

Statement of Reasons

POWER AND WATER CORPORATION – TIWI ISLANDS ENERGY SOLUTION OVERHEAD POWERLINE NETWORK

PROPOSAL

Power and Water Corporation (the Proponent), submitted the Notice of Intent (NOI) for the Tiwi Islands Energy Solution Overhead Powerline Network (the Proposal) to the Northern Territory Environment Protection Authority (NT EPA) on 1 November 2017 for consideration under the *Environmental Assessment Act* (EA Act).

The Proponent is proposing to install a high voltage powerline network to replace aging power stations to permit new housing development within communities. The Proposal involves construction of a high voltage powerline network over a distance of 115 km connecting the Melville Island communities of Paru, Pirlangimpi, Milikapiti and Pickertaramoor with the existing power station at Wurrumiyanga on Bathurst Island. The related Apsley Strait powerline crossing component was considered through a separate NOI by the NT EPA as not requiring assessment.

The Proposal will require clearing of native vegetation for a 20 m wide powerline easement offset by approximately 50 m from the centre alignment of existing roads on Aboriginal land within NT Portion 1644. Variation to this offset will be guided by Aboriginal Areas Protection Authority clearances, route constructability surveys and environmental considerations. Upon completion of works the final operational corridor will be maintained at 12 m wide centred on the powerline.

The Proposal includes the following components and activities:

- approximately 700 galvanised steel poles (15.5 m length, buried for 1.8 – 2.2 m) and composite fibreglass cross arms, 345 km aluminium conductor (powerline) and 115 km optical guy wire (earth wire)
- concrete footings requiring approximately 700 m³ of concrete produced on site by a single temporary concrete batching plant
- freshwater extraction from existing Power and Water Corporation bores for dust suppression and additional freshwater extraction of 350 kL for concrete production
- clearing of up to 230 ha of native vegetation for the 20 m wide construction corridor and three borrow pits (20 m x 20 m if required)
- material laydown areas including heavy duty plant equipment, and mobile equipment will be located within the 20 m construction corridor
- existing accommodation is to be provided for workers
- road transport of 200 L drums of fuel for direct transfer into equipment tanks
- use of a helicopter may be required for stringing purposes.

The Proposal is proposed to commence construction in April 2018 and scheduled to be completed by September 2018 subject to permissive weather conditions.

CONSULTATION

The NOI has been reviewed as a notification under the EA Act in consultation with Northern Territory Government (NTG) advisory bodies (see Attachment A) and the responsible Minister, in accordance with clause 8(1) of the Environmental Assessment Administrative Procedures (EAAP).

JUSTIFICATION

The Notice of Intent was assessed against the NT EPA's environmental factors and objectives. Review by the NT EPA and NTG advisory bodies identified potential for significant impacts to the key environmental factors of Terrestrial flora and fauna; Terrestrial environmental quality and Social, economic and cultural surroundings and these are discussed below.

1. Terrestrial flora and fauna

Objective: Protect the NT's flora and fauna so that biological diversity and ecological integrity are maintained.

The Tiwi Islands are recognised for their high level of endemism, important populations of threatened flora and fauna that have declined on the mainland and maintaining their toad free status. The Proposal has the potential to impact directly on threatened flora and fauna through the removal of individuals (*Cycas armstrongii*, *Typhonium jonesii* and *T. mirabile*), den trees (arboreal mammals) and nest trees (masked owl and red goshawk) and indirectly through the introduction and spread of weeds leading to altered fire regimes.

Flora

The typhonium plant species, *T. jonesii* and *T. mirabile*, are both listed as Endangered under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and *Territory Parks and Wildlife Conservation Act* (TPWC Act). They are endemic species found only on Bathurst and western Melville Islands in mixed eucalypt woodland and are likely to occur in the Proposal area. The risk mitigation measure for these typhonium species consists of a targeted survey conducted in February 2018 to inform alignment of the powerline corridor to avoid populations of typhonium. These surveys will be based on advice from the NT Herbarium, using suitably skilled professionals. If the surveys find typhonium on site and the subsequent assessment against the EPBC Significant Impact Guidelines identifies a potential for significant impact to typhonium, the Proponent would be required to submit a notice of alteration to the NT EPA and refer the Proposal under the EPBC Act. The NT EPA is satisfied with the proposed approach to avoid any significant impact to typhonium species, or to refer the proposal where potentially significant impacts cannot be avoided.

The Proposal represents a small footprint within the area of occurrence of *C. armstrongii* on the Tiwi Islands and as such the NT EPA is of the opinion that removal of individual plants is unlikely to significantly impact on local or regional populations.

The Proponent has identified three spring fed rainforests within 200 m of the powerline corridor that are recognised as a sensitive vegetation type in the NT Land Clearing Guidelines (NTLCG) and provide habitat to threatened flora. The NT EPA considers that the observance of the 200 m buffer proposed in the NOI in accordance with the NTLCG and implementation of the weed management plan proposed by the Proponent would prevent potential significant impacts to the rainforests.

Fauna

The Tiwi Islands' masked owl (*Tyto novaehollandiae melvillensis*) and red goshawk (*Erythrotriorchis radiatus*) are both listed as Endangered under the EPBC and TPWC Acts. While these birds are likely to occur in the Proposal area, the risk posed to the regional population or nesting habitat has been appropriately considered by the NOI. The Department of Environment and Natural Resources (DENR) agrees with the conclusion in the NOI, that impact is likely to be low due to the relatively small and linear footprint of the Proposal. DENR recommends the additional measure of a pre-construction visual inspection to detect active nests, with appropriate response measures where active nests are found. These measures have been communicated to the Proponent. The NT EPA is satisfied that the proposed action will not significantly impact these species and supports the additional mitigation measure of pre-clearance surveys for active nests.

The Proposal represents a small footprint within the area of occurrence of arboreal mammals on the Tiwi Islands with clearing and construction works only taking place during daylight hours. Based on this information and the implementation of standard environmental management measures presented in the NOI, the NT EPA is of the opinion that removal of potential den trees is unlikely to significantly impact on threatened fauna.

Biodiversity values

DENR has identified the introduction and spread of weeds, particularly grassy weeds that alter fire regimes, as one of the major threats to biodiversity values of the Tiwi Islands. The Proponent has committed to develop and implement a weed management plan as part of the construction environmental management plan (CEMP). The NOI adequately describes weed control measures, potential avenues for weed spread and weed spread prevention measures as presented by the Proponent. The NOI does not address the prevention of cane toads during transport of equipment however the NT EPA considers that the rigorous implementation of quarantine measures recommended by the Tiwi Land Council (<http://tiwilandcouncil.com/resources/index.htm>) for weeds and cane toads would prevent a potentially significant impact to biodiversity values.

The NT EPA is satisfied that potential impacts and risks to sensitive habitats and threatened species will be mitigated through environmental management measures presented in the NOI and above so that its objective for terrestrial flora and fauna is likely to be met.

2. Terrestrial environmental quality

Objective: Maintain the quality of land and soils so that environmental values are maintained.

Soils in the Proposal areas are currently intact and uncontaminated. The Proposal has the potential to impact terrestrial environmental quality through soil erosion from landscape modifications and earthworks (particularly in areas of high slopes) and through contamination from the concrete treatment plant and fuel spills.

Soil erosion

The Proposal area follows the road corridor which minimises the area of high erosion risk traversed. Nonetheless approximately 15 km of the 115 km Proposal area is located on soils considered to have potentially high erosion risk with moderate to steep slopes or gently inclined slopes with erodible soils; 75 km is considered to have potential moderate erosion risk and the remaining 25 km likely to be of low erosion risk.

The Proponent has committed to developing and implementing an Erosion and Sediment Control Plan (ESCP) in accordance with the International Erosion Control Association (IECA) 2008 *Best Practice Guidelines for Erosion and Sediment Control*. The NT EPA supports this, subject to the ESCP being prepared by a suitably qualified and experienced professional in erosion and sediment control and subsequently reviewed and approved by a certified and professional in erosion and sediment control (CPESC).

Waste Management

The Proposal will produce general construction waste and waste concrete which will be disposed of at the Wurrumiyanga Landfill. The temporary concrete batching plant will be located on flat ground no closer than 200 m from drainage lines or any permanent waterbody and will be bunded with a sump for collection of contaminated water. No waste water will be discharged near or into any of the surrounding water bodies. Hazardous wastes are not anticipated however the Proponent is committed to removing any hazardous wastes for off-site disposal at a licensed facility in Darwin.

The NT EPA is satisfied that potential impacts and risks to terrestrial environmental quality can be mitigated through implementation of environmental management measures proposed in the NOI. The NT EPA considers that its environmental objective for terrestrial environmental quality is likely to be met.

3. Social economic and cultural surroundings

Objective: Protect the rich social, economic, cultural and heritage values of the Northern Territory.

Construction of the overhead powerline will link the communities of Paru, Pirlangimpi, Milikapiti and Pickertaramoor on Melville Island with the existing power station at Wurrumiyanga on Bathurst Island. The removal of aging power stations in Milikapiti and Pirlangimpi will open up land for housing development in these communities.

Noise emissions produced by construction plant and equipment will be mobile and predominantly located away from the nearest noise receptors of Paru, Milikapiti, Pirlangimpi and Pickertaramoor. The NT EPA considers that this impact would not be significant considering the small scale of the Proposal, the short duration of works and the implementation of the measures proposed in the NOI.

The Aboriginal Areas Protection Authority and Heritage Branch have confirmed that all sacred sites, heritage and archaeological issues have been adequately addressed by the Proponent.

The NT EPA is satisfied that the Proposal is highly likely to meet its objectives for social, economic and cultural values.

Conclusion

The NT EPA considers that significant environmental impacts are unlikely due to the small scale and short duration of proposed works of the Proposal and the commitment by the Proponent to adopt appropriate mitigation and management measures as detailed in the NOI. The NT EPA is satisfied that potential impacts and risks associated with the environmental factors of Terrestrial flora and fauna, Terrestrial environmental quality and Social, economic and cultural surroundings can be adequately managed through appropriate mitigation and management measures as detailed in the NOI.

The NT EPA considers that the potential environmental impacts and risks associated with the Proposal are not significant and that the Proposal does not require assessment under the EA Act. The NT EPA has provided its recommendations and the comments from NTG advisory bodies to the Proponent to ensure that potential impacts on the environment are minimised and responsibilities under the legislation can be met.

Power and Water Corporation (PWC) has advised that a detailed Construction Environmental Management Plan (CEMP) will be developed by its contractor and that review, approval and ongoing monitoring of compliance of the CEMP will be conducted by PWC in accordance with its internal Environmental Management Strategy. As the proponent, PWC has a duty of care to ensure that the potential environmental impacts associated with the proposed action are effectively managed by its contractor(s) through compliance with the approved CEMP and measures outlined in the NOI.

DECISION

The proposed action, which was referred to the NT EPA by Power and Water Corporation, has been examined by the NT EPA and preliminary investigations and inquiries conducted. The NT EPA has decided that the potential environmental impacts and risks of the proposed action are not so significant as to warrant environmental impact assessment by the NT EPA under provisions of the *Environmental Assessment Act*. However, the proposed action will require assessment and approvals under the *Planning Act*, *Territory Parks and Wildlife Conservation Act* and *Northern Territory Aboriginal Sacred Sites Act* to ensure the environmental issues associated with the proposed action are effectively managed.

This decision is made in accordance with clause 8(2) of Environmental Assessment Administrative Procedures, and subject to clause 14A the administrative procedures are at an end with respect to the proposed action.



DR PAUL VOGEL
CHAIRMAN

NORTHERN TERRITORY ENVIRONMENT PROTECTION AUTHORITY

1 MARCH 2018

Attachment A: Northern Territory Government advisory bodies consulted on the Notice of Intent

Department	Division
Department of Environment and Natural Resources	Flora and Fauna Water Resources Weeds Environment Bushfires NT Rangelands
Department of Infrastructure, Planning and Logistics	Lands Planning Infrastructure Transport
Department of Primary Industry and Resources	Fisheries Mining Compliance Petroleum Primary Industry
Department of Tourism and Culture	Heritage Tourism NT Arts and Museums Parks and Wildlife
NT Police, Fire and Emergency Services	Business Improvement and Planning
Department of Health	Environmental Health Medical Entomology
Department of Trade, Business and Innovation	Economics and Policy Strategic Policy and Research
Department of Housing and Community Development	Maintenance Planning Housing supply
Power and Water Corporation	
Aboriginal Areas Protection Authority	Technical
Department of the Attorney-General and Justice	Commercial Division NT Worksafe
Land Development Corporation	
Department of the Chief Minister	Economic and Environmental Policy