

Our Ref: 15494
2 March 2018

Jacfin Pty Ltd
c/o Allens
Deutsche Bank Place
126 Phillip Street
SYDNEY NSW 2000

Attention: Bill McCredie

Dear Mr McCredie,

EASTERN CREEK ENERGY FROM WASTE FACILITY, HONEYCOMB DRIVE, EASTERN CREEK (SSD 6236) RESPONSE TO SUBMISSIONS REPORT – JACFIN SUBMISSION

This submission relates to the Response to Submissions (RTS) Report for State Significant Development SSD 6236 for an energy from waste facility at Honeycomb Drive, Eastern Creek. The submission has been prepared by Ethos Urban on behalf of Jacfin. Jacfin is the owner of Lot 532 in DP1236811, which is within the Eastern Creek Business Hub, and is located immediately to the south and south-east of the site of the proposed energy from waste facility.

We note that the RTS Report has not been exhibited in accordance with Section 89F of the *Environmental Planning and Assessment Act 1979*, notwithstanding that the amended proposal detailed and assessed in the RTS Report includes substantial changes from what was exhibited in the Amended EIS – including the expansion of the site to the west to provide for additional laydown areas, reduction in the scope of the development by removing Stage 2, as well as the provision of significant additional information by way of enhanced environmental assessment and more detailed management and mitigation measures. Whilst it is acknowledged that the reduced scope of the proposal appears likely to have resulted in lower environmental impacts for some assessment issues, other impacts appear to have in fact increased. Given the complexity of the project, the degree of interest in the project, and the Department's objectives in relation to better community engagement for SSD projects, it would seem appropriate to exhibit the RTS Report to ensure the community of Western Sydney is able to appropriately inform the decision-making process.

This submission should be read in conjunction with the previous submissions prepared by JBA on behalf of Jacfin submitted during the exhibition of the Environmental Impact Statement (EIS), dated 27 July 2015, and in relation to the Amended EIS, dated 10 March 2017. It should also be read in conjunction with the specialist assessment reports prepared by Jacfin's experts in relation to the proposal. In particular, specialist assessment reports have been prepared in relation to:

- Noise.
- Air quality
- Odour.
- Human health.
- Hazards.
- Visual montages.

1.0 Key Planning Assessment Issues of Concern

In relation to the amended proposal documented and assessed in the RTS Report we maintain our previously raised concerns regarding the following issues:

- The complexity of the proposed development, which involves a number of inherently variable, imprecise and inaccurate processes, potentially leading to risk of ongoing inadequate air pollutant destruction rates and unacceptable risk of human health impacts on nearby residential communities and the workers within the Eastern Creek Business Hub. In particular:
 - Fuel sources derived from waste materials are highly variable by their very nature – within and between loads. The variability relates both to the calorific value of the waste, which is critical to ensuring suitable combustion processes, as well as the levels of pollution-causing contaminants in the feedstock.
 - The methods and procedures for mixing the waste materials are imprecise and inaccurate, as they rely on the use of mechanical mixing equipment operated manually on the floor of the storage shed – meaning the process is reliant on the judgement of equipment operators. This approach is imprecise and can only be expected to achieve a highly variable mix of materials for input into the turbines.
- The permissibility of the development – given that the EPA continues to object to the proposal, and that it has characteristics of both hazardous and offensive industry under *State Environmental Planning Policy No. 33 – Hazardous and Offensive Development* (SEPP 33), we maintain the is prohibited in the IN1 General Industry zone under *State Environmental Planning Policy (Western Sydney Employment Area) 2009* (the WSEA SEPP).
- The significant visual impacts of the proposal given the height, bulk and scale of the buildings that will vastly exceed the prevailing height of buildings within the Eastern Creek Employment Hub at up to 52m high, and the lack of any meaningful attempt to mitigate this visual impact in the siting of the buildings or by the inclusion of screening landscape planting. Visual montages prepared by Urbaine Architecture illustrate the significant visual intrusion of the facility, and identify that the visual impact assessment provided by the proponent substantially underrepresents the height, bulk and scale of the facility from several vantage points.

We also note that the specialists engaged by Jacfin have identified major deficiencies in the technical assessment of the revised energy from waste proposal as part of the RTS Report. We particularly note that the RTS Report:

- Has not undertaken further background noise monitoring to ensure an appropriate background noise level has been used for the noise impact assessment. Wilkinson Murray specifically identify that this could have resulted in higher ambient background levels, which would have the effect of underestimating potential noise impacts.
- Does not accurately model the risks of the revised proposal. Systra Scott Lister has undertaken a Level 3 QRA of the proposal which has found that the boundary risk levels for the revised proposal exceed the Department of Planning and Environment’s individual risk criterion of 50 in a million per annum.
- Does not adequately assess the air quality impacts associated with upset conditions of the revised proposal. Whilst the European Union’s IED assessment criteria adopted by the proponent for air quality impact assessment provides for upset conditions, the *Protection of the Environment Operations (Clean Air) Regulation 2010* does not. Katestone has identified that the revised proposal would be likely to exceed the regulatory limits contained within the *Protection of the Environment Operations (Clean Air) Regulation 2010* for eight regulated pollutants – including heavy metals, carcinogens and toxic pollutants. Upset conditions could occur for up to 60 hours per year, representing a significant and unacceptable level of air pollution.
- Has not adequately addressed the risk of uncontrolled odour emissions from the Tipping Hall during upset conditions where the boilers cease operation and air extraction from the Tipping Hall ceases. Further, in limiting the proposed facility to Stage 1 only, halving of the boiler capacity and boiler air flow requirement will reduce their ability to maintain negative pressure in the Tipping Hall, potentially leading to uncontrolled odour emissions.
- Appears to undercalculate the contribution of nitrogen oxides (NO_x) to the Western Sydney airshed. In particular, the RTS identifies a NO_x emission concentration of 120mg/Nm³ combined with a revised flow rate of 127 Nm³/s. Combined with the scheduled operational availability of 8,000 hours per year, we calculate that this

would result in a total NO_x load into the Sydney airshed of approximately 1.32 tonnes per day or 440 tonnes per year. This load is substantially higher than the NO_x emission load estimated in the Ozone Impact Assessment (Appendix R of the RTS) of 0.88 tonnes per day or 294 tonnes per year. This under-calculation undermines the conclusion of the ozone assessment against the thresholds set out in the NSW Ozone Procedure and could be expected to result in substantially higher ozone impacts in Western Sydney.

- Specifies that the selected NO_x reduction technology adopted for the facility is Selective Non-Catalytic Reduction (SNCR) as opposed to Selective Catalytic Reduction (SCR) on the basis that this will minimise the overall energy consumption of the facility. Pursuant to Item 32 in Appendix M, SCR is considered 'Best Available Technology' where higher NO_x reduction efficiencies are required and where low final flue-gas emission concentrations of NO_x are desired. Given the already NO_x/Ozone constrained airshed in Western Sydney, all measures should be taken to minimise NO_x emissions, including adopting SCR NO_x reduction technology. The proponent is therefore not considered to be proposing 'Best Available Technology' for the facility, commensurate with the particular characteristics of the site location and context.
- Does not address the issue that the air dispersion model adopted for air pollutant and odour modelling is not suitable for light winds that are identified as occurring at the site, leading to uncertainty as to the accuracy of the air quality, odour and human health impact assessments. In particular, GHD conclude that the AERMOD model would potentially underpredict the spatial extent of odour emissions, and have undertaken their own odour modelling which identifies exceedances of the 2 Odour Unit assessment criteria at receptors to the south and south-east of the site.

We therefore reiterate our previous concerns that the proposed energy from waste facility is inconsistent with the character of the Eastern Creek Business Hub and inappropriately located in the Western Sydney airshed. These concerns are further detailed in the following sections.

2.0 Inappropriate Character for Eastern Creek Business Hub

The Eastern Creek Business Hub is located in the Western Sydney Employment Area (WSEA) and zoned IN1 General Industry under the WSEA SEPP, which includes the following objectives:

- To minimise any adverse effect of industry on other land uses.
- To encourage a high standard of development that does not prejudice the sustainability of other enterprises or the environment.

The Eastern Creek Business Hub has developed as a premier location for logistics and distribution related facilities, that contain significant commercial components. Developers within the Business Hub are creating a well-landscaped, attractive and interesting locality which appeals to prominent and high quality end-users and tenants. Under this development model the Business Hub is generating a significant number of new jobs for Western Sydney, including a large proportion of higher paid, higher order jobs. This type of higher-order employment development is also supported in the Draft Western City District Plan.

Whilst the proposed facility is defined as a Waste Management Facility, it is consistent in size, scale, character and environmental impacts with a heavy industry, with the potential to adversely affect the existing future land uses within the Eastern Creek Business Hub. This outcome would undermine the ability of the Business Hub to continue to attract high quality development delivering higher order jobs for Western Sydney, which is clearly inconsistent with the objectives of the IN1 Zone in the WSEA SEPP.

Facilities of this nature would normally be located in very low density rural areas with the potential for substantial set-backs and buffer zones to be established – commensurate with the magnitude of potential impacts and the level of uncertainty in the magnitude and consequence of these impacts.

Further, the site is located at the boundary between the Western City District and the Central City District – the two fastest growing districts in the Greater Sydney Metropolitan area. The Draft Greater Sydney Region Plan projects

that approximately 93,350 new dwellings will be required within these two districts over the next 5 years (50% of all new dwellings in Sydney), and approximately 392,000 new dwellings over 20 years (54% of new dwellings in Sydney). The Plan specifies a Greater Penrith to St Marys Growth Area Investigation stretching through the residential areas of Minchinbury, St Clair and St Marys. These are the closest residential suburbs to the proposed site for the energy from waste facility. The Draft Greater Sydney Region Plan’s growth projections, as well as the purpose of the Greater Penrith to St Marys Growth Area Investigation, are reinforced by the two District Plans.

The Draft Western and Central City District Plans specifically identify that the combined effect of air circulation patterns in the Sydney Basin, local topography, and the range of different sources of air pollution, can lead to localised air quality issues. Further detailed consideration of regional air quality issues is provided below.

In planning for future growth, the Plans require consideration of cumulative impacts and using buffers to limit exposure to hazardous and offensive industries, noise and odour. Given the nature of development already occurring around the site, and its proximity to pre-existing residential areas which are expected to accommodate significant population growth in coming years, the opportunity for significant buffers is not available at this site.

The proposed energy from waste facility is clearly not suitable for a site located in such a heavily developed part of the metropolitan area, especially in the context of the future vision for the Central and Western cities and the levels of growth expected to be accommodated in these districts, and in close proximity to the site of the proposed facility.

3.0 Unacceptable Regional Air Quality Impacts

In the context of the projected growth that will envelope the site in the Western City and Central City Districts, the EPA’s Clean Air for NSW Consultation Paper sets out the existing air quality issues throughout the Greater Metropolitan Region (GMR) and establishes the priorities for improving air quality.

The Paper identifies that Western Sydney already suffers from the worst air quality in the GMR, with the largest number of days where the National Air Quality Standards are not met (see **Figure 1**). St Marys is already identified in the Paper as the worst performing centre in the greater Sydney region with the highest number of days where National Air Quality Standards are not met (as shown in **Figure 2**).

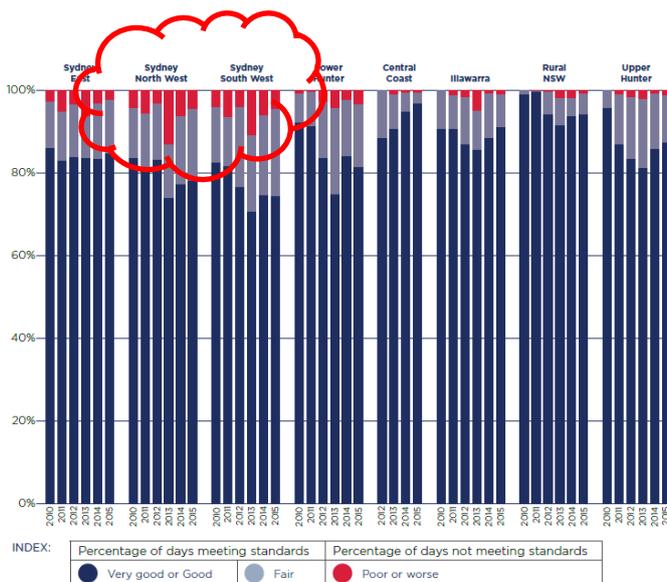


Figure 1: Compliance with National Air Quality Standards



Figure 2: Compliance with National Air Quality Standards

The Paper identifies that average levels of fine particles and ozone have been stable in recent years but improvements for certain pollutants, such as nitrogen dioxide which has direct health impacts and is an important precursor pollutant, have tailed off. The growth of the population, urbanisation, energy and transport demands, and climate change would be expected to offset gains from past policies and lead to poorer air quality and increased exposure and health impacts, unless new measures are taken to reduce emissions and protect air quality. Continuing and increasing measures that are positive for air quality, such as expansion of public transport systems, take-up of cleaner energy and technologies and planning that reduces air emissions from and impacts on communities, are also essential to future clean air in NSW. Indeed, future projections in the Paper indicate the upturn in the concentration of particulates and NO₂ in Western Sydney will continue into the future.

The largest emissions in the GMR arise from coal mining and power generation activities in the Hunter Valley. In this context the EPA's first priority for improving air quality in the GMR is to further reduce emissions from industry. In this context, the addition of a very large single point pollution source in Western Sydney is totally inappropriate in what is already a highly constrained air shed, and becoming increasingly constrained, and which is subject to problematic air circulation patterns and local topography that contribute to air pollution issues and will continue to do so into the future.

It is quite simply the wrong location for a facility of this nature, which should be located outside of the Sydney basin airshed, in a very low density rural area that has:

- The potential for substantial set-backs and buffer zones to be established without the pressures of existing urban areas in close proximity, and without the projected huge increase in urbanisation.
- An airshed that provides suitable local topographical and air circulation patterns to avoid air quality impacts.

4.0 Conclusion

The proposed energy from waste facility is a hugely complex heavy industrial activity which is inherently risky, in that it relies on imprecise procedures for managing a highly variable fuel source for the turbines, which require relatively standardised materials in order to achieve adequate burn times for pollutant reduction in the flue gases.

The major deficiencies identified by Jacfin's specialists reinforce the potential risks to human health and the environment from the proposed energy from waste facility, and demonstrate the difficulty in adequately assessing the proposal to achieve a necessary level of certainty that it can operate without unacceptable impacts.

Such a facility should not be located in close proximity to adjacent commercial and industrial facilities or nearby residential areas – let alone areas earmarked for significant population growth in the coming decades. It will be a significant new contributor of air pollution within the highly constrained metropolitan air shed, generating emissions of pollutants including NO_x precursors to ozone pollution, heavy metals, and a range of toxic or carcinogenic pollutants.

Overall the proposed energy from waste facility is out of character with the high quality employment development being delivered in the Eastern Creek Employment Hub, undermining the objectives of the Hub established in the WSEA SEPP.

Further, the EPA has raised extensive issues with the proposed facility and concluded that it cannot be licenced in its current form. The RTS Report does not resolve the substantial concerns raised by the EPA in relation to the inherent risks associated with operation of the proposed facility so it should still be considered incapable of achieving the requisite certainty to be able to obtain an Environment Protection Licence from the EPA. This means the proposed facility has characteristics of a Hazardous and an Offensive Industry, which means it is prohibited at the site.

Given its nature the energy from waste facility is consistent in scale, complexity and potential impacts with a heavy industry and should consequently be located in very low density rural areas with a substantial buffer zone established. The selected site should also benefit from a well-flushed airshed that minimises local and regional air

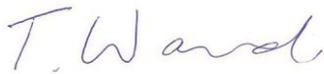
pollution issues – unlike in Western Sydney. Given the nature of development already occurring around the site, and its proximity to pre-existing residential areas such an opportunity is not available at this site. As such, the risk is simply too great for such a large and complex facility to be located at the proposed site.

The proposed energy from waste facility is clearly not suitable for a site located in such a heavily developed part of the metropolitan area, especially in the context of the future vision for the Central and Western cities and the levels of growth expected to be accommodated in these districts, and in close proximity to the site of the proposed facility.

It is therefore incumbent on the Department of Planning and Environment to recommend refusal of the proposed energy from waste facility as a result of its unacceptable risk to human health and amenity of the surrounding community.

Should you have any queries about this matter, please do not hesitate to contact Tim Ward on 9409 4962.

Yours sincerely,



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