

Submission  
No 62

**INQUIRY INTO IMPACT OF RENEWABLE ENERGY  
ZONES (REZ) ON RURAL AND REGIONAL  
COMMUNITIES AND INDUSTRIES IN NEW SOUTH  
WALES**

**Organisation:** Armidale Regional Council

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The Chair,

**IMPACT OF RENEWABLE ENERGY ZONES (REZ) ON RURAL AND REGIONAL COMMUNITIES AND INDUSTRIES IN NEW SOUTH WALES**

**Summary**

- The New England REZ (NE REZ) must deliver a substantial net community benefit for the Armidale Region.
- The ‘boomtown’ dynamics of the NE REZ will create opportunities and challenges; robust planning and strong community engagement are essential.
- Armidale Regional Council (ARC) has concerns about:
  - NE REZ impacts on the local labour market.
  - Socio-economic impacts of a FIFO/DIDO workforce.
  - NE REZ impacts on the local housing market.
  - NE REZ impacts on agriculture and the environment.
  - Gaps in fire safety planning for the NE REZ.
  - NE REZ infrastructure demands for water, waste, and roads that exceed ARC’s current planning and funding capacity.
  - NE REZ impacts on Council’s rates.
- Payments to ARC via voluntary planning agreements are managed via a *Renewable Energy Community Benefit Framework*, akin to a ‘future fund’.
- The NSW Government has yet to fully understand the NE REZ’s likely financial impact on ARC and the Region.
- Benefit sharing must provide substantial net community benefit, not just cost reimbursement.
- Most raw materials for NE REZ construction are expected to be imported, with some sourced locally.
- NE REZ planning must include investments in local workforce training and education to ensure local employment on NE REZ projects.
- To support NE REZ planning, ARC would benefit from additional human resources.
- ARC supports partial or full ownership of particular renewable energy projects by the Council and the local community.
- Community consultation for the NE REZ has been minimal to date; future consultation must become significantly more extensive and robust.
- If properly structured, decommissioning bonds can mitigate financial and environmental risks and provide lasting benefits to the Armidale Regional community.

- The Net Zero Commission and Commissioner could act as an ombudsman for renewable energy projects within each REZ.

### **Armidale Regional Council Context**

The Armidale Regional Local Government Area (LGA) is located on the Northern Tablelands of NSW, about halfway between Brisbane and Sydney, covering an area of 7809.4 km<sup>2</sup>. The LGA's population is just under 30,000, of which around 8% are First Australians. 10% of the population does not speak English at home and, since 2018, more than 700 Ezidi refugees have been welcomed into the community. In addition to the main centre of Armidale, and the smaller town of Guyra, various satellite villages are nestled within picturesque agricultural landscapes. The region also boasts spectacular waterfalls, gorges, world-heritage national parks, cool-climate vineyards, and a fascinating and diverse cultural heritage. Engine industries include agriculture, education (including the University of New England [UNE] and several major boarding schools), and tourism.

The Armidale Regional LGA is the largest and most populous of four LGAs within the New England Renewable Energy Zone (NE REZ), making Armidale Regional Council (ARC) a major stakeholder in associated planning and development. As EnergyCo (n.d.) explains:

New England has some of the best natural energy resources in the country and some of the State's finest potential sites for pumped-hydro development.

The indicative location of the New England REZ was chosen following a detailed statewide geospatial mapping exercise undertaken by the NSW Government in 2018. This initial analysis sought to identify optimal locations to host renewable energy generation around the State, including areas with strong renewable energy resource potential, proximity to the existing electricity network, and consideration of potential interactions with existing land uses, including agricultural lands and biodiversity conservation ...

The region has also attracted strong investor interest and is close to the existing transmission lines that connect to the NSW east coast, Upper Hunter and Queensland. This provides opportunities to increase NSW's energy resilience and to export excess energy to Queensland.

The NE REZ is set to become the largest planned REZ in NSW by capacity (8 GW).

ARC recognises the urgent need to transition to renewable energy sources to safeguard future generations from the effects of climate change. It also acknowledges the Armidale Region's potential to play a key role in NSW's transition to Net Zero through the NE REZ. However, it is also aware that associated development will bring both opportunities and challenges. To ensure that the Region can capitalise on the opportunities, and mitigate the challenges, robust planning and close engagement with the Armidale Regional community are required: the NE REZ must produce a substantial net community benefit for the Armidale Region.

ARC's responses to Terms of Reference a), b), c), e), f), g), h), i), j) and k are set out below.

### **Responses to Terms of Reference**

- a) *Current and projected socioeconomic, cultural, agricultural and environmental impacts of projects within renewable energy zones in New South Wales including the cumulative impacts***

## *'Boomtown' dynamics*

Development associated with the NE REZ is poised to transform Armidale into a 'boomtown' by driving rapid economic growth, increased population, and heightened demand for local services and infrastructure. While this may sound enticing, the perils of boomtown dynamics have also long been recognised. Almost half a century ago, Gilmore (1976) employed a 'problem triangle' (Figure 1) to outline the challenges boomtowns frequently encounter: degraded quality of life and social disruption can arise when demand for services exceeds supply, followed by inadequate investment and shortfalls in the necessary workforce to service new community and business needs, thus further reducing local quality of life (see also England and Albrecht, 1984; Jacquet and Kay, 2014).

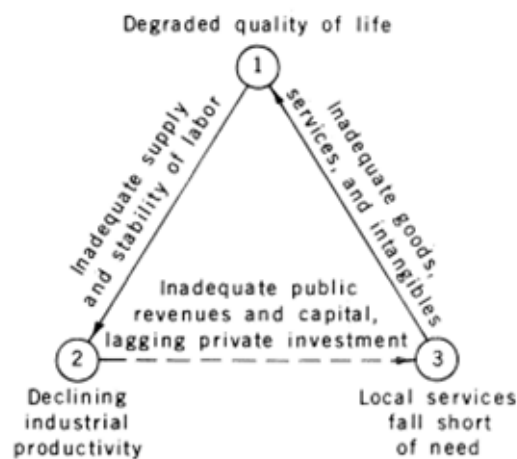


Figure 1: 'The Problem Triangle' for boomtowns (Gilmore, 1976, p. 536)

At the same time, opportunities exist for boomtowns to secure enduring community benefits to underwrite a prosperous future. Studies have repeatedly found that robust planning is required to realise such benefits, involving close engagement and partnerships between different government tiers and the local community and businesses. As Haslam Mckenzie et al observe:

The 'Boomtown model' and 'social disruption hypothesis' provide simple messages that hinge on prescient planning and meaningful communication with and commitment to stakeholders already established in the locality. Timely investment in local social, environment and economic support systems by government and business based on consultation and evidence-based planning mitigates the propensity for conflict, uncontrolled speculative labour and land pressures and degraded quality of life (Haslam Mckenzie et al. 2013, p. 12).

As the NE REZ proceeds, it is incumbent upon the State Government to hold these lessons front and centre of mind.

### *Labour force impacts*

Armidale LGA's population is around 30,000, with a labour force of approximately 17,000 (Jobs and Skills Australia, June 2024). The combined labour forces of other LGAs in the NE REZ - Walcha, Uralla, and Glen Innes Severn - are just over half the size of Armidale's workforce. EnergyCo estimates the NE REZ will generate 6,000 construction jobs and 2,000 operational jobs across the zone (these figures represent cumulative totals across construction and operational phases, without accounting for construction

staging or annual job distribution). As the region's largest and most populous LGA, Armidale is expected to play a central role in servicing much of the associated demand for goods and services.

For new transmission lines between the Bayswater Power Station Substation and the NE REZ, EnergyCo (2024) estimates a peak construction workforce of approximately 1,250 jobs. A similar peak for the NE REZ would expand Armidale's labour force by 7%, necessitating careful planning to manage the substantial impacts on local resources and infrastructure. Even if a sizeable portion of this workforce comprises FIFO/DIDO workers, some diversion of the local labour force to REZ projects is likely, potentially leading to skills shortages and higher costs for certain services.

#### *FIFO / DIDO workforce impacts*

A number of studies (Morris 2012; Commonwealth of Australia 2013; QLD Government 2015) have concluded that Fly-in Fly Out (FIFO) / Drive-in Drive-Out (DIDO) workforces are a double-edged sword: necessary but, in most other respects, hugely disruptive for host communities along multiple socio-economic lines:

- *Economic impacts*
  - Reduced housing availability and affordability
  - Minimal spend in town from FIFO/DIDO workers due to providers of temporary accommodation failing to source basic services from the local community
  - Increased cost of living
  - Tourism decline due to workforce shortages and difficulties in accessing transport and accommodation
  - Stress on community services, infrastructure, and revenue arising from an underestimated workforce population i.e., the 'resident' population being counted rather than the 'effective' or 'serviced' population.
- *Social impacts*
  - Diminished social cohesion and altered community image and identity
  - 'Us' versus 'them' mentality
  - Declining community safety arising from antisocial FIFO/DIDO behaviour
  - Mounting road safety concerns due to fatigued DIDO workers
  - Impacts on health and other services

One way of mitigating these issues and accruing net community benefit for the Armidale LGA might be to follow the Canadian lead and develop community benefit plans, linked to development approval. As the House of Representatives Standing Committee on Regional Australia (2013, p. 73) explains, such plans "focus less on compensation and ad-hoc provision of facilities and more on building community sustainability and economic diversity, including local business and skills development." Features might include:

- Local hiring and training targets, with a focus on First Nations and culturally and linguistically diverse communities;
- FIFO/DIDO limited to construction;
- Negotiated layout of FIFO/DIDO camps – for example, locating camps close to town with studio rooms that include a kitchen and no mess or bar facilities so that workers must purchase food locally; and

- Designing FIFO/DIDO camps to integrate into the urban landscape of the town, in a manner consistent with ARC's Housing Strategy, and ensuring that the design can be put to alternative uses when no longer required as FIFO/DIDO accommodation; and
- Housing development and infrastructure upgrades.

### *Housing market impacts*

Given the preceding, the NE REZ will almost certainly involve negative impacts on housing availability and affordability in the Armidale Region, particularly in the short to medium term. Careful planning and management are essential to address these challenges. As a lasting benefit to the Region, the NE REZ should deliver legacy housing and associated trunk infrastructure, ensuring alignment with ARC's *Housing Strategy*.

### *Agricultural and environmental impacts*

Agriculture is a cornerstone of the Armidale LGA's economy and a key focus in ARC's Local Strategic Planning Statement. Council is concerned about the potential loss of agricultural land and emphasises the importance of ensuring renewable energy developments do not compromise the natural environment or the region's agricultural strength.

### **b) current and projected considerations needed with regards to fire risk, management and containment and potential implications on insurance for land holders and/or project proponents in and around Renewable Energy Zones**

ARC lacks information regarding fire risk, management, and containment for the NE REZ, including water and road requirements. Inputs from Fire and Rescue NSW (FRNSW) and the NSW Rural Fire Service (RFS) into the Secretary's Environmental Assessment Requirements (SEARs) for the NE REZ Transmission Project highlight gaps in fire safety planning:

- "There is currently insufficient information available regarding the fire safety and emergency response management aspects of the project" (FRNSW); and
- "a bush fire assessment report shall be prepared which identifies the extent to which the proposed development conforms with or deviates from the relevant provisions of *Planning for Bush Fire Protection 2019*" (RFS).

ARC will rely on these agencies for advice on risk and servicing needs, as well as updates on REZ developments.

Since the water needs for renewable energy infrastructure construction, operation, and emergency response remain unknown, ARC's strategic planning does not currently account for water supply to renewable energy developments. Suffice it to say, that surface water diversion from catchments reduces inflows to Council's dams, while increased demand limits the potential for future population and industry growth.

Bushfires or natural disasters affecting the NE REZ could delay recovery for Armidale residents, as energy infrastructure repairs may take priority over residential and commercial rebuilding. Higher insurance premiums and limited recovery services, as witnessed after the 2021 tornado, further exacerbate these risks.

**c) the historical, current and projected future financial costs associated with construction and maintenance of large scale projects within Renewable Energy Zones**

REZ developments will require utilities such as water, waste, and road networks that exceed the infrastructure planning outlined in ARC's Integrated Planning and Reporting. These additional demands will impose costs beyond standard operations, and any new infrastructure must be funded within ARC's existing rates revenue. Consequently, ARC will likely rely on external funding, such as grants, to finance infrastructure construction. Furthermore, ongoing maintenance and asset depreciation will add to Council's financial burden.

It is unclear how ARC's medium- to long-term income from rates and charges might be affected by the NE REZ due to uncertainties in how renewable energy projects will be classified under current rate codes (residential, farmland, mining, or business) outlined in the *Local Government Act 1993* (Sections 514–531). However, ARC will likely face losses during construction phases, as FIFO/DIDO workers utilise Council services and assets without contributing to rates. The Commonwealth of Australia House of Representatives Standing Committee on Regional Australia (2013, p. 58) provides a damning account of this issue:

Local governments have little capacity to plan for their future infrastructure needs. This is because there is a lack of planning, control and forward projection of FIFO numbers and a complete absence of any robust, independent research about the real cost impact of FIFO workforces on host communities. (Commonwealth of Australia House of Representatives Standing Committee on Regional Australia, 2013, p. 58).

More generally, it is clear that the NSW Government has yet to fully understand the financial impacts of the NE REZ on ARC and the Armidale Region:

The NSW Government is also undertaking separate work to understand and respond to any cumulative impacts that might be caused from multiple and concurrent projects within renewable energy zones. This will consider impacts on social infrastructure and services including waste management, health care and education (NSW Department of Planning, Housing and Infrastructure, 2024, p. 12).

This work must be completed as a priority and made publicly available.

Council will need to update its strategic and infrastructure plans once REZ development details are confirmed, resulting in additional time and budget costs. ARC is also handling resident inquiries about the NE REZ, with many unaware they should contact EnergyCo or unable to reach EnergyCo's representatives. Redirecting these inquiries adds strain to staff and Council resources.

**e) adequacy, and management of voluntary planning agreements and payments made to the LGAs impacted by Renewable Energy Zones.**

ARC has adopted a *Renewable Energy Community Benefit Framework* to ensure state and regionally significant renewable energy projects deliver sustainable, equitable benefits to the community. The Framework aims to:

- Secure off-site benefits for the community so that renewable energy development delivers a future sustainable net community benefit;
- Ensure that the wider community share in the benefits resulting from renewable energy development in the LGA;
- Ensure that the costs and benefits of renewable energy development will be equitably distributed within the community and inter-generationally;
- Ensure that community benefit outcomes are determined through appropriate governance processes which include REZ community representation.

The financial value of community benefit will vary from project to project, however, the minimum community benefit threshold for ARC is:

- \$850 per megawatt per annum for solar energy development for the life of the development (including future modified or recommissioned projects).
- \$1050 per megawatt per annum for wind energy development for the life of the development (including future modified or recommissioned projects).
- \$850 per megawatt of capacity for energy storage developments (including pumped hydro). (Amounts above are in 2023 dollars and will be adjusted annually for CPI.)

Projects not delivering community benefits above these thresholds will likely not be considered in the public interest.

Uncertainty remains about whether payments to ARC through voluntary planning agreements or benefit-sharing arrangements (cf. NSW Department of Planning, Housing, and Infrastructure, 2024) or other mechanisms are or will be adequate. As noted above (response to Term of Reference c), the NSW Government has yet to fully understand the NE REZ's likely impacts on ARC and the Armidale Region. Payments that merely cover incurred costs must be regarded as inadequate; ARC considers payments adequate only if they deliver a substantial net community benefit for the region.

**d) current and projected supply and demand levels of manufactured products, raw materials, and human resources required for completion of Renewable Energy Zones and their source**

Armidale LGA and other LGAs within the NE REZ currently lack the workforce and infrastructure to support the full construction phase of renewable energy developments. Most raw materials are expected to be imported, aided by upgrades to the highway between the Port of Newcastle and NE REZ. However, high transportation costs mean that heavier materials like quarry products, cement, and sand will likely be sourced locally. Similarly, heavy industry services like earthmoving can be supported by local providers, with opportunities for long-term supply contracts tied to future developments such as housing or employment precincts.

ARUP has developed a supply chain map that ARC can use to attract businesses and skilled workers. However, businesses will require certainty around development timelines and contracts to ensure preparedness. For goods and services that cannot be sourced locally, including manufactured products and skilled labour, EnergyCo should prioritise supporting businesses that open shopfronts in the region. This would leave a lasting legacy of infrastructure and skilled workers, ensuring that future projects with scalable local supply chains are financially viable.

To ensure smooth construction processes and enduring benefits for the LGA, ARC would benefit from additional resourcing, particularly in planning and infrastructure departments. Stressing that



“coordination is key” to maximising community infrastructure investments, the Productivity Commission (2020, pp. 310-313) urges State Governments to address local government capacity constraints in boomtown contexts (see also Australian Productivity Commission, 2017, p. 154).

Once operational, the NE REZ will function as a power station for the national energy grid, requiring a trained workforce for ongoing maintenance and support. Collaborative planning between state and local authorities will be crucial in transforming the region's economy and delivering lasting benefits to its communities.

**g) projected impact on visitation to regional areas with renewable energy zones resulting from changes to land use**

The natural beauty of the Armidale region, with its national parks, waterfalls, and growing farm stay and fishing tourism markets, is central to its visitor economy. NE REZ developments must be carefully planned and designed to protect these attractions and harmonise with the region's open spaces, agriculture, and pristine environment.

Equally, there is scope for ARC to collaborate with EnergyCo and developers to position the area as a model for co-living with renewable energy. Opportunities include hosting industry events such as infrastructure site tours, creating renewable energy tourism attractions like wind turbine viewing platforms or visitor centres, and promoting sustainability initiatives. These efforts can enhance the region's "green" identity and strengthen its appeal in the tourism market.

A sizeable portion of Armidale's population is transient, with many residents staying short- to medium-term for work (e.g., Costa Tomato Farm) or to study at UNE or TAFE. The arrival of REZ FIFO/DIDO workers will amplify this dynamic, increasing demand for temporary housing. Hotels and other short-stay accommodations may be used when such housing is unavailable (though they already have an average occupancy rate of 80%). While this benefits local accommodation providers, it reduces availability for tourists, potentially impacting major events like UNE graduation ceremonies and ARC's Big Chill festival. These events attract significant visitor spending in the region, whereas empirical evidence suggests that FIFO/DIDO workers typically spend little of their income in the local economy (Morris 2012; Commonwealth of Australia 2013; QLD Government 2015). Further, an influx of FIFO workers may constrain normal aeroplane flight capacity, limiting options for tourists and other visitors.

**h) suitable alternatives to traditional renewable energy sources such as large-scale wind and solar**

While current NE REZ planning assumes private sector ownership of renewable energy projects, alternative models, including partial or full ownership of particular projects by ARC or the community, should be explored. Such arrangements would enhance community support for the NE REZ and drive significant regional economic development. Local residents and businesses would benefit from cheaper energy through a local power retailer, such as ARC, supported by long-storage batteries, smart switches, and improved transmission infrastructure.

ARC also seeks clarity on whether local transmission infrastructure will be upgraded to enable greater community participation in renewable energy, including rooftop solar, community batteries, and the development of energy-intensive industries.

**i) adequacy of community consultation and engagement in the development of Renewable Energy Zones, and associated projects**

EnergyCo conducted a series of council engagement workshops in Uralla Shire for all NE REZ councils, covering the following topics:

- *Social Infrastructure*: Identifying demands and opportunities for long-term community benefits. (However, the session lacked depth with, for example, consultants inaccurately claiming Armidale has adequate GP services, overlooking fully booked practices and its role in serving surrounding areas.)
- *Water and Wastewater Security*: Discussing key management issues and current projects. (The NE REZ is not currently included in ARC's water analysis, leaving gaps in strategic planning.)
- *Waste and Circular Economy*: Exploring waste management, recycling, and circularity opportunities. (This area offers the potential to support REZ operations and preserve landfill capacity.)
- *Local Supply Chain*: Mapping local supply chains for raw materials, services, and workforce needs during construction and operation phases.
- *Training and Skills*: Supporting planning and strategy for workforce training and skills development.

These workshops provided an overview of studies conducted by EnergyCo and allowed councils to provide feedback on local conditions. However, concerns were raised about the accuracy of consultants' findings, particularly on social infrastructure, and there was limited insight into the specific impacts of the NE REZ on individual LGAs. Reports are not yet published, so it is unclear whether council feedback has been incorporated.

EnergyCo also issued data requests to support the workshops and engaged other stakeholder groups, though ARC is unaware of the outcomes of those consultations. Council requires more detailed information on project planning and upcoming developments to effectively prepare for the construction and operational phases of the NE REZ.

**j) how decommissioning bonds are currently managed and should be managed as part of large scale renewable projects**

Decommissioning will impact ARC significantly, with waste sent to landfill or processed for recycling or reuse. ARC's landfill, regulated and licensed by the Environment Protection Authority, is designed for local residents, and additional demand will strain its capacity and reduce its lifespan.

EnergyCo has not provided information on decommissioning bonds for the NE REZ. Nevertheless, decommissioning bonds should address:

- Decommissioning processes and timelines;
- Waste disposal, recycling, and reuse;
- Land remediation;
- Installation of new infrastructure to extend NE REZ operations, including new energy technologies utilising existing transmission networks; and

Council is concerned about ensuring these funds are available, released in a timely manner, and used appropriately to decommission sites, support infrastructure, and benefit the community. ARC should be a major stakeholder in the management of these funds, whether through bank guarantees, escrow accounts, or similar instruments.

Bonds should also account for ongoing infrastructure maintenance and costs related to natural disaster recovery, including waste management, administration, and regulatory activities. Properly structured decommissioning bonds will mitigate financial and environmental risks while ensuring long-term benefits for the Armidale community.

**k) the role and responsibility of the Net Zero Commission and Commissioner in addressing matters set out above, and**

Given the scale of REZ developments is likely to exceed ARC's determination authority, a Net Zero Commission and Commissioner would be well-suited to ensure fair negotiation between, and enforcement of, agreements among all stakeholders. The Commission could act as an Ombudsman for renewable energy projects within each REZ, providing support in agreement facilitation, dispute mediation, and enforcement. Key responsibilities could include:

- Overseeing consents and agreements tied to Development Applications and planning matters.
- Establishing and managing Voluntary Planning Agreements (VPAs) and other arrangements between developers, landowners, operators, and Councils.
- Mediating disputes between stakeholders.
- Enforcing end-of-life agreements, including decommissioning plans, bonds, and ongoing maintenance commitments for faulty assets.
- Ensuring decommissioning bonds or similar instruments fund long-term maintenance and asset removal.
- Assisting Councils in addressing issues related to the REZ with other NSW Government departments.

Such a Commission would provide critical oversight, ensuring transparency, accountability, and equitable outcomes for all stakeholders involved in REZ development.

Yours sincerely

James Roncon  
**General Manager**

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