

Authority	Authority's Reference	Agency Concurrence and Referral	Authority Contact	Authority Notification	Submission Due	Submission Made
Cumberland City Council	DA2023/0178	CNR-57437	Haroula Michael	10/07/2023	31/07/2023	12/07/2023

Address	Land Title
1 CRESCENT STREET HOLROYD 2142	Lot 700 DP 1241836

### Scope of Development Application or Planning Proposal

Section 4.22 Concept Development Application for Building envelopes for a mixed use development comprising seven (7) tower buildings, comprising a mix of residential, commercial, and retail uses, integrated car parking levels, new internal private road, pedestrian and vehicle access and a new public park.

#### As shown in the below site plan from Endeavour Energy's G/Net master facility model:

There are:

- No easements benefitting Endeavour Energy (active easements are indicated by red hatching).
- 11,000 volt / 11 kilovolt (kV) high voltage underground cables going to padmount substation no. 18370 over which there are no easements but they are regarded as protected works under Section 53 'Protection of certain electricity works' of the *Electricity Supply Act 1995* (NSW).
- Low voltage and 11 kV (constructed at 22,000 volt / 22kV) high voltage overhead power lines and overhead pilot cables (carrying protection signals or communications between substations) and low voltage underground cables, underground earth cables and underground pilot cables to the Crescent Street road verge / roadway.
- Low voltage and 11 kV high voltage underground cables and underground pilot cables to Lot 702 DP 1241836 / the Woodville Road road verge / roadway.

Endeavour Energy ABN 11 247 365 823 T 133 718 Level 40-42, 8 Parramatta Square, 10 Darcy Street Parramatta NSW 2150 PO Box 811, Seven Hills NSW 1730 endeavourenergy.com.au



Relevant / applicable clause numbers from Endeavour Energy's standard conditions for Development Application and Planning Proposal Review indicated by  $\boxtimes$ .

Cond- ition	Advice	Clause No.	Issue	Detail
		1	Adjoining Sites	Adjoining or nearby development / use should be compatible with the use of Endeavour Energy's sites.
	$\boxtimes$	2	Asbestos	Area identified or suspected of having asbestos or asbestos containing materials (ACM) present in the electricity network.
$\boxtimes$		3	Asset Planning	Applicants should not assume adequate supply is immediately available to facilitate their proposed development.
$\boxtimes$		4	Asset Relocation	Application must be made for an asset relocation / removal to determine possible solutions to the developer's requirements.
	$\boxtimes$	5	Before You Dig	Before commencing any underground activity the applicant must obtain advice from the Before You Dig service.
		6	Bush Fire	Risk needs to be managed to maintain the safety of customers and the communities served by the network.
		7	Construction Management	Integrity of electricity infrastructure must be maintained and not impacted by vehicle / plant operation, excessive loads, vibration, dust or moisture penetration.
	$\boxtimes$	8	Contamination	Remediation may be required of soils or surfaces impacted by various forms of electricity infrastructure.
		9	Demolition	All electricity infrastructure shall be regarded as live and care must be taken to not interfere with any part of the electricity network.
		10	Dispensation	If a proposal is not compliant with Endeavour Energy's engineering documents or standards, the applicant must request a dispensation.
		11	Driveways	For public / road safety and to reduce the risk of vehicle impact, the distance of driveways from electricity infrastructure should be maximised.
		12	Earthing	The construction of any building or structure connected to or in close proximity to the electrical network must be properly earthed.
$\boxtimes$		13	Easement Management	Preference is for no activities to occur in easements and they must adhere to minimum safety requirements.
		14	Easement Release	No easement is redundant or obsolete until it is released having regard to risks to its network, commercial and community interests.
		15	Easement Subdivision	The incorporation of easements into to multiple / privately owned lots is generally not supported.
		16	Emergency Contact	Endeavour Energy's emergency contact number 131 003 should be included in any relevant risk and safety management plan.
		17	Excavation	The integrity of the nearby electricity infrastructure shall not be placed at risk by the carrying out of excavation work.
	$\boxtimes$	18	Flooding	Electricity infrastructure should not be subject to flood inundation or stormwater runoff.
		19	Hazardous Environment	Electricity infrastructure can be susceptible to hazard sources or in some situations be regarded as a hazardous source.
		20	Modifications	Amendments can impact on electricity load and the contestable works required to facilitate the proposed development.
	$\boxtimes$	21	Network Access	Access to the electricity infrastructure may be required at any time particularly in the event of an emergency.
		22	Network Asset Design	Design electricity infrastructure for safety and environmental compliance consistent with safe design lifecycle principles.
		23	Network Connection	Applicants will need to submit an appropriate application based on the maximum demand for electricity for connection of load.

Cond- ition	Advice	Clause No.	Issue	Detail
		24	Protected Works	Electricity infrastructure without an easement is deemed to be lawful for all purposes under Section 53 'Protection of certain electricity works' of the <i>Electricity Supply Act</i> <i>1995</i> (NSW).
	$\boxtimes$	25	Prudent Avoidance	Development should avert the possible risk to health from exposure to emissions form electricity infrastructure such as electric and magnetic fields (EMF) and noise.
	$\boxtimes$	26	Public Safety	Public safety training resources are available to help general public / workers understand the risk and how to work safely near electricity infrastructure.
		27	Removal of Electricity	Permission is required to remove service / metering and must be performed by an Accredited Service Provider.
	$\boxtimes$	28	Safety Clearances	Any building or structure must comply with the minimum safe distances / clearances for the applicable voltage/s of the overhead power lines.
		29	Security / Climb Points	Minimum buffers appropriate to the electricity infrastructure being protected need to be provided to avoid the creation of climb points.
		30	Service Conductors	Low voltage service conductors and customer connection points must comply with the 'Service and Installation Rules of NSW'.
		31	Solar / Generation	The performance of the generation system and its effects on the network and other connected customers needs to be assessed.
		32	Streetlighting	Streetlighting should be reviewed and if necessary upgraded to suit any increase in both vehicular and pedestrian traffic.
		33	Sustainability	Reducing greenhouse gas emissions and helping customers save on their energy consumption and costs through new initiatives and projects to adopt sustainable energy technologies.
		34	Swimming Pools	Whenever water and electricity are in close proximity, extra care and awareness is required.
		35	Telecommunications	Address the risks associated with poor communications services to support the vital electricity supply network Infrastructure.
$\boxtimes$		36	Vegetation Management	Landscaping that interferes with electricity infrastructure is a potential safety risk and may result in the interruption of supply.
Completed by:				Decision
Cornelis Duba				Approve (with conditions)

## Cornelis Duba | Development Application Specialist

M 0455250981 E cornelis.duba@endeavourenergy.com.au

*We have moved:* Level 40-42, 8 Parramatta Square, 10 Darcy Street Parramatta NSW 2150.

Dharug/Wiradjuri/Dharawal/Gundungurra/Yuin Country

endeavourenergy.com.au in 😝 🗈 У



Endeavour Energy respectfully acknowledges the Traditional Custodians on whose lands we live, work, and operate and their Elders past, present and emerging.

**POWER** together

### Reason(s) for Conditions / Decision (If applicable)

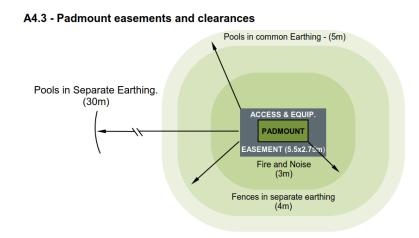
- The Statement of Environmental Effects does not appear to address the underground cables or padmount substation no. 18370 located on the site.
- Protected works under Section 53 'Protection of certain electricity works' of the *Electricity Supply Act 1995* (NSW) may be managed as if an easement is in place.

As shown in the following extract of Endeavour Energy's Mains Design Instruction MDI 0044 'Easements and Property Tenure Rights', Figure A4.3 'Padmount easements and clearances', padmount substations require:

- Easement with a minimum size of 2.75 x 5.5 metres (single transformer).
- Restriction for fire rating which usually extends 3 metres horizontally from the base of the substation footing / plinth.

In addition the following matters also need to be considered:

- Gas mains/pipes shall not pass through the fire rating restriction area.
- A 10 metre clearance distance shall be maintained between substation and fire hydrants, booster valves, and the like in accordance with AS2419.1 'Fire hydrant installations System design, installation and commissioning' as updated from time to time.
- Any landscaping that potentially could transfer / provide connectivity for flame or radiant heat from a fire in the substation to a dwelling or building should be avoided.
- The storage of and / or use of flammable, combustible, corrosive or explosive material should be avoided.
- Restriction for swimming pool or spa which extends 5 metres from the easement (which may not be required for non-residential use).



Endeavour Energy's Mains Design Instruction MDI 0044 'Easements and Property Tenure Rights', and as shown in the following extract of Table 1 'Minimum easement widths', for low voltage up to 22 kV high voltage underground cables (assumed to have no concrete protection unless proven otherwise) requires a 3 metre minimum easement width ie. 1.5 metres to both sides of the centre line of the cable ducts.

 All encroachments and /or activities (works) within or affecting an easement, restriction or protected works (other than those approved / certified by Endeavour Energy's Customer Network Solutions Branch as part of an enquiry / application for load or asset relocation project and even if not part of the Development Application) need to be referred to Endeavour Energy's Easements Officers for assessment and possible approval if they meet the minimum safety requirements and controls. However please note that this does not constitute or imply the granting of approval by Endeavour Energy to any or all of the proposed encroachments and / or activities within the easement.

For further information please refer to the attached copies of Endeavour Energy's:

- o Guide to Fencing, Retaining Walls and Maintenance Around Padmount Substations.
- General Restrictions for Underground Cables.
- Mains Design Instruction MDI 0044 'Easements and Property Tenure Rights' which deals with activities / encroachments within easements.

• The Services Infrastructure Report includes the following addressing whether the electricity services are available and adequate for the proposed development.

# EXECUTIVE SUMMARY

### POWER

The preliminary maximum demand for the Eastern site is 7,113 amps (3,550 diversified kVA), and the Western site is 4,067 amps (2,115 diversified kVA). We recommend one internal chamber substation containing three 1,500 kVA substations for the Eastern Site and two 1,000 kVA padmount substations for the Western Site. The nearest HV available for substation loop-in is on Crescent Street. **Key Issue:** There is an existing substation and other power infrastructure that may need to be removed on the development site. Extensive coordination with Endeavour will be required to decommission the substation. Note some relocations and undergrounding of existing poles and overhead lines may be required. These costs are excluded from the budget estimate.

- To ensure an adequate connection, the applicant will 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.
- An extension and / or augmentation of the existing local network will be required. As well as the capacity / provision 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. However the extent of any works required will not be determined until the final load assessment is completed.
- From the Architectural Plans it appears padmount substation no.18370 is to be removed but there does not appear to be any provision for the replacement / new substations referred to in the Services Infrastructure Report.
- Any required padmount and /or indoor substation/s will need to be located within the property (in a suitable and accessible location) and be protected (including any associated cabling not located within a public road / reserve) with an appropriate form of property tenure as detailed in the attached copy of Endeavour Energy's 'Land Interest Guidelines For Network Connection'.

Generally it is the Level 3 Accredited Service Provider's (ASP) responsibility (engaged by the developer) to make sure substation location and design complies with Endeavour Energy's standards the suitability of access, safety clearances, fire ratings, flooding etc.

For further information please also refer to the attached copies of Endeavour Energy's:

- o Mains Design Instruction MDI 0044 'Easements and Property Tenure Rights'.
- o Guide to Fencing, Retaining Walls and Maintenance Around Padmount Substations.
- The planting of large / deep rooted trees to near electricity infrastructure is opposed by Endeavour Energy. Existing trees which are of low ecological significance in proximity of electricity infrastructure should be removed and if necessary replaced by an alternative smaller planting. The landscape designer will need to ensure any planting near electricity infrastructure achieves Endeavour Energy's vegetation management requirements.

No planting of trees is allowed in the easement for a padmount substation. Screening vegetation around a padmount substation should be planted a minimum distance of 800mm plus half of the mature canopy width from the substation easement and have shallow / non-invasive roots. This is to avoid trees growing over the easement as falling branches may damage the cubicle and tree roots the underground cables. All vegetation is to be maintained in such a manner that it will allow unrestricted access by electrical workers to the substation easement all times.

 Not all the conditions / advice marked may be directly or immediately relevant or significant to the Development Application. However, 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.

### **Condition or Advice**

With Endeavour Energy's Development Application and Planning Proposal Review process / system the intent of the 'Standard Conditions' being indicated as either a 'Condition' or 'Advice' essentially depends on the risk associated with the matter. If the matter is one that is likely or very likely to be an issue / needed to be addressed by the applicant and may require corrective action, then it is marked as a 'Condition'. If the matter is likely and the consequences of the applicant not addressing it are lower or can be readily rectified, then it is marked as 'Advice'. If the matter is considered to be not applicable / relevant then it is not marked as either.

For example, the obtaining advice from the Before You Dig service in accordance with the requirements of the *Electricity Supply Act 1995* (NSW) and associated Regulations is a standard / regulatory requirement. It will be generally indicated as 'Advice'. If the Site Plan from Endeavour Energy's G/Net Master Facility Model indicates there is some uncertainty over the extent or location of the underground cables on or near the site, it would then be indicated as 'Condition' and require action to be undertaken by the applicant eg. the use of an underground asset locating device or a certified locator to verify the asset location.

### Decision

In the NSW Planning Portal for the 'Agency response', as Endeavour Energy is not a concurring authority under the provision of the *Environmental Planning and Assessment Act 1979* (NSW), it does not 'Approve' or 'Refuse' a Development Application in the Portal. It will 'Approve (with conditions)' (which may 'Object' in the submission and detail the matters requiring resolution), or if all the matters in the submission are marked are for 'Advice', the outcome of the assessment will also be 'Advice'.

### **Further Advice**

The 'Standard Conditions' include additional advice and contact details and further information is also available on Endeavour Energy's website at <a href="https://www.endeavourenergy.com.au/">https://www.endeavourenergy.com.au/</a>.

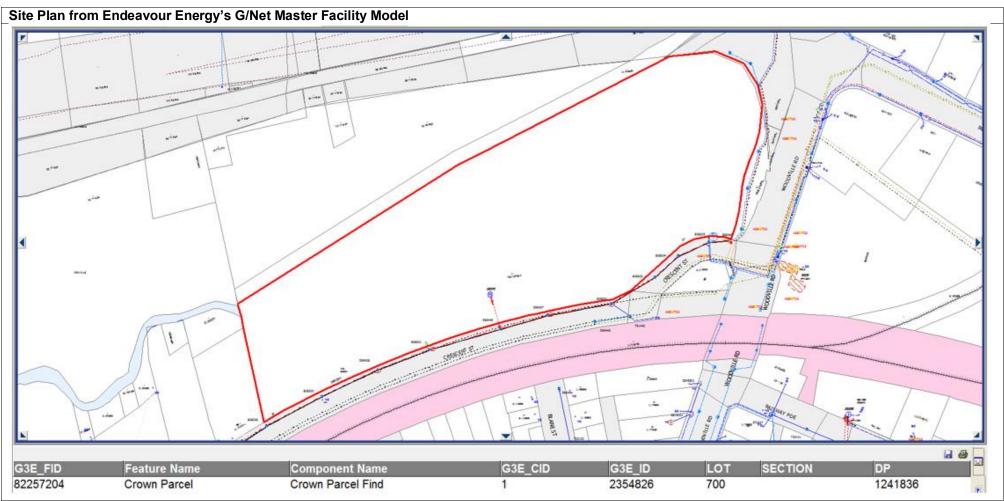
$\leftrightarrow$ $\rightarrow$ C $\triangle$ $\triangleq$ endeavourenergy.com	m.au						⋵ ☆ 🛛 😩 🗄
G Select language	About us Supplie	rs News	Careers	Connections	Technical Training	Contact us	C Life support
Endeavour Energy	Outages	Your energy	Safety	In the commu	nity Modern gr	id Sear	ch Q

The following contacts can be reached by calling Endeavour Energy via Head Office enquiries on business days from 9am - 4:30pm on telephone: 133 718 or (02) 9853 6666.

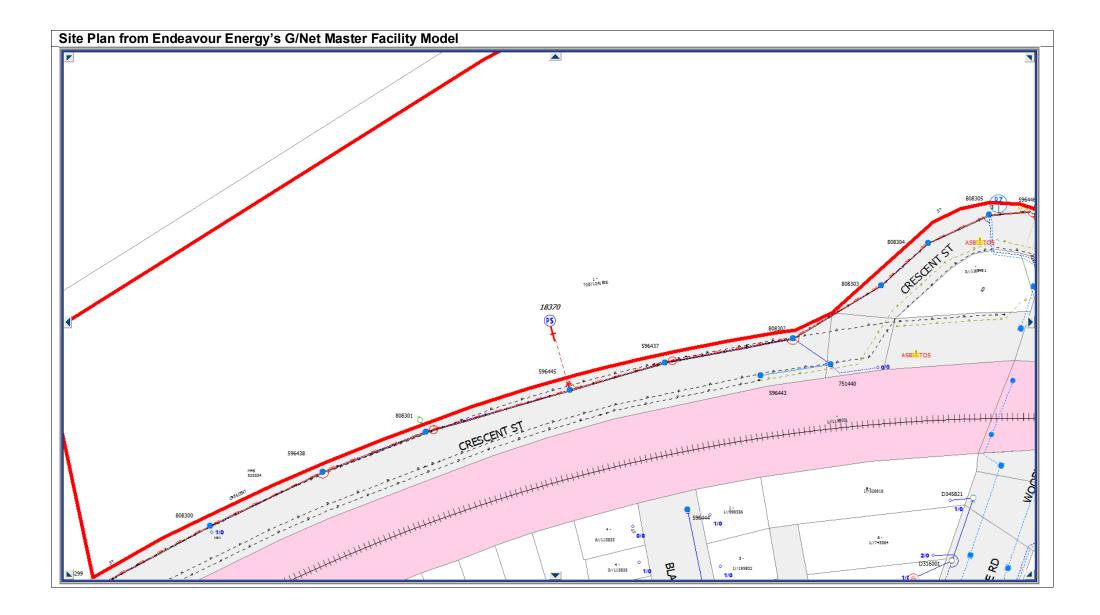
Branch / Section	Matters	Email
Customer Network Solutions	Electricity supply or asset relocation who are responsible for managing the conditions of supply with the applicant and their Accredited Service Provider (ASP).	cicadmin@endeavourenergy.com.au
Easement Officers	Easement management or protected works / assets.	Easements@endeavourenergy.com.au
Property	Property tenure eg. the creation or release of easements.	network_property@endeavourenergy.com.au
Field Operations (to the relevant Field Service Centre).	Safety advice for building or working near electrical assets in public areas (including zone and transmission substations).	Construction.Works@endeavourenergy.com.au

Please note Endeavour Energy's above contacts do not have access to the NSW Planning Portal. To resolve any matters direct contact should be made with the responsible contact. This will avoid double handling and possible delays in responding to the applicant / Council.

Details of the Accredited Service Provider (ASP) Scheme which accredits organisations to perform contestable work on the NSW electricity distribution network are available via the following link to the Energy NSW website at <a href="https://www.energysaver.nsw.gov.au/get-energy-smart/dealing-energy-providers/installing-or-altering-your-electricity-service">https://www.energysaver.nsw.gov.au/get-energy-smart/dealing-energy-providers/installing-or-altering-your-electricity-service</a>.



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. Easements benefitting Endeavour Energy are indicated by red hatching. 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 electricity power lines by network operators under Part 5E 'Protection of underground electricity power lines' of the *Electricity Supply Act 1995* (NSW).



LEGEND	
PS	Padmount substation
(Ì)	Indoor substation
G	Ground substation
K	Kiosk substation
COT	Cottage substation
$\bigcirc$	Pole mounted substation
(HC)	High voltage customer substation
	Metering unit
SS	Switch station
ISS	Indoor switch station
AT	Voltage regulator
	Customer connection point
	Low voltage pillar
	Streetlight column
	Life support customer
X	Tower
$\bigcirc$	Pole
	Pole with streetlight
<b>O</b>	Customer owned / private pole
Ζ	Cable pit
LB	Load break switch
AR	Recloser
	Proposed removed
	Easement
	Subject site



