Borumba Pumped Hydro Project

Borumba to Tarong/Halys Transmission Line Corridor Options

Proposed transmission line – corridor options and detailed descriptions

We invite landholders, the wider community and other stakeholders to provide feedback and input on potential corridors for the location of a new transmission line to connect the proposed Borumba Pumped Hydro Project, near Imbil, to the existing transmission network in the area.

The proposed new line will either connect into Tarong Substation, located 15km south-west of Nanango, or to Halys Substation, located about 35km south-west of Nanango. The total investigation area between Borumba Dam and the two existing substations extends across three townships including Nanango, Jimna and Linville.

There are three broad options being proposed, known as North, Central and South. Two of the options being considered could connect into both Tarong and Halys substations. The connection may be 275kV (similar to existing lines in the area) or up to 500kV if required following preliminary studies.

It is important to note that the corridors shown are approximately 4km wide, which is much wider than a final recommended corridor for a new transmission line. By showing wider corridors we can then fully consider community and landholder feedback in selecting a recommended corridor. The transmission line easement within the final selected corridor will be much smaller - either 60m wide (for 275kV transmission lines) or 70m wide (for 500kV transmission lines).

In determining the new transmission line corridor, we will assess a range of social, economic and environmental factors such as future land use, the location of homes, flora and fauna, existing electricity infrastructure corridors, terrain, visual amenity and other key factors. Input from landholders and the wider community is an important part of this process, and will guide our planning and decision-making.

The northern connection will be at Powerlink's existing Woolooga Substation (refer to the Borumba Pumped Hydro Project – Woolooga Transmission Line Connection Options fact sheet for more information).

Why are there two substations being considered – Tarong and Halys?

Tarong Substation

Tarong Substation can support the connection of 275kV transmission lines. While a minimum of one 275kV line is required to connect, consideration is being given to the possible development of a new 500kV network, subject to further investigations.

Halys Substation

Using 500kV connections has the potential to provide significant network benefits across southern and central Queensland. Based on initial investigations, Halys Substation (20km west of Tarong Substation) has been identified as a potential location for constructing a new 500kV substation to support the western connection site of the project.

How will you assess these corridor options?

We are now seeking your insights and feedback on these corridor options. With the help of your local knowledge and input, our project team will further assess each corridor using both qualitative and quantitative information. Qualitative assessment includes professional expert input, landholder feedback and general insights as part of engagement. Quantitative assessment considers numerical data on impacted areas (e.g. intensive cultivated land), transmission line length, and individual counts (e.g. houses, schools, number of land parcels).

This assessment process involves weighing up the potential environmental, social and economic impacts of each corridor option. The recommended corridor will be the option that has the least overall impacts on a range of environmental, social and economic factors. The assessment of these corridors and the recommended corridor will be outlined in a Draft Corridor Selection Report (CSR) which will be released for further input and feedback in early 2023. This is part of our commitment to early and ongoing engagement throughout this process.

Borumba Pumped Hydro Project - Tarong transmission line connection options

Tarong North with sub-options A and B

This corridor traverses north-west from the proposed pumped hydro facility before heading south towards Tarong, bypassing Nanango township. This option avoids townships, existing infrastructure and irrigated agriculture to the north of the existing transmission line.

From this corridor, there are two options to connect into Tarong Substation. Option A connects to the substation from the north, avoiding existing infrastructure associated with Stanwell's Meandu Mine and Tarong Dam. Option B prioritises co-location with an existing transmission line, connecting to the substation from the east.

Tarong Central with sub-options A and B

This corridor traverses south-east from the proposed pumped hydro facility before heading west towards Tarong Substation. This route is more direct than the Tarong South option (description below) but does not co-locate with existing transmission lines.

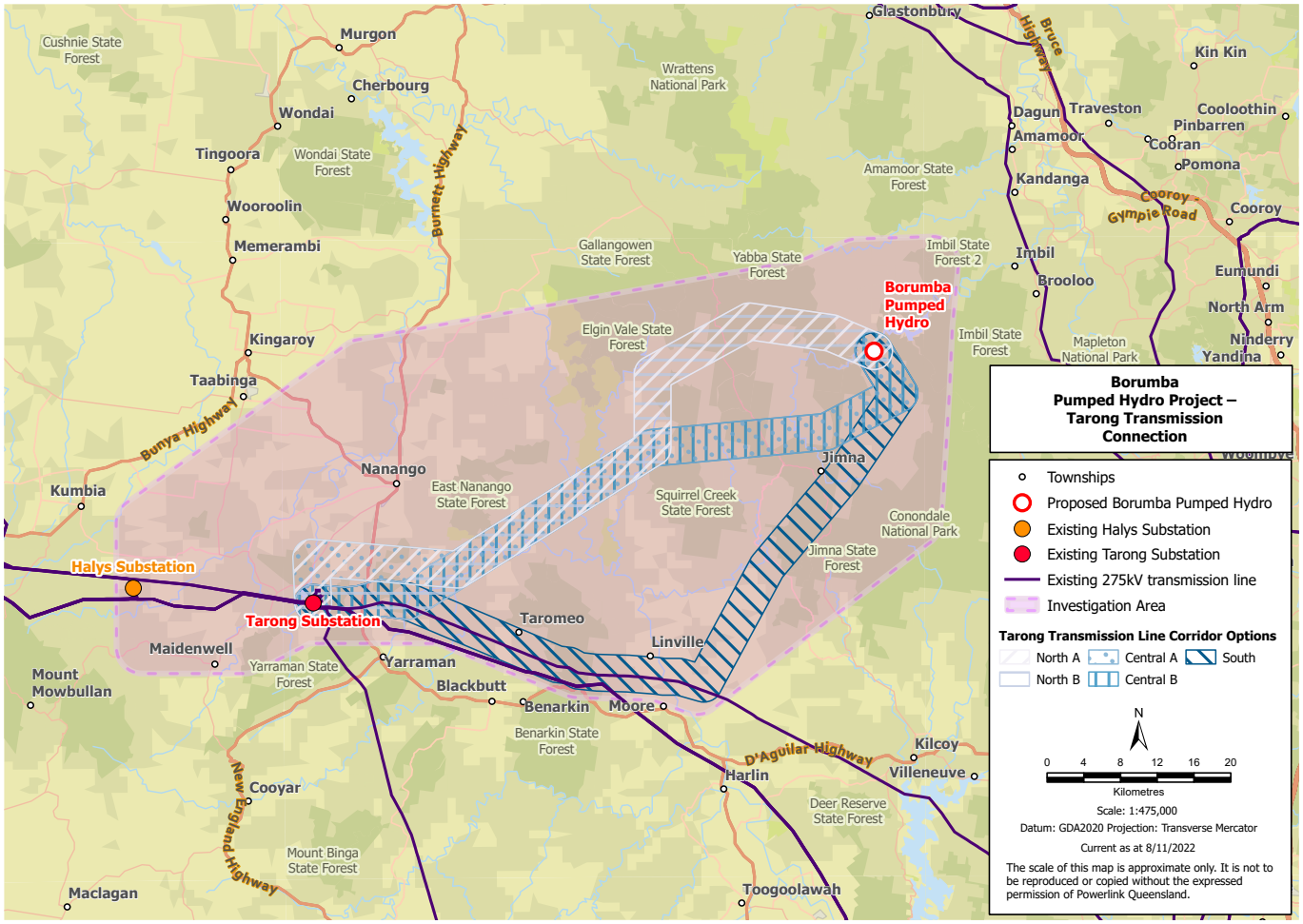
From this corridor, there are two options to connect into Tarong Substation. Option A connects into Tarong Substation from the north, avoiding existing infrastructure associated with Stanwell's Meandu Mine and Tarong Dam. Option B prioritises co-location with an existing transmission line, connecting to the substation from the east.

Tarong South

This corridor traverses south-east from the proposed pumped hydro facility and veers south-west under Jimna township before co-locating with existing transmission lines east of Linville. The corridor co-locates with existing transmission lines for 44km west before connecting into Tarong Substation. A co-location option would still require the acquisition of additional land and the construction of a new transmission line connection. The co-located area around Benarkin North includes rural residential lots of less than five hectares in size.

Have you considered an alternative northern corridor option?

A northern corridor option was initially considered extending from Elgin Vale State Forest, between Kingaroy and Nanango and connecting to Tarong and Halys substations. Following engagement with landholders, other stakeholders and members of the community, this option is not being actively considered. This is largely due to the significant economic impacts on strategic cropping land and production from dryland agriculture and plantations. This includes impacts on many productive farming properties between Runnymede, Coolabunia and Ellesmere areas.



Borumba Pumped Hydro Project - Halys transmission line connection options

Connection to Halys Substation follows a similar corridor proposed for Tarong North, Tarong Central and Tarong South from the proposed pumped hydro facility at Lake Borumba to Tarong. Upon reaching Tarong, we've identified two options to connect into Halys Substation which are sub-options A and B.

Halys North

This corridor traverses north-west from the proposed pumped hydro facility before heading south towards Tarong, bypassing Nanango township. This option avoids townships, existing infrastructure and irrigated agriculture to the north of the existing transmission line.

Halys Central

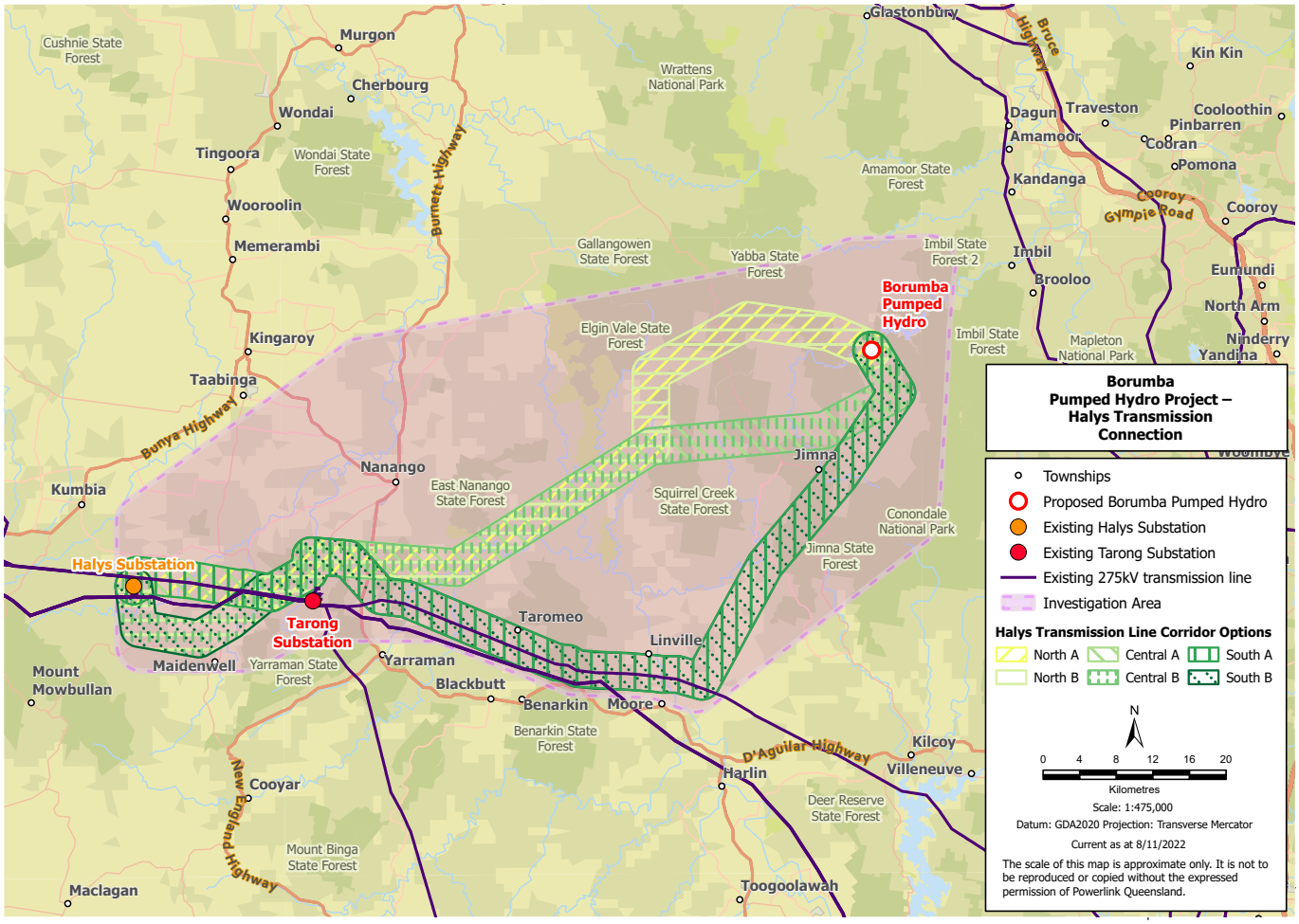
This corridor traverses south-east from the proposed pumped hydro facility before heading west towards Tarong Substation.
This route is more direct than the Halys South option (description below) but does not co-locate with existing transmission lines.

Halys South

This corridor traverses south-east from the proposed pumped hydro facility and veers south-west towards Jimna before co-locating with the existing transmission lines east of Linville. The corridor co-locates with existing transmission lines to the west before heading north to avoid built infrastructure at Tarong Substation.

Sub-options A and B

When Halys North, Halys Central and Halys South corridors reach Tarong, we have identified two options to connect into Halys Substation. Sub-option A prioritises co-location with existing transmission lines between Tarong and Halys substations. Sub-option B diverts south of existing transmission lines towards Maidenwell before connecting back into Halys Substation from the south.



Tarong – Proposed transmission line corridor option characteristics

Description	Tarong North A	Tarong North B	Tarong Central A	Tarong Central B	Tarong South
Corridor length	80km	76km	79km	75km	88km
Co-location with existing transmission lines	Nil	10km	Nil	10km	44km
Some impact on intensively cultivated areas	Yes	Yes	Yes	Yes	Yes
Opportunity to follow property boundaries where possible	Yes	Yes	Yes	Yes	Yes
Potential impacts to remnant vegetation	Yes	Yes	Yes	Yes	Yes

Halys – Proposed transmission line corridor option characteristics

Description	Halys North A	Halys North B	Halys Central A	Halys Central B	Halys South A	Halys South B
Corridor length	98km	103km	97km	102km	113km	117km
Co-location with existing transmission lines	15km	1km	15km	1km	53km	37km
Some impact on intensively cultivated areas	Yes	Yes	Yes	Yes	Yes	Yes
Opportunity to follow property boundaries where possible	Yes	Yes	Yes	Yes	Yes	Yes
Potential impacts to remnant vegetation	Yes	Yes	Yes	Yes	Yes	Yes

To learn more about the Borumba Pumped Hydro – Transmission Connections Project, please contact the project team on 07 3860 2111. You can also use the QR code to access our project webpage.

borumba@powerlink.com.au
www.powerlink.com.au/borumbatransmission

SAFEFORLIFE
Everyone. Everywhere. Everyday.

Powerlink acknowledges the Traditional Owners and their custodianship of the lands and waters of Queensland and in particular, the lands on which we operate. We pay our respect to their Ancestors, Elders and knowledge holders and recognise their deep history and ongoing connection to Country.