EnergyCo

End of Year Snapshot

2023

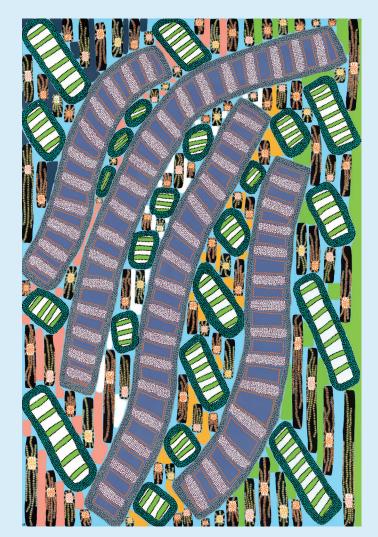


11 December 2023

energyco.nsw.gov.au

Acknowledgement of Country

We acknowledge that Aboriginal and Torres Strait Islander peoples are the First Peoples and Traditional Custodians of Australia, and the oldest continuing culture in human history. We pay respect to Elders past and present and commit to respecting the lands we walk on, and the communities we walk with.



Artwork: Regeneration by Josie Rose.

Our End of Year Snapshot

The energy transition is well underway in NSW, involving communities, First Nations peoples, industry and governments.

NSW's energy transition

Historically, coal-fired power stations have generated most of NSW's electricity, but now they are retiring. Liddell Power Station retired in April 2023, and three of the remaining coal-fired power stations are set to close in the next decade, removing a large proportion of our current energy supply.

New renewable generation, supported by batteries, pumped hydro and transmission, is the future of our power system and the lowest cost way to replace retiring power stations. It will secure our electricity supply, achieve net zero emissions, create jobs and opportunities in our regions, and ensure the State's future economic prosperity.

This energy transition has been building gradually over the past two decades, but now it needs to happen more quickly, with more planning and more involvement from energy consumers and host communities.

That is why the NSW Government is prioritising implementation of the NSW Electricity Infrastructure Roadmap ("the Roadmap") and *Electricity Infrastructure Investment Act 2020* (the EII Act) to make it happen.

The Roadmap and EII Act set out the State's energy priority – clean, reliable and affordable electricity – and the means to achieve it.

They will also be crucial for our State to achieve the greenhouse gas emissions reduction targets recently legislated under the *Climate Change (Net Zero Future) Act 2023*, which requires Net Zero emissions for NSW by 2050.

A snapshot of EnergyCo's work

EnergyCo has a range of responsibilities to help deliver the Roadmap, alongside other NSW Government agencies and energy market bodies.

This Snapshot sets out the work that EnergyCo does to support NSW's energy transition, the key milestones it has achieved in 2023 to date, and the progress in developing NSW's Renewable Energy Zones (REZs) and other priority transmission projects.

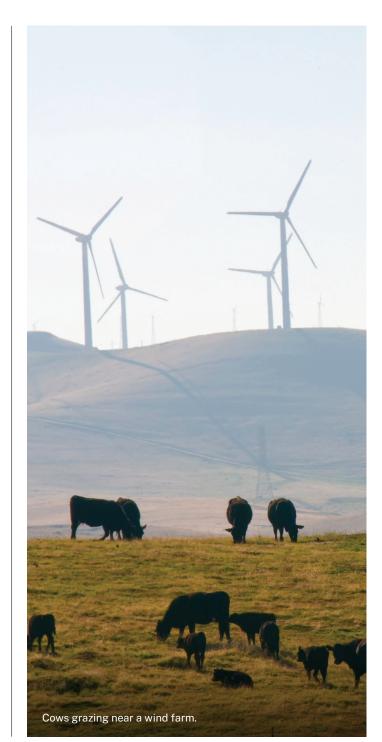
The Snapshot highlights

- How we work with others on the energy transition
- Our strategy for REZs and other priority projects
- EnergyCo's role in the energy transition
- Our commitment to local communities
- Community benefits in the REZs

Key milestones for 2023

Progress on our projects

- Central-West Orana REZ
- New England REZ
- South West REZ
- Hunter-Central Coast REZ
- Illawarra REZ
- Hunter Transmission Project
- Waratah Super Battery



Working together to deliver NSW's energy future

Households and businesses are investing in their own energy assets, while government and the energy industry get on with modernising our grid.

There are two types of energy systems in NSW. The first is what many households and businesses are building for themselves, with rooftop PV, batteries and smart energy tools that are giving them more control over their energy bills. These 'consumer' systems are a central part of our energy future, particularly as electric vehicles and community energy are added to the mix.

The other, more centralised system is the 'grid', which forms part of the National Electricity Market across the eastern side of Australia. For the NSW grid, the EII Act established a number of 'Roadmap entities'; organisations with specific roles in coordinating the State's energy transition.

EnergyCo is one of those entities. Its role as **Infrastructure Planner** is to plan and deliver REZs and priority transmission projects.

The **Consumer Trustee** (AEMO Services Limited) publishes the Infrastructure Investment Objectives Report every two years, a 20-year plan for investment in generation, long-duration storage and firming infrastructure. It also sets access fees and authorises the REZ network projects recommended by the Infrastructure Planner. The Australian Energy Regulator determines what revenues payable to Network Operators can be recovered from NSW electricity consumers.

These organisations work with the companies who prepare, build, own and operate large energy infrastructure. This includes renewables, grid-scale batteries and hydro power, and transmission and distribution networks.

The Minister for Energy and the other statutory bodies may also draw on the advice of bodies like the Renewable Energy Sector Board and the Electricity Infrastructure Jobs Advocate.

The objective is to deliver this critical energy infrastructure within the timeframe set by the Infrastructure Investment Objectives Report, to meet legislated energy and storage targets and to pursue the EII Act's twin goals of clean, reliable and affordable electricity for NSW consumers as well as economic and social benefits for local and First Nations communities.

Learn more: <u>https://www.energyco.nsw.gov.au/</u> entities-delivering

NSW Electricity Infrastructure Roadmap

NSW Department of Planning, Industry and Environment

Building an Energy Superpower Detailed Report November 2020

ww.dpie.nsw.gov.au

A strategy to accelerate the energy transition in NSW

The Network Infrastructure Strategy, published by EnergyCo in May 2023, sets out what new transmission will be needed for our energy future.

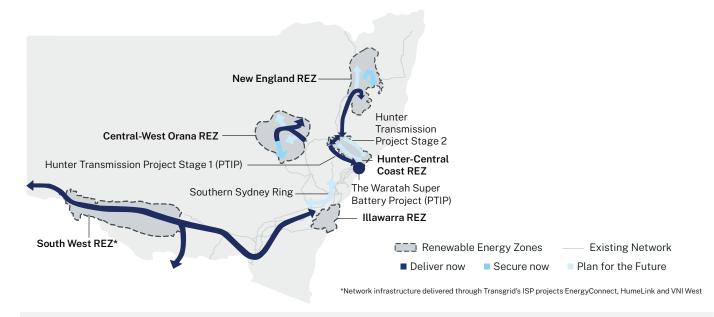
It focused on the network infrastructure needed to support NSW's five REZs, and its two Priority Transmission Infrastructure Projects (PTIPs), the Waratah Super Battery and the Hunter Transmission Project.

The Strategy proposed network options with capacity to transmit 14 gigawatts (GW) of electricity as soon as possible, and a further 10 GW if needed. This is primarily needed to unlock abundant renewable energy sources across the State.

The 14 GW would greatly increase NSW's current network capacity and deliver \$10.6 billion (in present value) in consumer benefits over the next 20 years.

The Strategy plans for responsible investment, with the options delivered only as needed:

- **Deliver Now** options are 'no regret' and need to be delivered as soon as possible
- 2 Secure Now options are needed if there are early coal closures or delays in the Deliver Now projects
- **9 Plan for the Future** options would be needed for higher electricity demand, particularly from hydrogen.



Benefits for NSW

The Network Infrastructure Strategy highlighted the benefits of modernising NSW's energy sector:

- substantially reduced greenhouse gas emissions
- improved reliability of electricity supply
- downward pressure on prices, with expected consumer benefits of \$10.6 billion over 20 years
- insurance against the possibility that coal generators retire earlier than expected, causing a jump in prices
- insurance against volatility in global fossil fuel prices as a result of wars, pandemics, shipping interruptions and other events beyond the control of anyone in NSW
- thousands of new construction and operations jobs
- support for new export industries like green manufacturing and hydrogen.

Learn more:

www.energyco.nsw.gov.au/industry/network-infrastructure-strategy-nsw

EnergyCo's role in the energy transition

EnergyCo's role is to lead the delivery of the REZs and priority transmission infrastructure under the Electricity Infrastructure Roadmap.

Our primary function as **Infrastructure Planner** is to investigate, plan, coordinate and design network infrastructure to connect to generation and storage projects. The role is limited to the five REZs and two Priority Transmission Infrastructure Projects rather than the whole of NSW.

EnergyCo coordinates community and industry engagement to deliver tangible benefits for local communities and First Nations peoples, and to promote local development opportunities. EnergyCo does not build, own or operate any generation, storage or network assets.

Each of these projects also goes through a detailed assessment and approval process under separate State and Commonwealth planning, environmental and energy-related legislation and regulatory frameworks.



Coordinate the design and delivery of NSW's five Renewable Energy Zones

- Lead the delivery of the State's first five REZs under the NSW Government's Electricity Infrastructure Roadmap, coordinating with other government agencies.
- Coordinate the technical design of REZs in consultation with the Australian Energy Market Operator (AEMO), Transgrid, distribution networks, Consumer Trustee and generators.
- Coordinate **\$32 billion** of private investment in the REZs to deliver at least 12 GW of renewable energy by 2030.



Plan and tender delivery of the required network infrastructure projects

- Plan and recommend the required network infrastructure projects.
- Run competitive tender processes to appoint Network Operators who will design, build, finance, operate and maintain the REZ network infrastructure.
- Seek planning approval for the network infrastructure under NSW and Commonwealth legislation.



Implement access schemes to connect valuable assets to the network

 Implement network access schemes for generators to connect and coordinate to new network infrastructure in the REZs, creating funds for community benefits and better value for energy consumers.



Consult with communities and coordinate new investment in infrastructure and services

- Consult with communities and key stakeholders on the transmission project development process.
- Work with communities, industry and other stakeholders to foster local community support, minimise impacts and maximise benefits for regional communities.

Our commitment to communities

Working with communities

Most of the new energy infrastructure required to support the transition will be built in regional NSW, where our best renewable energy resources are located.

EnergyCo is pursuing early, proactive and genuine engagement to ensure community views inform our planning for new network infrastructure projects and coordination of REZs.

We are always striving to improve and continue to seek feedback through various channels, including:

- community working groups
- First Nations working groups
- feedback and surveys in REZ communities
- intergovernmental and council steering committees
- landowner consultation and community information sessions.

Benefits for landowners

EnergyCo understands the importance of land uses like agriculture to communities, and is delivering initiatives to ensure landowners share in the benefits of the once-in-a-generation opportunity presented by the energy transition.

Hosting transmission projects

New transmission infrastructure is being designed to minimise potential land use and property impacts. Wherever possible, we are avoiding areas of high value in planning new transmission corridors.

Where transmission lines cross private property, we are working directly with landowners to ensure activities can continue with minimal impact.

Private landowners who host new critical transmission are paid a set rate of \$200,000 per kilometre (subject to CPI), and paid out in annual instalments over 20 years. This is in addition to the compensation landowners are entitled to under NSW land acquisition legislation.

For information about the scheme visit <u>energyco.</u> <u>nsw. gov.au/community/strategicbenefit-payments-</u> <u>scheme</u>

Hosting renewable energy generation and storage projects

Hosting renewable energy projects (such as solar and wind farms) can help to provide new and diversified income streams for landowners, with projects under the Roadmap offering an estimated \$1.5 billion in lease payments over the next 20 years.

Renewable energy projects can also complement farming practices through 'agrivoltaics', such as sheep grazing or cropping underneath solar panels.

Neighbouring landowners

EnergyCo acknowledges that communities are concerned about potential amenity and environmental impacts associated with new energy infrastructure, including transmission lines. The NSW Government is developing guidelines for assessing the impact of major new transmission lines, including considering payments to address significant residual visual impacts on nearby landowners.

NSW community engagement snapshot



8,763 community stakeholder interactions across the REZs and priority projects



1,118 meetings with landowners, communities, local organisations and stakeholder groups

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87 engagement sessions and pop-up events in local towns



232 meetings with local councils

Benefits for local communities

Community benefit, employment and infrastructure programs will ensure regional communities receive long-term benefits from the renewable energy transition.

Community programs

EnergyCo understands that the local people who live and work in regional NSW know what is best for their community. Funding arrangements will begin for the Central-West Orana REZ in early 2024 with the other REZs to follow.

Community projects and infrastructure could add to community services, health services, accommodation, energy programs, environmental programs, parks and recreation, education and research, arts or cultural programs, tourism programs or infrastructure, First Nations services, and employment services.

Employment and training

EnergyCo is working with the Electricity Infrastructure Jobs Advocate, the NSW Department of Education, TAFE and the renewable energy industry to coordinate initiatives that will support local training and employment opportunities.

The NSW Government has set minimum requirements for developers to ensure workforce participation from apprentices and learning workers, First Nations people and underrepresented groups, such as women and youth.

Local procurement and supply chain

The NSW Government's Renewable Energy Sector Board Plan sets out minimum requirements for locally sourced goods and services during REZ construction, operation and maintenance.

First Nations participation

Project developers are required to consult with First Nations communities on their plans to support First Nations participation. This may be through contracting First Nations businesses, direct employment, investment in education, training and capacity building as well as other initiatives.

Roads and transport

EnergyCo is working with Transport for NSW on State road upgrades between Newcastle and the Central-West Orana REZ, with upgrades expected to begin in late 2024.

EnergyCo is also working with councils and renewable energy generation projects to determine priority upgrades, investigate funding options, and coordinate the work.

Mobile and internet connectivity

Renewable energy infrastructure requires new fibre optic cables that may also be used for telecommunications. EnergyCo is working with the NSW Telco Authority to investigate the opportunities for better mobile coverage on road corridors, and better and/or more affordable internet for communities.

The program will aim to:



Improve people's lives in regional communities by supporting better local roads, access to health services, housing and accommodation, telecommunication connectivity and other public services and infrastructure.

Foster local community connection by



making it easier for people to access quality sport, recreation and other community facilities, as well as arts and cultural programs that bring people together.



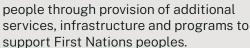
Create local employment opportunities through training and skills programs or infrastructure.



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Boost resilience and innovation through community energy programs and environmental improvement programs.

Improve outcomes for First Nations



Support regional economic



development through tourism programs and infrastructure and legacy projects that provide enduring benefits for host communities.

Progress on our projects

EnergyCo is the Infrastructure Planner for the first five REZs, the Hunter Transmission Project and the Waratah Super Battery.

After a REZ is declared by the Minister for Energy, one of EnergyCo's first jobs is to select the company responsible for building the network infrastructure needed. The network for each REZ must then be developed along a path set by both the EII Act and the Environmental Planning and Assessment (EPA) Act 1979.

A similar process is followed for the Hunter Transmission Project and Waratah Super Battery.

This page sets out the progress made for each of these projects in 2023 to date.

Most REZs will have an access scheme that allows large-scale generation and storage projects to connect to the network.

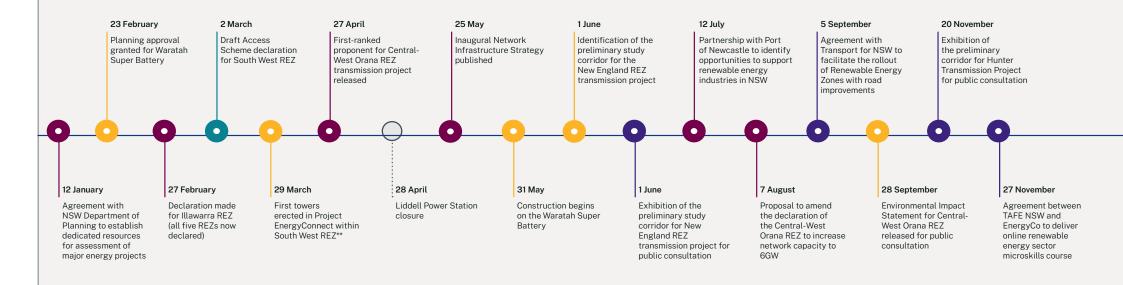
Project	Intended maximum	Development status								
	network capacity	REZ declaration	Preliminary transmission corridor	Network operator procurement	Access scheme declaration	Authorisation/ cost determination	Planning approvals	Financial close	Construction	Operation
Central-West Orana REZ	3-6 GW*	\bigotimes		€ \$\$	\bigotimes	€ [0]\$	€			
New England REZ	8 GW	Ø	$\langle\!\!\!\!\!\!\!\!\!\rangle$			€ [0]\$				
South West REZ**	2.5 GW	\bigotimes			400+		\bigotimes		<u>+</u> €€+	
Hunter-Central Coast REZ	1 GW	\bigotimes	400+	4.Q.+		€ [0]\$				
Illawarra REZ	1 GW	\bigotimes								
Hunter Transmission Project (Stage 1)	5 GW		\bigotimes	€ \$\$		€				
Waratah Super Battery	0.9 GW			\bigotimes		\bigotimes	\bigotimes		+202+	



Not applicable In progress *A draft declaration to increase the intended maximum network capacity to 6 GW was released for public consultation on 7 August 2023. **Network infrastructure delivered through Transgrid's Project EnergyConnect under the National Electricity Rules.

EnergyCo End of Year Snapshot 2023

Key milestones in 2023



Key

Coordinate the design and delivery of NSW's five Renewable Energy Zones

Plan and tender delivery of the required network infrastructure projects

Implement access schemes to connect valuable assets to the network

O Consult with communities and coordinate new investment in infrastructure and services

**Network infrastructure delivered through Transgrid's Project EnergyConnect under the National Electricity Rules

Period includes 1 January 2023 to 8 December 2023.

Central-West Orana REZ

EnergyCo is delivering the Central-West Orana REZ to provide clean, affordable and reliable electricity across NSW. The REZ is centred on Dubbo and Dunedoo, on the land of the Wiradjuri, Wailwan and Kamilaroi people.

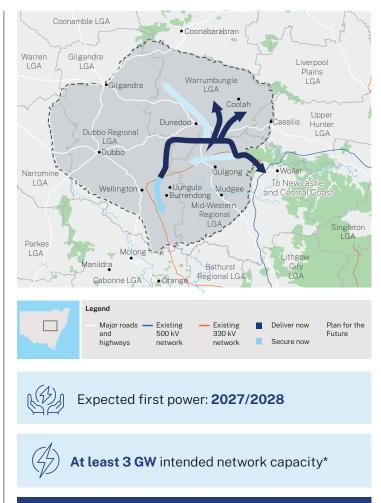
Where we are



What we've done

What's next

$(\not \Rightarrow)$	Exhibited the Environmental Impact Statement (EIS) from late September to early November, receiving more than 400 submissions	Publish response to submissions report and an amendment report in 2024
	Selected ACEREZ as the first ranked proponent as Network Operator Identified 11 major renewable generation projects to connect to the REZ transmission network	Formal signing of the Commitment Deed for ACEREZ
	Delivered the final CWO REZ Access Scheme in early 2023 Launched the pre-tender stage for access rights and consulted with generation and storage proponents	Work with AEMO Services to launch the first access tender for generation and storage projects
	Consulted widely with landowner/s, neighbours, councils, First Nations peoples and other stakeholders Consulted on the EIS and on the proposed REZ declaration amendment to increase intended network capacity Supported the Minister for Energy's announcement of \$128	 Prepare to deliver community benefits, including by developing: a framework for community investment a plan for delivering them
	million over four years to deliver community projects and employment opportunities Developed a government and council steering committee to coordinate community benefits	



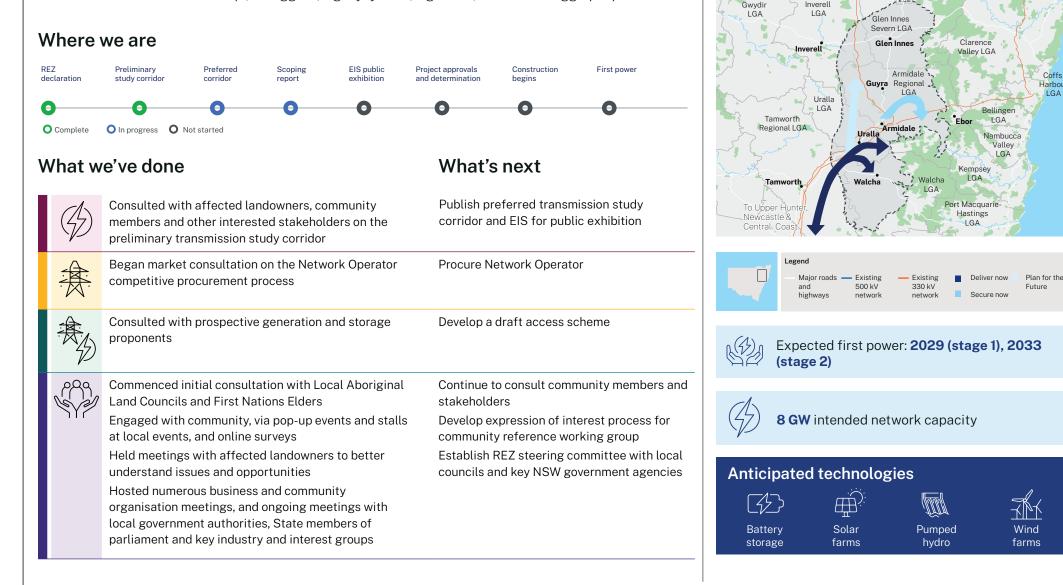
Anticipated	Anticipated technologies					
		<u>TTM</u>	<u> </u>			
Battery storage	Solar farms	Pumped hydro	Wind farms			

*A draft declaration to increase the intended network capacity to 6 GW was released for public consultation on 7 August 2023.

More info: www.energyco.nsw.gov.au/cwo-rez

New England REZ

The NSW Government is in the early stages of planning a REZ in the New England region, centred around Armidale on the lands of the Biripi, Dainggatti, Nganyaywana, Ngarabal, and Gumbainggir people.



More info: www.energyco.nsw.gov.au/ne-rez

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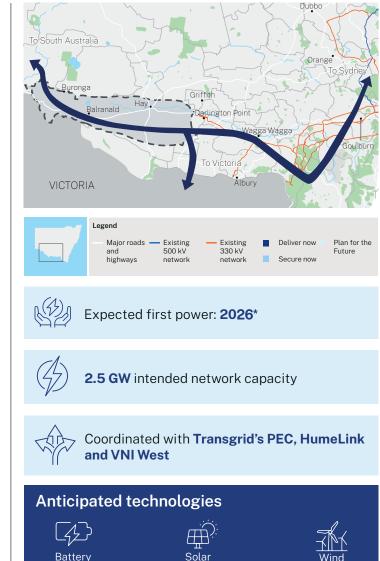
Harbou

IGA

South West REZ

EnergyCo is planning a REZ in the NSW's southwest, centred around Hay on the lands of the Wiradjuri, Yorta Yorta, Baraba Baraba, Wemba Wemba, Wadi Wadi, Madi Madi, Nari Nari, Dadi Dadi, Kureinji and Yitha Yitha people. This REZ builds on Transgrid's work to develop Project EnergyConnect linking NSW and South Australia.

Where we are REZ Preferred Preliminary Scoping **FIS public** Construction First power Project approvals declaration study corridor* corridor* exhibition* and determination* report* begins* O Complete O Not started *Part of Transgrid's work What we've done What's next Transgrid lifted the first towers on Project EnergyConnect, which Construction to continue will link NSW and South Australia; while this is not an EnergyCo on Project EnergyConnect coordinated project, it will form the transmission backbone of the REZ Set up working group with Transgrid, who are coordinating and building Continue to work with the transmission infrastructure Transgrid while they coordinate delivery of REZ infrastructure components Held public consultation and stakeholder briefings on the draft access Provide recommendation scheme to Minister for Energy on how to proceed with the Formed access scheme developer reference group access scheme Revised the Target Transmission Curtailment Level upwards following further technical modelling Consulted and engaged with community around the transmission Continue to work with projects, carried out by the relevant project proponents and support transmission project proponents on Consulted with regional reference group, bringing together community engagement representatives of local councils, Local Aboriginal Land Councils and regional NSW government agencies Consultation on reexhibition of draft access scheme declaration



* not 2031, as a previous version of this document incorrectly stated

farms

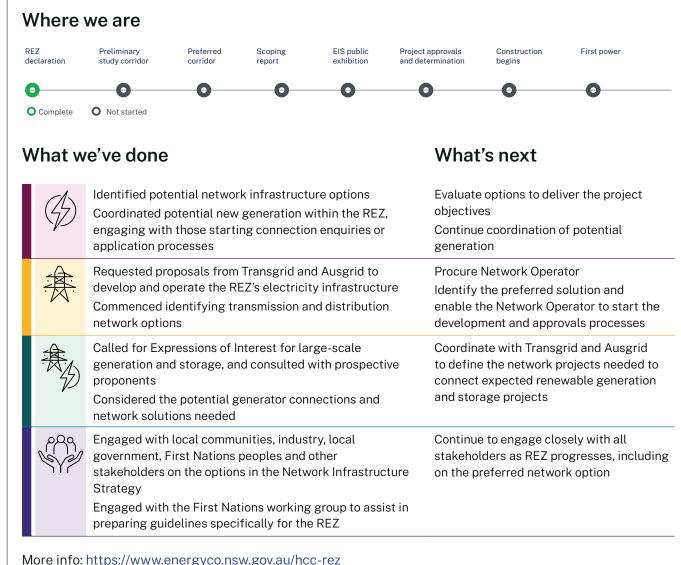
storage

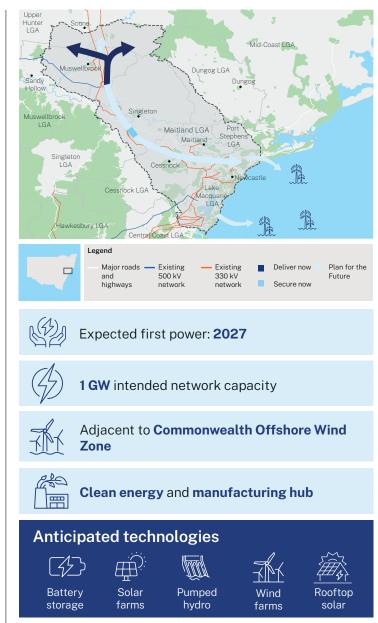
More info: https://www.energyco.nsw.gov.au/sw-rez

farms

Hunter-Central Coast REZ

EnergyCo is in the early stages of planning a REZ in the Hunter and Central Coast regions, on the lands of the Awabakal, Bahtabah, Biraban, Darkinjung, Mindaribba, Wanaruah and Worimi people.



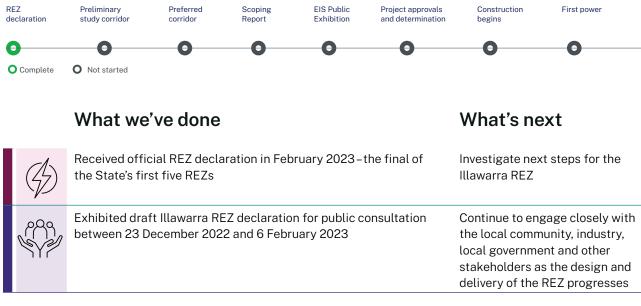


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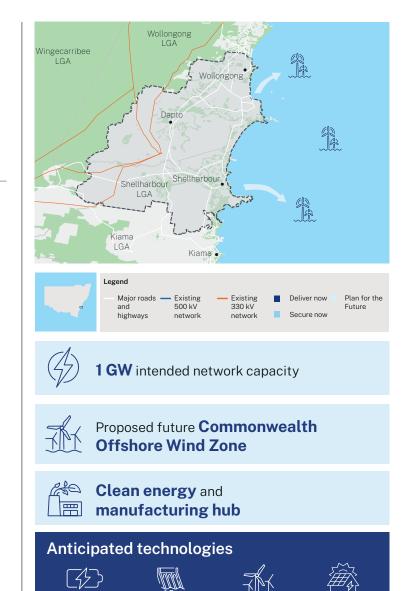
Illawarra REZ

EnergyCo is in the early stages of planning for a REZ in NSW's Illawarra region, located on the land of the Dharawal people.

Where we are



More info: https://www.energyco.nsw.gov.au/ilw-rez



Battery

storage

Pumped

hydro

Wind

farms

Rooftop

solar

Priority Transmission Infrastructure Project

Hunter Transmission Project

The Hunter Transmission Project (HTP) will unlock the supply of electricity from the Central-West Orana and New England REZs, allowing it to be imported to the grid via Bayswater Power Station. From here, it will be delivered to consumers in the Hunter, Sydney and Illawarra where 80% of the State's electricity is used.

Where we are PTIP Preferred EIS public Project approvals Preliminary Scoping Construction First power declaration corridor corridor report exhibition and determination begins Lithgow City IGA O Complete O Not started What we've done What's next Placed the HTP preliminary corridor and HTP overview on Start the environmental approvals 47 public exhibition on 20 November, inviting feedback from process, including preparation of scoping the community until 18 December 2023 report ahead of the EIS Involve the community in refining the design and assessing the impacts of the HTP Prepared to recommend a direction or authorisation of a **Procure Network Operator Network Operator** Conducted preliminary engagement with local councils Release feedback report on submissions and other key stakeholders in the region received during public exhibition Started early engagement with potentially affected Establish a regional reference group landowners in October 2023



Gloucester

Upper Hunter LGA

Scon

5 GW intended network capacity

More info: https://www.energyco.nsw.gov.au/projects/hunter-transmission-project

Waratah Super Battery Project

The Waratah Super Battery project is a System Integrity Protection Scheme (SIPS) that will act as a 'shock absorber' for the electricity grid in case of sudden power surges caused by events such as bushfires or lightning strikes. It will perform a key role in the energy transition until the Hunter Transmission Project becomes operational in the late 2020s.

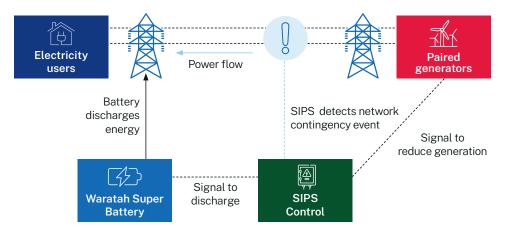


What we've done

What's next

Secured planning approval from the NSW Government Handed over to SIPS Service Provider Akaysha Energy and commencement of construction Appointed Transgrid as the Network Operator	Provide continuing support to Akaysha Energy and Transgrid throughout the delivery phase Receive revenue determinations for paired generation and non- contestable components
Consulted with energy industry bodies and regulators, state government agencies, technical experts, landowners, Central Coast Council and the local community	Continue to support Akaysha Energy and network operator Transgrid in any ongoing engagement with local community

The Waratah Super Battery project is a SIPS comprised of both contestable and non-contestable components.







More info: https://www.energyco.nsw.gov.au/projects/waratah-super-battery

Find out more

EnergyCo wants to hear what you think about our plans. If you have questions or want to give feedback, please get in touch with our team:

- <u>contact@energyco.nsw.gov.au</u>
- ل 1800 118 894 <u>کی</u>
- energyco.nsw.gov.au
- If you need help understanding this information, please contact the Translating and Interpreting Service on **131 450** and ask them to call us on **1800 118 894**.



You can find more information on our website by scanning the QR code or by visiting <u>energyco.nsw.gov.au</u>

Moree solar farm, Moree NSW

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