



A Beyond Zero Future
for South East NSW

Climate Action in Eurobodalla

About Eurobodalla—Yuin Country

Industries—construction, government services, real estate, retail, retirement, aged care, tourism, dairy farming, forestry, oyster farming

Population—38,473. Emissions—11t CO₂ per person p.a.

Residences—24,025 (2016). Emissions per residence—5t CO₂ p.a.

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

- 27% of emissions from residential electricity use
- 27% of emissions from road transport

Home solar installs to 2020—6,080 (new installs in 2020—770)

Tackling Energy First

Community energy provides more resilient networks, local ownership of generation and cost savings.

[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 Eurobodalla, Zero by 2050 targets require halving our CO₂ emissions by 2030. This means:

- Keep installing about 770 residential rooftop PV p.a. to move from 22% to over 50% of roofs with solar by 2030
- Increase 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.

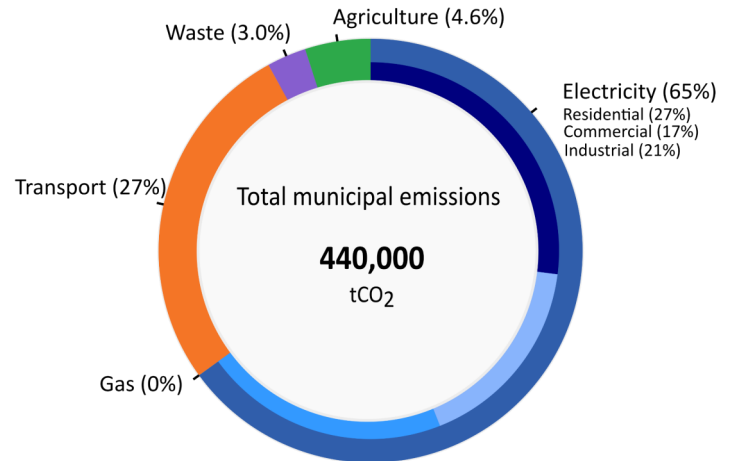
Home Energy Retrofits

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

- 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 the Eurobodalla 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

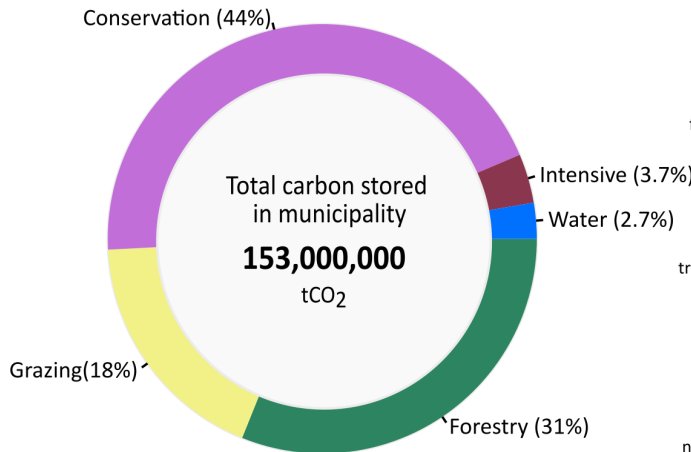
E-bikes are great for distances up to 15km.

What Else is Needed?

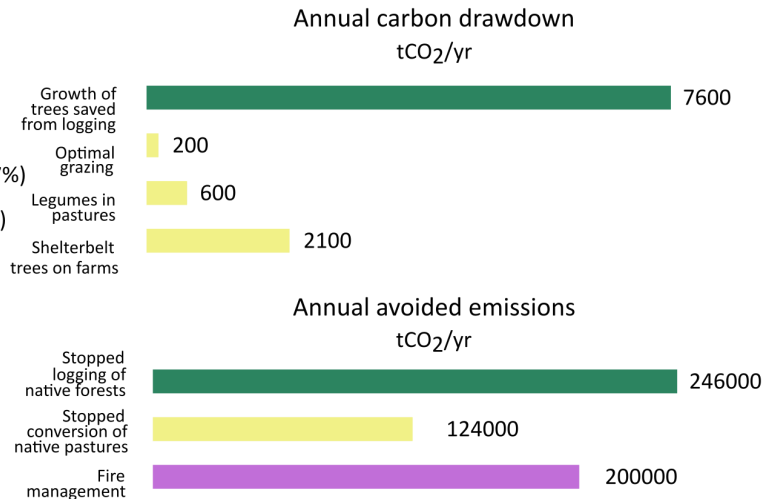
Commercial and industrial installations of rooftop PV are the biggest local growth opportunity for renewable energy.

- Get behind the [#RePowerOurCommunities](#) campaign.
- Ask federal, state and local government to enable community scale projects - solar farms, batteries and microgrids.
- Expect clear targets for emission reductions and technology uptake, and hold governments and companies accountable.
- Share information and stories about the benefits of transitioning to a low carbon economy.
- Look for business and job opportunities in local clean energy technologies.

Eurobodalla - 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. Eurobodalla is rich in trees—87% is forest or woodlands.

Livestock

Methane (CH₄) emissions from burping livestock are a major contributor to world greenhouse gases. In Eurobodalla, 7.5% of all emissions are from livestock.

If 10% of Eurobodalla farmers supplemented their animals' diet with *Asparagopsis* seaweed, 2,800 tonnes of CO₂ emissions would be avoided annually, worth \$200,000 on the international carbon market.

Soil

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

If 10% of Eurobodalla farmers oversow their perennial pastures with legumes and practise optimal grazing methods, this would draw down 8,000 tonnes of CO₂ each year and earn \$640,000 p.a. on the international carbon market.

Retaining 1% of Eurobodalla perennial pasture each year would save 124,000 tonnes of CO₂.

Planting Trees

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

Eurobodalla has 27,000 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 19,200 tonnes of CO₂ into trees and another 1,600 tonnes into soil, earning local farmers \$1.7 million on the international carbon market and injecting 20 local jobs for 10 years.

Keeping Trees

If logging in Eurobodalla's 106,000 ha of native forests ceased, 246,000 tonnes of CO₂ emissions would be avoided annually, potentially generating \$20 million on the international carbon market. This is equivalent to 56% of annual shire emissions from electricity, transport, waste and agriculture.

What are the Barriers?

- Low domestic carbon price of \$16/tCO₂, well below 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 to 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 carbon drawdown, conservation and nature-based tourism

