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From: system@acelo.com on behalf of Jason Lu <[REDACTED]>
Sent: Monday, 5 November 2018 4:13 PM
To: [REDACTED]
Subject: Submission Details for company Endeavour Energy (org_comments)
Attachments: 293252_ORG Submission Details from Endeavour Energy 20181105.pdf

Confidentiality Requested: no

Submitted by a Planner: no

Disclosable Political Donation:

Agreed to false or misleading information statements:

Name: Jason Lu
Organisation: Endeavour Energy (Capacity Planning Manager)
Govt. Agency: Yes
Email: [REDACTED]

Address:
[REDACTED]
[REDACTED]

Content:
Please see attached.

IP Address: - 141.243.33.161
Submission: Online Submission from company Endeavour Energy (org_comments)
https://majorprojects.acelo.com/?action=view_activity&id=293252

Submission for Job: #9552
https://majorprojects.acelo.com/?action=view_job&id=9552

Site: #0
https://majorprojects.acelo.com/?action=view_site&id=0

[REDACTED]

[REDACTED]

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[REDACTED]

[REDACTED]

[REDACTED]



5 November 2018

Mr Brett Whitworth
Executive Director Aerotropolis Activation Team
NSW Planning & Environment
GPO Box 39
Sydney NSW 2001

Dear Mr Whitworth,

Western Sydney Aerotropolis – Stage 1 Exhibition

Thank you for your letter received on 23 August 2018, regarding the exhibition of plans for the Western Sydney Aerotropolis Stage 1 Land Use and Infrastructure Implementation Plan. We commend the Department for releasing the Draft LUIP as forward visibility of planned growth in the 5-10 year horizon assists us greatly in securing funding as a regulated monopoly.

We appreciate the opportunity to comment and there are a number of issues we have identified with respect to electricity infrastructure.

Staging of Development

Due to the large area that the Aerotropolis covers it would be difficult for infrastructure providers to service a large number of dispersed development fronts in parallel. Endeavour Energy supports the approach in the LUIP to identify initial precincts for development. We also support the proposal for a Delivery Authority for the Aerotropolis.

Existing Infrastructure

In general the existing electricity network has limited infrastructure for growth in the Aerotropolis and is built to a rural standard. The limited remaining capacity available at our Luddenham zone substation has been allocated to Stage 1 of the Science Park. There is some capacity available at Kemps Creek Zone Substation which is outside the initial precincts. It is well located to provide initial servicing to a proposed development by Mirvac along Elizabeth Drive. Although this development is outside the initial precincts, Endeavour Energy supports this development based on available capacity and the cooperation shown by the developer to assist with provision of a future zone substation site, which could also supply other surrounding development in the long term.

Endeavour Energy has no short term plans in place for Aerotropolis Core precinct and prior to the release of the Draft LUIP was not aware of the Aerotropolis Core being an initial precinct.

Plans to service growth

Electricity Infrastructure is delivered by a blend of customer (developer) and Endeavour Energy funded infrastructure. Connection works and local reticulation are delivered by developers whereas trunk infrastructure is provided by Endeavour Energy. Endeavour Energy supports a staged approach to delivering infrastructure as ultimately this reduces the cost of electricity for our end use customers.

Endeavour Energy was required to submit its Regulatory Proposal to the Australian Energy Regulator (AER), including investment requirements for the 2020-24 period in April 2018. This proposal was prepared without the benefit of the Draft LUIP and therefore does not include any projects for the Aerotropolis Core or the Agribusiness Precinct. As stated previously, forward visibility of development in the 5-10 year horizon is important for developing our regulatory proposals.

Projects were included in our proposal based on forecasts of development from WSACo and information from individual developers available at the time.

The major projects included in our current Growth Servicing Plan for the Aerotropolis are:

- 1) 132kV supply to Western Sydney Airport, including a 132kV transmission line backbone to enable connection of future zone substations in Aerotropolis.
- 2) A Western Sydney Employment Area zone substation north of Elizabeth Drive at Kemps Creek (in the proposed Mirvac development).
- 3) A Science Park Zone Substation.

Refer to Attachment 1 for a diagram showing the current servicing strategy for the Endeavour Energy.

The timing and scope of projects within the servicing plan will vary as more up to date information is received regarding proposed development.

For example, more recent information suggests that funding will need to be reprioritised to service the Aerotropolis Core precinct in the next 6 years. It will be necessary for Endeavour Energy to acquire a suitable zone substation site in this precinct. It would be beneficial if NSW Planning and Environment could assist with identification of a site in the early stages of precinct planning.

Endeavour Energy has made contact with Department of Primary Industries regarding the Agribusiness Precinct. At this point in time there is insufficient information for Endeavour to develop a servicing strategy, however we will continue to work with DPI during the course of their feasibility studies.

We have worked cooperatively with NSW Transport on other major rail projects, we expect that Transport NSW will contact Endeavour Energy in due course regarding power supply for the future North South Rail Link.

Infrastructure Corridors

There is a need to establish new 132kV transmission feeders within the Aerotropolis to supply planned zone substations. Planning for corridors is critical to their success. RMS has a regular meeting with Endeavour to coordinate both asset relocations for upgrades and provision of conduits for future transmission feeders. An example of this cooperation is the planned installation of ducts for the future 132kV line between Bringelly and the Airport in The Northern Rd during construction works.

An unresolved issue is the Elizabeth Drive corridor which was originally identified by multiple utility providers, including Endeavour, for trunk infrastructure. There are ongoing discussions with RMS to progress this matter.

There may be a need to establish North/South crossings of the M12 in future and will consult with RMS when required.

Forecasting

More detailed information at precinct planning stage regarding land use, location of critical infrastructure and road layouts would assist in development of our servicing plans. Consultation with Endeavour during the development of these plans would be appreciated, in particular for identification of zone substation locations.

It is important for Endeavour to have credible development forecasts to justify investment to our regulator and internal stakeholders. It would be beneficial for all infrastructure providers to have a common development forecast to ensure the initial precincts are serviced in a timely manner.

Correct sizing of infrastructure requires more granular information, particularly as many developments are proposing some form of generation.

The increasing presence of distributed generation may result in 2 way power flows. This creates uncertainty in future demand and there can also be constraints on the network if there is too much generation in the one location. Although a challenge, this issue also presents opportunities for improvement. For example, there is potential for the Aerotropolis to develop in a more sustainable manner and reduce energy infrastructure requirements over time.

To understand this potential, Endeavour Energy is jointly developing a research proposal with Western Sydney University and University of Wollongong for the Aerotropolis that will have two streams:

- a. Improvements to Building Design for Smart Grid Applications. For example, what building design factors are key to improving demand and energy efficiency?
- b. Innovations for Future Electricity Distribution network planning. For example optimise use of distributed energy resources including local generation and energy storage.

Ken MacCormick (Manager Business Development at Endeavour Energy) has had preliminary discussions with Cameron O'Reilly (Principle Energy Advisor NSW Planning & Environment) regarding this research proposal.

We look forward to continuing to support NSW Planning and Environment in efforts to plan for the Western Sydney Aerotropolis. Should you require any additional information, please do not hesitate to contact Jason Lu, Capacity Planning Manager, on [REDACTED]

Yours sincerely



Peter Langdon

Manager Asset Strategy and Planning

Attachment 1 – Extract from Endeavour Energy Growth Servicing Plan 2018 – Western Sydney Priority Growth Area

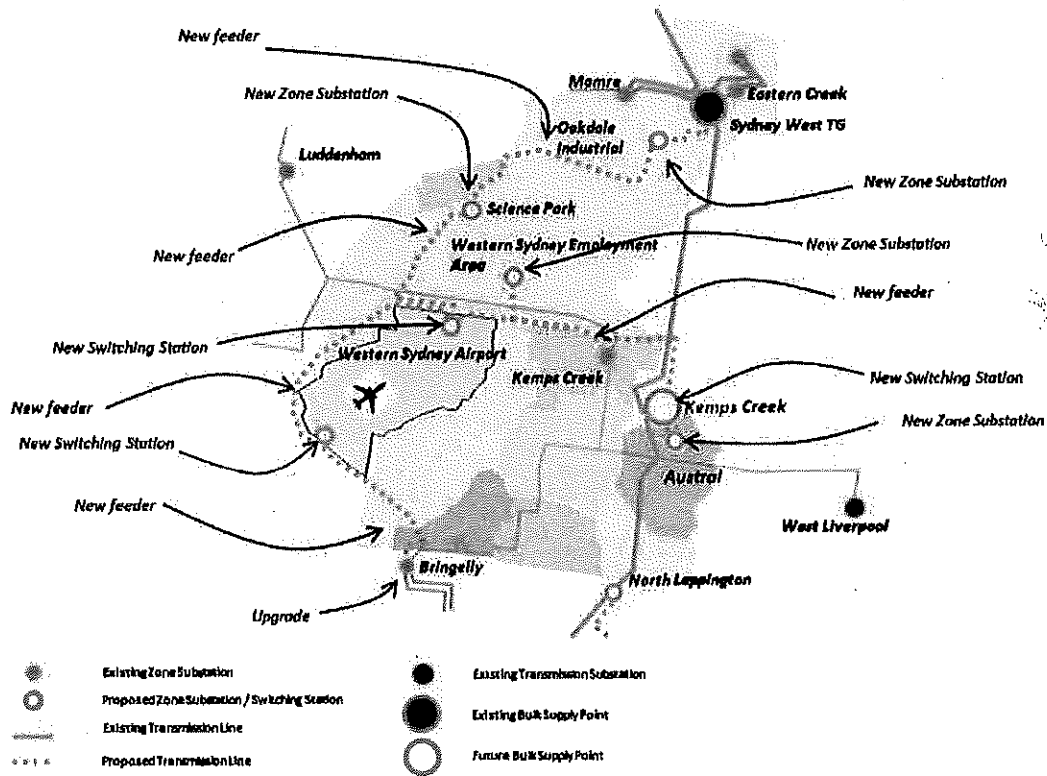


Figure 11 - Endeavour Energy assets servicing the Western Sydney Priority Growth Area

