





# **Collie**

Total Area: 1,710 sq. km Population: 8,812 Working Zones: Collie (maps at end of profile)

## **Region Selection Rationale**

#### **Exposure to decarbonisation**

## Potential to harness economic opportunities from decarbonisation

- Carbon intensity: 3 coal-fired power stations and 2 safeguards. As
  of 2023-24, safeguards in the region account for 7% of WA safeguard
  scope 1 emissions; region has large amounts of employment in coal
  power generation, related coal mining and a large alumina refinery.
- Urgency: High two power stations are expected to close by 2030.
- Adaptive capacity: Very low, high unemployment (5.6% as of Dec 2024) and working age population decline.
- Readiness: High there is already strong planning, funding and preparation for decarbonisation, including establishment of a working group for transition and a supported just transition framework, with announced WA government funding of \$662 million. This includes the \$200 million Collie Industrial Transition Fund to attract major projects.
- Natural capital: Moderate wind and solar capacity and potential for green manufacturing (e.g. proposed green steel mill and net zero magnesium refinery).
- Workforce compatibility: High proportion of workers in the region are in jobs highly compatible with clean energy industries.
- Enabling infrastructure: Connected by major highways and approximately 50km from Bunbury Port, which has road and rail links, supporting connectivity, logistics and trade. No commercial airport.

### **Carbon-Intensive Facilities**

#### **Coal Fired Power Stations (CFPS)**

Name	Owner	Public closure date	Supplying Coal Mine	Scope 1 emissions (tCO2-e) (23/24)	% of Scope 1 WA emissions (23/24)	% of Scope 1 Aus emissions (23/24)
Bluewaters Power Station	Kansai Electric & Sumitomo	Not reported	Ewington	2,590,563	4%	1%
Collie Power Station	Synergy (WA gov)	2027	Ewington & Premier	920,053	1%	0.3%
Muja Power Station C & D	Synergy (WA gov)	2025 (C) & 2029 (D)	Ewington & Premier	3,091,936	4%	1%
Total 3	3		2	6,602,552 <sup>1</sup>	10%²	2%

<sup>1</sup> Sum of emissions for individual power stations do not add up to Total due to rounding.

<sup>2</sup> See above.

### Metal Manufacturing / Refineries and Smelters

Name	Owner	PPA expiry date	Power source	Scope 1 emissions (tCO2-e) (23/24)	% of Scope 1 WA emissions (23/24)	% of Scope 1 Aus emissions (23/24)
WOR01 (Worsley Alumina)	South32 Worsley Alumina Pty Ltd	np	Worsley Refinery Power Station	3,177,815	5%	1%

#### **Coal mines**

Name	Safeguard	
Premier	1	
Ewington	0	
Total	1	

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

Туре	No.	Total scope 1 emissions (tCO2-e) (23/24)	% of WA scope 1 safeguard emissions (23/24)	% of Aus scope 1 safeguard emissions (23/24)
Manufacturing (Worsley Alumina)	1	3,177,815	6.7%	2.5%
Coal mines (Premier)	1	110,291	0.2%	0.1%
Total safeguards	2	3,288,106	6.9%	2.6%

## **Major Industries**

## Gross Regional Product (GRP): \$2.7 billion (0.6% of Gross State Product)<sup>3</sup>

Ranked Industries With Most Value	Value	% of GRP
Mining	\$1,755 m	64%
Manufacturing	\$269 m	10%
Electricity, Gas, Water & Waste Services	\$256 m	9%
Rental, Hiring & Real Estate Services	\$113 m	4%
Construction	\$88 m	3%

<sup>3</sup> 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)

Ranked Employing Industries (by usual residence <sup>4</sup> )	No. of employees (% of workforce)	Ranked Employing Industries (by place of work <sup>5</sup> )	No. of employees (% of workforce)
Total labour force living in region	3,4226	Total labour force working in region	4,774 <sup>7</sup>
Mining	608 (18%)	Manufacturing	1,138 (25%)
Health Care and Social Assistance	352 (11%)	Mining	756 (16%)
Retail & Wholesale Trade	331 (10%)	Electricity, Gas, Water & Waste Services	523 (11%)
Education and Training	283 (9%)	Health Care and Social Assistance	339 (7%)
Accommodation and Food Services	266 (8%)	Education and Training	311 (7%)

## **Major Investments**

# Clean energy and heavy industry projects (excluding cancelled and completed) (top projects by value)

Project	Description	Category	Status	Value
Collie Battery	Neoen's (French producer of renewable energy) first 4-hour long duration battery and its first major project in WA. Project has development approval for 1 GW / 4 GWh.	Battery	Construction on stage 2 began in May 2024	\$2,000 m
	Stage 1 is sized at 219 MW / 877 MWh Stage 2 is sized at 341 MW / 1,363 MWh			
	Once fully operational, Collie Battery will provide short duration storage in peak times to ease pressure on the grid. It will have the ability to charge and discharge 20% of the average demand in WA's SWIS.			
Greenbushes Expansion CGP3	Construction of a third chemical grade processing plant (CGP3) at the existing lithium facility.	Key mineral	Announced	\$880 m
Collie Green Steel Mill	Mill will use an electric arc furnace powered by renewable energy to convert Western Australian scrap steel into rebar used in construction.	Green manufacturing	Announced	\$400 m
Collie BAM Facility	Produce high-grade anode materials for lithiumion battery.	Manufacturing	Announced	\$341 m
Collie Net Zero Magnesium Refinery	Project will establish and construct a pilot plant to produce high-purity magnesium metal in Collie's Light Industrial Area.	Manufacturing	Announced	\$18 m

<sup>4</sup> Data by usual residence means only employees living in Collie region would be captured (regardless of whether or not they actually work in Collie region).

<sup>5</sup> Data by place of work means only employees working in Collie region would be captured (regardless of whether or not they actually reside in Collie region).

<sup>6</sup> Note, for purposes of calculating shares of workforce, total of 3,290 was used (total workforce minus those workers in 'Industry of Employment' categories listed as 'inadequately described' and 'not stated').

Note, for purposes of calculating shares of workforce, total of 4,596 was used (total workforce minus those workers in 'Industry of Employment' categories listed as 'inadequately described' and 'not stated').



## **Transmission Infrastructure Projects**

## SWIS (South West Interconnected Grid System) Transmission Planning Update

Name	Description	Status	Timing	Costs
Clean Energy Link - East	Clean Energy Link (both East and South connections) aims to optimise the existing infrastructure and prepare the regional electricity network in WA for clean energy future.	In Planning Stage	N/A	\$21 m
Clean Energy Link - South	Focuses on expanding the State's main electricity network to enable more renewable energy connections and supporting industry growth and electrification of processes to aid transitioning to net zero emissions by 2050.	In Planning Stage	N/A	N/A

## **Employment**

Indicator (2021 Census unless otherwise stated)	Collie	WA
Average working age	42	38
Median income (annual gross, exc. super)	\$26.0K - \$33.8K	\$41.6K - \$52.0K
Participation in workforce	51%	64%
Female participation in workforce	48%	60%
Unemployment rate (Dec 2024)	5.6%	3.4%
Regional Labour Market Index (Dec 2024)	N/A <sup>8</sup>	N/A

<sup>8</sup> Note, Regional Labour Market Index is calculated by SA4. Bunbury SA4, which Collie SA2 sits within, has an 'average' rating but its unemployment rate of 3.5% is much lower than 7.0% in Collie, meaning using Bunbury's RLMI score as a proxy for Collie would be misleading.



## **Demographics**

Indicator (2021 Census)	Collie	WA
Median age	44	37
First Nations (% of population)	4%	3%
Population growth (2016-2021)	0.2%	8%
Educational attainment (% of population aged 15 & above):9		
Below Y12	68%	40%
Y12 or equivalent	32%	60%
Cert III & IV	29%	19%
Bachelor and above	7%	26%

## Housing

Indicator (2021 Census unless otherwise stated)	Collie	WA
Homelessness <sup>10</sup>	0.4%	0.4%
Commonwealth Rent Assistance (Dec 2024) <sup>11</sup>	5%	4%
Mortgage stress <sup>12</sup>	9%	13%
Rental stress <sup>13</sup>	33%	28%

<sup>9</sup> Excludes 'not stated' and categories are not cumulative.

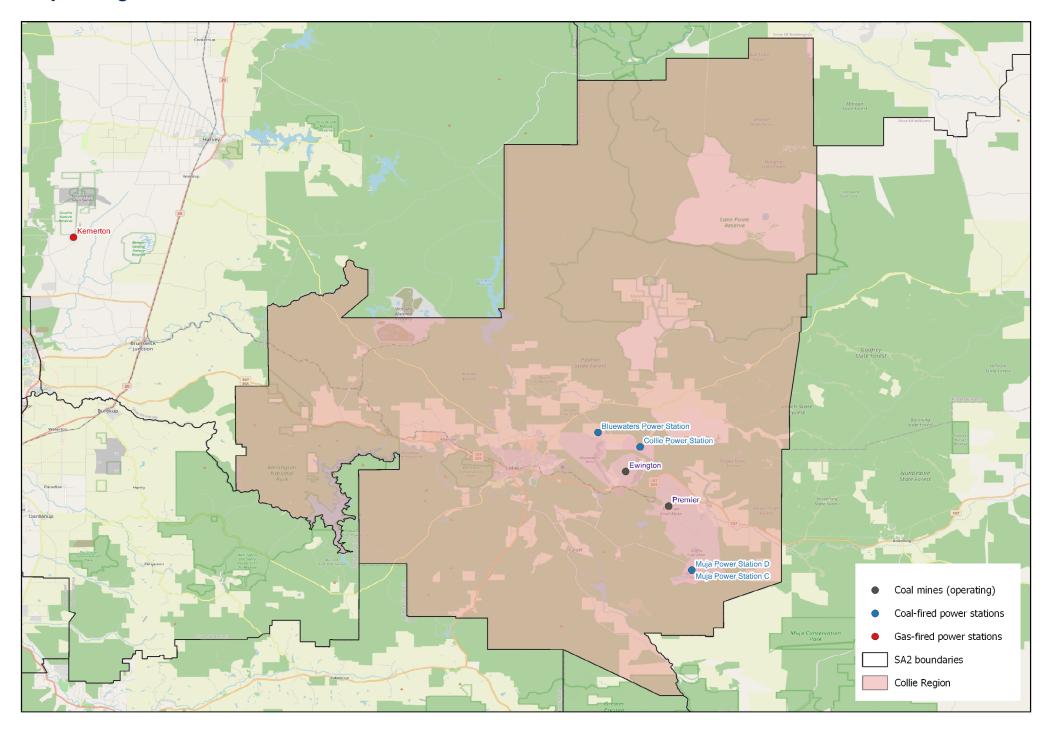
<sup>10</sup> Share of population

<sup>11</sup> Share of population

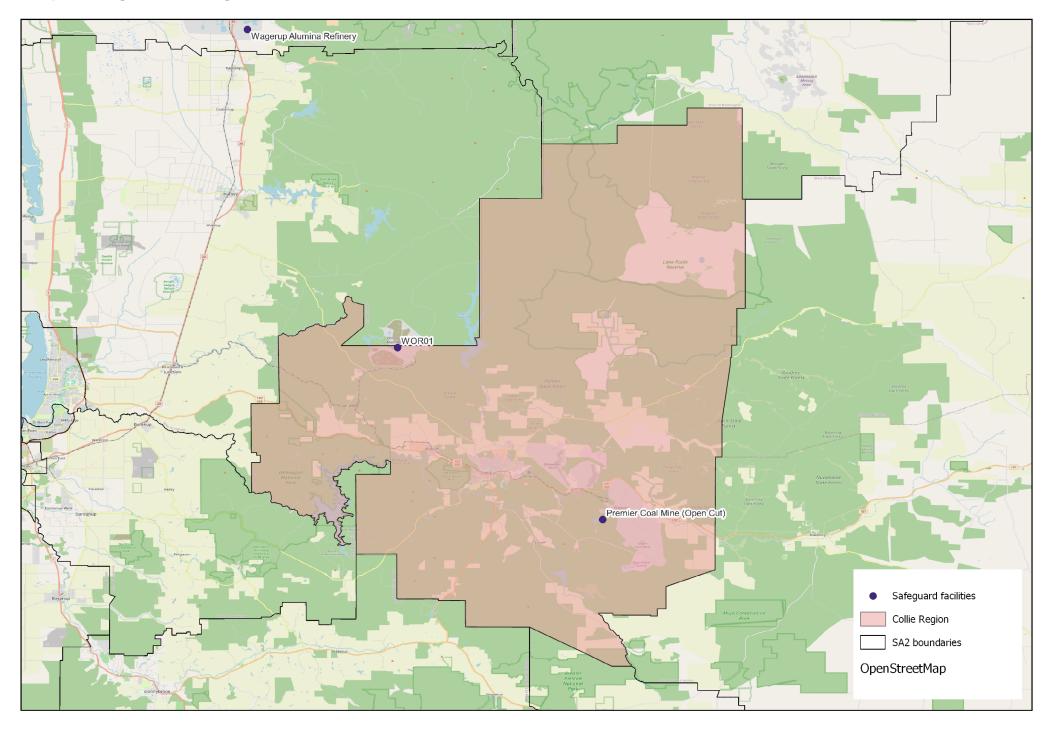
<sup>12</sup> Share of households where repayments are >30% of household income

<sup>13</sup> Share of households where rent payments are >30% of household income

# **Map of Region – Power Stations and Mines**



# 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	Feb 2025
Emissions	Safeguard facilities data, CER	2023-24
Carbon Intensive Industries		
Coal Fired Power Stations	Greenhouse and energy information by designated generation facility, CER Greenhouse and energy information - published data highlights (WA)	2023-2024
Coal mines	Safeguard facilities data, CER	2023-24
Power station closure dates	Collie Community Fact Sheet, WA Government	August 2023
Safeguard facilities	Safeguard facilities data, CER	2023-2024
Major Industries		
Ranked Industries by most value	Economic data <sup>a</sup> , REMPLAN	2025
Ranked Employing Industries	Census, ABS	2021
Major Investments		
All	Funded projects, ARENA HyResource <sup>b</sup> , CSIRO Resources and Energy Major Projects, DISR	2025 2025 2024

a Access may be restricted on a secure network: https://www.remplan.com.au

b 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 <sup>c</sup> , 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	December 2024
Unemployment rate:		
• Collie	Small Area Labour Markets, Jobs & Skills Australia	December 2024
• WA	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 <u>Australian Bureau of Agricultural</u> and Resource Economics and Sciences (ABARES), DAFF	December 2023

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

c 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