

Regional Profiles

Upper Spencer Gulf

Overview

The Upper Spencer Gulf is a nationally significant clean-energy and low-emissions industrial region, supported by strong renewable energy resources, established heavy-industry capability, and a growing pipeline of renewable energy projects. The region is well positioned to benefit from Australia's decarbonisation, with existing industrial assets, a workforce well-suited to clean-industry roles, and ongoing investment driving a transition towards renewable-powered manufacturing and export-oriented clean energy industries.



Population (2025)

- 70,069 persons
- -0.1% 5-year avg. annual growth
- SA: 1.2% 5-year avg. annual Growth



Total Area

- 56,076.4 km²
- 5.7% of SA



Gross Regional Product (2022-23)

- \$6.4 Billion
- 4.1% of SA



Employment (2022-23)

- 28,366 persons
- 3.4% of SA

Working Zones: Jamestown, Kimba-Cleve-Franklin Harbour, Peterborough-Mount Remarkable, Port Augusta and Quorn-Lake Gilles, Port Pirie and region, Whyalla and Whyalla North (maps at end of profile).

Regional Selection Rationale

Exposure to Decarbonisation	Economic Opportunities from Decarbonisation
• Carbon intensity: As of 2024-25, 4 safeguards, accounting for 44.4% of South Australia's scope 1 safeguard emissions. • Urgency: While there are no announced closures, the Upper Spencer Gulf faces medium-term transition risk due to its concentration of emissions-intensive industries. • Adaptive capacity: Adaptive capacity is low across all localities in the Upper Spencer Gulf. Driven by low levels of dwelling investment, low high-school completion rates and declining working age population.	• Natural Capital: The Upper Spencer Gulf has strong renewable energy resources and exceptional potential to support large-scale clean-energy and hydrogen-based industries. This includes favourable conditions for solar, wind and pumped hydro, alongside potential investment in hydrogen production and low-emissions industrial processing. • Workforce Compatibility: A high proportion of workers in Whyalla are employed in jobs highly compatible with clean energy industries. There is moderate compatibility across the rest of the region. • Enabling Infrastructure: The Upper Spencer Gulf benefits from established and expanding industrial, transport, and export infrastructure.

Source: NZEA (2026).



Carbon-Intensive Industries

Safeguard Facilities (Emit 100,000+ tonnes CO2 annually – power stations connected to grid are exempt)

Facility	S1 emiss. (tCO ₂ -e) (24/25)	% of SA Safeguard emiss. (24/25)	% of Aus Safeguard emiss. (24/25)
Liberty Primary Steel Whyalla Steelworks	1,287,610	30.8%	1.0%
Nyrstar Port Pirie Facility	426,225	10.2%	0.3%
Port Bonython Plant	77,542	1.9%	0.1%
Middleback Range Iron Ore Mine (Whyalla)	61,296	1.5%	<0.0%
Total	1,852,673	44.4%	1.4%

Note: S1 emiss. indicates Scope 1 Emissions. Further information on Scope 1 emissions can be found [here](#).
Source: CER (2026).

Major Commonwealth-funded Net Zero Projects (excluding cancelled and completed) (top projects by value)

This table reflects projects that have received Commonwealth funding (as of April 2026), identified through publicly available sources, consistent with the [Net Zero Investment Map](#), including the programs below.

- **Capacity Investment Scheme (CIS)**
- **Australia Renewable Energy Agency (ARENA)**
- **Clean Energy Finance Corporation (CEFC)**
- **Northern Australian Infrastructure Facility (NAIF)**
- **National Reconstruction Fund (NRF)**
- **Regional Hydrogen Hubs Program**

Project	Description	Status	Cwth Govt Funding	Value
Port Bonython Export Hub	The Port Bonython Export Hub is a large-scale renewable hydrogen production precinct for both export and domestic markets	Announced	\$70.0M Regional Hydrogen Hubs	\$100.0M
Carmodys Hill Wind Farm	Carmodys Hill Wind Farm is a 256.2MW onshore wind project located in the Northern Areas region. When operational, the project will be powered by 42 wind turbines and produce enough energy to power more than 195,000 homes.	Construction	\$147.0M CEFC	Unknown
Koolunga Battery Energy Storage System (BESS)	Koolunga BESS is a battery project located in the Port Pirie region. The project is expected to include 640 battery units and enabling infrastructure which will connect to the National Electricity Market (NEM).	Development	N/A Capacity Investment Scheme (CIS)	Unknown
Whyalla Steelworks Upgrades	The South Australian and Australian Governments, along with a new owner, will invest in upgrades and new infrastructure to support the long-term transition of the Whyalla Steelworks. Upgrades include a new electric arc furnace, direct reduced iron plant, casting and rolling mill improvements, and gas supply infrastructure.	Announced	\$1.9B SA Govt/ Aus Govt	Unknown

Note:

Information correct as of April 2026.

Whyalla Steelworks Upgrades is not included on the Net Zero Investment Map.

Source: CEFC (2025), Infrastructure Pipeline (2026), NZIM (2026), SA Govt (2025).

Regional Renewable Energy Projects (aggregated)

The aggregated tables below draw on RenewMap’s energy project database which contains information on the location and size of public and privately funded energy generation projects. Results are shown in aggregated form to illustrate the breadth and depth of projects in the region.

Operational

Type	Projects (No.)	Total Project Size (MW)	Total Storage Size (MWh)
Battery	4	170	216
Onshore Wind	8	1,092	N/A
Solar Photovoltaic (Solar PV)	10	170	N/A
Total	22	1,432	216 (Known Storage)

Note:

RenewMap is a commercial subscription and is not publicly available.

MW = Megawatt. A unit that measures capacity of energy systems.

MWh = Megawatt hour. In battery technology, this unit measures the total amount of energy the system can store.

Information correct as of April 2026.

Source: RenewMap (2026).

Under Development and Proposed

Type	Projects (No.)	Total Project Size (MW)	Total Storage Size (MWh)
Battery	12	2,087	9,100
Hydrogen	3	275	N/A
Onshore Wind	4	4,956	N/A
Pumped Hydro	1	500	5,000
Solar Photovoltaic (Solar PV)	8	1,485	N/A
Solar Thermal	1	90	720
Total	29	9,393	14,820 (Known Storage)

Note:

RenewMap is a commercial subscription and is not publicly available.

MW = Megawatt. A unit that measures capacity of energy systems.

MWh = Megawatt hour. In battery technology, this unit measures the total amount of energy the system can store.

Information correct as of April 2026.

Source: RenewMap (2026).

Transmission Infrastructure Projects

Australian Energy Market Operator (AEMO) Draft 2026 Integrated System Plan (ISP)

Project	Description	Status	Timing	Cost
Project EnergyConnect – Stage 2	New 330 kilovolts (kV) double-circuit interconnector between SA and NSW, with new 220 kV double circuit line to Victoria.	Committed	Nov 2027	\$3.6B

Note: ± indicates the cost uncertainty range.

Source: AEMO (2026b), Transgrid (2025).

Major Industries

Gross Value Add (2022-23)

Ranked Industries (Top Five)	Value (\$M)	% of GVA
Mining	\$1,449.3	24.1%
Rental, Hiring and Real Estate Services	\$660.4	11.0%
Agriculture, Forestry and Fishing	\$541.2	9.0%
Health Care and Social Assistance	\$529.7	8.8%
Manufacturing	\$509.5	8.5%

Note: Gross Value Add estimates are sourced from REMPLAN (2026), incorporating Australia Bureau of Statistics (ABS) 2021 Census (PoW), ABS 2024 Estimated Resident Population, ABS 2022–23 National Input–Output Tables, and ABS June 2025 Gross State Product into its modelling. Gross Value Add (GVA) measures the value of goods and services produced, minus the cost inputs used in production. Further information on GVA can be found [here](#).

Source: REMPLAN (2026).

Employment

Place of Work (2022-23)

Ranked Industries (Top Five)	Employees (No.)	% of Employment
Health Care and Social Assistance	4,732	16.7%
Retail Trade	2,930	10.3%
Manufacturing	2,921	10.3%
Education and Training	2,690	9.5%
Construction	2,386	8.4%

Note: Employment by Place of Work (PoW) estimates are sourced from REMPLAN (2026), incorporating Australia Bureau of Statistics (ABS) 2021 Census by PoW, ABS 2024 Estimated Resident Population, ABS 2022–23 National Input–Output Tables, and ABS June 2025 Gross State Product into its modelling.

Source: REMPLAN (2026).

Place of Usual Residence (2021)

Ranked Industries (Top Five)	Employees (No.)	% of Employment
Health Care and Social Assistance	4,399	16.1%
Retail Trade	2,795	10.2%
Manufacturing	2,714	9.9%
Education and Training	2,514	9.2%
Agriculture, Forestry and Fishing	2,301	8.4%

Source: ABS (2021).

Key Economic and Social Indicators

Employment

Indicator (2021 Census unless otherwise stated)	Upper Spencer Gulf	South Australia
Median working age	42	40
Median income (annual gross, exc. super)	\$26,000 – \$33,799	\$33,800 – \$41,599
Participation in workforce	53.5%	60.0%
Female participation in workforce	51.1%	56.8%
Workforce Self-Sufficiency (% of Workforce)	95.2%	N/A
Unemployment rate (Dec 2025)	10.9%	4.2%
Regional Labour Market Index (Sep 2025)	Below Average	N/A

Source: ABS (2021), DEWR (2026), JSA (2026).

Demographics

Indicator (2021 Census)	Upper Spencer Gulf	South Australia
Median age	44	41
First Nations (% of population)	8.5%	2.5%
Educational attainment (% of population aged 15 and above):		
• Below Year 12	62.1%	44.3%
• Year 12 or equivalent	37.9%	55.7%
• Certificate III and IV	23.8%	18.9%
• Bachelor and above	10.8%	24.4%

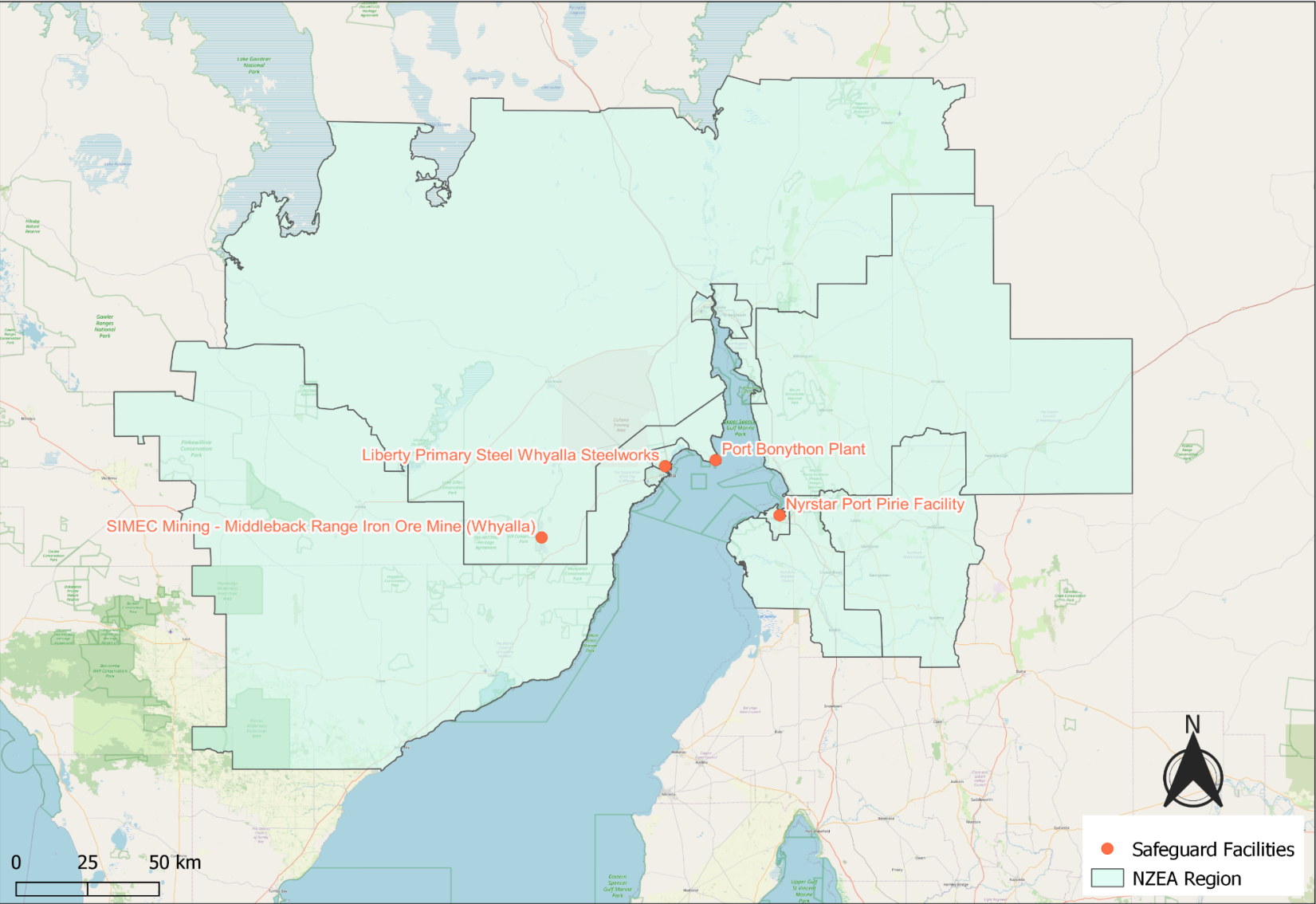
Source: ABS (2021).

Housing

Indicator (2021 Census)	Upper Spencer Gulf	South Australia
Homelessness (% of population)	0.9%	0.4%
Commonwealth Rent Assistance (% of population) (Sep 2025)	6.2%	5.4%
Mortgage stress	11.8%	12.0%
Rental stress	22.3%	30.1%

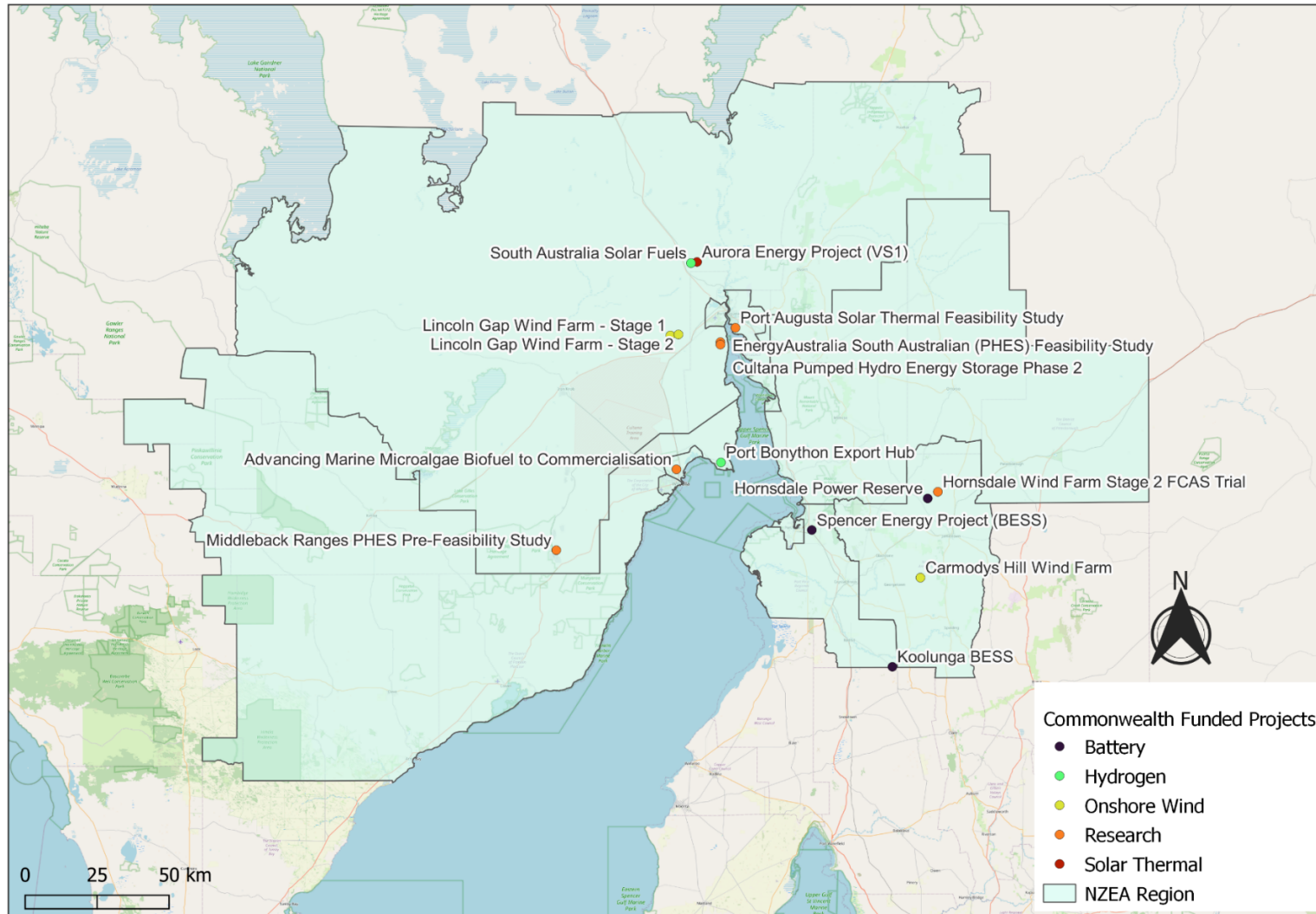
Source: ABS (2021), DSS (2025).

Safeguard Facilities Map



Source: DCCEEW (2025b).

Commonwealth Funded Net Zero Projects Map (Current & Proposed)



Note:

Commonwealth funded projects include projects from the following schemes, Capacity Investment Scheme, Australian Renewable Energy Agency, Clean Energy Finance Corporation, Northern Australia Infrastructure Facility, National Reconstruction Fund, Regional Hydrogen Hubs Program.

Information correct as of April 2026.

Source: NZIM (2026).



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