# South Australia's Green Economy









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South Australia is turning world leading renewable energy into a world leading green economy. Established in Adelaide, the Indo-Pacific Carbon Accounting Lab focusses on building the systems for accurately accounting for emissions to enable the transition to net zero.



Globally, the transition to net zero has been estimated to be a \$70 trillion to \$100 trillion economic opportunity. This includes shifting the energy mix away from fossil fuels toward zero-emissions electricity and other low-emission energy sources such as green hydrogen. It also requires significant investments in data infrastructure and analytics capability which will underpin opportunities to turn net zero carbon inputs into economic value by better accounting for carbon in the economy.

In accelerating South Australia's transition to a green economy, the Department for Trade and Investment is undertaking strategic projects related to data and technology, green energy production, and agricultural production including value-adding to waste products.

#### Strategic approach to a green economy





**Circular economy** 



Mobility and sustainable aviation



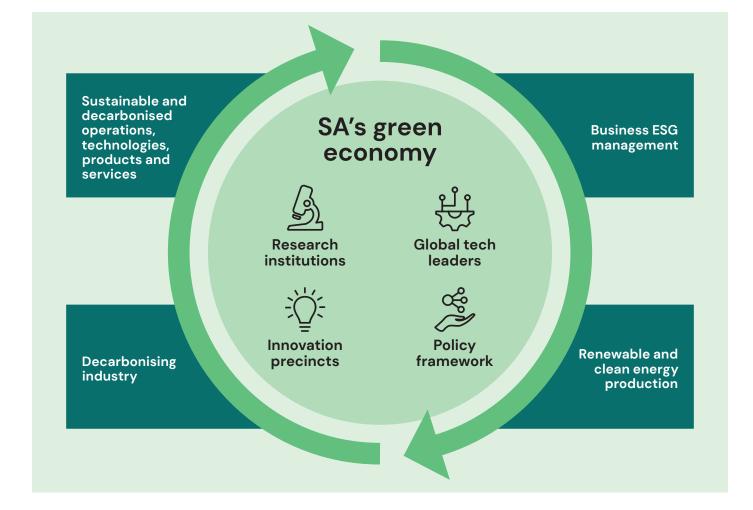
Raw and processed minerals



Renewable energy and hydrogen



Products and services driving a sustainable economy



# South Australia's unique offer:

- world-leading green credentials and global leader in wind and solar electricity production
- stable government with strong policy frameworks
- world-class artificial intelligence and data analytics capabilities
- internationally recognised education and research expertise
- knowledge-based workforce

# 'South Australia is a window to the future for green energy system transformation.'

Mark Twidell, Director Energy, Tesla

# **Research and capability**



The systems and data infrastructure that need to be developed and implemented to deliver a truly green economy are significant and complex and require global collaboration and innovation.

Not one country, company, government or university can develop the whole solution on their own. In recognition of this challenge, South Australia is bringing together some of the world's best talent from across multiple sectors and companies to develop the trusted solutions that are required to meet this global challenge.

South Australia is home to the collaborative innovation precincts of Tonsley, a member of the Global Network of Innovative Districts, Lot Fourteen that boasts world-leading capabilities in artificial intelligence, machine learning, and data analytics with the Australian Institute for Machine Learning (AIML) and the state has an ongoing partnership with Massachusetts Institute of Technology (MIT) Connection Science.

#### Turning world leading renewable energy and technological capability into a world leading green economy.

South Australia has successfully attracted worldleading technology companies and capabilities in artificial intelligence and machine learning to the state, forming a compelling location for businesses looking to establish themselves in one of the world's largest growth sectors: net zero services.

Converting net zero solutions into a green economy requires significant data infrastructure, trusted data and data governance, and the ability to turn this data into economic value by accounting for carbon in the economy.



## Indo-Pacific Carbon Accounting Lab

### The Indo-Pacific Carbon Accounting Lab presents opportunities to collaborate with like-minded partners to implement customised net zero solutions.

Established in Adelaide, the Indo-Pacific Carbon Accounting Lab brings together industry, government, and researchers to test and deploy next generation carbon accounting standards and systems.



- Improved transparency and accuracy Focusing on data integrity and the provenance of inputs across the entire supply chain – creating trusted and accurate carbon data.
- Cost of capital

ESG risk increasingly apportioned to companies as they seek investment capital or loans. A favourable ESG rating can result in lower cost of capital for governments and companies.

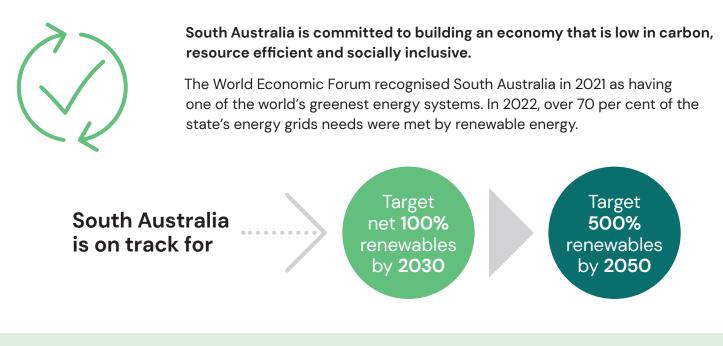
• Effectively measure and manage supply chain emissions in near real-time Improving the use of real-world data will enable better management of emissions through supply chains. Companies will be better able to track changes over time resulting in more accurate and reliable sustainability reporting.

- Singapore-Australia Green Economy Agreement The Singapore-Australia Green Economy Agreement (GEA) was signed by Trade Ministers on 18 October 2022. The GEA is a first-of-its-kind agreement that supports Australia's economic, trade, investment, and climate change objectives, with initial work under the GEA spanning seven key areas:
  - 1. trade and investment
  - 2. standards and conformance assessments
  - 3. green and transition finance
  - 4. carbon markets
  - 5. clean energy, decarbonisation, and technology
  - 6. skills and capabilities
  - 7. engagements and partnerships



See Singapore-Australia Green Economy Agreement

# South Australia leads the world in renewables



#### South Australia has one of the highest uptakes of renewables in the world



More than 1kw of solar PV installed per capita (>1800MW).

Commercial

wind farm.

operation of South

Australia's 23rd



**99** 

Construction has commenced on Neoen's 'Goyder South' stage 1, 412MW of wind, to be one of Australia's largest hybrid renewable projects.

More than 12,000 homes with VPP-capable home battery installed.

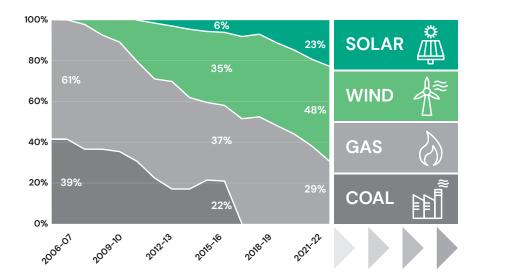


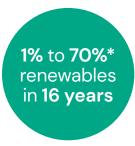
Financial close on proposed SA Government owned hydrogen power plant with 200MW power generation and 250MWe electrolyser.



Upsized the world's original big battery to 150MW and commercial operation of the state's 3rd big battery.

#### South Australia's energy journey



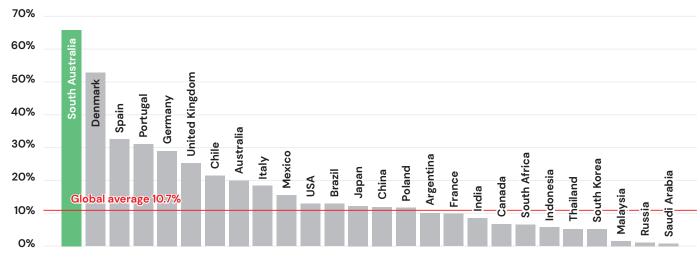


\* AEMO 2022

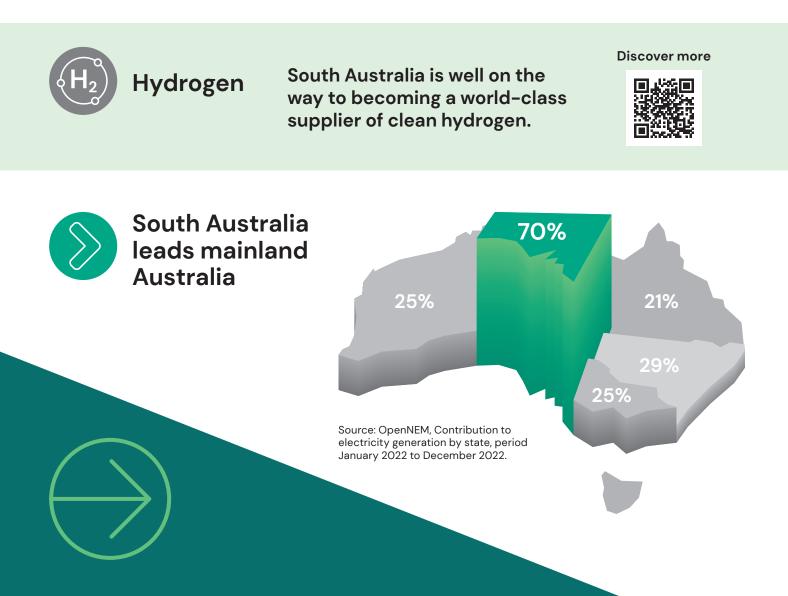
Source: OpenNEM, DTI analysis, excludes imports/exports, battery charge/discharge cycles, distillates 2022



#### South Australia leads the world in wind and solar generation (2021)



Source: Enerdata 2021, DTI analysis



# Let's connect



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