







Hunter

Total Area: 33,851 sq. km **Population:** 1,119,685 (Hunter: 773,110; Central Coast: 346,575) **Working Zones:** Bulahdelah-Stroud; Central Coast & surrounds; Forster, Tuncurry & surrounds; Gloucester; Muswellbrook, Scone & surrounds; Nelson Bay Peninsula & Anna Bay; Newcastle, Lower Hunter & surrounds; Taree & surrounds (maps at end of profile)

Region Selection Rationale

Exposure to decarbonisation

Carbon intensity: Large number of facilities (incl. 3 coal-fired power stations and 17 safeguards. As of 2023-24, safeguards in the region account for 39% of NSW safeguard scope 1 emissions); high carbon-intensive employment (Approx. 20,000 employees).

- Urgency: All coal-fired power stations projected to close by 2033.
- Adaptive capacity: Varying levels of adaptive capacity across the region, largely reflecting proximity to well-diversified economies in city centres and related education and skill level opportunities.
- Readiness: Moderate to strong position for energy transition opportunities – hydrogen hubs planned for Singleton & Newcastle, with government support flagged for Newcastle, Lower Hunter prospective projects. Several transition planning initiatives exist, but not joined up, reflecting different dynamics across Upper and Lower Hunter regions. However, the NSW Government is now establishing a Future Jobs and Investment Authority for NSW's four coal mining regions, including the Hunter.

Potential to harness economic opportunities from decarbonisation

- Natural capital: Considerable green industry potential – including green aluminium, strong offshore wind energy resources
- Workforce compatibility: Moderate number of workers in the region are in jobs highly compatible with clean energy industries. Higher compatibility in the Muswellbrook, Scone and surrounds working zone.
- Enabling infrastructure: Strong position

 existing and proposed transport
 infrastructure, particularly its large regional airport and port (Newcastle Shipping Port), will support labour mobility to meet workforce needs and connect the region's output to global markets.

Carbon-Intensive Industries

Coal Fired Power Stations (CFPS)

Name	Owner	Public closure date	Supplying Coal Mine	S1 emiss. (tCO2-e) (23/24) ¹	% of NSW S1 emiss. (23/24) ²	% of Aus S1 emiss. (23/24)
Bayswater Power Station	AGL	2033	Mangoola, Mt Arthur, Wilpinjong	13,678,909	19%	5%
Eraring Power Station	Origin	2027	Mandalong, Myuna, & three others	13,535,335	19%	4%
Vales Point Power Station	Delta	2033	Chain Valley (primary)	7,043,816	10%	2%
Total	3		9+	34,258,060	47%	11%

- 1 S1 emiss. indicates Scope 1 Emissions (2023/24)
- 2 Note, NSW Scope 1 Emissions includes ACT Scope 1 Emissions



Metal Manufacturing / Refineries and Smelters

Name	Owner	PPA expiry date	Power source	Scope 1 emissions (tCO2-e) (23/24)	% of NSW Scope 1 emissions (23/24) ³	% of Aus Scope 1 emissions (23/24)
Tomago Aluminium Smelter	Tomago Aluminium Company Ltd	2028	Bayswater CFPS	1,159,663	1.6%	0.4%

Gas Fired Power Stations

Name	Owner		% of NSW Scope 1 emissions (23/24)4	
Colongra	Snowy Hydro Limited (Cwth gov)	63,830	0.1%	0.02%

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 NSW scope 1 safeguard emissions (23/24) ⁵	% of Aus scope 1 safeguard emissions (23/24)
Manufacturing	2	1,642,734	7.3%	1.3%
Coal mines	15	7,129,811	31.9%	5.6%
Total safeguards	17	8,772,545	39.2%	6.9%

Coal mines

Туре	No.	
Safeguards	15 ⁶	
Non-safeguards	5	
Total	20	

- 3 Note, NSW Scope 1 Emissions includes ACT Scope 1 Emissions
- 4 See above
- 5 See above
- 6 Mannering Colliery operates as part of an integrated mining operation with Chain Valley



Major Industries

Gross Regional Product (GRP): \$108.1 billion (14% of NSW's Gross State Product)7

Ranked Industries with most value ⁸	Value (m)	% of GRP
Mining	\$31,509	29.2%
Rental, Hiring & Real Estate Services	\$12,363	11.4%
Health Care & Social Assistance	\$10,471	9.7%
Construction	\$8,401	7.8%
Public Administration & Safety	\$5,937	5.5%

Hunter

Ranked Employing Industries (by usual residence ⁹)	No. of employees (% of workforce)	Ranked Employing Industries (by place of work 10)	No. of employees (% of workforce)
Total labour force living in region	336,49511	Total labour force working in region	312,965 ¹²
Health Care and Social Assistance	61,190 (18%)	Health Care and Social Assistance	57,879 (18%)
Retail & Wholesale Trade	40,139 (12%)	Retail & Wholesale Trade	38,741 (12%)
Construction	33,132 (10%)	Education and Training	28,616 (9%)
Education and Training	29,995 (9%)	Construction	26,970 (9%)
Accommodation and Food Services	26,322 (8%)	Accommodation and Food Services	25,590 (8%)

⁷ 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)

⁸ Note, this table has been produced looking at both Hunter and Central Coast regions (but does not include Forster, Tuncurry and Taree areas).

Data by usual residence means only employees living in Hunter region would be captured (regardless of whether or not they actually work in Hunter).

¹⁰ Data by place of work means only employees working in Hunter region would be captured (regardless of whether or not they actually reside in Hunter).

¹¹ Note, for purposes of calculating shares of workforce, total of 454,135 was used (total workforce minus those workers in 'Industry of Employment' categories listed as 'inadequately described' and 'not stated').

¹² Note, for purposes of calculating shares of workforce, total of 400,964 was used (total workforce minus those workers in 'Industry of Employment' categories listed as 'inadequately described' and 'not stated').

Central Coast

Ranked Employing Industries (by usual residence ¹³)	No. of employees (% of workforce)	Ranked Employing Industries (by place of work ¹⁴)	No. of employees (% of workforce)
Total labour force living in region	144,753 ¹⁵	Total labour force working in region	112,242 ¹⁶
Health Care and Social Assistance	26,792 (19%)	Health Care and Social Assistance	24,006 (21%)
Retail & Wholesale Trade	18,714 (13%)	Retail & Wholesale Trade	16,010 (14%)
Construction	17,370 (12%)	Construction	10,626 (9%)
Education and Training	12,413 (9%)	Education and Training	10,224 (9%)
Accommodation and Food Services	10,578 (7%)	Accommodation and Food Services	9,986 (9%)

Major Investments

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

Project	Description	Category	Status	Value
AGL Energy – Liddell Large Scale Battery with advanced inverters	Project involves the construction and operation of a 500 MW / 1000 MWh battery with advanced inverters at the retired Liddell Power Station in Muswellbrook, New South Wales.	Battery storage	Under construction	\$695 m
Bowmans Creek Wind Farm	Stage 1 involves 54 wind turbines, and scoping of stage 2 proposes an additional 21 wind turbines	Renewable energy	Announced	\$569 m
Waratah Super Battery	Will allow network operators to move greater amounts of electricity over existing transmission lines and to 'shock absorb' during power surges	Infrastructure	Reached mechanical completion and will be fully operating later in 2025	\$500 m
Hunter Valley Hydrogen Hub	Project proponent is progressing large- scale renewables-based hydrogen project located in the Newcastle industrial and port precinct.	Hydrogen	Under development	\$250 m
Liddell Solar Manufacturing Hub	Establishment of solar panel manufacturing plant in Upper Hunter at site of former Liddell Power Station	Renewable energy	Feasibility	Unknown

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Transmission Infrastructure Projects

AEMO Final 2024 Integrated System Plan transmission infrastructure projects

Name	Description	Status (Draft 2024 ISP Status)	Timing (Draft 2024 ISP Timing)	Costs
Hunter-Central Coast REZ Network Infrastructure Project	Substation upgrades to supply generation from the Hunter and Central Coast to Sydney, Newcastle and Wollongong load centres.	Actionable (previously listed as Future)	Dec 2027 (previously 2027-28)	\$59 m (±50%)
Sydney Ring South	Switching station and modular power flow controllers to reinforce supply to Sydney, Newcastle and Wollongong load centres.	Actionable (previously listed as Future)	Sep 2028 (previously Dec 2027)	\$221 m (±50%)
Sydney Ring North (Hunter Transmission Project)	High capacity 500 kV transmission network to reinforce supply to Sydney, Newcastle and Wollongong load centres.	Actionable (unchanged from Draft 2024 ISP)	Dec 2028 (previously Dec 2027)	\$1,100 m (±50%)
New England REZ Network Infrastructure project	Three separate projects to increase the transfer capability between central and northern NSW, enable more transfer capacity out of QLD-NSW Interconnector, and expand the New England REZ.	Actionable (unchanged from Draft 2024 ISP)	Part 1 Jun 2031 Part 2 Jun 2033 (previously Sep 2028)	\$3,700 m (±50%) (estimate includes the three separate projects

Employment

Hunter

Indicator (2021 Census unless otherwise stated)	Hunter	NSW
Average working age	39	38
Median income (annual gross, exc. super)	\$33.8K - \$41.6K	\$41.6K - \$52.0K
Participation in workforce	58%	59%
Female participation in workforce	55%	56%
Unemployment rate (Dec 2024)	3.4%	3.8%
Regional Labour Market Index (Dec 2024)	Below average ¹⁷	N/A

Central Coast

Indicator (2021 Census unless otherwise stated)	Central Coast	NSW
Average working age	40	38
Median income (annual gross, exc. super)	\$33.8K - \$41.6K	\$41.6K - \$52.0K
Participation in workforce	56%	59%
Female participation in workforce	53%	56%
Unemployment rate (Dec 2024)	3.0%	3.8%
Regional Labour Market Index (Dec 2024)	Above average	N/A

¹⁷ Note, this does not include Newcastle. The neighbouring SA4 of Newcastle and Lake Macquarie has an 'Above average' score



Demographics

Hunter

Indicator (2021 Census)	Hunter	NSW
Median age	41	38
First Nations (% of population)	6%	3%
Population growth (2016-21)	9%	8%
Educational attainment (% of population aged 15 & above):18		
Below Y12	54%	39%
Y12 or equivalent	46%	61%
Cert III & IV	22%	16%
Bachelor and above	18%	30%

Central Coast

Indicator (2021 Census)	Central Coast	NSW
Median age	42	38
First Nations (% of population)	5%	3%
Population growth (2016-21)	6%	8%
Educational attainment (% of population aged 15 & above):19		
Below Y12	51%	39%
Y12 or equivalent	49%	61%
Cert III & IV	21%	16%
Bachelor and above	18%	30%

¹⁸ Excludes 'not stated' and categories are not cumulative

¹⁹ Excludes 'not stated' and categories are not cumulative



Housing

Hunter

Indicator (2021 Census unless otherwise stated)	Hunter	NSW
Homelessness ²⁰	0.3%	0.4%
Commonwealth Rent Assistance (Dec 2024) ²¹	7%	6%
Mortgage stress ²²	12%	17%
Rental stress ²³	37%	36%

Central Coast

Indicator (2021 Census unless otherwise stated)	Central Coast	NSW
Homelessness ²⁴	0.2%	0.4%
Commonwealth Rent Assistance (Dec 2024) ²⁵	8%	6%
Mortgage stress ²⁶	15%	17%
Rental stress ²⁷	42%	36%

²⁰ Share of population

²¹ Share of population

²² Share of households where repayments are >30% of household income

²³ Share of households where rent payments are >30% of household income

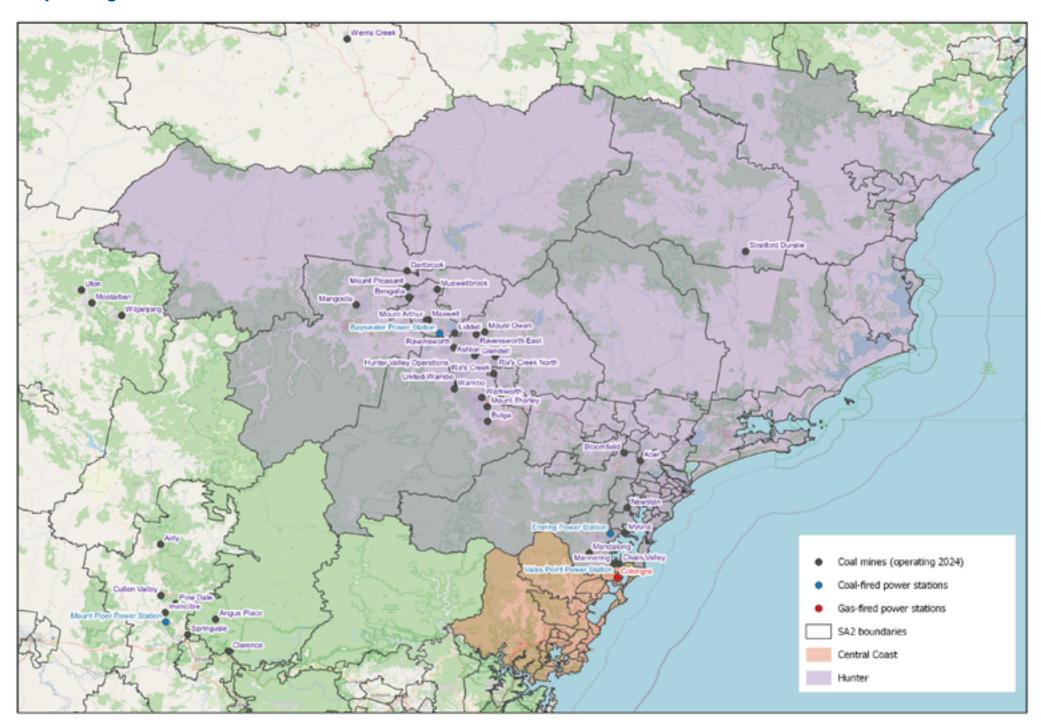
²⁴ Share of population

²⁵ Share of population

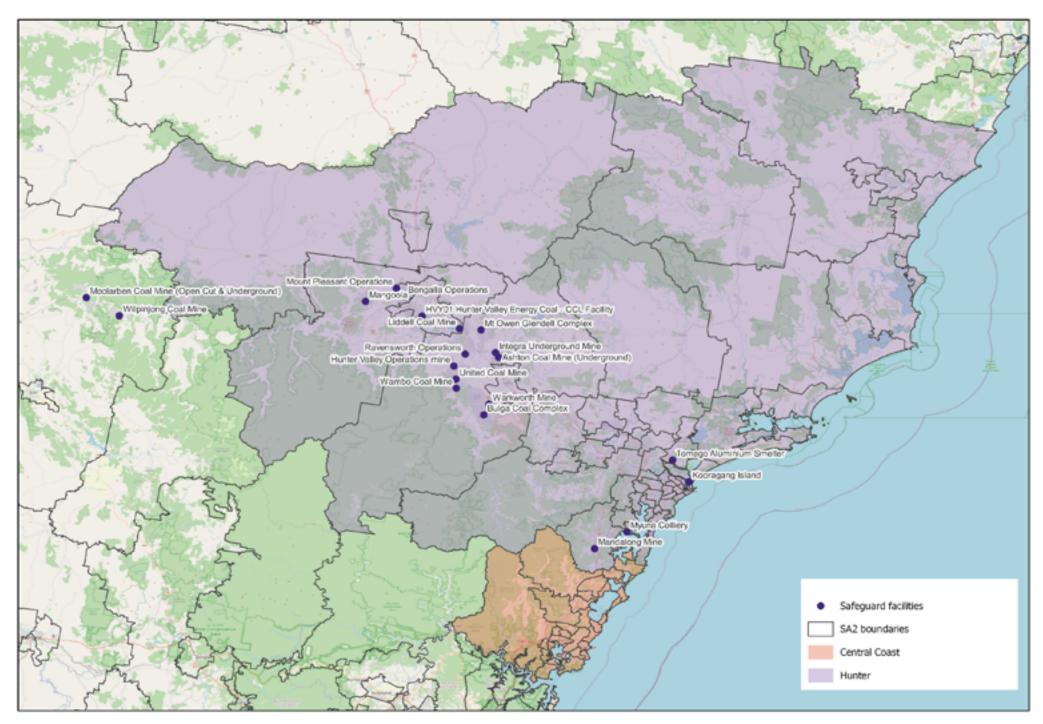
²⁶ Share of households where repayments are >30% of household income

²⁷ 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 R	ationale	
All	Regional identification framework	February 2025
Emissions	Safeguard facilities data, CER	2023-24
Carbon Intensive Industries		
Coal Fired & Gas Fired Power Stations	Greenhouse and energy information by designated generation facility, CER (Hunter) Greenhouse and energy information - published data highlights (NSW)	2023-24
Coal mines	Safeguard facilities data, CER	2023-24
Safeguard facilities	Safeguard facilities data, CER	2023-24
Major Industries		
Ranked Industries by most value	Economic data ^a , REMPLAN	2025
Ranked Employing Industries	Census, ABS	2021
Major Investments		
All	Funded projects, ARENA	2025
	HyResource ^b , CSIRO	2025
	Resources and Energy Major Projects, DISR	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 ^c , AEMO	June 2024	
Employment			
Average working age, median income, labour force participation	Census, ABS	2021	
Regional Labour Market Index	Regional Labour Market Indicator, Jobs Skills Australia	December 2024	
Unemployment rate:			
 Hunter 	Small Area Labour Markets, Jobs & Skills Australia	December 2024	
• NSW	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 and</u> <u>Resource Economics and Sciences</u> (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