The Secretary
NSW Planning, Industry & Environment

18 June 2021

ATTENTION: Bruce Zhang

Dear Sir or Madam

I refer to the Department's below email of 10 June 2021 regarding the public exhibition of the Environmental Impact Statement (EIS) for State Significant Development SSD-9887 West Nowra Resource Recovery Park Stage 2 for 'Construction and operation of stage 2 of the West Nowra Resource Recovery Park, comprising a resource recovery facility for treatment of up to 130,000 tonnes per year of mixed municipal waste' at Flatrock Road, off Yalwal Road, West Nowra (Lot 342 DP 257515) in the Shoalhaven City Local Government Area. Submissions need to be made to the Department by 12 July 2021.

As shown in the below site plans from Endeavour Energy's G/Net master facility model there are:

- No easements benefitting Endeavour Energy (active easements are indicated by red hatching).
- Low voltage and 11,000 volt / 11 kilovolt (kV) high voltage overhead power lines to the road verge / roadway.
- An extended low voltage overhead service conductor coming from a pole on the road verge to a customer owned / private pole (indicated by the green circle) on the site providing the customer connection point for the existing facility / building.
- An extended low voltage overhead service conductor coming from a pole on the road verge traversing the south eastern corner of the site going to a customer owned / private pole on adjoining 108 Flatrock Road (Lot 423 DP 46912) providing the customer connection point for the existing facility / building on that site.

Please note the location, extent and type of any electricity infrastructure, boundaries etc. shown on the plan is indicative only. In addition it must be recognised that the electricity network is constantly extended, augmented and modified and there is a delay from the completion and commissioning of these works until their capture in the model. Generally (depending on the scale and/or features selected), low voltage (normally not exceeding 1,000 volts) is indicated by blue lines and high voltage (normally exceeding 1,000 volts but for Endeavour Energy's network not exceeding 132,000 volts / 132 kV) by red lines (these lines can appear as solid or dashed and where there are multiple lines / cables only the higher voltage may be shown). This plan only shows the Endeavour Energy network and does not show electricity infrastructure belonging to other authorities or customers owned electrical equipment beyond the customer connection point / point of supply to the property. This plan is not a 'Dial Before You Dig' plan under the provisions of Part 5E 'Protection of underground electricity power lines' of the *Electricity Supply Act 1995* (NSW).

Although not all the details of the electricity infrastructure are not shown in the Site Plan, from the site plan from Endeavour Energy's G/Net master facility model and the following extract of Google Maps Street View the extended low voltage overhead service conductor coming from the pole on the road verge to the customer connection point for 108 Flatrock Road encroaches the site.

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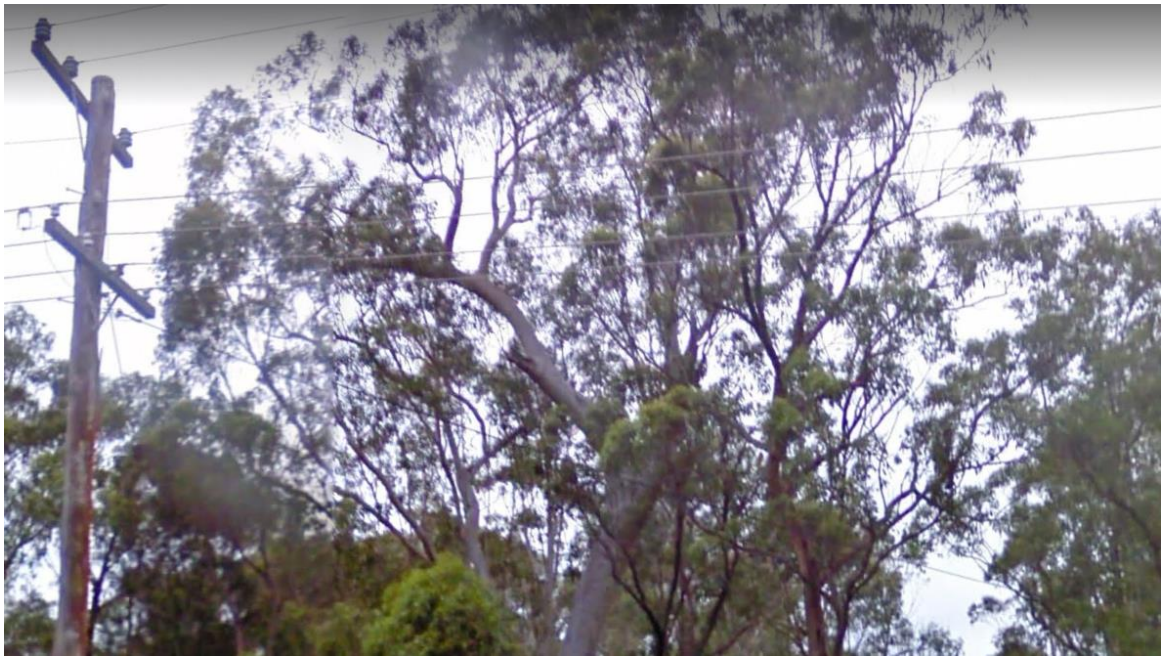


These service mains encroachments are old legacies that are rarely covered by any easements. According to Endeavour Energy's Field Operations Branch, they occur in older above ground areas of the network but are not allowed for a new development unless provided with a suitable easement.

Whilst the low voltage overhead service conductors are not held under easement, they are protected assets and deemed to be lawful for all purposes under Section 53 'Protection of certain electricity works' of the *Electricity Supply Act 1995* (NSW). Essentially this means the owner or occupier of the land cannot take any action in relation to the presence in, on or over the land of electricity works ie. the electricity infrastructure cannot be removed to rectify the encroachment. The encroachment can be rectified but would need to be done with the agreement of the adjoining / benefitting owner and at the cost of the applicant. Conversely, if the adjoining site was to be redeveloped, the encroachment would need to be rectified by and at the cost of the adjoining owner.

These protected assets are managed as if an easement is in place meaning that near / underneath the overhead low voltage service conductors:

- No buildings or structures should be installed.
- The surface level should not be altered.

In accordance with Endeavour Energy's Mains Design Instruction MDI 0044 'Easements and Property Tenure Rights', as shown in the following extracts of Table 1 – 'Minimum easement widths', the low voltage overhead power lines require a 9 metre minimum easement width i.e. 4.5 metres to both sides of the centre line of the poles / conductors.

Table 1 - Minimum easement widths

	Voltage	Asset Type	Construction	Minimum Easement (m)
Overhead Assets	400V–22kV	Bare Construction	All	9
		ABC		
		CCT		

ABC = Aerial Bundled Cables CTT = Covered Conductor Thick

This easement width in some circumstances may not be warranted i.e. depending on the span (the longer the span the greater the sag and blowout of the overhead power lines), type of conductor, access, property type and use etc. However if the easement width cannot be reasonably provided, as a minimum any building or structure (including fencing, signage, flag poles etc.) whether temporary or permanent must comply with the minimum safe distances / clearances for voltages up to and including 132,000 volts (132 kV) as specified in:

- Australian/New Zealand Standard AS/NZS 7000 – 2016: 'Overhead line design' as updated from time to time.
- 'Service and Installation Rules of NSW' which can be accessed via the following link to the Energy NSW website: https://energy.nsw.gov.au/government-and-regulation/legislative-and-regulatory-requirements/service-installation-rules .

These distances must be maintained at all times and regardless of the Council's allowable building setbacks etc. under its development controls. As a guide only please find attached a copy of Endeavour Energy Drawing 86232 'Overhead Lines Minimum Clearances Near Structures'. As indicated above in regard to the width of the easement, some of these factors will similarly impact on the minimum clearances.

If there is any doubt whatsoever regarding the safety clearances to the overhead power lines, the applicant will need to have the safety clearances assessed by a suitably qualified electrical engineer / Accredited Service Provider (ASP) (please refer to the below point 'Earthing'. This will require the provision of a detailed survey plan showing the location of the conductors to enable the assessment / modelling of the clearances for which there are software packages available. If the safety clearances are inadequate, either the parts of the building or structure encroaching the required clearances or the overhead power lines will need to be redesigned to provide the required clearances.

Even if there is no issue with the safety clearances to the building or structure, ordinary persons must maintain a minimum safe approach distance of 3.0 metres to all voltages up to and including 132,000 volts / 132 kV. Work within the safe approach distances requires an authorised or instructed person with technical knowledge or sufficient experience to perform the work required, a safety observer for operating plant as well as possibly an outage request and/or erection of a protective hoarding.

Endeavour Energy's recommendation is that whenever reasonably possible buildings and structures be located and designed to avoid the need to work within the safe approach distances for ordinary persons e.g. not having parts of the building normally accessible to persons in close proximity of the overhead power lines; the use of durable / low maintenance finishes. Alternatively, in some instances the adoption of an underground solution may be warranted i.e. particularly for low voltage which can be more readily (in shorter distances) and comparatively economically be undergrounded.

Consideration must be given to WorkCover (now SafeWork NSW) 'Work Near Overhead Power Lines Code of Practice 2006' which includes the following requirements for work near low voltage overhead power / service lines.

TABLE 4

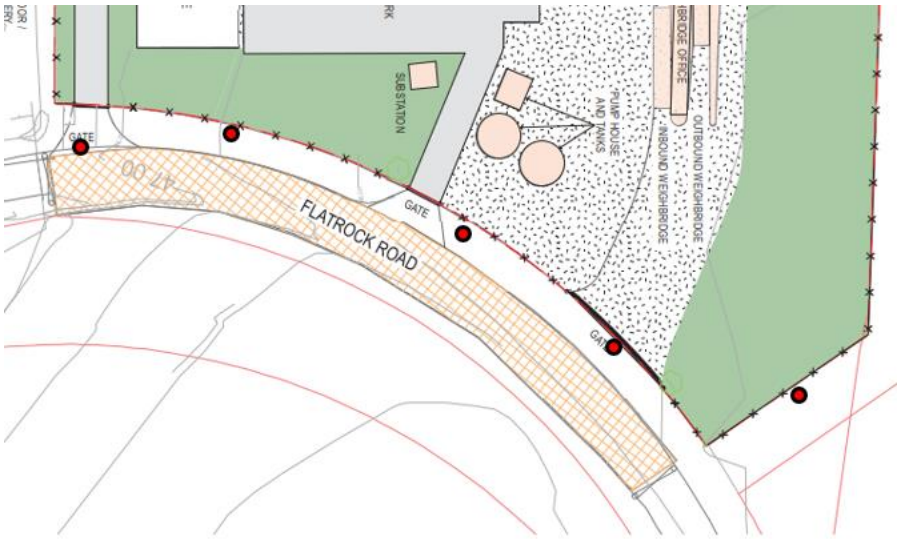
Approach distances for work near low voltage overhead service lines

Ordinary Persons (m)				
Hand held tools	Operation of crane or mobile plant	Handling of metal materials (Scaffolding, roofing, guttering, pipes, etc)	Handling of non-conductive materials (Timber, plywood, PVC pipes and guttering, etc)	Driving or operating vehicle
0.5	3.0	4.0	1.5	0.6

In addition the developer / builder should consider 'tiger tailing'/matting the low voltage overhead power / service lines to provide a distinct visual of the location of overhead construction i.e. these are still not regarded as insulated conductors and safe approach distances need to be maintained.

The foregoing also applies to the extended low voltage overhead service conductor for the site and the overhead power lines to the road frontage.

Endeavour Energy has noted the Site Plan does not show the location of the poles and overhead power lines to the road frontage. The following is an extract of the Site Plan on which the approximate location of the poles is shown from an overlay of the site plan from Endeavour Energy's G/Net master facility model which shows two poles located within the gates.



For public / road safety and to reduce the likelihood / protect electricity infrastructure from vehicle impact, Endeavour Energy's recommendation that the minimum separation distance of driveways from:

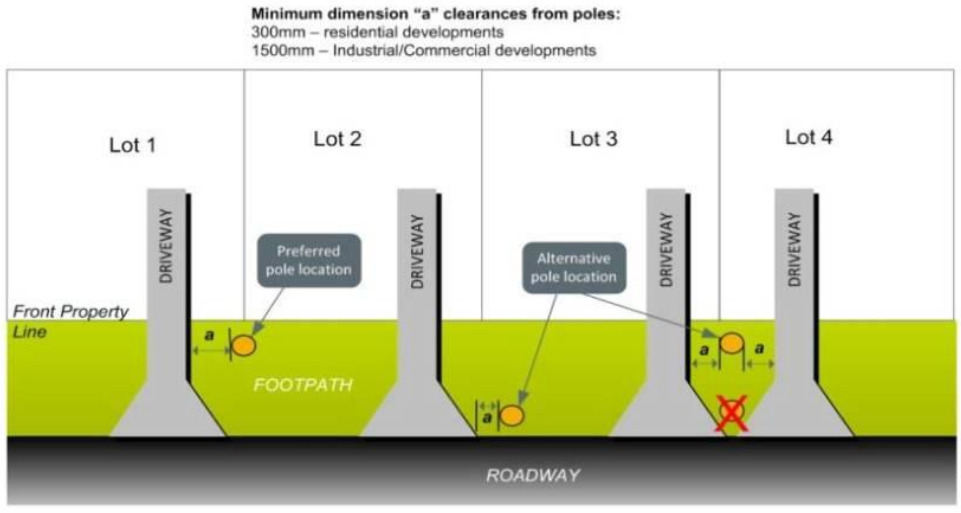
- Power poles, streetlight columns is 1 metre. The greater the separation provided the better and the less the risk eg. Endeavour Energy's Lighting Design Instruction LDI 0001 'Public lighting design' indicates that for new lighting installations 'The minimum clearance to any driveway shall be 1500 mm'.

- Low voltage pillars is 500 mm.

Endeavour Energy's Field Operations Branch have indicated that the minimum separation 300 millimetres clearance to the skirting of a proposed residential driveway is regarded as the minimum that would be acceptable / safe for anyone properly using the driveway (and for which depending on the circumstances appropriate protective devices may be required).

The NSW Streets Opening Coordination Council 'Guide to Codes and Practices for Streets Opening' which in Section 5.10. 'Vehicular Footpath Crossing' includes the following diagram indicates a minimum 1500 mm minimum clearance between driveways and poles in industrial and commercial developments.

Endeavour Energy's preference is to have the maximum reasonably possible separation distances from driveways and its electricity infrastructure. Failing the foregoing, an asset relocation may be the only option remaining – which in this instance may be the case.



The application for an asset relocation / removal should be made to Endeavour Energy's Network Connections Branch who can be contacted via Head Office enquiries on business days from 9am - 4:30pm on telephone: 133 718 or (02) 9853 6666) by completing either of the following attached forms:

- FPJ7006 Technical Review Request where the asset relocation is proposed as part of an application for connection of load to a proposed development – please refer to the below point 'Network Capacity / Connection'.
- FPJ4015 Application for the Relocation / Removal of Electrical Network Assets.

Endeavour Energy is urging applicants /customers to engage with an Electrical Consultant prior to finalising plans to in order to assess and incorporate any required electricity infrastructure. In so doing the consideration can also be given to its impact on the other aspects of the proposed development. This can assist in avoiding the making of amendments to the plan or possibly the need to later seek modification of an approved development application.

In regard to the relevant parts of Australian Standard 2890 'Parking Facilities', whilst there is no direct reference in the Standard to power poles or streetlight columns as a 'permanent sight obstruction', provision needs to be made to allow for turning movements, reversing, safety aspects such as sight distances to both pedestrians and other vehicles should not be compromised. Also, as a 'fixed object', if adequate separation cannot be provided, protective devices to protect the power pole or streetlight column from vehicle impact may be required.

Also the applicant should note that under the provision of the *Electricity Supply Act 1995* (NSW), a driveway constructed too close to electricity infrastructure may under Section 49 'Obstruction of electricity works' be regarded as interfering with electricity works eg. in the event that a pole needs to be replaced and excavation of the surrounding ground is required part of the driveway would need to be removed.

Subject to the satisfactory resolution of the foregoing and the following recommendations and comments Endeavour Energy has no objection to the Development Application:

- Network Capacity / Connection

Endeavour Energy has noted the following in the EIS.

6.4 Utilities and services

Electricity

Electricity is already supplied to the existing buildings on the site and is also being generated on the adjacent site from the landfill gas power plant. This Endeavour Energy (electricity provider) infrastructure would be used to supply electricity for the sorting equipment.

In addition, the project would include installation of a one megawatt (1 MW) solar power system that comprises approximately 3,000 solar panels (each 330 kilowatts). The system is expected to generate an average 4,000 kilowatt hours per day or 1.46 million kilowatt hours per year. A storage battery would be located within in close proximity to the main switchboard, outside the building. The electricity generated would be used for project operations.

Steam for the autoclave operations would be generated in the boiler using LPG from the LPG station, which is to be located at the rear of the site.

A substation and transformer hall would be allocated to provide suitable voltages for the plant equipment. The peak power supply requirements are likely to be 80 kilowatt hours per tonne of waste processed. In addition, the heating requirements for autoclave sterilisation are expected to be 0.8 gigajoules per tonne of waste.

An application/enquiry to Endeavour Energy (in conjunction with Council which is building a new MRF on the adjacent landfill site) would be undertaken as part of the detailed design.

In due course the applicant for the proposed development of the site will need to submit an appropriate application based on the maximum demand for electricity for connection of load via Endeavour Energy's Network Connections Branch to carry out the final load assessment and the method of supply will be determined. Straightforward applications can be completed online and permission to connect may be provided immediately if submitting a complying application.

Depending on the outcome of the assessment, any required padmount substations will need to be located within the property (in a suitable and accessible location) and be protected (including any associated cabling) by an easement and associated restrictions benefiting and gifted to Endeavour Energy. Please refer to Endeavour Energy's Mains Design Instruction MDI 0044 'Easements and Property Tenure Rights'. As well as the capacity of distribution substations, other factors such as the size and rating / load on the conductors and voltage drop (which can affect the quality of supply particularly with long conductor runs) etc. need to be assessed.

For more complex connections, advice on the electricity infrastructure required to facilitate the proposed development (including asset relocations) can be obtained by submitting a Technical Review Request to Endeavour Energy's Network Connections Branch, the form for which FPJ6007 is attached. The response to these enquiries is based upon a desktop review of corporate information systems, and as such does not involve the engagement of various internal stakeholders in order to develop a 'Connection Offer'. It does provide details of preliminary connection requirements which can be considered by the applicant prior to lodging a formal application for connection of load.

Further details are available by contacting Endeavour Energy's Network Connections Branch via Head Office enquiries on business days from 9am - 4:30pm on telephone: 133 718 or (02) 9853 6666 or on Endeavour Energy's website under 'Home > Residential and business > Connecting to our network' via the following link:

http://www.endeavourenergy.com.au/ .

Alternatively the applicant may need to engage an Accredited Service Provider (ASP) of an appropriate level and class of accreditation to assess the electricity load and the proposed method of supply for the development. The ASP scheme is administered by Energy NSW and details are available on their website via the following link or telephone 13 77 88:

https://energy.nsw.gov.au/government-and-regulation/legislative-and-regulatory-requirements/asp-scheme-and-contestable-works .

In regard to the solar power system, Endeavour Energy allows connection of up to 8 kW total panels to a 5 kW inverter or up to 40 kW total panels to a 30 kW inverter. If the applicant's connection requirements are other than these, an application for a micro embedded generator connection service will be required.

- Network Asset Design

Endeavour Energy's Company Policy 9.2.5 'Network Asset Design', includes the following requirements for electricity connections to new urban subdivision / development.

5.11 Reticulation policy

5.11.1 Distribution reticulation

In order to improve the reliability performance of and to reduce the operating expenditure on the network over the long term the company has adopted the strategy of requiring new lines to be either underground cables or where overhead is permitted, to be predominantly of covered or insulated construction. Notwithstanding this strategy, bare wire overhead construction is appropriate and permitted in some situations as detailed below.

In areas with the potential for significant overhanging foliage, CCT is used to provide increased reliability as it is less susceptible to outages from wind-blown branches and debris than bare conductors. CCT must only be used in treed[2] areas as the probability of a direct lightning strike is low. In open areas where the line is not shielded from a direct lightning strike, bare conductors must generally be used for 11kV and 22kV reticulation.

Non-metallic Screened High Voltage Aerial Bundled Cable (NMSHVABC) must be used in areas which are heavily treed and where it is not practicable to maintain a tree clearing envelope around the conductors.

[2] A "treed" area is one with a substantial number of trees adjacent to the line, in each span. In these situations CCT is used to provide increased reliability as it is less susceptible to outages from wind-blown

5.11.1.1 Urban areas

Reticulation of new residential subdivisions will be underground. In areas of low bushfire consequence, new lines within existing overhead areas can be overhead, unless underground lines are cost justified or required by either environmental or local council requirements.

Where underground reticulation is required on a feeder that supplies a mixture of industrial, commercial and/or residential loads, the standard of underground construction will apply to all types of load within that development.

Where ducting is used, adequate spare ducts and easements must be provided at the outset to cover the final load requirements of the entire development plan.

Extensions to the existing overhead 11kV/22kV network must generally be underground. Bare wire will be used for conductor replacements and augmentations except in treed areas where CCT or NMSHVABC must be used.
Extensions to the existing overhead LV network and augmentations must either be underground or ABC. Conductor replacements greater than 100m in route length must utilise aerial bundled cable.

- Streetlighting

With the likely increase in vehicular traffic, the streetlighting for the proposed development should be reviewed and if necessary upgraded to comply with the series of standards applying to the lighting of roads and public spaces set out in with Australian/New Zealand Standard AS/NZS 1158: 2010 'Lighting for roads and public spaces' as updated from time to time.

Whilst the determination of the appropriate lighting rests with the road controlling authority, Endeavour Energy as a Public Lighting Service Provider is responsible for operating and maintaining the streetlights on behalf of local councils, Roads and Maritime Services and other utilities in accordance with the NSW Public Lighting Code 2019 (Code) as updated from time to time. Endeavour Energy recognises that well designed, maintained and managed Public Lighting offers a safe, secure and attractive visual environment for pedestrians and drivers during times of inadequate natural light.

For any Code implementation and administration / technical matters please contact Endeavour Energy's Substation Mains Assets Section via Head Office enquiries on business days from 9am - 4:30pm on telephone: 133 718 or (02) 9853 6666 or email mainsenquiry@endeavourenergy.com.au .

- Bushfire

Endeavour Energy has noted the following in the Fire and Incident Management Review.

2.4.19 Bush fire protection

Requirement - The waste facility complies with NSW RFS Planning for Bush Fire Protection when located on bush fire prone land.

A bushfire assessment has been completed for the site.

The bushfire assessment identified that this site is on bush fire prone land. The assessment noted that the proposed site has a high bushfire risk due to surrounding vegetation and adjoining forest to the east of Flatrock Road.

Endeavour Energy has not sighted the bushfire assessment completed for the site.

Although industrial uses are not covered by Chapters 5 to 7 of NSW Rural Fire Service 'Planning for Bush Fire Protection 2019' (PBP), the aim and objectives of PBP still need to be considered and a suitable package of bush fire protection measures should be proposed commensurate with the assessed level of risk to the development. PBP provides the following advice regarding electricity services.

Chapter 6 'Special Fire Protection Purpose Developments'

6.8.3 Services – Water, gas and electricity

Intent of measures: to provide adequate services of water for the protection of buildings during and after the passage of a bush fire, and to locate gas and electricity so as not to contribute to the risk of fire to a building.

Table 6.8c

Performance criteria and acceptable solutions for water, electricity and gas services for SFPP development.

	PERFORMANCE CRITERIA	ACCEPTABLE SOLUTIONS
	The intent may be achieved where:	

ELECTRICITY SERVICES	› location of electricity services limits the possibility of ignition of surrounding bush land or the fabric of buildings.	› where practicable, electrical transmission lines are underground;
		› where overhead, electrical transmission lines are proposed as follow:
		  › lines are installed with short pole spacing (30m), unless crossing gullies, gorges or riparian areas; and
		  › no part of a tree is closer to a power line than the distance set out in accordance with the specifications in ISSC3 *Guideline for Managing Vegetation Near Power Lines.*

The following is an extract of Endeavour Energy's Company Policy 9.1.1 Bushfire Risk Management:

9.1.1 BUSHFIRE RISK MANAGEMENT

1.0 POLICY STATEMENT

The company is committed to the application of prudent asset management strategies to reduce the risk of bushfires caused by network assets and aerial consumer mains to as low as reasonably practicable (ALARP) level. The company is also committed to mitigating, the associated risk to network assets and customer supply reliability during times of bushfire whilst achieving practical safety, reliability, quality of supply, efficient investment and environmental outcomes. The company is committed to compliance with relevant acts, regulations and codes.

Accordingly the electricity network required to service the proposed development must be fit for purpose and meet the technical specifications, design, construction and commissioning standards based on Endeavour Energy's risk assessment associated with the implementation and use of the network connection / infrastructure for a bushfire prone site. In assessing bushfire risk, Endeavour Energy has traditionally focused on the likelihood of its network starting a bushfire, which is a function of the condition of the network. Risk control has focused on reducing the likelihood of fire ignition by implementing good design and maintenance practices. However the potential impact of a bushfire on its electricity infrastructure and the safety risks associated with the loss of electricity supply are also considered.

- State Environmental Planning Policy No 33 - Hazardous and Offensive Development (SEPP33)

Endeavour Energy is aware that the provisions of SEPP33 in the preparation of a preliminary hazard assessment electricity infrastructure is not defined / regarded as sensitive land use. However, in similar situations Endeavour Energy has sought further advice from the consultants preparing the preliminary hazard assessment on the basis that, although not a sensitive land use in the traditional / environmental sense, if the electricity infrastructure on or in proximity of the site (which also may be a potential ignition source) is damaged, the resulting outage could leave many properties / customers without power. The consultants have been requested to specifically address the risks associated with the proximity of the electricity infrastructure ie. detail design considerations, technical or operational controls etc. to demonstrate as required by SEPP33 that the proposed business / development is suitably located and can be built and operated with an adequate level of safety and pollution control.

Conversely, Endeavour Energy's electricity infrastructure is potentially a source of ignition for fires. Endeavour Energy's risk control has focused on reducing the likelihood of fire ignition by implementing good design and maintenance practices. However there is still the potential for fires to occur as a result of fault currents, flashovers, fallen conductors, vehicle impacts etc. and the potential for these as a risk to hazardous and offensive development should also be considered.

The electrical equipment / operation of the site would be affected by excessive / cumulative dust emissions. Although unlikely in normal circumstances and the risk is considered low, it could cause a flashover to occur on the insulators on the overhead power lines or start a fire in the substation. From Endeavour Energy's perspective it is imperative that the appropriate air quality management measures are implemented and adhered to in order to minimise any impact on the electricity infrastructure on or in the vicinity of the site.

- Earthing

The construction of any building or structure (including fencing, signage, flag poles, hoardings etc.) whether temporary or permanent that is connected to or in close proximity to Endeavour Energy's electrical network is required to comply with Australian/New Zealand Standard AS/NZS 3000:2018 'Electrical installations' as updated from time to time. This Standard sets out requirements for the design, construction and verification of electrical installations, including ensuring there is adequate connection to the earth. It applies to all electrical installations including temporary builder's supply / connections.

Inadequate connection to the earth to allow a leaking / fault current to flow into the grounding system and be properly dissipated places persons, equipment connected to the network and the electricity network itself at risk from electric shock, fire and physical injury. The earthing system is usually in the form of an earth electrode consisting of earth rods or mats buried in the ground. It should be designed by a suitably qualified electrical engineer / Accredited Service Provider (ASP) following a site-specific risk assessment having regard to the potential number of people could be simultaneously exposed, ground resistivity etc.

For details of the ASP scheme please refer to the above point 'Network Capacity / Connection'.

In particular appropriate consideration should be provided to the conductivity of the fencing within an easement or in proximity of electricity infrastructure (particularly with overhead power lines which may fall as a result of storm damage or accidental strikes) where there is a possibility it could act as a conductor of electricity and dangerous currents may be carried along the fence. Where conductive / metal fencing is used it must be appropriately earthed eg. the by the use of isolation panels where the fence enters or exits the easement created by the use of timber posts and/or earth electrode installed adjacent to the easement or overhead power lines.

- Prudent Avoidance

The electricity industry has adopted a policy of prudent avoidance by doing what can be done without undue inconvenience and at modest expense to avert the possible risk to health from exposure to emissions form electricity infrastructure such as electric and magnetic fields (EMF) and noise which generally increase the higher the voltage ie. Endeavour Energy's network ranges from low voltage (normally not exceeding 1,000 volts) to high voltage (normally exceeding 1,000 volts but not exceeding 132,000 volts / 132 kV).

In practical terms this means that when designing new transmission and distribution facilities, consideration is given to reducing exposure and increasing separation distances to more sensitive uses such as residential or schools, pre-schools, day care centres or where potentially a greater number of people are regularly exposed for extended periods of time.

These emissions are usually not an issue but with Council's permitting or encouraging development with higher density, reduced setbacks and increased building heights, but as the electricity network operates 24/7/365 (all day, every day of the year), the level of exposure can increase.

Endeavour Energy believes that irrespective of the zoning or land use, applicants (and Council) should also adopt a policy of prudent avoidance by the siting of more sensitive uses eg. the office component of an industrial building, away from and less susceptible uses such as garages, non-habitable or rooms not regularly occupied eg. storage areas in a commercial building, towards any electricity infrastructure – including any possible future electricity infrastructure required to facilitate the proposed development.

Where development is proposed near electricity infrastructure, Endeavour Energy is not responsible for any amelioration measures for such emissions that may impact on the nearby proposed development.

Please find attached a copy of Energy Networks Association's 'Electric & Magnetic Fields – What We Know' which can also be accessed via their website at https://www.energynetworks.com.au/electric-and-magnetic-fields and provides the following advice:

> *Electric fields are strongest closest to their source, and their strength diminishes rapidly as we move away from the source.*
>
> *The level of a magnetic field depends on the amount of the current (measured in amps), and decreases rapidly once we move away from the source.*

Typical magnetic field measurements associated with Endeavour Energy's activities and assets given the required easement widths, safety clearances etc. and having a maximum voltage of 132,000 volt / 132 kV, will with the observance of these separation distances not exceed the recommended magnetic field public exposure limits.

- Vegetation Management

The planting of large trees near electricity infrastructure is not supported by Endeavour Energy. Particularly for overhead power lines, ongoing vegetation management / tree trimming is a significant network cost and falling trees and branches during storms are a major cause of power outages.

Suitable planting needs to be undertaken in proximity of electricity infrastructure (including any new electricity infrastructure required to facilitate the proposed development). Only low growing shrubs not exceeding 3.0 metres in height, ground covers and smaller shrubs, with non-invasive root systems are the best plants to use. Larger trees should be planted well away from electricity infrastructure (at least the same distance from overhead power lines as their potential full-grown height) and even with underground cables, be installed with a root barrier around the root ball of the plant.

Landscaping that interferes with electricity infrastructure may become a potential safety risk, cause of bush fire, restrict access, reduce light levels from streetlights or result in the interruption of supply. Such landscaping may be subject to Endeavour Energy's Vegetation Management program and/or the provisions of the *Electricity Supply Act 1995* (NSW) Section 48 'Interference with electricity works by trees' by which under certain circumstances the cost of carrying out such work may be recovered.

Endeavour Energy's recommendation is that existing trees which are of low ecological significance in proximity of overhead power lines be removed and if necessary replaced by an alternative smaller planting. Any planting needs to ensure appropriate clearances are maintained whilst minimising the need for future pruning.

- Dial Before You Dig

Before commencing any underground activity, the applicant is required to obtain advice from the ***Dial Before You Dig* 1100** service in accordance with the requirements of the *Electricity Supply Act 1995* (NSW) and associated Regulations. This should be obtained by the applicant not only to identify the location of any underground electrical and other utility infrastructure across the site, but also to identify them as a hazard and to properly assess the risk.

- Demolition

Demolition work is to be carried out in accordance with Australian Standard AS 2601-2001: 'The demolition of structures' as updated from time to time. All electric cables or apparatus which are liable to be a source of danger, other than a cable or apparatus used for the demolition works shall be disconnected i.e. all electrical apparatus shall be regarded as live until isolated and proved de-energised by approved means.

Depending on the extent of the demolition works, the low voltage service conductor and customer connection may need to be isolated and/or removed during demolition. Please refer to the below point 'Removal of Electricity Supply' for further information.

Appropriate care must be taken to not otherwise interfere with any electrical infrastructure on or in the vicinity of the site eg. streetlight columns, power poles, overhead power lines and underground cables etc.

- Removal of Electricity Supply

Approval for the permanent disconnection and removal of supply must be obtained from Endeavour Energy's Network Connections Branch (contact via Head Office enquiries on business days from 9am - 4:30pm on telephone: 133 718 or (02) 9853 6666) by Accredited Service Providers (ASP) with the relevant class of Authorisation for the type of work being carried out. The work could involve:

  - The disconnection and removal of an underground service cable or overhead service line,
  - Removal of metering equipment.

The written request must be submitted to Endeavour Energy using Form FPJ4603 ' Permission to Remove Service / Metering by Authorised Level 2 Accredited Service Provider' which must be accompanied by Notification of Service Works (NOSW) forms provided as a result of service work activity performed by a Level 2 ASP. The retailer must also provide written agreement for the permanent removal of supply.

For details of the ASP scheme please refer to the above point 'Network Capacity / Connection'.

- Site Remediation

Endeavour Energy's Environmental Business Partner Team have advised that the remediation of soils or surfaces impacted by various forms of electricity infrastructure is not uncommon but is usually not significant eg. transformer oil associated with leaking substations, pole treatment chemicals at the base of timber poles etc. The method of remediation is generally the removal of the electricity infrastructure, removal of any stained surfaces or excavation of any contaminated soils and their disposal at a licensed land fill. The decommissioning and removal of the redundant electricity infrastructure will be dealt with by Endeavour Energy's Network Connections Branch as part of the application for the connection of load / asset relocation for the new development – please refer to the above point 'Network Capacity / Connection'.

If the applicant has any concerns over the remediation works related to redundant electricity infrastructure they should contact Environmental Business Partner Team via Head Office enquiries on business days from 9am - 4:30pm on telephone: 133 718 or (02) 9853 6666.

- Public Safety

Workers involved in work near electricity infrastructure run the risk of receiving an electric shock and causing substantial damage to plant and equipment. Please find attached copies of Endeavour Energy's public safety training resources, which were developed to help general public / workers to understand why you may be at risk and what you can do to work safely. The public safety training resources are also available via Endeavour Energy's website via the following link:

http://www.endeavourenergy.com.au/wps/wcm/connect/ee/nsw/nsw+homepage/communitynav/safety/safety+brochures .

If the applicant has any concerns over the proposed works in proximity of the Endeavour Energy's electricity infrastructure to the road verge / roadway, as part of a public safety initiative Endeavour Energy has set up an email account that is accessible by a range of stakeholders across the company in order to provide more effective lines of communication with the general public who may be undertaking construction activities in proximity of electricity infrastructure such as builders, construction industry workers etc. The email address is Construction.Works@endeavourenergy.com.au .

- Emergency Contact

In case of an emergency relating to Endeavour Energy's electrical network, the applicant should note the Emergencies Telephone is 131 003 which can be contacted 24 hours / 7 days. Endeavour Energy's contact details should be included in any relevant risk and safety management plan.

I appreciate that not all the foregoing issues may be directly or immediately relevant or significant to the Development Application. However, Endeavour Energy's preference is to alert proponents / applicants (and Council) of the potential matters that may arise should development within closer proximity of the existing and/or required electricity infrastructure needed to facilitate the proposed development on or in the vicinity of the site occur.

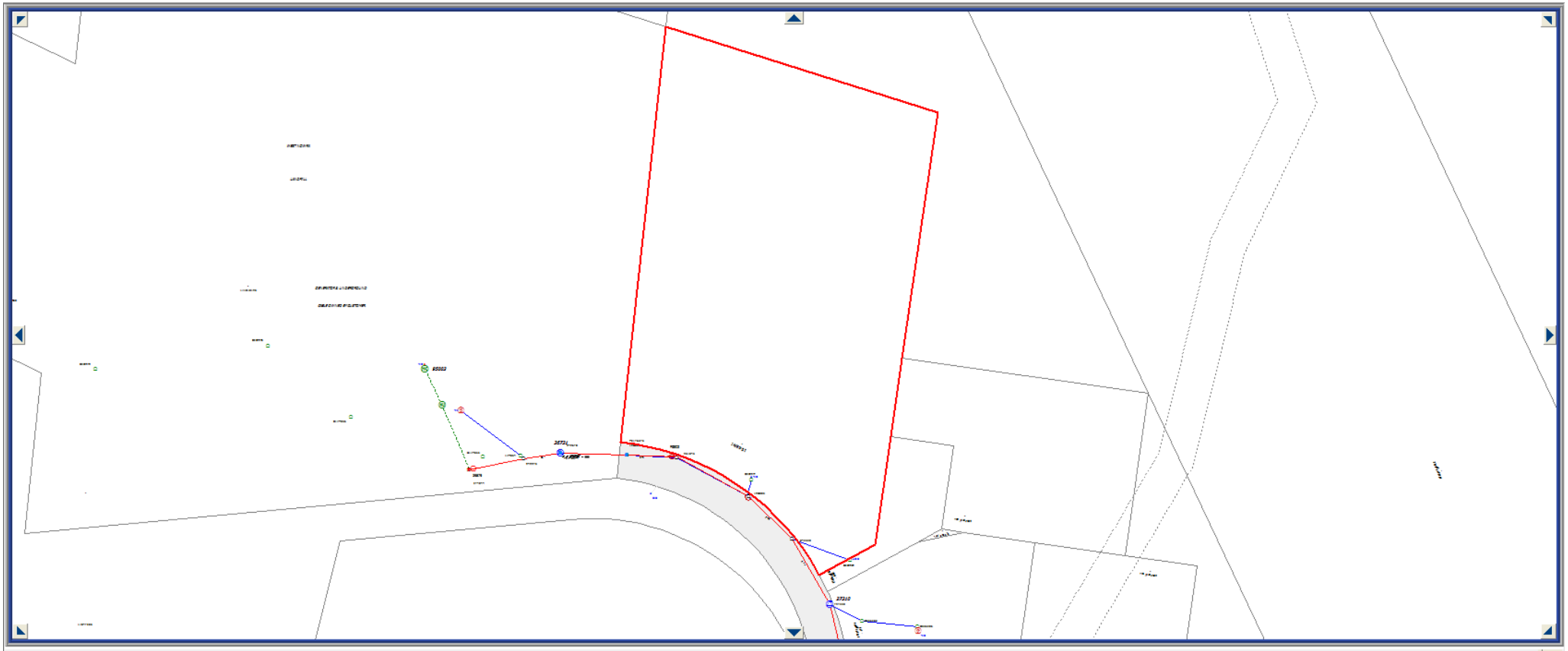
Could you please pass on a copy of this submission and the attached resources to the applicant? Should you wish to discuss this matter, or have any questions, please do not hesitate to contact me or the contacts identified above in relation to the various matters. Due to the high number of development application / planning proposal notifications submitted to Endeavour Energy, to ensure a response contact by email to property.development@endeavourenergy.com.au is preferred.

With the current easing of the COVID-19 health risk, whilst a significant number of Endeavour Energy staff are returning to the office, they are at times still working from home. Although working from home, access to emails and other internal stakeholders can still be somewhat limited. As a result it may sometimes take longer than usual to respond to enquiries. Thank you for your ongoing understanding during this time.

Yours faithfully

Cornelis Duba
Development Application Specialist
Network Environment & Assessment
M: 0455 250 981
E: cornelis.duba@endeavourenergy.com.au
51 Huntingwood Drive, Huntingwood NSW 2148
www.endeavourenergy.com.au

Endeavour Energy



G3E_FID	Feature Name	Component Name	G3E_CID	G3E_ID	LOT	SECTION	DP
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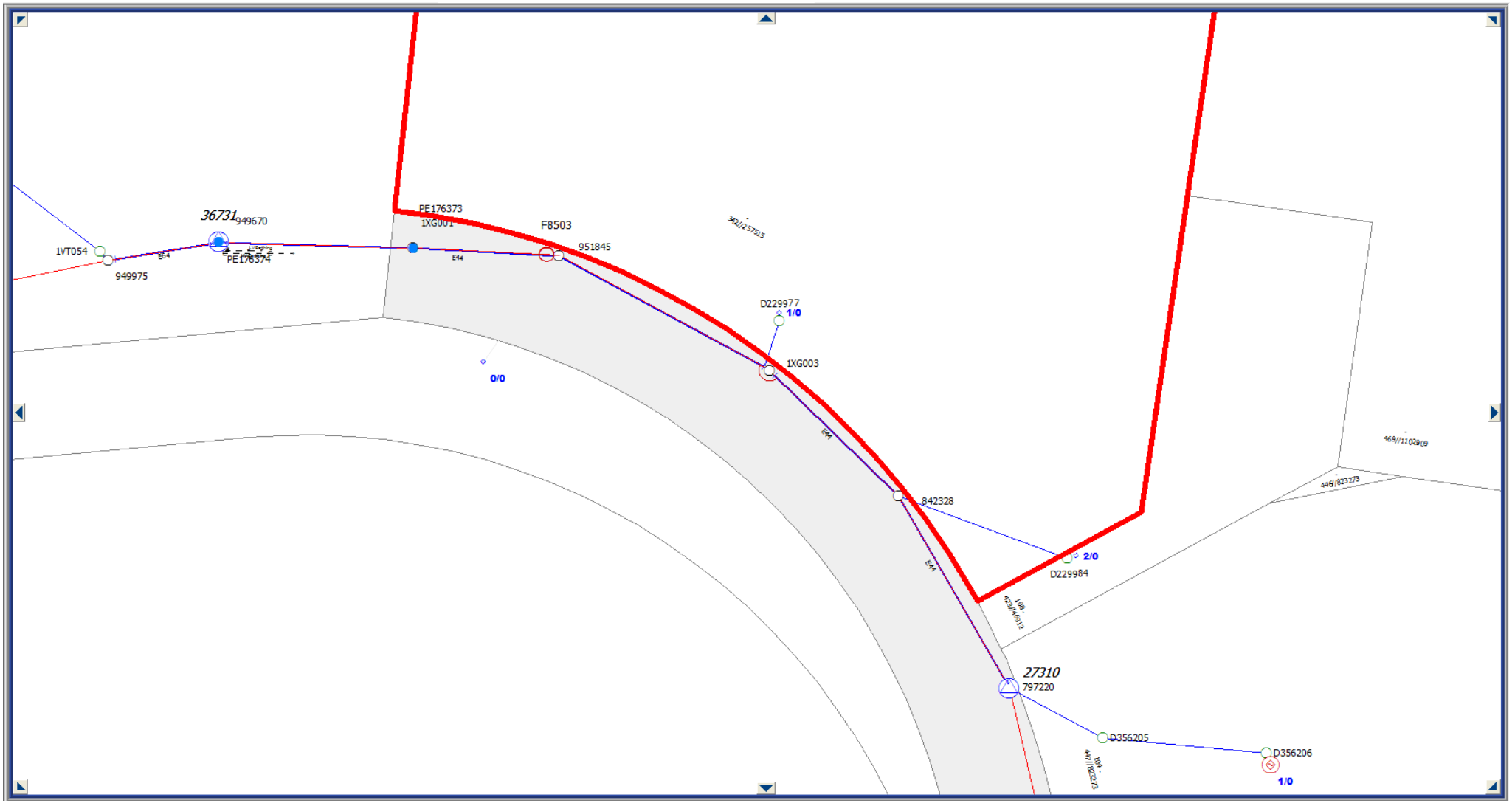
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0/0
D229977
1/0
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842328
2/0
D229984
27310
797220
D356205
D356206
1/0


Flatrock Rd
Mundamia, New South Wales
Google
Street View
Google
Image capture: Jan 2010 © 2021 Google Australia Terms Privacy Report a problem


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Mundamia, New South Wales
Google
Street View
Flatrock Rd
SLOW DOWN
West Now
and Waste
Google
Image capture: Jan 2010
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Privacy
Report a problem

From: Jessica Fountain <Jessica.Fountain@planning.nsw.gov.au>
Sent: Thursday, 10 June 2021 12:48 PM
To: Property Development <Property.Development@endeavourenergy.com.au>
Cc: Bruce Zhang <Bruce.Zhang@planning.nsw.gov.au>
Subject: Notice of Exhibition – West Nowra Resource Recovery Park Stage 2 (SSD-9887)

Dear Agency

The Department of Planning, Industry and Environment (Department) has received an Environmental Impact Statement (EIS) for the West Nowra Resource Recovery Park Stage 2 (SSD-9887).

The EIS will be publicly exhibited from Tuesday 15 June 2021 to Monday 12 July 2021.

The EIS can be viewed on the Department's Major Projects website at https://www.planningportal.nsw.gov.au/major-projects/project/10271 from **Tuesday 15 June 2021**. If you wish to view the documents prior to this date, you will need to register an agency account on the Major Projects site. A User Guide is attached for your reference.

The Department invites you to advise on the proposal, including advice on recommended conditions by **Monday 12 July 2021**.

If you have any enquiries, please contact Bruce Zhang on 92746137 or via email at bruce.zhang@planning.nsw.gov.au.

Regards

Jess Fountain
DA Coordinator

Energy, Industry and Compliance | Department of Planning, Industry and Environment
T 02 9860 1559 | **E** jessica.fountain@planning.nsw.gov.au
4PSQ Level 17, 12 Darcy Street, Parramatta NSW 2150 | Locked Bag 5022, Parramatta NSW 2124
www.dpie.nsw.gov.au

The Department of Planning, Industry and Environment acknowledges that it stands on Country which always was and always will be Aboriginal land. We acknowledge the Traditional Custodians of the land and waters, and we show our respect for elders past, present and emerging. We are committed to providing places in which Aboriginal people are included socially, culturally and economically through thoughtful and collaborative approaches to our work.