## Sally Munk

**From:** Cornelis Duba <Cornelis.Duba@endeavourenergy.com.au>
**Sent:** Friday, 29 November 2019 5:12 PM
**To:** DPE CSE Information Planning Mailbox
**Cc:** Sally Munk; Jeff Smith
**Subject:** NSW Planning, Industry & Environment Request for SEARs SSD-10395 Western Sydney Energy and Resource Recovery Centre
**Attachments:** SW08773 Work near underground assets.pdf; EE Fact Sheet Building Conctruction.pdf; EE FPJ 4603 Permission to Remove Service July 2007.pdf; EE FPJ 6007 Technical Review Request Aug 2019.pdf; EE Guide for Padmount Substations.pdf; EE MDI0044 Easements and Property Tenure.pdf; EE Safety on the job.pdf; EE Safety Plumbing.pdf; ENA EMF What We Know.pdf; SW Work near overhead power lines.pdf

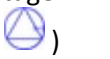
The Secretary
NSW Planning, Industry & Environment

**ATTENTION: Sally Munk, Principal Planning Officer**

Dear Sir or Madam

I refer to the Department's below email of 15 November 2019 regarding the Planning Secretary's Environmental Assessment Requirements (SEARs) for State Significant Development SSD 10395 at 339 Wallgrove Road, Eastern Creek (Lot 1 DP 1059698) for a proposed energy and resource recovery centre. The purpose of the proposal is to build an energy-from-waste facility that can generate up to 45 megawatts of power by thermally treating up to 500,000 tonnes per year of residual municipal solid waste and residual commercial and industrial waste. Submissions need to be made to the Department by 29 November 2019.

Please note that whilst I have registered on the Major Projects External Portal prior to submitting a response, I was unable to find SSD 10395 in the Projects on Exhibition.

As shown in the below site plans from Endeavour Energy's G/Net master facility model (and extracts from Google Maps Street View and SIX Maps) there is an 11,000 volt / 11 kilovolt (kV) high voltage underground cable coming from the opposite side of the Westlink M7 to an underground to overhead (UGOH) pole and the 11 kV high voltage overhead power lines going to another pole with pole mounted substation no. 6592 (indicated by the symbol  ) . There is a 'Proposed Property' easement for this electricity infrastructure (please see the attached copy of DP 645807 registered 17 March 1992).

Please note the location, extent and type of any electricity infrastructure, boundaries etc. shown on the plan is indicative only. 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 kilovolts (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 electricity infrastructure on the site on the site not held under easement they are protected assets under the *Electricity Supply Act 1995* (NSW) Section 53 'Protection of certain electricity works'. The owner or occupier of the land cannot take any action by reason of the presence or operation of the electricity works in, on or over the land ie. they cannot remove the electricity infrastructure from the property. These protected assets are managed on

the same basis as if an / the proposed easement is in existence. – please refer to the below point 'Easement Management / Network Access.

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

- Network Capacity / Connection

Endeavour Energy has noted the following in the Scoping Report:

Table 5: Environmental Scoping

| Issue and categorisation | Likelihood of impact (following mitigation): likely or unlikely<br>Consequences of impact: material or not material |
|---|---|
| Services and utilities | |
| • Key issue | Connection to electricity grid:<br>• Likelihood: it is **likely** that the proposal will require a new connection to the electricity facility.<br>• Consequence: the capacity of the existing electricity grid infrastructure to accommodate the impact is assumed to be **material**.<br>Connection to other services:<br>• Likelihood: it is **likely** that the proposal will require new connections to utility services<br>• Consequence: the capacity of the existing services infrastructure to accommodate new c impact is assumed to be **material**. |

### 6.2.14 Services and utilities

#### Existing environment

There are currently two options for the facility to connect to the electricity grid:

- An existing overhead 132kV feeder crosses Wallgrove Road approximately 400 m north of the site.
- Existing overhead/underground 33kV feeder (48C) is located along the western side of Wallgrove Road, adjacent to the site.

A feasibility assessment for the preferred connection option and any other preferred options identified will be prepared and will be documented in the EIS.

A dial before you dig (DBYD) desktop search was undertaken to confirm the availability for sewerage, water and telecoms connections. Results were obtained from Sydney Water, Nextgen, AARNet, NSW-ACT survey marks, Telstra, Endeavour Energy, National Broadband Network (NBN) and Jemena.

Connection to these existing networks is considered feasible however confirmation from each utility provider is required which will be addressed as part of the utilities feasibility study.

Regarding gas, connection to an existing network is difficult due to the distance from the site. The utilities feasibility assessment will consider the potential to us diesel or supply the site with off-grid gas.

Consultation with utility providers will be undertaken during the preparation of the EIS.

The scope of the WSERRC for which approval would be sought will include works to connect to utilities except for the connections to the electricity grid. The scope of works to connect to the electricity grid will be confirmed as part of the utilities feasibility assessment which will also confirm the assessment and approval pathway for these works.

Endeavour Energy's Asset Strategy & Planning Branch whilst not having undertaken a detailed analysis of the Development Application have provided the following advice:

*Although a representative from Endeavour Energy did not attended the Planning Focus Meeting held on 24 October 2019, the applicant attended a meeting with Endeavour Energy the following day with representatives from both Endeavour Energy's Network Connections and Asset Strategy & Planning Branches.*

*The applicant was advised that they should lodge and application for connection of load via Network Connections Branch and commence a feasibility study for their connection at either 33 kV or 132 kV as indicated in the Scoping Report.*

*This Development Application will need to follow the standard connection of load process where Asset Strategy & Planning Branch will undertake a detailed review of the electricity supply arrangements for the proposed energy and resource recovery centre.*

*Asset Strategy & Planning Branch have not yet received an application for evaluation.*

*In regard to the generation of up to 45 megawatts of power, due to the complexity and detail required for assessing larger applications, it is expected that he applicant's electrical consultant should have the understanding and capability to assess the installation's operational suitability for connection to Endeavour Energy's electricity distribution network and advise you accordingly. Endeavour Energy will then assess and confirm the suitability of the proposed generation system.*

Endeavour Energy's Network Connections Branch had provided the following advice:

> *In determining the feasibility for the connection at either 33 kV or 132 kV appropriate consideration of the environmental impact when constructing a new feeder will need to be provided. The impact of these types of works even for a comparative short distance but in proximity of major traffic routes and in employment lands are considerable, including:*
>
> - *Network outages to facilitate the completion of the electrical works.*
> - *Traffic diversions and disruptions to traffic flow which will require a traffic management plan.*
> - *Establishing appropriate barriers and signage to ensure pedestrians are safely diverted around works*
> - *Other typical construction impacts might include noise and vibration associated with construction equipment, and dust from the construction zone which will need to be managed to minimise these impacts.*
> - *Notifying properties whose access and/or power supply will be affected.*
>
> *In saying the foregoing, it is expected that Endeavour Energy's processes and procedures will be followed when application is made for connection to Endeavour Energy's electricity supply network and these will apply to projects such as this, which are classified as being State Significant Infrastructure. These procedures require the submission of a Summary Environmental Report (SER) with each electrical design submitted to Endeavour Energy's Network Connections Branch for certification. Endeavour Energy is a Determining Authority under Part 5 Environmental Planning and Assessment Act, 1979 (NSW) and under the auspices of the Code of Practice for Authorised Network Operators (the Code) as prepared by the then Department of Planning and Environment in 2015.*

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. Older / 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 where as a newer padmount substation (indicated by the symbol  on the site plan from Endeavour Energy's G/Net master facility model) can accommodate loads from 315 kVA up to 1,500 kVA (typically 500 kVA) ie. there is a significant variation in the number and type of premises able to be connected to a substation. Given the size and nature of the proposed development, existing pole mounted substation no. 6592 located on the site will not have sufficient capacity to facilitate the proposed development.

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. 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 8am - 5:30pm 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 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 .

- Urban Network Design

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

**5.11 Reticulation policy**

*5.11.1 Distribution reticulation*

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

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

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

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

*5.11.1.1 Urban areas*

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

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

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

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

- 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. 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.

- 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 services or structures 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 easement areas. Most activities are prohibited within the padmount substation easement area. 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 .

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

- Mains Design Instruction MDI 0044 'Easements and Property Tenure Rights' which deals with activities / encroachments within easements.
- General Restrictions for Overhead Power Lines.
- Guide to Fencing, Retaining Walls and Maintenance Around Padmount Substations (for the future padmount substation likely 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.

- 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). Larger trees should be planted well away from electricity infrastructure and even with underground cables, be installed with a root barrier around the root ball of the plant. Landscaping that interferes with electricity infrastructure could become a potential safety risk, restrict access, reduce light levels from streetlights or result in the interruption of supply may become 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.

- Prudent Avoidance

The electricity industry has adopted a policy of prudent avoidance by doing what can be done without undue inconvenience and at modest expense to avert the possible risk to health from exposure to emissions form

electricity infrastructure such as electric and magnetic fields (EMF) and noise which generally increase the higher the voltage ie. Endeavour Energy's network ranges from low voltage (normally not exceeding 1,000 volts) to high voltage (normally exceeding 1,000 volts but not exceeding 132,000 volts / 132 kV).

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

These emissions are usually not an issue but with authorities 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 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 in the vicinity of 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.

- 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 telephone: 133 718 or (02) 9853 6666 from

8am - 5:30pm) 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'.

- 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. the existing customer service lines will need to be isolated and/or removed during demolition. 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.

- 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 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 the any risk or safety management plan. Endeavour Energy's contact details should be included in any relevant risk and safety management plan.

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

Yours faithfully
Cornelis Duba
Development Application Specialist
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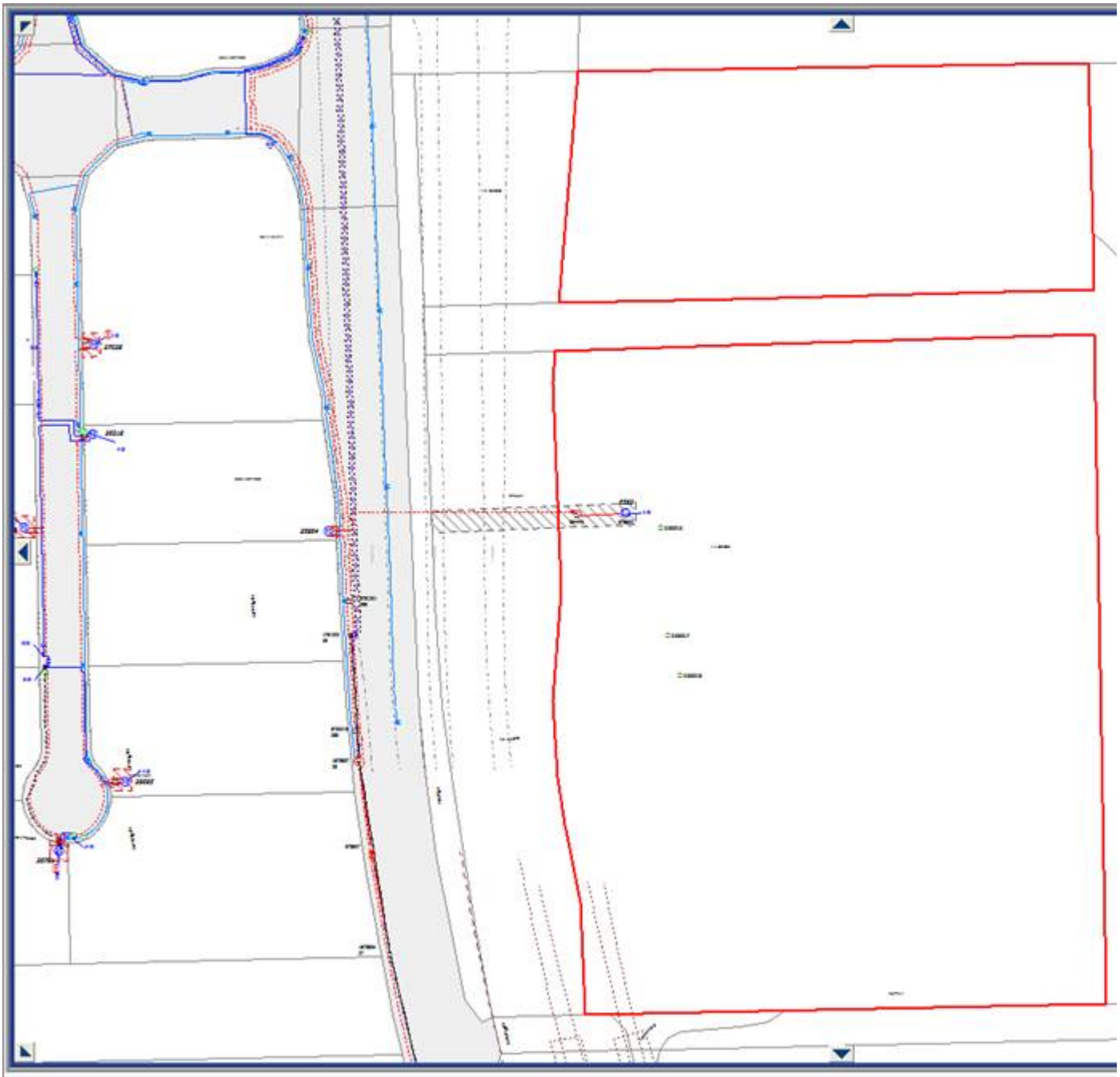

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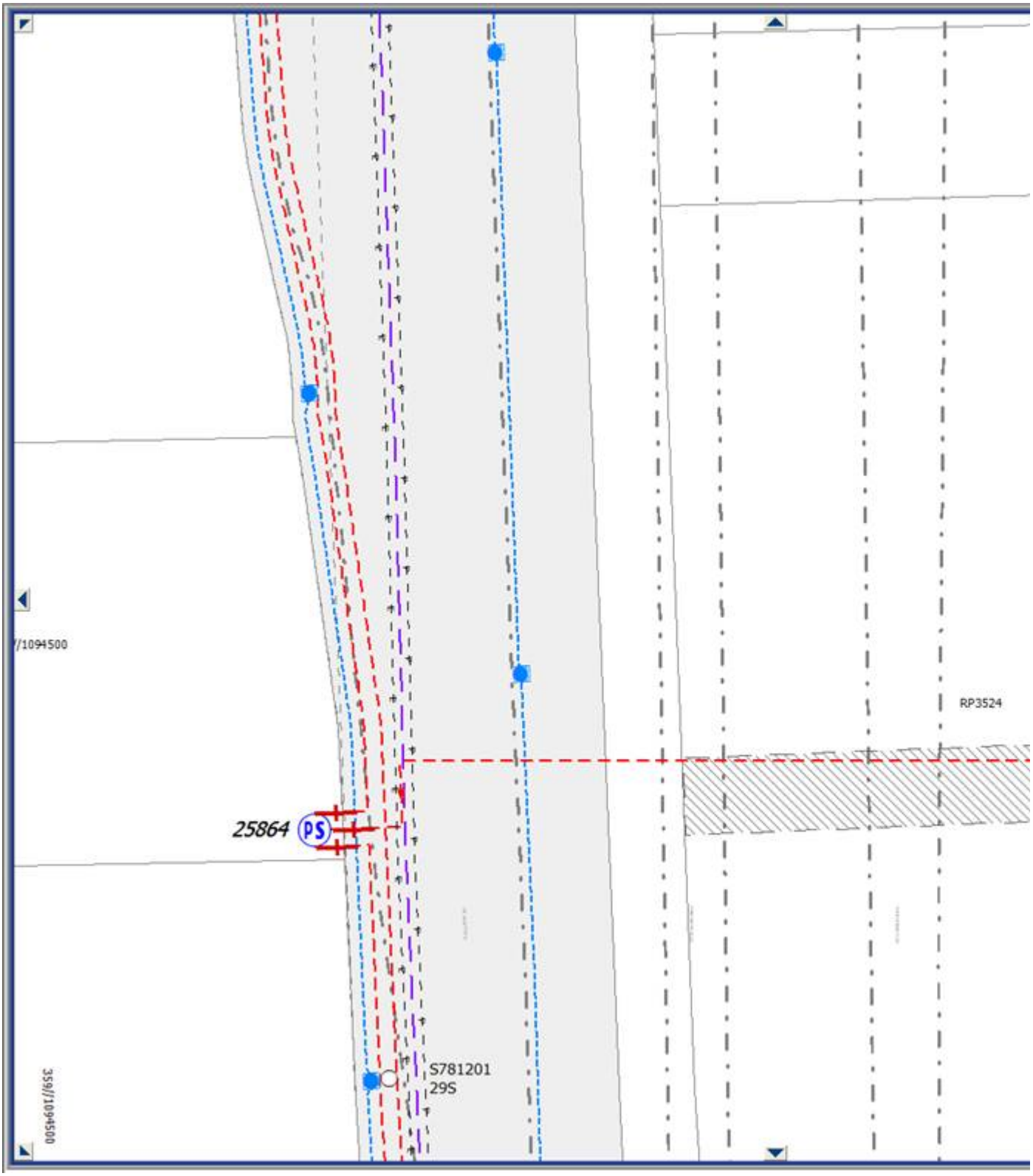
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M7
Eastern Creek, New South Wales
Google
Street View - Mar 2018
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Google


**From:** Sally Munk <Sally.Munk@planning.nsw.gov.au>
**Sent:** Friday, 15 November 2019 2:11 PM
**To:** Sally Munk <Sally.Munk@planning.nsw.gov.au>
**Subject:** RE: Western Sydney Energy and Resource Recovery Centre - Request for SEARs (SSD 10395)

Dear All

Further to my email request below, it would be greatly appreciated if you could lodge your response to the request for SEARs via the Department's new online portal. If you have not registered on the portal, please do so prior to submitting your response. Guidance on how to do this can be found at the following link:

https://www.planningportal.nsw.gov.au/major-projects/sites/default/files/documents/2019/Agency%20and%20Council%20User%20Guide.pdf

Kind regards

Sally

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**From:** Sally Munk
**Sent:** Friday, 15 November 2019 11:07 AM
**To:** Sally Munk <Sally.Munk@planning.nsw.gov.au>
**Subject:** Western Sydney Energy and Resource Recovery Centre - Request for SEARs (SSD 10395)

Dear Sir/Madam

The Department of Planning, Industry and Environment has received a request for the Planning Secretary's Environmental Assessment Requirements (SEARs) from Cleanaway Operations Pty Ltd (the Applicant) for a proposed energy and resource recovery centre at 339 Wallgrove Road, Eastern Creek (Lot 1 DP 1059698) in the Blacktown Local Government Area (LGA) (SSD 10395).

The proposal is State significant development (SSD) in accordance with Schedule 1 of the State Environmental Planning Policy (State and Regional Development) 2011 (SRD SEPP) as it is development for the purpose of electricity generating works with a capital investment value (CIV) greater than $30 million.

As the site is located within the Western Sydney Parklands (WSP), it is also classified as SSD, being development that has a CIV of more than $10 million on land identified as being within the WSP on the WSP Map within the meaning of State Environmental Planning Policy (Western Sydney Parklands) 2009 (the WSP SEPP).

The Applicant's Scoping Report can be viewed at the Department's website at https://www.planningportal.nsw.gov.au/major-projects/project/25896.

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 **Friday 29 November 2019**.

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

Kind regards
Sally Munk

**Sally Munk**
**Principal Planning Officer (Part Time: Wednesday, Thursday & Friday)**

Industry Assessments
Department of Planning, Industry and Environment
320 Pitt Street | Sydney NSW 2000
T 02 9274 6431
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.*