



TW/JB
15494
27 July 2015

The Secretary
Department of Planning and Environment
GPO Box 39
SYDNEY NSW 2001

Attention: David Mooney

Dear Mr Mooney

**EASTERN CREEK ENERGY FROM WASTE FACILITY, JACFIN SUBMISSION
HONEYCOMB DRIVE, EASTERN CREEK**

This submission relates to State Significant Development SSD 6236 for an energy-from-waste facility at Honeycomb Drive, Eastern Creek. It has been prepared by JBA on behalf of Jacfin. Jacfin is the owner of land immediately to the south and south-east of the site, being Lot 20 in DP1206129, which is identified in the Environmental Impact Statement as being partially within the Eastern Creek Business Park.

1.0 JACFIN'S EASTERN CREEK ESTATE

Jacfin has been developing its Eastern Creek estate for over 10 years, and has secured high-profile tenants such as Fujitsu and DATS for high-quality purpose-built warehouse and distribution facilities. The facilities are accompanied by ancillary office areas, and are intended to provide high-quality commercial space in support of the warehousing and distribution function.

Jacfin's principal concerns in relation to the adjacent energy-from-waste facility is to ensure the amenity of its Eastern Creek estate is sufficiently protected in order to ensure the high level of worker amenity is maintained. With this in mind we note that the Environmental Impact Statement (EIS) for the proposed energy-from-waste facility provides limited assessment on the local amenity, in relation to air quality, odour, noise, visual and transport impacts. It is requested that the proponent consider in more detail the implications of the proposed energy-from-waste facility in relation to the worker's amenity within the adjoining Eastern Creek Business Park, including the Jacfin estate.

Key issues raised in the submission below are:

- Electricity transmission.
- Noise.
- Air quality.
- Health impacts.
- Visual.

2.0 ELECTRICITY TRANSMISSION

The EIS states that the offtake power from the energy-from-waste facility will be transferred via 132kV underground cable from the on-site electrical substation to the existing Transgrid easement that runs on the western boundary of the site. The 132kV underground cable will be housed in a 4m wide trench. The underground cable continues within the existing Transgrid easement heading south east into the Sydney West 330kV substation, which is located approximately 2km to the south-east of the site.

However, the EIS provides no details of the location of the 132kV underground cables or the associated trench, and no assessment of the works associated with installation or operation of the infrastructure. A comprehensive and robust assessment of the environmental impacts of the proposed energy-from-waste facility cannot be carried out unless the 132kV underground cables and the associated trench infrastructure are included.

Given the above, the proponent should provide details of the 132kV underground cables and the associated trench in terms of its location, the nature of the works required for its installation and the ongoing maintenance requirements. Further environmental impact assessment of the underground cables and the associated trench is also required. We would expect that additional environmental impact assessment should include, as a minimum, the ground-level implications of the trench in relation to:

- Access to properties underneath and/or adjacent to the easement – including temporary impacts during works, as well as permanent impacts.
- Implications or limitations on operational activities for properties underneath and/or adjacent to the easement.
- Electromagnetic radiation impacts on people and property underneath and/or adjacent to the easement.

Jacfin is unable to complete its assessment of the proposed energy-from waste facility until this additional information and assessment has been provided.

3.0 NOISE

The Noise Impact Assessment for the proposed energy-from-waste facility identifies the Eastern Creek Business Park, but does not provide any assessment of noise impacts from the facility on the business park. It is requested that the proponent provide an assessment of the likely noise impacts of the facility on the business park. In this regard, we would recommend that the Eastern Creek Business Park be treated as a commercial receiver (due to the significance of the ancillary commercial space adjoining each warehouse), in order to determine whether any specific noise mitigation measures are warranted for noise impacts to the south and south-east.

The requested assessment of noise impacts should also consider cumulative noise impacts on the Eastern Creek Business Park, with particular reference to the Genesis Xero Waste Materials Processing Centre and Landfill, and the Hanson Asphalt Batching Plant.

Finally, it is also highlighted that the Eastern Creek Precinct Plan (Stage 3) provides noise level goals for 'zones' within the precinct (the proposed energy-from-waste facility is within Zone 4). No assessment has been provided in the Noise Impact Assessment as to whether the relevant Zone 4 noise level goals will be met once the proposed energy-from-waste facility is operational. It is noted that if the facility would cause Zone 4 noise level goals to be exceeded, then that will place undue pressure on development within adjoining Zones (including the Eastern Creek Business Park) to contribute noise levels below those established in the Precinct Plan. Additional noise mitigation measures may need to be implemented at the proposed energy-from-waste in order to appropriately share the noise mitigation burden, rather than expecting development within other Zones to compensate for the noisy activities in Zone 4.

4.0 AIR QUALITY

It is acknowledged that the facility will incorporate Best-Available-Technology in relation to the treatment of air emissions during normal operations, as required under the EPA's *Energy from Waste Policy Statement*. However, the proponent has not demonstrated that it has the experience or the capability to match the Best-Available-Technology with the necessary management and governance systems to ensure the facility can be operated in accordance with best practices. Given the size and scale of the proposed energy-from-waste facility and its location within the centre of Sydney's heavily constrained metropolitan air shed, there must be suitable interrogation of the proponents proposed management systems and the proponent's capability (both financial and technical) in operating the facility in accordance with best practice techniques.

The energy-from-waste facility will potentially operate for short periods of time in either an 'upset' state or an 'emergency' state. During 'upset' conditions significant exceedances of the POEO Regulation discharge limits for particulate matter, mercury and cadmium are predicted, resulting in exceedances of the ground level concentrations of cadmium and mercury. But, the Air Quality Assessment does not provide contours so that neighbours can determine where these exceedances are predicted to occur. Given the predicted exceedances, and that these pollutants are toxic and subject to short-term 1-hour averaging periods (commensurate with the short-term nature of the 'upset' conditions periods) it is considered that these contour plots should be provided and that further assessment of the potential impacts should be provided.

During 'emergency' conditions the Air Quality Assessment has not carried out quantitative analysis on the basis of the infrequent occurrence and the distance to sensitive receptors. However, it is unclear whether 'emergency' conditions might occur simultaneously with normal or 'upset' operating conditions of the main turbines. If these scenarios can occur simultaneously, then a more likely worst-case scenario would be the combined emissions from the 'upset' operation conditions of the main turbines, combined with the 'emergency' conditions derived from the use of emergency diesel-powered generators. The proponent should clarify whether this scenario is foreseeable, and if so, provide further assessment of the combined impact.

We note that the EIS identifies a contradiction between the design standards of the facility (in terms of complying with European Union Directives) and the *Energy from Waste Policy Statement* in relation to how halogenated organic substances (containing chlorine) are treated, and how the operational parameters of the facility are amended to reflect the characteristic of the waste material (i.e. higher burn temperatures are required). Given the importance of destroying toxic materials contained in the flue gas emissions in ensuring acceptable ambient air quality standards are met, we would suggest that the facility avoid burning high proportions of halogenated organic substances (such as poly-vinyl chloride or PVC) until such time as the facility has proven that it can destroy the toxic materials in the flue gas emissions at the lower burn temperature.

It is also noted that there is a foreseeable risk of waste igniting either in the bunker or in a truck (as described in the Preliminary Hazard Analysis & Fire Risk Assessment). Given the possibility of uncontrolled burning of waste that would undoubtedly lead to short term exceedances of the EPA's ground level air quality criteria, it is requested that suitable advisory and notification measures be conditioned to ensure short-term air quality impacts from toxic pollutants on nearby workers is avoided.

5.0 HEALTH

The Human Health Risk Assessment identifies lifetime cancer risk and annualised cancer risk associated with emissions from the facility. It states that the lifetime cancer risk is less than 1 in a million. However, Table 7.4 of the Human Health Risk Assessment includes adult lifetime cancer risks of $1.09-2.53 \times 10^{-6}$. We understand that this constitutes more than a 1 in a million risk (i.e. a 1.09 to 2.53 in a million). Clarification from the proponent is required as to whether the facility will actually result in less than 1 in a million lifetime cancer risk, given the risk outputs provided in Table 7.4.

Further to this, we note that the Human Health Risk Assessment does not provide any assessment of the Eastern Creek Business Park. It is requested that the lifetime cancer risk and annualised cancer risk be calculated for receptors in the Eastern Creek Business Park in order to demonstrate that the risk is below the NHMRC guidance of 1 in a million.

It is also noted that there is a foreseeable risk of waste igniting either in the bunker or in a truck (as described in the Preliminary Hazard Analysis & Fire Risk Assessment), which would lead to substantial short term emission of pollutants. Given this possibility, a quantitative analysis of the possible implications of waste fires on lifetime cancer risk would be appropriate, to ensure the assessment is sufficiently conservative. This could be by way of additional scenarios in the health impact assessment or by way of a sensitivity analysis, and should include the Eastern Creek Business Park as a receptor.

6.0 VISUAL

The Visual Impact Assessment provides view impacts from a number of locations around the site. Viewpoint 7 (see image reproduced below) from Old Wallgrove Road provides the best indication of the energy-from-waste facility from parts of the Eastern Creek Business Park, and in particular from Jacfin's Eastern Creek industrial estate. It is highlighted that Jacfin's Eastern Creek industrial estate is substantially closer than Viewpoint 7, and so the energy-from-waste facility would be larger in bulk and scale than what the image conveys.

Given the heavy industry nature of the proposed energy-from-waste facility and its bulk and scale as viewed from the south, in comparison to the pre-existing nature of development within the Eastern Creek Business Park, it is requested that the proponent provide extensive planting along the southern boundary (i.e. south of the bio-retention basin). Extensive boundary planting on the southern boundary would be appropriate to screen the energy-from-waste facility from the Eastern Creek Business Park, as well as from further afield in the Western Sydney Employment Area.



Figure 1 – View of the facility from viewpoint 7 – Old Wallgrove Road, south-east of the site
Visual Impact Assessment

7.0 CONCLUSION

Jacfin has significant concerns relating to the intended 132kV underground power lines and associated 4m wide trench – for which no detailed description, plans or assessment has been provided in the EIS. We do not consider that a suitably comprehensive environmental impact assessment of the proposed energy-from waste facility can be completed until this additional information and assessment has been provided by the proponent.

Jacfin has an interest in maintaining suitable amenity within its Eastern Creek estate, in order to continue developing high-quality warehouse and distribution facilities with ancillary commercial offices. The nature of the proposed energy-from-waste facility represents a significance risk to the amenity of the estate, and health of workers, by way of noise and air emissions during normal and abnormal operating conditions.

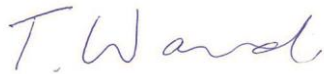
Additional assessments are required by the proponent in order to demonstrate that noise and air quality impacts can be controlled to acceptable levels within the Eastern Creek Business Park under all foreseeable scenarios, and to inform an updated health impact assessment that takes the Eastern Creek Business Park into account. Further, extensive planting is warranted along the southern boundary of the energy-from-waste site (i.e. the shared boundary with the Jacfin estate), in order to screen the facility from the estate.

Whilst it is acknowledged that the facility will incorporate Best-Available-Technology in relation to the treatment of air emissions, the proponent has not demonstrated that it has the experience or the capability to match the Best-Available-Technology with the necessary management and governance systems to ensure the facility can be operated in accordance with best practice techniques.

With consideration of the above issues, we note that the development of facilities of this nature would normally be located in low density or rural areas with the potential for substantial set-backs and buffer zones. Given the nature of development already occurring around the site, and its pre-existing proximity to residential areas such an opportunity is not available at this site. Whilst there are obvious synergies in co-location of the energy-from-waste facility with the Genesis Xero Waste Materials Processing Centre and Landfill, it is requested that the appropriate regulatory authorities consider whether such a facility is suitably located in such a heavily developed part of the metropolitan area and within Sydney's heavily constrained air shed.

Should you have any queries about this matter, please do not hesitate to contact me on 9409 4962 or tward@jbaurban.com.au.

Yours faithfully



Tim Ward
Associate