# **David Schwebel**

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Sent:	Monday, 31 May 2021 9:15 AM	
То:	David Schwebel	
Cc:	DPE CSE Information Planning Mailbox; Jeff Smith	
Subject:	NSW Planning, Industry & Environment Request for SEARs SSD-19618251 Elizabeth	
	Enterprise Estate Stage 1	
Attachments:	SW Work near overhead power lines.pdf; ENA EMF What We Know.pdf; EE Safety	
	Plumbing.pdf; EE Safety on the job.pdf; EE MDI0044 Easements and Property	
	Tenure.pdf; EE FPJ 6007 Technical Review Request Aug 2019.pdf; EE FPJ 4603	
	Permission to Remove Service July 2007.pdf; SW08773 Work near underground	
	assets.pdf; EE Drawing 86232 OH lines minimum clearances.pdf	

# Hello David

I refer to the Department's below email of 18 May 2021 regarding the exhibition of the request for the Planning Secretary's Environmental Assessment Requirements (SEARs) for State Significant Development SSD-19618251 Elizabeth Enterprise Precinct Stage 1 for 'Concept Masterplan including nine warehouse buildings and internal road network, with a Stage 1 development including bulk earthworks, road construction, construction and fit-out of two warehouse and distribution buildings and associated works' at 1669-1723 Elizabeth Drive, Badgerys Creek (Lot 5 DP 860456) in the Penrith City Council Local Government Area (LGA). Submissions needed to be made to the Department by 31 May 2021.

Endeavour Energy would expect that the Planning Secretary would require the applicant to address utilities as a key issue in the future Environmental Impact Statement, with the following being an example of the 'Utilities' section for other recent notification received by Endeavour Energy from the Department.

### 14. Utilities

- In consultation with relevant service providers:
  - assess of the impacts of the development on existing utility infrastructure and service provider assets surrounding the site.
  - identify any infrastructure upgrades required off-site to facilitate the development and any arrangements to ensure that the upgrades will be implemented on time and be maintained.
  - provide an infrastructure delivery and staging plan, including a description of how infrastructure requirements would be co-ordinated, funded and delivered to facilitate the development.

The following is a combination of the various requests for SEARs for other State Significant Development referred to Endeavour Energy which attempts to capture all the possible 'Utilities' related matters.

Prepare an Infrastructure Management Plan in consultation with relevant agencies / authorities to:

- address the existing capacity of the site to service the proposed development and any extension or augmentation, property tenure or staging requirements for the provision of utilities, including arrangements for electrical network requirements, drinking water, waste water and recycled water and how the upgrades will be co-ordinated, funded and delivered on time and be maintained to facilitate the development; and
- identify the existing infrastructure on the site or within the network which may be impacted by the construction and operation of the proposal and the measures to be implemented to address any impacts on this infrastructure.

Endeavour Energy believes that either of the foregoing would adequately require the applicant to investigate and address in utilities required for the SSD.

As shown in the below site plans from Endeavour Energy's G/Net master facility model (and extracts from Google Maps Street View) there are:

- No easements over the site benefitting Endeavour Energy (active easements are indicated by red hatching).
- Extended low voltage overhead service conductors coming from the opposite side of Elizabeth Drive road verge using customer owned / private poles (indicated by the green circles) on the site going to the customer connection point for the existing premises. These will become redundant electrical assets if the proposed development of the site proceeds.
- Low voltage, 11,000 volt / 11 kilovolt (kV) high voltage and 33,000 volt / 33 kV high voltage overhead power lines, overhead earth cables and overhead pilot cables (carrying protection signals or communications between substations) to the opposite side of Elizabeth Drive.
- Low voltage and 11,000 volt / 11 kilovolt (kV) high voltage overhead power lines to the opposite side of the Unnamed Access Road off Elizabeth Drive.

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 <u>Electricity Supply Act 1995</u> (NSW).

In regard to the extended low voltage overhead service conductors / power lines traversing the site, although not held under easement (as they may only service the sites on which they are located) are protected assets and deemed to be lawful for all purposes under Section 53 'Protection of certain electricity works' of the <u>Electricity</u> <u>Supply Act 1995</u> (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. These protected assets are managed as if an easement is in place – please refer the below point 'Easement Management / Network Access'.

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 ie. 4.5 metres to both sides of the centre line of the poles / conductors.

	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 ie. depending on the span, type of conductor, access etc. However as a minimum any buildings, structures, etc. whether temporary or permanent must comply with the minimum safe distances / clearances for voltages up to and including 132,000 volts (132kV) for 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 (132kV) 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/serviceinstallation-rules

As a guide please find attached a copy of Endeavour Energy Drawing 'Overhead Lines Minimum Clearances Near Structures'. These distances must be maintained at all times to all buildings and structures and regardless of the Council's allowable building setbacks etc. under its development controls.

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.

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 (please refer to the below point 'Network Capacity / Connection'. 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 encroaching the required clearances or the overhead power lines will need to be redesigned to provide the required clearances.

Subject to the foregoing and the following recommendations and comments Endeavour Energy has no objection to the State Significant Development.

• Network Capacity / Connection

Endeavour Energy has noted that the Scoping Report includes the following:

# 5.12 Infrastructure and utilities

The SSDA will include servicing strategies as informed through direct consultation with utility authorities in Sydney Water and Endeavour Energy, relating to potable water, sewerage and electrical servicing respec

In regard to the provision of electricity supply to Western Sydney Priority Growth Area, please refer to Endeavour Energy's:

- The Growth Servicing Plan. This outlines Endeavour Energy's plans to provide 'trunk' infrastructure to service greenfield and infill development areas across Endeavour Energy's franchise area. This plan is based on 10 year Endeavour Energy's Strategic Asset Management Plan and is underpinned by the Australian Energy Regulator's (AER) regulatory determination which will determine the level of capital expenditure that Endeavour Energy is allowed to make over the 2019-2024 regulatory period. It includes Section 7.4 'Western Sydney Priority Growth Area' which includes the area covered by the Elizabeth Enterprise Precinct.
- Distribution Annual Planning Report 2020. This is prepared in accordance with the National Electricity Rules, chapter 5 and identifies future, specific limitations on Endeavour Energy's electricity network and includes planning information for all assets and activities carried out by Endeavour Energy.

These documents are also available on Endeavour Energy's website under 'Home>Network>Network improvement>Network planning' via the following link:

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

In regard to electricity distribution within the Elizabeth Enterprise Precinct, the availability of electricity supply to a site is based on a wide range of factors eg. the age and design of the network; other development in the locality utilising previously spare capacity within the local network; the progress of nearby / surrounding sites including electricity infrastructure works eg. a smaller and isolated development that may not of its own accord require a distribution substation may require a substation to facilitate the development and from which the spare capacity is made available to subsequent nearby development.

Non-urban / above ground areas of the network utilising pole mounted substations have comparatively limited capacity of 25 kilovolt amperes (kVA) up to a maximum of 400 kVA. Padmount substations usually utilised in urban areas can accommodate loads from 315 kVA up to 1,500 kVA (typically 500 kVA). Accordingly there is a significant variation in the number and type of premises able to be connected to a substation ie. a single distribution substation may serve one large building, or many homes.

Whilst there are a number of existing pole mounted substations near the site, they are not intended or capable of providing electricity supply to a significant urban industrial subdivision / development. 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.

Accordingly an extension and / or augmentation of the existing local network may be required but this will not be determined until a detailed assessment is undertaken. Endeavour Energy's preference is to alert proponents / applicants (and the Department) of the potential matters that may arise as further development of areas continues to occur.

In due course the applicant for the proposed development of the site will need to submit an application for connection of additional load via Endeavour Energy's Network Connections Branch to carry out the final load assessment and the method of supply will be determined. Further details are available by contacting Endeavour Energy's Network Connections Branch via Head Office enquiries on business days on telephone: 133 718 or (02) 9853 6666 from 9am - 4:30pm or on Endeavour Energy's website under 'Home > Residential and business > Connecting to our network' via the following link:

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

Depending on the outcome of the assessment, any required padmount substation/s 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'.

Advice on the electricity infrastructure required to facilitate the proposed development(including asset relocations) can also be obtained by submitting a Technical Review Request to Endeavour Energy's Network Connections Branch, the form for which FPJ6007 is attached and further details (including the applicable charges) are available from Endeavour Energy's website under 'Our connection services'. 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.

Alternatively the applicant should engage an Accredited Service Provider (ASP) of an appropriate level and class of accreditation to assess the electricity load associated with the proposed 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/aspscheme-and-contestable-works .

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.

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<sup>2</sup> 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.

<sup>2</sup> 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.

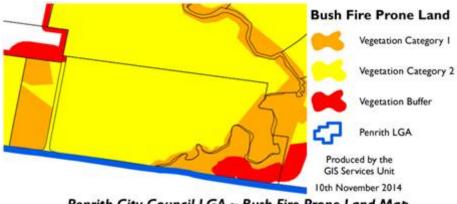
Where ducting is used, adequate spare ducts and easements must be provided at the outset to cover the final load requirements of the entire development plan.

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.

# Bushfire

Endeavour Energy has noted that as shown in the following extract of Penrith City Council LGA – Bush Fire Prone Land Map 10 November 2014 that the majority of the site is bush fire prone.



Penrith City Council LGA ~ Bush Fire Prone Land Map

Although commercial and 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:

### 5.3.3 Services - Water, electricity and gas

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 5.3c

Performance criteria and acceptable solutions for water, electricity and gas services for residential and rural residential subdivisions.

PERFORMANCE CRITERIA	ACCEPTABLE SOLUTIONS			
The intent may be achieved where:				
<ul> <li>location of electricity services limits the possibility of ignition of surrounding bush land or the fabric of buildings.</li> </ul>	<ul> <li>&gt; where practicable, electrical transmission lines are underground;</li> <li>&gt; where overhead, electrical transmission lines are proposed as follows:</li> <li>&gt; lines are installed with short pole spacing of 30m, unless crossing gullies, gorges or riparian areas; and</li> <li>&gt; no part of a tree is closer to a power line than the distance set out in ISSC3 Guideline for Managing Vegetation Near Power Lines.</li> </ul>			

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.

• Flooding and Drainage

Endeavour Energy has noted the following in the Scoping Report.

# 5.3 Stormwater and Flooding

The site sits above the floodplain for the majority of its area, and proposed battering to provide for building pade take stormwater and flooding into consideration.

The interface of the battering down to the South Creek corridor, including works within the Environment and Recreation Zone, will be developed and detailed as part of the application, noting its delivery will form part of fu applications.

The electricity network required to service an area / 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 flood prone site. Risk control has focused typically on avoiding the threat, but where this is not possible, reducing the negative effect or probability of flood damage to assets by implementing good design and maintenance practices.

Distribution substations should not be subject to flood inundation or stormwater runoff ie. the padmount substation cubicles are weatherproof not flood proof and the cable pits whilst designed to be self-draining should not be subject to excessive ingress of water. Section 7 'Substation and switching stations' of Endeavour Energy's Mains Construction Instruction MCI 0006 'Underground distribution construction standards manual' provides the following details of the requirements for flooding and drainage in new padmount substation locations.

#### 7.1.6 Flooding and drainage

Substations are to be located such that the risk of flooding or stormwater damage is minimal.

As a minimum the level at the top of the transformer footing, HV and LV switchgear, shall not be lower than the 1:100 year flood level.

All drains within the substation site area or in the vicinity shall be properly maintained to avoid the possibility of water damage to Endeavour Energy's equipment.

In areas where, as determined by the Network Substation Manager, there is a high water table or a heightened risk of flooding, indoor substations will not be permitted.

All materials used in the construction below the substation (ground level) shall be capable of withstanding prolonged immersion in water without swelling or deterioration.



Figure 51 - Example substation raised above 1:100 flood level

• Easement Management / Network Access

The following is a summary of the usual / main terms of Endeavour Energy's electrical easements requiring that the landowner:

- Not install or permit to be installed any buildings, structures or services within the easement site.
- Not alter the surface level of the easement site.
- Not do or permit to be done anything that restricts access to the easement site without the prior written permission of Endeavour Energy and in accordance with such conditions as Endeavour Energy may reasonably impose.

Endeavour Energy's preference is for no activities or encroachments to occur within its easements. However, if any proposed works (other than those approved / certified by Endeavour Energy's Network Connections Branch as part of an enquiry / application for load or asset relocation project) will encroach / affect Endeavour Energy's easements or protected assets, contact must first be made with the Endeavour Energy's Easements Officer, Jeffrey Smith, business days direct telephone 9853 7139 or alternately on on email Jeffrey.Smith@endeavourenergy.com.au or Easements@endeavourenergy.com.au .

Please find attached for the applicant's reference copies of Endeavour Energy's:

• General Restrictions for Overhead Power Lines.

- Mains Design Instruction MDI 0044 'Easements and Property Tenure Rights' which in Section 5.14 'Encroachments on overhead line easements' deals with activities / encroachments within easements.
- 'Guide to Fencing, Retaining Walls and Maintenance Around Padmount Substations' in regard to the padmount substation sites that will be required to facilitate the proposed development.

It is imperative that the access to the existing electrical infrastructure on and in proximity of the site be maintained at all times. To ensure that supply electricity is available to the community, access to the electricity infrastructure may be required at any time. Restricted access to electricity infrastructure by maintenance workers causes delays in power restoration and may have severe consequences in the event of an emergency.

This is particularly important where there are poles or towers as in the event of fallen conductors, access to the restring overhead power lines will be required by electricity workers with heavy vehicles, machinery and materials essential for restoring electricity supply.

• 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 the easement 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.

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.

The planting of large trees near electricity infrastructure is not supported by Endeavour Energy. 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 <u>Electricity</u> <u>Supply Act 1995</u> (NSW) Section 48 'Interference with electricity works by trees' by which under certain circumstances the cost of carrying out such work may be recovered.

• Location of Electricity Easements / Prudent Avoidance

The incorporation of electricity easements into privately owned lots is generally problematic for both Endeavour Energy and the future landowners and requires additional easement management to ensure no uncontrolled activities / encroachments occur within the easement area.

Accordingly Endeavour Energy's recommendation is that whenever reasonably possible, easements be entirely incorporated into public reserves and not burden private lots. Endeavour Energy's preference is to have continuity of its easements over the most direct and practicable route affecting the least number of lots as possible.

This is also in keeping with a policy of prudent avoidance. 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 the Department) 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 <u>https://www.energynetworks.com.au/electric-and-magnetic-fields</u> 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.

• 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 <u>Electricity Supply Act 1995</u> (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 ie. 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 on telephone: 133 718 or (02) 9853 6666 from 9am - 4:30pm) by Accredited Service Providers (ASP) with the relevant class of Authorisation for the type of work being carried out. The work could involve:

- o 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 Section have advised that the remediation of soils 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, 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 for the new development.

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

• 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 multiple 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 <u>Construction.Works@endeavourenergy.com.au</u>.

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.

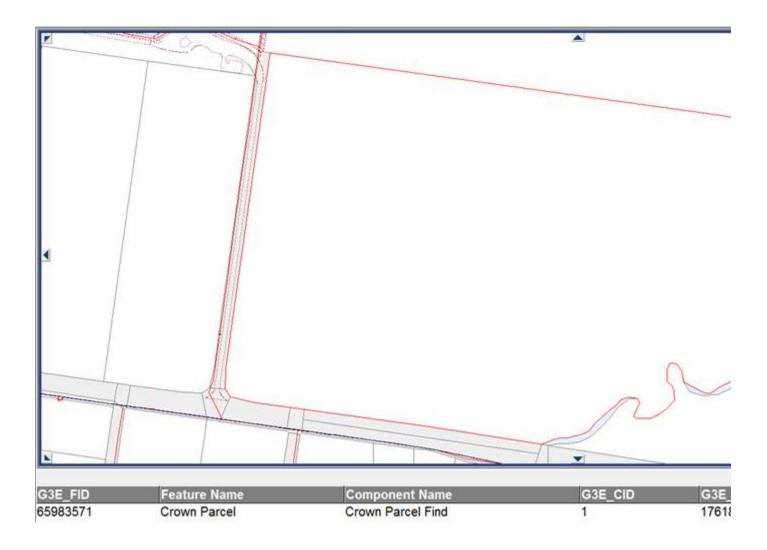
I appreciate that not all the foregoing issues may be directly or immediately relevant or significant to the request for SEARs / Development Application. However in keeping with the Department's aim of earlier and better engagement, Endeavour Energy's preference is to alert proponents / applicants of 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.

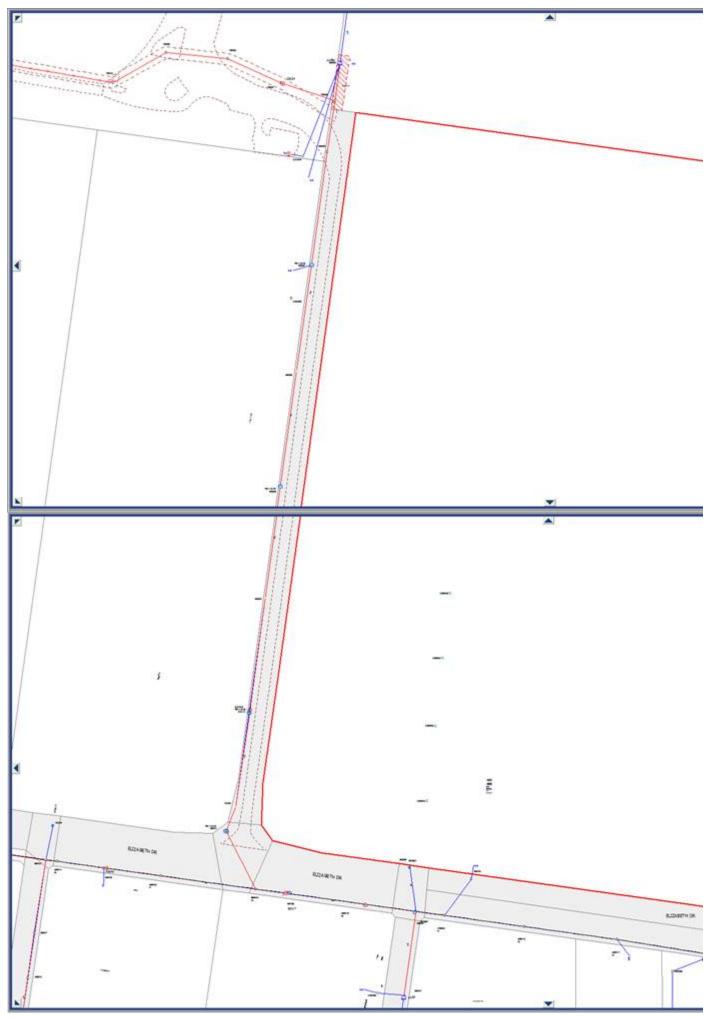
Could you please pass on a copy of this submission and the attached resources to the applicant? Should you wish to discuss this matter, or have any questions, please do not hesitate to contact me or the contacts identified above in relation to the various matters. Due to the high number of development 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.

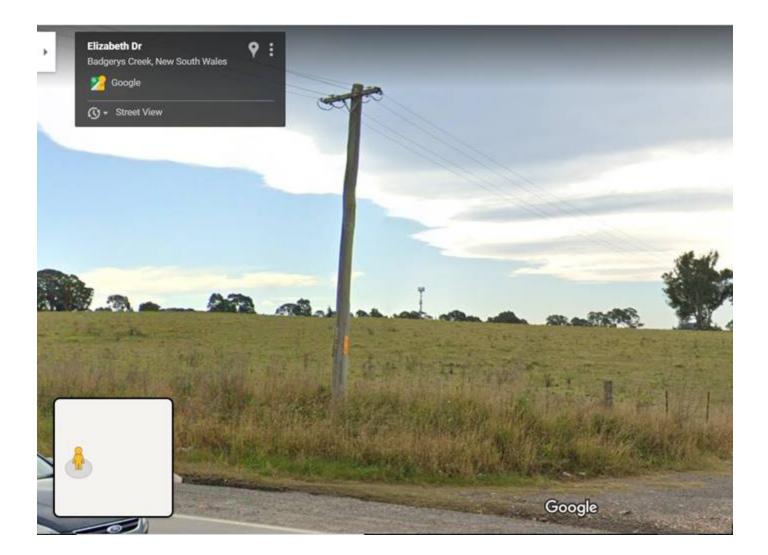
Kind regards
Cornelis Duba
Development Application Specialist
Network Environment & Assessment
M: 0455 250 981
E: <u>cornelis.duba@endeavourenergy.com.au</u>
51 Huntingwood Drive, Huntingwood NSW 2148
www.endeavourenergy.com.au













From: David Schwebel <David.Schwebel@planning.nsw.gov.au>
Sent: Tuesday, 18 May 2021 10:17 AM
To: Property Development <Property.Development@endeavourenergy.com.au>
Subject: Request for SEARs input - Elizabeth Enterprise Estate Stage 1 (SSD-19618251)

#### Dear Sir/Madam

The Department of Planning, Industry and Environment has received a request for Secretary's Environmental Assessment Requirements (SEARs) for the Elizabeth Enterprise Precinct Stage 1. The proposed development is a State Significant Development under the Environmental Planning and Assessment Act 1979.

You are invited to provide input into the SEARs for the proposal including details of any key issues and assessment requirements by **31 May 2021**.

The SEARs request can be viewed on the Department's website at <a href="https://www.planningportal.nsw.gov.au/major-projects/project/41891">https://www.planningportal.nsw.gov.au/major-projects/project/41891</a> .

If you have any enquiries, please contact me on 9274 6400 or <u>david.schwebel@planning.nsw.gov.au</u>.

Kind regards,

#### David Schwebel Planning Officer, Industry Assessments

Planning & Assessment | Department of Planning, Industry and Environment T 02 9274 6400 | 4 Parramatta Square, 12 Darcy Street, Parramatta NSW 2150 www.dpie.nsw.gov.au



The Department of Planning, Industry and Environment acknowledges that it stands on Aboriginal land. We acknowledge the traditional custodians of the land and we show our respect for elders past, present and emerging through thoughtful and collaborative approaches to our work, seeking to demonstrate our ongoing commitment to providing places in which Aboriginal people are included socially, culturally and economically.