

Demonstration Project on Green Hydrogen Production in Australia, its Transportation to Palau and Utilization by Fuel Cell and Fuel Cell Boat

Representative participant
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Outline of demonstration project

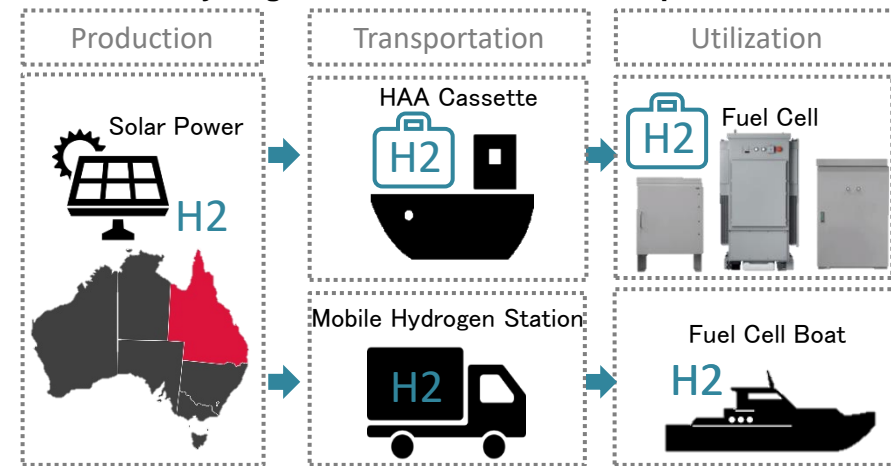
Demonstration project involves the use of solar power generation to produce green hydrogen in Queensland, Australia, which will then be transported to Pacific Island countries for utilization in small fuel cells and hydrogen fuel boats that have the potential to popularize hydrogen use on islands.

1. Stationary Fuel cells

Transport hydrogen to Palau by Hydrogen Absorbing Alloy (HAA) cassette. In anticipation of a hydrogen-based society after 2030, demonstrations will be conducted with the aim of implementing stationary fuel cells to realize a distributed power supply and backup power sources.

2. Fuel Cell Boat

In anticipation of a hydrogen-based society after 2030, a demonstration will be conducted with the goal of converting marine fuel small boats to hydrogen fuel boats in the future. During the period for this project, demonstrations with hydrogen fuel boats will first be carried out off the coast of Queensland, Australia.



Outline of partner country / region



【Site for utilization : Republic of Palau】 There is currently a high dependence on fossil fuels for energy. As part of its efforts to shift towards decarbonization, Palau has committed to achieving a target of 45% renewable energy generation by 2025.

【Site for production : Queensland, Australia】 The government of Japan and Australia have announced their commitment to the Japan-Australia Partnership on Decarbonization through Technology.

Maps Data: Google, ©2021

Prospects at commercialization (around 2030)

Expected GHG reduction: 9,131tCO₂/y

Seek to achieve early commercialization of an economically efficient hydrogen supply chain that will extend to include neighboring Pacific Island countries.

1. Stationary Fuel cells

Palau has a poor power grid system, and there is a demand for the construction of a backup power system. At present, the country's main source of energy is independent power plants that rely on diesel fuel. Try to achieve decarbonization by implementing stationary fuel cells as a distributed power supply and a backup power source.

2. Fuel Cell Boat

Palau is an archipelago comprised of over 200 islands, where more than 1000 marine fuel small boats are in operation as part of island tourism, daily life, and the fishing industry. Try to achieve decarbonization by converting marine fuel small boats to hydrogen fuel boats.