NEW ENGLAND **RENEWABLE ENERGY ZONE**

KEY ISSUES

raised by **EnergyCo's** *own* Studies

EnergyCo has commissioned **five technical studies** to support planning of the New England Renewable Energy Zone (REZ).

- Water and Wastewater Security -
- Workforce Accommodation -
- Waste and Circular Economy -
- Training and Skills -
- Local Supply Chain -

These studies deliver **three clear messages**

1 The New England REZ is t**oo large for the region's available resources.**

2 Concentrating REZ development around Walcha and Uralla is **poor planning and high risk.**

3 The New England REZ should be **reduced to 3-4GW transmission capacity.**

It is important to understand that all five studies assess supply, demand and "base case" conditions across a **very large study area**, **not just the REZ footprint**. The study area includes the LGAs of Inverell, Uralla, Tamworth, Liverpool Plains, Muswellbrook, Tenterfield, Glen Innes Severn, Armidale, Walcha, Upper Hunter and Singleton.

When the studies refer to existing capacity, shortages, or impacts, **they are describing this entire region**. Localised impacts—particularly around Walcha and Uralla—are therefore far more severe than the regional averages suggest.

1 The New England REZ is too large

Water Demand and Risk

The Water and Wastewater Security Study identifies water supply as one of the highest-risk constraints on REZ delivery.

- Base case water demand (pre-REZ) across the study area is 121.1 ML/day.
- REZ projects add a further 61.1 ML/day, representing a 50% increase in regional water demand in an already water-stressed area.

The localised impacts are extreme:

- Walcha's base case water demand is less than 1 ML/day.
- By 2032, REZ demand for Walcha alone is 11.9 ML/day, an increase of over 1,000%.

Identified water sources are remote and located across multiple catchments, including Pindari, Copeton, Split Rock, Keepit, Chaffey, Glenbawn and Glennies Creek dams. **These are not local supplies.**

If water is trucked to REZ construction sites, the study indicates:

- Approximately 1,500 water truck movements per day across the New England REZ, or
- Around 400 truck movements per day into the Walcha LGA alone.

The study identifies significant risks, including:

- Insufficient water to construct or operate projects
- Water restrictions and conservation measures
- Localised water shortages
- Increased water costs due to transport, treatment and sourcing
- Conflict between communities and industries
- Disruption to normal water use
- Reduced output in water-dependent industries such as agriculture
- Heightened scrutiny of water management practices

These risks are highest during dry years, which are common in this region.

Steel Requirements

The Local Supply Chain Study identifies substantial material demand:

- In 2030, renewable energy projects require around 200 tonnes/day of reinforcing steel, which is intended to be locally sourced.
- This represents only 20% of total steel demand.
- The remaining 80% (structural steel) will be imported into the region.

This implies heavy transport impacts and limited local economic benefit relative to scale.

Road Aggregates (Gravel, Sand, Crushed Stone)

Road construction for REZ projects creates extremely high demand for aggregates:

- Average demand in 2030 is approximately 2,300 cubic metres per day.
- To meet this demand, aggregate output across the entire study area would need to more than double.

The Local Supply Chain Study states:

> *"Material output will need to more than double to meet peak demand."*

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Key implications:
- Direct competition with councils and local industries for the same materials
- Substantial increases in heavy vehicle movements on local roads
- Pressure on quarries and transport infrastructure not designed for this scale

Waste Generation and Management

Baseline waste generation across the study area is approximately 125,000 tonnes per year.

By comparison:
- The New England REZ transmission project alone generates approximately 170,000 tonnes per year by 2030, or 1,279 tonnes per kilometre.

The Waste and Circular Economy Study finds:
- Major increases in general waste and construction and demolition waste
- Limited capacity in existing regional landfills
- Few facilities capable of handling hazardous or specialised waste
- Long haulage distances due to mismatch between waste facilities and remote REZ sites
- Significant gaps in managing batteries, composites, electronic waste and large infrastructure components
- Large volumes of complex waste at decommissioning, particularly wind turbine blades, solar panels and battery systems

The study concludes:

> *"Without new processing capacity, much of the dangerous goods, residual general waste, and end-of-life renewable equipment (especially battery waste) will be directed to landfill, exacerbating capacity constraints in regional facilities."*

Heavy Vehicle and Truck Impacts

Across the entire study area there are:
- 1,169 prime movers currently available

Peak REZ demand requires:
- An additional 513 trucks, increasing demand to 150% of existing capacity

This figure does not clearly include water or waste haulage, which would further increase truck numbers.

The Local Supply Chain Study notes that trucking is considered "easy to scale" due to a low-skill workforce requirement, meaning:
- More heavy vehicles
- More inexperienced drivers
- Greater safety risk on rural roads not designed for sustained heavy traffic

Workforce and Accommodation

The Workforce Accommodation Study confirms that:
- Unemployment is low
- Workforce participation is high
- The region has limited capacity to absorb a large new workforce

Key findings:
- Peak REZ workforce exceeds 7,000 workers
- Rental vacancy rates across the study area have remained consistently low for five years
- Uralla alone is expected to house over 3,000 temporary workers

This raises a fundamental planning question:
Why is EnergyCo concentrating development in areas with the least accommodation capacity?

2 The REZ should not be centred around Walcha and Uralla

The studies show that Walcha is one of the least suitable locations for concentrated REZ development.

Key constraints include:
- No regulated surface water supply
- Very limited licensed groundwater
- No capacity to treat additional potable water
- No capacity to treat increased wastewater
- Zero rental vacancy and minimal short-term accommodation
- No waste facility capacity to absorb large increases
- Road networks not designed for sustained heavy vehicle traffic

Concentrating development around Walcha would result in:
- Hundreds of trucks daily bringing in water, aggregates and materials
- Large volumes of waste and wastewater being trucked out
- Worker camps generating additional traffic and service demand
- Infrastructure stress far beyond local capacity

Despite this, there is still no evidence of strong developer interest around the Central-South Hub or the Walcha plateau.

3 The New England REZ should be reduced to 3-4GW transmission capacity.

The REZ was originally framed as 8 GW of generation, requiring approximately 3–3.5 GW of transmission capacity.

A 3–4 GW REZ aligns with realistic development interest and regional capacity.

This level of transmission could be achieved through upgrades to existing infrastructure, rather than a new multi-billion-dollar transmission build with major environmental and social impacts.

Key Messages:

EnergyCo's own studies demonstrate that:
- The New England REZ is oversized relative to water, waste, workforce, transport and material capacity
- Concentrating development around Walcha and Uralla creates extreme, localised impacts
- The Central-South Hub is not supported by resource availability or accommodation capacity, or developer interest
- A smaller REZ, aligned with existing infrastructure and established regional centres, would significantly reduce risk and cost