

Frequently Asked Questions - Leanyer Zone Substation and Transmission Lines

Why do we need another substation and transmission lines?

The substation is needed to manage electricity distribution in the new suburbs of Lyons and Muirhead and to provide security of electricity supply to Darwin's northern suburbs. The new transmission lines are required to feed power into and out of the new substation.

Why has this substation location and transmission line route been chosen?

The substation site is zoned for Utility Usage, is in close proximity to Leanyer Sewage Ponds and has a 10 metre buffer zone to Fitzmaurice Drive, so is considered suitable for this development. Alternative sites were offered to Power and Water which would have put the substation in close proximity to residential properties.

The route for the transmission lines across vacant Crown land was chosen as it has no physical impact on residential properties, little environmental and visual impact and will still allow social activities to take place in the area ie walking, riding etc

Has Power and Water done an environmental assessment?

Yes. The environmental assessment has been completed and submitted to and approved by Department of Natural Resources, Environment, The Arts and Sport.

Why will there be two transmission lines?

The two lines will connect to Casuarina and Berrimah Zone Substations, allowing Leanyer Zone Substation to be fed from either substation, which increases security of supply.

How much land will need to be cleared to accommodate this new infrastructure?

Initially a 100 metre corridor will be cleared for transmission line construction. Regrowth of this area will occur naturally and will be trimmed to maintain a safe distance from the lines. The substation requires an area of approximately one hectare to be cleared.

When will works commence on the substation and transmission lines?

Construction will commence in the 2012 Dry Season.

How much is this new infrastructure costing?

The cost is expected to be under \$30 million.

Will the price of electricity go up?

This new infrastructure will not impact on the cost of electricity. The current rates for electricity supply have already taken the cost of this work into consideration.

How much of the transmission lines will be visible from neighbouring properties?

As there is a natural bush buffer zone between property boundaries and the transmission lines it is expected transmission line visibility will be minimal. At its closest point the transmission line will run approximately 50 metres from a rear property boundary. See the [transmission line route map](#) for an image of expected line visibility.

What poles will be used?

To keep visual impact to a minimum, the new slim line steel poles will be used, not the transmission towers currently in use along Vanderlin Drive.

Why don't you put the 66kV transmission lines underground?

The cost of underground versus overhead construction is about a 5:1 ratio. Overhead construction costs about \$300,000 per kilometre whereas the underground equivalent costs in the order of \$1.5m per kilometre. Utilities generally prefer not to underground 66kV circuits as it can compromise system security during fault finding and maintenance activity.

Will the transmission lines cross any private properties?

No. The transmission lines will cross Crown land.

How much of the substation will be visible from neighbouring properties?

The substation will be visible from the front boundary of some properties in Fitzmaurice Drive. It is approximately 100 metres from the nearest existing housing.

Will Power and Water need to take out easements over private properties to service this new infrastructure?

No. All Power and Water activities will be conducted on land owned by the Corporation or on easements secured on Crown land.

Does Power and Water have permission to construct the substation on this site?

As the site lies within the buffer zone around Leanyer Sewage Ponds it is considered to be of limited use for development. The land is already zoned for Utility Usage and no additional permission is required for construction of utility infrastructure on the site.

Will the public be banned from using the Crown land along the transmission line route?

No, but they will be prohibited from any activity that might bring them in close proximity with the overhead circuits eg. flying kites.

What will be done to protect the public from harmful electromagnetic fields (EMF)?

The Australian Radiation Protection and Nuclear Safety Authority recommend a safe maximum exposure level to EMF generated by high voltage electricity transmission over an eight hour period of no more than 1000 milligauss. The actual levels of EMF exposure is expected to be about four milligauss.

The public will be excluded from entering the substation site, which will also have a 10m buffer zone around it and the height of the transmission lines will preclude exposure to dangerous EMF transmissions.

Who can I speak to about the project?

For more information speak to [Steve Barker](#), Project Manager on 8924 5238.