 160 by 2020 | 15 operational As of November 2018 (6 in progress) | <ul style="list-style-type: none"> Initially focusing on four major metropolitan areas | <ul style="list-style-type: none"> Subsidy for CAPEX/OPEX(national government and partially local government initiative) |
| 70 MPa Delivered | 900 by 2030 | 85 operational As of November 2018 (9 in progress) | <ul style="list-style-type: none"> Establishing Japan H2 mobility LLC, (JHyM) for development of a hydrogen station network Regulatory reform of HRC | |
| 35 MPa On-Site Production | - | 22 operational As of November 2018 (2 in progress) | <ul style="list-style-type: none"> Municipality lead instruction as official vehicles | |
| 35 MPa Delivered | - | - | | |

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| Stationary | Target Number | Current Status | Partnerships, Strategic Approach | Support Mechanism |
|--|--|---------------------------------|---|---|
| Small | 1.4 M by 2020 5.3 M by 2030 | 264,543 As of September 2018 | <ul style="list-style-type: none"> Establishing ENE-FARM Partners (manufactures, gas companies and constructors) Commercializing fuel cells(PEFC) for application by 2019 Commercializing fuel cells(SOFC) for application by 2021 | <ul style="list-style-type: none"> Subsidy for purchase (national government initiative) |
| Medium | No target | SOFC:1 | | <ul style="list-style-type: none"> Subsidy for purchase of (national government initiative) |
| H ₂ Production | Target | Current Status | Partnerships, Strategic Approach | Support Mechanism |
| Fossil Fuels | Procure 300,000 ton of Hydrogen annually by 2030 | | <ul style="list-style-type: none"> Japan-Australia Hydrogen Supply Chain pilot project | <ul style="list-style-type: none"> Subsidy for R&D, demonstration (national government initiative) |
| Water Electrolysis (PEM, Alkaline, SOEC) | Reduce the cost of hydrogen to JPY30/Nm3 | 10.9 MW | <ul style="list-style-type: none"> Large scale 10MW water electrolyser PJ has started in Fukushima. | <ul style="list-style-type: none"> Subsidy for R&D, demonstration (national government initiative) |
| By-product H ₂ | | | | |
| Energy Storage from Renewables | Target | Current Status | Partnership, Strategic Approach | Support Mechanism |
| Power to Gas Capacity | No target | | | <ul style="list-style-type: none"> Subsidy for R&D, demonstration (national |