

PUPP FAQs – Horizon Power

About the Pilbara Underground Power Project (PUPP)

What is PUPP?

The Pilbara Underground Power Project (PUPP) is a partnership between the State Government's Royalties for Regions Pilbara Cities initiative and Local Government, delivered by Horizon Power.

Royalties for Regions is contributing 75 per cent of the project funding and 25 per cent is funded by local shires through rate payers. In Perth, most ratepayers have paid around a 50 per cent contribution towards undergrounding their property.

The PUPP provides cyclone affected North West towns with a safe and reliable power supply, by replacing ageing overhead electricity infrastructure with underground networks. The project is designed to dramatically reduce the likelihood of power outages to essential services and regional residents and businesses during, and immediately following, adverse weather events.

Why do we need underground power?

Underground power is proven to be safer, more reliable and is also more aesthetically pleasing than overhead powerlines. This is particularly relevant to the Pilbara given the extreme weather conditions experienced in the region. Since 2006, there have been 26 cyclones and major storm events in the north west of Western Australia, with the majority of those impacting the Pilbara. The overhead distribution network is easily damaged by cyclones which can lead to frequent and extended outages of sometimes up to five days.

About underground power

What are the benefits of underground power?

- Resilience of electrical infrastructure during cyclones meaning reduced impact on outages and safety
- Fewer power interruptions due to severe weather
- Enhanced visual appearance of your property and streetscape
- Reduced street tree pruning requirements, meaning trees can grow to natural height and provide more shade
- Brighter, safer streets with the new street lighting system
- Reduces personal safety hazards caused by fallen powerlines, pruning near powerlines and car accidents involving power poles
- Reduced risk of power outages for local businesses (minimising risk of lost revenue).
- Reduced risk of power outages caused by birds or small animals that come into contact and short circuit powerlines.

What is involved in the undergrounding of power?

- Laying new power cables underground, usually in the road verge
- Installation of green connection pillars, usually in the front corner of private property that serve that property and the immediately adjacent property wherever possible.
- Installation of Ring Main Units, Transformers and Switchgear Kiosks to manage the distribution of power throughout the area. These are located in parks or public open space, or where required, on side verges of residential property.
- Installing an underground cable from the connection pillar to the meter box at each property.
- Installation of a new street light system designed to meet Australian Standards
- Removal of existing power poles and overhead powerlines (excluding Transmission lines and poles)

Is there a risk of flooding an underground network?

Some areas in Karratha & Port Hedland have been benefitting from underground power since 2001, and currently most properties in the towns are already connected to the underground network. There have been many cyclones since then without flooding damaging the underground cabling as these cables are robust to prevent water damage. Most equipment will be positioned to avoid damage and there are also safety procedures in place to deal with such issues. All attempts are made to place the equipment above the 100 year flood line.

Project status

Where has work started?

The project has so far completed undergrounding powerlines in South Hedland, Wedgefield and Roebourne. Karratha is nearing completion, with phase two running ahead of schedule and under budget. Onslow is the last of the Pilbara towns to be offered the project under the current approved Royalties for Regions funding agreement.

What are the project stages and proposed timeline for Onslow?

Stages	Timeline
Planning	Completed
Design	Completed
Tender process (compliance)	Completed
Community Information Session & Shire of Ashburton approval	Pending
Proposed timeline IF accepted by The Shire of Ashburton	
Civil works	Commence March 2017
Electrical connections (4 months overlap with civil)	Commence October 2017
Dismantling of old powerlines and poles	Completion by April 2018

What has been completed?

Project Area	Civil	Electrical	Dismantle Overhead Infrastructure
South Hedland	Completed	Completed	Completed
Wedgefield	Completed	Completed	Completed
Karratha CBD	Completed	Completed	Completed
Bulgarra	Completed	Completed	Completed
Karratha LIA	Completed	Completed	Completed
Roebourne	Completed	Completed	Completed
Millars Well	Completed	Completed	Some overhead infrastructure remains until Pegs Creek is completed
Pegs Creek	Completed	Underway	
Nickol North	Underway		
Nickol South	This stage is scheduled to commence in the first quarter of 2017		

How much of the project is left to be completed?

Horizon Power has now completed approximately 70 per cent of the project scope. Pegs Creek is in its final stages of being connected to the underground network with electrical works at individual properties due to be completed by early 2017.

Nickol, the final suburb of Karratha to be connected to the new underground network, will be completed in two stages. Nickol North is the first stage to commence with civil works well underway. Nickol South is scheduled to commence in the first quarter of 2017.

Horizon Power's involvement

What is Horizon Power's role in the PUPP?

Horizon Power is responsible for delivering the PUPP, in partnership with the State Government's Royalties for Regions Pilbara Cities initiative and Local Government.

Who does the work?

Horizon Power has completed the planning, design and tender evaluation process. Horizon Power will divide the work into smaller parcels in order to manage risks and contain costs. This methodology has been proven in recent stages of the project which have been delivered ahead of schedule and under budget.

Undergrounding your property

How will I be notified about works at my property?

Horizon Power will regularly communicate with householders and property owners by way of written communications and personal visits. When there is a need to temporarily interrupt power supply, you will be given ample written notice.

The project has a dedicated Access Co-ordinator to accommodate affected customers' needs and to coordinate the best time for work to take place.

Will Horizon Power reinstate lawns, footpaths, reticulation and so on?

We undertake this work with every effort to reduce the impact on verges and front gardens. Works to roadways, footpaths or driveways is avoided wherever possible. The program of works will include photography of the existing condition of the property prior to site works commencing and again on completion of the works, to verify the contractors take every care with your property. The contractors restore all work areas as closely as possible to their previous condition.

What happens if you damage my yard or verge?

At all times our contractors will take extreme care to minimise disruption to your property. If you notice any outstanding damage, please report it immediately to your local Horizon Power depot.

How will you keep me informed about progress?

We will send you notifications to advise when we will be working near your property. We will also include regular updates in your local paper, the Pilbara News and you can find out more information on our website, www.horizonpower.com.au or www.ashburton.wa.gov.au

Is my property suitable for the changeover to underground power?

The electrical infrastructure services at all residential and commercial premises that currently have an overhead connection will receive a free safety check to ensure they are compliant with current safety regulations. If a problem is found at this time, further work to upgrade the existing installation may be required before the changeover can occur. If a major pre-existing electrical fault is identified in the house during the inspections, the power to the premises may be disconnected and a fault note issued to the owner or occupier for safety of the family. In this situation, you will be responsible for engaging the services of a licensed electrician to carry out the work requested before HP can connect.

Will my power be switched off because of the project?

Yes, there will be a requirement to turn the power off to your property at some stage during the project. Horizon Power will endeavour to plan the outage time and duration with minimal disturbances to householders. You will receive adequate notification of when your power will be going off, and for approximately how long that will be for.

Is it possible I could dig underground and electrocute myself?

It is important to take care when working near underground networks to avoid damage, disruption, injury and even death from accidental contact. An electrical contractor will place a cable route map in your meter box to indicate the position of the cable on your property. For cables outside your property a warning tape is covering the cables but please contact Dial Before You Dig on 1100 prior commencing any works.

In areas where an underground electricity network exists make sure you:

- Know the location of all electrical infrastructure on or near your property or work site;
- Do a visual check for electrical infrastructure; and
- If you plan to dig near or on the verge of your property, call Dial Before You Dig on 1100 to obtain a map of underground pipes and cables in your area. For your own safety, never interfere with electricity infrastructure and never attach or tie anything to it. In an emergency, please dial 000.

How will public safety be ensured throughout the project?

Safety is the number one priority for Horizon Power and we will ensure that highest level of safety is demanded of our contractors and effectively monitored. If you observe any safety risks or unsafe work practises, please notify us immediately by contacting 13 23 51

Who do I call if I have any problems?

Horizon Power has dedicated staff who are available to answer any project related questions. For your local Horizon Power depot. For any rates related queries, please contact your local shire.

Operational**Will you be digging up the roads?**

When there is a requirement to run cable across a road, an underground directional drill will be used, as far as possible, to reduce any damage to roads. If any roads are required to be excavated, traffic control measures will be put in place. Any roads which require excavation will be repaired by the project.

Is street lighting part of the program?

As most of the existing street lighting is located on the power poles which are being removed, new streetlights will be installed. Each Council involved in the project will approve the street lighting design as per the Australian Standard. The current standards typically have streetlights located more closely together, which mean better night time visibility.

What is the process of works?

Horizon Power use contractors who will first install the transformers and switchgear units. The main cables are then installed around a metre deep under the verges using horizontal drilling technology to reduce the impact on lawns and reticulation systems. The green connection pillars are then installed and connected to the main cable and will become live once the network is fully connected, tested and commissioned. After the pillars in each area are live, each property is then changed over to the new underground system. Residents will be advised in advance of these outages.

Will all the old overhead wires and poles be removed

Yes, all distribution wires and poles will be removed. This may be delayed in some areas until later in the project because the powerlines in question serve as a high voltage "backbone" which feeds power to other areas which are still overhead. This infrastructure will be removed when all properties supplied by those powerlines have been changed to the new underground system.

Have new contractors been secured? What measures are in place to avoid the delays and cost increases that happened with the previous contractors?

Horizon Power has completed the tender process to secure contractors for the proposed Onslow portion of the project. The work will be divided into smaller parcels of work in order to manage risks and contain costs. This methodology has been proven in recent stages of the project which have been delivered on time and under budget.