

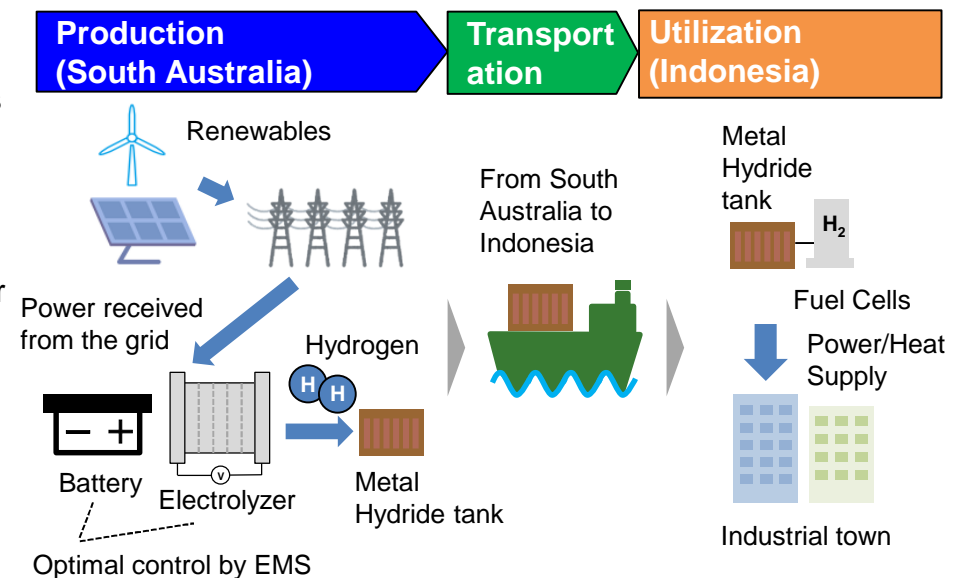
# Pilot Project for Comprehensive Support throughout the Whole Hydrogen Supply Chain Aboard Third/Partner country : Australia/ Indonesia

Production of economical green hydrogen in South Australia, transportation of hydrogen by metal hydride to Indonesia and utilization of hydrogen through fuel cell in industrial town in Indonesia

Representative participant:  
Marubeni Corporation

## Outline of demonstration project

- In South Australia, materialize economical and stable green hydrogen production by 1) making effective use of grid surplus power come from renewable energy, 2) improving the utilization rate of electrolyzer by using the energy charged in the battery, 3) developing and operating the energy management system (EMS) for the optimal operation of electrolyzer and battery depending on weather and spot power price etc., and also try to contribute the grid stabilization at the same time.
- By using the metal hydride tank, transport the green hydrogen from South Australia to Java island in Indonesia, and do power/heat supply services in the industrial town in Indonesia by using fuel cells.



## Outline of partner country / region

Site for utilization: Bekasi, West Java, Indonesia



Maps Data: Google, ©2021

- Indonesian government lists environmental measures as a priority and is working to materialize the low carbon society under their medium-term development plan to 2024.
- There are many islands, and they rely on mainly fossil fuel generations.

Site for production: Adelaide, South Australia

## Prospects at commercialization (around 2030)

Estimated GHG reduction: 7,929 tCO<sub>2</sub>/y (1<sup>st</sup> Step)

1<sup>st</sup> Step : Installment of total 2MW fuel cells as distributed power supply in industrial towns near Jakarta and do power/heat supplying services by utilizing the economical green hydrogen produced in South Australia.

2<sup>nd</sup> Step : Based on the 1<sup>st</sup> Step experience, minimize the operational risk and try to adopt the same business model in other islands in Indonesia and other Pacific Island countries by installing fuel cells as the replacement of existing diesel generators.