



A Beyond Zero Future
for South East NSW

Climate Action in Gilmore

The Electorate of Gilmore—Yuin Country

Includes LGAs Kiama, Shoalhaven and part of Eurobodalla (north of Tuross Heads)

Industries— government services, real estate, retail, retirement, health and aged care, tourism, construction

Population—150,436 Emissions—13t CO₂ per person p.a.

Residences—80,962. Emissions per residence—20t CO₂ p.a.

Current emissions profile (from [Snapshot 2019/20](#))

- 56% of emissions from electricity use, 24% from residences
- 24% of emissions from road transport

Home solar installs to 2020—20,842. Capacity 99,834 kW.

New installs in 2021—4,066. Capacity 30,975 kW.

25% of homes across NSW now have solar (CER). In Gilmore it's 33%.

Tackling Energy First

Community energy provides more resilient networks, local ownership of generation and cost savings. In Shoalhaven LGA, [Repower Shoalhaven](#) manages community solar projects for businesses and householders including;

- Building community photovoltaic (PV) solar installations
- Facilitating commercial installations and energy efficiency
- 3MW Solar Farm in Nowra, with Flow Power

[South Coast Health & Sustainability Alliance \(SHASA\)](#) is:

- Organising a solar bulk buy program
- Building community photovoltaic (PV) solar installations
- Running microgrid trial projects
- Supporting electric vehicle and charging initiatives

In Gilmore, Zero by 2050 targets require halving our CO₂ emissions by 2030. This means:

- Installing about 770 residential rooftop PV p.a. to move from 22% to over 50% of roofs with solar by 2030
- Increasing commercial and industrial uptake from 200 installations to 570 by 2030

Payback period for residential solar is 4 to 6 years, saving about \$1000 p.a. — much more with an electric vehicle.

[Clean Energy Council](#) publishes consumer guides: choose approved local retailers and accredited installers.

Home Energy Retrofits

An average retrofit without roof-top solar costs \$11,000 and:

Electricity 56%

Residential 24%
Commercial 14%
Industrial 18%

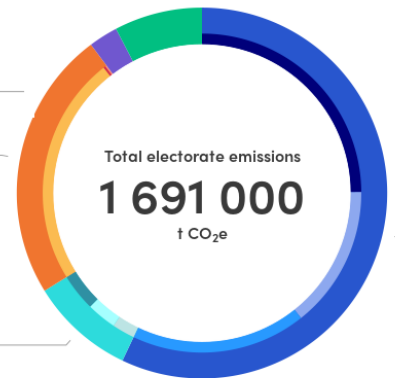
Waste 3%

Transport 24%

Automotive 21%
Motorcycle 1%
Rail 1%
Aviation 1%

Gas 9%

Residential 2%
Commercial 3%
Industrial 4%



- cuts bills and emissions by 40%
- pays back within 7 years
- makes you \$23,000 better off over 20 years

Adding a 5kW roof-top solar costing \$5,000 to this retrofit:

- cuts emissions by 65%
- makes you \$27,000 better off over 20 years

The most effective measures are roof-top solar, low-flow showers, reverse cycle heating/cooling, heat pump hot water, ceiling insulation and draught sealing.

Retrofitting 5% of homes in Gilmore each year would see a 50% cut in total residential energy use by 2030.

Transport—Electric Vehicles are Great to Drive

- Running costs up to 85% lower than a conventional car
- Roof-top solar plus EV will typically save you \$4000 a year
- See [NSW Electric Vehicle Strategy](#) for more incentives
- EVs have been more expensive than their petrol/diesel equivalent but this gap is closing fast
- Fast charging infrastructure is growing

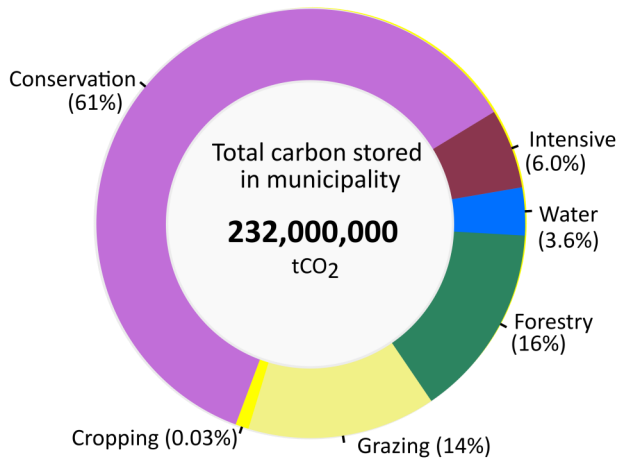
E-bikes are great for distances up to 15km.

What Else is Needed?

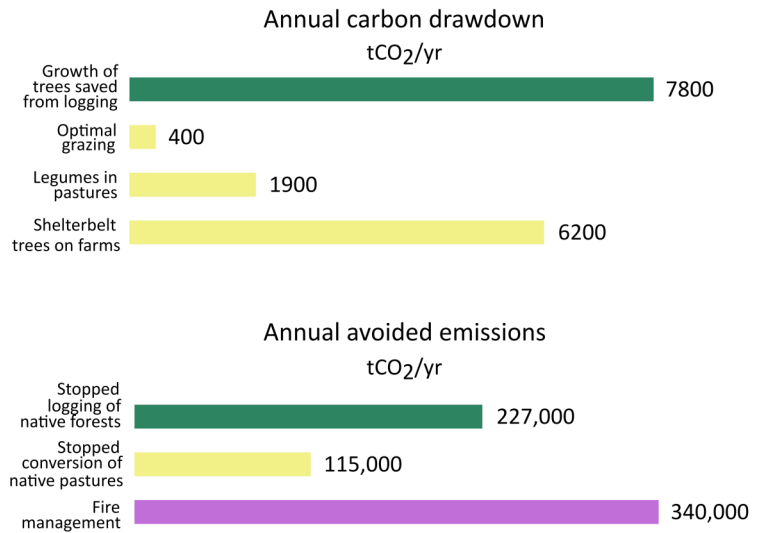
Commercial and industrial installations of rooftop PV are the biggest local growth opportunity for renewable energy.

- Get behind the [#RePowerOurCommunities](#) campaign.
- Ask government to enable community scale projects - solar farms, batteries and microgrids.
- Expect clear targets for emission reductions and technology, and hold government and companies accountable.
- Look for business and job opportunities in local clean energy technologies.

Gilmore - Current Land Use



With 1% Land Use Change



References

Carbon Wealth in Farms and Trees

Agriculture is key to solving the climate crisis. South East NSW is well placed to implement solutions including draw-down of carbon through changed farming practices and retaining the vast store of carbon in soils and trees. Gilmore is rich in trees—[67% is forest or woodlands](#).

Keeping Trees

If logging in Gilmore's 98,000 ha of native forests ceased, 227,000 tonnes of CO₂ emissions would be avoided annually, potentially generating \$18 million on the international carbon market. This is equivalent to 13% of annual shire emissions from electricity, transport, waste, gas and agriculture.

Livestock

Methane (CH₄) emissions from burping livestock are a major contributor to world greenhouse gases. In Gilmore, 4.2% of all emissions are from livestock.

If 10% of Gilmore farmers supplemented their animals' diet with *Asparagopsis* seaweed, 5,900 tonnes of CO₂ emissions would be avoided annually, worth \$500,000 on the international carbon market.

Soil

Soil contributes to climate solutions through carbon draw-down into organic matter and avoiding disturbance.

If 10% of Gilmore farmers oversow their perennial pastures with legumes and practise optimal grazing methods, this would draw down 22,300 tonnes of CO₂ each year and earn \$1.8 million p.a. on the international carbon market.

Retaining 1% of Gilmore perennial pasture each year would save 115,000 tonnes of CO₂.



Planting Trees

One hectare of farm land planted with trees draws down 3.7 tonnes of CO₂ p.a.

Gilmore has 71,817 hectares of cleared farm land available for trees.

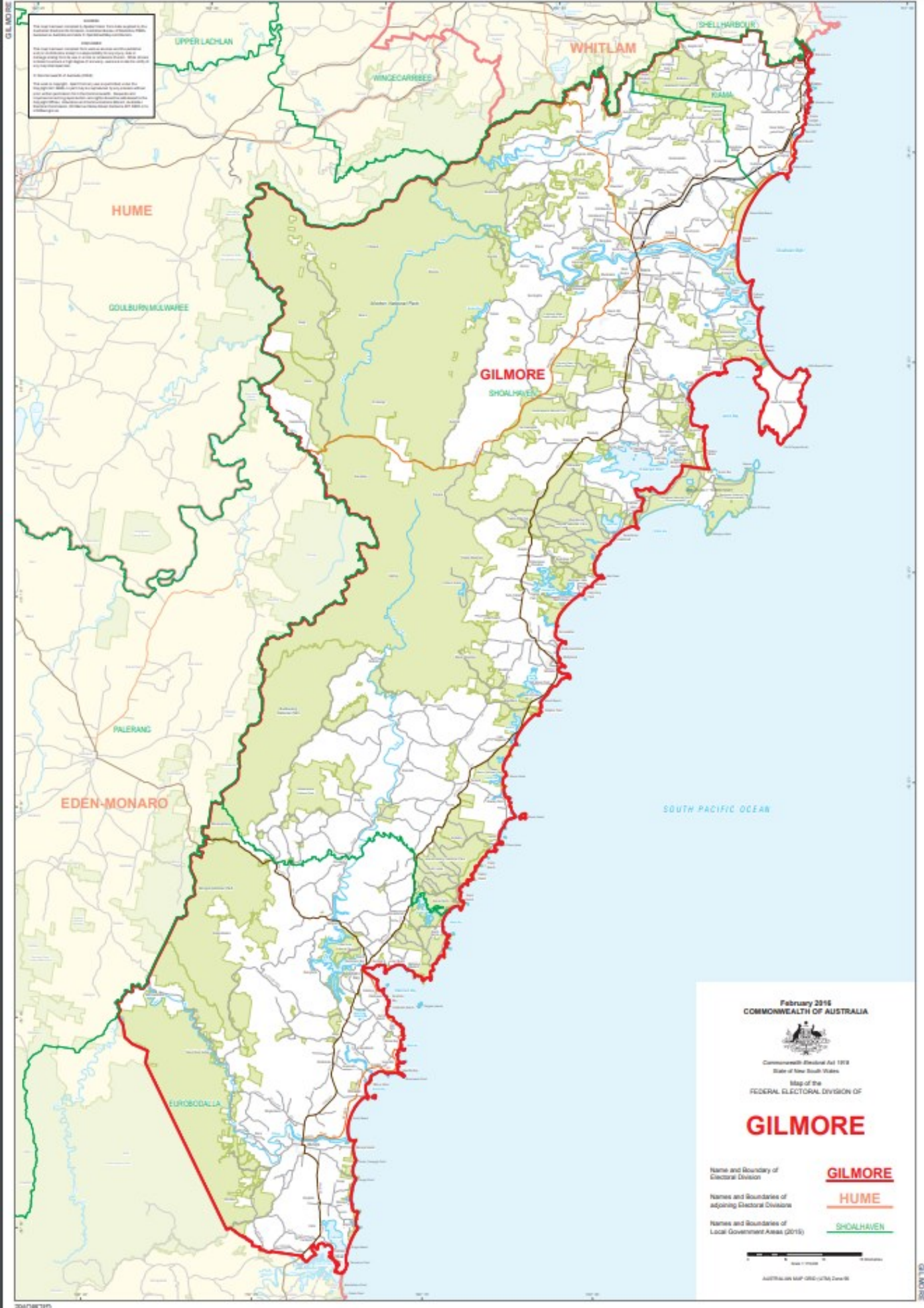
If 10% of this was planted with trees in shelterbelts, ridgelines and creeklines, (1% p.a. for 10 years), it would draw down 57,100 tonnes of CO₂ into trees and another 4,700 tonnes into soil, earning local farmers \$4.9 million on the international carbon market and injecting 50 local jobs for 10 years.

What are the Barriers?

- Low domestic carbon price is well below current international price of \$80/tCO₂
- Lack of strong regulatory frameworks, tax incentives and subsidies for participation in the carbon market
- Lack of just transition funding for forest industry restructure from logging native forests to 100% plantations and carbon trading
- High start-up costs of trees on farms
- Complexity and cost of carbon marketing
- For methane emissions, limited current availability of *Asparagopsis* supplement

More Reasons to Act Now

- Environmental benefits of moisture retention, soil health, erosion-proofing, animal well-being, biodiversity, sustained productivity and drought resilience
- Diversification of on-farm income, on-farm long-term financial dividends and investment in 'natural capital'
- Business and job opportunities in aquaculture, carbon drawdown, conservation and nature-based tourism



LEGEND

BOUNDARIES

The map shows the boundaries of the Gilmore federal electoral division, the boundaries of the Hume, Whitlam, Shoalhaven and Eurobodalla federal electoral divisions, and the boundaries of the local government areas (LGAs) as of 2015.

SYMBOLS

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February 2016
COMMONWEALTH OF AUSTRALIA



Commonwealth Electoral Act 1918
State of New South Wales
Map of the
FEDERAL ELECTORAL DIVISION OF

GILMORE

- Name and Boundary of Electoral Division **GILMORE**
- Names and Boundaries of adjoining Electoral Divisions **HUME**
- Names and Boundaries of Local Government Areas (2015) **SHOALHAVEN**

