

Regional Profiles

Upper Spencer Gulf

Total Area: 56,076 sq. km **Population:** 68,180 **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*)

Region Selection Rationale

Exposure to decarbonisation	Potential to harness economic opportunities from decarbonisation
<ul style="list-style-type: none"> Carbon Intensity: 4 safeguards, accounting for 34% of SA's scope 1 safeguard emissions Adaptive Capacity: Very low in Upper Spencer Gulf, with Port Augusta, Port Pirie and Whyalla all sitting in the second lowest decile. 	<ul style="list-style-type: none"> Natural capital: Primarily concentrated in its strong renewable energy potential and its extremely high green industry potential, reflected in presence of existing industrial facilities. Workforce compatibility: High proportion of workers in Whyalla are in jobs highly compatible with clean energy industries. There is moderate compatibility across the rest of the region. Enabling infrastructure: Strong position - existing and proposed transport infrastructure. Construction projects include the \$13 billion Port Bonython Hydrogen Hub, an announced new large-scale clean hydrogen production precinct for both export and domestic markets.

Carbon-Intensive Industries

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

Type	No.	Scope 1 emissions (tCO2-e (23/24))	% of SA scope 1 safeguard emissions (23/24)	% of Aus scope 1 safeguard emissions (23/24)
Liberty Primary Steel Whyalla Steelworks	1	1,191,510	21.7%	0.8%
Nyrstar Port Pirie Facility (multi-metals processing)	1	441,897	8.0%	0.3%
Port Bonython Plant (oil & gas extraction)	1	82,939	1.5%	0.1%
SIMEC Mining - Middleback Range Iron Ore Mine (Whyalla)	1	127,129	2.3%	0.1%
Total safeguards	4	1,843,475	33.5%	1.2%

Major Industries

Gross Regional Product (GRP): \$5.7 billion (4.0% of SA's Gross State Product)¹

Ranked Industries with most value	Value (m)	% of GRP
Mining	\$1,365.4	24.1%
Rental, Hiring & Real Estate Services	\$622.2	11.0%
Agriculture, Forestry & Fishing	\$509.9	9.0%
Health Care & Social Assistance	\$499.0	8.8%
Manufacturing	\$480.0	8.5%

Ranked Employing Industries (by usual residence ²)	No. of employees (% of workforce)	Ranked Employing Industries (by place of work ³)	No. of employees (% of workforce)
Total labour force living in region	28,160 ⁴	Total labour force working in region	27,016 ⁵
Health Care and Social Assistance	4,399 (16%)	Health Care and Social Assistance	4,392 (17%)
Retail & Wholesale Trade	3,257 (12%)	Retail & Wholesale trade	3,224 (12%)
Manufacturing	2,714 (10%)	Manufacturing	2,765 (11%)
Education & Training	2,514 (9%)	Education & Training	2,560 (10%)
Agriculture, Forestry & Fishing	2,301 (8%)	Agriculture, Forestry & Fishing	2,179 (8%)

Major Investments

Major clean energy and heavy industry projects (excluding cancelled and completed) (top projects by value)

Project	Description	Category	Status	Value
Port Bonython Hydrogen Hub	A new large-scale clean hydrogen production precinct for both export and domestic markets	Green hydrogen	Announced	\$13,000 m
Northern Water	A new desalination plant and 600km pipeline network to create a reliable water supply	Water	Feasibility	\$5,900 m
Eyre Peninsula Gateway Project	A new electrolysis plant and an ammonia synthesis facility to supply domestic markets and support trial export shipments of renewables-based hydrogen to Asian markets	Green hydrogen	Under construction	\$240 m
Vast Solar Port Augusta Concentrated Solar Thermal Power Project	A new solar Concentrated Solar Thermal Power (CSP) plant including energy generation and storage capacity	Renewable energy	Feasibility	\$203 m

- 1 Data sourced using REMPLAN (incorporating ABS 2021 Census Place of Work Employment (Scaled); 2022 / 2023 National Input Output Tables; June 2024 Gross State Product figures)
- 2 Data by usual residence means only employees living in Upper Spencer Gulf region would be captured (regardless of whether or not they actually work in Upper Spencer Gulf).
- 3 Data by place of work means only employees working in Upper Spencer Gulf region would be captured (regardless of whether or not they actually reside in Upper Spencer Gulf).
- 4 Note, for purposes of calculating shares of workforce, total of 27,305 was used (total workforce minus those workers in 'Industry of Employment' categories listed as 'inadequately described' and 'not stated').
- 5 Note, for purposes of calculating shares of workforce, total of 26,185 was used (total workforce minus those workers in 'Industry of Employment' categories listed as 'inadequately described' and 'not stated').



Transmission Infrastructure Projects

AEMO Final 2024 Integrated System Plan (ISP)

Name	Description	Status	Timing	Costs
Project EnergyConnect	New 330kV double-circuit interconnector between SA and NSW, with a new 220kV double-circuit line to Vic.	Committed (unchanged from Draft 2024 ISP)	Dec 2024 - Stage 1 (unchanged)	Approx. \$2,300 m
Mid North SA REZ Expansion	New 275kV and 132kV transmission lines to connect renewable generation to Adelaide and to supply increasing industrial load	Actionable (progressed from Future in Draft 2024 ISP)	July 2027 – Stage 2 (previously July 2026)	\$389 m (±50%) (in 2023 \$ terms)
Mid North SA REZ Extension	New network investment project appearing for first time in AEMO ISP.	Future (listed for first time (i.e. not in Draft ISP))	2029-30 – both options (not in Draft ISP)	\$70 m (±50%) for Option 1b. \$350mn (±50%) for Option 1a

Employment

Indicator (2021 Census unless otherwise stated) ⁶	USG	SA
Average working age	41	39
Median income (annual gross, exc. super)	\$26K - \$33.8K	\$33.8K - \$41.6K
Participation in workforce	54%	60%
Female participation in workforce	51%	57%
Unemployment rate (Dec 2024)	5.8%	4.0%
Regional Labour Market Index (Mar 2025)	Poor ⁷	N/A

⁶ Census data used here is based on 'usual residence' and not 'place of work'

⁷ This index of 'Poor' applies to the two SA4s (Barossa - Yorke - Mid North & South Australia – Outback) that cover all of the SA2s (Jamestown, Port Pirie, Port Pirie Surrounds, Kimba - Cleve - Franklin Harbour, Whyalla, Whyalla – North, Quorn - Lake Gilles, Port Augusta) in Upper Spencer Gulf. However, it is important to note both of those SA4s also cover SA2s that are not part of the regional definition of Upper Spencer Gulf.



Demographics

Indicator (2021 Census)	USG	SA
Median age	43	40
First Nations (% of population)	8%	2%
Population growth (2016-2021)	-1%	6%
Educational attainment (% of population aged 15 & above): ⁸		
• Below Y12	62%	44%
• Y12 or equivalent	38%	56%
• Cert III & IV	24%	19%
• Bachelor and above	11%	24%

Housing

Indicator (2021 Census unless otherwise stated)	USG	SA
Homelessness ⁹	0.9%	0.4%
Commonwealth Rent Assistance (Dec 2024) ¹⁰	6%	5%
Mortgage stress ¹¹	9%	12%
Rental stress ¹²	23%	31%

⁸ Excludes 'not stated' and categories are not cumulative

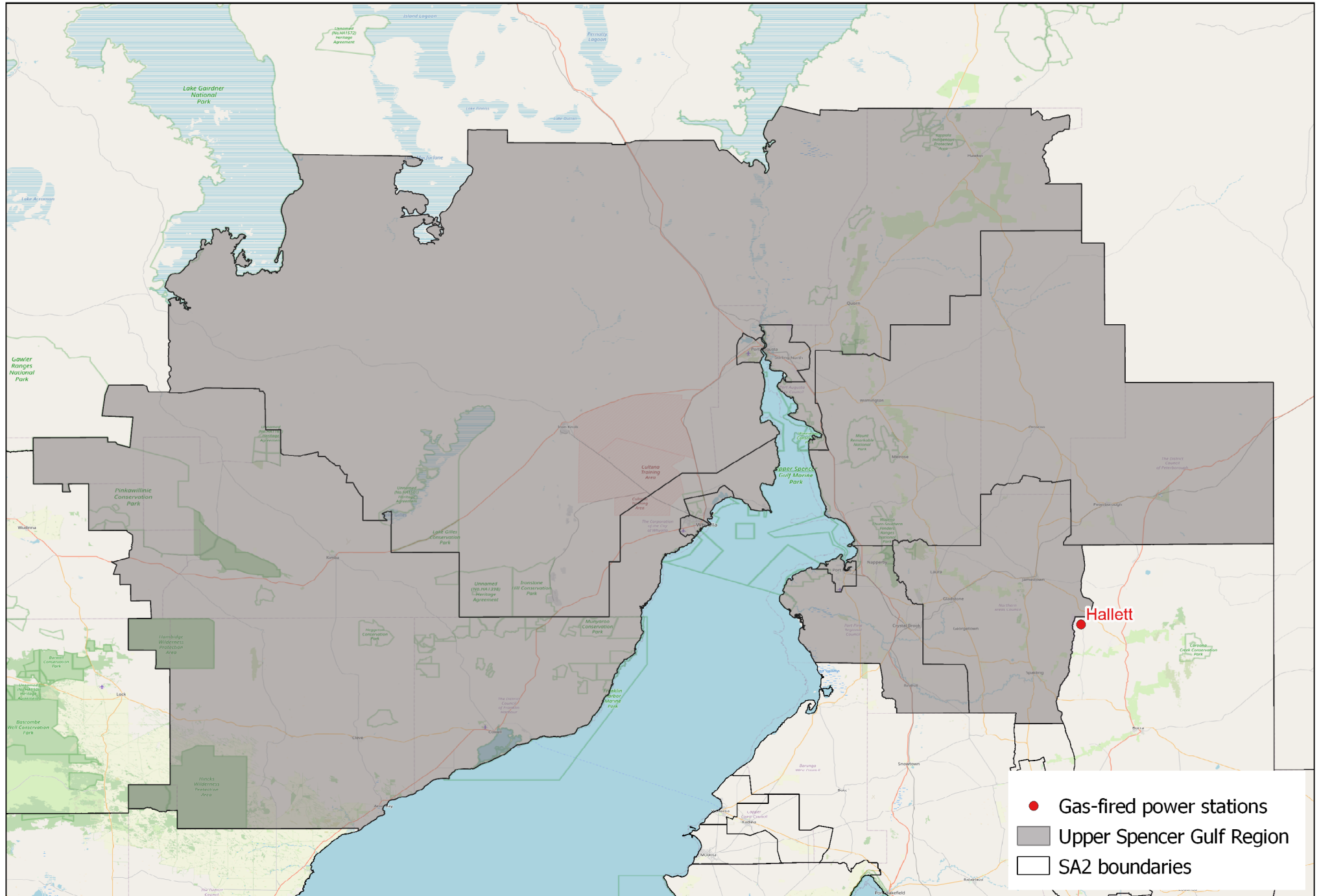
⁹ Share of population

¹⁰ Share of population

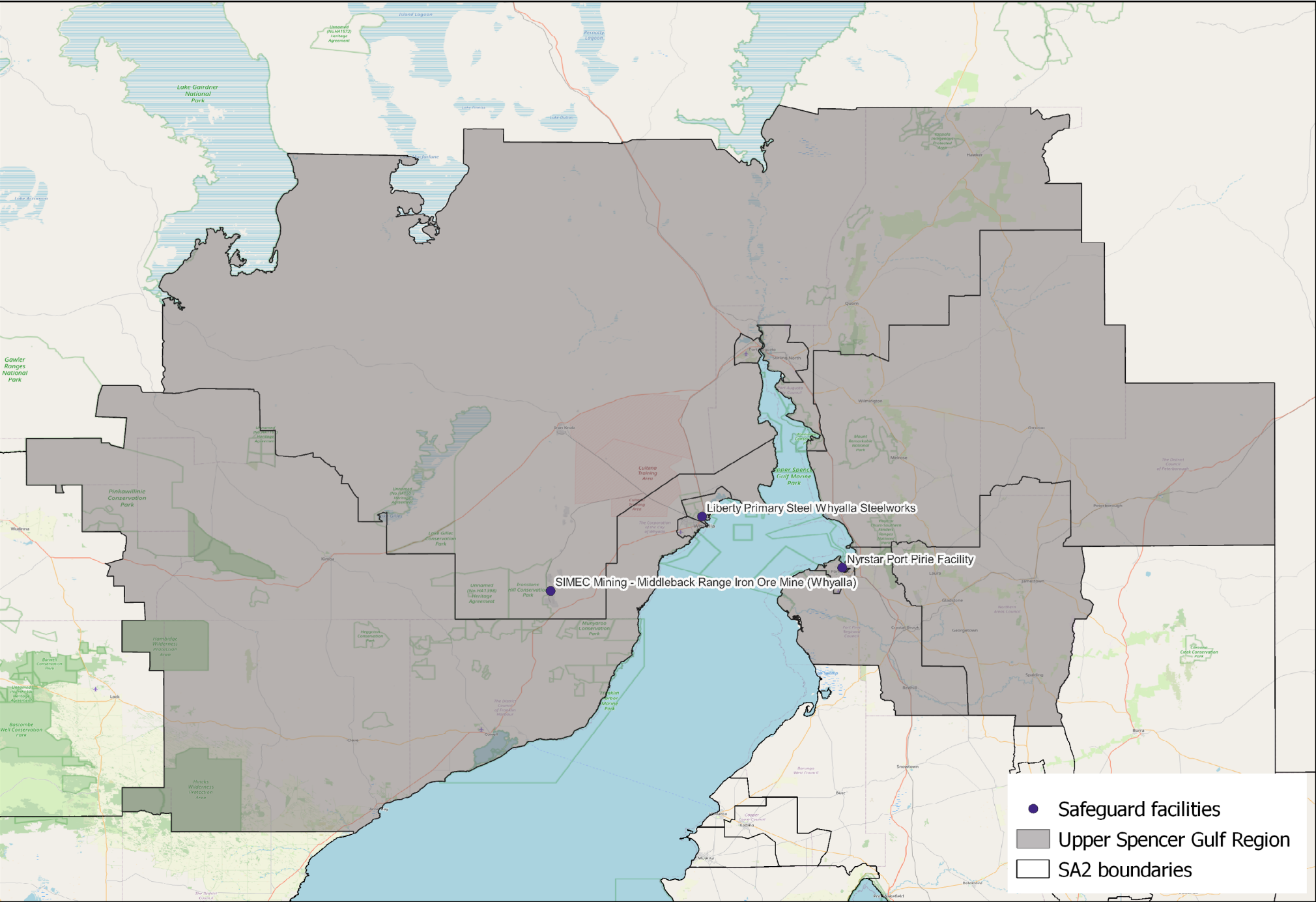
¹¹ Share of households where repayments are >30% of household income

¹² Share of households where rent payments are >30% of household income

Map of Region – Power Stations



Map of Region – Safeguards





Data Sources

Section	Source	Date
Overview		
Total Population	Census , ABS	2021
Area	Mesh Blocks - SA2 Allocation Files , ABS	2021
Priority Region Selection Rationale		
All	Regional identification framework	February 2025
Carbon Intensive Industries		
Gas Fired Power Stations	Greenhouse & energy information by designated generation facility , CER Greenhouse & energy information - data highlights (SA)	2023-24
Power station closure dates	Generation Information ^a , AEMO	April 2025
Safeguard facilities	Safeguard facilities data , CER	2023-24
Major Industries		
Ranked industries by most value	Economic data ^b , REMPLAN	2025
Ranked employing industries	Census , ABS	2021
Major Investments		
All	Funded projects , ARENA	2025
	HyResource ^c , CSIRO	2025
	Resources and Energy Major Projects , DISR	2024

a Access may be restricted on a secure network: <https://aemo.com.au/energy-systems/electricity/national-electricity-market-nem/nem-forecasting-and-planning/forecasting-and-planning-data/generation-information>

b Access may be restricted on a secure network: <https://www.rempln.com.au>

c Access may be restricted on a secure network: <https://research.csiro.au/hyresource/projects/projects-spreadsheet/>



Section	Source	Date
Transmission Infrastructure Projects		
All	Integrated System Plan^d , AEMO	June 2024
Employment		
Average working age, median income, labour force participation	Census , ABS	2021
Regional Labour Market Index	Regional Labour Market Indicator , Jobs and Skills Australia	March 2025
Unemployment rate:		
• Upper Spencer Gulf	Small Area Labour Markets , Jobs and Skills Australia	December 2024
• SA	Labour Force, Australia , ABS	December 2024
Demographics		
All	Census , ABS	2021
Housing		
Homelessness, mortgage stress, rental stress	Census , ABS	2021
Commonwealth Rental Assistance	Benefit and Payment Recipient Demographics - quarterly data , DSS	December 2024
Maps		
All	Produced using data from Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES) , DAFFs	December 2023

Note: All datasets maintained by third party providers listed above and date reflects most recent data available.

^d Access may be restricted on a secure network: <https://aemo.com.au/en/energy-systems/major-publications/integrated-system-plan-isp/2024-integrated-system-plan-isp>