

GOYDER NORTH

GOYDER RENEWABLES ZONE



Community Information Booklet

October 2023

NEOEN



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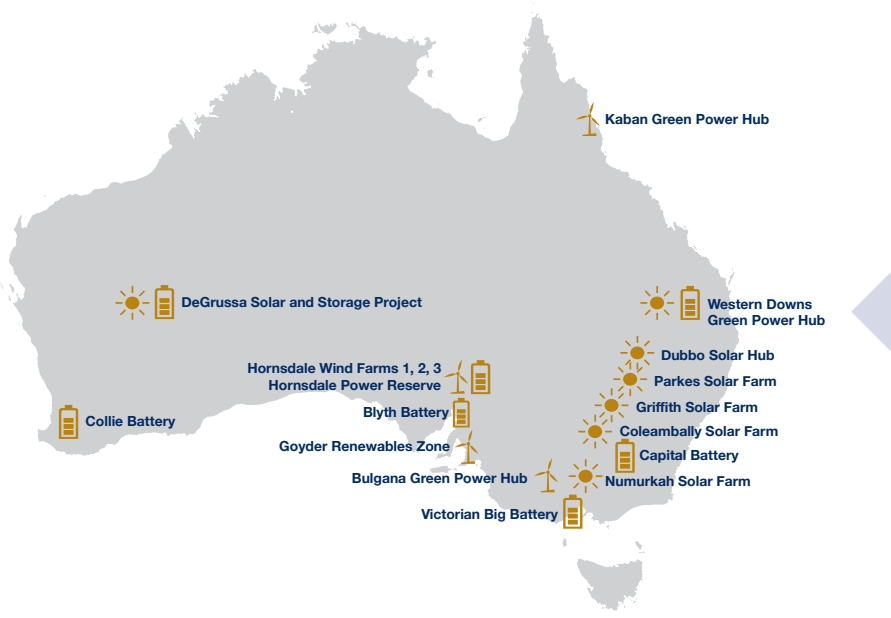
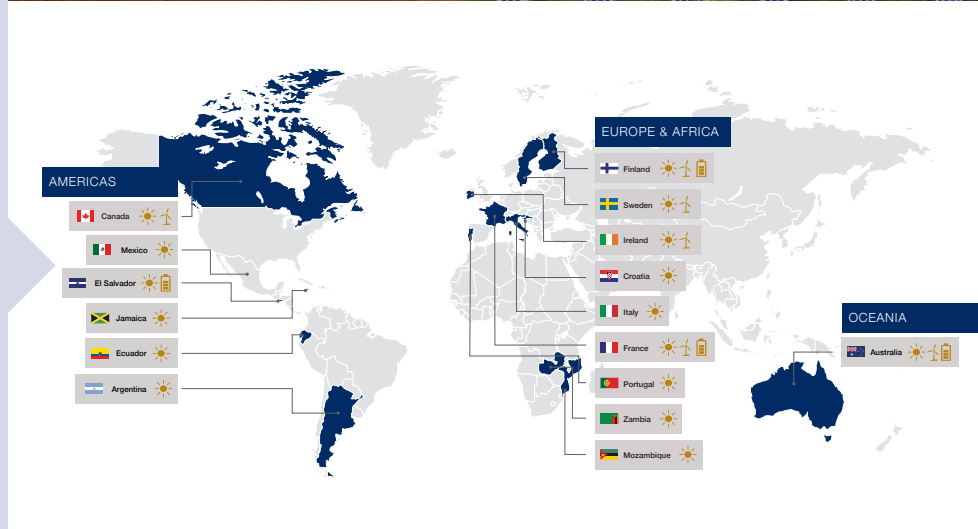


GLOBALLY

The company is head quartered in Paris, France, and has seven Australian offices in Brisbane, Sydney, Canberra, Melbourne, Hobart, Adelaide and Perth.

We operate across renewable energy technologies including solar, wind and storage in Europe, the Americas, Africa, and Australia.

Neoen's total capacity in operation and under construction is over 7 GW and we are aiming for 10 GW by the end of 2030.



LOCALLY

Neoen Australia began operations in 2012. Over the last eleven years, the company has initiated the development of over 3 GW of solar, storage and wind projects through organic growth, local partnerships and strategic acquisitions.



Neoen produce green electricity from renewable sources such as sunlight and wind using mature, tried and tested technologies. We are also leaders in energy storage.

NEOEN IN SOUTH AUSTRALIA



HORNSDALE WIND FARM

Hornsedale Wind Farm is a 316 MW renewable electricity project consisting of 99 wind turbines, providing renewable energy to be used locally and exported to the National Electricity Market (NEM).

It is located north of Jamestown in South Australia, in the Northern Areas Council region.

It is located next to Neoen's Hornsdale Power Reserve, also known as SA's big battery.

HORNSDALE POWER RESERVE

The Hornsdale Power Reserve is the **world's first big battery**. At 150 MW / 193.5 MWh, the Hornsdale Power Reserve provides a range of grid-support services to the NEM.

In its first two years of operations, the battery saved SA energy consumers over \$150 million. It also helps in preventing blackouts in South Australia.

Neoen recently upgraded the battery to include Tesla's Virtual Machine Mode, enabling the Hornsdale Power Reserve to provide inertia support services to the grid.



BLYTH BATTERY

We are currently constructing a 238.5 MW / 477 MWh big battery, west of the town of Blyth, in the Mid-North region of South Australia.

It will be linked to ElectraNet's transmission network via a connection to an existing ElectraNet substation.

Neoen signed a 70 MW baseload contract with BHP to deliver clean energy 24/7 to the Olympic Dam. This combines energy from our Goyder South wind farm and storage support from Blyth Battery.

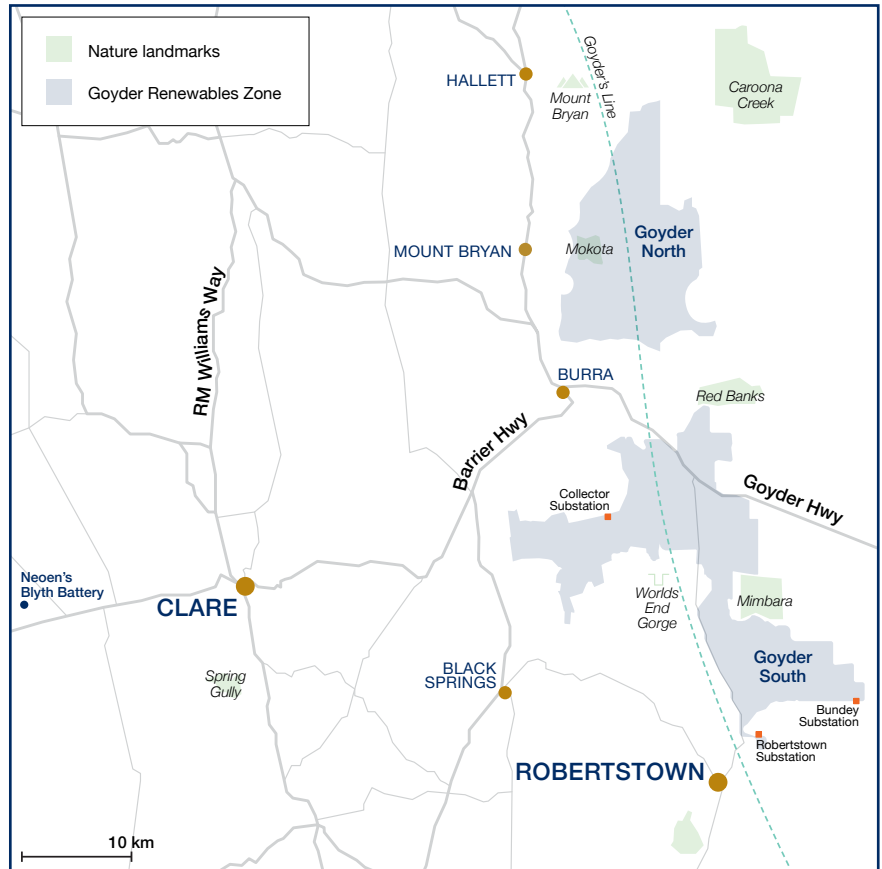
PROJECT OVERVIEW

Goyder Renewables Zone is a large hybrid renewable energy project proposed by Neoen in the area around Burra, in the Goyder region of South Australia (SA). The Zone consists of 2 separate projects: Goyder North and Goyder South.

GOYDER SOUTH

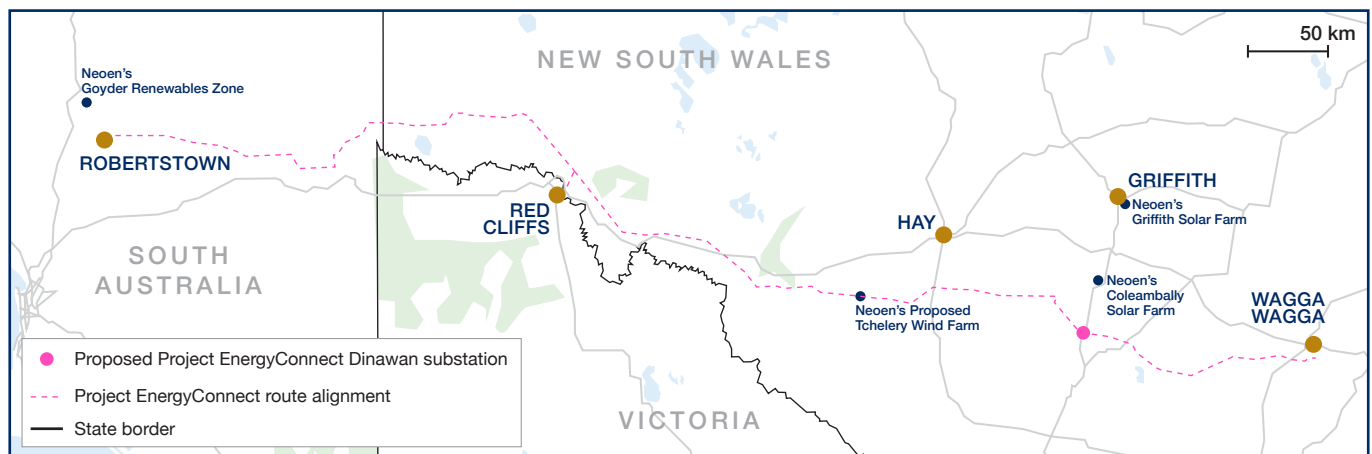
GOYDER RENEWABLES ZONE

Goyder South Stage 1 is a 412 MW wind farm currently under construction. It will connect into the existing Robertstown substation, on the SA side of Project EnergyConnect.



Project EnergyConnect is one of the nation's largest electricity infrastructure projects being built by ElectraNet and TransGrid. It includes a new 900 km electricity transmission line between Wagga Wagga in NSW and Robertstown in SA, with a connection to Red Cliffs in Victoria, connecting the power grids of the three states.

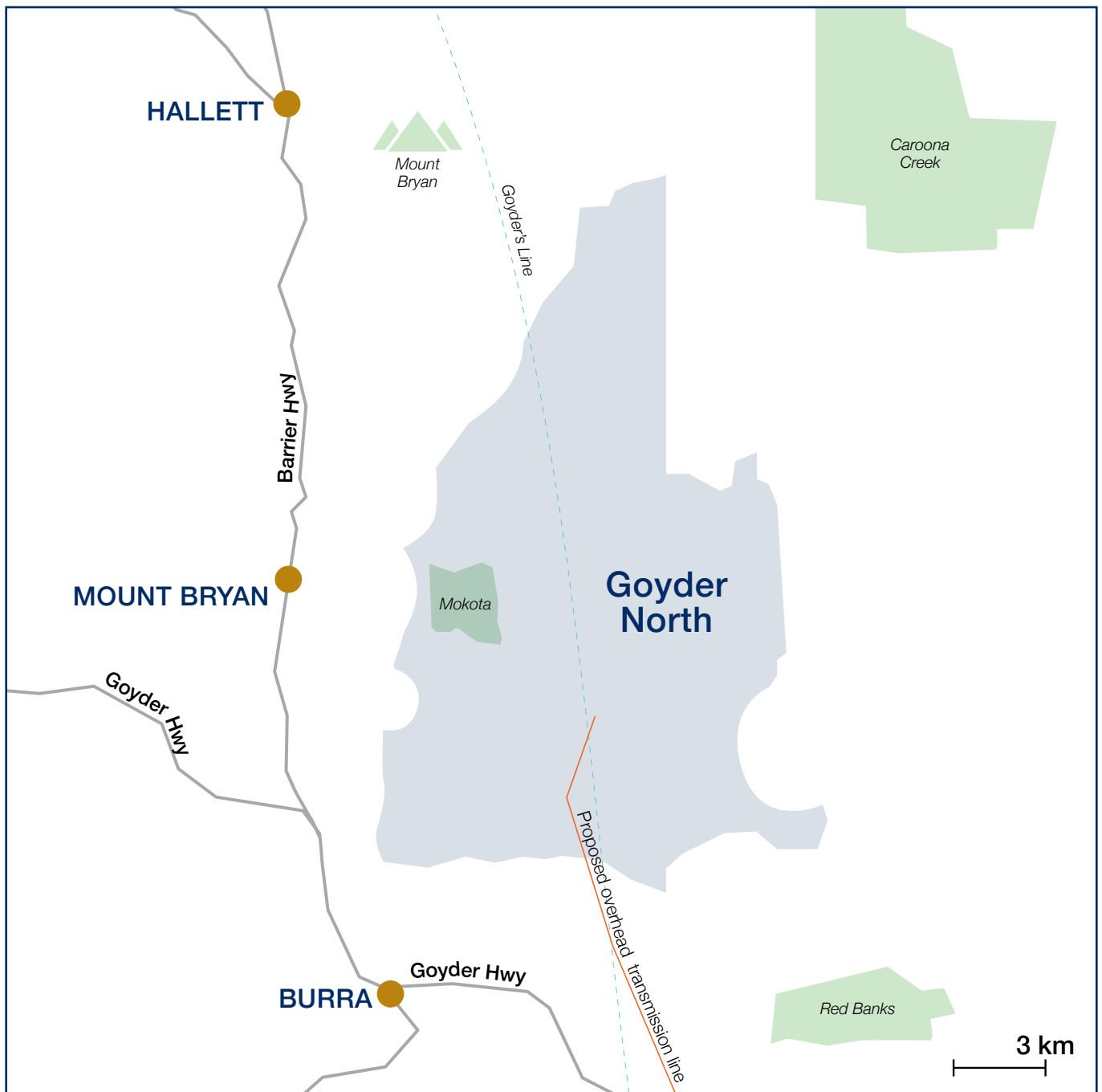
Project EnergyConnect will enable the Goyder Renewables Zone to generate affordable and clean energy for South Australians as well as people living interstate when the energy demand is low in SA.



PROJECT LOCATION

Goyder North is a wind farm project in early stages of development and being proposed by Neoen in the area north of Burra.

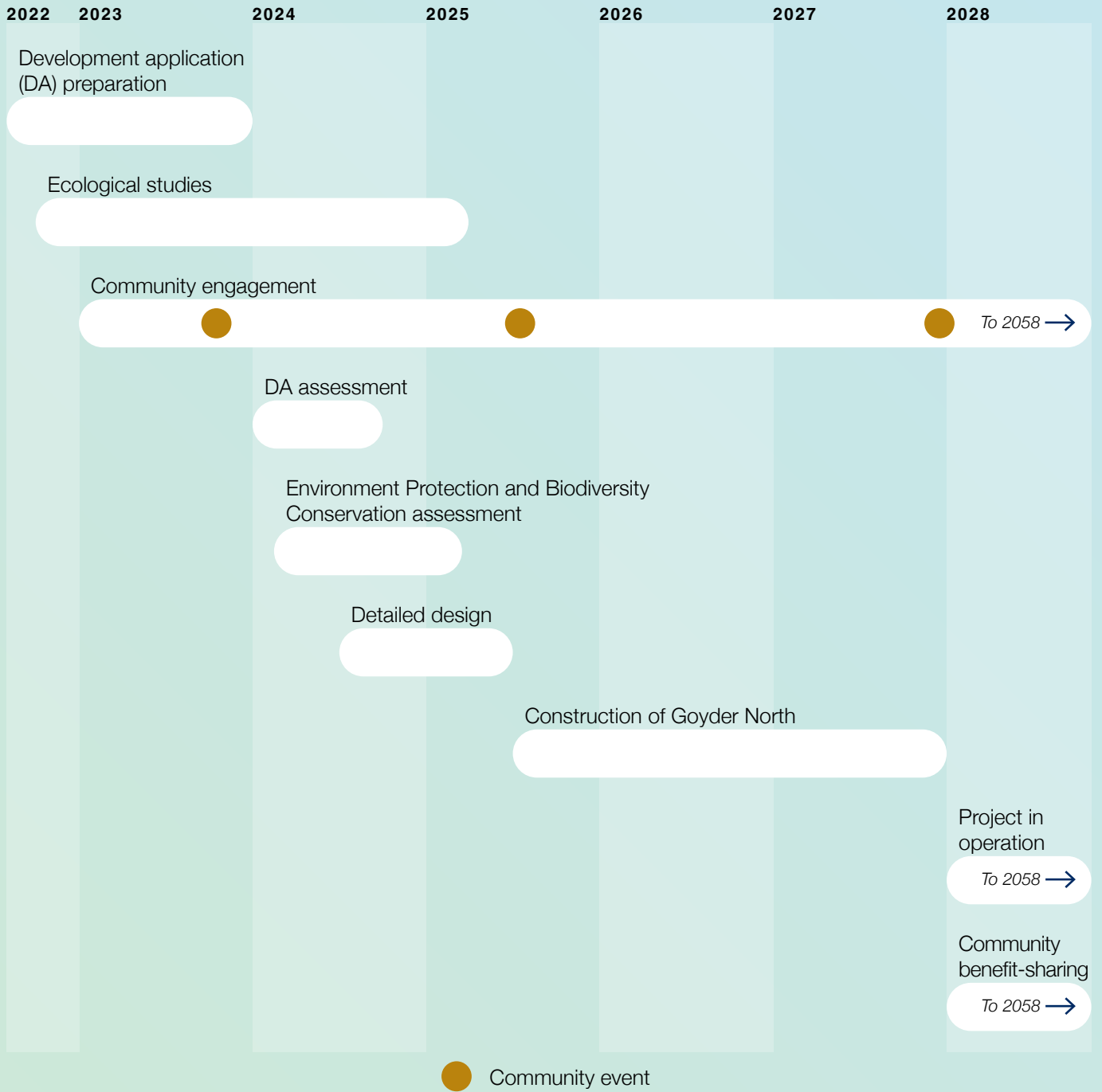
We expect the project to be deployed in multiple stages, with an energy capacity of approximately 300 MW to 500 MW each. Goyder North will most likely connect into ElectraNet's Bunday substation which has been constructed recently as part of Project EnergyConnect.



PROJECT LIFECYCLE



PROJECT TIMELINE



Please note that the project is in early stages of development and the timeline is subject to change.

Updates will be shared on our project website: goydereenergy.com.au

GOYDER SOUTH

GOYDER RENEWABLES ZONE

Neoen is already providing significant benefits under its Goyder South project, which is currently under construction.

ECONOMIC

300 jobs during construction

20 jobs during operations

\$3 billion infrastructure investment at full project build-out



ENVIRONMENTAL

Ability to displace **over 2.5 million tonnes** of CO₂ emissions every year at full project build-out

Permanently preserving 1,000 hectares of land at Worlds End Gorge in collaboration with the Ngadjuri Nation, Goyder Regional Council, former landowners and South Australian Government



COMMUNITY BENEFIT-SHARING

Goyder South Stage 1 has an **annual commitment of \$250,000** to support local projects bringing meaningful benefits to the community during operations

Sponsoring local events like the Copper & Stone Festival during construction



BENEFITS

GOYDER NORTH GOYDER RENEWABLES ZONE

Additional benefits can be expected under our Goyder North project.

ECONOMIC

Around **900 jobs** during construction

Around **31 jobs** during operations

\$2 billion infrastructure investment at full project build-out

ENVIRONMENTAL

Ability to displace **over 1.2 million tonnes** of CO₂ emissions every year at full project build-out

Ability to **power over 780,000 homes**

COMMUNITY BENEFIT-SHARING

We will commit to an annual community benefit-sharing program under the Goyder North project. This will be in addition to our existing commitment under the Goyder South project.

Some options we are investigating:



Education & training



Culture & heritage



Health & well-being



Share your thoughts on these proposed options using our survey at goyderenergy.com.au/goyder-north or by scanning the QR code.

OPPORTUNITIES

FOR EMPLOYMENT

Engineering, Procurement & Construction (EPC) Contractor



Electrical

Electricians
Electricity Installation
Electrical Trade Assistants
Wind Turbine Technician



Civil & Mechanical

Civil	General Labour
Concreters	Grader
Excavator	Loader
Dump Truck	Mechanical
Foreman/ Supervisor	Fitter
Forklift and/or Telehandler	Roller
	Trucks
	Watercarts



Substation

Administration
Electricity Installation
Electrical Trade Assistants
Equipment Maintenance
General Labour

FOR SUPPLIERS

Goods and services we expect to be procured:

Accommodation	Freight	Septic pump out services
Cleaners	Fuel	Small equipment hire
Crane (minor lifts)	Material testing	Transport (minor)
Concreters	Mechanical fitter/maintenance	Waste management (liquid and solid)
Concrete supply (offsite supply)	Operation and maintenance facility construction	Water (construction and potable)
Earthworks plant (wet and dry hire)	Quarry products	Welding & engineering fabrication (site services)
Fencing and gates	Safety Products (local)	
Food and catering service		

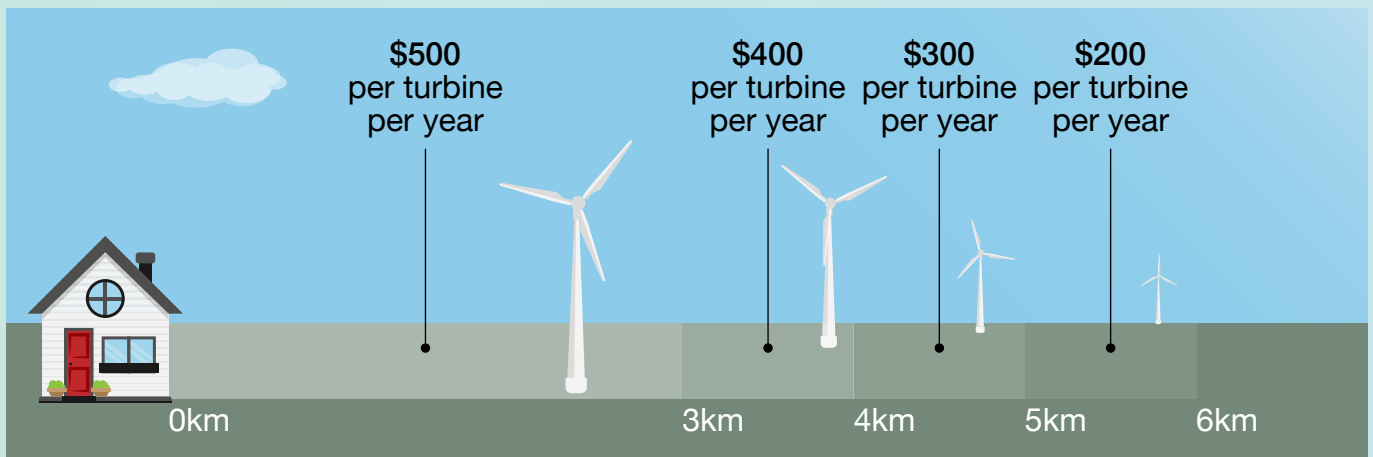


Anyone interested in working on the project can register their interest via our project website: goyderenergy.com.au/work-with-us

In the pre-construction period, we will hold a Local Employment and Supplier Networking session.

NEIGHBOUR BENEFIT SCHEME

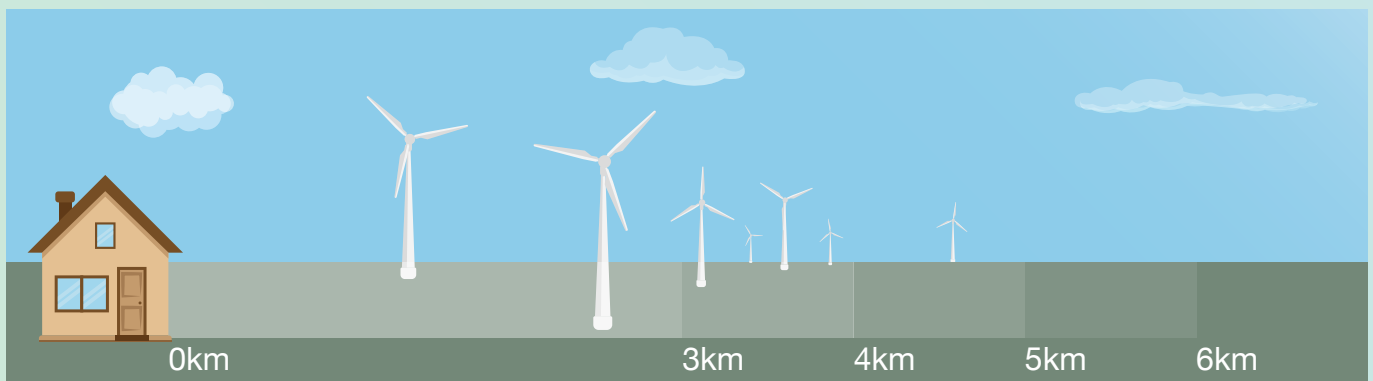
Our neighbour benefit sharing program provides neighbours with an annual payment throughout the operations phase of the project (30 years). It is based on the number of turbines within certain distances of neighbour's dwellings. The nearer the turbines are, the higher the amount.



Minimum payments of \$1,000 regardless of number of turbine numbers with a maximum cap of \$5,000.

EXAMPLE NEIGHBOUR PAYMENT

In this example, there are 2 wind turbines proposed within 0-3km from a neighbour's dwelling, 4 turbines between 3-4km and 1 turbine within 4-5km.



Their annual neighbour benefits payment would be: **\$2,900 each year**

$$(\$500 \times 2) + (\$400 \times 4) + (\$300 \times 1)$$

The amount will depend on the final wind turbine layout and annual payments will begin prior to construction.

Please note: this scheme is only applicable to dwellings outside of townships in rural zoned areas. For example, Burra residents are not included, as the town will benefit significantly from the Community Benefit Scheme.

ABOUT WIND TURBINES

Turbines continue to grow in size each year. New turbine models are larger than their predecessors. Often during permitting, higher hub and tip heights will be requested to accommodate the next generation of machines.

Larger turbines generate more and cheaper energy because they can access higher wind speeds at higher elevations. They also generate savings in civil and electrical costs (less foundations, roads, cables, etc.).

Larger turbines are spaced further apart (approximately 500–1,000m depending on the project) and have lower rotational speeds than smaller turbines. Larger turbines don't necessarily make more noise than smaller turbines, due to their slower speed and improvements in blade design.

Larger turbines require less concrete, roads and cables per unit of energy generated, reducing carbon emissions, construction traffic, and vegetation clearance. Their blades are also above the flight paths of most birds, which greatly reduces the impact to avifauna.

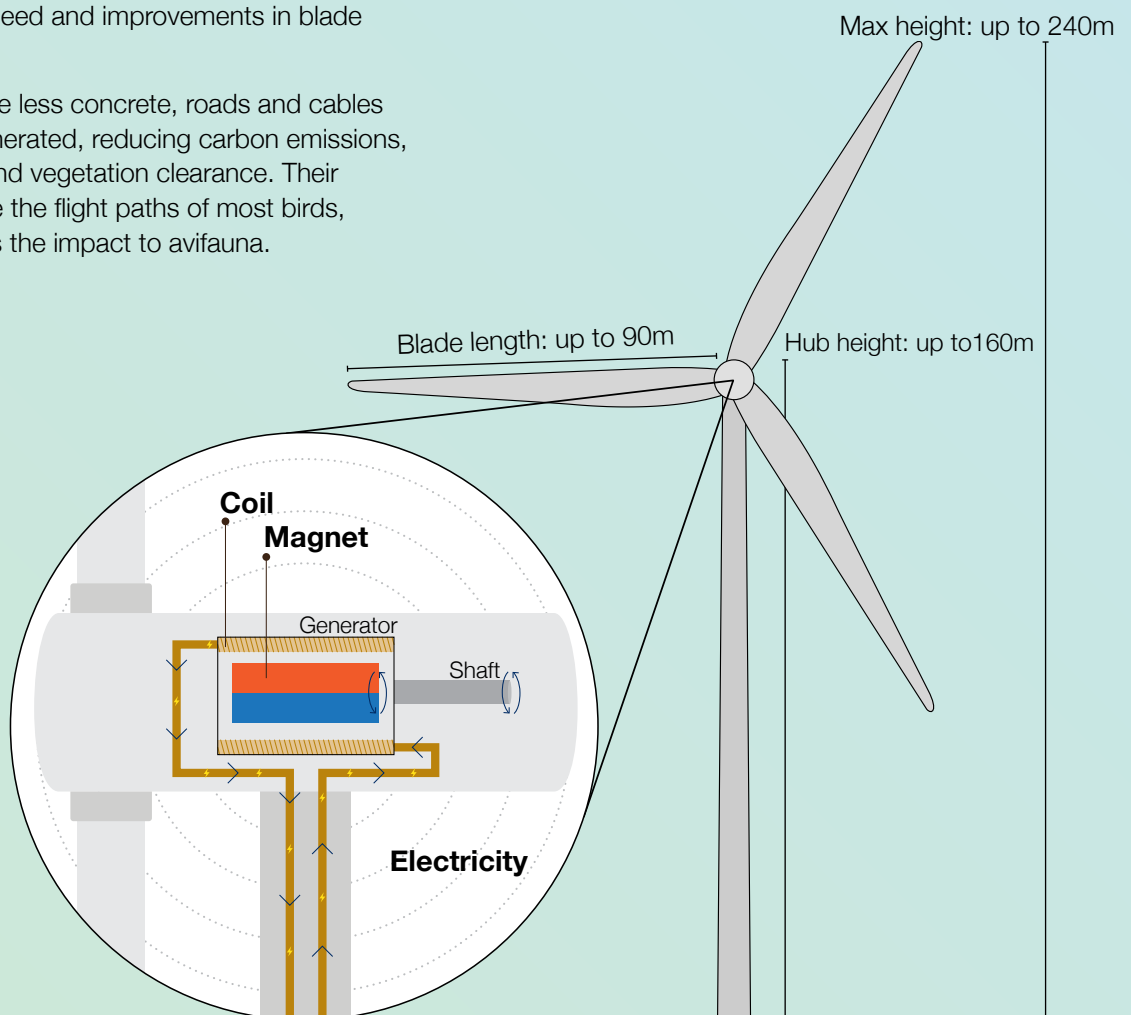
To learn more, watch a video from our Learning Hub website:



What's inside?

Winds push the turbine blades which then turn the magnets.

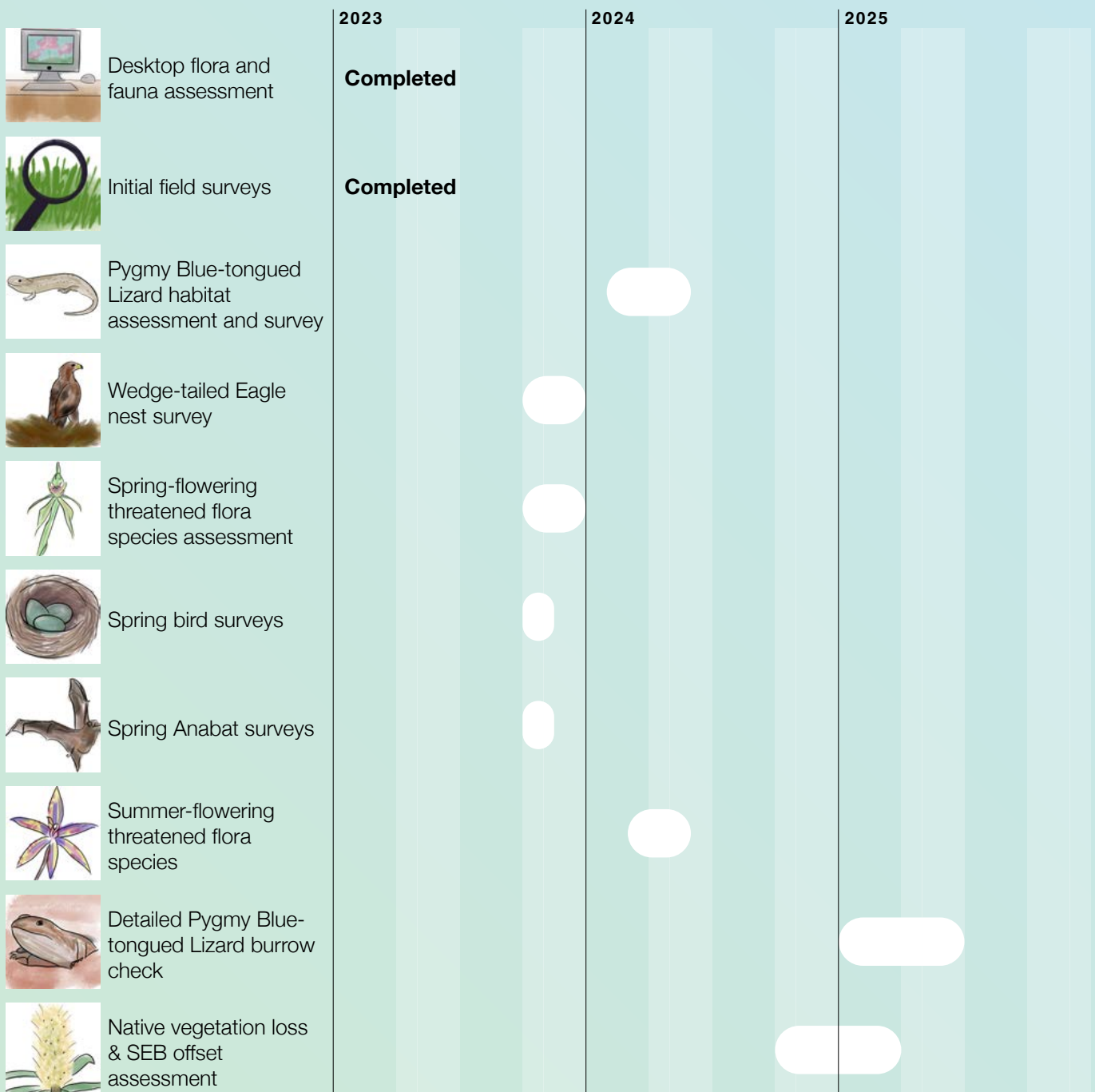
This generates a magnetic field, causing electrons to race through copper wires, creating electricity.



ECOLOGICAL SURVEYS

Burra and the surrounding regions, while primarily comprising agricultural land, are home to many species of flora and fauna.

Neoen has commenced studies to assess the potential impacts of the project on species that inhabit the region. We will conduct detailed surveys during detailed design to ensure infrastructure can be 'micro-sited' to avoid sensitive areas.



WIND FARMS

1. How long does it take to build a wind farm?

The construction timeframe depends on the project size and the number of workers deployed on site. For a 100 MW wind farm, a 12-18 month timeframe is typical, with a peak construction period of 4-6 months. A large project like Goyder North will take around 24 months to construct with a longer peak construction.

2. What technology is used to build wind farms?

Neoen selects state of the art wind turbines from world leading manufacturers. Current technology features a horizontal axis rotor with 3 blades coupled to a generator in the nacelle, mounted atop a tubular steel tower. The turbine model is carefully selected according to the site conditions in order to provide the lowest cost of electricity over the lifetime of the project. The turbines are designed for high reliability and their service regime ensures they achieve maximum performance with minimum downtime throughout their design lifetime of 20+ years.

3. What is the lifecycle of a wind farm?

A wind farm will typically operate for between 25 and 30 years.

4. How do you stop wind turbines impacting the

landscape?

Neoen is currently conducting a Land Visual Impact Assessment to identify key risks associated with the Project in relation to landscape and visual amenity to provide information to help inform the projects design.

The Goyder North Wind Farm project will be designed to minimise and mitigate impacts on landscape character, scenic amenity and landscape values to the greatest extent possible through careful siting of turbines. The approach to the LVIA has been developed with reference to accepted guidelines for Landscape and Visual Impact Assessment from Australia and elsewhere.

Neoen encourage individuals and groups that have questions about visual impact and remedies to engage with us early.

5. What happens at the end of the wind farm's life?

At the end of the wind farm's life cycle (typically 25-30 years) the wind farm is decommissioned and we remove the wind turbines and all above ground structures and rehabilitate the site. This is a condition of the wind farm's development approval from the State government and our agreement with the landowners. During decommissioning most of the materials the wind farm is made from can be reclaimed or recycled.

Sheep grazing at our Bulgana Green Power Hub in Victoria



FREQUENTLY ASKED QUESTIONS

ECONOMY

6. Do renewable projects benefit the Australian and local economy?

A 2012 study by SKM on the economic benefits of wind farms in Australia found that, for every 50 MW in capacity, a wind farm delivered the following benefits:

- Direct employment of up to 48 construction workers, with each worker spending approximately \$25,000 in the local area in shops, restaurants, hotels and other services (a total of up to \$1.2 million)
- Indirect employment during the construction phase of approximately 160 people locally, 504 state jobs and 795 nationwide jobs

7. How much do renewables cost compared with other energy sources?

The South Australian government has made a target to achieve 100% net renewable energy generation by 2030. Wind and solar are the cheapest form of new energy production. The system needs a mix of wind, solar and storage.

8. Who pays for any road upgrades required?

Neoen pays for any upgrades to State or Local Government or landowner roads required for transporting wind turbine components to site. If we damage roads, we will pay for repairs.

9. Who will pay for any electrical transmission upgrades required?

Neoen pays for any electrical transmission upgrades necessary to connect and operate the project in the electricity grid. This includes construction and maintenance costs for the life of the project.

10. Does Neoen require government subsidies to build its projects?

Neoen does not require government subsidies to finance its projects. We finance our projects through a combination of our own equity and long-term bank loans. However, we sometimes enter into agreements with governments or businesses to sell the power produced by our projects.

11. Who assesses the projects?

All Neoen projects meet strict State and Federal Government regulations and are assessed under these regulations. We work closely with governments to ensure we meet all legal requirements and exceed these requirements wherever possible.

12. Do wind or solar farms cause property values to decrease?

Studies into the potential impact of wind farm developments on property prices, including by the NSW Valuer-General (2009) and Urbis (2016), have concluded there is insufficient evidence to suggest wind farms can be linked to adverse impacts on property prices.

HEALTH AND CULTURE

13. Are there any health risks associated with wind farms?

There are nearly 200,000 wind turbines installed worldwide – many of them in more densely populated areas close to houses.

Some 17 reviews of research literature conducted by leading health and research organisations from all over the world, including the World Health Organisation, Australia's National Health and Medical Research Centre, the UK Health Protection Agency and the US National Research Council, have concluded there is no published evidence to positively link wind turbines with adverse health effects.

14. Can wind turbine noise affect local residents?

Before it can operate, a wind farm has to demonstrate that noise levels at neighbouring residences will meet strict noise limits. These limits are designed to ensure that noise from a wind farm is not intrusive for the average person.

15. Will the project reduce air quality?

Monitoring of dust levels during construction is a basic requirement of each project. Dust generating activities are assessed during windy conditions and are stopped and rescheduled where adequate control of dust generation cannot be achieved.

Visual observation of machinery is undertaken during site inspections in addition to daily pre-start checks which ensure all machinery has appropriate emission control devices, is in good working order and is maintained correctly.

16. Is cultural heritage taken into consideration?

Neoen complies with all legislation, including laws regarding the protection of cultural heritage. A cultural heritage assessment forms part of initial studies as does consultation with local Indigenous groups to ensure cultural heritage is protected.



End of construction celebration for our Dubbo Solar Hub

17. Can wind turbines impact aircraft fly zones?

Low flying aircraft are required to fly by sight. Wind turbines are large and clearly visible. All wind turbines and met masts will be registered with the relevant aviation authority according to aviation requirements.

18. How Neoen address the construction traffic Impact?

Neoen will carry out a detailed assessment of the access road's suitability and upgrade requirements including a survey of the road to accurately map out the existing road and where any upgrades or road widening may be required. Any access road to be used will need to be suitably upgraded to handle construction traffic, and Neoen will comply with obligations set out in planning conditions relating to road upgrades and maintenance. This will be done in consultation with neighbouring landowner and regional councils.

19. Can wind turbines induce Electromagnetic Interference (EMI) and disrupt Telephone communication and the Internet?

To address this matter, Electromagnetic Interference (EMI) Study will be commissioned, and actions will be taken according to the results to avoid mobile phone and internet disruptions. Neoen will comply with all obligations set out by the State in their Decision Notice, relating to pre and post construction assessments of television and radio reception strength to identify if the Project has had a negative impact, and to implement measures to address this.

ENVIRONMENT

20. Do wind farms impact on flora and fauna?

Neoen engages specialist consultants to undertake detailed flora and fauna surveys to determine the ecological attributes of the land.

On all of our projects, we aim to minimise the impact on flora and fauna by designing projects to be constructed outside areas of high conservation significance and adopting control measures during the construction process. During the detailed design, wind turbines will be micro-sited to minimise the potential impact on fauna habitat with turbine heights selected to minimize the overlap between rotor swept area and bird flight heights.

Other mitigation measures include preparing management plans, identifying 'no-go zones' within the project site and conducting pre-clearance surveys. Neoen also consults with government departments of environment and biodiversity throughout the development, construction and operational stages of projects, as well as local non-government organisations.

21. Do wind turbines affect farm/domestic animals?

Stock including sheep and cattle take a couple of days to get used to wind turbines, and then are very comfortable with them – they rub up against turbines and use the shade from the towers during summer.

22. Do wind farms harm birds?

While wind farms are sometimes accused of threatening birds, an energy governance study completed in Singapore has shown that wind farms harm 17 times fewer birds per unit of electricity produced than fossil fuel generation.

Studies show that wind farms are probably responsible for impacting birds at rates that are:

- 400 times fewer than cars
- 500 times fewer than pesticides
- 1200 times fewer than high-tension wires.

23. Which actions does Neoen take to tackle the potential spread of weeds with increased traffic?

In accordance with the Construction Environmental Management Plan (CEMP) requirements, Neoen will do pre and post construction weed survey for the disturbance footprint plus a buffer of 5m. Any identified weeds in the disturbance footprint will be removed or treated prior to any ground disturbance works commence. There will also be a detailed weed management plan in place for study area.

Moreover, in accordance with the Environmental Protection and Biodiversity Conservation Act (EPBC) Neoen will implement a vegetation management plan taking weeds in account. The management of weeds within the disturbed footprint, including rehabilitation areas will continue for up to two years post construction or until weed presence cannot be detected.

Tree planting at our Bulgana Green Power Hub




GOYDER NORTH

GOYDER RENEWABLES ZONE

 goyderenergy.com.au

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