

Fact Sheet | Transmission route selection

SEPTEMBER 2022

AusNet is leading the Gippsland Renewable Energy Zone™ project (G-REZ™) that will unlock 3-4GW of renewable energy by 2027. ▽

Determining a preferred route

In identifying the preferred transmission route for the Gippsland Renewable Energy Zone project (G-REZ), AusNet used selection criteria that considered:



Geography and topography of the land, including terrain and waterbodies



Biodiversity and threatened habitat, including conservation and flora reserves



Overall length required of transmission route and number of landowners impacted



Existing and future land use and infrastructure requirements



Places of Aboriginal cultural heritage significance



Proximity to dwellings, schools, hospitals



Incompatible land uses such as transport networks, airfields and airports

What corridors were considered?

Before the preferred route could be determined, a broader area of investigation was defined. These areas, referred to as corridors, provided a wider area within which AusNet could conduct preliminary investigations into potential route locations to develop the G-REZ transmission infrastructure.

AusNet initially considered four possible corridors for the G-REZ project:



Corridor A

Giffard to Hazelwood;
north of Basslink



Corridor B

Giffard to Hazelwood;
north of Holey Plains
State Park



Corridor C

Giffard to Loy Yang;
north of Basslink



Corridor D

Giffard to Loy Yang;
north of Holey Plains
State Park

Why this route?

Corridor B (Giffard to Hazelwood; north of Holey Plains State Park) has been selected as the preferred route as it:

- Offers developers access to connect into the terminal station near Giffard.
- Provides a ready-made connection point into the grid at the Hazelwood Terminal Station.
- Minimises the overall impact on the environment.

For corridors C and D, several engineering challenges exist to connect G-REZ into the Loy Yang terminal station.

Corridors A and C (north of Basslink) were also closely assessed, however both options faced significant challenges including:

- Location of the terminal station near Giffard.
- Expansion of the existing easement.
- Additional impact on the environment, biodiversity and landholders.

Corridors A and C (north of Basslink) would require an easement of up to 180 metres wide. This would have a significant impact on landholders and could result in existing land uses, including agricultural activities, no longer being possible.

Corridor B is the preferred corridor as it maximises opportunities for renewable energy generators to connect to G-REZ while not significantly impacting the environment. ▽



Transmission route options



Legend

- Corridor A
- Corridor B
- Corridor C
- Corridor D

The proposed transmission line route depicted on the G-REZ map is indicative only and subject to entering into appropriate easement agreements with landowners along the route as well as obtaining all required environmental and planning approvals. The proposed route may also change based on feedback from landholders and other key stakeholders, as well as the findings of environmental and technical studies.

Summary of routes considered

Based on AusNet's assessment, with support from specialised consultants, a summary of the relative merits of each corridor considered is presented below.

Corridor A

Giffard to Hazelwood; north of Basslink



Benefits

- Compared with corridors B, C and D, this corridor intersects a lower number of existing transmission lines and associated infrastructure.
- This corridor intersects the lowest number of gas and oil pipelines.

Challenges

- Compared with the other corridors considered, corridors A and C were determined to have the greatest impact on the environment, including impacts to larger areas of native vegetation.

This corridor was found to:

- Have a high likelihood of state and federal listed flora and fauna occurring within 500 metres.
- Cross a larger number of environmentally sensitive areas including reserves and wetlands and areas of known cultural sensitivity as well as being within 500 metres of known heritage properties.
- Have the greatest socioeconomic impacts, which includes impacts to existing land uses and landscape and visual amenity value.
- Be within 250 metres of existing buildings and dwellings, as well as mining licences within the Latrobe Valley.

Preferred corridor

Corridor B

Giffard to Hazelwood; north of Holey Plains State Park



Benefits

- Compared with corridors A, C and D, this corridor traverses a lower number of nature conservation reserves, state forest areas and wetlands.
- This corridor has been deemed to have a lower likelihood of impact to high value native vegetation compared with the other options considered.
- State and federal listed species are deemed less likely to occur within 500 metres of this corridor.
- Corridor B has the overall lowest number of heritage properties within 500 metres and does not cross public conservation zones.

Challenges

- This corridor includes the greatest number of physical constraints that will require engineering solutions to address including road, transmission line and gas and oil pipeline crossings and various geological formations.
- As the longest corridor considered, developing within this area is therefore the most expensive with increases to the number of neighbouring land uses, nearby dwellings and areas of potential cultural sensitivity.
- Corridor B traverses mining licences and will require land use agreements with the relevant mine licensee.
- This corridor also traverses areas with height constraints near the Latrobe Regional Airport.

Corridor C

Giffard to Loy Yang;
north of Basslink



Benefits

- As the shortest corridor of those considered, this requires the least amount of engineering solutions to be developed.

Challenges

- This corridor is likely to have an equivalent environmental impact to corridor A, and a greater number of environmental impacts compared with corridors B and D.
- Corridor C traverses a large area of native vegetation and is likely to have state and federal listed flora and fauna within 500 metres.
- This corridor also traverses a large number of watercourse crossings, wetlands, nature conservation areas and reserves and state forest.
- Compared with the other options considered, corridor C includes a larger area where there is known and/or likely cultural heritage.
- The corridor traverses state parks and forests, as well as mining licences, requiring engineering solutions and consideration of land use compatibility.

Corridor D

Giffard to Loy Yang;
north of Holey Plains State Park



Benefits

- This corridor has limited environmental impacts compared with the other corridors considered. It does not traverse as many nature conservation reserves, state forest parcels and wetlands as corridors A and C (although more than the preferred corridor B).
- This corridor crosses a lower number of areas of high value native vegetation and areas likely to include state listed fauna.
- Corridor D includes less heritage properties within 500 metres.

Challenges

- Corridor D presents several physical constraints that require engineering solutions to address.
- This corridor also requires design solutions to address a wider variety of neighbouring land uses compared with other corridors considered.
- Despite having less heritage properties within 500 metres, this corridor traverses areas of known cultural heritage sensitivity. ▽



Contact Us

AusNet is committed to providing many opportunities for locals to share their knowledge about the area and provide feedback. For more information, or to speak to a member of our team, contact us via:

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