

Question on Notice
No. 435
Asked on Wednesday, 11 May 2022

MR S ANDREW ASKED MINISTER FOR ENERGY, RENEWABLES AND HYDROGEN AND MINISTER FOR PUBLIC WORKS AND PROCUREMENT (HON M DE BRENNI)

With reference to green hydrogen projects at Gibson Island and Aldoga-

Will the Minister advise (a) how much the government is putting towards the cost of these two projects and (b) how many solar panels and hectares of land will be needed to house a solar farm big enough to power both projects?

ANSWER

The Queensland Governments' *Queensland Hydrogen Industry Strategy* (the strategy) lays the foundation for the development of a domestic hydrogen industry. It focuses on the production of competitively priced green hydrogen to bring widespread economic benefits including jobs, global export opportunities and decarbonisation.

The strategy supports the development of a large-scale, green hydrogen supply chains such as the Fortescue Future Industries (FFI) projects. Powerlink, the Queensland Government Owned transmission business is currently working with FFI for their project connection needs at Gibson Island and Aldoga. This is a commercial negotiation and as announced earlier this year includes transmission lines, switch gear and substation upgrades.

The government, through Economic Development Queensland (EDQ) has worked to identify land within the Gladstone State Development Area (SDA) at Aldoga for the construction of Australia's first large-scale advanced hydrogen equipment manufacturing facility. The details of any financial agreement with FFI are considered Cabinet-in-Confidence. In its initial stage, this \$114 million investment from FFI for a Global Green Energy Manufacturing Centre will create more than 100 construction jobs and 50 operational jobs.

The FFI facility at Gibson Island will be able to produce green ammonia via renewable power instead of using natural gas as the feedstock. The facility would produce around 50,000 tonnes of hydrogen per year to be a complete replacement of Gibson Island's current operations. A project of this size may need in the order of 1 gigawatt of renewable energy capacity. The Department of Energy and Public Works estimates a land area of approximately three hectares is required per MW of solar capacity. However, the exact amount of land area required will be determined by FFI in consideration of a range of factors such as target capacity factors of electrolysers, the mix of wind and solar in the electricity supplies and electricity and hydrogen storage.

The government will continue to lead the transition to a low-carbon economy through development of the hydrogen industry in Queensland by working with commercial partners and providing a full suite of assistance. This includes linking technology providers with commercial partners, identifying suitable sites, coordinating and streamlining development assessments and identifying eligible grants and funding programs for proponents.