

From: Cornelis Duba
Sent: Monday, 7 June 2021 8:39 PM
To: christopher.fraser@planning.nsw.gov.au
Cc: 'information@planning.nsw.gov.au' <information@planning.nsw.gov.au>
Subject: NSW Planning, Industry & Environment Request for SEARs SSD-19729084 Huntingwood Industrial Development

Hello Chris

I refer to your below email from NSW Planning, Industry & Environment of 24 May 2021 regarding the exhibition of the request for the Planning Secretary's Environmental Assessment Requirements (SEARs) for State Significant Development SSD-19729084 Huntingwood Industrial Development for 'Construction of a SSD data centre, ancillary buildings, generators, diesel fuel storage, car parking and driveway access from Reservoir Road. Clearing of 3.58ha of vegetation with retention of an area of vegetation in western side of site' at 6 Honeman Close, Huntingwood (Lot 5 DP 1238405) in the Blacktown City Council Local Government Area (LGA). Submissions needed to be made to the Department by 7 June 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 are 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 State Significant Development.

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 benefitting Endeavour Energy (active easements are indicated by red hatching).

- Low voltage and 132,000 volt / 132 kilovolt (kV) high voltage underground cables and underground pilot cables (carrying protection signals or communications between substations) to the Great Western Highway road verge / roadway.
- Low voltage overhead power lines to the splayed corner and Reservoir Road road verge / roadway.
- Low voltage and 11,000 volt / 11 kV high voltage overhead power lines to the opposite side of Honeman Close.

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).

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

- Network Capacity / Connection

Endeavour Energy has noted the following in the Scoping Report.

4.2 Development Description

The key features of the proposal are described as follows:

- **Electrical Substations and Diesel Fuel Storage:** The site will be supplied by 3 dedicated oil filled transformer at the Utility Zone Substation. On site bulk fuel storage is approximately 1.5 ML (which is split over 16 x 4 hour fire rated bulk fuel tanks located above ground level).
- **Utility services:** the final siting and design of the proposed will incorporate any required augmentation of existing utility services to service the proposed development.

The detailed proposal will include the following early site preparation works:

- **Infrastructure:** provision of roads, utility services and stormwater works required to facilitate the future development of the site. The EIS and SSDA will include sufficient detail for the development that will enable a Construction Certificate (CC) to be issued without the need for further development consent.

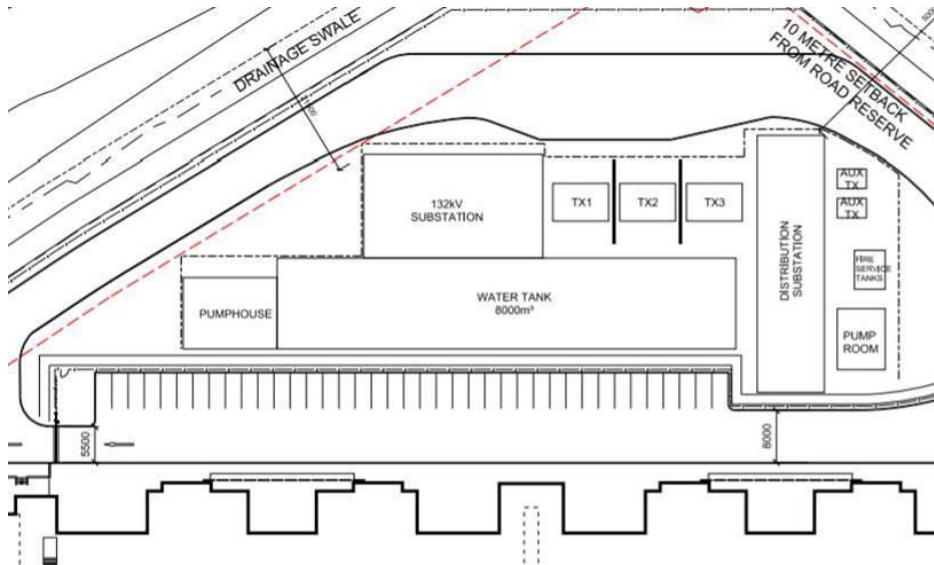
Table 1 SEPP WSEA Provisions

Clause	Comment
Clause 25 – Public Utility Infrastructure	All essential services would be required to be successfully augmented to the Subject Site for any future development, which include: - Potable water. - Wastewater. - Gas. - Electricity. - Telecommunications.

Endeavour Energy's Network Connections Branch has advised it is currently processing 3 applications regarding supply connections of Huntingwood Industrial Development / data centre development site.

- DBL2604 – Site construction supply.
- UCL10882 – 11 kV interim supply.
- UIL6069 – 132 kV permanent supply.

DBL2604 and UCL10882 will be supplied from existing established network. However UIL6069 will be more challenging because a new 132 kV supply connection point will need to be arranged with TransGrid and which will provide supply to the '132 kV Substation' shown in the following extract of the Site Plan.



Accordingly the applicant should continue with the application of load process with Endeavour Energy's Network Connections Branch who are responsible for managing the conditions of supply with the proponent and their Accredited Service Provider (ASP). However the applicant will need to contact 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) if this Development Application:

- Includes any contestable works projects that are outside of any existing approved / certified works.
- Results in an electricity load that is outside of any existing Supply / Connection Offer requiring the incorporation of the additional load for consideration. This is due to load being based on a desktop assessment and depending on the actual development proposed for the site, the load provided may not be sufficient.
- 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 treed² 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.

- Flooding and Drainage

Endeavour Energy has noted the Scoping Report indicates 'The site is identified as non-flood-prone land with only the north-west extremity of the site lying within the flood risk area'.

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

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

Endeavour Energy has noted the following in the Scoping Report.

7.9 State Environmental Planning Policy No. 33 – Hazardous and Offensive Development

For development proposals that involve the storage of dangerous goods the policy establishes a comprehensive test by way of a preliminary screening assessment to establish whether a proposal should be classified as 'potentially hazardous industry', in which case a preliminary hazard analysis (PHA) is required to determine the risk to people, property and the environment. No significant quantities of dangerous goods are to be stored within the proposed facility, and the EIS would include a screening assessment of potential hazards and risks in accordance with the requirements of SEPP 33 at the site.

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.

- 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'.

- 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 to ensure appropriate clearances are maintained whilst minimising the need for future pruning.

- 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 <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.

- 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 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:

- 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'.

- 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 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 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 and as a result it may 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

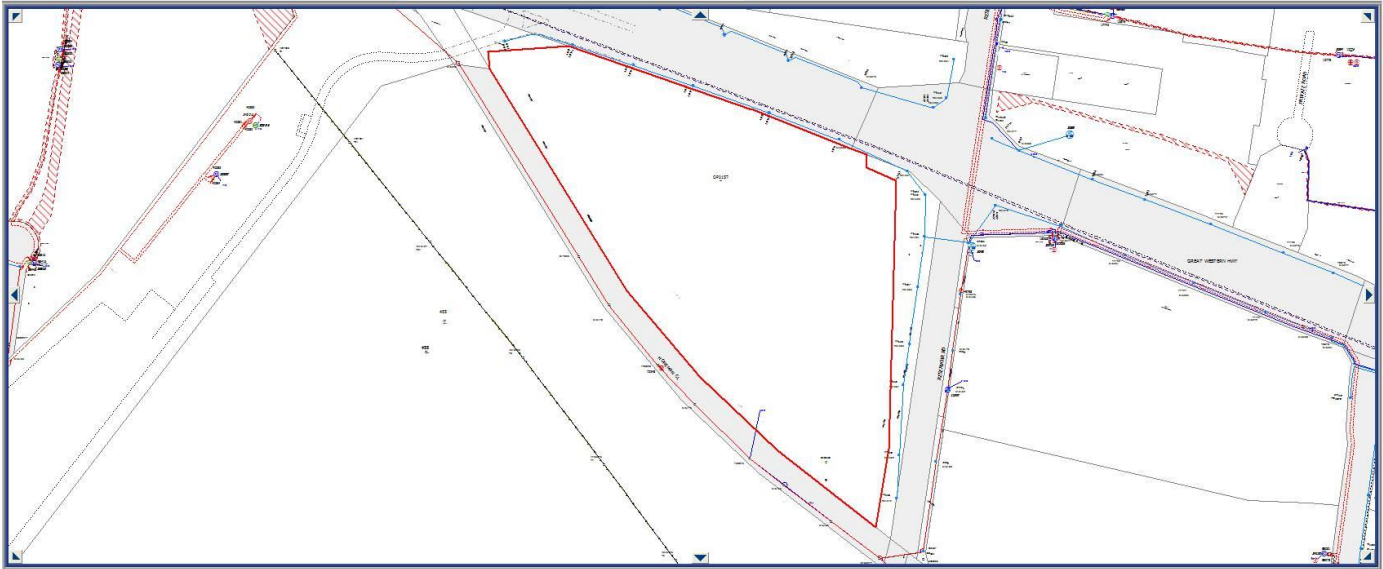
M: 0455 250 981

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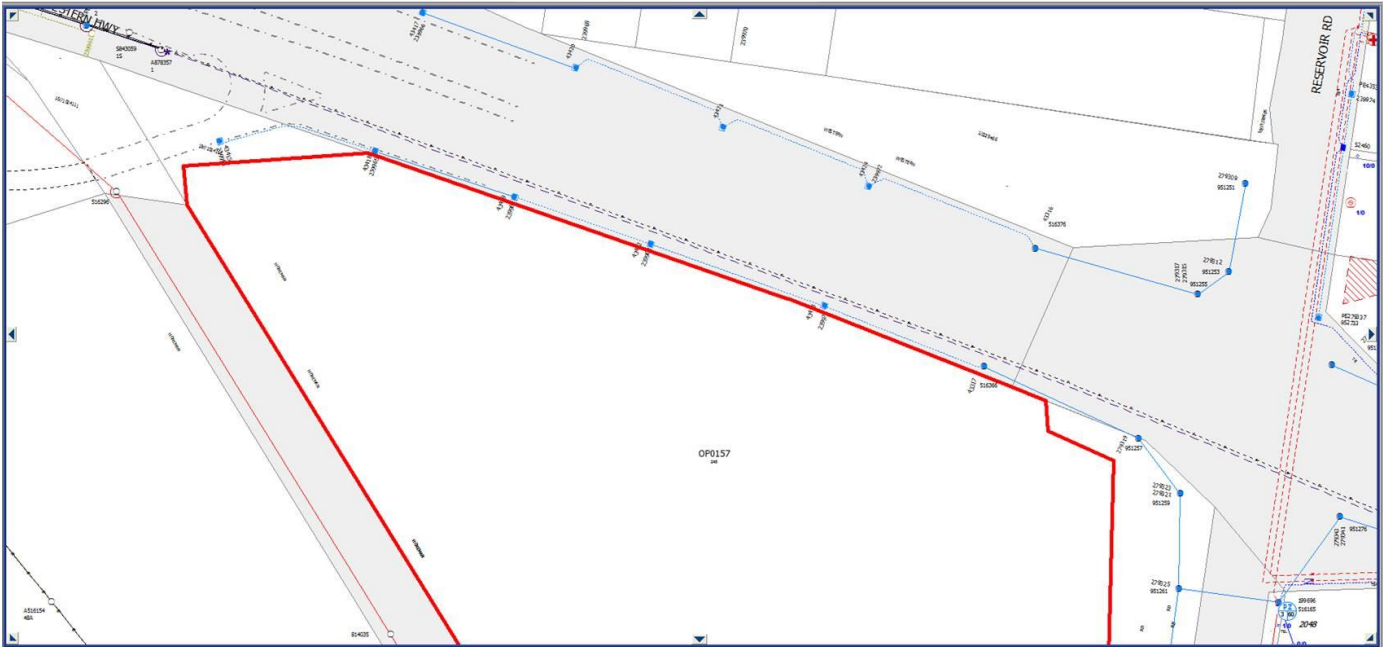
51 Huntingwood Drive, Huntingwood NSW 2148

www.endeavourenergy.com.au





G3E_FID	Feature Name	Component Name	G3E_CID	G3E_ID	LOT	SECTION	DP
82500964	Crown Parcel	Crown Parcel Find	1	2362010	5		1238405





From: Christopher Fraser <Christopher.Fraser@planning.nsw.gov.au>

Sent: Monday, 24 May 2021 9:29 AM

To: Property Development <Property.Development@endeavourenergy.com.au>

Subject: SSD-19729084 - Proposed Data Centre - 6 Honeman Close, Huntingwood - Request for SEARs advices

Cornelis Duba
Endeavour Energy
PO Box 811
SEVEN HILLS NSW 1730

(Email : property.development@endeavourenergy.com.au)

Dear Cornelis,

The Department of Planning and Environment has received a request for the Planning Secretary's Environmental Assessment Requirements (SEARs) from LEHR Consultants International (International) Pty Ltd for a proposed Data Centre at 6 Honeman Close, Huntingwood (Lot 5, DP1238405) in the Blacktown City Council Local Government Area (LGA).

The Applicant has indicated the proposal is State Significant Development (SSD) in accordance with Schedule 1, clause 25 of the State Environmental Planning Policy (State and Regional Development) 2011 (SRD SEPP) as it is development for the purpose of premises used for storage of data with a capital investment value of more than \$50 million.

The SEARs request can be viewed at the Department's website:
<https://www.planningportal.nsw.gov.au/major-projects/project/41901>

I would appreciate if you could review the documentation and provide your requirements for the preparation of the Environmental Impact Statement by close of business **Monday 7 June 2021**.

Once the SEARs advice request has been allocated to the relevant officer could you please let me know who from your Agency will be the contact for the project.

Please contact me at christopher.fraser@planning.nsw.gov.au or 9995 6321 if you have any enquiries.

Kind regards,

Chris Fraser

Environmental Assessments Officer
Industry Assessments

4 Parramatta Square, 12 Darcy Street | Locked Bag 5022 | Parramatta NSW 2124
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