

South Australia's Hydrogen Export Modelling Tool

South Australia has the wind, sun, land, infrastructure and skills to be a world-class renewable hydrogen supplier.

South Australia's renewable hydrogen potential

South Australia is Australia's leading mainland state for renewable energy. Currently more than 50 per cent of the State's energy mix is generated through renewable sources and by 2025, it is predicted that 90 per cent of the state's electricity could be generated from renewable sources based on Australian Energy Market Operator (AEMO) data.

South Australia is almost 1 million square kilometres, four times larger than the United Kingdom, with expansive areas available for renewable energy generation projects. There are currently over 40 large-scale renewable energy generation and storage projects in the development pipeline, with an estimated capital value of over AUD\$20 billion.

South Australia can harness its renewable energy to produce renewable hydrogen, and the Government of South Australia is currently working with investors to realise the State's first suite of pilot and demonstration renewable hydrogen production projects as well as more fully exploring our hydrogen export potential in conjunction with our key trading partners.

South Australian Hydrogen Export Modelling Tool

As a key measure under [South Australia's Hydrogen Action Plan](#) released by the South Australian Government in September 2019, over AUD\$1 million has been committed to develop a [South Australian Hydrogen Export Modelling Tool](#) to inform the establishment of renewable hydrogen export supply chains.



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Government of
South Australia

Approach

The South Australian Government will commission one or more consultants to work with the international hydrogen industry to deliver a landmark study of existing and potential infrastructure requirements in South Australia for a renewable hydrogen export supply chain.

The study will consider supply chains based around liquid hydrogen, ammonia and methylcyclohexane.

Outputs

Key findings will be summarised as a modelling tool and detailed prospectus, which will be made available to international customers, infrastructure developers and investors.

Scope

Prior to finalising the scope of the study, the South Australian Government is interested to engage with hydrogen consortia, international customers, infrastructure developers and investors to help pose and address the key strategic questions about renewable hydrogen exported from South Australia. Examples of areas the study will consider are:

- 1) South Australian locations suited to large-scale hydrogen production and export facilities (land, renewable electricity and water availability, plus key infrastructure).
- 2) Timeframes and estimated capital costs associated with development of renewable hydrogen production and export facilities in South Australia.
- 3) Estimated production volumes and cost per kilogram of renewable hydrogen from those South Australian locations.

Indicative process



Invitation

South Australia would be pleased to provide the opportunity for contributors to join a Project Reference Group, and receive updates and information from the selected consultant(s) as the study is undertaken over the course of 2020.

Visit www.hydrogen.sa.gov.au to find out more