

1 Feb 2021

Electric Power Development Co., Ltd.

Hydrogen production started at coal gasification and hydrogen refining facility

Electric Power Development Co., Ltd. (referred to as J-POWER) announced today commencement of hydrogen production from the coal gasification and hydrogen refining facility in the Japan-Australia Hydrogen Energy Supply Chain (HESC) project.

The Latrobe Valley (Victoria, Australia) coal is low-grade featuring low carbonisation and high moisture and impurities content. Despite its huge deposit, it is not suitable for transportation mainly due to its high moisture content. Most of the coal remains unused except for limited purposes like consumption at power plants adjacent to mining areas.

This project aims to develop and demonstrate technologies for the production, storage and transportation of clean hydrogen from Latrobe Valley coal, and to establish a supply-chain of hydrogen through to the use in Japan. It is subsidised by the New Energy and Industrial Technology Development Organization and the Commonwealth and Victorian governments, and is conducted by CO₂-free Hydrogen Energy Supply-chain Technology Research Association and the Australian consortium consisting of Iwatani, Marubeni, Kawasaki Heavy Industries, J-Power, Sumitomo and AGL Energy Ltd. Carbon offsets have been purchased for the CO₂ in the pilot phase and in the future, the by-product CO₂ will be captured and stored underground in cooperation with, CarbonNet, the CO₂ storage project being promoted the Commonwealth and Victorian governments.

J-Power is in charge of the coal gasification and hydrogen refining facility. The demonstration plant had been under construction since November 2019 in Latrobe Valley, Victoria, Australia, and began producing hydrogen on 23 January 2021. The hydrogen will be liquefied and loaded onto a liquified hydrogen carrier ship at port of Hastings in Victoria, Australia, and will be transported seaborne to the hydrogen discharging terminal on Kobe Airport Island.

J-POWER will contribute to the establishment of a hydrogen energy supply-chain through this demonstration project and will continue to actively work towards the realisation of a decarbonised society.

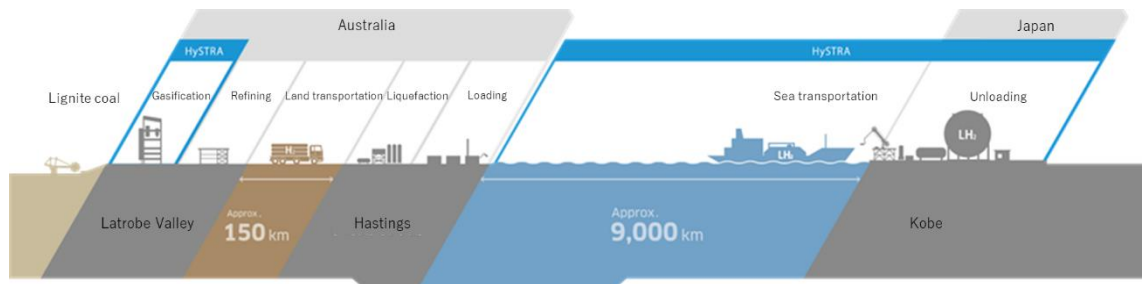


Figure 1. Overall view of pilot hydrogen supply-chain



Figure 2. Coal gasifier and hydrogen refining facility



Figure 3. Location of Latrobe Valley