

2025 Transmission Network Forum





Powerlink Queensland held its annual Transmission Network Forum on Friday, 14 November 2025. The hybrid format enabled regional and interstate stakeholders to participate online alongside in-person attendees.

The 2025 forum saw record attendance with more than 700 participants, marking a milestone for Powerlink as outgoing Chief Executive Paul Simshauser finished his tenure and Darryl Rowell stepped in as Interim CEO. The forum highlighted Powerlink's ongoing commitment to delivering a reliable, affordable, and sustainable energy system in alignment with Queensland's Energy Roadmap.

The forum serves as a platform to collaborate with customers and stakeholders on shaping Queensland's energy future. It is a cornerstone engagement event for Powerlink, providing an opportunity to listen, learn, and integrate valuable stakeholder insights into our future planning.



Interim Chief Executive Address

Darryl Rowell's presentation reinforced Powerlink's commitment to delivering a reliable, affordable, and sustainable energy for Queensland. He highlighted the alignment with the Queensland Government's Energy Roadmap and addressed the significant challenges facing the sector, particularly the rising cost environment for transmission due to global demand, inflation, and higher interest rates.

He provided a high-level overview of Powerlink's network plan for the coming years, explaining how previous plans to build 500kV connections are being replaced by a focus on unlocking capacity in the existing network and deferring major augmentations where possible to reduce costs for Queenslanders. He outlined the vital program of work Powerlink has in Central Queensland to prepare for the planned closure of Gladstone Power Station, and addressed the growing complexity of operating Powerlink's network, with a new record peak demand for October set in 2025, close to 2,000MW higher than the previous record.

He shared results from Powerlink's largest-ever community sentiment survey, which showed improved trust and acceptance, reinforcing the value of transparent engagement with local communities and stakeholders.

Despite the challenges, Powerlink has connected more than 10 GW of new generation and storage since 2017 and maintains a robust pipeline of future connection projects. Rowell concluded by celebrating Powerlink's 30-year milestone and reaffirming the organisation's commitment to balancing network reliability, cost management, and stakeholder engagement as Queensland's energy landscape continues to evolve.

"After 26 years in this industry and seven years at Powerlink, taking over as the Interim Chief Executive is a very proud moment for me, but also a huge responsibility. I'm excited to be part of the next chapter of serving Queenslanders and being part of the magic of electricity."

Darryl Rowell, Interim Chief Executive,
Powerlink Queensland



State of the Network

Paul Simshauser, Outgoing Chief Executive opened by acknowledging Queensland's remarkable energy growth, with 14,000 MW of generation connected over the past six years. He emphasized that Queensland's energy market has thrived under market-led planning, resulting in rapid investment and development. Notably, rooftop solar installations are reaching "utility scale" at more than 7,000MW, the world's highest household take-up rate at 53.7%.

He highlighted several industry challenges, including long lead times for critical transmission components, rising global costs due to supply chain disruptions, and the impact of geopolitical events like the Russia-Ukraine war.

Despite these pressures, Queensland maintains a relative advantage in connection wait times—just six months compared to multi-year waits in other regions. He also discussed the evolving economics of the cost of new generation, noting that while costs have increased, the market continues to find the most efficient solutions. However, he cautioned that Queensland has yet to see sufficient investment in gas turbines, which is essential for system reliability.

A central theme of the address was the shift from the traditional energy "trilemma" (affordability, reliability, sustainability) to an "energy quadlemma," with community engagement and social licence now recognised as a fourth critical dimension.

He outlined that policy is relatively predictable when viewed through this lens, and stressed the importance of ongoing collaboration between industry, government, and communities to navigate the challenges ahead. He concluded by expressing gratitude to customers, partners, and colleagues, reflecting on the privilege of serving Queenslanders during a period of profound energy transformation.



Queensland's Future Power System - Information for decision making

Stewart Bell, Powerlink's Executive General Manager of Operations and Planning, emphasised the resilience and adaptability of Queensland's power system as it navigates the "messy middle" of the energy transition. He credited Government Owned Corporation ownership, high-quality wind and solar resources, and emerging pumped hydro capacity as key strengths. Queensland benefits from two distinct wind systems—equatorial winds that blow at night and in winter, and southern winds—alongside abundant solar, making it well-positioned for both summer and winter energy needs.

A major highlight was the dramatic increase in battery energy storage system (BESS) deployment. Stewart noted that Queensland currently operates about 700MW of BESS but expects 4GW (equating to 10GWh) to be rolled out over the next 12–18 months. Of this, 3GW will be grid-forming batteries, which can provide essential system services like fast frequency response and system strength. These developments, combined with pumped hydro and synchronous condensers, are expected to help Queensland manage minimum demand challenges, maintain system stability and ensure sufficient inertia and frequency control as the energy mix evolves.

Stewart also addressed operational complexities, such as planning outages in a network increasingly dominated by weather-dependent generation and flexible loads. He highlighted the importance of ongoing collaboration, information sharing, and engagement with industry stakeholders to refine forecasts, orchestrate batteries, and explore new opportunities for flexible loads and network support.

The interactive session that followed invited attendees to contribute ideas on how Powerlink can continue to improve engagement to improve decision making and better meet industry needs through reciprocal information sharing.

In summary, Stewart's presentation painted a picture of a power system in transition—alert to challenges but confident in the solutions ahead. He stressed that by working together, Queensland can continue to deliver affordable, reliable, and sustainable energy for its communities.

"Operating the energy system is going to be different in the future. We should be alert but not alarmed. There are things will be tight, but there are solutions and ... there are many, many options for us. We just need to work together to make sure that we can provide Queenslanders affordable, reliable and sustainable energy."

Stewart Bell, Executive General Manager Operations and Planning, Powerlink Queensland





Interactive session

Gathering stakeholder input is important to our decision-making and planning. The forum included an interactive table discussion, which focused on the provision of information for network planning and decision making. Several questions were posed to forum participants, with key highlights outlined below.

Of all the information Powerlink currently provides, what information do you most value?

A range of Powerlink reports and information were highlighted, with network and connection projectspecific information and support predominating. Some of the most valued information was:

- Transmission Annual Planning Report (TAPR)
- Transmission Network Forum (TNF) and other forums
- Strategic updates, networking, and Q&A opportunities
- Project pipeline and timing information
- Planned upgrades, connections status, and delivery timelines
- RIT-T/PTI consultation documents
- Specific project progress and regulatory transparency
- Direct engagement with Powerlink
- Account manager interactions and bilateral meetings for tailored advice

Of all the information Powerlink currently provides, which communication channel/s do you prefer?

Some of the most highlighted channels were:

- Face-to-face engagement
- Direct contact with Powerlink staff
- Email updates
- Online platforms and portals
- Recorded webinars and downloadable materials
- Community-based channels for these stakeholders

Is there any other information not currently provided by Powerlink that you need to make better decisions?

Some stakeholders (especially community groups and councils) strongly value more education, local context, and multi-channel engagement, while others (particularly technical/industry stakeholders) prioritise network technical data and information. For network and operational data, there were opportunities to make existing information more accessible as well as providing access to additional information that Powerlink has.

Some of the most highlighted information included:

- 1. More granular technical data and hosting capacity
- 2. Project pipeline visibility and timelines (including queue transparency)
- 3. Policy and strategic signals between annual TAPR cycles
- 4. Cost and commercial transparency
- 5. Connection process clarity and "starter kits"
- 6. Interactive tools and data access
- 7. Forecasting and market insights
- 8. Community engagement resources and efforts

What is the best way of providing you with this information?

Attendees defined a discrete number of key channels that are best for information provision, including:

- 1. Website
- 2. Self-service email subscription options
- 3. Direct engagement e.g. in-person meetings or events
- 4. Clearer information on who to contact for what (i.e. contact list, org chart)

Multi-channel engagement was valued by attendees. Different information suits different channels, and different stakeholders also had varying preferences on preferred information provision.

What information can you share with Powerlink to improve future power system planning and operations?

Stakeholders identified information spanning a wide range of areas, including:

- Contractor project pipeline visibility (projects, timelines, likelihood with caveats)
- Technical and operational data (i.e. studies, equipment specs)
- Community and social license insights
- Resource and supply chain coordination information
- Innovation and market intelligence

The stakeholder feedback from the interactive table discussions at the forum will influence Powerlink's ongoing network planning and decision making.



Transmission Annual Planning Report (TAPR) update

The forum concluded with the launch of Powerlink's 2025 Transmission Annual Planning Report (TAPR), presented by Jacqui Bridge, Executive General Manager Network Investment. Jacqui Bridge emphasised that transmission network planning is a core function for Powerlink, with the TAPR serving as a critical milestone in the annual planning cycle. The report provides a 10-year outlook, balancing the need for safe, reliable, and affordable transmission services with the imperative to maximise community benefit and minimise customer impact.

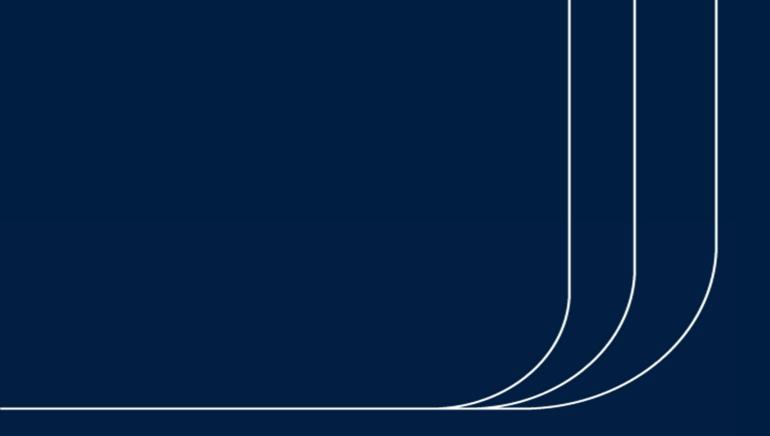
A central theme of the presentation was the increasing complexity of energy forecasting, driven by dynamic demand and generation trends. Jacqui Bridge highlighted how factors such as weather variability, population growth, electrification, rooftop solar uptake, electric vehicles, and batteries are making demand forecasting both a science and an art. She noted that Queensland's high uptake of rooftop solar and emerging technologies is reshaping demand patterns, with maximum demand rising and minimum demand declining more gradually than previously forecast.

Jacqui discussed the importance of integrating new generation and storage assets, including wind, solar, gas, pumped hydro, and batteries, to ensure the network remains robust and flexible. She also addressed the need for system strength services, asset reinvestment, and innovative technology solutions—such as drones and dynamic line rating—to optimise network performance and efficiency.

In closing, Jacqui Bridge invited ongoing feedback and collaboration, positioning the TAPR as a consultation document designed to foster dialogue and continuous improvement in transmission planning for Queensland's evolving energy landscape.

Read the full 2025 Transmission Annual Planning Report on our website: <u>Transmission Annual Planning</u> Report 2025.





Contact us

Registered office 33 Harold St Virginia

Queensland 4014

ABN 82 078 849 233

Postal address PO Box 1193 Virginia

Queensland 4014

Telephone +61 7 3860 2111

(during business hours)

Email updates@powerlink.com.au

Website powerlink.com.au