

# South Australia's Hydrogen Power Plant update

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Chief Executive Officer

Office of Hydrogen Power SA

South Australian Energy Resources Round Table  
Adelaide Convention Centre | Adelaide, South Australia  
24 October 2023



# Acknowledgement of Country

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As guests here on Kurna land, we acknowledge everything our agency does impacts on Aboriginal country, the sea, the sky, its people and their spiritual and cultural connection which have existed since the first sunrise.

We acknowledge the Barngarla people as the Traditional Owners of land in and around the Upper Spencer Gulf in South Australia.

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.



# South Australia: a global leader in renewable energy



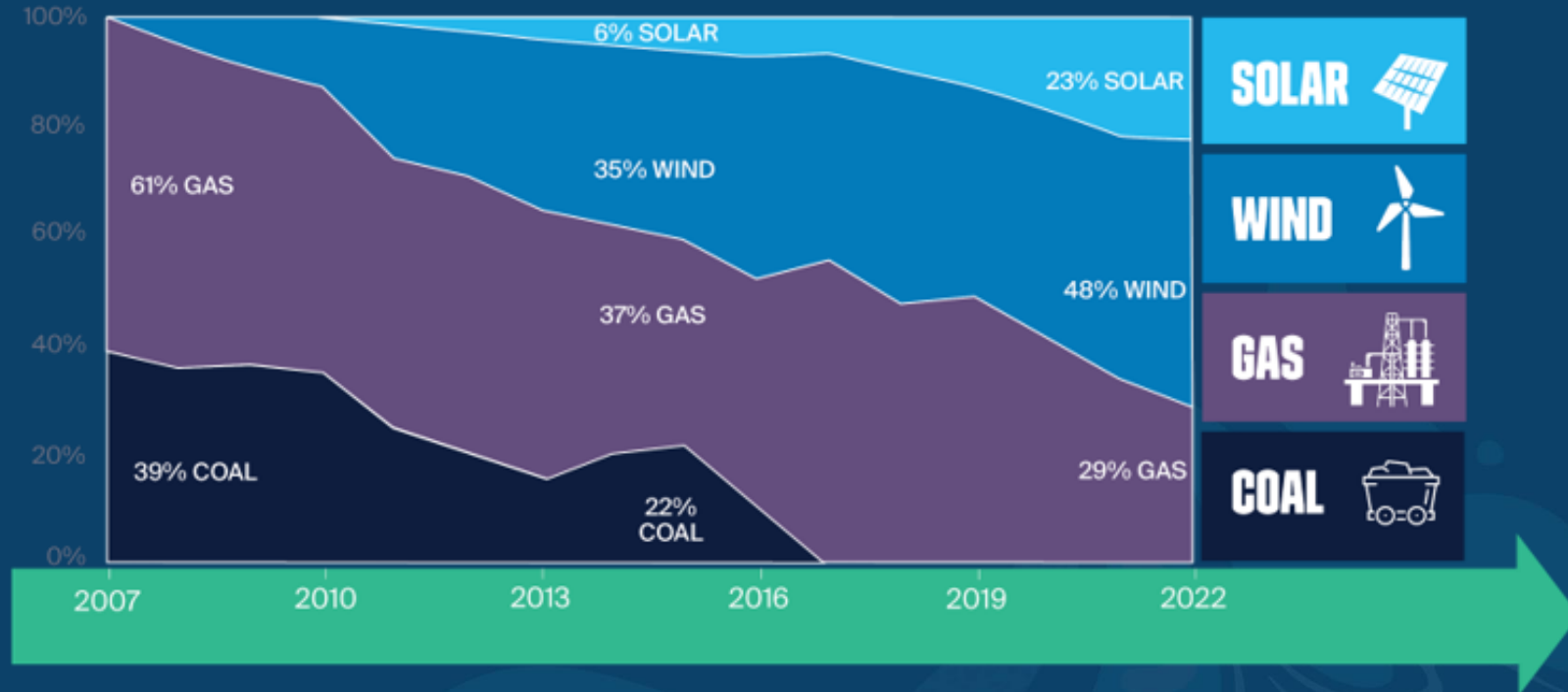
Over 70% renewable energy transition in 15 years



Over 40% of homes have rooftop solar



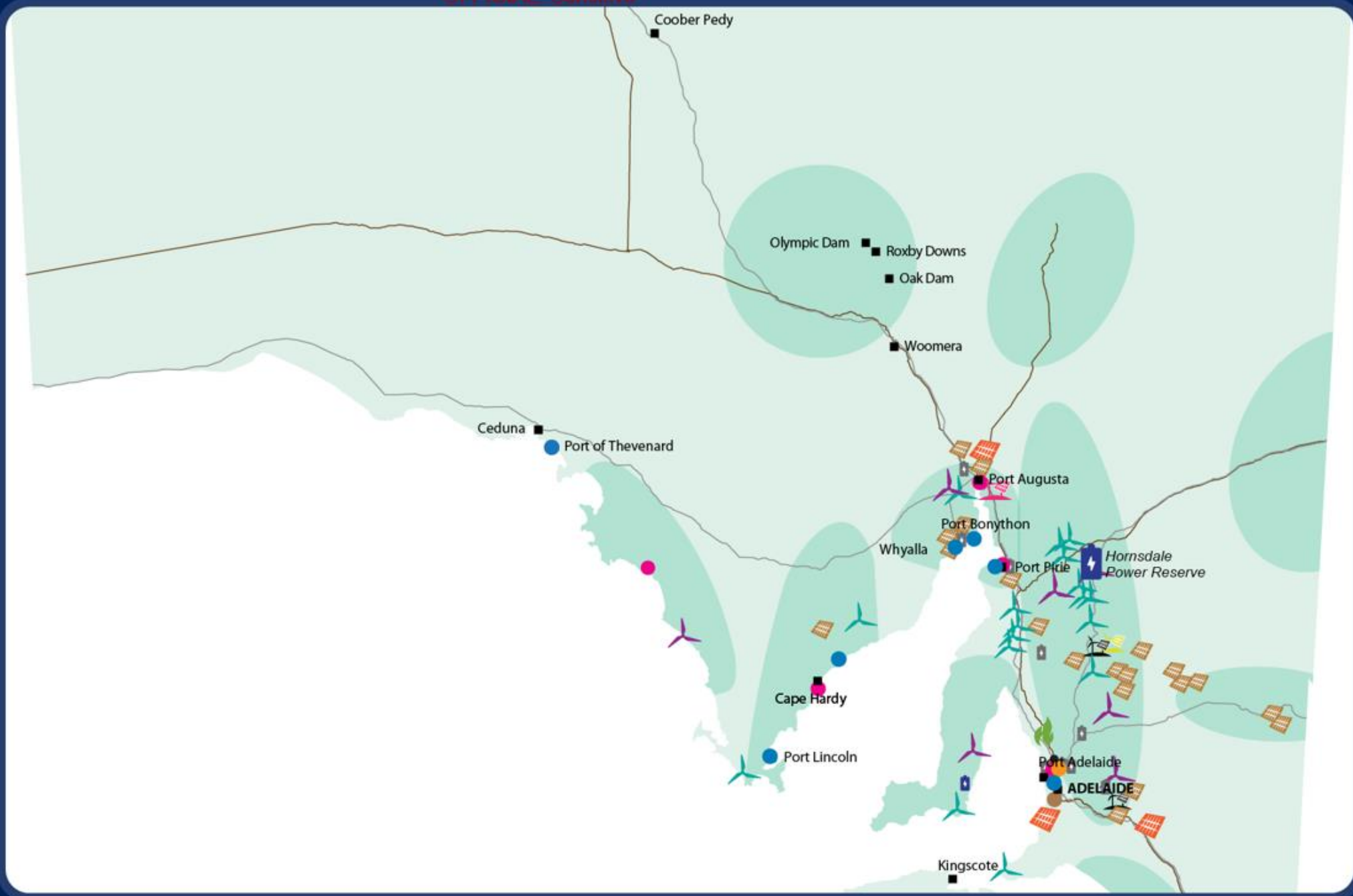
Australia's largest operational hydrogen electrolyser



On track for **100%** renewables by **2030**

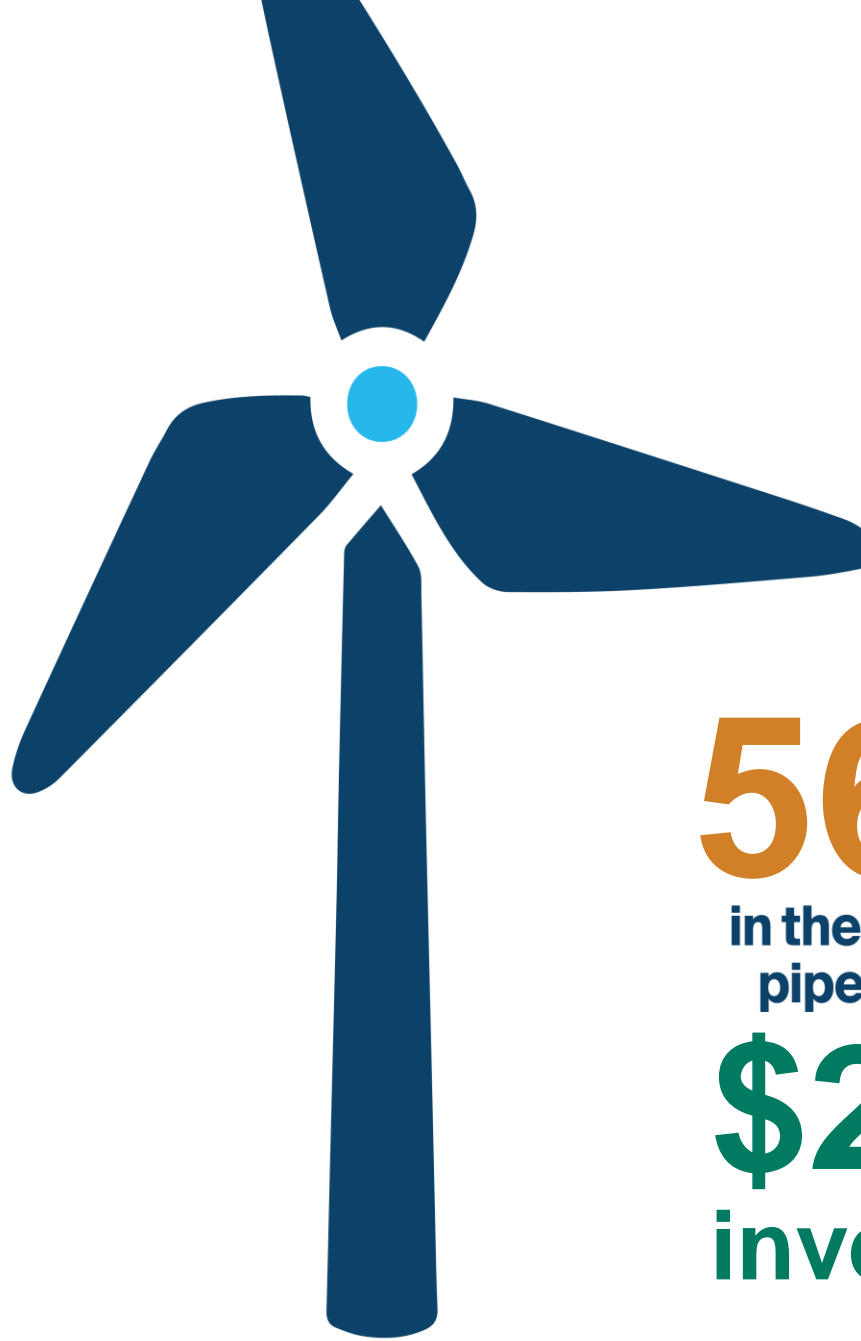


# Renewables projects



# Projects in operation

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



**56** Renewable  
Energy  
Projects  
in the development  
pipeline totalling  
**\$21bn**  
investment

# Hydrogen Jobs Plan

Government of South Australia's commitment



\$593 million in capital funding



250MWe electrolyser



200MW hydrogen fuelled power plant



Hydrogen storage facility



Land identified in the Whyalla area



Operational early 2026



Accelerate hydrogen industry, capture first mover advantage and create new jobs



Address future energy system challenges

# Hydrogen Jobs Plan – strong global interest



29 proposals to supply, construct, operate hydrogen plant across 8 tender packages.



Proposals from Europe, North and South America, Asia Pacific and Australia to pioneer South Australia's renewable hydrogen industry.



Proposals came from renewable energy companies, equipment manufacturers, technology providers and beyond.



Entered into Early Contractor Agreements with two groups to undertake detailed project and engineering design, procurement of critical equipment, finalise contracting arrangements, and cost estimations.

# GREEN HYDROGEN ELECTROLYSIS

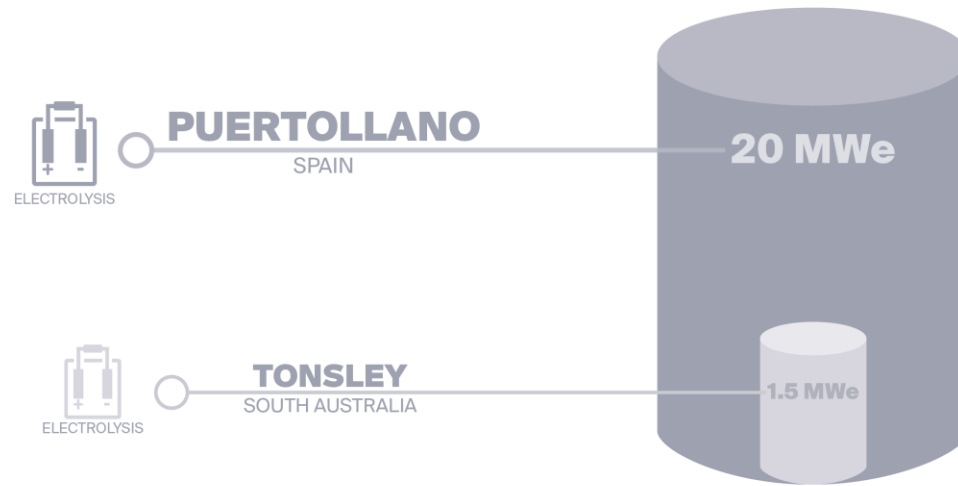
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# GREEN HYDROGEN ELECTROLYSIS

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# GREEN HYDROGEN ELECTROLYSIS



ELECTROLYSIS

**PUERTOLLANO**  
SPAIN

20 MWe



ELECTROLYSIS

**TONSLEY**  
SOUTH AUSTRALIA

1.5 MWe

250 MWe

**WHYALLA**  
SOUTH AUSTRALIA



ELECTROLYSIS



# Hydrogen Jobs Plan

## Preferred delivery partners







GATE 01

# WHYALLA HYDROGEN FACILITY



Government of South Australia  
Office of Hydrogen Power SA









# Port Bonython Hydrogen Hub

- ✓ State Government and industry are working together to create a hydrogen export hub.
- ✓ This will enable South Australia to become an early exporter of clean hydrogen.
- ✓ Port Bonython has an existing deep-water liquid hydrocarbon export terminal.
- ✓ World-class wind and solar resources nearby, connected to gas reserves.
- ✓ The proposed projects at Port Bonython represent a \$13 billion investment and could generate up to 1.8 million tonnes of hydrogen by 2030.
- ✓ Six EOI respondents propose to deliver hydrogen projects within a 2000ha footprint at Port Bonython.







# Northern Water

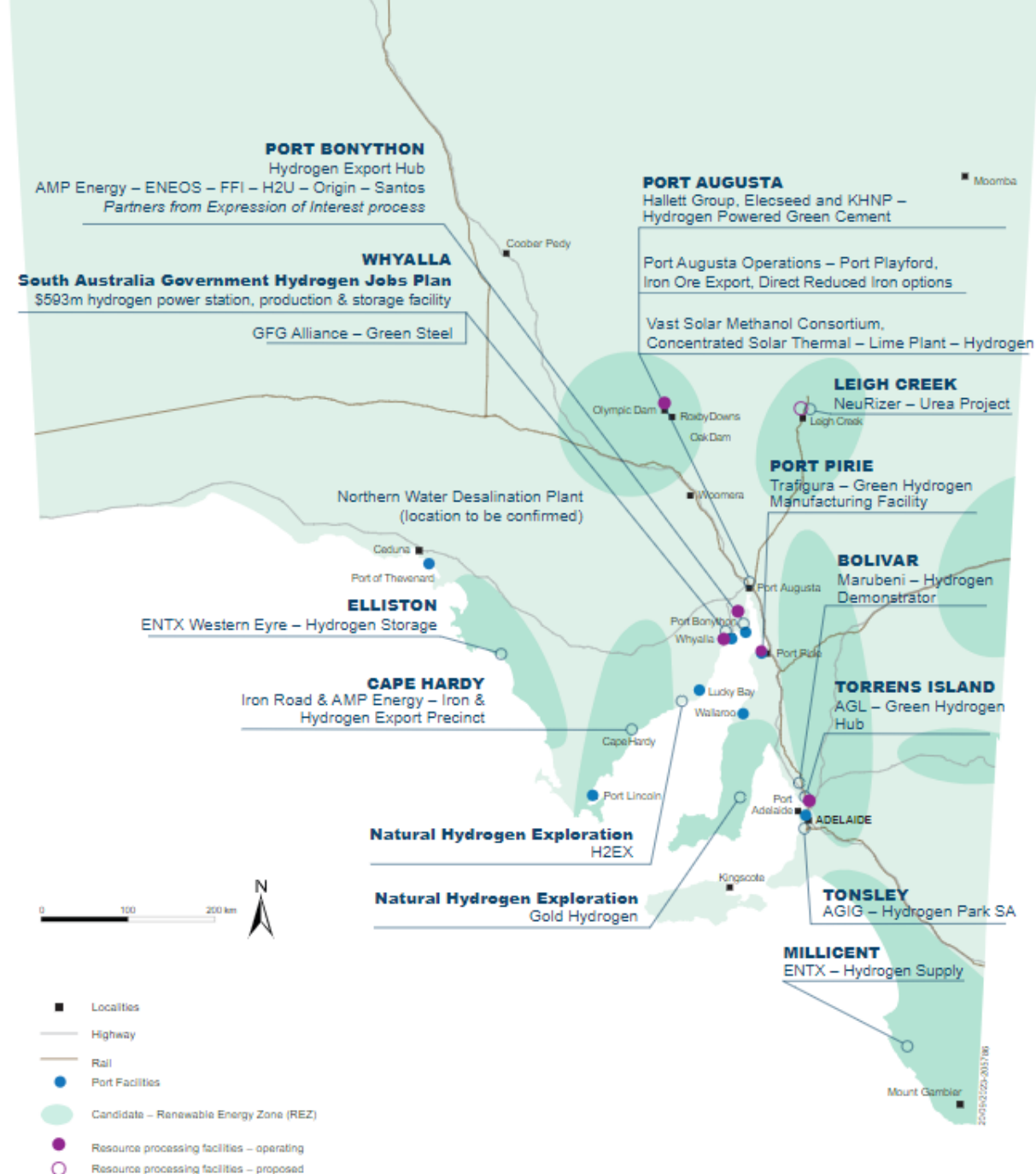


- Environmentally sustainable water source
- Climate change resilient, reliable supply
- Zero emission water treatment and transfer
- Approximately 600 km pipeline
- Supports South Australia's emerging hydrogen industry
- Enables expansion of local copper extraction



# South Australia – all the ingredients for a Hydrogen Powerhouse

- ✓ World class renewables
- ✓ Hydrogen Power Plant
- ✓ Port Bonython Hydrogen Hub
- ✓ Magnetite and Steelworks
- ✓ Critical Minerals
- ✓ Desalination Plant
- ✓ Hydrogen and Renewable Energy Act
- ✓ Investment in hydrogen projects



**Learn more**  
[hydrogen.sa.gov.au](https://hydrogen.sa.gov.au)

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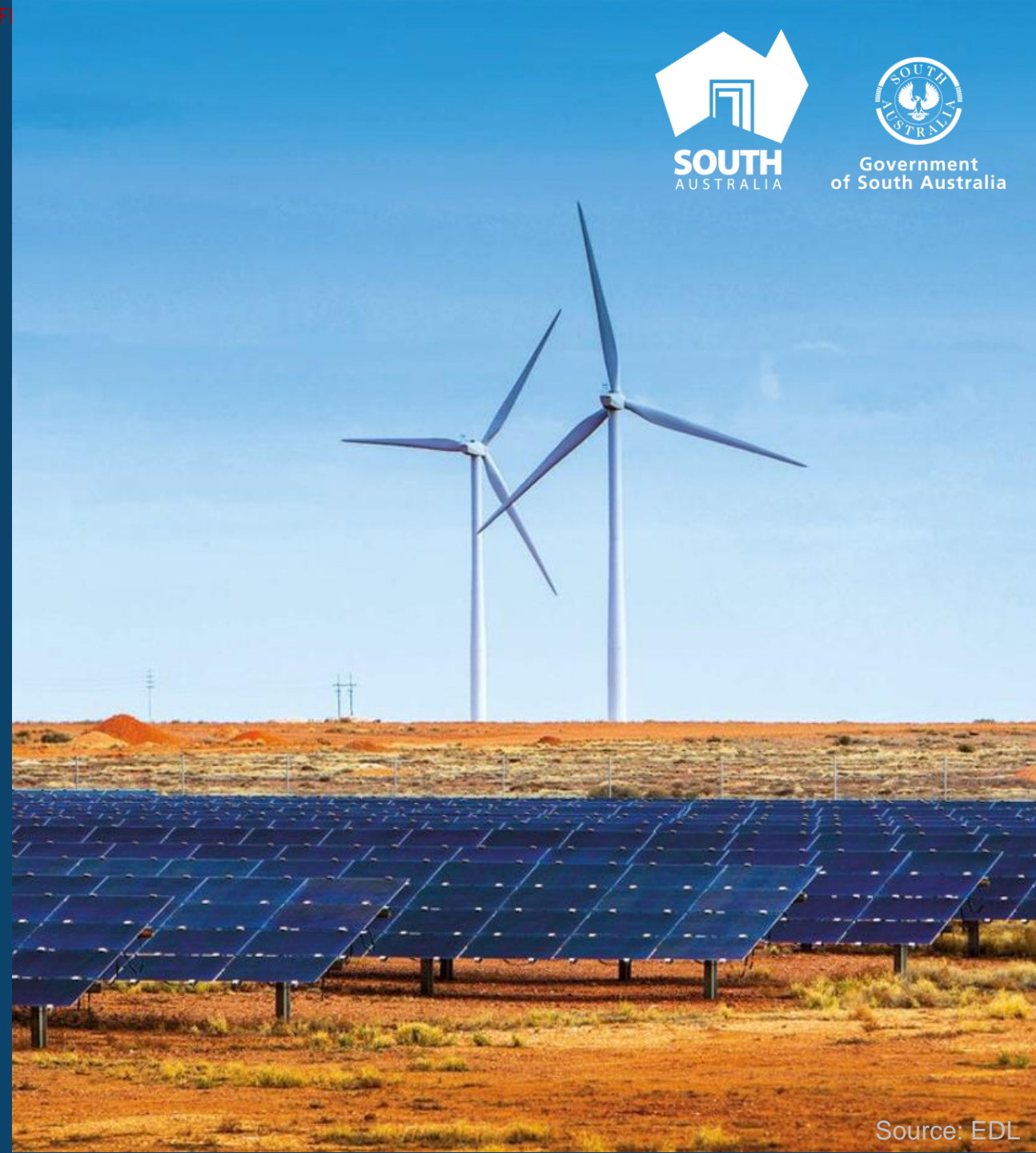
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Source: EDL