



A Beyond Zero Future
for South East NSW

Climate Action in Eden Monaro

The Electorate of Eden Monaro—Yuin, Ngarigo, Ngunawal traditional owners

[Includes Bega Valley, Eurobodalla \(south of Tuross Heads\), Queanbeyan Palerang, Snowy Monaro, Snowy Valley and Yass Valley](#)

Industries— government services, Defence, hospitals, retail, accommodation

Population—147,532 Emissions—21t CO₂ per person p.a.

Residences—71,042. Emissions per residence—43.9t CO₂ p.a.

Current emissions profile (from [Snapshot 2020](#))

- 42% of emissions from electricity use, 18% from residences
- 25% of emissions from road transport 28% from agriculture

Home solar installs to 2020—20,027. Capacity 106,060 kW

New installs in 2021—3,215. Capacity 26,670 kW

25% of homes across NSW now have solar (CER). In Eden Monaro it's 30%.

Tackling Energy First

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

[Climate Action Monaro \(CAM\)](#) was established in 2011 to inform and educate the Monaro community and decision makers about the science of climate change. CAM lobbies government to take action to mitigate and adapt to climate change. It holds two public meetings a year, and an ongoing information program.

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

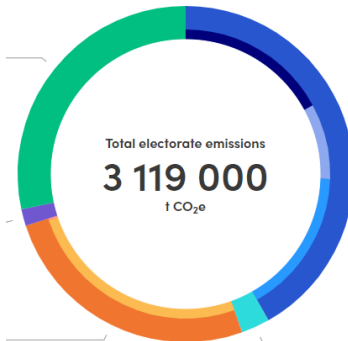
- Organising a solar bulk buy program
- Building community photovoltaic (PV) solar installations
- Running microgrid trial projects
- Supporting electric vehicle and charging initiatives

In Eden Monaro, 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.



Source	Sector	Emissions (t CO ₂ e)
Electricity	Residential	534 000
	Commercial	263 000
	Industrial	507 000
Gas	Residential	28 000
	Commercial	20 000
	Industrial	37 000
Transport	Automotive	789 000
	Motorcycle	0
	Bus	0
	Rail	0
	Tram	0
	Aviation	6 000
Waste	Landfill	29 000
	Water	21 000
Agriculture		885 000
Land Use		-21 000

Land Use data is not used in the chart nor the displayed total municipal emissions.

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, and
- 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%, and
- 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 Eden Monaro each year would see a 50% cut in total residential energy use by 2030.

Transport—Electric Vehicles are Great to Drive

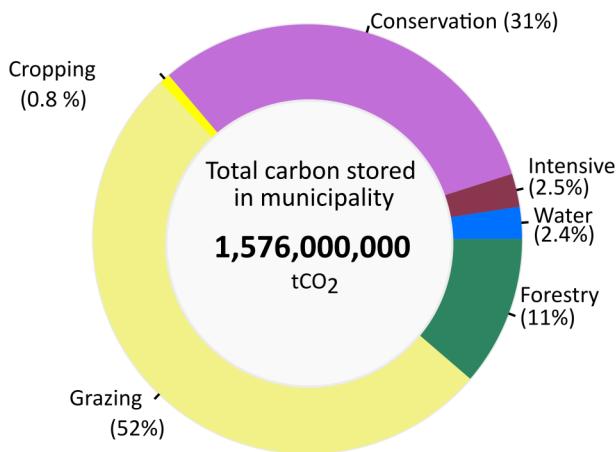
- Running costs up to 85% lower than a conventional car
- Roof-top solar plus EV will typically save you \$4000 a year
- See [NSW Electric Vehicle Strategy](#) for more incentives
- EVs have been more expensive than their petrol/diesel equivalent but this gap is closing fast
- Fast charging infrastructure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

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

What Else is Needed?

- Get behind the [#RePowerOurCommunities](#) campaign.
- Ask federal government to enable community scale projects - solar farms, batteries and microgrids.
- Expect clear targets for emission reductions and technology uptake, and hold government 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.

Eden Monaro - Current Land Use



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. Eden Monaro is rich in trees—54% is [forest or woodlands](#).

Keeping Trees

If logging in Eden Monaro's 313,000 ha of native forests ceased, 722,000 tonnes of CO₂ emissions would be avoided annually, potentially generating \$58 million on the international carbon market. This is equivalent to 23% of annual shire emissions from electricity, transport, gas, agriculture and waste.

Livestock

Methane (CH₄) emissions from burping livestock are a major contributor to world greenhouse gases. In Eden Monaro, 20% of all emissions are from livestock.

If 10% of Eden Monaro farmers supplemented their animals' diet with *Asparagopsis* seaweed, 64,300 tonnes of CO₂ emissions would be avoided annually, worth \$5.1 million on the international carbon market.

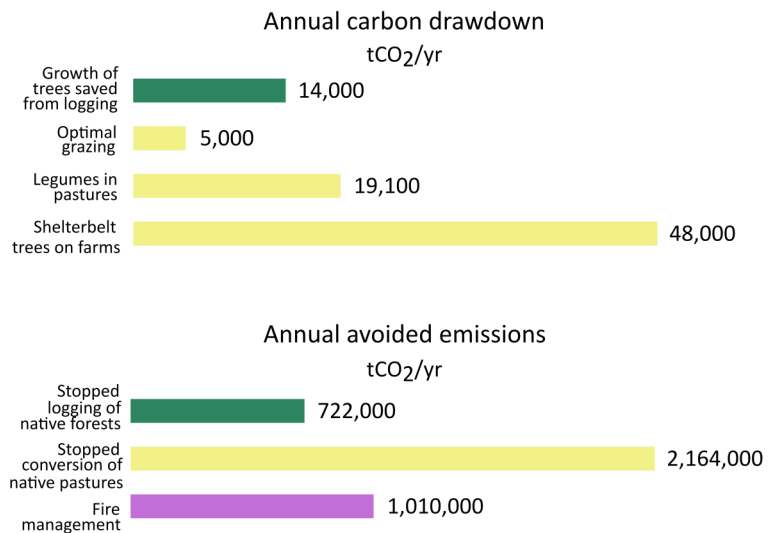
Soil

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

If 10% of Eden Monaro farmers oversow their perennial pastures with legumes and practise optimal grazing methods, this would draw down 240,900 tonnes of CO₂ each year and earn \$19.3 million p.a. on the international carbon market.



With 1% Land Use Change



Retaining 1% of Eden Monaro perennial pasture each year would save 2,164,000 tonnes of CO₂.

Planting Trees

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

Eden Monaro has 993,000 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 443,500 tonnes of CO₂ into trees and another 36,200 tonnes into soil, earning local farmers \$38.4 million on the international carbon market and injecting 700 local jobs for 10 years.

What are the Barriers?

- Low domestic carbon price is 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 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

data supplied by the Australian Electoral Commission, Australian Bureau of Statistics, PSMA, Geoscience Australia and data © OpenStreetMap contributors.
© Commonwealth of Australia (2016)

