



GOVERNMENT OF
WESTERN AUSTRALIA

SWIS Transmission Planning Update

Powering the future



May 2024



Western Power

Projects underway

Clean Energy Link – North —

Projects in planning

- Clean Energy Link – Regans Reinforcement ○
- Clean Energy Link – Perth Circuit —
- Clean Energy Link – Metro —
- Clean Energy Link – Chittering —
- Clean Energy Link – Moora —
- Clean Energy Link – East —
- Clean Energy Link – South —

Private investment

Goldfields Regional Network - - - - -

Notes: Lines are indicative only and will be based on further consultation/assessment.

Transitioning the electricity network to support our future energy needs

The energy sector is central to achieving industry and government goals for economic development and emissions reduction.

We are committed to taking a responsible and managed approach to increasing renewable electricity generation at the lowest overall cost, while maintaining a secure and reliable electricity supply.

The transmission network forms an essential part of the State's main electricity system - the South West Interconnected System (SWIS), and is central to achieving these ambitions.

The SWIS Demand Assessment (SWISDA) outlined the potential change in electricity demand over the next 20 years and found that significant electricity infrastructure, including renewable generation, electricity storage and transmission networks, will be required to meet the increasing demand with reliable and low-emissions electricity supply.

Confirmation of industry's intent to provide generation capacity and their anticipated load requirements was established in late 2023 via a Registration of Interest process. This process also called for respondents to indicate a willingness to contribute to network augmentation and connections costs on a cost per megawatt (\$/MW) basis.

The Registration of Interest attracted significant interest with 45 customers proposing 143 grid connected projects, intended to supply existing energy-intensive industries with renewable energy and enable potential new 'green' industries.

The SWIS Transmission Infrastructure Plan

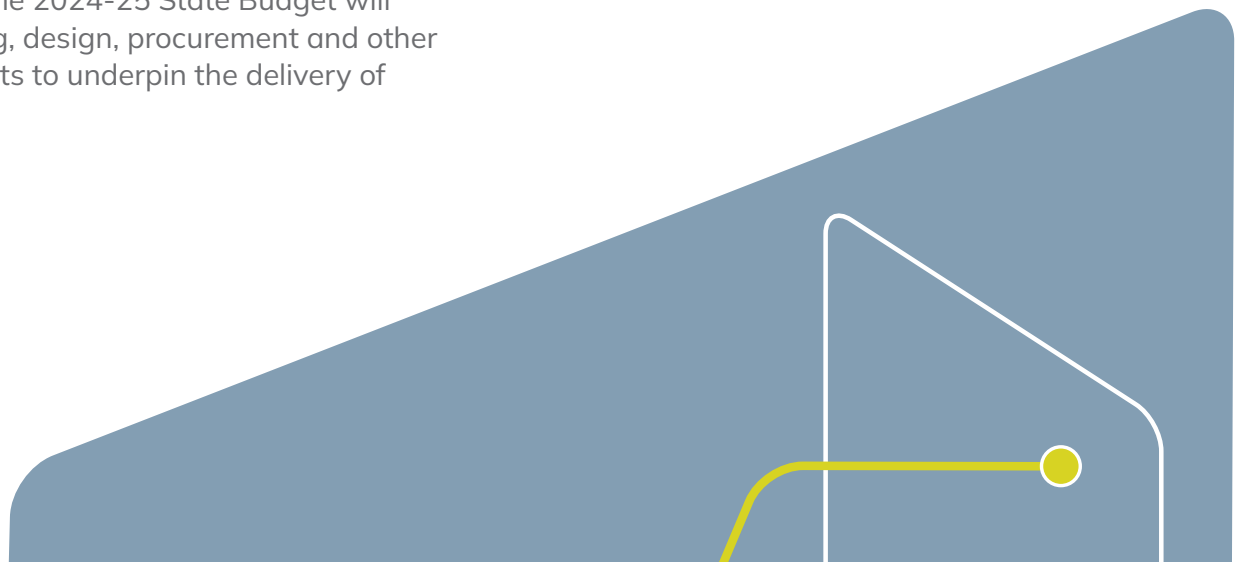
The SWISDA process, in conjunction with additional work to assess future energy needs, has identified a series of proposed new network investments for the SWIS.

These projects will enable the connection and delivery of electricity to meet an expected 1GW of new industry demand in the coming years.

The State Government's initial \$324 million investment in the 2024-25 State Budget will deliver planning, design, procurement and other key requirements to underpin the delivery of these projects.

This will include the development of detailed business cases for each of the proposed projects, to further refine their scope, in line with specific industry needs and generation opportunities.

The State Government is now focused on progressing the required scoping and planning works, and engaging with relevant communities to inform the design of the transmission upgrades.



Transforming our transmission network

North Region (Northern Metropolitan to Geraldton)

The need for further transmission infrastructure in the north of the SWIS has been identified in addition to the Clean Energy Link – North project. This will include transmission infrastructure running from the north metro area to Moora, including a new line from Regans Ford to support new mining loads in the region and allow the increased transfer of renewable generation.

Central Region (Perth Metropolitan including the Western Trade Coast)

The Central region comprises the Perth metropolitan area, including the Western Trade Coast.

Planned transmission infrastructure in this region will enable more industrial load to connect in the metropolitan areas, including the Western Trade Coast. This development will also support the transfer of large amount of electricity between the northern and southern parts of the SWIS and enable renewable generation to access coastal load centres.

South Region (Southern Metropolitan to South West and Great Southern)

The South region includes significant industrial load in the South West, and the Great Southern region.

Transmission investments east and south of Collie will utilise Collie's existing transmission infrastructure. This will also support large-scale wind generation projects under development in the region which will be critical to accessing a different wind profile from existing wind generators in the northern part of the SWIS.

East Region (Wheatbelt to Goldfields)

In 2023, the State Government committed \$21 million to upgrading transmission infrastructure in the eastern parts of the grid around Merredin. These upgrades optimise the existing infrastructure and will enable up to 400 MW of new renewable generation capacity to connect, including projects such as Synergy's King Rocks Wind Farm.

The Goldfields

The Goldfields is an essential economic region for the State and will play a pivotal role in global decarbonisation through the growing critical minerals sector.

Energy system modelling undertaken after the completion of the SWISDA identified that the optimal transmission network outcome for the Goldfields region is the development of a Goldfields Regional Network.

Under this model, new transmission network infrastructure would be constructed to provide the region with more reliable access to low-emissions energy, and to support decarbonisation of the mining, metals, and minerals processing loads in the Goldfields.

Utilising high quality wind resources, north to Leinster via Leonora, the Goldfields Regional Network would be outside the existing SWIS footprint and represents an opportunity for private sector investment.

PoweringWA will engage closely with Goldfields communities, Traditional Owners and industry to develop a stakeholder led solution to the Goldfields Regional Network. A stakeholder forum will be held in 2024 to understand the challenges and opportunities in the Goldfields and to ensure that these stakeholders are central to the development of the potential solution.

Working together to make it happen

The scale of the energy transformation that is underway in Western Australia is unprecedented. The establishment of PoweringWA was announced by the State Government in November 2023 to help meet this challenge.

PoweringWA, Western Power and other State Government agencies will continue to work in partnership with industry, community, and landowners to progress detailed program planning and prioritisation of developments across the SWIS. Western Power will continue to be responsible for delivery and ownership of the new transmission infrastructure within the SWIS.

Early engagement with local stakeholders and Aboriginal groups is key to ensuring that communities are part of this transition and realise benefits from the process. This includes

the economic opportunities that arise from the infrastructure investments and the industries it will support.

PoweringWA and Western Power will also engage closely with industry and communities across the broader SWIS to understand their needs and support them to navigate the energy transition.

Western Power will continue to work directly with industry to progress connection applications including connecting major customers via its revised critical projects framework.



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