EnergyCo

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Hunter-Central Coast Renewable Energy Zone

Summary of EnergyCo's network recommendation

April 2025

The Energy Corporation of NSW (EnergyCo)

Acknowledgement of Country

The Energy Corporation of New South Wales acknowledges that it stands on Aboriginal land. We acknowledge that the Hunter-Central Coast REZ is on the lands of the Awabakal, Darkinjung, Wanaruah and Worimi people. We show our respect for Elders past and present through thoughtful and collaborative approaches to our work, seeking to demonstrate our ongoing commitment to providing places in which Aboriginal people are included socially, culturally and economically.

Published by the Energy Corporation of New South Wales

energyco.nsw.gov.au

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First published: April 2025

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TMP-MC-R-DC-V1.2

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Foreword

Hannah McCaughey

Chief Executive Officer,
EnergyCo

The Hunter-Central Coast REZ region has supported reliable, affordable electricity in NSW for many decades. As we transition to renewable energy, the region will continue to play an important part in securing our energy future, through its abundant renewable resources, existing network infrastructure and skilled workforce.

EnergyCo coordinates delivery of NSW's five Renewable Energy Zones (REZs) and two Priority Transmission Infrastructure Projects (PTIPs). We are delivering these grid upgrades to keep the lights on and support affordable, reliable and sustainable electricity for everyone in NSW. Projects that harness NSW's abundant solar and wind are the cheapest and fastest way to replace our ageing coal-fired power stations as they close. They also create economic and social benefits for local and First Nations communities.

The Hunter-Central Coast REZ will be Australia's first REZ to be delivered primarily through upgrades to the existing distribution network, minimising the impact on land, local communities, the environment and consumer energy bills. I hope it is the first of many upgrades we can make to the existing network alongside the new infrastructure we need to support affordable, reliable, clean energy for everyone in NSW.

The Hunter-Central Coast REZ network infrastructure project will provide long-term financial benefits for NSW electricity customers. Over its 50-year life span it is expected to provide $270.5 million (real $2024) in net benefits and maintain the reliability of supply. This includes reducing greenhouse gas emissions by approximately 2 million tonnes of carbon dioxide equivalent to help meet NSW's legislated targets and the bipartisan *Climate Change (Net Zero Future) Act 2023*.

Local communities will benefit from jobs and investment in the region. Over $3.9 billion will be invested in Hunter-Central Coast REZ to deliver new network, solar, wind and battery infrastructure. During peak construction, up to around 2,000 jobs in the region will be supported by this total investment.

Ausgrid, as the recommended Network Operator for this project, has made commitments to use local workers and businesses across construction and operations. This includes providing business and employment opportunities for Aboriginal and Torres Strait Islander people of at least 1.5 per cent of the project's construction and operation expenditure.

I'd like to thank the many groups and partners we worked with to develop this recommendation. They include: the local councils in the Hunter-Central Coast region; the Hunter-Central Coast First Nations Working Group; NSW Department of Climate Change, Energy, the Environment and Water (Energy, Climate Change and Sustainability); AEMO Services; the Scheme Financial Vehicle (SFV); the Australian Energy Market Operator (AEMO); the Australian Energy Regulator (AER); Transgrid; and renewable generation and storage developers with projects planned for the Hunter-Central Coast REZ.

Working in partnership with Ausgrid, we look forward to continuing our close engagement with local communities, industry and local governments as the Hunter-Central Coast REZ network infrastructure project progresses. Projects like this are critical to keep the lights on and unlock clean, affordable energy for everyone in NSW.

About EnergyCo

The Energy Corporation of NSW (EnergyCo) is a statutory authority established under the NSW *Energy and Utilities Administration Act 1987*.

EnergyCo has been appointed Infrastructure Planner under section 63 of the NSW *Electricity Infrastructure Investment Act 2020* (EII Act), under which it may act to investigate, plan, coordinate and promote energy infrastructure development in NSW for NSW's five REZs and for two PTIPs, the Waratah Super Battery Project and the Hunter Transmission Project.

Our role is to maximise the opportunities created by the transformation of the NSW electricity system by coordinating investment in REZs across the State.

We will channel investment in solar and wind farms and storage such as batteries and pumped hydro to places best suited to host it. This means clean energy can be harnessed and distributed reliably and affordably. This will power NSW for decades to come.

In our regions, it will generate profound economic opportunities as cheap renewable energy underpins new low carbon industries such as green hydrogen, manufacturing and metals production. Investors are ready to build the generation and storage we need right now. Five dedicated REZs have already been identified across the State.

We are coordinating the transition to ensure it happens in an orderly manner and are leading strategic planning and consultation processes, so the new transmission infrastructure needed to realise the State's energy transition is developed in the right place, at the right time, to deliver clean, reliable and affordable energy to the households and businesses of NSW.

Our key responsibilities include:

Strategic planning, technical and regulatory design

- Contributing to strategic, holistic planning for each REZ.
- Coordinating the technical design of REZs in consultation with the Australian Energy Market Operator (AEMO), Transgrid as the system operator and jurisdictional planner, program partners and generators.
- Strategically improving electricity networks and providing network solutions including technology solutions that could optimise the design and performance of REZs or provide additional system strength and reliability to regional areas.

Community and stakeholder engagement

- Leading community and stakeholder engagement activities to support REZ delivery.
- Delivering tangible benefits for First Nations people and communities.
- Promoting local development opportunities, through engagement with local communities and industry.

Infrastructure and investment

- Recommending the required network infrastructure projects for the REZs.
- Working with parties such as the Consumer Trustee, AEMO, Transgrid, Network Operators, Distribution Network Service Providers, Councils and key community and industry groups to ensure the new network infrastructure to support the REZs is constructed most effectively. We will do this in a way that seeks to minimise impacts to and maximise opportunities for local communities, industries and workers.
- Investigating potential innovative network infrastructure solutions to optimise the performance of the REZs.
- Overseeing implementation of the REZ access framework, including tender processes for access that deliver benefits to generators and to the communities where the REZs are located.

Summary of recommendation

The Hunter-Central Coast REZ network infrastructure project (RNIP) is the first distribution RNIP to be recommended by the Energy Corporation of New South Wales (EnergyCo) as the Infrastructure Planner under the *Electricity Infrastructure Investment Act 2020 (*EII Act*)*. It is also the first RNIP to be recommended that primarily consists of upgrades to existing network infrastructure.

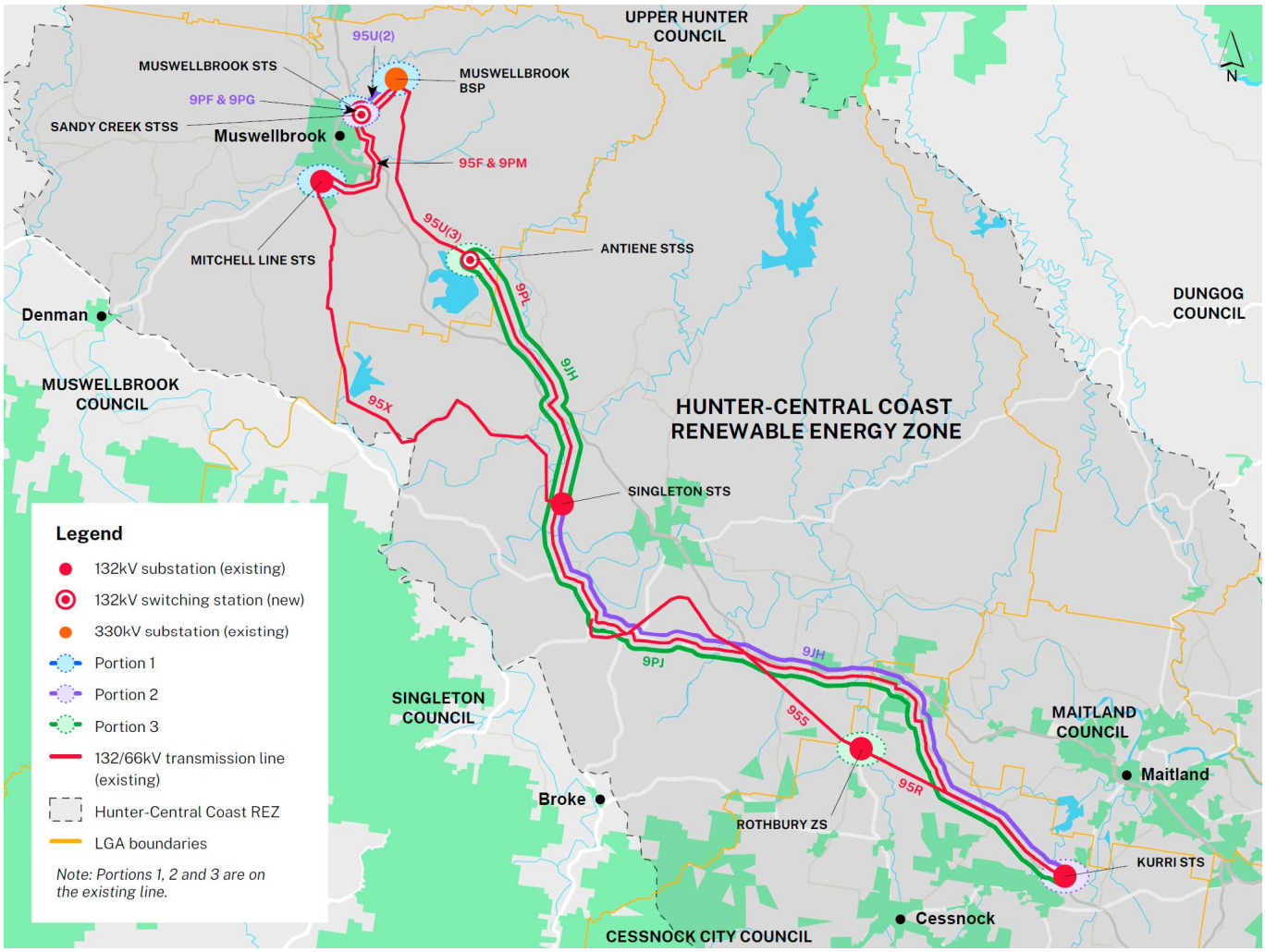
EnergyCo, in its role as the Infrastructure Planner for the Hunter-Central Coast REZ, has made its recommendations to the Consumer Trustee for the Hunter-Central Coast RNIP.[1] This document has been prepared to provide a summary of EnergyCo's recommendation to the Consumer Trustee and the basis for these recommendations.[2]

EnergyCo recommended to the Consumer Trustee that it authorise Ausgrid to carry out the Hunter-Central Coast RNIP. This project is expected to provide 1 gigawatt (GW) of new network transfer capacity in the Hunter-Central Coast REZ by 2028. It primarily consists of upgrades to Ausgrid's existing distribution network infrastructure (Figure 1) with construction commencing in 2025 and expected to be completed by 2028.

[1] EnergyCo made its recommendations under section 30 of the EII Act.

[2] Due to the ongoing procurement process for the Hunter-Central Coast REZ at the time of publication, this report seeks to strike a balance between transparency of the details of EnergyCo's recommendations and commercial-in-confidence considerations for the project. Certain commercial and financial information has been omitted.

Figure 1: The recommended Hunter-Central Coast REZ network infrastructure project



Costs of the Hunter-Central Coast RNIP

The development and construction capital cost of the Hunter-Central Coast RNIP is estimated to be approximately $0.6 billion (nominal) as of March 2025. This is within the range of cost estimates in the 2023 Network Infrastructure Strategy published by EnergyCo.[3]

The development and construction capital cost of the Hunter-Central Coast RNIP comprises:

- Ausgrid's upfront development costs
- Costs related to the development and delivery of the RNIP including acquisitions of interests in land, and community and stakeholder engagement
- The costs of the design and construction of the network infrastructure
- Infrastructure Planner costs to fund early activity works to develop the RNIP
- Costs of minor enabling works on Transgrid's existing network.

[3] EnergyCo, *NSW Network Infrastructure Strategy*, May 2023.

The final cost of the Hunter-Central Coast RNIP that will be recovered from NSW electricity customers will be determined by the Australian Energy Regulator (AER) in accordance with its Transmission Efficiency Test and revenue determination guideline for non-contestable network infrastructure projects.[4]

Expected benefits of the Hunter-Central Coast RNIP

The Hunter-Central Coast RNIP is expected to deliver $270.5 million (real $2024) in net benefits to NSW electricity consumers to 2079. This is relative to a scenario where the Hunter-Central Coast RNIP is not developed but the minimum Infrastructure Investment Objectives of 12 GW of additional generation infrastructure by 2030 are still achieved. The net benefit results from lower wholesale electricity costs and a reduction in carbon emissions which are enabled by the RNIP, less the costs of the network infrastructure.

The Hunter-Central Coast RNIP will provide an additional 1 GW of network transfer capacity and is expected to support the connection of approximately 1.8 GW of new renewable energy generation and storage projects. This will benefit NSW electricity consumers by maintaining reliable and sustainable electricity services.

The Hunter-Central Coast RNIP is also expected to benefit the local community through Ausgrid's commitments to:

- Provide small business and employment opportunities, including providing at least 1.5 per cent of the project's construction and operation expenditure to Aboriginal and Torres Strait Islander people (for business and employment opportunities)
- Utilise only local civil works contractors for substation augmentations
- Commit to utilising local steel for construction of substations and for lines and conductors
- Commit to identifying jobs and skills gaps to provide lasting employment opportunities over the life of the Hunter-Central Coast RNIP for workers coming from other industries such as mining.

Background to the Hunter-Central Coast REZ

The Hunter-Central Coast REZ region spans from the Newcastle–Lake Macquarie coastline northwest up the Hunter Valley to near Scone, and is on the lands of the Awabakal, Darkinjung, Wanaruah and Worimi people.

The Hunter-Central Coast REZ region will host other EnergyCo projects, such as the Hunter Transmission Project and the Waratah Super Battery, along with generation and storage projects,

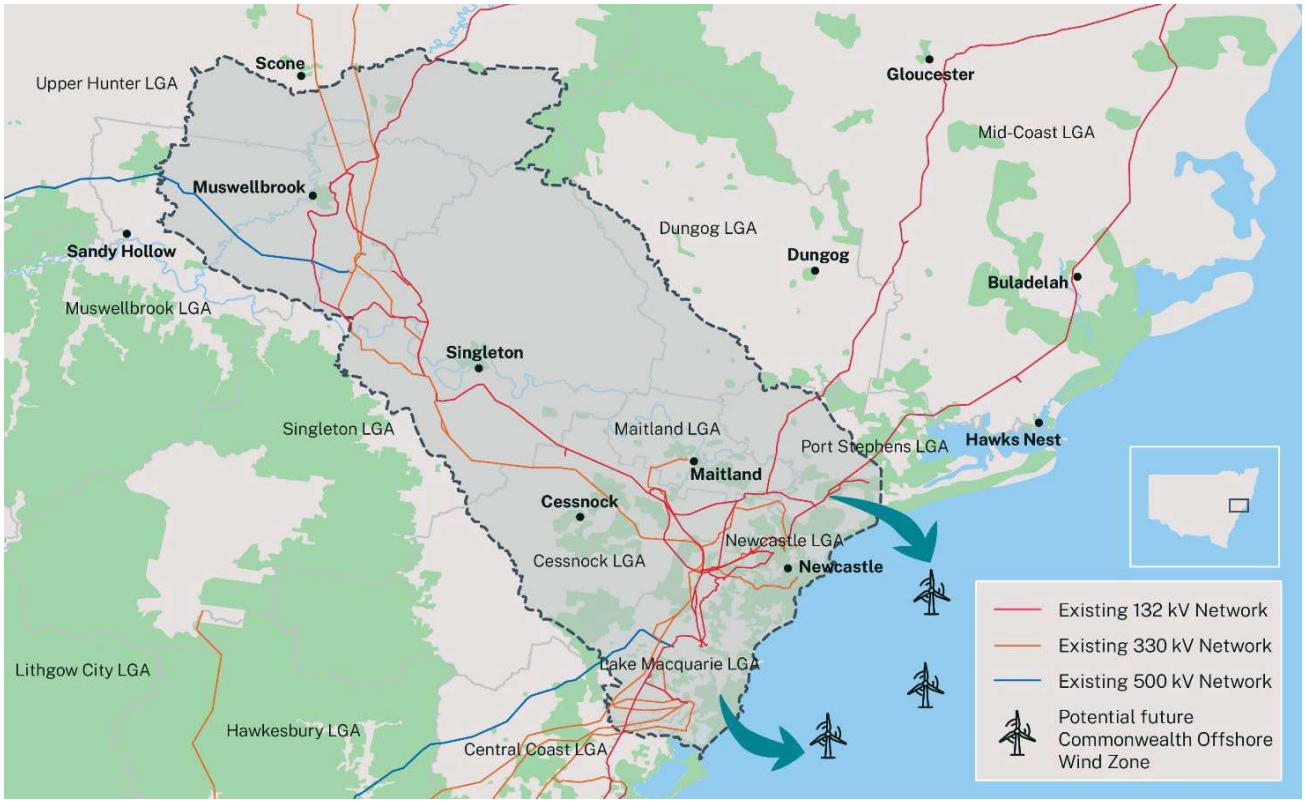
[4] The AER's Transmission Efficiency Test and revenue determination guideline for non-contestable network infrastructure projects is available here.

and will become a hub for the region's low-emission industries. It will leverage existing electricity, port and transport infrastructure, along with a large skilled workforce.

The Hunter-Central Coast REZ was declared on 9 December 2022 (amended 6 December 2024) to comprise:

- the specified geographical area identified in Figure 2
- the intended network capacity of 1 GW
- all present and future network infrastructure in the specified geographical area and network infrastructure outside it to connect Somersby and Berowra Zone Stations.

Figure 2: Hunter-Central Coast REZ, specified geographical area



The Hunter-Central Coast RNIP is the first distribution RNIP to be recommended by the Infrastructure Planner to the Consumer Trustee for authorisation.

Delivering the Hunter-Central Coast RNIP will ultimately support the infrastructure investment objective under the EII Act of connecting 12 GW of renewable generation infrastructure by 2030. It will also support the NSW Government's targets to reduce greenhouse gas emissions to its 2005-levels by at least 50 per cent by 2030, by 70 per cent by 2035, and to net zero by 2050.

The Hunter-Central Coast REZ network infrastructure project

The Hunter-Central Coast RNIP will provide an additional 1 GW of network transfer capacity by 2028 through upgrades to the existing distribution network between the Lower and Upper Hunter. The project is expected to facilitate the connection of approximately 1.8 GW of new renewable generation and storage projects. EnergyCo has recommended Ausgrid as the Network Operator to carry out the project.

The Hunter-Central Coast RNIP, which is recommended to be carried out by Ausgrid as the Network Operator, consists of three work portions that will deliver a total network transfer capacity of 1 GW:

- **Portion 1 delivers transfer capacity of 350 MW:** Ausgrid will modernise its 132 kV network in the Upper Hunter by upgrading secondary systems to enable bidirectional flow of power.
- **Portion 2 delivers additional transfer capacity of 280 MW** (results in cumulative transfer capacity of 630MW): Ausgrid will construct a new 132 kV switching station at Muswellbrook (Sandy Creek Subtransmission Switching Station) and rearrange and upgrade the surrounding subtransmission network. Ausgrid will also construct a new 132 kV subtransmission line from Singleton to Kurri Kurri and install a fibre communications link across the Hawkesbury River from Berowra to Somersby.
- **Portion 3 delivers additional transfer capacity of 370 MW** (results in cumulative transfer capacity of 1,000 MW)**:** Ausgrid will construct a new 132 kV switching station at the north-eastern bank of Lake Liddell (Antiene Subtransmission Switching Station) and also construct a high-capacity double circuit connection[5] between Antiene and Kurri Kurri.

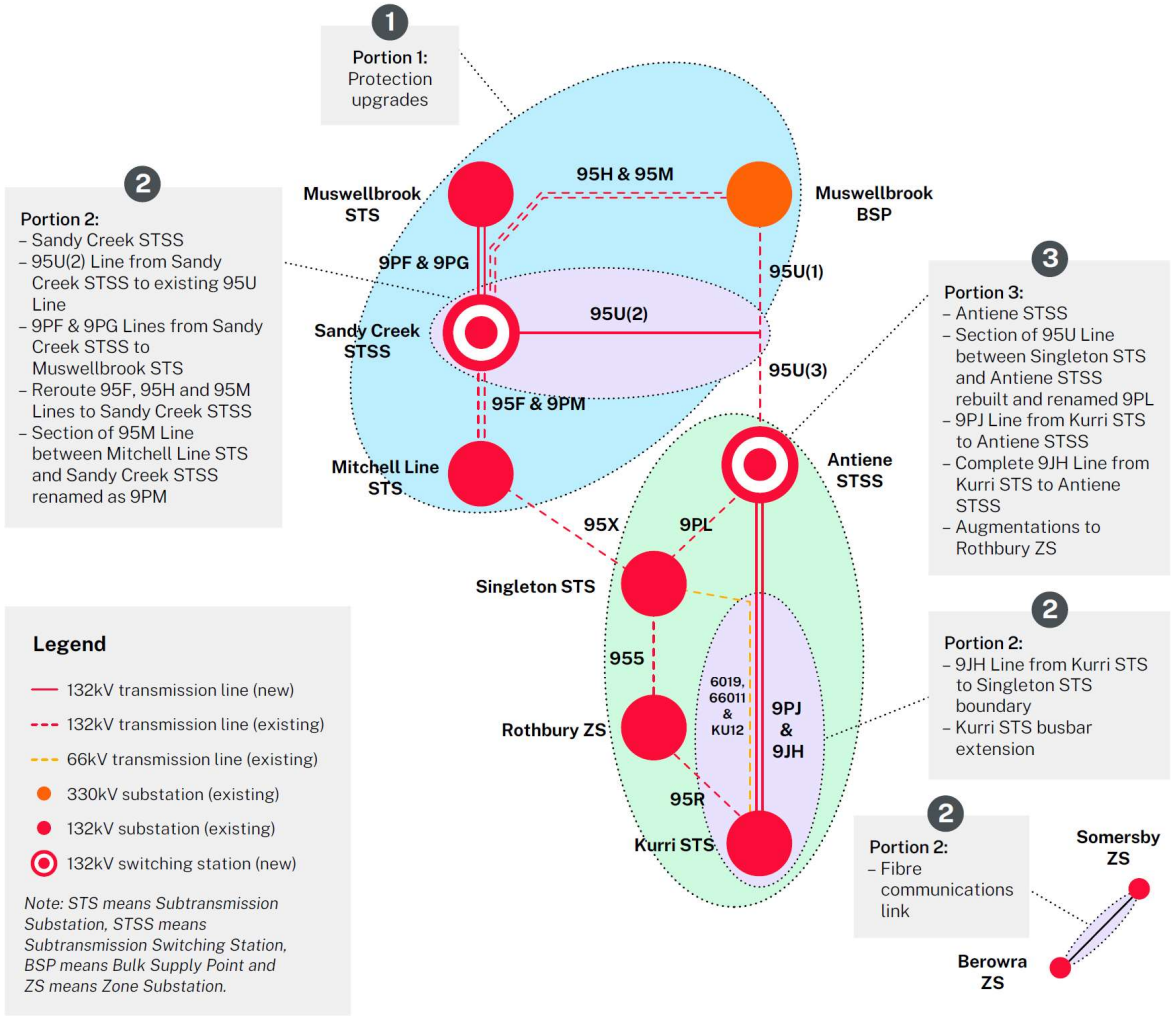
The scope of the Hunter-Central Coast RNIP across the three work portions is shown in Figure 3 below.

Construction of the Hunter-Central Coast RNIP is scheduled to take approximately three years, from commencement in 2025 through to demobilisation and site rehabilitation by 2028. The transfer

[5] One of the high-capacity double circuit 132 kV lines from the Kurri Subtransmission Substation to the boundary of the Singleton Subtransmission Substation has been discussed as being built as part of Portion 2.

capacity of 350 MW under Portion 1 is expected to be available by 2026, with the remaining transfer capacity under Portion 2 and 3 expected to be available by 2028.

Figure 3: Scope of the Hunter-Central Coast RNIP



The Hunter-Central Coast RNIP will connect directly to the existing distribution network, currently leased and operated by Ausgrid. The additional network transfer capacity will flow into the existing distribution network at multiple points, but primarily into:

- the Muswellbrook Subtransmission Substation, Muswellbrook Bulk Supply Point and the Mitchell Line Subtransmission Substation in the Upper Hunter
- Kurri Subtransmission Substation in the Lower Hunter.

The Hunter-Central Coast RNIP will connect upstream to the NSW electricity transmission network, currently leased and operated by Transgrid. To facilitate this connection, Ausgrid will subcontract minor enabling works to Transgrid. These works would:

- enable the use of Transgrid's easements for fibre works and feeder crossings
- install communications equipment at the Muswellbrook 330kV Bulk Supply Point

- update protection systems at both Muswellbrook and Newcastle[6] Bulk Supply Points.

The recommended Hunter-Central Coast RNIP does not include assets to facilitate the connection of generation to the REZ network infrastructure. Nor does it include assets to provide system strength services. These assets will be developed in accordance with the National Electricity Rules (NER) in accordance with the roles and responsibilities established by the NER.

Recommended Network Operator for the Hunter-Central Coast REZ network infrastructure project

EnergyCo has recommended Ausgrid as the Network Operator to carry out the Hunter-Central Coast RNIP to provide 1 GW of network transfer capacity by 2028.[7, 8] Ausgrid is a registered distribution network service provider under the NER and operates the distribution network which is augmented by the Hunter-Central Coast RNIP under a 99-year lease with the NSW Government. Ausgrid is also licensed as a distributor under the *Electricity Supply Act 1995* (NSW).

EnergyCo selected Ausgrid as the Network Operator following a select tender process between Ausgrid and Transgrid.

Costs and cost recovery

The capital cost to develop and construct the Hunter-Central Coast RNIP is estimated to be approximately $0.6 billion (nominal) for recommendation and authorisation purposes as of March 2025.[9]

This estimated investment:

[6] Newcastle BSP protection changes are covered by an already planned Transgrid project and are not part of the Hunter-Central Coast RNIP.

[7] For the purposes of s 30(2)(a) of the EII Act, we assessed different options for REZ network infrastructure projects by considering whether the Hunter-Central Coast RNIP could be delivered through a new greenfield project or by upgrading one of the existing networks in the region.

[8] We undertook a procurement process over 2023 -2024 to determine Ausgrid as the recommended network operator for the Hunter-Central Coast RNIP. Ausgrid owns, develops, operates and maintains the largest electricity distribution network in Australia, measured in terms of regulatory asset base (approx. $18.5 billion as at 30 June 2024), end customers, electricity delivered and maximum demand. Ausgrid's network is made up substations, powerlines, underground cables and power poles spanning 22,275 kilometres.

[9] In the Central-West Orana REZ Infrastructure Planner Recommendation Report summary capital costs were specified on a "NER-equivalent consumer-funded" basis. The Central-West Orana REZ is being developed under a regulatory concession model and, as the project was subject to a competitive tender process, the regulatory arrangements that applied were different to those that apply to an electricity network project developed under the NER. To allow for a like-for-like and meaningful cost comparison for NSW electricity consumers, EnergyCo presented the costs of the Central-West Orana RNIP on a NER-equivalent consumer funded basis. This involved the exclusion of certain categories of costs that would not typically be included in quoted costs for transmission projects developed under the NER, such as financing costs during construction. The Hunter-Central Coast RNIP will be developed under regulatory arrangements more consistent to the NER and is not subject to a competitive tender process. The costs of the project will be determined under a process more aligned to NER based arrangements. That is, the Hunter-Central Coast RNIP cost is a NER equivalent cost.

- falls within the range of estimates published in the 2023 Network Infrastructure Strategy published by EnergyCo
- includes the design and construction costs of the network infrastructure, including development costs[10], acquisition of interests in land, and community and stakeholder engagement costs
- includes the costs of enabling works on Transgrid's existing network.

The AER will determine the final cost of the project that will be paid for by NSW electricity customers by assessing the prudence, efficiency and reasonableness of Ausgrid's proposed costs.

The process for determining and charging these costs is:

1. The Consumer Trustee authorises the Hunter-Central Coast RNIP and sets a confidential Maximum Capital Cost.[11] The Maximum Capital Cost sets "a maximum amount for the prudent, efficient, and reasonable capital costs for development and construction of the REZ network infrastructure project that may be determined" by the AER.[12]
2. Ausgrid submits a revenue proposal to the AER, that reflects the agreed price negotiated with the Infrastructure Planner through the select tender process, to secure revenues as the network operator for an initial five-year regulatory control period.
3. The AER assesses the prudency, efficiency and reasonableness of Ausgrid's proposed costs to approve capital and operational expenditure allowances, subject to checking that the development and construction capital costs do not exceed the Maximum Capital Cost set by the Consumer Trustee.
4. The AER issues a revenue determination that converts the expenditure allowance (alongside adjustments, incentive schemes, inflation and other factors) to a quarterly amount payable to Ausgrid by the Scheme Financial Vehicle, an entity established under the EII Act (the Regulated Service Payments). The Scheme Financial Vehicle is required to act independently and in a commercially reasonable and prudent way under any contract or agreement made under the EII Act.[13]
5. EnergyCo as the Infrastructure Planner for the Hunter-Central Coast REZ and Ausgrid enter into a Project Deed for Ausgrid's delivery and operation of the Hunter-Central Coast RNIP, under EnergyCo's oversight.

[10] Both Ausgrid's and EnergyCo's (Infrastructure Planner) costs to develop the Hunter-Central Coast RNIP.

[11] s 31(2) of EII Act

[12] The Maximum Capital Cost is provided to the AER and the Minister by the Consumer Trustee on a confidential basis (EII Act, s 31(2), s 31(2A)). The Minister may also confidentially disclose the Maximum Capital Cost to an authorised recipient (s 31(3A)-(3D)).

[13] The Scheme Financial Vehicle is established by the Financial Trustee (s 61(2) of EII Act) as a company limited by shares under the Corporations Act 2001 (Cwth) (s 62(1) of EII Act).

6. The Scheme Financial Vehicle pays Ausgrid the quarterly Regulated Service Payments in accordance with the AER's revenue determination for the project (these can be varied by the AER under strict provisions in the EII Act).
7. The Scheme Financial Vehicle recovers these costs from NSW distribution network service providers, who pass these charges to electricity retailers, who then pass these charges on to NSW electricity customers.

Expected benefits of the Hunter-Central Coast REZ network infrastructure project

The Hunter-Central Coast REZ will provide NSW electricity consumers with reliable, affordable, secure and sustainable electricity supply. By utilising existing electricity network infrastructure, the RNIP is expected to have a lower impact on landowners and the local community while also providing new economic and employment opportunities. These new economic and employment opportunities are expected to assist the region transition to a future state where the existing coal generators have reached end of technical life.

The Hunter-Central Coast REZ region has unique features which makes it an ideal location for a REZ. This region has excellent renewable energy resources and can utilise existing power station sites, rehabilitated mining land, electricity network infrastructure, port and transport infrastructure and a skilled workforce.

The Hunter-Central Coast REZ will ensure this region has a key role in a renewable energy future, powering existing industries and supporting economic growth, including emerging technology in green hydrogen, ammonia and metal production, offshore wind, electric vehicle fleet operators and electrification of industrial processes.

The combination of the features of the Hunter-Central Coast REZ region and the recommended Hunter-Central Coast RNIP are expected to enable the delivery of significant benefits to NSW electricity consumers, to local communities and Aboriginal and Torres Strait Islander people and, more broadly, to the state of NSW.

Benefits for NSW electricity consumers

Financial benefit of the Hunter-Central Coast RNIP

The Hunter-Central Coast RNIP is expected to result in a net benefit for NSW electricity consumers of $270.5 million (real $2024) to 2079[14] relative to a scenario in which the RNIP is not built but the Roadmap target of 12 GW by 2030 is still met. This scenario likely provides a lower estimate of the benefits of the Hunter-Central Coast RNIP as it relies on low likelihood assumptions that if the RNIP does not proceed, other REZs can vary in both timing and size to be developed just in time to minimise prices for NSW electricity consumers.

The net benefit results from the project's contribution to the connection of renewable energy generation to the NSW grid. As coal retires, onshore wind and solar generation is the lowest cost replacement source of energy, even after taking into account the additional costs of transmission, storage and integrating renewables into the electricity system.[15] Increasing the supply of new renewable energy generation puts downward pressure on wholesale electricity prices in the National Electricity Market, although that downward pressure may not at all times overcome the upward price pressures of global fossil fuel prices and coal plant outages. All else being equal, lower wholesale prices result in lower costs for NSW electricity consumers.

The breakdown of relevant costs and benefits are shown in Table 1 below. The modelled net benefits begin to flow from 2025-26, with the full extent of the modelled benefits expected from 2028-29.[16]

Table 1: Categories of benefits and costs for NSW electricity consumers considered in the net benefit of the Hunter-Central Coast RNIP

Category	Description	Impact	Source
Wholesale electricity prices	The reduction in wholesale electricity market prices over the life of the REZ, relative to a counterfactual where the REZ is not developed.	Benefit	Wholesale electricity market modelling

[14] Assuming normal maintenance and refurbishments as required.

[15] CSIRO, GenCost: Annual insights into the cost of future electricity generation in Australia, 2023-24.

[16] As with all modelling exercises, actual benefits may differ from expected.

Category	Description	Impact	Source
Network build	The counterfactual assumes that other REZs can vary in size and timing to address a shortfall in transmission capacity resulting from the REZ network infrastructure project not proceeding. The total cost of the network build under the counterfactual scenario is then compared to the total cost of the network build under a scenario where the REZ network infrastructure project is developed to determine a saving or cost.	Benefit	Wholesale electricity market modelling
Total emissions	Adding additional low or zero emissions renewable generation resources displaces output from emissions intensive generation resources, lowering NSW total emissions.	Benefit	Wholesale electricity market modelling and the NSW Government's carbon value.[17]
Long-term energy service agreements (LTESA) impacts	A LTESA is a financial derivative contract that is intended to provide a generation or storage project with a LTESA mitigation against unexpectedly low electricity prices and provide exposure to upside where electricity prices are higher. EnergyCo has considered LTESAs as a cost to consumers for the purpose of its estimation of the net benefit of the RNIP to consumers.	Cost	Wholesale electricity market modelling
Settlement residue auction (SRA) impacts	Settlement residues arise from differences in prices between regions and flows over interconnectors. The right to receive settlement residues is sold through auctions to market participants to enable hedging of price differences between regions. Each TNSP is allocated the proceeds of settlement residue auctions from periods of imports into their jurisdiction, which offset the costs recovered from consumers by the TNSP. The correlation between avoided SRA costs and network capacity and timing is expected to be inversely related. A larger network capacity will result in more installed generation in NSW and less interconnector imports from QLD and VIC. As a result, this increases costs the TNSP recovers from NSW electricity consumers.	Cost	Wholesale electricity market modelling

[17] The NSW Government's carbon value is published in its Cost Benefit Analysis TPG23-08: Carbon value in cost-benefit analysis technical note. This is available from www.treasury.nsw.gov.au.

Category	Description	Impact	Source
REZ network infrastructure	The capital and operating costs associated with designing, constructing, financing, owning and operating the REZ network infrastructure.	Cost	Provided by Ausgrid

Reliable and secure electricity supply

The Hunter-Central Coast RNIP will help maintain the reliable and secure supply of electricity.

As coal-fired generators retire, the supply of electricity from renewable generation will become increasingly critical to maintain the reliable and secure supply of electricity to NSW consumers. Therefore, NSW is targeting the construction of 12 GW of renewable generation capacity by 2030.[18]

As a major investment in the electricity network, the Hunter-Central Coast RNIP will play a substantial role in enabling the continued delivery of reliable and secure electricity supply to NSW electricity consumers.

Ausgrid, as the recommended Network Operator to carry out the Hunter-Central Coast RNIP, is responsible for ensuring that the RNIP meets its power system security and reliability obligations. These are enforced through both national and state legislation. Ausgrid, as a registered network service provider, is required to work with AEMO in the proper discharge of AEMO's power system security responsibilities under Chapter 4 of the NER. Further, as Ausgrid is also licensed as a distributor, it is required to meet any safety and reliability obligations imposed by the Minister for Energy under the *Electricity Supply Act 1995* (NSW).

The Hunter-Central Coast RNIP has also been designed to meet a N-1 planning standard. This means that the network transfer capacity of 1 GW will be available during normal system conditions while also catering for a single credible contingency event, which will maintain the reliable and secure supply of electricity.[19]

Benefits for the local community

Regional employment and business opportunities

The project will direct an estimated total of over $3.9 billion of investment into the Hunter-Central Coast REZ through the Hunter-Central Coast RNIP and associated generation and storage projects

[18] EII Act, s44(3).

[19] 'N-1' is a planning standard and system security measure such that if a network component should fail or be shut down in a network operating at the maximum forecast levels of transmission and supply, network reliability and security is still guaranteed. For example, a system consisting of four circuits should operate such that three circuits (N-1) could handle the load. Thus, if one of the four circuits failed, the system would not be overloaded.

by 2030. This is estimated to support up to around a total 2,000 direct and indirect jobs in the region during the peak of construction.

Ausgrid has made specific commitments to support local employment and business opportunities through the design, construction, operations and maintenance phases of the project. This includes:

- using only local civil works contractors for substation augmentations
- using all local steel for substations and a large proportion for lines
- employing and developing apprentices and other learning workers[20] through its Bright Sparks program
- identifying lasting employment opportunities for workers coming from other industries such as mining.

Aboriginal participation plan

Ausgrid has also made commitments to provide Aboriginal and Torres Strait Islander peoples with business and employment opportunities. This includes:

- ensuring Aboriginal and Torres Strait Islander people gain at least 1.5 percent of business and employment opportunities[21]
- connecting local Indigenous businesses with opportunities through the Hunter-Central Coast First Nations Working Group, briefing organisations such as the Industry Capability Network and Supply Nation, and leveraging partnerships with groups such as Giidjaa Industries (which connects skilled Indigenous personnel with companies) and the NSW Indigenous Chamber of Commerce (which lists prequalified Aboriginal and Torres Strait Islander businesses).

These targets and actions meet the minimum requirements set out in the Renewable Energy Sector Board's Plan[22], the NSW First Nations Guidelines[23], and the First Nations Guidelines: Hunter-Central Coast.[24]

[20] Learning worker is a worker without qualifications or who needs to update their qualifications or skills to meet the needs of the infrastructure project. This includes trainees and apprentices. Once defined as a learning worker, the worker maintains this status for the duration of the project. Office of Energy and Climate Change, NSW Renewable Energy Sector Board's Plan, September 2022, p.74.

[21] The Renewable Energy Sector Board's Plan for the NSW renewable energy sector recommends a minimum participation rate of 1.5% (of contract value) for First Nations people. Office of Energy and Climate Change, NSW Renewable Energy Sector Board's Plan, September 2022, p.11.

[22] Office of Energy and Climate Change, NSW Renewable Energy Sector Board's Plan, September 2022

[23] Office of Energy and Climate Change, First Nations Guidelines, August 2022

[24] Department of Climate Change, Energy, the Environment and Water, First Nations Guidelines: Hunter-Central Coast, May 2024

Land impacts

In addition to the economic and employment opportunities created for the local community, the nature of the project, being predominantly upgrades to the existing distribution network, minimises community and environmental impacts. For example:

- The upgrades will be mostly on Ausgrid's existing interests in land, minimising the need for further acquisitions in land. The new switching station at the north-eastern bank of Lake Liddell (Antiene subtransmission switching station) will be on Crown Land.
- The poles needed for the Hunter-Central Coast RNIP will be taller than Ausgrid's existing network infrastructure assets, but this is at smaller scale than would be needed for a new higher voltage transmission project.

Benefits to the State of NSW

Reduction in carbon emissions

The Hunter-Central Coast RNIP would contribute to the power system's reduction of greenhouse gas emissions by facilitating investment in renewable energy, meeting both NSW and Australian government targets.

Through the *Climate Change (Net Zero Future) Act 2023*, NSW aims to reduce its 2005-level emissions by at least 50 per cent by 2030, by 70 per cent by 2035, and to net zero by 2050. To help meet these targets, NSW is investing in at least 12 GW of renewable energy generation by 2030. Similarly, the Australian Government is targeting a 43 per cent reduction in emissions by 2030, with electricity generation to be 82 per cent renewable by 2030. NSW will underpin a significant portion of that national investment, as it is the state with the most generation capacity, the largest electricity load and the highest peak demand.

The Hunter-Central Coast RNIP will make a meaningful contribution to the achievement of these targets by facilitating the connection of new renewable energy generation that is expected to reduce NSW power system emissions by approximately 2 million tonnes of carbon dioxide equivalent over the project life. This is relative to a counterfactual where no Hunter-Central Coast RNIP is built. These emissions equate to a benefit of approximately $180 million to NSW electricity consumers.[25]

[25] Estimated in accordance with the NSW Treasury's guidance for Carbon Value in cost-benefit analysis: Technical note to NSW Government Guide to Cost-Benefit Analysis TPG23-08, Carbon value in cost-benefit analysis, March 2023.

Most of the emissions savings occur early in the project life, as new generation and storage projects displace coal-fired plants. The project's relative emissions savings diminish over time as the NSW electricity system decarbonises.

Next steps

It is expected that the Consumer Trustee will authorise the recommended Network Operator (Ausgrid) and the Hunter-Central Coast RNIP if it is satisfied that the project is in the long-term financial interests of NSW electricity customers and meets other requirements under the EII Act and EII Regulations.

If authorised, Ausgrid will submit a revenue proposal to the AER for the Hunter-Central Coast RNIP. The AER is required to determine within six months following the revenue submission the amount that will be recovered from NSW electricity customers in accordance with its Transmission Efficiency Test and revenue determination guideline for non-contestable network infrastructure projects.