

Energy and Resources Law Association

Update on DEM priorities

Sundowner

Dr Paul Heithersay, Chief Executive | 15 November
2023

energymining.sa.gov.au



As guests here on Aboriginal land, we acknowledge everything this department does impacts on Aboriginal country, the sea, the sky, its people and their spiritual and cultural connection which have existed since the first sunrise. Our responsibility is to share our collective knowledge, recognise a difficult history, respect the relationships made over time, and create a stronger future. We are ready to walk, learn and work together.



Central Power House,
Umuwa, courtesy of APY

THE CARBON REDUCTION AGENDA

OFFICIAL



iea

Investment

Global investment in clean energy is on course to reach USD 1.7 trillion in 2023

▶ Learn more

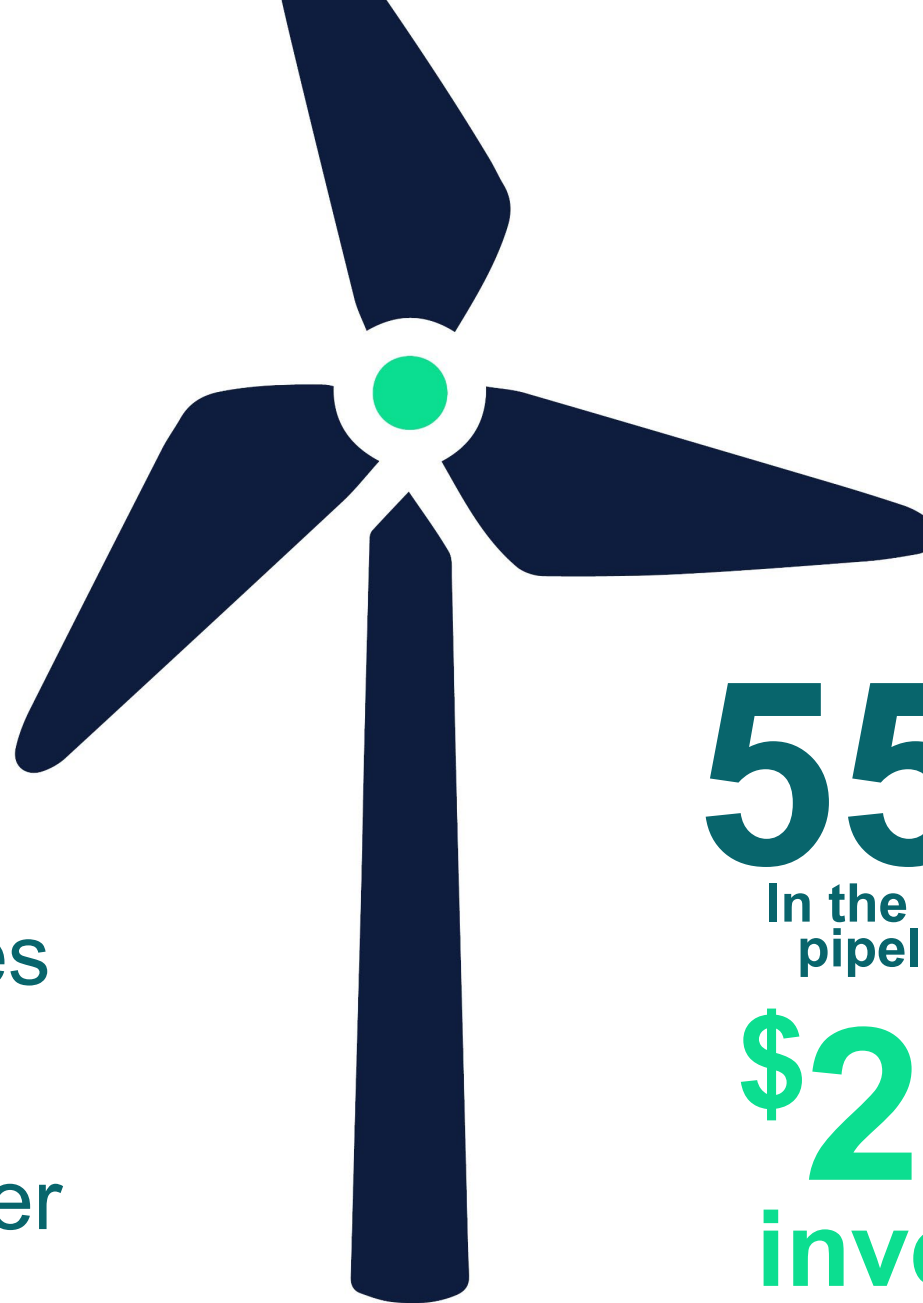
↑ Share

- Industrial sectors consume 40% of global energy
- Account for 30% of global emissions

Net Zero Industry Tracker 2022 edition
In collaboration with Accenture

Projects in operation

- ⚡ 24 wind farms
- ⚡ 5 solar farms
- ⚡ 6 grid scale batteries
- ⚡ Australia's largest hydrogen electrolyser



55 Renewable Energy Projects

In the development pipeline totalling

\$21bn
investment

South Australian Economic Statement

Fit for the future

**An economy that is smart,
sustainable and inclusive.**

Three strategic missions:

- ✓ Capitalise on the global green transition
- ✓ Be a partner of choice in an unsecure world
- ✓ Build South Australia's talent.



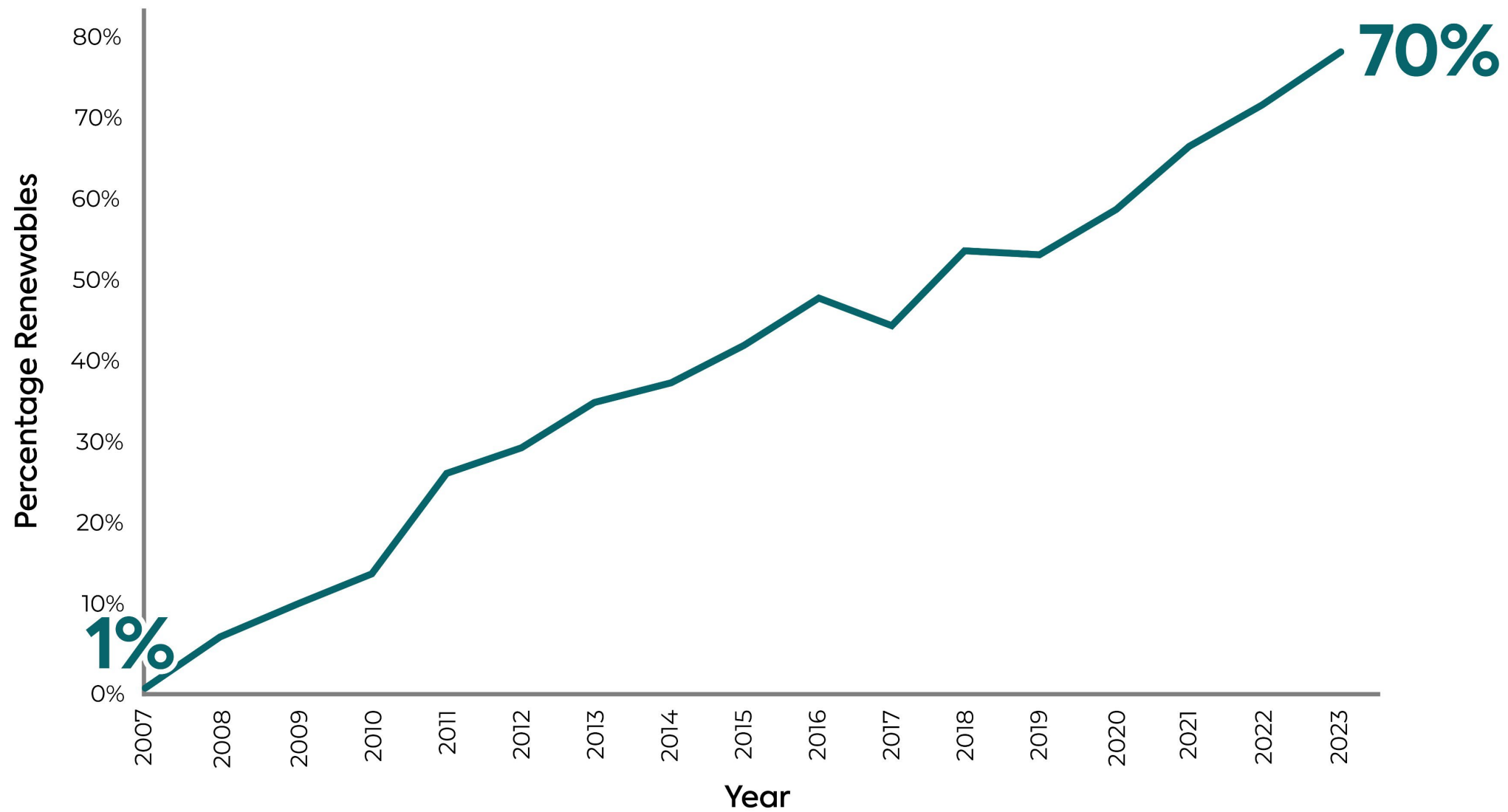
South Australian Economic Statement



Smart. Sustainable. Inclusive.

An economy fit for the future, improving
the wellbeing of all South Australians.

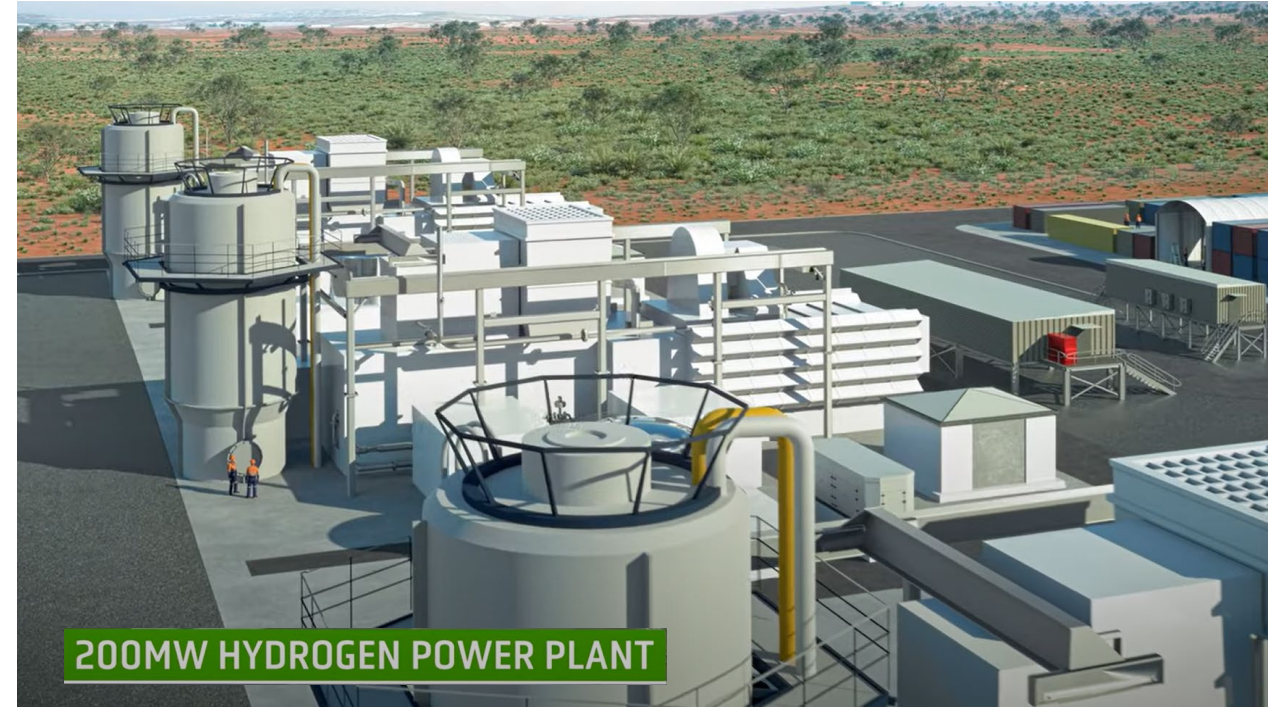
Our road to 100% renewables



Hydrogen Jobs Plan



250MWe HYDROGEN PRODUCTION FACILITY



200MW HYDROGEN POWER PLANT



250MWe electrolyser



200 MW hydrogen fuelled power plant



hydrogen storage facility



land identified in the Whyalla area

Renewable energy project pipeline ripe for expansion*

- 90+ large-scale renewable energy projects
- estimated capital development investment of \$21 billion and 21 GW generation.
- 37 operational projects – 3.5 GW, \$5.4 bn spent
- 1 under construction – 412 MW, \$1.0 bn
- 28 approved – 9.1 GW, \$11.3 bn
- 26 in planning and design – 7.1 GW, \$9.4 bn

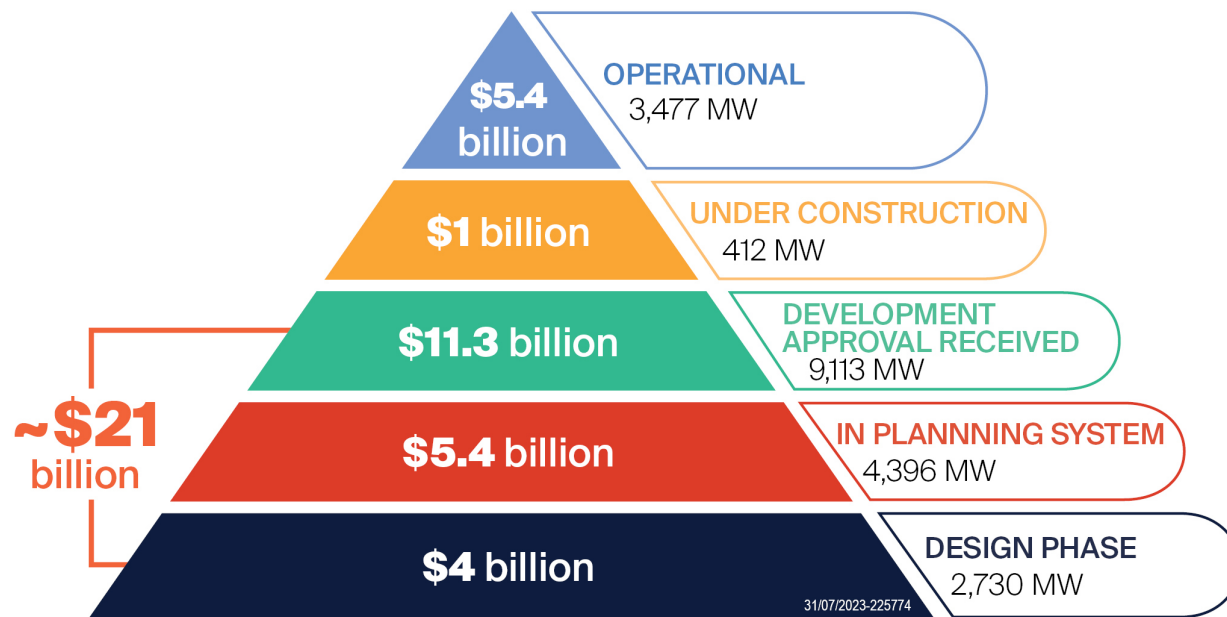
Not included:

- non-announced wind and solar projects at early design phase
- Hydrogen projects

92 RENEWABLE ENERGY PROJECTS
in the development pipeline totaling
\$21bn INVESTMENT

CLEAN ENERGY PROJECTS PIPELINE

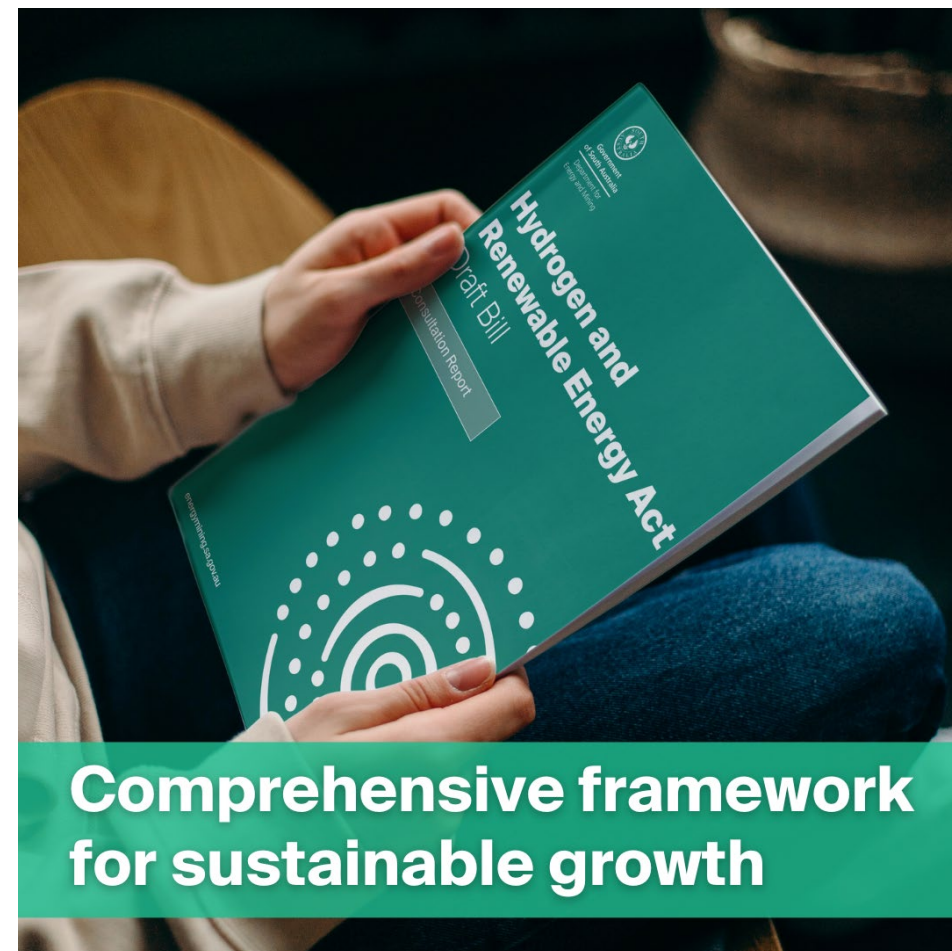
JUNE 2023



June 2023

Hydrogen and Renewable Energy Act

- A new Act to slash red tape, streamline processes, and build on South Australia's global leadership in decarbonisation.
- Government owned land and waters where renewable energy projects can be hosted will be identified by the South Australian Government.
- Government will have the ability to go to market and companies will compete for licences to access.
- New, fit for purpose licensing arrangements will be established for projects across all land types, enabling regulation of the whole project life cycle.



**Comprehensive framework
for sustainable growth**



Government of South Australia
Department for Energy and Mining

South Australia's Green Paper on the energy transition

Discussing opportunities and challenges as South Australia transitions to a net-zero emissions future.

Key themes in feedback

- Future mobility/transport
- Improving energy equity and affordability
- Enhancing energy security /reliability
- Renewable energy superpower
- Need for planning

Challenges

- Transmission infrastructure
- Role / timelines for gas
- Skills and capacity
- Supply chain issues
- Product stewardships/waste/material recovery
- Affordability for residential, commercial and industrial users
- Costs of transition/access to finance



Mining Act 1971

Petroleum and Geothermal Act 2000
to become Energy Resources Act 202x



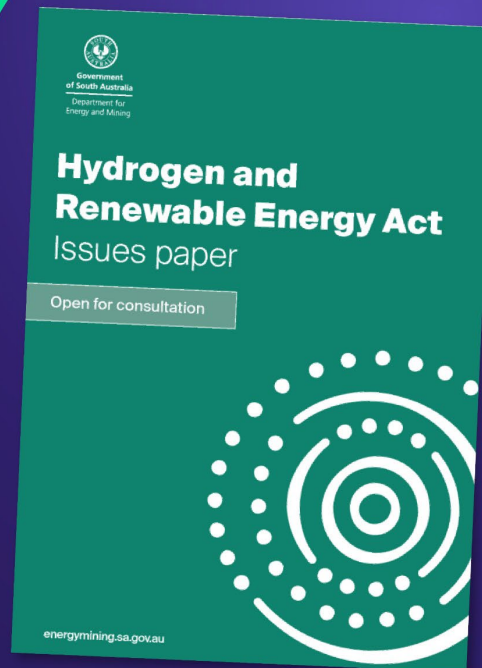
One DEM One Window



DEPARTMENT FOR ENERGY AND MINING



- ✓ Wind
- ✓ Solar
- ✓ Storage
- ✓ Hydrogen Power Plant
- ✓ Steelworks
- ✓ Magnetite
- ✓ Copper
- ✓ Desalination Plant
- ✓ Port Bonython hydrogen hub
- ✓ Cape Hardy hydrogen hub



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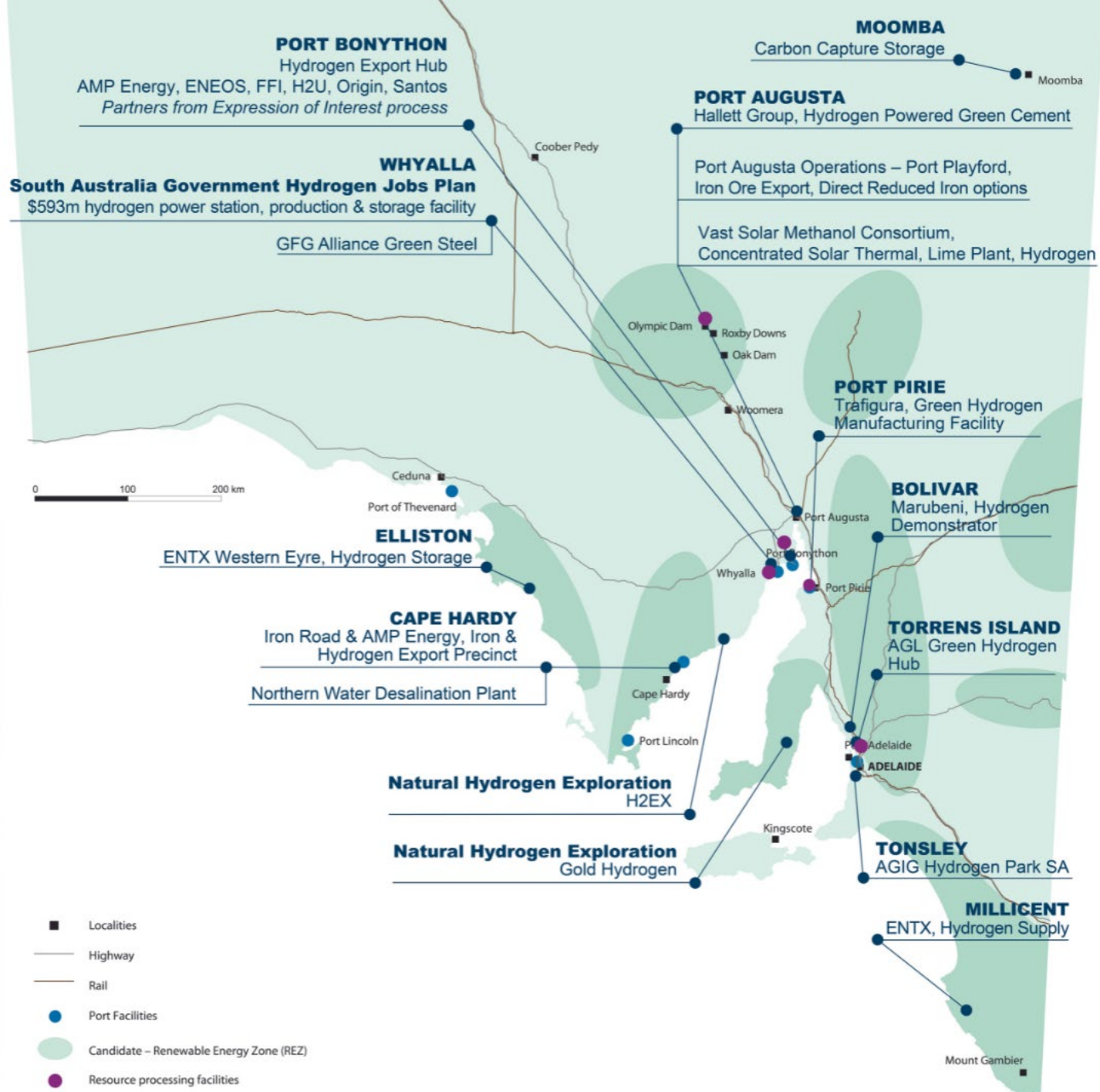


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Spencer Gulf Powerhouse

- Home to valued mineral deposits
- Prospective critical minerals and processing
- Australia's largest multi-metals smelter
- Ideally positioned to produce hydrogen
- Uniquely placed to meet world's demand for green minerals, metals and future fuels.

Ideally positioned to produce green hydrogen

Optimal location for:

SOLAR FARM

DNI greater than 23.5 MJ/m²

SOLAR FARM

DNI greater than 20.5 MJ/m²

WIND FARM

Predicted wind speed above 7.31 m/sec

WIND FARM AND/OR SOLAR FARM

Predicted wind speed above 7.31 m/sec

DNI greater than 23.5 MJ/m²

WIND FARM AND/OR SOLAR FARM

Predicted wind speed above 7.31 m/sec

DNI greater than 20.5 MJ/m²

