



"Overheard Lines"

from The Reliable Titan

'The Bushfire Proof Titan is the Power Pole of the Century.

Titan Reliability is Guaranteed'

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Q&A

Introduced in the previous Titan Newsletter, we continue to provide the opportunity for readers to access more information on the unique Titan product. We are always open to any comments and or enquiries.

We invite readers to submit email questions back to this Newsletter response email of enquiries@dulhuntypoles.com and one of our team will respond as soon as possible to the individual email address provided.

All your contact details and the related correspondence will be treated with the utmost privacy protection.

- FEATURED ARTICLE -

Titan Poles Environmental Footprint Review



Dulhunty Poles confirms, following a recent review, that Titan fibreglass reinforced cement (FRC) poles continue to offer the lowest whole of life environmental footprint.

Prior to investing in Titan pole manufacture in Australia, then parent company Dulhunty Power Ltd investigated the innovative glass reinforced cement pole manufacturing process available from the USA. The 2008 business analysis included commissioning an independent Environmental Impact Study before committing investment funds to the process. The study was undertaken by internationally respected consultancy Ipernica Ventures Pty Ltd.

Five Key Stages of the Study

The study terms of reference were:

‘To compare the total estimated carbon dioxide (CO₂) emissions of seven different types of power pole found in Australia across five key stages being:

1. Raw materials - The key components of each power pole.
2. Manufacture - The inputs into the production of each power pole.
3. Installation - The inputs into the delivery of the finished poles and installation of each power pole.

4. Maintenance - The inputs into the maintenance of each type of power pole.
5. End of life - The inputs into the removal and subsequent disposal of each *type of power pole.*'

The seven pole types examined were –

- Wood – Treated CCA Eucalypt
- Steel Reinforced Concrete
- Galvanised Steel
- Stobie - Concrete and Steel
- Fibreglass Reinforced Plastic (FRP) - Polymer Resin and Glass Fibre
- Fibreglass Reinforced Cement (FRC) - Titan
- Wood-Steel Composite

Ipernica concluded that the (Titan) FRC composite pole had the lowest carbon footprint of all pole types in use in Australia at that time, based on a 70 year life cycle.

Ipernica's report on Carbon Footprint Analysis for wood and alternative power pole types used in Australia is on Dulhunty Poles website at: [Dulhunty Poles | Environmental](#).

A recent environmental review confirms Ipernica's findings remain valid today. Titan's raw materials and manufacturing processes remain essentially unchanged; meantime progressive manufacturing improvements continue to be made.

Dulhunty Poles are dedicated to achieving optimal environmental targets.

Eliminating Pole Top Fires – Forever

With the last spate of devastating bushfires still very prominent in memory, most electricity distributors throughout Australia would be concerned about anything on their network that is likely to start a fire, especially in the warmer months ahead, and the significant vegetation growth in most areas of Australia.



Pole top fires on high voltage distribution wood pole infrastructure are usually one of these major concerns.

Several pole top fire preventative measures have been tried with varying and limited levels of success, however, removing the main nexus in the chain of contributing conditions, must eliminate the whole problem. It simply means replacing the wood pole fire fuel, with a pole that will not provide fire fuel, or encourage any embryonic spark to become a fire.

The ideal solution is the Dulhunty Poles composite Titan pole. Being a bushfire proof, non-conductive, engineered distribution pole, it overcomes all the issues associated with pole top fires and requires no remedial chemical treatment ever, throughout its 70 to 100 years estimated life.

Titan Poles Will Not Melt or Distort

In response to a Q&A item -

There appears to be some confusion regarding composite power poles as to what is meant by a Bushfire Proof Pole, as opposed to other claims of Fire-Resistant or Fire-Retardant poles.

Our claim of the Titan Pole being Bushfire Proof is backed by the Energy Networks Australia Pole Fire Test, (<https://dulhuntypoles.com/wp-content/uploads/2017/02/ENA-Pole-Fire-Test.pdf>) where the Titan was exposed to two consecutive heat sources equating to a heat flux in excess of 1200°C,

being the maximum test equipment temperature available. This temperature is also considered by Australian bushfire behavior experts, as representative of the maximum temperature measured in a high intensity bushfire.

The Titan achieved the highest available ENA test rating of '*Excellent*'.



Photos of 7 minutes into the ENA Test with ring burner ignited, as well as radiant heat applied, and the resultant Titan sample showing no distortion of any kind – only shallow cosmetic damage.

Post testing, the only resultant effect on the Titan was mainly cosmetic surface damage to a maximum depth of 5mm in some places, whilst still retaining >90% of original strength – (independently tested).

The Titan will not melt, buckle, burn or distort in a bushfire - and that applies to the entire pole. The Titan will still be standing after the fire has passed.

Fire-Resistant or Fire-Retardant terminologies do not appear to relate to the ENA standard's conclusions.

ISO 9001:2015 – QMS Assessment and Approval

Dulhunty Poles are excited to proudly announce we have been assessed and approved for our updated ISO 9001:2015 Quality Management Systems audit for the period July 2021 to July 2022.

ISO 9001 is by far the world's most recognised and established quality framework - a Quality Management System giving organisations the structure they need to monitor and improve performance in any chosen areas.



We have successfully operated under, and been audited on, this system since 2015. We embrace all the management principles within the QMS; however, we have specifically targeted the following three main directives within our operations -

- Monitoring and measuring of all indicating devices and mixtures
- External suppliers of materials and services
- Packing and dispatch of all products

Registration to ISO 9001 by a certification body demonstrates commitment to quality, customers, and a willingness to continually work towards improving efficiency. It further demonstrates the existence of an effective quality management system that satisfies the rigours of an independent external audit.

This QMS renewal solidly endorses our commitment and persistence, to provide the best power pole available worldwide, and is wholly Australian made.

Corrosion Free is Trouble Free

In response to another recent enquiry, it is appropriate here to expand briefly on the advantages associated with the non-corrosive features of the Titan pole. Reliable Bushfire Proof Titan Poles are manufactured with cement and calcined kaolin clay (metakaolin), the most reactive pozzolan. Alkali Resistant (AR) Glass Fibre rovings are inlaid during the manufacturing process providing the strength.

There is no steel of any kind in the manufacture, consequently Titans will not rust or spall, and with no risk of leaching of harmful chemicals into soil or waterways. They are termite proof, fungal decay proof and have similar electrical continuity characteristics to a CCA hardwood pole.

This applies to the whole Reliable Titan range, from property/service poles, right through the HV/LV distribution array, up to sub-transmission poles.

A great example of the acceptance of this non-corrosive feature is demonstrated no better than through the Titan's use in the marine industry for construction of a jetty / wharf and the like, on ocean shorelines etc.



Wharf under construction with Titan foundations



Typical corrosive damage to a galvanised steel pole.

We believe, placing any metal based/reinforced powerline pole structure in a location that is subject to any risk of future corrosion, would affect the structural soundness of the whole structure and this should be seriously considered in the economic risk evaluation of the whole project. Particularly, when there are more

cost effective, longer 'whole of life' better and safer alternatives readily available.

United Nations Reduction of Risk – Build Back Better



Around this time of year especially, we are reminded of the United Nations Reduction of Risk Day on 13th October each year.

Emanating from the 2015 United Nations Sendai Framework for Disaster Risk Reduction, this initiative guides governments and infrastructure owners worldwide on effectively ensuring that infrastructure is reliable and resilient, and in Australia, particularly so for bushfires.

In the Electricity Supply Industry, it provides the encouragement to genuinely invest in the network and Build Back Better.

The Build Back Better initiative has its diverse foundations in the improvement of land use, spatial planning and construction standards through the recovery process. Dulhunty Poles support their endeavours, specifically in the improvement of construction standards.

Get a Better Feel for Titans!

Dulhunty Poles offers free Titan samples as attractive desk-top pen holders to those interested. They illustrate Titan's lightweight fireproof features, natural robust structure and ready drill-ability.



For further information you can browse our website or send us an email.