

Sydney Ring South

Project Assessment Draft Report Webinar

Wednesday, 15 July 2026



Acknowledgement of Country

As we gather today, I would like to begin by honouring the Gadigal people of the Eora Nation, the Traditional Custodians of this land where we meet.

We acknowledge the continuing connection to Country First Nations people have with the land, skies and waterways where we serve. We honour Elders who came before us, those with us today, and those who will lead in the future.



About today's session



Host

Christiaan Swanepoel

Principal Engineer



Presenter

Fiona Orton

General Manager of Innovation and Energy Transition



Presenter

James Tydd

Senior Engagement Manager

Agenda

Item	Time	Presenter
Welcome	11:30am – 11:35am (5 min)	Christiaan Swanepoel
Project overview	11:35am – 11:55am (20 min)	Fiona Orton
Community engagement	11:55am – 12:05pm (10 min)	James Tydd
Next steps & submissions	12:05pm – 12:10pm (5 min)	Fiona Orton
Q & A	12:10pm – 12:30pm (20 min)	All presenters

Key information

- This webinar is being recorded.
- Materials will be made available to attendees after the webinar.
- Microphones and the chat function have been disabled for this event.
- Q & A will be managed via Teams. Questions can be submitted at any time, and we will get to them at the allocated time.

Sydney, Newcastle and Wollongong are home to
+6 million
(forecast to be +8 M by 2041)
who rely on secure, affordable electricity every day

These cities account for
~75%
of electricity demand
in NSW

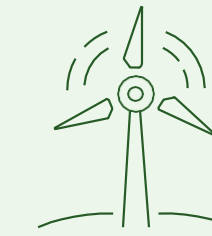
Historically powered by
coal
with next power station retirement
from 2029

Enabling the energy transition for consumers

- Households and businesses are using more electricity as people switch to cleaner technologies like electric vehicles, appliances and digital services.
- In addition to the closure of coal-fired stations, the main transmission corridor supplying Sydney, Newcastle, and Wollongong relies on ageing infrastructure that was not built for today's clean, electrified economy, increasing reliability and system strength risks for consumers as demand grows.
- Increasing network capacity is needed to remove a growing bottleneck so more of the lower-cost renewable energy can reliably reach homes and businesses across these regions.
- Investing at the right time improves reliability and resilience, increases choice in energy supply, and helps keep downward pressure on wholesale electricity prices and consumer bills over the long term.



Sydney Ring South is needed to:



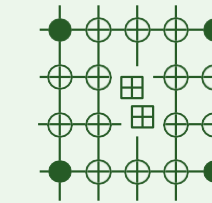
Secure diverse and abundant renewable energy supply

Give consumers better access to lower-cost, cleaner energy. In particular, it will accelerate access to cheaper and cleaner renewable energy within South West Renewable Energy Zone.



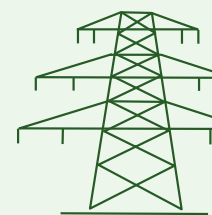
Help power the energy transition

Support the shift to cleaner, more affordable energy to power increasing electrification of transport and industry without compromising reliability.



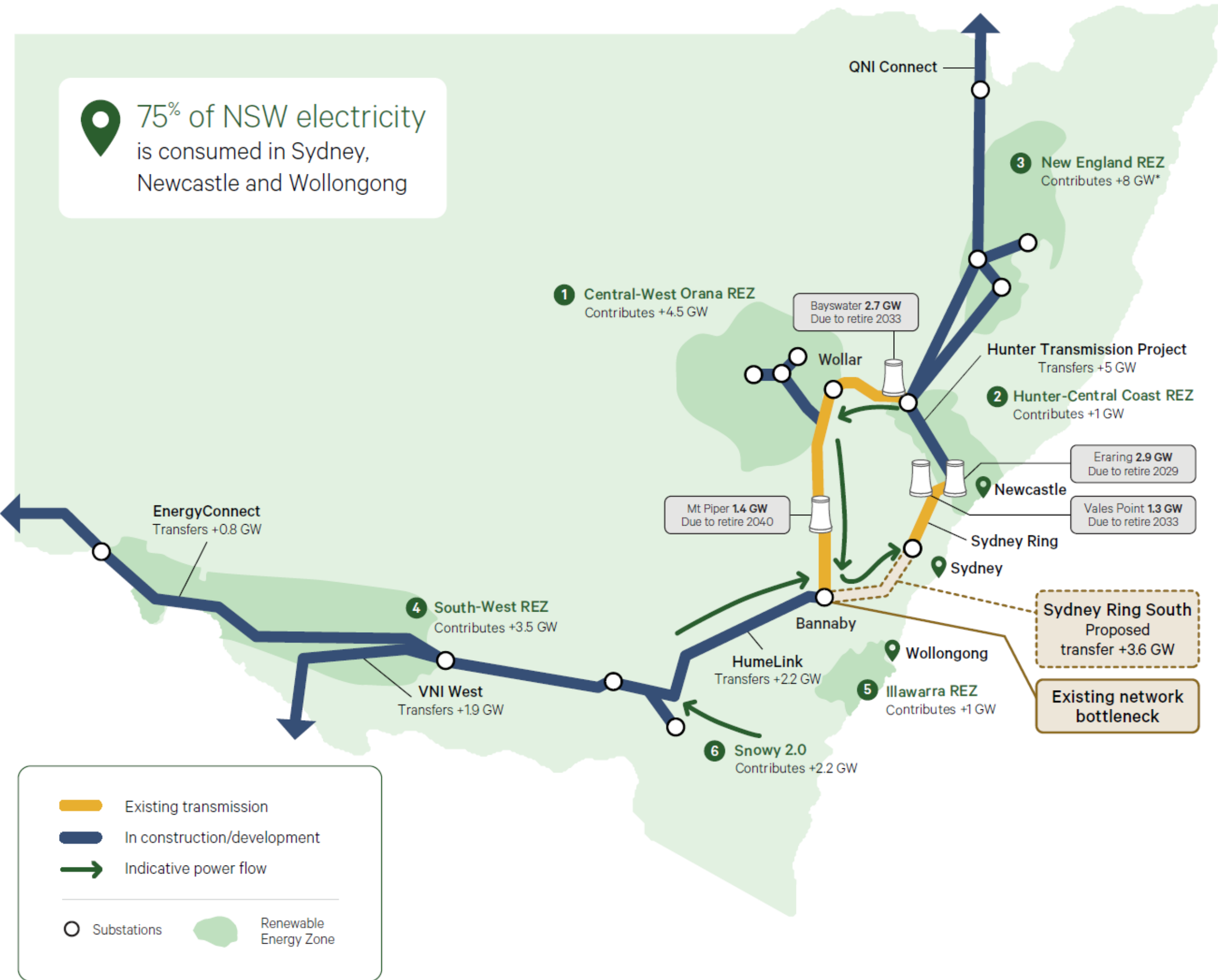
Power economic growth through decarbonisation

Stable supply increases resilience in peak demand periods, reducing reliance on limited gas supply and uncertain capacity developments (offshore wind).



Increase long-term capacity to meet NSW energy needs

Maximises the value and operational efficiency of large investments in Renewable Energy Zones, Snowy 2.0 and storage, ensuring the grid can send cheaper, clean energy to consumers.



Renewable Energy Zones

1 Central-West Orana REZ	2 Hunter-Central Coast REZ	3 New England REZ
Contributes +4.5 GW from 2028	Contributes +1 GW from 2028	Contributes +8 GW* 6 GW from 2034
• Wind • Solar • Battery • Pumped hydro • Transmission	• Network upgrades • Wind • Solar • Battery	• Wind • Solar • Battery • Transmission
4 South-West REZ	5 Illawarra REZ	6 Snowy 2.0
Contributes +3.5 GW	Contributes +1 GW	Contributes +2.2 GW From 2028
• Wind • Solar • Battery • Transmission	• Solar • Battery • Network upgrades	• Hydro • Transmission



Coal power stations

Eraring	Vales Point	Bayswater	Mt Piper
-2.9 GW exits 2029	-1.3 GW exits 2033	-2.7 GW exits 2033	-1.4 GW exits 2040

*Intended.

Identified by planners as a national priority in the 2026 ISP

Reinforcing supply to Sydney as a national priority to benefit consumers

- The need to reinforce Sydney's electricity supply to reduce wholesale costs for consumers and improve reliability and resilience was first identified in the 2020 Integrated System Plan.
- Sydney Ring South was declared an actionable project in the 2024 Integrated System Plan.
- This need has been reaffirmed in the 2026 Integrated System Plan.

Transgrid is responding to the need identified by the national system planner by proposing options for the Sydney Ring South Project.

The project is progressing through the Regulatory Investment Test for Transmission (RIT-T) to identify the option that best meets the long-term needs of NSW electricity consumers and delivers the greatest cost-benefit.



Earliest possible delivery of 500 kV line delivers greatest benefit



Over \$3 billion in net market benefits identified in modelling

More than doubles southern transmission capacity into Sydney

Unlocks consumers' access to lower-cost renewable generation

Improves system resilience during peak demand and extreme events

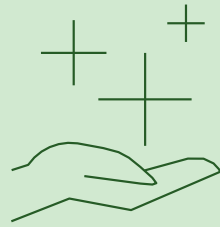
Optimal delivery: mid 2030s

Added network capacity	NPV timing	Description	PADR options	Net market benefit (\$ millions PV)
Stage 1: 0 MW Stage 2: 3,600 MW	Stage 1: 2030-31 Stage 2: 2033-34	Option 5 scope, delivered to an earliest in-service schedule: Stage 1: Install power flow control technology in the existing 330 kV network, plus a new South Creek 500/330 kV substation. Stage 2: 500 kV double-circuit line from Bannaby in the Southern Tablelands.	Option 6	3,205
Stage 1: 1,300 MW Stage 2: 2,600 MW	Stage 1: 2033-34 Stage 2: 2040-41	Staged delivery of a high-capacity transmission line from Bannaby in the Southern Tablelands to South Western Sydney. Stage 1: 500 kV double-circuit line from Bannaby in the Southern Tablelands, initially operated at 330 kV. Stage 2: Upgrade line to 500 kV.	Option 3	3,132
Stage 1: 0 MW (improves utilisation of existing network) Stage 2: 3,600 MW	Stage 1: 2030-31 Stage 2: 2033-34	High-capacity transmission line from Bannaby to South Western Sydney, including a new South Creek 500/330 kV substation. Stage 1: New South Creek 500/330 kV substation. Stage 2: 500 kV double-circuit line from Bannaby in the Southern Tablelands.	Option 4	3,081
Stage 1: 0 MW Stage 2: 3,600 MW	Stage 1: 2030-31 Stage 2: 2037-38	Power flow control plus a deferred high-capacity transmission line from Bannaby to South Western Sydney and a new South Creek 500/330 kV substation (Draft 2026 ISP optimal development path). Stage 1: Install power flow control technology in the existing 330 kV network. Stage 2: New South Creek 500/330 kV substation and a 500 kV double-circuit line from Bannaby in the Southern Tablelands.	Option 5	3,062

*Option numbering in the Sydney Ring South PADR aligns with the Draft 2026 ISP. Option 2 and 2d are presented in the Sydney Ring South PADR and involve incremental upgrades in the existing network with lower estimated net market benefits than options featuring a new transmission line. Option 1 is progressing separately as the Hunter Transmission Project, and Options 2a, 2b and 2c were considered in previous ISPs, but are no longer being assessed.

**Net market benefit results are probability weighted across ISP scenarios

Completing the NSW transmission backbone to support households and businesses



Securing access to lower-cost renewable generation for our largest cities and growing communities

Sydney Ring South will enable demand centres in Greater Sydney to access a larger and more diverse portfolio of lower-cost renewable generation and storage resources as NSW coal-fired power stations retire, reducing reliance on higher-cost gas peaking and offshore wind generation that would otherwise be needed.



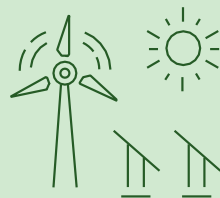
Overcoming network bottleneck sooner will place downward pressure on bills

By removing a known bottleneck, a new 500 kV line would deliver an estimated net saving of \$51 p.a. for an average NSW household, and an estimated net saving of \$110 p.a. for an average small business (real \$2024/25) during its first decade of full operation.



Building a more resilient energy system for growing cities

Completing Sydney Ring strengthens the backbone supplying Greater Sydney, helping ensure reliable and affordable electricity as cities grow and demand increases.



Supporting jobs and economic growth with reliable, more affordable energy

Secure and affordable electricity gives businesses confidence to invest, supporting productivity, economic growth and high-value jobs across Western Sydney and the Illawarra as the economy decarbonises.



Providing certainty to communities

Commencing early development and community consultation for Sydney Ring South will support better planning and lower long-term costs.



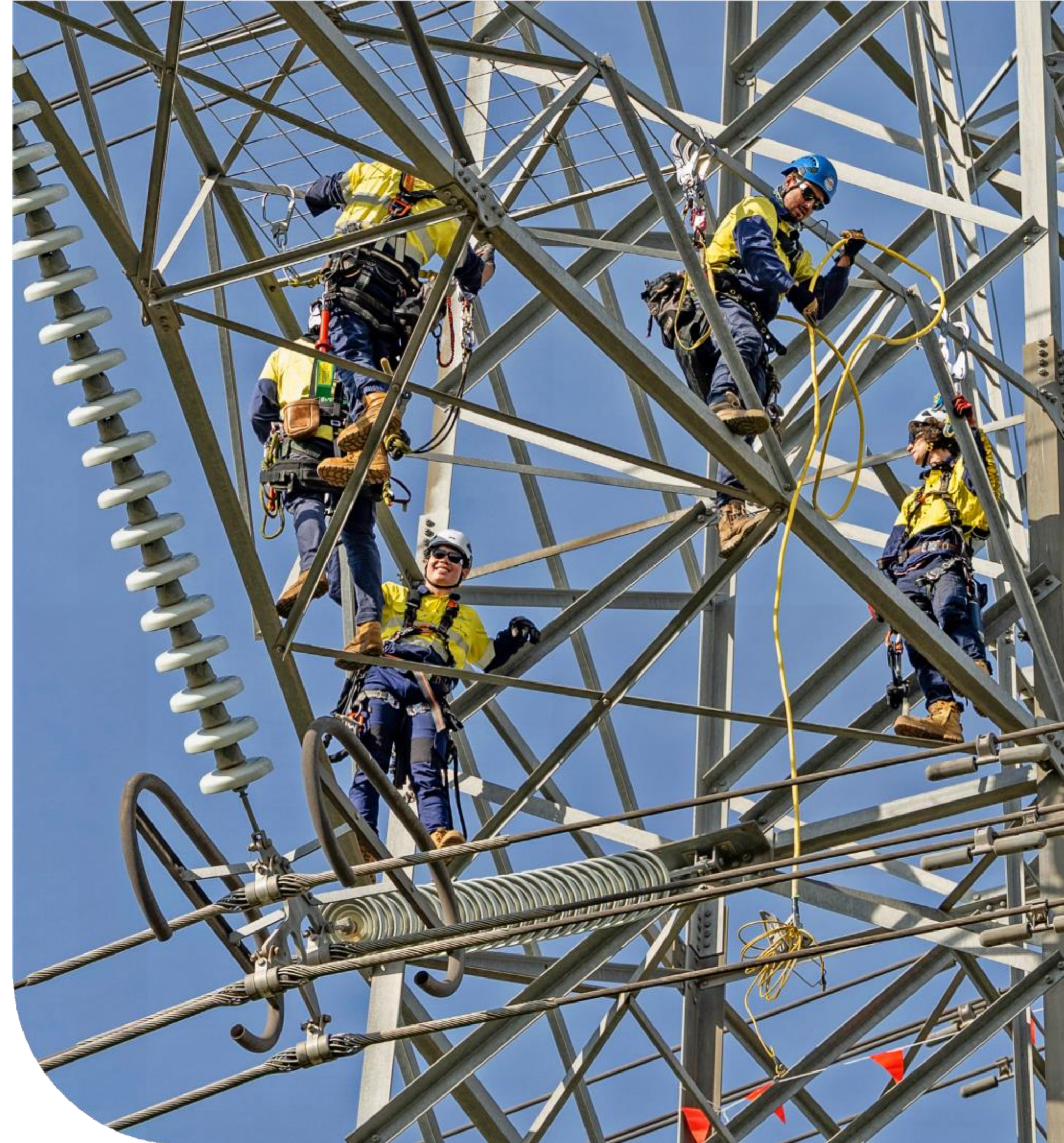
Sydney Ring South helps underpin Australia's energy transition

Sydney Ring South would benefit consumers by:

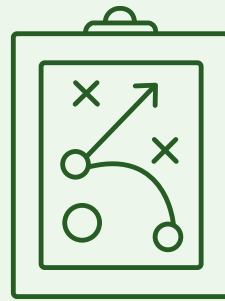
- unlocking abundant sources of renewable energy, the cheapest form of electricity
- maintaining reliable power as the system transitions from coal to renewables
- strengthening energy security for NSW's largest cities, reducing the risk of widespread outages
- lowering wholesale electricity prices by enabling a more efficient electricity market
- improving Australia's energy independence, protecting us from global energy shocks

Without Sydney Ring South, consumers would face:

- higher power bills from reduced access to cheaper renewable energy
- greater price spikes during periods of peak demand
- higher risk of outages during extreme weather and system shocks
- renewable energy stranded in REZs, unable to reach homes and businesses where it is needed
- weaker reliability of supply, undermining confidence for families, businesses and economic growth



Overcoming network bottlenecks boosts confidence for new investments



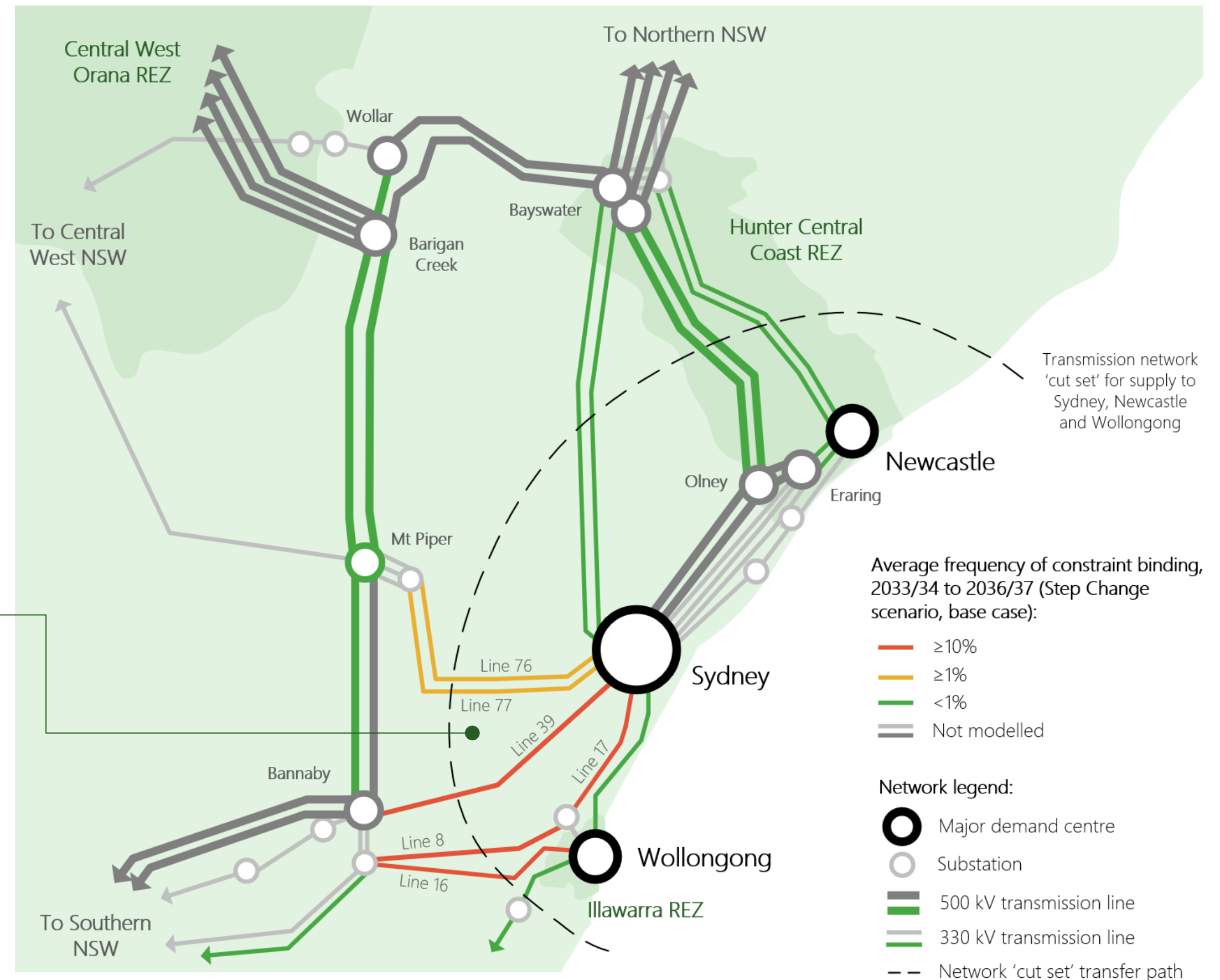
A network bottleneck south of Sydney limits how much energy from Southern and Central NSW can reach our growing urban centres. Overcoming this will:

- Improve market access for generation, boosting confidence for new energy investments.
- Enable decarbonisation of existing businesses, and development of emerging energy intensive industries, securing jobs and delivering economic growth.

Insights into future congestion on the Sydney Ring network from the PADR Market Modelling Report (by EPEC Engineering):

In the base case ('do nothing' option) for the Step Change scenario, the electricity market modelling conducted for the PADR shows:

- Over the period from 2033/34 to 2036/37, on average, constraints on 330 kV Line 39 (Bannaby to Sydney West) bind for over 30% of the time, and constraints on 330 kV Lines 8 and 16 (Marulan to Avon and Dapto) bind for over 10% of the time.
- Binding constraints cause more expensive generation to be dispatched, increasing wholesale prices. This is passed on to consumers through higher electricity bills.



Building social licence through a robust program of engagement



Consultation on Sydney Ring South is underway

- Transgrid has established a comprehensive program to ensure household and business perspectives shape Sydney Ring South.
- We are actively sharing information and listening to feedback communities, businesses and key stakeholders.

Early engagement – no decisions made

- No specific routes, options or designs have been selected.
- Early engagement raises awareness of why the project is needed, outlining possible options, and inviting feedback before decisions are made.

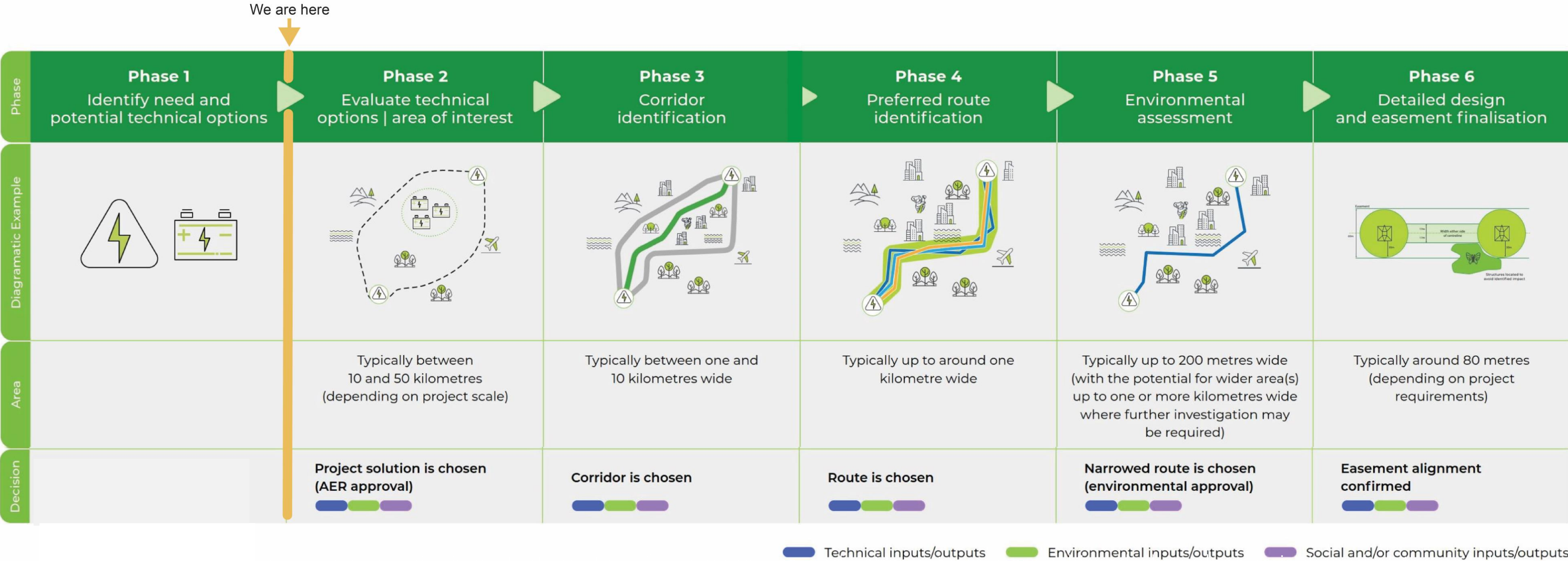
Broad and inclusive engagement

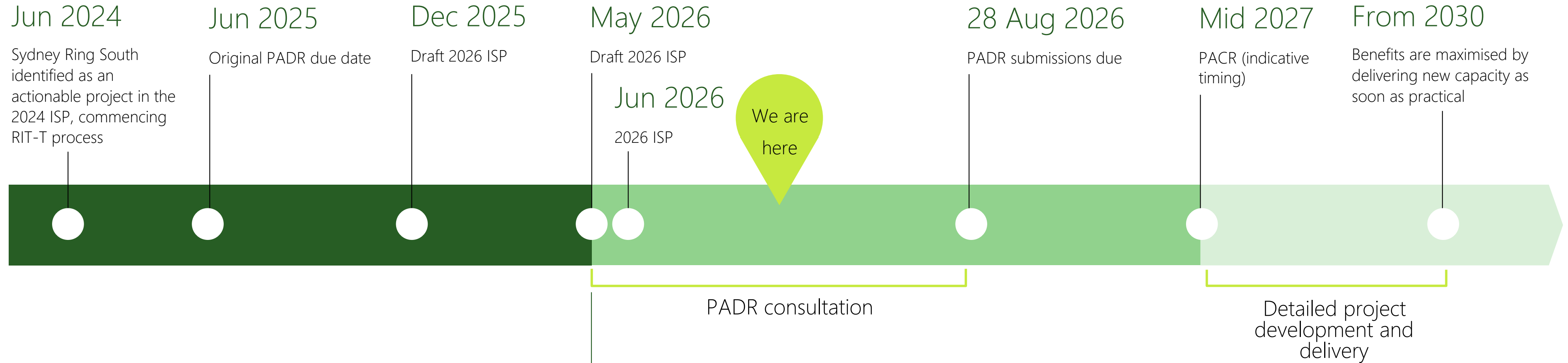
- Webinars and briefings for consumers, community groups, consumer advocates, First Nations representatives, industry, local councils and MPs.
- Consumer focus groups and stakeholder reference groups to ensure local priorities and concerns are reflected.
- Publicly accessible information will be available across multiple channels.

We understand new infrastructure can raise important questions for communities, and better outcomes are achieved when planning is shaped by the people who are closest to the places it affects.

No decision made on route selection at this stage

- No specific routes, options or designs have been selected. Route selection will commence after a PACR is published in mid-2027.
- Early engagement raises awareness of why the project is needed, outlining possible options, and inviting feedback before decisions are made.





Next steps

- Continue strong engagement with communities, consumers and Western Sydney stakeholders so local views shape the project.
- Invite and carefully consider submissions from households, businesses and stakeholders.
- Reflect any changes in the final 2026 Integrated System Plan.
- Confirm the preferred option and explain how feedback has informed decisions through the Project Consultation Assessment Report (PACR).

We want to hear from the industry

- How do network bottlenecks affect your ability to operate effectively and efficiently in the National Electricity Market?
- How do network bottlenecks affect your ability to develop and invest in the new generation and storage capacity that NSW needs?
- What would an outcome to defer investment in the 500 kV transmission line to the late-2030s mean to your operations and investment pipeline?

Questions

Submit your questions via the Q&A button on your screen