



Short-term worker accommodation with long-term community benefits

Housing the New England Renewable Energy Zone

Report on Research and Consultation
By Community Power Agency & Orange Compass

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Short-term worker accommodation with long-term community benefits: Housing the New England Renewable Energy Zone November 2023

Report on research and consultation

By Heidi McElnea and Allison Mudford

Acknowledgement of Country

We acknowledge Aboriginal people as the First Peoples and Nations of the lands and waters we live and work upon and we pay our respects to their Elders past, present and emerging.

We acknowledge and respect the deep spiritual connection and the relationship that Aboriginal and Torres Strait Islander people have to Country. We also acknowledge housing is a critical issue and vulnerability for First Nations people and value the input and conversation to be had as part of this dialogue process.

About Community Power Agency

Community Power Agency was established in 2011 to enable and advocate for community energy projects. A not-for-profit co-operative, we have evolved to support communities across Australia to engage in and benefit from the transition to renewable energy. Our vision is for Australian communities to be active participants in a renewable energy system that is fair and accessible to all. We work toward achieving this vision by collaborating with and building capacity in communities, government and industry.

About Orange Compass

Orange Compass's works across sectors supporting innovation, impact, and change. Our work in the energy space spans clients including industry, government, and communities, nationally. Our message is simple - there is still time to establish new patterns that will support different approaches that will deliver on the potential of transformational outcomes

for regional communities. Communities need and deserve a holistic and coordinated strategy stewarding the energy transition, but it must start now.

Executive Summary

Armidale and surrounding regions are predicted to receive an influx of temporary workers for the construction of transmission infrastructure for the New England Renewable Energy Zone (REZ) and the development of large-scale renewable energy generation projects. This will have varying impacts depending on the phasing of projects and their construction, and whether these coincide with other major project construction in the region over the next 25 years. One of these impacts is the need for temporary housing and accommodation during the construction phase of these projects. To date there is very little public information about the cumulative effect on communities, particularly the impact on housing and accommodation markets.

This problem, if unaddressed, can have unintended consequences as seen in other sectors such as mining and lacks the mandated authority of a single entity. There is a role for cross sector approach to tackle this problem and to recognise the forthcoming challenges and opportunities. This means understanding and gaining more knowledge on the eco-system that temporary housing and accommodation sits in which can included the legislative, planning, regulatory, strategy and policy contexts.

Time is of the essence. The construction and operation timeframes are variable, but the REZ policy has set the pace, leaving a 2-3-year window for relevant stakeholders to convene, to maximise and realise the benefit of opportunities and shape the outcomes that could present for community benefit and lasting legacy.

The first step in addressing housing challenges for the New England is to convene a cross sector group, to discuss and define the problem and interrogate the underlying assumptions, beliefs and data at hand. This discussion paper aims to explore:

- The problem at hand and challenges associated with competing housing and temporary accommodation needs,
- The scale of housing needs associated with REZ project construction and impacts on the community and on pre-existing housing challenges,
- Opportunities for a cross-sectorial response, partnerships and shared understanding;
- Solutions that may support sustainable legacy housing options that may help support future regional development and address housing challenges.

This paper is an invitation to step into the conversation and work together for a shared purpose to understand the cumulative view of housing and short-term accommodation impacts in the New England REZ.

Setting the Scene

The establishment of the New England REZ means there will be temporary increases of worker populations required to develop and maintain infrastructure and renewable energy projects. Some of these roles will be relatively short term (eg. 6 - 12 months) while other project and maintenance staff may need accommodation over multiple years. This will place additional housing stress on local populations unless proactive strategies are innovated to deliver solutions.

Construction accommodation can be defined as: temporary housing to support workers employed for the construction of electricity generating works, distribution, or networks in a renewable energy zone.

Projects also require accommodation for staff who co-ordinate, operate and maintain projects.

As the 'Infrastructure Planner', EnergyCo is coordinating the delivery of transmission and generation projects in the New England REZ including planning key initiatives like housing and accommodation. Unfortunately, due to the nature and timing of the builds, information comes to hand from government or individual generators to the public through the planning process when there are exhibitions such as the Environmental Impact Statements for individual projects. Other actors in the eco-system like local councils, industry, developers, and other NSW Government agencies hold different roles such as localised planning, capital investors, resourcing and regulatory functions. While renewable energy generators are responsible for addressing their own workforce accommodation requirements, and EnergyCo may evolve to play a vital role in coordination between the requirements of different proponents, time is of essence with the ability to find locally led solutions timebound to the next 2-3 years before the bulk of construction commences. Ahead of this, several large-scale renewable energy projects are tracking to require workers and accommodation as soon as the second quarter of 2024.

Concurrently, nationally, Australia is facing significant challenges in housing its growing population. Housing availability and affordability is placing increasing pressure on households, and those seeking affordable and social housing are growing, as is the rate of homelessness. Over 200,000 people are currently on social housing waitlists and 122,000

people were estimated to be experiencing homelessness in Australia on census night (UTS, 2023, ABS, 2021).

National Housing and Accommodation Context

Australian housing supply is failing to keep pace with our rising population. In 2021-2022, Australia experienced a net gain of 170,900 people including 289,890 temporary visa holders. The average number of inhabitants per household has also declined, from 2.9 inhabitants per household in 1983 to below 2.5 inhabitants in 2022 (ABS, 2022).

This has coincided with a significant slowdown in residential construction rates, which are not attributable to one specific factor but several factors including: planning permissions, material supply shortages, increased lending and borrowing costs, increased land costs and increased building costs and labor supply issues (AMP, 2023).

Building approvals for short term accommodation are also at their lowest levels since 2016 (on a 12-month basis) and have been following a downwards trend since late 2021 (PEXA and Longview, 2023).

Following COVID, rental vacancies in regional and rural areas are at an all-time low, increasing rental rates and creating additional pressures for low-income earners. Regional areas, where rents were historically low, have experienced an influx of renters and buyers following the COVID-19 pandemic. Migration out of regional areas into cities has also slowed (PEXA and Longview, 2023).

In August 2023, rental vacancy rates in Australia fell 0.14 percentage points to a new low of 1.1%, with the share of rental properties on the market now 54% lower compared with pre-pandemic levels, according to a report by property data firm PropTrack (Ryan, P and Moore, A, PropTrack Housing Affordability Report 2023). The 1.1% vacancy rate is consistent across regional areas.

Low rental vacancy rates create additional stress when corroborated with population growth.

According to the [2022 NSW Population Projections](#), NSW will need to house an additional 85,000 people every year for the next 20 years. By 2041, the population will reach:

- 3.7 million in regional NSW
- 6.1 million in Greater Sydney.

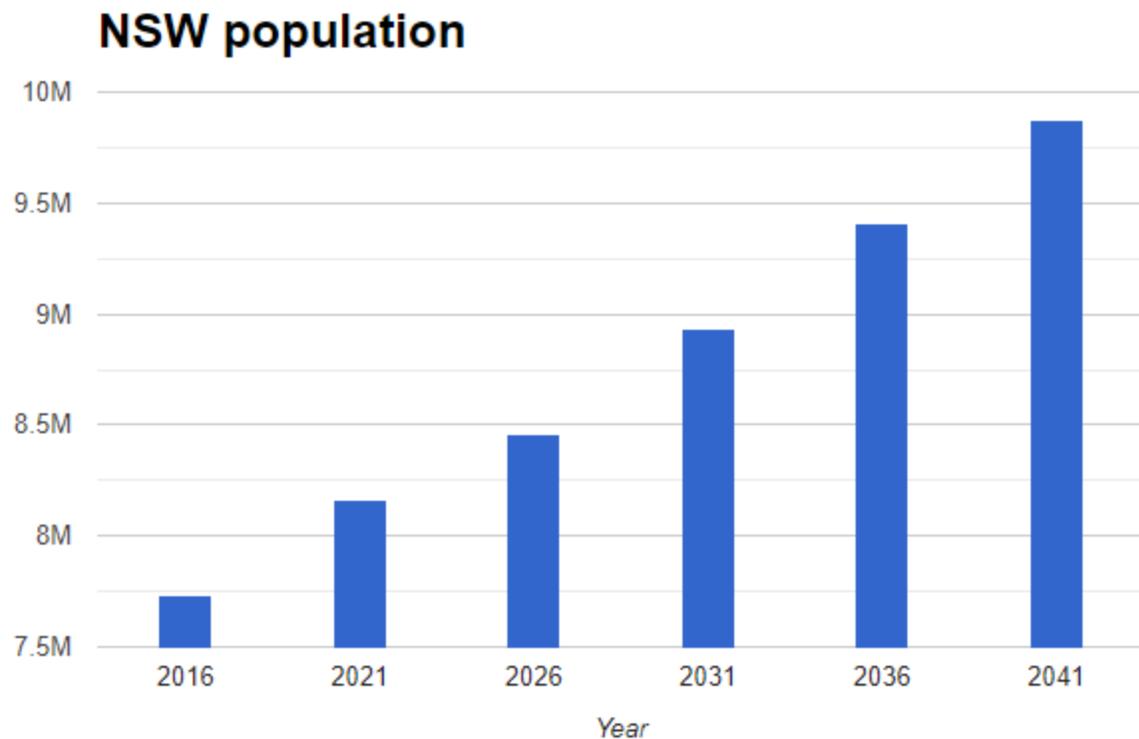


Figure 1: NSW projected population growth. Source: <https://www.planning.nsw.gov.au/research-and-demography/population-projections>

The Department of Planning estimates NSW will need an additional 28,500 homes in Greater Sydney and 16,700 in regional NSW to meet this need.

In June 2021 the NSW Government established the Regional Housing Taskforce in response to increasing pressures on the supply and affordability of housing in Regional NSW.

The Taskforce delivered a [Findings Report](#) in September 2021 and a [Recommendations Report](#) in November 2021 which made 5 main recommendations and 15 detailed recommendations.

The 5 main recommendations:

- Support measures that bring forward a supply of 'development ready' land.
- Increase the availability of affordable and diverse housing across regional NSW.
- Provide more certainty about where, when and what types of homes will be built.
- Investigate planning levers to facilitate the delivery of housing that meets short-term needs.
- Improve monitoring of housing and policy outcomes and demand indicators.

In August 2022, the Government adopted the recommendations and developed a Regional Housing Development Program to make some key policy changes.

New England Housing & Accommodation Context

Research and consultation has demonstrated that the New England region has a housing situation characterised by low housing supply, and/or volatile housing supply. Failure to plan and construct in advance for the additional housing requirements of REZ accommodation will have a significant impact on housing requirements, particularly for the most vulnerable section of the population, and the ability to house the numbers of workers required for construction, potentially further impacting project timelines.

In Walcha, for example, the availability of rental accommodation is consistently low, often at 0% and has not been higher than 1% since August 2015, as seen in Figure 2.

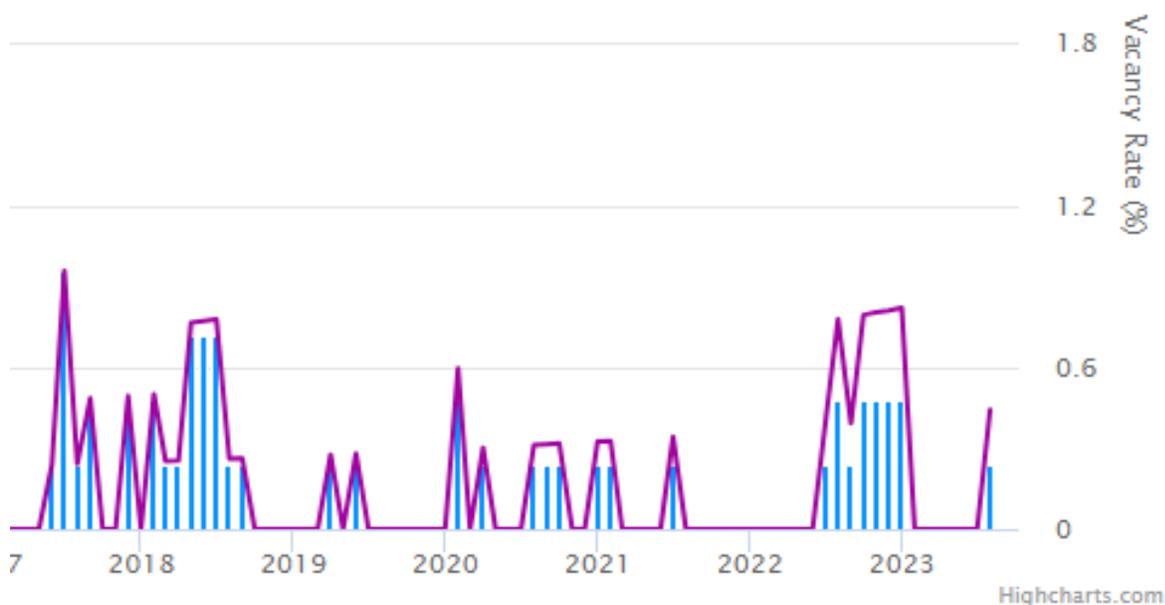


Figure 2: Residential vacancy rates 2354 (Walcha) Source: <https://sqmresearch.com.au/>

Uralla Shire has experienced big swings in housing availability and affordability. The impact of rental housing being removed from long-term rental to the short-term market has been a factor in worsening vacancy rates and increasing rental prices. This was a concern noted by representatives of Uralla Shire Council (September 2023). The Council is keen to have a better understanding of how this is affecting long-term rental availability and affordability for residents. Armidale Regional Council, too, is in the process of drafting a Housing Strategy.

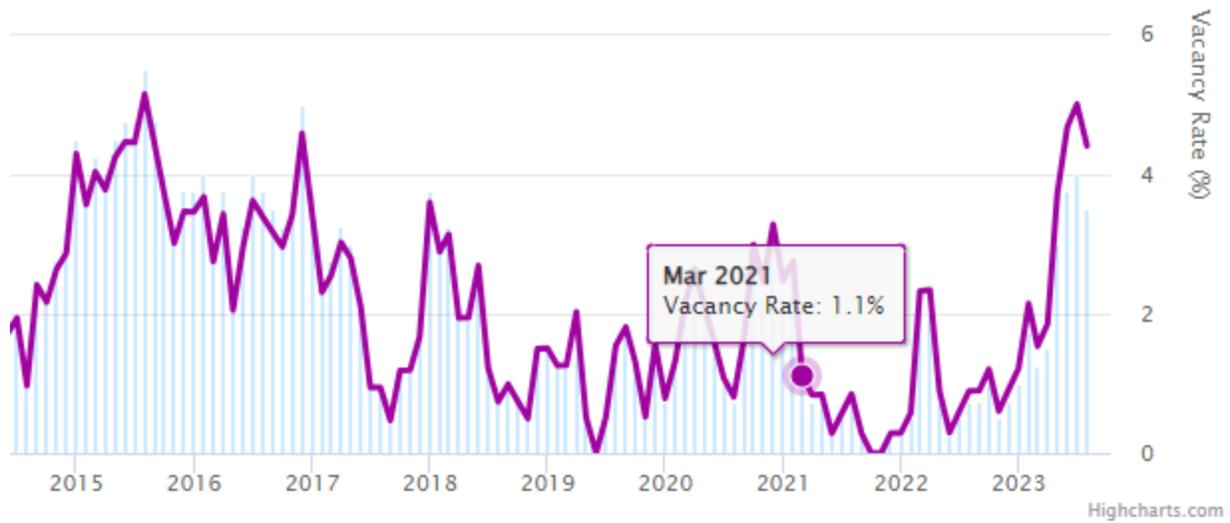


Figure 3: Residential vacancy rates 2358 (Uralla) Source: <https://sqmresearch.com.au/>

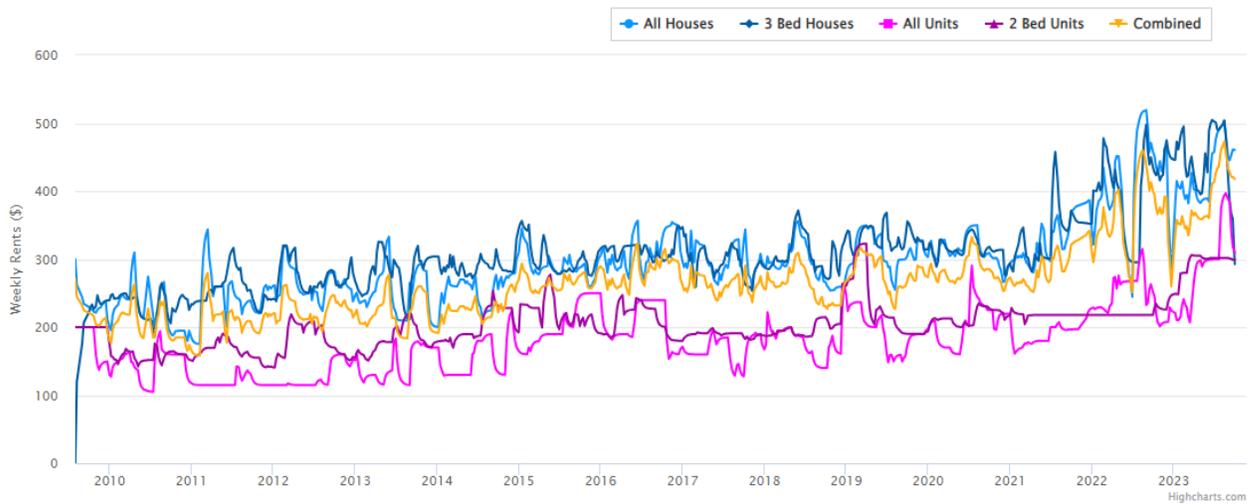


Figure 4: Weekly rent in dollars 2358 (Uralla) Source: <https://sqmresearch.com.au/>

According to the 2016 Census estimations on homelessness, rates of homelessness in the Armidale LGA are high, with a rate of 87.9 persons per 10,000 compared to the NSW average of 50.4 persons per 10,000. Current housing vacancy rates in Armidale are around 2.8%, adding weight to the volatility of the local housing market.

Estimating influx of workers to New England REZ

EnergyCo has yet to undertake projected workforce number calculations in the New England REZ. Other modeling (such as the [Integrated System Plan](#)) suggests the tail of the graph could be longer, the peak slightly later and possibly more graduated.

Modelling by Briggs et al, in their study *Building a 'Fair and Fast' energy transition? Renewable energy employment, skill shortages and social licence in regional areas* (2022), indicates a peak influx of between 4,000 - 5,300 additional workers over the period 2027 - 2029, before stabilising around 1,100 each year, well into the next decade.

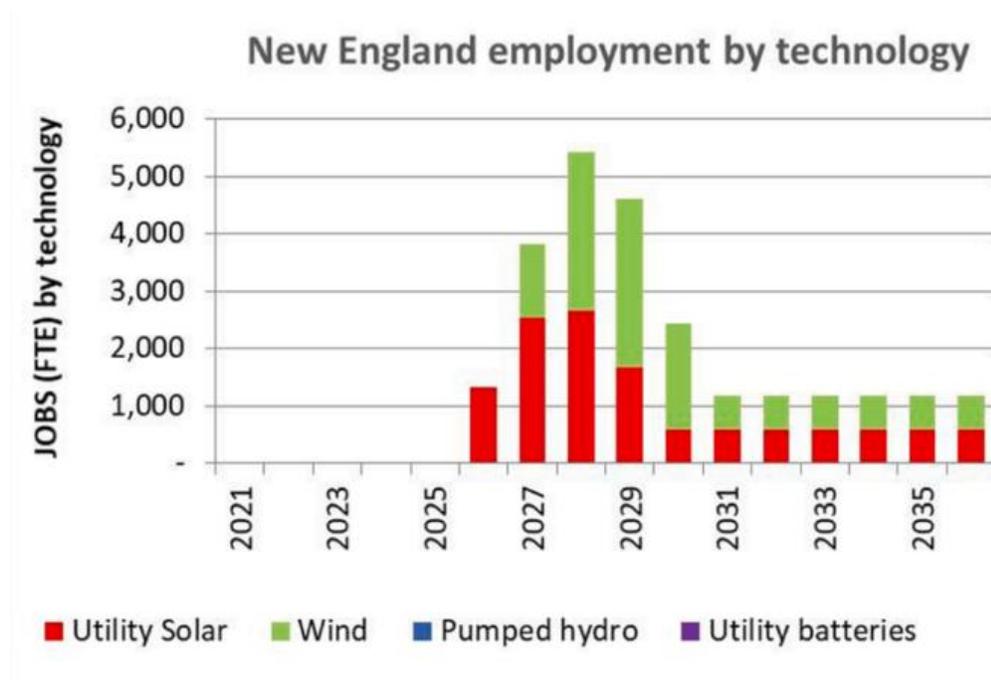


Figure 5: Source: Briggs et al *Building a 'Fair and Fast' energy transition? Renewable energy employment, skill shortages and social licence in regional areas* (2022)

CASE STUDY: Estimating influx of workers to Central West Orana REZ

The graph below modelled on Central West Orana (CWO) worker numbers also gives an indication suitable for initial New England REZ discussion purposes.

One difference to bear in mind, however, is the planned GW capacity in each of the zones. The CWO modelling is based on 3GW of energy generation (although EnergyCo has indicated this may increase to 6GW), while New England is being planned for 8GW of energy generation, so these numbers are likely to be higher. We will include the estimated influx modelling for the New England REZ once the figures are made available.

Additionally, in Figure 5, EnergyCo is only accounting for worker numbers for the 11 renewable energy projects who are planning to connect to the new REZ infrastructure, out of about 30 renewable energy projects currently in planning and development (source: *Central West Orana EIS*).

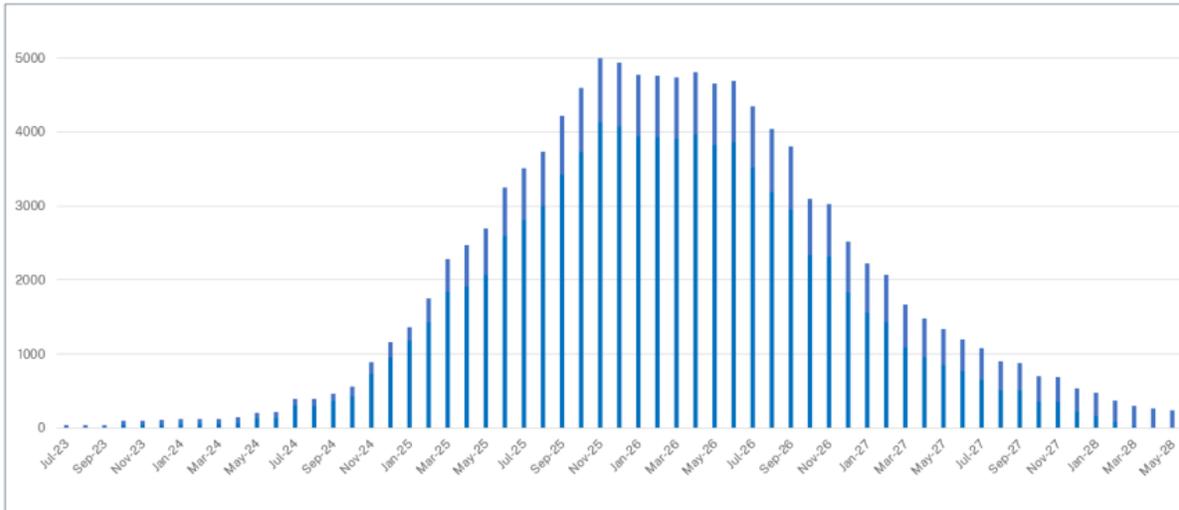


Figure 5: Workforce projection for the REZ transmission project and major generation projects with planned connections to the Central-West Orana REZ transmission network (Candidate Foundation Generators). Source: EnergyCo 2022.

Figure 6: Shows the projected workforce numbers between 2023 and 2028 during construction of the REZ transmission project and major generation projects with planned connections to the REZ network (Candidate Foundation Generators). Source: [Central-West Orana Renewable Energy Zone: Coordinating community impacts and benefits in the REZ](#)

EnergyCo estimates workforce numbers for the 11 generators (plus the transmission build) will exceed 4,000 between mid-2025 and mid-2026, with a peak of about 5,000 in late 2025.

It has been observed that the large-scale energy projects that have already been completed in the region (New England Solar Farm Stage 1, for example) have already impacted local housing supply and affordability, with vacancy rates in Uralla getting as low as 0% ([November 2021](#)).

Opportunities

There is an opportunity for investment in housing and accommodation that is stimulated under the REZ to contribute to a stable population base and opportunity for growth if a legacy aspect is included in planning. It could also mitigate some housing affordability and supply issues. Now is the time to discuss these issues, to provide insight, experience and data to support decision making from the local level.

Innovative responses and solutions to housing challenges have the potential to have great co-benefits for multiple parties when they are developed in collaboration with other stakeholders. Working together to solve problems will require time and resources but can also yield legacy impacts that benefit everyone.

Pro-active planning for REZ accommodation will also stimulate investment opportunities that will contribute to longer term growth and housing for regional NSW and contribute to solutions for overall housing shortages being experienced across the state.

Considerations

Mechanisms that have affected temporary housing and accommodation trends in other areas include:

- **Short leases & increasing rental cost**

It is important to note that rentals respond relatively quickly to demand. Short-term leases usually run for one year or less, and rents can be raised quarterly.

- **Complexity of Housing Market**

Making the market more complex, as noted above, a homeowner could move to make their own residence available to rent. Additionally, some companies would purchase properties to lease to staff.

- **Outsiders and absentee owners**

High rents in some towns can attract property investment, notably from 'the outside'. This outside investment can contribute to an increase in house prices and potentially an artificial market depending on phase of projects.

- **Workers Camps Employers Subsidised rent - FIFO/DIDO**

To accommodate the workforce, resource companies developed pack up and down style workers' camps. They are particularly for the use of fly in-fly out (FIFO) and drive in-drive out (DIDO) staff and contractors. Planning the location of workers camps often occurs without community input or consideration of the best location to reduce impacts and maximise opportunities for communities.

Further considerations will complement other strategies for managing cumulative impacts on housing and accommodation, such as:

- **Local employment targets for construction workforces**

If 30% of construction staff can be sourced from within a region, this will make a significant impact to housing pressures and worker availability. Examples exist (Eg Beon's operation of Karadoc Solar Farm) where targeted employment strategies have successfully seen local workforces built from under-employed segments of the community including long term unemployed, First Nations people, women, single parents, migrants and others who may face barriers to employment and benefit from additional support to participate. Local people who are experiencing both unemployment and a lack of secure housing could particularly benefit

from such programs. Sourcing local workers has the dual benefit of increasing local people's participation and benefit in REZ while also reducing the additional housing pressures.

- **Sequencing of projects**

If developers, or a coordinating body such as EnergyCo or Department of Regional NSW, can sequence projects to enable workers to finish one project, then start another, it would help to manage the peak and troughs of housing supply, while providing the potential for longer term jobs for those working in the renewable energy industry.

- **Planning for time delays**

With multiple renewable energy projects across the region currently in the planning approval process, the challenge of accommodating workers needs to be addressed sooner rather than later. The length of time required to acquire or release suitable land, approve development, construct, and market housing is a lengthy process, often taking 3 - 4 years from concept to completion. This can be impacted by various things such as delays in decision making, costs, access to skilled labor, disaster impacts and this is why conversations need to start now so that the data, community intelligence needed to feed into decision making and legacy opportunities are not missed. Councils collectively could be supported to develop longer term localised housing strategies to co-design practical phasing and benefits.

- **Ongoing monitoring of impacts**

Data-informed decision making is one aspect of this briefing paper, how these projects unfold and how the results are monitored is key to being able to respond, proactively engage and adapt where necessary to changes in markets and impacts to the communities on the ground. Ongoing monitoring of impacts and the coordination of actions to address emerging trends will be an important ongoing role for government, working in collaboration with local stakeholders.

Impacts

Learning from large infrastructure projects that have come before, particularly Coal Seam Gas in Western Queensland and Gladstone, key indicators were narrowed down in terms of impacts on communities:

- **Affordability** - Rural and regional communities are historically affordable places to live. Affordable housing is a feature valued by residents of these communities. The desire to keep housing affordable is a common theme in many regional and community plans and vision statements. Interestingly, though, residents who are seeking to retire and move away from the region may benefit from higher house prices.
- **Local spending** - For those on modest incomes, when housing costs are kept low, there is more money to spend locally. Such savings are particularly important in regional areas, as other costs of living - such as fuel and store-bought goods - can be

higher. According to the Queensland government, prices for furnishings, household goods, and services were nearly 20% higher in Dalby than in Brisbane in 2013, though clothing and alcohol were 2-3 % less expensive. So, goods are more expensive, but wages are lower than in metropolitan areas.

- **Changing residents** - Clearly, the cost of housing can influence where one chooses to live and whether one selects to stay in an area or to move away. Changes in the population level or turnover in the population can be keenly felt in rural and regional communities. For example, over fifty-percent of the population of the Western Downs town of Dalby changed residence between the 2006 and 2011 Australian Census. That was before the big upswing in Coal Sequence Gas construction, in a town with modest effects on housing costs when the upswing did occur.
- **Small town feel** - Small, regional communities are traditionally close-knit - with a 'small town' feel that residents often identify as a key value. Familiar neighbors can play a key role in creating and maintaining stability and a sense of wellbeing. Changes in the housing market that cause people to change residence can have a ripple effect. Arguably smaller communities can also experience the largest impacts due to economic variability.
- **Outward migration** - The rises in rent in certain towns are reported to have engendered outward migration of local, low-income families and others who were unable to afford increased rent. This conclusion is reinforced by our assessment of the number of households receiving government support payments. This movement can cause a rise in average personal income - that is, the average increased because those with lower incomes left.

Design considerations for shared partnership models for legacy housing

Multiple options for temporary housing and accommodation could be explored in the New England region.

Innovative responses to housing challenges have the potential to have great co-benefits for multiple parties when they are developed in collaboration with other stakeholders. Conversations involving local government, local industry, social housing providers, social support agencies, accommodation providers, Aboriginal organisations, state governments and transmission/ renewable energy proponents will facilitate this to happen. Working together to solve problems will require time and resources but can also yield legacy impacts that benefit everyone.

Some examples of innovative collaborations to solve housing issues are presented below:

- **Boarding-House Accommodation**
 - Activate dormant boarding-house style accommodation, and
 - Identify other buildings suitable for adaptation to accommodation.

- **Secondary Dwellings**
 - Initiate the installation of secondary dwellings on suitable residential properties in collaboration with homeowners, renewable energy project proponents and local Councils
 - Co-ordinate opportunities for host landowners and local manufacturers to install modular studio housing.
- **Support innovative partnerships with local Community Housing providers and Local Aboriginal Land Councils (LALC)**
 - Build housing to accommodate project managers and key project staff in the short term, and LALC clients in the medium-long term.
 - Identify land that may be community owned to maximise legacy benefits post project construction phase.
 - Transition to social housing, mixed housing or housing for frontline workers post project construction.
- **Identify land suitable for workers' accommodation that could be developed into future housing subdivisions.**
 - Industry partners could negotiate land lease agreements with Councils to site temporary workers accommodation on land that would be suitable for future residential land releases.
 - Industry partners supply services to the site prior to construction (power, water, sewer)
 - This land then becomes available for future subdivision.
- **Partnerships with Educational Housing Providers**

The opportunity may be housing that could be repurposed long term for students. Also, the workforce may also be students, so not exclusive users.
- **Investment in safe housing and emergency accommodation**

Safe housing could be established as part of a community benefit mechanism, or it could initially provide construction worker accommodation before becoming housing for families escaping domestic violence, for example.
- **Affordability for the vulnerable members of the community (eg. women over 50 and young families)**

The availability of new homes at affordable prices can attract first homebuyers with young families or older single people. Often a desire to attract young families was a common theme found in community vision statements and regional planning documents.

Housing Partnership Case Studies

Examples from other areas and industries:

1. Community Housing Providers as Workforce Housing Providers

Developing housing and managing tenancies is business-as-usual for Community Housing Providers (CHPs), usually for low income and vulnerable households. Increasingly, CHPs are innovating to deliver a range of social, affordable, and market-rate housing. However, their growth is constrained by limited rent payments from low-income households (*Raynor 2023, Raynor & Cohen, 2022*).

Local Aboriginal Land Councils (LALCs) are other organisations which often manage community housing under the suite of services they offer.

Tertiary educational providers, such as universities, are also well placed to develop and manage accommodation that could have transition-use tenancies.

If governments or renewable energy proponents enter multi-year contracts with accommodation providers, this guaranteed cash flow may be able to be used to attract guaranteed debt or equity to build accommodation to house a temporary workforce. Once the demand for construction worker accommodation ends, they can transition those dwellings to social housing, affordable housing, student housing or housing for front line workers.

2. 'Tradie flats', tiny homes, and secondary dwellings

Armidale and surrounding regions have numerous existing dwellings on large town blocks that could adequately accommodate an ancillary dwelling such as a granny flat or transportable unit. There is an opportunity for a coordinated partnership between private industry or social enterprise to develop units to be purchased or rented by local households or organisations. Councils could play a role in assisting to streamline this process.

These units could house project staff - tradespeople, perhaps - during construction, generating an income for households. Units could then be used by family members such as teenagers or elderly relatives or rented out to other tenants. Kids Under Cover is an example of transportable units being used to provide housing for teens in backyards. In Melbourne, Harris Transportable Housing Project in Melbourne's inner west is using nine parcels of vacant VicRoads land in Footscray and Maidstone to create 57 tiny homes for people experiencing long-term homelessness.

3. Legacies for Workforce Campsites

A key contribution infrastructure projects can make to towns and communities is funding the 'enabling infrastructure' to support future housing development. Proponents could consider

funding the sewerage, water, and power connections necessary to support future housing subdivisions.

It is also worthwhile considering that temporary camp infrastructure could also provide long-term use.

Ash Group Holdings is an Indigenous owned and operated business that designs, builds and manages workforce villages. Once that initial need has subsided, the accommodation is repurposed onto social and affordable housing to be used in local communities.

In Balranald, NSW, a 400-bed accommodation village was built on the edge of town. Originally only intended to be for temporary use, it has been highly sought after for a range of projects. It has been used to accommodate workers for Sunraysia Solar Farm and will be used for Project EnergyConnect. Balranald Council staff have noted that it has provided a lot of economic benefits for local services, particularly due to its location and good management.

4. Upgrades to boarding houses or adaptive reuse of suitable buildings

Upgrades to existing boarding houses could enable increased accommodation capacity. When new hospitals or nursing homes are established, for example, older versions can be left vacant for significant periods of time. The Korora Nursing Home in Guyra has been repurposed for Costa's tomato farm workers. In Melbourne's City of Port Phillip, a vacant nursing home has been repurposed for older women at risk of homelessness. In Ivanhoe, mining company Tronox Australia is negotiating with Property NSW to repurpose the no longer used Warakirri Correctional Centre as worker's accommodation.

Next steps for the New England REZ Temporary Housing & Accommodation Roundtable

Through convening cross sector conversations Community Power Agency and Orange Compass hope to facilitate dialogue that helps shape and respond to the REZ pressures on Temporary Housing needs.

We believe that people in the communities that host the infrastructure should have input and hold answers to solutions that will ultimately affect the livability of their place.

We hope that some of these questions get discussed and explored:

- How might we build a 10-20-year picture of accommodation needs in the REZ?
- How can project accommodation decisions positively contribute to sustainable housing and accommodation needs for the community?
- Who do we need to honor a cross-sector informed roundtable discussion?
- What do we need to know more of or are curious about?

This may lead to further workshops and conversations that ultimately could create a vision and collate data for a better-informed decision-making process on the cumulative impacts of housing and temporary accommodation for the REZ.

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UTS 2023 Social Housing Crunch means Live in Limbo for those on Waitlists <https://www.uts.edu.au/research-and-teaching/research/explore/impact/social-housing-crunch-means-life-limbo-those-waiting-lists#:~:text=Nationally%2C%20there%20are%20just%20under,or%20one%2Dbedder%20in%20Bankstown.>

Appendix 1: New England Construction timeframe

2024 - 2025+ Estimated Construction Commencement in Southern New England region (status as at 1/12/2023)

Project	Shire	Status	Number of workers	Workforce strategy	Accommodation strategy
New England Solar Stage 2 320MW	Uralla	Approved (appointing EPC)	290 - 650 (peak) 20 months	Available here	Use existing (& workers camp if rental vacancy rates <3%)
Tilbuster Solar Farm 150MW	ARC	Approved, (appointing EPC)	125 (12 months/ 4months peak)	NIL From EIS: 50% local target	NIL: From EIS: Use existing
Oxley Solar Farm 225MW	ARC	Recommendation (awaiting IPC)	300 12 - 18 months	NIL From EIS: 50% local target	NIL From EIS: Use Existing (& liaise)
Winterbourne Wind 700MW	Walcha	Response to submissions (15 Dec 2023)	400 30 months	NIL	From EIS: Use Existing
Thunderbolt Wind Farm 192MW	Uralla, Tamworth	Assessment	495 18 - 24 months	NIL	From EIS: Use Existing
Oven Mountain Pumped Hydro 990MW	Armidale	Response to submissions	600+ 4 - 5 years	NIL	NIL From EIS: Onsite temporary workers facility for 600 workers
Armidale BESS 150MW	Armidale	Response to submissions	150 9 months	NIL From EIS "mostly local workforce"	From EIS: Use existing
<p>Projects in neighbouring LGAs at assessment or determination phase include Middlebrook, Hills of Gold, Bendemeer, Calala (Tamworth) Sundown, Bonshaw, (solar) (Inverell) Various projects in New England are at SEARs, Prepare EIS or scoping phase (with construction likely to commence beyond 2025)</p>					