Appendix 1

Blacktown City Council submission – Eastern Creek Energy from Waste Facility (SSD6236)

Summary statement

1. Council officers and an independent environmental consultant company (Jacobs Group (Australia) Pty Limited) have reviewed the amended Environmental Impact Statement (EIS) and have concluded that it is an improvement on the original proposal, however there are still gaps in the information provided that are of significant concern.

2. Council resolved on 15 February 2017 to make a further submission to the Department of Planning and Environment on the proposal recommending that the application be **refused** as:
    a. There are still gaps in the EIS that we have significant concerns about, including the source of the waste and the inability of the applicant to guarantee procedures and processes that satisfactorily demonstrate how all waste will be satisfactorily sorted.
    b. The EIS has not verified that the predicted emissions are valid and achievable.
    c. Electricity generating works are prohibited in the IN1 General Industrial Zone, except when the zone objectives can be satisfied. The proposal is inconsistent with the zone objectives and is therefore not capable of being approved.
    d. The proposal will see the wilful destruction of 69% of the local occurrence of River-flat Eucalypt Forest and will see the elimination of the habitat of local endangered and threatened species including the Green and Golden Bell Frog.
    e. The proposal as submitted fails to promote biological diversity.
    f. The location and design of the EFW plant fails to encourage a high standard of development.
    g. The following issues have not been addressed satisfactorily:
        i. The validity of the proposal as a solution to waste disposal.
        ii. Waste management issues, including validity of the waste sources, inadequate sorting processes, incineration of material that can be recycled, lack of accountability to resource recovery rates and a plan for ash processing.
        iii. Air quality concerns, including lack of detail on actual pollutants, clarity on emission limits and odour assessments and how these will be monitored.
        iv. Human health concerns are of paramount importance to the community. We need absolute assurance from the State Government that there will be no human health impacts and no human health risks. As the human health assessment must be redone, as it does not reflect the new EIS, the application is flawed and should be refused.
        v. Noise concerns, including gaps in the acoustic assessment.

vi. Soil, water and drainage concerns for the site, including lack of detail to support some of the activities proposed, lack of flood modelling, salinity and stormwater treatment concerns.

vii. Plume rise assessment concerns and the potential impacts on aviation airspace.

viii. The technology proposed is based on European climatic conditions with shutdowns potentially at ambient temperatures above 37 degrees Celsius. The application must be refused as the technology proposed is not appropriate to the Australian setting.

ix. Concerns about the EPA's licensing fees and its ability to regulate and monitor the plant, its ability to make the operator accountable if it does not meet the predicted emission levels, and requirements to upgrade as technology improves.

x. The appropriateness of the proponent and operator to hold an environmental protection licence.

xi. A lack of commitment by the proponent to:

    1. ISO 14001 environmental certification
    2. Establishing a community liaison group
    3. Establishing a visitor information centre on the site
    4. Funding local community improvements and enhancement
    5. Community forums and holding an annual open day
    6. Payment of a host fee to Council.

xii. Significant biodiversity concerns, including the destruction of River-flat Eucalyptus Forest, placing it at risk of extinction in the local area.

xiii. Lack of conservation management to preserve artefacts

This document outlines our concerns under the following areas:

1. Waste management concerns
2. Environmental concerns (consultant)
3. Zoning concerns
4. Biodiversity concerns
5. Design concerns
6. General environmental and community concerns
7. EPA licensing concerns
8. Subdivision concerns
9. Drainage concerns
10. Aboriginal heritage concerns
11. Road concerns
12. Retaining works
13. Section 94 contributions
14. Airspace implications
15. Landscaping concerns

1. Waste management concerns

We submit the application be refused as:

There are still gaps in the EIS that we have significant concerns about, including the source of the waste and the inability of the applicant to guarantee procedures and processes that satisfactorily demonstrate how all waste will be satisfactorily sorted.

Only half of the waste fuel will be sourced from the neighbouring Genesis Xero Waste plant

1. The proposed electricity generation plant will be fuelled by waste derived fuels. The EIS states that the proposal will be a 'green' electricity generation plant and NSW's first (and Australia's largest) Energy From Waste plant. It will have the technological capacity to process up to 1.35 million tonnes of residual waste fuel per annum.

2. The revised EIS indicates that the following waste types will be the main sources of fuel for the plant:
    a. Chute residual waste from the Genesis Materials Processing Centre, being waste material that cannot be recycled or reused.
    b. Commercial and industrial waste (C&I)
    c. Construction and demolition waste (C&D)
    d. Floc waste from car and metal shredding (i.e. left over material from the car recycling process)
    e. Paper pulp
    f. Glass recovery
    g. Garden organics
    h. Alternative Waste Treatment residues
    i. Material recovery plant waste residues.

3. The following table provides a summary of the total amount of waste to be processed and where the waste will come from. These figures are discussed in the sections below.

Source	Volume in tonnes per annum (tpa)	Percentage	
Directly from the Genesis MPC **after being screened** (i.e. enters the EFW plant via a conveyor)	136,000 tpa	12%	= 55% from the Genesis plant
Redirected from the Genesis MPC **without screening** and prior to entry, as this is waste that would have been landfilled according to the applicant (i.e. arrives at the EFW plant in rucks)	469,000 tpa	43%	
From third parties (i.e. via the public road system)	500,000 tpa	45%	= 45% from unknown sources
TOTAL	**1.105 million tpa**	**100%**	**100%**

4. Of the 1.105 million tonnes of input material, approximately 136,000 tonnes per

annum (tpa) will be sourced directly from the neighbouring Genesis MPC. A private underground culvert and conveyor will be provided to transfer the 136,000 tonnes of waste material from the Genesis MPC to the EFW plant. This is 'left-over' waste that would otherwise have been sent to landfill following the sorting/recycling process at the MPC. We agree that this is an appropriate waste source.

5. In response to Council's written concerns about the source of the waste, the applicant states that a further 469,000 tpa will be 'redirected from Genesis'. This is waste which currently goes to Genesis to be landfilled, as it is waste of a type which cannot be recycled. It is claimed that it will be viewed and classified either at Genesis and redirected from there to the EFW, or will be viewed and classified at the EFW plant. It is also claimed that these procedures will be verified by the EPA, to ensure that they comply with EPA guidelines, and ensure that none of the material is capable of further recycling.

6. We are concerned that this material may be unsuitable for the EFW plant (e.g. it may contain hazardous material such as asbestos, with asbestos fibres not being able to be completely incinerated) and should continue to be sent to landfill, or it may be capable of further recycling. More information and justification is required to clarify this and the procedures for the classification of the waste.

7. It is considered that each load should undergo a thorough sort (rather than just a quick visual inspection) prior to determining if it should be rejected or not. If the acceptability of the load is determined by a visual inspection only, there is the potential for problem items (e.g. asbestos, gas bottles, other hazardous materials and those foreign objects not suitable for incineration) to be concealed. We believe all waste should first go through the Genesis plant to prevent this from occurring.

8. Based on the EFW plant having a processing capacity of 1.105 million tpa, this would mean that only 55% of the waste fuel is coming from the Genesis plant. This is a significant difference from the pre-lodgement discussions with Council which suggested that the majority of the fuel for the EFW plant would be obtained from the Genesis MPC (up to 95%). This would have ensured that controlled screening measures were in place.

9. Paragraph 2. above includes a list of items that will fuel the EFW plant, and includes everything from glass and paper to garden organics. It is considered totally unsatisfactory that paper, garden waste, etc. is being added to the fuel stream for the proposed EFW plant and is not being recycled.

10. This highlights a major issue with the EIS - it is severely deficient in the clarity of information provided on fuel sources and whether these materials can be further recycled, and there are inconsistencies with the originally claimed source of material being largely from the Genesis recycling and landfill plant.

11. The Managing Director of TNG, Mr Ian Malouf, when he addressed the Council meeting in November 2016, made claims that all recyclable material will be recovered. This is not verified in the EIS.

Almost half of the waste will be sourced from unknown third parties

12. The revised EIS contains a confidential waste report. This report has not been

provided to Council to enable us to make a complete assessment of waste and the procedures for validation and sorting. This is one of the reasons our previous concerns about waste remain unchanged. Our original concerns are outlined in this section.

13. As only 55% of the input waste material will be sourced from the Genesis plant, the balance (45%) will come from unknown sources.

14. Based on the EFW plant having a processing capacity of 1.105 million tpa, the balance would be approximately 500,000 tonnes.

15. The Genesis Xero Waste plant lodged a separate Section 75 W application under the Environmental Planning and Assessment Act 1979 to seek approval for the construction of an undercover pre-sort centre (PSC) on its site to increase the amount of recycling achieved. This was approved by the Department of Planning and Environment in September 2016. It will give the applicant an improved opportunity to sort and recover commercial and industrial type waste. Whilst we strongly oppose the approval of the EFW plant, if it is approved it should be contingent on this being constructed. If the proposal is approved, the EFW plant must not operate until the new pre-sort centre is constructed and operational.

16. It is still unclear where the remainder of the waste will come from, if the 500,000 tpa will be sourced from EPA accredited bodies, and what sort of waste will be included in the 500,000 tpa (though it appears to include paper, glass, green waste, etc). Clarification is required for the following:

    a. Why the 500,000 tpa (45%) is not first going through the Genesis plant for screening/recycling
    b. Details of the eligibility criteria for any waste coming in directly from a third party
    c. What measures will be in place to ensure hazardous materials are not mixed in with the third party waste.

17. In response, the applicant seeks to assure us that the 500,000 tpa will be from approved third parties. It advises that this waste will have already undergone recovery/recycling under EPA supervision and therefore does not need to be processed at the Genesis MPC.

18. The applicant has advised that it is in the commercial interest of the approved third parties (who are sizeable organisations in their own right) to do their own recovery operations and collect materials that are suitable for reprocessing and re-selling. The resulting residue material (i.e. 500,000 tpa) will then be transported to the EFW plant.

19. It is unclear, however, if the residue material (500,000 tpa) has the ability to be recycled further (i.e. is it material that does not hold commercial value to the third parties, but still is capable of being recycled?). It is also unclear what measures will be put in place to prevent hazardous materials from being concealed in this waste stream. It is therefore our view that the DA must be refused as it is deficient and cannot be relied on. In terms of incinerating recyclable material it also contradicts the waste hierarchy which underpins the objectives of the Waste Avoidance and Resource Recovery Act 2001 (NSW).

2. Environmental concerns (consultant)

We submit the application be refused as:

The EIS has not verified that the predicted emissions are valid and achievable

An independent consultant has assessed the EIS for Council and has advised that the application is significantly better than the original DA, but there are still gaps

1. The same independent environmental consultant company, Jacobs Group (Australia) Pty Limited (Jacobs), that evaluated the initial EIS for us, was again engaged by us to review the technical accuracy of the DAs amended EIS and specialist studies submitted with the modified DA.
2. Our consultant's review focused on:
    a. The technology proposed in the EIS
    b. The specialist reports contained in the amended EIS, to ensure they were consistent with the Director General Requirements (DGRs).
3. Jacobs reviewed the technology proposed in the EIS and concluded that:
    a. The TNG concept, based on a steam cycle waste to energy (WTE) plant, with grate combustion system, is sound and reflects good practice for standalone WTE plants.
    b. The concept design should be demonstrated using heat and mass balances for solids, liquids and gases, i.e. heat balance for the steam cycle, fuel and ash balance, air and flue gas balance and water balance. The heat and mass balance is essential to demonstrate the performance of the plant, which is the basis for all fuel, ash, air and water emissions.
    c. An air cooled condenser (ACC) has been proposed as the main cooling system. This may not be best practice. Air cooling reduces the efficiency of the plant, particularly during summer time, but has low water consumption. The alternative is wet evaporative cooling towers which are reported to be more efficient and less affected by higher ambient temperatures. This alternative could be a better fit in Australian climatic conditions and needs to be considered.
    d. The EIS also notes the air cooled condenser will initiate a plant 'trip' at ambient temperatures above 37°C. It is not explained in the EIS why the applicant would use this type of technology when the temperatures in summer are often over
    e. 37 C. When it is over 37 C the system will shut down, which may have financial or efficiency implications.
4. The review of the EIS by Jacobs, which includes recommendations to the Department of Planning and Environment, is provided at Attachment 1.
5. A summary of Jacobs' findings is provided in the following table:

EIS review comments	Issues to be addressed by the proponent
Waste management	
The relevant waste management legislation and policy is identified and reviewed. Data concerning waste feedstock for the plant is poorly defined. Projections for future changes to available tonnages of material are not presented, to review waste growth, waste composition change and the resulting feedstock effects. It is noted that referencing councils which may be eligible to send their material to the EFW without an understanding of whether this fits with their strategy is a high risk assumption where the plant is reliant on this input. No projection of the changes to waste flows over time is provided, as noted in the previous review. It is not just the waste composition and tonnages at the current time that are important, but how these will likely change over the lifetime of the proposal.	Data on Alternative Waste Treatment (AWT) (i.e. non landfilled waste) and Garden Organic (GO) residual waste has been based on the Sydney Metropolitan Area Council data, however there are no proposed contracts with Councils that have been discussed. Projections for future changes to available tonnages of material are not presented, to review waste growth, waste composition change, potential changes in recycling rates and the resulting feedstock effects. Greater detail, including sources of data and assumptions, should be provided to provide confirmation that the plant will have sufficient feedstock of approved materials. However, performance trials must be undertaken during the commissioning phase and verified by the EPA prior to the commencement of operations. Procedures for complying with the NSW EPA Energy from Waste Policy are not sufficiently detailed to allow the reader to determine how compliance will be achieved, and how the recovery rates of C&I and C&D material streams post-processing (after materials are presumably mixed) will be demonstrated to the NSW EPA.

EIS review comments	Issues to be addressed by the proponent
Air quality	
The air quality, odour and ozone reports are in general prepared in accordance with the EPA's Approved Methods for the Modelling and Assessment of Air Pollutants in NSW, 2005. With respect to air quality impacts, the EIS states that the plant will be designed with air pollution control measures that ensure the plant will meet both the Environment Operations (Clean Air) Regulation, 2010 (CAR, 2010) and the Industrial Emissions Directive (IED) (2010/75/EU), and various modelling scenarios are presented for expected and worst-case emission scenarios. Worst-case impacts occur for plant upset conditions. For these the results indicate potential excedance of ambient air quality criteria for NO^2 and Cd. It is noted that NSW CAR, 2010 and conditions set in Environment Protection Licences (EPLs) require compliance with limits at all times, including plant upset conditions. In effect, the EIS is stating that they cannot always comply with the air quality criteria. This would mean then that there will be plant upset conditions and the licence conditions would be breached. The only way to overcome this would be to increase the operating standards or improve waste sorting to prevent upset conditions, or the licence would need to allow for a specified number of upset conditions. Additionally, it is not clear as to how all emission rates have been calculated, nor the number of stack sources modelled (2 or 4) – this needs clarification. Further, not all pollutants listed in the CAR, 2010s and the IED 2010/75/EU appear to have been assessed, with exclusions being thallium and Type 1 & 2 substance.	The air quality assessment requires a more detailed investigation of the actual pollutants required to be assessed, based on the actual fuel and performance of all proposed emission control measures. More clarity is needed on the emission limits and the averaging times for these limits, particularly for limits set out in the Emissions Directive (IED) (2010/75/EU) and how the averaging times are considered in the emission modelling emission. The odour assessment should provide more information on building ventilation as relevant to the management of fugitive odours. Additionally, clarification is sought on the results of odour modelling, in particular the similarity of results for the 'Project' scenario compared to the 'Project + Genesis plant'.

EIS review comments	Issues to be addressed by the proponent
Human health	
The health risk assessment is generally in accordance with the 2012 enHealth document 'Environmental Health Risk Assessment – Guidelines' for assessing human health risks from environmental hazards.	The Human Health Risk Assessment (HHRA) report outlines the stack parameters used in the assessment. It is noted these are the stack parameters used in the original EIS and are different to the stack parameters used in the amended EIS. Therefore it could be argued that the report is inaccurate and cannot be relied on.
Noise	
The noise assessment in general is in accordance with the EPA's Industrial Noise Policy (INP), 2000.	With respect to operational noise, the amended EIS includes an assessment of low frequency noise (LFN) impacts. However, no detail as to how LFN impacts have been predicted is provided. It is noted that the EFW plant is proposed to include 24 air cooled condenser (ACC) units, each with a sound power level of 102 dB(A). This is a significant source of noise and ACCs can have dominant low frequency components. Noise from the ACC units must be included in the noise forecasts. In summary, further assessment of LFN is recommended, particularly as the noise modelling shows that compliance with project specific noise levels is marginal during adverse meteorological conditions within residential areas of Erskine Park.
Soil and water	
Based on the relatively low sampling density compared to the size of the site, and the limits for access across many areas of the site, there remains the potential for unexpected occurrences of contamination to be encountered during the construction phase.	There is insufficient detail contained in the EIS to support the direct discharge of groundwater wells to the Ropes Creek tributary. Additionally there is insufficient detail to support dewatering activities to facilitate excavations below the water table. Detailed investigations to support dewatering and the disposal of pumped/collected water is required. Further information is required regarding surface water quality and groundwater quality. Additional baseline monitoring should be undertaken to allow appropriate pre-development and operational monitoring requirements.

EIS review comments	Issues to be addressed by the proponent
Plume rise assessment	
The amended EIS includes an assessment of stack plume rise and considers the potential impacts on aviation safety as required by the Civil Aviation Safety Authority (CASA) Plume Rise Assessment. There appear to be 2 errors in the application of the CASA guidelines for the calculations of the plume rise heights. It is expected that the errors would underestimate the buoyancy of the plumes from each of the stacks.	This needs further assessment to determine if there is any change to the conclusion of the assessment, which is that aviation airspace navigation will not be adversely impacted by the development. Further Council officer comments are provided in paragraphs below.

3. Zoning concerns

We submit the application be refused as:

Electricity generating works are prohibited in the IN1 General Industrial Zone, except when the zone objectives can be satisfied. The proposal is inconsistent with the zone objectives and is therefore not capable of being approved.

Permissibility issues under State Environmental Planning Policy (Western Sydney Employment Area) 2009 and State Environmental Planning Policy (SEPP) (Infrastructure) 2007

1. The site is zoned part IN1 General Industrial and part E2 Environment Conservation under State Environmental Planning Policy (SEPP) (Western Sydney Employment Area) (WSEA) 2009. The proposed works, however, are wholly located within land that is zoned IN1 General Industrial.
2. Under this SEPP the proposed 'electricity generating works' are prohibited in the IN1 General Industrial zone. The proposed subdivision, however, is permissible in the IN1 General Industrial zone with development consent.
3. Despite the proposed 'electricity generating works' being prohibited under SEPP (WSEA) 2009, Clause 34 of SEPP (Infrastructure) 2007 allows 'electricity generating works' to be carried out in an industrial zone with consent if the proposed works are shown to be consistent with the zone objectives.
4. The proposal is not considered to be consistent with the following zone objectives:
    a. To minimise any adverse effect of industry on other land uses
    b. To encourage a high standard of development that does not prejudice the sustainability of other enterprises or the environment.
5. Consistency with these zone objectives can be measured by the DA's compliance with the adopted Eastern Creek Precinct Plan objectives, as listed below in terms of impacts on biodiversity, archeological significance, damage to the environment and urban design:
    a. Ensure ecologically sustainable development that takes an active approach to anticipating and preventing damage to the environment
    b. Minimise the impact of development on areas of high biodiversity, archaeological significance and heritage
    c. Ensure the best possible urban design outcomes are achieved.
6. The proposal as submitted fails to promote biological diversity by failing to retain endangered native flora and failing to present a high standard of design of the proposed plant.
7. The applicant is seeking approval for the development under the provisions of SEPP (Infrastructure) 2007.

4. Biodiversity concerns

We submit the application be refused as:

The proposal will see the wilful destruction of 69% of the local occurrence of River-flat Eucalypt Forest and will see the elimination of the habitat of local endangered and threatened species including the Green and Golden Bell Frog.

The proposal as submitted fails to promote biological diversity.

We believe that assessment is required under the Environment Protection and Biodiversity Conservation Act 1999 (Commonwealth legislation)

1. The Environment Protection and Biodiversity Conservation (EPBC) Act 1999 requires the approval of the Commonwealth Minister for the Environment for actions that may have a significant impact on matters of national environmental significance, including listed threatened species and ecological communities, one of which is Cumberland Plain Woodland.

2. The applicant, in its flora and fauna assessment accompanying the DA, has concluded that there is **not** likely to be a significant effect on any threatened fauna or on the Cumberland Plain Woodland. Therefore, it concludes that a Species Impact Statement (SIS) is not required for the plant and associated works, and it maintains referral to the Commonwealth is not required.

3. However, it is our view that a referral is necessary to the Commonwealth Office of Environment and Heritage under the EPBC Act 1999 and the impact on critically endangered ecological communities needs to be assessed as a matter of national significance.

4. As the proposal affects matters of national environmental significance, it is to be referred to the Commonwealth Minister, who may decide if it is a controlled action. The Minister may then decide if it can be dealt with via the Bilateral Agreement between Governments, or if further assessment and separate commonwealth conditions will be applicable.

The proposal requires the removal of native vegetation and 8 hollow bearing trees

5. The current proposal, in our view, does not adequately address the impact this development will have on the environment. The Flora and Fauna Report was not amended for the revised EIS, and so the level of assessment is still inadequate. The ecological matters have still not been adequately considered in the proposed site layout, subdivision or design.

6. The Flora and Fauna Report was inconsistent with the survey guidelines. There was insufficient survey effort and inappropriate timing used for several species present or likely to be nearby. The vegetation survey in the Flora and Fauna Report was not consistent with current biometric plot methodologies as per the NSW BioMetric Operational Manual. As a result, the consultant's survey indicating RFEF cannot be used in preference to the current OEH map in assessing impacts.

7. The local occurrence of River-flat Eucalypt Forest (RFEF), being a subset of Cumberland Plain Woodland which is listed as endangered under State legislation, is 4.18 ha and the proposal is to remove 2.89 ha. This will place the local occurrence of RFEF at risk of extinction.

8. The impact on the riparian corridor and adjacent vegetation is still of major concern to many parties who submitted responses and is not adequately addressed. Changes to the layout of the development could result in no net impact on the biodiversity values of the site. By reducing the size of the laydown pads, the removal of vegetation can be avoided. Whilst it is understood this will impact other issues, such as movement of traffic across the site, the long term removal of vegetation is of greater concern.

9. We consider that the RFEF should not be removed for the sake of providing substantial temporary laydown pads which are required only for the construction of the plant and have no ongoing development value. Such action cannot be justified in environmental terms and consequences.

10. The following conditions are therefore considered essential to protect the significant ecological values of the site.
    a. All Cumberland Plain Woodland and RFEF be retained on site, obviating the need for any offset.
    b. In order to mitigate against the unnecessary removal of RFEF and other habitat features, remove all fill from the proposed laydown area 5 to the east of the proposed plant that encroaches into the riparian corridor. WSUD treatment train elements are to be integrated near the top of the infiltration buffer zone, at grade with minimal earthworks, thus avoiding all existing habitat features. If this redesign does not occur or is not agreed to by the applicant, then the DA should be refused.
    c. The disturbance footprint, including fill and detention structures, must have a fully vegetated setback of at least 10 m from:
        i. The riparian corridor boundary (40 m from top of bank confirmed on site)
        ii. The existing dam which is to be retained
        iii. The hollow bearing trees
        iv. The edge of the current OEH mapped Cumberland Plain Woodland vegetation.
        The fully vegetated setback is to retain Cumberland Plan Woodland elements, including derived grassland and or be planted with species on the final determination list of local provenance.
    d. Retain all hollow bearing trees.
    e. Retaining any other habitat features such as dams and low points/ephemeral pools with or without native grass, reeds or sedges, as these are very important to the Green and Golden Bell Frog, known to occur locally.
    f. Additional survey efforts for the Green and Golden Bell Frog and Microbats be carried out to comply with DEC 2004 Guidelines.
    g. A 10 year Vegetation Management Plan (VMP) be prepared and conditioned. The VMP must include ongoing management provisions. The VMP is to be submitted and approved by Council prior to the issue of any Construction Certificate.
    h. The footprint for the basin batters should be outside the 10 m setback and riparian corridor.
    i. All revegetation works must use planting materials of local provenance.
    j. Referral is to be made under the EPBC Act and the impact on Cumberland

Plain Woodland should be assessed as a matter of national significance.

k. A self-assessment of the Grey-headed Flying Fox, Green and Golden Bell Frog, and Swift Parrot be carried out by the applicant under the EPBC Act and referral to the Minister occur if required.

l. Revegetation is to be carried out on the balance of lot 2 south of the riparian corridor.

5. Design concerns

We submit the application be refused as:

The location and design of the EFW plant fails to encourage a high standard of development.

The visual impact of the plant is generally still the same and is not architecturally outstanding

1. The boiler house has now been reduced by 2 m to 52 m high and the ventilation stacks are proposed to be 100 m high. From the most sensitive viewpoints (being the M4, Roper Road overpass, Peppertree Park and Ropes Creek path, and the residential areas of Minchinbury, Colyton and Erskine Park), the lower parts of the plant will be totally obscured from view. Where views are possible, these will generally be of the upper parts of the buildings and the ventilation stacks protruding above the tree canopy or building line.

2. Whilst the revised design and colour palette is much better, it is considered that the applicant has taken a minimalist approach to Council's repeated concerns about design. The approach taken has been to touch up the design in a minor way, as opposed to take our concerns seriously and deliver a striking and architecturally stunning building. The opportunity was there, but has been not taken seriously.

3. It is acknowledged that is a very big plant, with the main building some 52 m high. The plant we visited outside Oxford in England (Ardley) was smaller but featured an innovative and stunning design. Other European plants at Thun in Switzerland and Perpignon in France are also landmark designs. Whilst this issue is quite different to concerns about harmful emissions, it is still very important to Council.

4. We do not believe the design of the plant meets the urban design objective of the IN1 General Industrial zone. On this basis, if the design is not significantly improved, then we believe the development is prohibited.

5. To address the concerns relating to design and in order to achieve an architecturally innovative building, the applicant should be required to conduct an Architectural Design Competition for the envelope of the building. Alternatively, the building envelope should be redesigned and reviewed by the Government Architect's office or a panel of eminent architects to ensure the architectural design objectives are met.

We submit the application be refused as:

The following issues numbered 6 - 15 have not been addressed satisfactorily

6. General environmental and community concerns

1. Council hosted a joint community information forum with the applicant on 6 February 2017 in Minchinbury. Community members expressed their health fears and environment concerns with this proposal and it was evident that the Blacktown community, in particular Minchinbury residents, do not want this proposal to go ahead.

2. Community members also expressed concerns with the validity of the proposal as a solution to waste disposal. A copy of a very recent review by the European Commission of EFW in Europe is provided in Attachment 2. This raises valid concerns about the value of EFW plants in the waste hierarchy, where they can have the result of significantly discouraging the achievement of recycling targets.

3. There are also a number of considerations that are not addressed in the revised EIS, and remain our outstanding and ongoing concerns, are as follows. Whilst we strongly advocate that the application is still flawed and unacceptable for a range of reasons, these issues and concerns commonly relate to how the plant operates should the application receive a consent.

    a. Waste management concerns

        i. The proponent must outline how foreign objects will be excluded from the waste stream, to prevent the need for an abnormal operation allowance that has the ability to have an impact on meeting emission criteria.

        ii. The proponent must ensure all waste (with no exclusion) undergoes some form of validated pre-treatment at off-site waste transfer stations, or otherwise goes via Genesis for sorting.

        iii. The NSW EPA must require the proponent to outline how the resource recovery criteria for mixed wastes as outlined in the NSW Energy from Waste Policy Statement will be achieved.

        iv. To demonstrate best practice, the proponent should be required to demonstrate a plan for ash processing on site. This will enable possible reuse opportunities for the ash and will reduce the amount sent to landfill.

    b. Air quality concerns

        i. The proponent must broadcast real time emission testing data online, giving the general public the ability to view and monitor the daily emissions from the plant.

        ii. Prior to any approval, the NSW EPA needs to develop new emission standards that reflect what can be achieved with best available and developing technology.

    c. Greenhouse gas concerns

        i. Council sought additional clarification of the greenhouse gas assessment following the Council meeting on 15 February 2017. The additional

Jacobs advice concluded:

- The calculation of how much GHGs are avoided by the project relates to the carbon being combusted resulting in carbon dioxide (CO2) rather than decomposing in the landfill and emitting methane (CH4) which is more than 20 times more potent in terms of global warming potential (GWP) than CO2. Additionally the combustion of waste carbon to generate electricity will offset some existing fossil fuel electricity generation GHG emissions.
- In summary the approach to calculating GHG reduction from diverting waste from landfill is reasonable. However, as noted in the Jacob's review report CH4 capture and combustion which is best practice at many landfills to reduce GHG emissions is not currently adopted at the Genesis facility and is stated to not form part of the future operations. As such it can be viewed that GHG emissions reduction associated with the proposed EfW facility are over stated in the EIS as they are not currently adopting best practice GHG emissions reductions at the landfill.

d. Human health concerns
    i. The Next Generation must undertake air quality monitoring for a period of one year prior to the plant operating, to obtain accurate baseline data to be used to determine that the plant is not adversely impacting on the air quality of the surrounding area when operations commence.

e. General environmental and community concerns
    i. The EPA's Energy from Waste Policy Statement requires best practice. Therefore, prior to any approval, there needs to be a requirement that the proponent demonstrates that it goes beyond the requirements of the European Union's Industrial Emissions Directive's Best Available Technology reference document.
    ii. The NSW EPA needs to confirm whether the technology is appropriate to the Australian setting.
    iii. The Next Generation proposal should have a designated NSW EPA regulatory officer to exclusively monitor the environmental performance of the plant.
    iv. The NSW EPA should review its licence fees, to ensure the ongoing regulation of the plant is adequately resourced.
    v. Prior to any development approval, all the NSW EPA licence issues and conditions need to be considered and approved as part of the development approval process.
    vi. Prior to any development approval, the NSW EPA must ensure the proponent is an appropriate person to hold an environmental licence, including assessing prior convictions for environmental offences.
    vii. The proponent must obtain ISO 14001 environmental certification to demonstrate that the process being undertaken is industry best practice using the best available technology.
    viii. Prior to any approval, the NSW EPA must be satisfied that the operator's environmental credentials, as well as the designer and builder, will ensure the required technology, controls, maintenance and monitoring will continually be a priority.

ix. Prior to any approval, NSW Health must undertake its own review of the potential effects of Energy From Waste plants in the Australian setting and be satisfied there are no impacts on the health of Blacktown residents.

x. The NSW EPA licence should incorporate requirements for commitments to the use of future technologies as they emerge and environmental upgrades to be researched and mandated for implementation.

xi. Prior to any approval, the NSW EPA needs to develop more stringent emission standards that reflect what can be achieved with best available and developing technology.

xii. The proponent must establish a Community Liaison Group of local stakeholders, including nearby businesses, objectors and residents, Council and the EPA, which will be a forum to discuss concerns and monitor the performance of the plant.

xiii. The proponent must offset some community concerns by funding local community improvements and enhancement programs, which must be outlined in a Community Strategy and incorporate a visitor information and education centre within the plant. This should be operated for the life of the plant without charge to visitors.

xiv. The proponent must host regular community forums and hold an annual open day to allow residents to tour the plant.

xv. To ensure the best resource recovery, the NSW EPA should impose annual licensing requirements that set maximum incineration limits based on the plant's ability to meet the NSW Waste Avoidance and Resource Recovery targets, which for 2021/22 are 70% for C & I waste and 80% for C & D waste. The licence requirements should consider prior year tonnages, to monitor performance and ensure recycling remains a priority.

xvi. Payment of a host fee to Council (similar to the current arrangements at the Eastern Creek Resource Recovery facility), based on a fee per tonne of waste processed, to assist in offsetting the impact of the plant on the community, e.g. damage to road surfaces from significant heavy vehicle movements and the enhancement of existing open space areas in the nearby suburbs, to improve the quality of life of residents who feel impacted by the development.

7. EPA licensing concerns

The plant must be licensed by the NSW Environment Protection Authority (EPA) and must comply with the EPA's NSW Energy From Waste Policy Statement

1. Any consent granted for the EFW plant must also be licensed by the EPA and must meet the EPA's Eligible Waste Fuels Guidelines. If the plant is seeking to treat a waste or waste-derived material that is not a listed eligible waste fuel, then it must meet the EPA's requirements for an energy recovery plant.

2. The plant would need to demonstrate that it will be using current international best practice techniques, and ensure that toxic air pollutants and particulate emissions are below levels that may pose a risk of harm to the community or environment.

3. In the event the plant is approved, we contend that, as the EIS is based on models and assumptions, our community needs assurances from the Department of Planning and Environment that:
    a. The predicted emissions are valid and achievable
    b. The human health assessment is valid and achievable
    c. If the operator does not meet the predicted levels when the plant is operational, they will be held accountable for the required upgrades or the plant will be closed.

8. Subdivision concerns

The proposed subdivision is now satisfactory subject to conditions

1. The plans lodged with the EIS originally proposed the subdivision of the land into 11 lots. Now it is only a boundary adjustment and resubdivision into 3 lots - lot 2 for the EFW plant, lot 3 for the electricity substation and lot 1 being the remainder of the landholding.

2. The NSW Government is planning to upgrade and extend a 5 km section of Archbold Road from the Great Western Highway to Old Wallgrove Road in Eastern Creek. Roads and Maritime Services (RMS) is preparing the design for this as part of the Erskine Park road network. The applicant will need to pay the State Infrastructure Contribution that applies to the Western Sydney Employment Area. The proposed subdivision now creates the majority of the site as a residue and the previous issues of road pattern and the conservation area can be dealt with upon the resubdivision of residue lot 1.

3. Whilst the proposed plan of subdivision does not address all of the following issues, these can be included should a consent be granted:
    a. The status of the proposed conveyor/culvert under the future public road has not been shown. A stratum subdivision will need to be undertaken to address this matter and an easement created for the proposed private access under the proposed public road.
    b. Access to the proposed subdivision is reliant on the construction and dedication of Honeycomb Drive across the Dial a Dump Industries (DADI) / Genesis site. The road has not been completed to date, although it is understood that it will occur jointly with the adjoining property owner (Hanson Group) over the next 12 months. This forms part of conditions imposed on other SSD DAs already approved by the Minister for Planning.
    c. Appropriate road access is currently unavailable. Honeycomb Drive will need to be extended, with alternative access being available from the existing Archbold Road over the M4 Motorway (into the Minchinbury Industrial Estate), which will be upgraded by the RMS as outlined above. Details would need to be provided if this second option is chosen as temporary upgrading works may be necessary in the interim period until the RMS upgrade is completed.
    d. If the applicant at any future date intends to access proposed Lot 1 via Kangaroo Drive, separate consent of Council would be required to ensure that the extension of Honeycomb Drive and Kangaroo Drive is upgraded to cater for the increase in truck movements.

4. The final plan of subdivision is not entirely clear but appears to now show:
    a. The southern riparian area included as part of lot 2 on which the plant is proposed. The applicant will remain responsible for the riparian area.

b. The conservation area (located on the corner of Archbold Road and the M4 Motorway) is also incorporated into proposed lot 1. This will also ensure that the owner of proposed lot 1 is responsible for maintaining the conservation area.

5. As part of any subdivision assessment by the DoPE, matters relating to flora and fauna, Aboriginal archaeology, salinity and site contamination will also need to be considered. A site contamination validation report should be undertaken prior to commencement of any works. To ensure the site is certified to National Environment Protection Measure (NEPM) 2013 industrial standards, a Section 88B restriction should be imposed on lot 1 that informs any purchaser that site contamination validation is to be undertaken over this entire lot prior to development occurring.

9. Drainage concerns

The stormwater drainage and water cycle management concept can be made to comply with the Precinct Plan

1. The amended EIS responds to previous issues we raised relating to non-compliance with the Eastern Creek Precinct Plan, particularly overland flow, stormwater management and flooding impacts. The intention is to now construct the proposed precinct detention and water quality basin as a public plant in accordance with the adopted precinct plan. The precinct plan requires development to provide on-lot treatment prior to discharge to the precinct system. The treatment provided in the precinct basin is only to cater for proposed public roads and other public land such as drainage land. The current design needs to be amended to show details of proposed on-lot stormwater treatment. This is likely to require some of the proposed laydown areas and/or other parts of the site to be used for stormwater treatment facilities. The applicant's response proposes to address this during the detailed design phase prior to any Construction Certificate (CC) being issued.

2. Page 46 of Appendix HH5 of the EIS states that:

   ‘Council and the Proponent have also agreed in principle that a supplementary smaller detention basin will be constructed in the area south of the riparian corridor in order to manage run off from the Jacfin land.'

3. While this could happen, there are no detailed proposals for this at this time and the adopted precinct plan does not rely on this option. This option should not be used as a reason for minimising any biodiversity requirements or objectives.

4. The proposed precinct basin is listed in Council’s adopted Section 94 (S94) Contributions Plan No 18. Should the developer wish to obtain S94 credits for the proposed works, a Works in Kind Agreement will need to be executed prior to commencing any construction of the basin.

5. No updated flood modelling has been provided. The response to submissions proposes to conduct this prior to any CC being issued. It is unlikely that the proposed development will be adversely impacted by flooding based on the preliminary information available and therefore this can be resolved prior to any CC. The proposed works may encroach into the existing flood extents and this issue needs to be addressed as part of the detailed design.

6. The amended EIS does not provide details of how public access will be provided to the proposed precinct basin. Details of the required public access should be provided and approved by Council prior to the issue of any CC.

7. The original stream erosion index calculations may have included full stormwater reuse in the developed conditions modelling. Amended stream erosion index calculations need to be provided based on the current strategy of harvesting roofwater only for reuse.

8. We recommend the following matters be included as conditions should the proposal be approved by the NSW Government:

    i. Prepare an amended stormwater management plan for the site in accordance with the precinct plan for the area, being SEPP 59 – Eastern Creek Precinct Plan (Stage 3), and Council's Engineering Guide. The stormwater management plan is to detail on-site stormwater treatment and reuse, revised stream erosion index calculations and amended precinct basin design. The stormwater management plan should address the future use of the laydown area and remaining adjoining land

    ii. Provide details of suitable public access to the precinct basin for maintenance to the satisfaction of Council.

    iii. Prepare a flood impact study to assess any flooding impacts from the proposed development. The impact study is to model the range of storms from 2 to
    100 year ARI and the PMF as a minimum

    iv. Should the developer wish to obtain Section 94 credits for the proposed precinct basin works, a Works in Kind Agreement with Council will need to be executed prior to commencing any construction of the precinct basin.

9. The majority of the drainage issues can be resolved during the detailed design. All issues must be resolved to our satisfaction prior to the issue of any Construction Certificate, including bulk earthworks, should the project be approved by the Minister.

10. Aboriginal heritage concerns

Aboriginal artefacts will be reburied in the adjacent riparian area

1. 14 Aboriginal archaeological artefacts are located within the development footprint. To mitigate against the plant's development impacts, the artefacts will be reburied within the adjacent riparian area as it will not be impacted by any future development works. This location has been supported by Aboriginal stakeholders.

2. Whilst 14 Aboriginal artefacts are located within the development footprint, which is unavoidable due to the size and layout of the plant, the design has avoided direct impact on 2 remaining sites, being Archbold Road 1 (45-5-4492) and Archbold Road 2 (45-5-4493).'

3. The Aboriginal Cultural Heritage Assessment Report Addendum notes that the Archbold Road 1 and Archbold Road 2 sites should be designated as conservation

areas. Ameliorative measures, as outlined in the Aboriginal Cultural Heritage Assessment Report's recommendations, should be outlined in the Construction Environmental Management Plan (CEMP), including detailed maps of the conservation area locations.

4. We recommend that the following requirement be included as a condition if a consent is granted:
    a. A Construction Environmental Management Plan is to be provided prior to the commencement of works, including detailed maps identifying the location of the conservation areas designated for a keeping place for artefacts retrieved during the works. An Operational Environmental Management Plan is to be developed to ensure that appropriate measures are in place for the treatment and ongoing safekeeping of the Aboriginal heritage in the area. This is to include a funding schedule to cover the continued protection of the conservation areas.

11. Road concerns

The public roads need to be consistent with the Precinct Plan

1. Access to the plant is via Honeycomb Drive. The road will need to be extended as part of this proposal, to provide direct access to the plant. We raise no objection to the proposal in this respect subject to the public roads being consistent with the road pattern approved as part of the Eastern Creek Precinct Plan Stage 3. All road construction is to occur in accordance with RMS Road Design Standards and Council's Engineering Guide for Development 2005.

2. An appropriate easement for the road underpass tunnel and conveyor belt between the subject site and the neighbouring Genesis MPC will also need to be created prior to any dedication of the road to Council, in consultation with our property and road asset maintenance sections.

3. The underpass is to be of sufficient depth to enable installation of normal underground utility infrastructure within the road reserve.

4. The headwalls of the underpass (and any required fencing and other work) must be located wholly within private property on each side of the roadway.

5. The applicant will need to obtain pre Construction Certificate approval from Council for a substratum approval. These matters will need to be included as conditions if consent is granted by the Minister.

12. Retaining works

No retaining works are to be provided on the property boundaries

6. The applicant has advised that, as part of the EFW plant, no retaining work is required on the property boundaries (i.e. proposed Lot 2). However, further cut and fill plans, together with all retaining wall details, should be obtained to confirm this is the case.

7. In the event that any retaining walls or works are located on the boundary, an appropriate easement for maintenance or support must be provided on the adjoining lots (i.e. lots 1 and 3 within the site itself and the adjoining owner to the east) if applicable.

8. Any retaining wall over 3 m is to be of masonry construction and is required to be stepped with a 1.5 m wide terrace (as per the Precinct Plan), to reduce the bulk and scale of these walls. All details are to be provided for approval.

13. Section 94 contributions

Section 94 contributions are payable for this development

1. The applicant should be conditioned to pay Traffic and Water Management contributions under Section 94 Contributions Plan No.18 – Eastern Creek Stage 3 as follows:

i. Prior to Subdivision Certificate

Traffic Management Contributions

The Proponent shall reasonably contribute towards the acquisition, design and construction of the Precinct Plan Road known as the 'Quarry Link Road' between Old Wallgrove Road and Wonderland Drive, and the Bridge forming part of the Quarry Link Road. The contribution shall be made by the Proponent to Council before the issue of the Subdivision Certificate. The Proponent shall also contribute to the provision of bus shelters (Traffic Management).

Water Management

The Proponent shall contribute towards the provision of Water Management Facilities in the Rope Creek Tributary Catchment.

Section 94 Contributions

The following monetary contributions pursuant to Section 94 of the Environmental Planning & Assessment Act 1979 are payable. The amounts below are BASE contributions which will be indexed from the nominated base date to the date of payment.

Contribution item		Base amount	Base CPI date
(i)	Quarry Link Road	$376,430	18 June 2015
(ii)	Traffic Management	$21,118	18 June 2015
(iii)	Ropes Creek Tributary	$5,314,345	18 June 2015

The contributions will be indexed according to the Australian Bureau of Statistics ' Consumer Price Index (All Groups Sydney).

The Section 94 contributions have been based on the total developable area nominated below. Should the final plan of survey indicate any change in the total developable area, the Section 94 contributions will be adjusted accordingly.

Developable Area : 20.95 Ha (proposed lots 2 and 3).

14. Airspace implications

The proposal will have implications on the proposed Western Sydney Airport airspace operation

1. The proposed Eastern Creek EFW plant is located within the proposed Obstacle Limitation Surface (OLS) for the Western Sydney Airport (WSA). The OLS for the WSA is yet to be declared, however, correspondence received from the Department of Infrastructure and Regional Development (DIRD) indicates that declaration of prescribed airspace for WSA (that includes the OLS) is imminent.
2. If the OLS was declared, we believe the proposed Eastern Creek EFW plant would need to be assessed by the airport operator or the relevant Commonwealth Government department in the absence of an airport operator, as the plumes from the exhaust vents could be deemed to be a controlled activity under the Airports Act 1996 and the Airports (Protection of Airspace) Regulations 1996, due to the velocity of the emissions.
3. As the declaration of prescribed airspace for the WSA is imminent, and approval has recently been granted for the Western Sydney Airport Plan which permits the construction of stage 1 of the WSA, consent for this proposal should not be granted until as such time as the application has been reviewed by the airport operator or the Department of Infrastructure and Regional Development.

15. Landscaping concerns

Proposed landscaping and street tree planting will be satisfactory subject to conditions

1. We recommend the following:
    a. Only the trees in the development footprint should be assessed for approval to remove.
    b. All trees in areas designated as future development be retained and protected under AS4970-2009 Protection of Trees on Development Sites.
    c. Detailed plans of landscaping for the bioretention system and detention basin are submitted for review by Council.
    d. Landscape Drawing LA-SILA-9116 Rev 1 is not correct and is the same as LA-SILA-9112 Rev 1. The correct drawing should be submitted for review.
    e. All planted batters should not exceed a grade of 1:4.
    f. All turfed batters should not exceed a grade of 1:6.
    g. No irrigation system is installed on the nature strip.
    h. A street tree planting plan be submitted for review and approval. The street tree plantings should be located between the footpath and the kerb and should have root directors installed with these plantings to ensure no root invasion of Council 's footway occurs.

Conclusion

Despite the amended SSD application being significantly better than the original EIS the development application must be refused for the reasons outlined in this submission.

Attachments

1. Copy of Jacobs Group (Australia) Pty Limited EIS review
2. European Commission - The role of waste-to-energy in the circular economy (dated 26 January 2017)