

Sally Munk

From: Cornelis Duba <Cornelis.Duba@endeavourenergy.com.au>
Sent: Tuesday, 4 August 2020 7:01 PM
To: Sally Munk
Cc: DPE CSE Information Planning Mailbox; Jeff Smith
Subject: HPE CM: NSW Planning, Industry & Environment SSD-8477614 Request for SEARs Eastern Creek Energy from Waste Facility
Attachments: DP1225803 UIS0780 RPM16325 HONEYCOMB DR EASTERN CK.PDF; EE Drawing 86232 OH lines minimum clearances.pdf; SW08773 Work near underground assets.pdf; 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 General Restrictions OH Power Lines Apr 2020.pdf; EE FPJ 6007 Technical Review Request Aug 2019.pdf

Record Number: DOC2020/0629745

Hello Sally

Please refer to the below email from NSW Planning, Industry & Environment of 21 July 2020 regarding the Request for the Planning Secretary's Environmental Assessment Requirements (SEARs) for State Significant Development SSD-8477614 at Honeycomb Drive, Eastern Creek (Part Lots 1 & 2 and Lot 3 in DP 1145808) for the Eastern Creek Energy from Waste Facility for construction and operation of an energy from waste facility implementing moving grate technology with an engineered capacity to treat up to 329,400 tonnes of residual waste fuel. Submissions need to be made to the Department by 4 August 2020.

As shown in the below site plan from Endeavour Energy's G/Net master facility model (and extract from Google Maps Street View) in regard to the Proposed Development Site there are:

- No easements benefitting Endeavour Energy (active easements are indicated by red hatching).
- Adjoins an easement for right of carriageway and services over Lot 10 DP 1225083 – please refer to the attached copy of DP 1225083.
- Adjoins an easement for 132,000 volt / 132 kilovolt (kV) high voltage overhead power lines, overhead earth cables and overhead pilot cables (carrying protection signals or communications between substations).
- Adjoins 11,000 volt / 11 kV high voltage overhead power lines coming from Archibold Road to the west to and underground to overhead (UGOH) pole from which 11 kV high voltage underground cables go to ground substation no. 2060 (indicated by the symbol ) located on Lot 10 DP 1225083 and from which there is a low voltage underground service conductor going to a customer connection point. Ground substations are usually fenced with exposed live parts including transformers and switchgear and is typically used for loads exceeding 1000 kVA and not able to be supplied by padmount transformers.

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).

In regard to the 11 kV high voltage overhead power lines, whilst not held under easement Although not held under easement, these are protected assets and deemed to be lawful for all purposes under Section 53 'Protection of certain electricity works' of the *Electricity Supply Act 1995* (NSW). Essentially this means the owner or occupier of the land cannot take any action in relation to the presence in, on or over the land of electricity works ie. the electricity infrastructure cannot be removed to rectify the encroachment. These protected assets are managed as if an easement is in place – please refer to 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 11 kV high 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.

Table 1 - Minimum easement widths

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

ABC = Aerial Bundled Cables CCT = Covered Conductor Thick

In regard to the request for SEARs the following is an extract from a draft SEARs provided for another proposed State Significant Development and similarly Endeavour Energy believes this should also be addressed in this instance.

13. Utilities

The EIS shall:

- o address the existing capacity of the site to service the proposed development and any augmentation requirements for utilities, including arrangements for electrical network requirements, drinking water, wastewater and recycled water
- o identify the existing infrastructure on-site and any possible impacts of the construction and operation of the proposal on this infrastructure.

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

- Network Capacity / Connection

As indicated in the Department's email this is an amendment / revision of a previous application with the then NSW Planning & Environment notifying Endeavour Energy on 25 May 2015 regarding Exhibition of State Significant Development Application No SSD 6236 Eastern Creek Energy from Waste Facility Blayney Export Meats Smallstock Abattoirs at Honeycomb Drive, Eastern Creek (Lots 1, 2, 3 and 4 in Deposited Plan 1145808) for 'Construction and operation of an energy from waste facility for the thermal treatment of up to 1.35 million tonnes of waste per year, including a boiler house, steam turbines for electricity generation and air emissions stacks.'

At that time Asset & Network Planning Branch reviewed the available information and advised the following:

'It looks as if it is 140MW export and connecting directly into TransGrid's 132kV at Sydney West Bulk Supply Point. From a connections and electrical assessment point of view I would think we have minimal involvement in this case'.

Endeavour Energy's Asset Planning & Performance have reviewed the amended proposal and have not raised any concerns or provided any additional / updated advice.

In due course the applicant for the proposed development of the site will need to submit an application for connection of load via Endeavour Energy's Network Connections Branch to carry out the final load assessment and the method of supply will be determined. Depending on the outcome of the assessment, any required padmount substation 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. For more details please refer to Endeavour Energy's Mains Design Instruction MDI 0044 'Easements and Property Tenure Rights'.

Further details are available by contacting Endeavour Energy's Network Connections Branch via Head Office enquiries 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/> .

Advice on the electricity infrastructure required to facilitate the proposed development (including asset relocations) can be obtained by submitting a Technical Review Request to Endeavour Energy's Network Connections Branch, the form for which FPJ6007 is attached 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 a Level 3 Accredited Service Provider (ASP) approved to design distribution network assets, including underground or overhead. The ASP scheme is administered by Energy NSW and details are available on their website via the following link or telephone 13 77 88:

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

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.

- 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.

- 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 / 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'.

- 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, on direct telephone 9853 7139 or alternately 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.

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.

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

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

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

Electric fields are strongest closest to their source, and their strength diminishes rapidly as we move away from the source.

The level of a magnetic field depends on the amount of the current (measured in amps), and decreases rapidly once we move away from the source.

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

- Vegetation Management

The planting of large trees in the vicinity of 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 *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.

- 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.

- 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. I have attached 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.

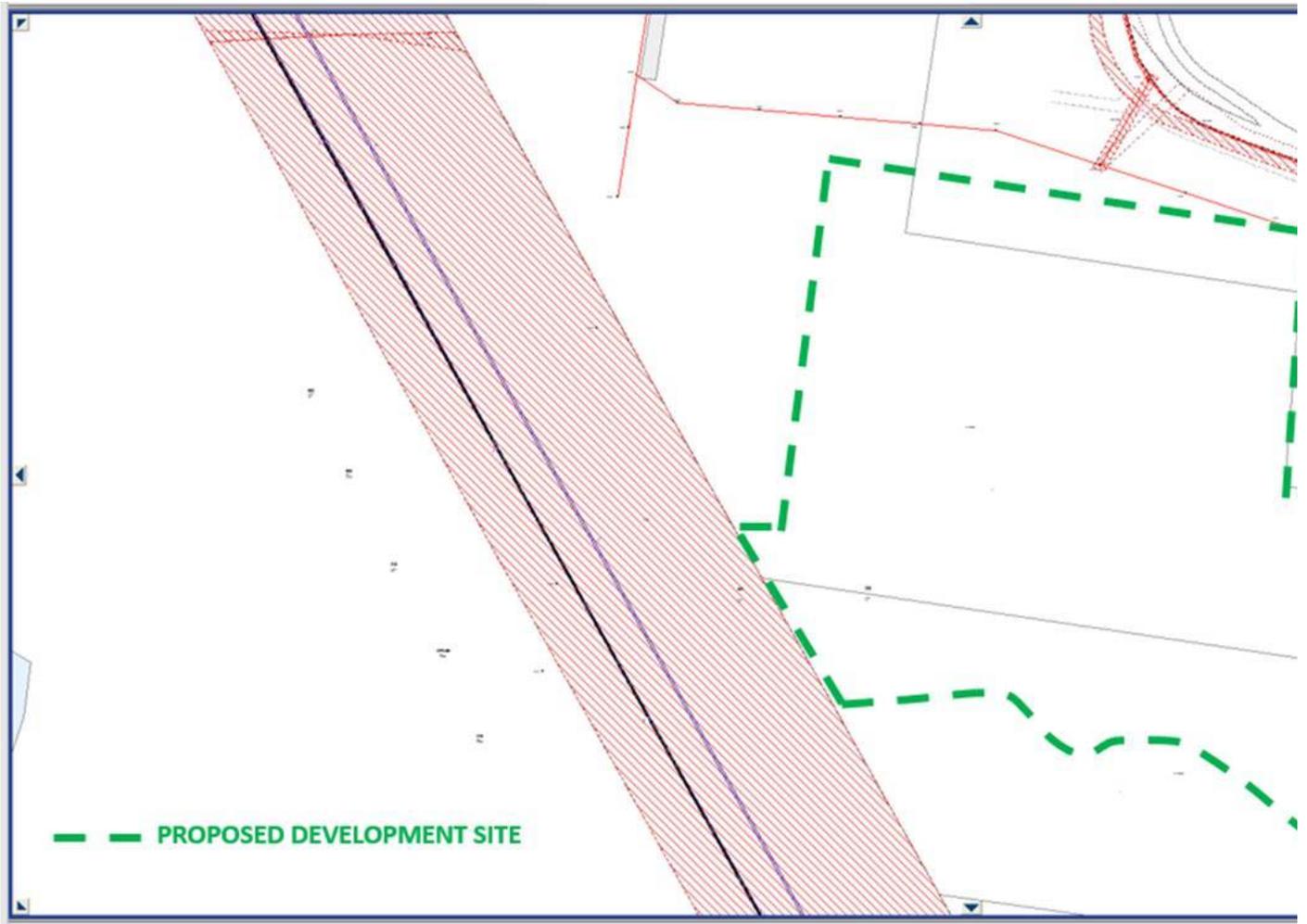
Could you please pass on a copy of this submission and the attached resources to the applicant? Should you wish to discuss this matter, or have any questions, please do not hesitate to contact me or the contacts identified above in relation to the various matters. Due to the high number of development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

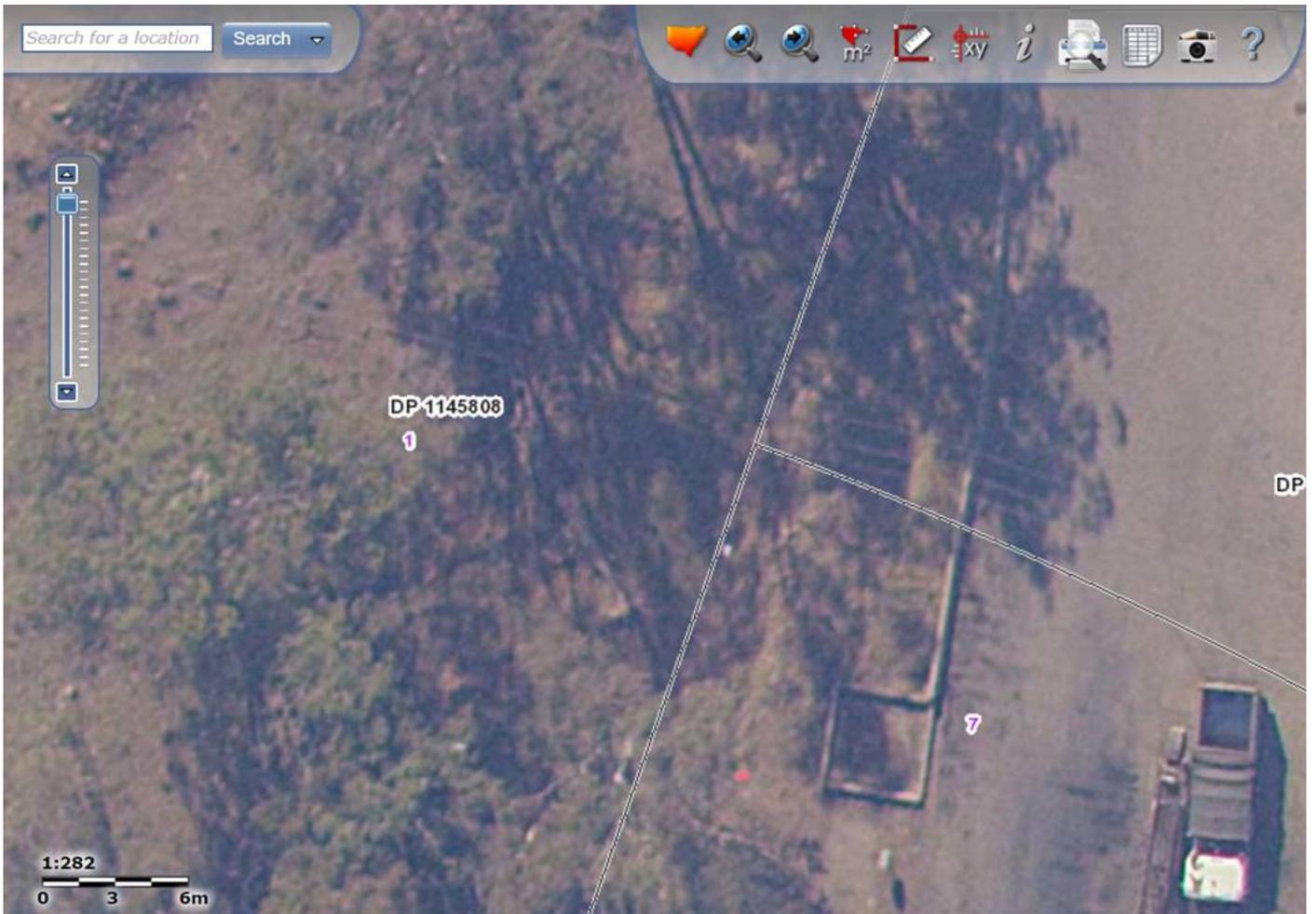
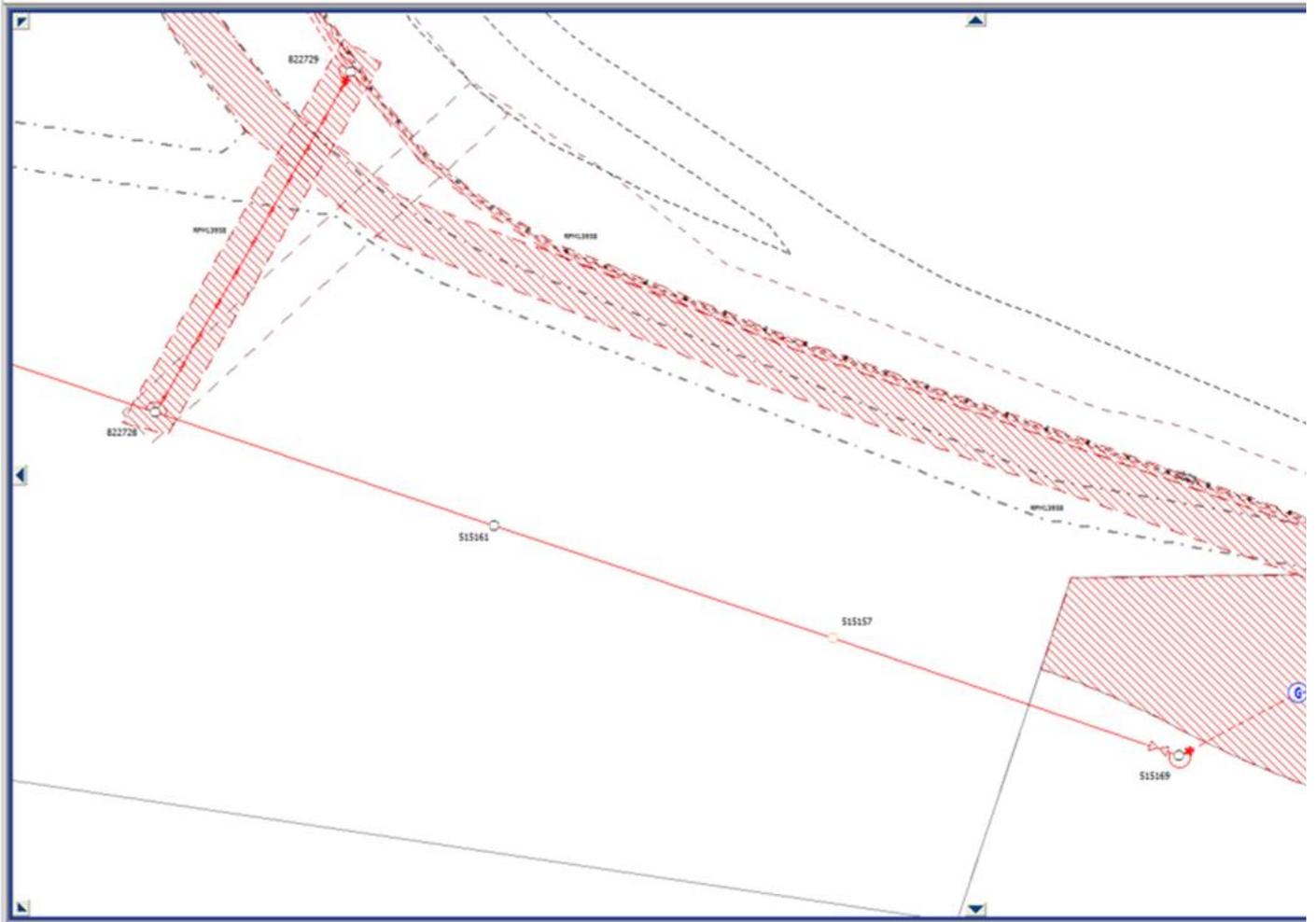
With the current COVID-19 health risk, as many as possible of Endeavour Energy staff are working from home. As a result there is only a small contingent located at the Huntingwood head office for essential operations. Although working from home, access to emails and other internal stakeholders is now somewhat limited and as a result it may take longer than usual to respond to enquiries. Thank you for your understanding during this time.

Yours faithfully
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From: Sally Munk <Sally.Munk@planning.nsw.gov.au>

Sent: Tuesday, 21 July 2020 12:56 PM

To: Airport Developments <Airport.Developments@AirservicesAustralia.com>; Airspace Protection <Airspace.Protection@casa.gov.au>; Property Development <Property.Development@endeavourenergy.com.au>; EPA Planning Matters Mailbox <planning.matters@epa.nsw.gov.au>; Fire Safety <FireSafety@fire.nsw.gov.au>; DPE PSVC Hazards Mailbox <hazards@planning.nsw.gov.au>; Richard Broome <Richard.Broome@health.nsw.gov.au>; Kishen Lachireddy <Kishen.Lachireddy@health.nsw.gov.au>; Helen Noonan (Western Sydney LHD) <helen.noonan@health.nsw.gov.au>; OEH HD Heritage Mailbox <HERITAGEMailbox@environment.nsw.gov.au>; mail@insw.com; Adam Oehlman <landuse.enquiries@dpi.nsw.gov.au>; Gina Metcalfe <Gina.Metcalfe@planning.nsw.gov.au>; Melissa Rassack <Melissa.Rassack@planning.nsw.gov.au>; mhf@safework.nde.gov.au; UrbanGrowth <UrbanGrowth@sydneywater.com.au>; development <development@transport.nsw.gov.au>

Subject: Request for SEARs - Eastern Creek Energy from Waste Facility - SSD Application

The Department of Planning, Industry and Environment (Department) has received a Request for the Planning Secretary's Environmental Assessment Requirements (SEARs) from The Next Generation (the Applicant) for the Eastern Creek Energy from Waste Facility.

The proposal is located on the same site (Part Lots 1 & 2 and Lot 3 in DP 1145808 at Eastern Creek) as the SSD application (SSD 6236) for an energy from waste facility that was refused by the Independent Planning Commission in July 2018 which is currently under appeal in the NSW Land & Environment Court (L&E Court).

On 16 January 2020, the Applicant requested the L&E Court allow them to amend the application currently before the Court. However, on 18 February 2020, Justice Moore refused this request on the basis that the amendments collectively constituted a new development application. The amended application comprised a smaller scale facility with a capacity to treat up to 300,000tpa of residual waste fuel, encompassing a broader range of fuel components, amendments to the design and layout of the proposed facility and amendments to the proposed waste sources.

The Applicant has now submitted a Request for SEARs with the Department for the amended application, as a new State significant development (SSD) application. The Scoping Report for the proposal can be found on the Department's website at the project page:

<https://www.planningportal.nsw.gov.au/major-projects/project/38141>

The proposed development is SSD under the *Environmental Planning and Assessment Act 1979*.

Please provide input into the SEARs for the proposal including details of any key issues and assessment requirements by **Tuesday 4 August 2020**.

If you have any enquiries, please contact Sally Munk on 9274 6431 or via email at sally.munk@planning.nsw.gov.au.

Kind regards
Sally

Sally Munk
Principal Planning Officer

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**Planning,
Industry &
Environment**

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.