



Executive Summary

WSERRC EIS

Executive Summary

Introduction

Cleanaway and Macquarie Capital are seeking a State Significant Development (SSD) consent for the construction and operation of the Western Sydney Energy and Resource Recovery Centre (WSERRC) (the proposal). The proposal comprises an energy from waste (EfW) facility with associated infrastructure and visitor and education centre.

The proposal will be designed to thermally treat up to 500,000 tonnes per annum (tpa) of residual Municipal Solid Waste (MSW) and residual Commercial and Industrial (C&I) waste streams which would usually be disposed of to landfill. Residual waste is waste that is left over from recycling and resource recovery operations and waste from source separated collections. Source separation involves separating waste into common material streams or categories for separate collection.

Within the NSW Energy from Waste Policy Statement (NSW EfW policy), the Environment Protection Authority (EPA) recognises that EfW can be a valid pathway for the handling/treatment of residual waste where further material recovery through reuse, reprocessing or recycling is not financially or technically feasible. Without an EfW option, the residual waste that this proposal will target and process, would be sent to landfill.

The EfW process would generate up to 58 megawatts (MW) of base load electricity per year, some of which would be used to power the facility itself, with up to 55MW exported to the grid. A proportion of the electricity generated would be categorised as renewable.

In addition to supplying electricity to the grid, there is also potential to supply energy in the form of heat and steam to local industrial users.

The proposal will produce enough energy for over 79,000 homes in Western Sydney, reducing net greenhouse gas emissions by around 390,000tpa CO₂-e – equivalent to taking about 85,000 cars off the road each year.

The proposal will also include a visitor and education centre to help educate and inform the community on the circular economy, recycling, resource recovery and EfW. The intent behind this education is to drive a shift in community thinking and actions around waste management.

The proposal involves the building of all onsite infrastructure needed to support the EfW facility, including site utilities, internal roads, weighbridges, parking and hardstand areas, stormwater infrastructure, fencing and landscaping.

The EfW facility will also include a ferrous metal (metal containing iron) separator to separate and recover the ferrous metals from the ash (referred to as incinerator bottom ash or IBA, a by-product of the EfW process) for recycling and sale to market.

The remaining IBA will be transported to a dedicated offsite IBA processing facility where non-ferrous metals (or secondary metals) recovery may be carried out. The applicant is exploring options to reuse the IBA in construction products. The offsite IBA processing facility, if progressed, will be subject to a separate development application process. Note that other ash by-products from the EfW process, including flue gas treatment residues (FGTr) and boiler fly ash, will be managed offsite using existing infrastructure.

While some residual materials are produced because of the EfW process, including IBA (65,800tpa dry weight, becoming 80,000tpa wet weight after quenching), FGTr (20,000tpa) and boiler fly ash (which is captured with the IBA and FGTr streams), the EfW process typically leads to about 90% reduction in the volume, or 80% reduction in mass (tonnes), of waste that would otherwise go to landfill. If IBA is reused into construction products, this number increases further to about 95% reduction in volume and mass of waste that would otherwise go to landfill.

This proposal will create around 900 direct construction jobs over the 3-year construction period, as well as 700–1200 indirect construction jobs. Moreover, 50 highly skilled jobs would be created locally during operation, supporting the development of new skill sets and employment opportunities in the Western Sydney region.

The applicant is Cleanaway Operations Pty Ltd, on behalf of a joint venture between Cleanaway and Macquarie Capital who are developing the proposal. The proposal site is owned by the Western Sydney Energy & Resource Recovery Centre Pty Ltd (ACN 635 427 262), an entity jointly owned by Cleanaway and Macquarie Capital. Cleanaway is an Australian waste management, recycling and industrial services company. Macquarie Capital is the developer and co-investor in Australia's first energy and resource recovery centre now being built in Perth.

Proposal objectives

The proposal seeks to meet the following objectives:

- Increase the recovery of valuable resources from residual waste
- Divert waste from landfill, supporting the NSW Government targets for landfill diversion, responsible waste management and reducing the burden of landfills on the environment and communities
- Develop waste management infrastructure close to waste generation sources, reducing waste transport distances and associated environmental impacts
- Develop and operate a facility to international best practice standards that protects the health of people and the environment in the surrounding area
- Develop a facility which integrates the built form into the existing context, including adopting architecture which minimises visual bulk, and provides opportunities to enhance the appearance of the building
- Build trust with the community through ongoing engagement in the planning, design, construction and operation of the EfW facility
- Set up an education resource that raises awareness of the principles of waste management, waste avoidance, the circular economy, recycling, resource recovery and EfW
- Contribute to the economy in Western Sydney by creating direct and indirect skilled employment opportunities, both during construction and long-term
- Provide a source of baseload energy, part of which is categorised as renewable, contributing to NSW Government objectives for energy security and renewable energy.

What is EfW?

For the purpose of this proposal, EfW refers to the recovery of energy through the thermal treatment of residual waste streams, significantly reducing the volume of waste being sent to landfill, while generating baseload energy, part of which is categorised as renewable. Both the NSW EfW policy and the *Protection of the Environment Operations (POEO) Act 1997* define thermal treatment as

‘the processing of waste by burning, incineration, thermal oxidation, gasification, pyrolysis, plasma or other thermal treatment processes.’

EfW in NSW context

In New South Wales, demand for EfW is driven by the following:

- Resource recovery targets such as the Waste Avoidance Resource Recovery (WARR) Strategy target to increase the amount of waste diverted from landfill to 75% by 2021 are unlikely to be achieved without EfW. To achieve this target, more than 1.2Mt¹ of materials will need to be recycled when correcting for waste generation and population growth rates. The EPA recognises in the EfW Policy Statement that EfW can be a valid pathway for residual waste where further material recovery through reuse, reprocessing or recycling is not financially or technically feasible.

In addition, overall waste generation is expected to increase as Sydney's population grows to around 10 million by 2036². Despite waste generation per capita being expected to decrease, population growth will result in more waste, which will need to be managed.

- Declining landfill space at existing landfills and social and environmental concerns limiting the development of new landfills.
- Landfill levies and gate fees supporting the development of waste infrastructure including EfW facilities.
- Community expectations for a higher order use for waste management than landfill.

Proposal site and site suitability

The proposal site is located at 339 Wallgrove Road in Eastern Creek, NSW (Lot 1 DP 1059698), which is in the Blacktown local government area (LGA). The site is in the Wallgrove Precinct of the Western Sydney Parklands (WSP) Plan of Management. **Figure 1** shows the locality of the site relative to Sydney.

The proposal site was selected as the preferred site following a detailed site selection strategy, which considered numerous potential sites throughout the Sydney region. The main factors in determining the final site location included:

- Maximising the separation distances to residential areas
- Zoning of the site
- Access to transport networks
- Proximity to the source of the waste

¹ WARR Strategy, 2014.

² <http://www.planning.nsw.gov.au/Research-and-Demography/Demography/Population-Projections>

- Access to a grid and other utility connections
- Site size and configuration
- Avoidance of protected airspace
- Compatibility with surrounding land uses.

The main reasons for the selection of the site located at 339 Wallgrove Road in Eastern Creek are outlined in the subsequent section.

The site is in a region that is expected to accommodate a significant proportion of the population growth forecast for Sydney, driven in part by the development opportunities created by the Western Sydney Airport and Western Sydney Aerotropolis.

The location of the site in this growth region and close to established waste management infrastructure under the ownership of the applicant such as the Erskine Park Waste Transfer Station minimises the transport distances between the sources of waste, waste processing facilities and the proposal.

Importantly, the location of the site avoids unacceptable impacts on the protected airspace of the Western Sydney Airport.

The proposal site is located around 1km from the nearest residential areas. The risk of future encroachment is reduced by its location in the Western Sydney Parklands and adjacent to the Western Sydney Employment Area, both of which prohibit residential development.

The site is immediately adjacent to the M7, close to power supply infrastructure and is in an area that is used for waste management facilities. It is consistent with the Wallgrove Precinct Plan, part of the Western Sydney Plan of Management, which classifies recycling and renewable energy as future land use opportunities in the Precinct.

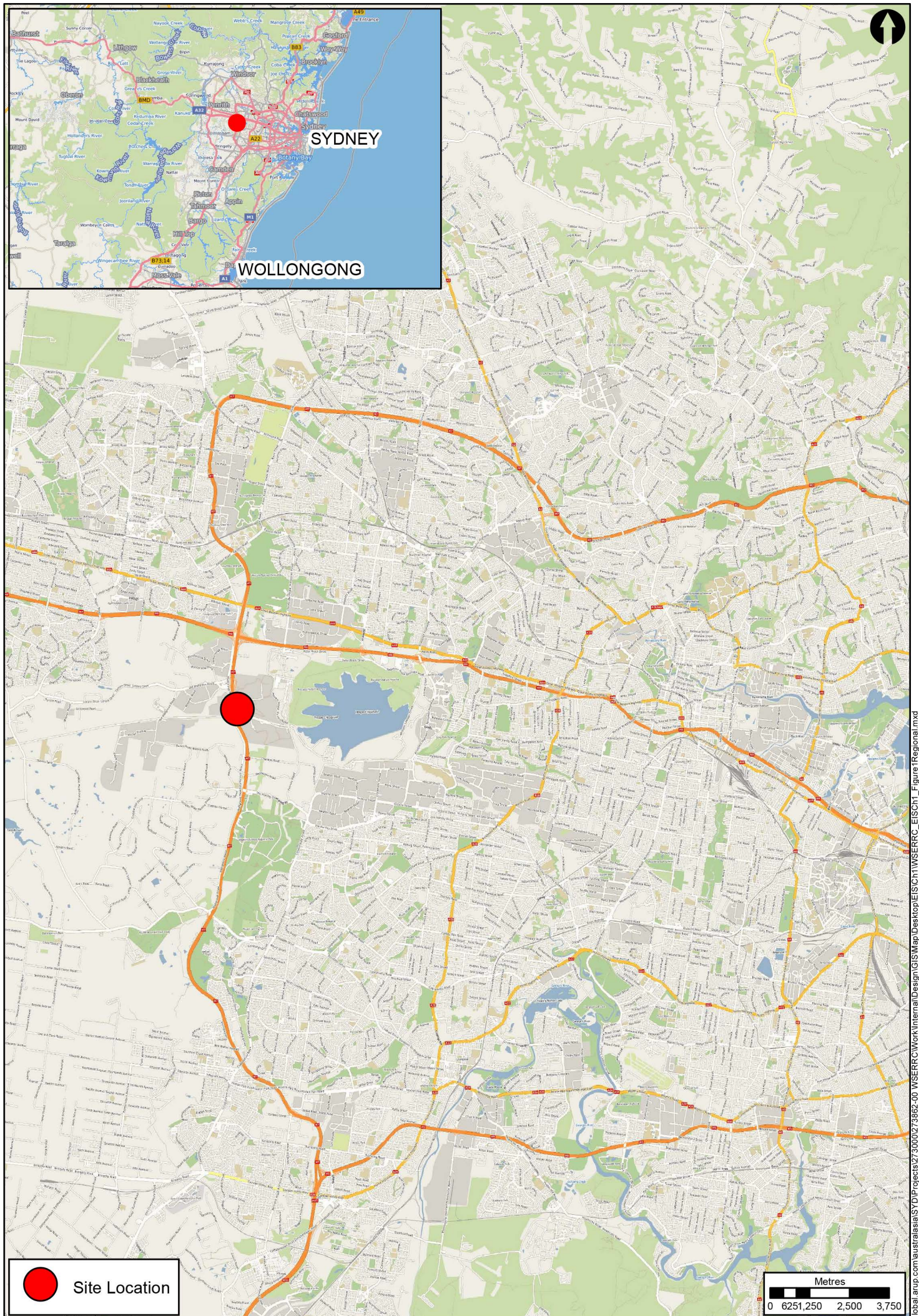
Access to the site is via a dedicated access road at the site's southern boundary, which connects to an unnamed road referred to as the Austral Bricks Road. Austral Bricks Road connects to Wallgrove Road, which in turn connects to the wider road network, including the M7 motorway. The preferred access solution has been agreed in principle with WaterNSW who own the Warragamba pipelines. Ongoing consultation will continue with WaterNSW to agree the detailed design and construction method.

The 8.23ha site is divided by a small strip of land, which does not form part of the proposal site, resulting in a 2.04ha northern section and a 6.19ha southern section as shown in **Figure 2**.

This dividing strip is part of the adjacent lot and includes a right of carriageway, benefitting the proposal site, allowing vehicles to move between the two parts of the site. The proposal area will be fully contained in the 6.19ha southern portion of the site as shown in **Figure 2**.

Works to occur on the 2.04ha northern section of the site include the clearing of weeds and exotic vegetation, and replacement with native species within the existing overland flow path, which is confined to the eastern portion of this parcel of land. The northern section will also be used temporarily to support construction works. It is not currently expected that any other works will occur on the 2.04ha northern section of the site as part of this proposal.

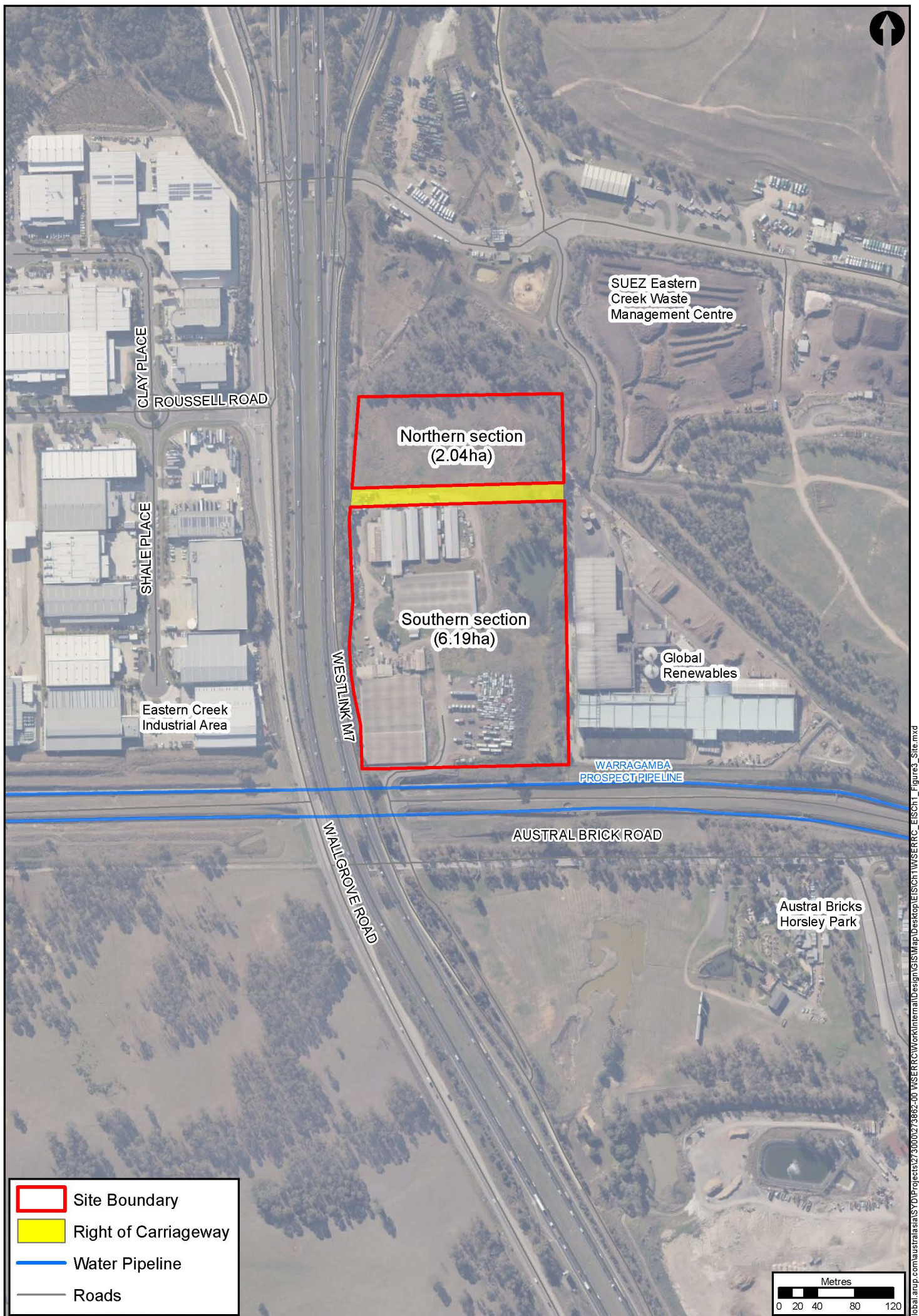
The existing southern portion of the site includes sheds and ancillary buildings associated with a disused poultry facility and storage of wrecked vehicles, all of which will be cleared from the site before starting construction. Currently, two hectares of the northern part of the site are paved.



Service Credits: DFSI, 2020, © OpenStreetMap contributors

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Figure 1: Proposal site location



Permissibility

The State Environmental Planning Policy Western Sydney Parklands 2009 (WSP SEPP) is the principal environmental planning instrument (EPI) controlling development and land use planning in the Parklands. All land in the Parklands is unzoned. All forms of private development other than residential or exempt development are permitted with consent. The provisions of specific Local Environmental Plans (LEPs), including the Blacktown LEP 2015, do not apply to the WSP as per clause 6 (1) of the WSP SEPP. The WSERRC would be permissible with consent in the WSP. A decision to grant development consent is available to the consent authority, subject to the application demonstrating the merits of the proposal.

Assessment pathway

The WSERRC will be assessed and determined under Division 4.7 of the *Environmental Planning & Assessment Act 1979* (EP&A Act) because of its classification as SSD.

Clause 20 of Schedule 1 of State Environmental Planning Policy (State and Regional Development) 2011 (SRD SEPP) declares that Electricity Generating Works (EGW), using any energy source, including gas, coal, biofuel, distillate, waste, hydro, wave, solar or wind power, are SSD if they have a capital investment value (CIV) of more than \$30m. The estimated CIV for the proposal is around \$645m and accordingly WSERRC is SSD for the purposes of Schedule 1 of the SRD SEPP.

As the site is located in the WSP, it is also classified as SSD under Schedule 2 of the SRD SEPP as it is development that has a CIV of more than \$10m on land recorded as being within the WSP on the WSP Map within the meaning of State Environmental Planning Policy (Western Sydney Parklands) 2009 (WSP SEPP).

This means the WSERRC would be assessed in line with the provisions of Division 4.7 of Part 4 of the EP&A Act.

The consent authority for SSD is either the Minister for Planning and Public Spaces or the Independent Planning Commission (IPC).

Proposal description

The proposal comprises an EfW facility with associated infrastructure and visitor and education centre.

EfW technology

The selection of the EfW process technology was an important consideration in enabling the proposal to operate safely and within stringent environmental standards. Moving grate technology has been chosen as the means to thermally treat incoming waste to recover energy, given that it is the most recognised and proven technology used globally and has been subject to continual improvement in response to regulatory, industry and public demands. Moving grate is a common form of EfW combustion technology where the waste is fed through the combustion chamber by a travelling grate. The primary function of the moving grate is the controlled transport of the waste through the chamber for the efficient combustion of the waste. A semi-dry system with additional wet scrubber was chosen as the preferred approach for flue gas treatment (cleaning the air emissions) as it readily achieves both the EU and NSW technical and environmental criteria, and because of its ability to future proof against potential tightening of emission limit values.

The NSW EfW policy states that:

‘to ensure emissions are below levels that may pose a risk of harm to the community, facilities proposing to recover energy from waste will need to meet current international best practice techniques.’

This proposal has been designed to meet the European Industrial Emissions Directive (IED)³ and the associated Best Available Techniques Reference⁴ (BREF) document which sets the European Union environmental standards for waste incineration as published on 3 December 2019. The EU Commission Implementing Decision (2019/2010) on 12 November 2019 states the best available techniques (BAT) conclusions as the main element of the BREF and prescribes them to be adopted by Member States. Additionally, the facility will comply with the technical criteria set out in the NSW EfW policy. Compliance with the BREF is world’s best practice regarding environmental performance of EfW facilities.

³ Directive 2010/75/EU of the European Parliament
<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32010L0075>

⁴ https://eippcb.jrc.ec.europa.eu/sites/default/files/2020-01/JRC118637_WI_Bref_2019_published_0.pdf

Operation

The proposal will be designed to thermally treat up to 500,000tpa of residual MSW and residual C&I waste streams. This process would generate up to 58MW of base load electricity, some of which would be used to power the facility itself with up to 55MW exported to the grid. A proportion of the electricity generated would be categorised as renewable.

A schematic process diagram of the facility, depicting the main steps in the EfW process, from receipt of waste through to flue gas treatment and residue management, is described in **Figure 3**.

The main operational steps in the EfW process include:

1. Waste delivery
2. Waste receipt and storage
3. Combustion process
4. Energy recovery process
5. Flue gas treatment
6. Process residues management.

Site layout

Figure 4 shows the main features of the proposal site.

Architectural approach

The proposed building footprint is designed to be consolidated within the southern section of the site, clustering smaller buildings into one area to limit sprawl, while decreasing in height towards the north and south extents of the site, to minimise negative visual impacts. The physical bulk of the building will be broken down by using vertical blades, which interrupts the large façades, so they are more visually interesting and less bulky, as well as breaks up the mass from key viewing corridors on the M7 in the north and south directions. The northern and southern ends of the building will be covered in living green walls and a green roof on the visitor and education centre, to help blend the proposal into the vegetated backdrop. The landscape design also includes screening around the perimeter of the site, to block direct views and increase density of roadside vegetation.

Construction

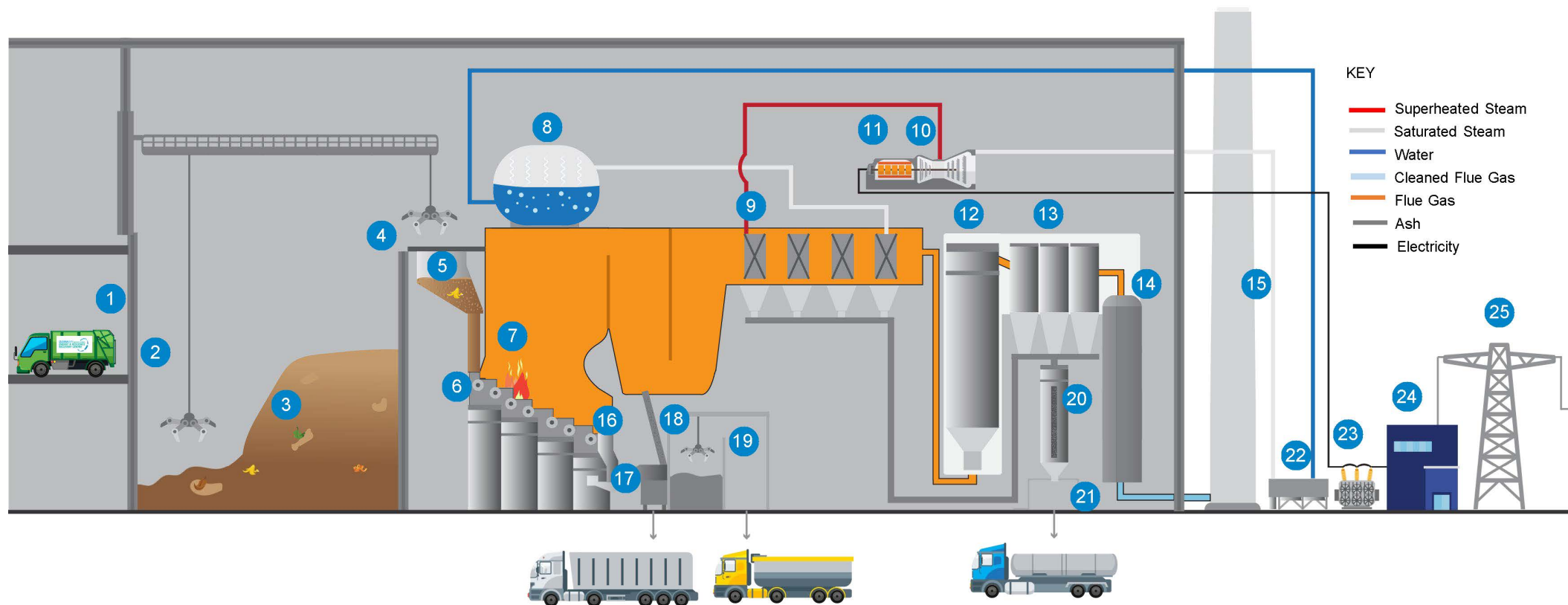
Pending approval, design and construction activities are expected to start in Q4-2021 and it would take up to 3 1/4 years (39 months) to complete, subject to any external unforeseen delays.

The proposal would likely be constructed in five phases to reflect contractor requirements, material and equipment availability, and program and delivery schedules. Building in phases would also allow for effective site and environmental management. The main phases of construction comprise:

- Phase 1: Demolition
- Phase 2: Site establishment and enabling works
- Phase 3: Main construction works
- Phase 4: Testing and commissioning works
- Phase 5: Finishing and landscaping works.

The proposal would be built and managed by a contractor in accordance with an approved Construction Environmental Management Plan (CEMP), prepared in response to the conditions of consent, and in line with relevant safety management requirements. The CEMP will cover environmental performance, management and monitoring requirements supplemented by aspects, such as building demolition, vegetation removal and protection of biodiversity, contamination management, farm dam management, stockpile management, erosion and sediment control and protection of the Warragamba pipeline corridor.

A community management strategy will also be developed through the construction phase, which will include the formation of a Community Reference Group (CRG), contact protocols and engagement strategy with nearby neighbours, residents and businesses.



LEGEND

1	Waste Receiving hall	7	Boiler	13	Bag filters	20	Flue gas treatment residues (FGTr) and boiler fly ash silo
2	Tipping bay	8	Steam drum	14	Wet scrubber	21	FGTr and boiler fly ash collection for treatment and disposal
3	Waste bunker	9	Superheaters	15	Stack	22	Air cooled condenser
4	Waste crane	10	Steam turbine	16	Incinerator bottom ash (IBA) handling	23	Transformer
5	Feed hopper (chute)	11	Generator	17	Ferrous metals recovery	24	Substation
6	Moving grate	12	Semi dry reactor	18	IBA bunker and separate metals bunker	25	Local electricity grid
				19	IBA collection and separate metals collection		

Figure 3: Schematic of the EfW operational process



Figure 4: Proposed facility layout

Energy from Waste policy

The NSW EfW policy recognises that energy recovery is a valid pathway for managing residual waste in circumstances where higher-order material recovery is not possible. It reflects the environmental and human health protection objectives of the *POEO Act* and the resource management objectives of the *Waste Avoidance and Resource Recovery (WARR) Act 2001*.

The NSW EfW policy sets requirements to be addressed by proposed energy recovery proposals in New South Wales, including WSERRC. These include consultation, provision of information, demonstrating best practice and technical performance and resource recovery requirements.

Technology selection and reference facilities

The Dublin EfW facility in Ireland and the Filborna Oresundskraft EfW facility in Sweden are the two reference facilities that have been selected for this proposal as they operate in similar jurisdictions to NSW, use the same technologies and process like waste streams (mixture of MSW and C&I waste). The reference facilities demonstrate that the proposed technology can achieve reliable and acceptable environmental performance, particularly regarding air emissions, resource recovery and management of ash and FGTr from the energy recovery process.

Feedstock availability

A feedstock availability assessment has been completed for the proposal which demonstrates that there is significantly more waste feedstock available in the Sydney Basin than the 500,000tpa design capacity of the WSERRC proposal. These modelling results indicate that the Sydney Basin will generate enough residual waste to support WSERRC and other known EfW facilities proposed in the Sydney Basin, taking into account improvement in source separation and recycling rates over time. In this context, the WSERRC proposal has flexibility to secure waste from both MSW and C&I sources to achieve optimum commercial and energy recovery outcomes.

Waste hierarchy principle and resource recovery criteria

The resource recovery objectives of the NSW EfW policy reflect the priorities of the waste hierarchy and the WARR Act:

1. Avoidance of unnecessary resource consumption
2. Resource recovery (including reuse, reprocessing, recycling and energy recovery)
3. Responsible disposal which protects human and environmental health.

These objectives are translated into specific resource recovery criteria in Table 1 of the NSW EfW policy, with scope for departures from these criteria subject to agreement with the EPA. Achieving the resource recovery criteria is reliant on regulatory and market conditions which can change over time. The provision for NSW EPA discretion within the NSW EfW policy allows flexibility to accommodate changes such as the ban on land application of organics from mixed waste which the NSW EPA implemented in 2018 and confirmed in 2019.

The WSERRC feedstock supply strategy respects the waste hierarchy by applying the following core principles:

1. Support source-separation for high-value recycling
2. Pre-process mixed waste to recover recyclable materials and remove unacceptable waste from the feedstock
3. Divert waste from landfill and recover energy from residual waste which has no other viable outlet.
4. Apply Quality Assurance/Quality Control (QA/QC) procedures to prevent unacceptable waste from being delivered as feedstock to the EfW facility.

To reflect the changed market and regulatory context since the NSW EfW policy was published in 2015, WSERRC has proposed two feedstock scenarios both of which are compliant with the NSW EfW policy.

Supporting source-separation: Scenario 1 and Scenario 2

The WSERRC feedstock strategy targets residual waste from generators that separate recyclable material at source (at the point of waste generation). Source separation is the most desirable outcome as it secures high-quality material for recycling and reduces the need for less efficient processing of mixed residual waste. As permitted under the NSW EfW policy, residual waste from source-separating generators will be accepted for energy recovery without initial processing.

As stated in the NSW EfW policy, adequate source separation of all relevant materials means a 3-bin kerbside collection for households, including a food and garden organics (FOGO) service. For businesses, source separation requirements depend on the types of waste produced and will vary between businesses. As a waste collection service provider, Cleanaway matches waste collection services to businesses' needs and is well-placed to support their business clients in identifying and separating all relevant material streams for recovery.

Cleanaway is committed to actively encouraging uptake of source-separation by both business and councils, across all aspects of their integrated waste collections, recycling and energy recovery services. This includes provision of training and education materials, provision of waste collection services for source-separated materials, and operation and promotion of resource recovery infrastructure in New South Wales.

The WSERRC is designed to accommodate changes in residual waste, including uptake of source separation over time, as illustrated in the long-term feedstock strategy in **Figure 5** and **Figure 6**.

Pre-processing of waste: Scenario 1 and Scenario 2

Waste from generators without adequate source separation could still contain some recyclable materials and must be pre-processed before being received by the WSERRC, as stated in Table 1 of the NSW EfW policy. This pre-processing is likely to be located at Cleanaway's existing Erskine Park Waste Transfer Station and may trigger the need to increase the approved capacity at this facility.

The pre-processing will be in line with best-practice recovery techniques and expects to achieve a 5% recycling rate from mixed MSW and C&I waste streams, based on performance benchmarking of similar facilities. A 5% recycling rate for mixed waste reflects reasonable technically and economically feasible performance in the current regulatory and market context for recovery of organics and dry recyclable materials.

Metals and rigid plastics are the main materials that will be recovered and sold into recycling markets. Optical sorting to extract plastics will also remove PVC, which has a high chlorine content and is undesirable as feedstock for the WSERRC.

Since 2018, land application of organic material sourced from the extraction and recovery of organic material from mixed waste (MWOO) is no longer permitted in New South Wales. This is a significant fraction of mixed MSW and C&I waste, and includes food organics, garden organics and heavily soiled paper and cardboard. As there is no recovery outlet for this material in the current regulatory context, it will not be separated from the mixed waste stream during pre-processing.

The material remaining after pre-processing has a suitable chemical composition and calorific value for energy recovery at the WSERRC and does not have any market outlet for higher-order resource recovery.

EfW eligibility and landfill diversion: Scenario 1

Scenario 1 is consistent with Table 1 of the NSW EfW policy, and is illustrated in **Figure 5**.

Eligibility criteria in Table 1 of the NSW EfW policy impose further limits on waste acceptance as feedstock for energy recovery, beyond the 5% recovery rate which currently represents best practice in mechanical recovery of recyclable materials from mixed waste.

Under this scenario, mixed residual waste which has undergone pre-processing would be directed either to energy recovery at WSERRC or to landfill, with no further processing undertaken for either stream. The maximum quantity of waste eligible under Table 1 of the NSW EfW policy would be directed to the WSERRC for energy recovery. The remaining material would be directed to landfill, as no other outlet is available under current market and regulatory conditions.

EfW eligibility and landfill diversion: Scenario 2

Scenario 2 is consistent with the NSW EfW policy and is illustrated in **Figure 6**. It meets the prescriptive requirements of Table 1 for waste for source separated collections and reflects a future approval to increase the allowable percentage of mixed residual waste which is eligible for energy recovery after pre-processing.

The applicant is seeking an increase to the allowable EfW-eligible fraction of mixed waste which goes through the pre-processing facility to 95% of the mixed waste received for pre-processing. This is permitted through Note 1 to Table 1 of the EfW policy.

This would be relevant to approximately 60% of the WSERRC target feedstock in the short term, decreasing to approximately 20% of WSERRC expected feedstock in the longer term, as both councils and businesses move towards greater source separation. If approved, this increase in EfW-eligibility for pre-processed mixed waste would improve overall landfill diversion without undermining the recovery of valuable materials that have a genuine market outlet. Overall, less mixed waste feedstock would need to be directed through the pre-processing facility, potentially allowing more space for other resource recovery operations at this site and supporting competition in the putrescible waste management market.

The applicant strongly advocates for an increase to EfW-eligibility of waste from generators without adequate source-separation, because in the context of the 2018 ban on land application of MWOO and challenging recycling markets, approximately 95% of this waste stream has no genuine recovery outlet. Recovering energy from this material rather than directing it to landfill is in accordance with the waste hierarchy, which is one of the overarching objectives of the NSW EfW policy and the WARR Act.

Scenario implications for proposed infrastructure

Both Scenario 1 and Scenario 2 are considered viable for this proposal.

Implementation of either Scenario 1 or Scenario 2 will impact the overall throughput at the pre-processing facility. However, it will have no flow-on impact to either the quantity or composition of waste feedstock accepted for energy recovery at the WSERRC.

Feedstock Strategy – Scenario 1

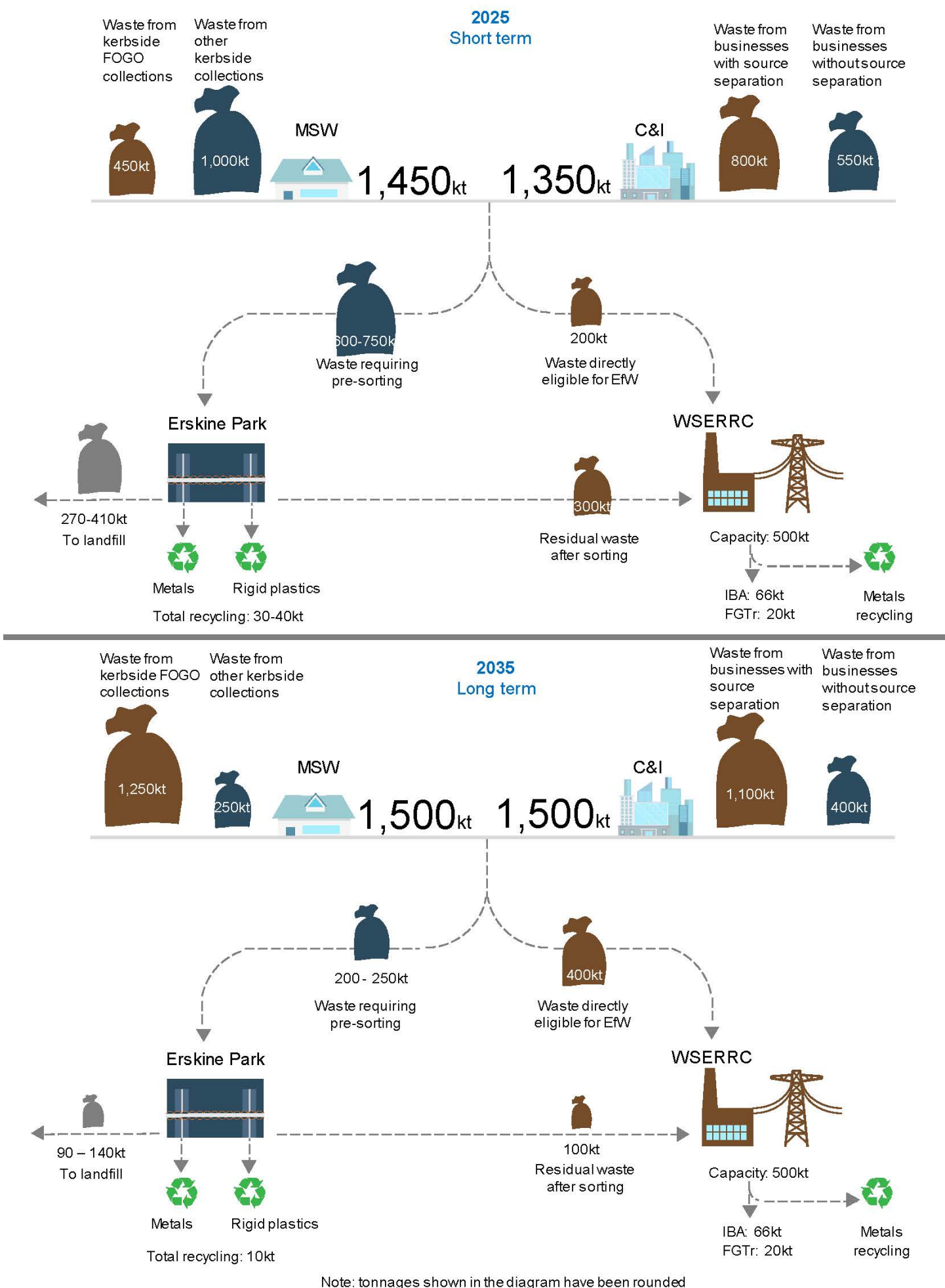


Figure 5: WSERRC feedstock strategy – Scenario 1.
Note 1 exemption not approved.

Feedstock Strategy – Scenario 2

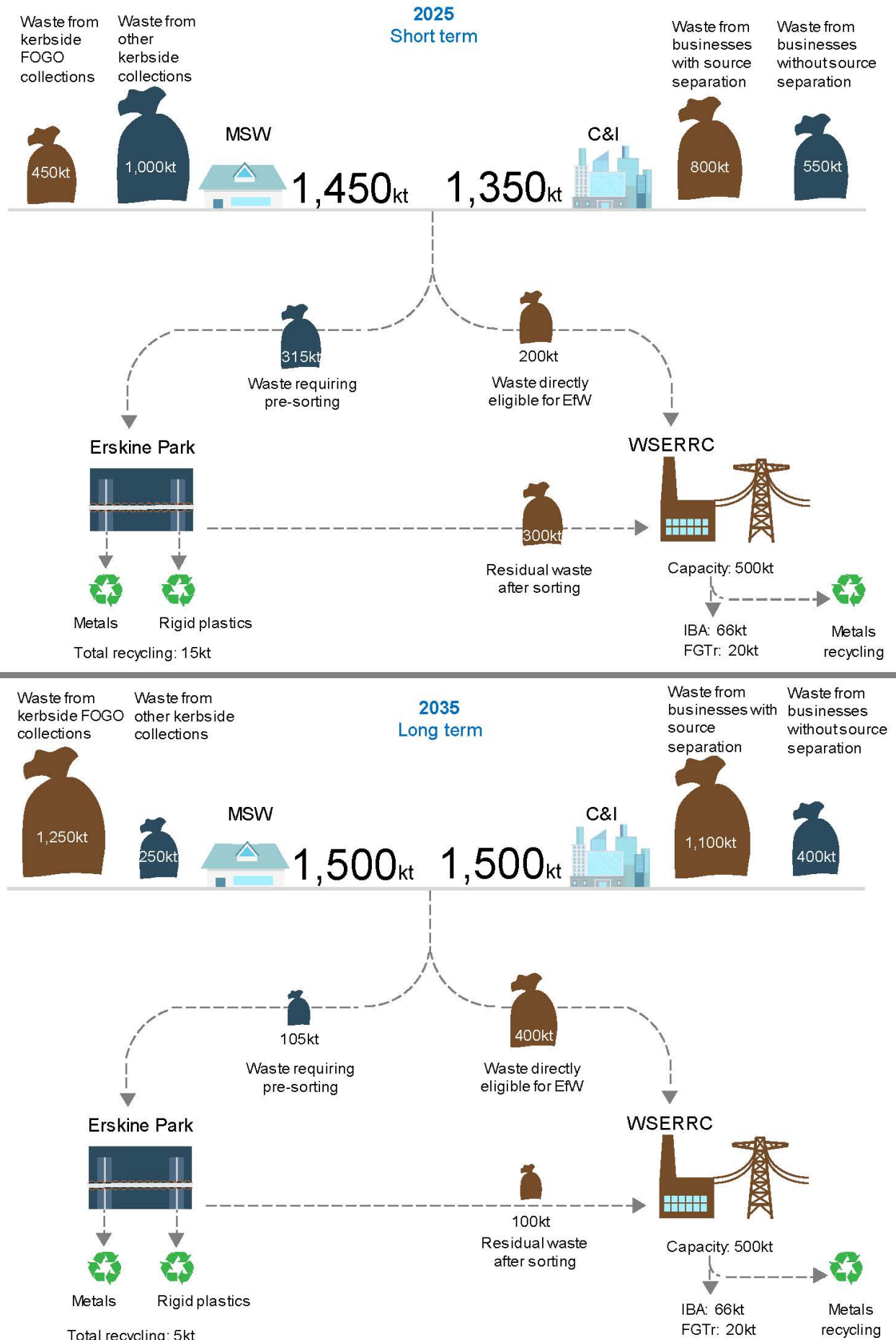


Figure 6: WSERRC feedstock strategy – Scenario 2.

Note 1 exemption approved for the pre-processing of waste from generators with inadequate source separation.

Engagement

The development of the WSERRC proposal has been informed by a comprehensive approach to community and stakeholder engagement, based on a commitment to seeking proactive engagement and building long-term relationships.

In response to questions about engagement preferences, our research found that most respondents would like to be informed about plans for any local EfW facility and prefer engagement that offers:

- Representative community participation with options for different engagement tools (in person, online surveys and other options)
- Readily accessible, clear information without jargon
- Absolute transparency.

The objectives of the communication and stakeholder engagement strategy included:

- **Information:** offer information about the WSERRC that is comprehensive, accessible and trustworthy.
- **Feedback:** actively seek and respond to community and stakeholder views.
- **EIS process:** clearly explain the EIS process and opportunities for community and stakeholder engagement throughout the process.
- **Two-way consultation:** exchange detailed information from technical investigations through discussions with community and stakeholders.

Five key stakeholder groups were selected for engagement:

- **Group 1:** Residents, businesses and community stakeholders closest to the proposal site
- **Group 2:** Residents, businesses and community stakeholders within an 8km radius of the proposal site
- **Group 3:** Residents, businesses and community stakeholders in the wider (Western Sydney) region
- **Group 4:** Australian Government agencies (local, State and Federal)
- **Group 5:** People who, following the project announcement, subsequently registered their interest.

In addition to sharing project information and giving stakeholders an opportunity to engage with the project team, a key focus of the engagement approach was to raise awareness about EfW and its widespread use in recognised waste management systems overseas, as well as discuss the benefits of EfW diverting waste from landfill and recovering valuable resources, including metals and ash.

The engagement process responded to stakeholder feedback and was flexible in its approach.

The main issues of interest to the community were the air quality and human health impacts of the proposal, with requests for additional information on these issues recognised early in the engagement process.

In response, an Air and Health Citizens Panel was formed, with four sessions held during the preparation of the EIS. The sessions gave an opportunity to engage with the community on a complex issue and discuss the community's response to the air quality and health assessment methods.

In response to the 2020 COVID-19 pandemic and associated government restrictions, online engagement tools became more important to continue to meet the engagement objectives of the proposal. For example, the third and fourth Air and Health Citizens Panel sessions were changed from a face-to-face interaction to an online environment that was willingly accepted by participants. Online and virtual interactions are currently being discussed, to continue engagement with stakeholders after lodgement of the EIS.

Ongoing and future consultation

A Community Reference Group (CRG) will be created during construction and function across the life of the proposal. The purpose of the CRG will be to help long-term relationships with the community, providing a forum for genuine discussion around the construction and operation of the facility, community concerns, information requests, and local initiatives and partnerships. In addition to general CRG duties, it is anticipated that the CRG will also manage the allocation of the community funding package (see below) in line with an agreed governance framework. The CRG will be made up of community representatives, local stakeholders and council representatives, and meetings will be facilitated through an independent facilitator. It is likely that this group will be refreshed every two years, to give a variety of community and other stakeholders the opportunity to participate.

If the proposal is approved, a community funding package for Western Sydney is proposed, with the aim of giving back to the community. Funding contributions would total \$150,000 per year and, subject to consultation and a decision by the community reference group (CRG), could be allocated towards community-based initiatives, such as the development of local sporting infrastructure, community facilities and environmental areas such as tree plantings.

The visitor and education centre will also play a vital role in engagement, providing information on the role of EfW in managing waste as part of an integrated waste management strategy and a place where visitors can learn about waste avoidance, best-practice recycling and the circular economy.

Impact assessment

The EIS provides consideration of all relevant assessment matters in line with the Secretary's Environmental Assessment Requirements (SEARs) which set the terms of reference for the EIS. Detailed assessments in the form of technical reports are included as Volume 2 to this EIS, with summaries of those assessments presented as impact assessment chapters in Volume 1 of the EIS.

The assessment has concluded that the proposal can operate with limited environmental impacts, considering environmental mitigation measures integrated into the design and operation of the proposal.

The following sub-sections give an overview of the main findings.

Air quality and odour

The construction activities associated with the proposal have the potential to generate dust emissions mainly from the excavation and handling of material, vehicle movements, exhaust emissions from diesel powered equipment and windblown dust generated from exposed areas. The significant dust generating activities associated with construction of the proposal are likely to occur in Phase 1 Demolition and Phase 2 Site Establishment and enabling works.

The construction air quality assessment show minimal incremental effects would arise at the nearest receptor locations which are approximately 1km away. The low incremental predictions at the receptors, when considered with the potential background air quality levels, indicate it is unlikely that any potentially significant cumulative dust impacts associated with the construction activity would occur at any receptor locations. To minimise the effect of activities associated with the construction phase on the surrounding environment, a Dust Management Plan will be developed and implemented as part of the construction phase management activities.

Operation of the EfW facility will produce air emissions from the stack. The assessment applies conservative estimates for the plant emissions, consistent with the maximum potential levels that might be emitted, thus accounting for any potential variability in the feed waste material affecting the post-treatment emissions that may be released.

All predicted impacts associated with all emissions from the proposal are within the applicable emission limit values and impact assessment criteria, apart from cumulative ground level PM_{2.5} and PM₁₀ concentrations, due to the existing background levels which already exceed the criteria (as occurs across much of New South Wales due to regional dust or bushfire events).

However, the predicted contribution by the proposal to ambient PM_{2.5} and PM₁₀ concentrations is small and in and of themselves would not result in any discernible or measurable impact.

The assessment covered a range of scenarios, including a cumulative impact assessment incorporating the predicted emissions from other proposals including the Dial a Dump Industries (DADI) Next Generation Proposal, which confirms impacts are within criteria. The odour assessment indicates that odour levels due to the proposal will be at or below the applied odour assessment criteria at all assessed receptors. The waste receiving hall will be fully enclosed, with fast acting roller shutter doors, operating under negative pressure to contain odours from the waste tipping process and the waste bunker. These areas will also have an exhaust system equipped with an active carbon filter for odour control during standstill of the facility, to mitigate odour escaping from the waste bunker and tipping hall if the boilers are not operating.

The proposal uses proven best-practice technology for the thermal treatment of waste and is the only proposed EfW facility in New South Wales for which an EIS has been lodged, that commits to a combination of dry/wet flue gas treatment technology, resulting in significantly lower emissions than possible with only a dry/semi-dry system.

The air quality assessment indicates the proposal would not result in any significant impact upon the surrounding environment or sensitive receptors.

Human health risk

Emissions of dust during construction have the potential to cause impacts on human health receivers if not managed appropriately. Results from both a quantitative and qualitative assessment showed that any impacts on the closest sensitive receivers would be negligible. A range of mitigation measures to control dust will be employed and documented in a Dust Management Plan.

Asbestos has been found on site as described in the contamination impacts summary further below. The draft Remediation Action Plan (RAP) will be finalised and implemented to make sure that any asbestos contaminated material will be managed appropriately to avoid human health impacts on construction workers and surrounding residents.

The human health risk assessment draws the following conclusions:

- No unacceptable risks for criteria pollutants including NO₂, SO₂, CO, PM_{2.5}, PM₁₀
- No unacceptable risks for short-term exposures from the proposal at the maximum offsite location. All other locations will have lower concentrations, so risks will be lower.
- No unacceptable risks for relevant exposure scenarios considering long-term exposures at all locations
- No unacceptable risks for relevant exposure scenarios for rainwater tanks or Prospect Reservoir
- No additional health impacts are expected in association with the transport of waste to site.

Waste management

The proposal will generate waste from construction activities and operational site use arising from maintenance, staff amenity spaces and the visitor and education centre.

Waste will be generated at the site during the construction and demolition (C&D) phase of the proposal. C&D waste will be managed according to standard industry practice to prevent environmental degradation and, where possible, recover materials for reuse and recycling. C&D waste management for the proposal is routine and effectively managed through standard industry practice, to be documented in the CEMP and RAP before the start of onsite works. The largest waste streams likely to be generated during the construction phase will be demolition materials from the existing buildings on the site and removal of potentially contaminated soil across the site before the main works begin.

The site will also generate small amounts of operational waste from the site office, visitor and education centre, delivery of consumables and maintenance works. These waste streams will comprise typical commercial and industrial waste. Cleanaway is committed to demonstrating best practice in waste management and resource recovery by putting in place source-separation systems for all relevant operational waste streams. This includes paper and card, comingled recyclables and food organics. An Operational Waste Management Plan (OWMP) will be developed during detailed design.

Given that source separation systems will be in place to support high-value recovery of all relevant waste stream, the residual waste generated by the facility is 100% eligible for energy recovery under the NSW EfW policy. However, it will be transported over the property boundary and enter the facility via the weighbridge before being deposited in the tipping hall.

Residual waste from onsite operations will be subject to the same waste acceptance criteria as waste from external sources.

Soils and water

Soils

The likelihood of erosion on site is high, given the presence of dispersive, highly erodible soils. The predicted impacts on soils will be limited to soil erosion and sediment runoff, which in turn may have the potential to impact the surrounding environment, including Reedy Creek, Eastern Creek and the aquatic communities within it. The soil characteristics onsite will need to be considered in the Sediment and Erosion Control Plan (SECP), as part of the CEMP.

Contamination

When first acquiring the site, it was found that the proposal site had an Individual Biosecurity Direction (IBD) due to the presence of Salmonella Enteritidis (SE) associated with the legacy of poultry farming activities. The owners arranged for cleaning of the site to resolve this IBD and have since received a letter from the Department of Primary Industries (DPI) dated 26 May 2020 which confirmed the site is now considered a 'resolved premise' and then the Biosecurity Direction has been revoked.

A detailed site contamination investigation (DSI) has been carried out, which concluded the proposal site is considered to have a low water and vapour contamination risk and a low to moderate risk for soil contamination, mainly in the form of soil asbestos. A draft RAP has been prepared for the site and will be carried out to make the site suitable from a contamination risk perspective for the proposed land use before construction.

Groundwater

Site excavations during construction will impact shallow groundwater only, and it is likely that any drawdown impacts will be limited to groundwater within the site extents. The low permeability of the shales and overlying clays would limit the potential for mobilisation of pollution from the nearby landfill downgradient of the site. As a precautionary measure, groundwater levels and quality will be monitored periodically throughout the construction period.

Monitoring would assess any changes in background groundwater quality conditions from those previously recorded, to find out contaminant level trends and any groundwater impacts.

There are eight groundwater monitoring wells found within 3km of the proposal site. There will be no impact on these wells, given that they are either upgradient from the site or are located far enough away from the site.

Any alteration to groundwater conditions or quality due to the construction activities is not expected to impact nearby surface watercourses, such as Reedy Creek, Eastern Creek and Prospect Reservoir.

The low permeability of the underlying geology means that there is limited potential for surface contamination to reach groundwater. The proposal will be serviced with appropriate sewer and stormwater infrastructure, so any impacts to groundwater quality from surface runoff will be avoided.

The southern part of the site is already largely covered by impermeable surface, and any additional impermeable surfaces will be limited. There are unlikely to be any impacts to groundwater recharge as a result of reduced permeable surface on the site.

The proposed waste bunker will be impermeable and will divert shallow groundwater flow (if any) around the outer extents of the bunker. Given that the groundwater is shallow and variable across the site, it is unlikely that this will have any material impact. There are no groundwater users close to the site which would be affected.

Hydrology and flooding

The construction and operation of the proposal has the potential to affect the existing hydrology and flooding environment through the construction of new surfaces which change how water moves through the site and risk potential contamination of stormwater. The proposal site is not within the flood plain of Reedy Creek or Eastern Creek, however the overland flow path that runs along the eastern boundary of the site does experience some flooding. Building temporary drainage onsite will be important to safely manage site stormwater runoff and minimise the risk of flooding during construction. All construction compounds and construction access tracks would be located outside of the existing known flood areas. To reduce flooding impacts to the neighbouring Global Renewables site, the existing overland flow path will be maintained but realigned to remove the short section that currently crosses into the Global Renewables site. Realignment will be done early in the construction program, to reduce flood risk at the site during construction.

Water quality can be impacted during construction works from sediment and erosion impacts and dewatering of sedimentation basins. A Sediment and Erosion Management Plan and careful planning during construction regarding clearing, excavation, stockpiling, and filling works will be needed to effectively manage impacts from site runoff.

During operations, two interconnected basins are proposed to manage site stormwater runoff. The eastern portion will act as an onsite detention (OSD) basin and include an outlet structure and emergency overflow spillway. Site stormwater runoff will be discharged from the OSD basin to the overland flow path.

During large rainfall events, stormwater from hardstand areas and overflow from rainwater harvesting tanks will drain to these basins, to avoid both offsite runoff and operation impacts.

Impacts related to runoff from sensitive areas, such as ammonia tanks, the diesel refuelling area and the electrical substation, where there is a risk of chemicals or hydrocarbon spills, will be bunded to prevent an overflow outside the proposal site.

A flood impact assessment has been completed to evaluate potential flooding impacts both on the proposal site and on offsite properties. Flood modelling has demonstrated that the overland flow path and proposed changes to the site topography will not increase flood levels or hazards at neighbouring properties.

Noise and vibration

During construction the proposal may exceed noise standards at nearby residential, commercial and industrial receivers. The predicted noise levels are calculated using a worst-case scenario. The actual construction noise impacts are dependent on the intensity and location of activities, the type of equipment used and background noise levels during the construction period. A detailed Construction Noise and Vibration Management Plan (CNVMP) will be prepared to manage and mitigate construction noise impacts.

It is estimated that the additional traffic on the road network generated by the construction and operation of the proposal would increase noise levels by less than 2dB compared to current background levels, and so would not be audibly noticeable from any sensitive receivers.

There are no structurally sensitive buildings (such as unsound buildings or heritage buildings) located close to the proposal site that would experience any cosmetic or structural damage as a result of the proposed construction activities. Vibration impacts to the Warragamba Pipeline will be avoided by developing and applying a CNVMP, which includes a construction vibration monitoring program.

Noise generated from the operation of the proposal is predicted to comply with noise criteria at all sensitive receivers during standard weather conditions. In enhanced weather conditions where the noise is carried further, a minor exceedance (less than 2dB) during the night-time period is predicted at residential receivers located to the south of the site in Horsley Park. During the detailed design stage, the building envelope and plant and equipment would be designed for the proposal to comply with noise criteria.

Vibration-intensive activities, such as the air-cooled condenser (ACC) and the turbine, will be built with foundations to reduce vibration effects of the equipment and avoid any vibration impacts on nearby receivers during operation of the facility.

Hazard and risk

The proposal will require the use of dangerous goods and will create ash by-products from the EfW process, some of which are categorised as hazardous.

The Preliminary Hazard Assessment (PHA) found that while there would be dangerous goods stored onsite which could be subject to fire, explosion, or toxic release, these dangerous goods are well understood and there are industry standards for storing and managing these goods. The recognised risks can be readily and commonly mitigated, so the proposal does not meet the criteria for a hazardous industry as defined in clause 3 of SEPP33 or as described in the Applying SEPP 33 Guidelines.

While the proposal is a potentially offensive industry as defined by SEPP 33, the proposal is not considered an offensive industry. There are safeguards and mitigation controls in place for the proposal to operate within impact assessment criteria and to be regulated by an EPL, so impacts will not result in a significant level of offence.

Traffic and transport

The proposal will generate additional traffic during construction and operation. The nearest intersections at Wallgrove Road and Austral Bricks Road, and Austral Bricks Road and the site access road were modelled with the anticipated traffic generation from the proposal. Both intersections will maintain their existing level of service during both construction and operation of the proposal.

The design of the proposal incorporates enough vehicle parking to accommodate the parking demand generated from the proposal. Cycle parking and end-of-trip facilities will be arranged, to encourage sustainable transport options for staff. Furthermore, a Green Travel Plan will be prepared and carried out once the proposal is operational to promote sustainable travel.

A draft Construction Traffic Management Plan (CTMP) has been prepared and will be implemented to manage traffic impacts during construction.

Landscape and visual

Landscape character and visual impacts were assessed by considering the potential impacts on various landscape character areas (LCA) and existing viewpoints surrounding the proposal site.

The impacts to landscape character during construction will be concentrated in the area immediately surrounding the site and are consistent with existing industrial activities associated with the surrounding land uses of the area. The visual impacts during construction would be temporary in nature and only visible to people and businesses with direct sightlines of the construction site.

Once operational, the impacts of the proposal on all assessed LCAs will be low to negligible. Except for one LCA identified as the Horsley Park rural residential LCA, which is assessed to have a moderate-low impact. The proposal would result in additional built form near this LCA, including the introduction of the stack and the consequential plume. This would cause the incremental expansion of industrial characteristics that define the northern edge of this LCA. The long-term impacts on character would depend on the regeneration of planting to screen the proposal from this LCA.

The proposal includes large visual elements, such as the stack and plume, which would result in a noticeable change for several viewpoints and as such, a moderate-high visual amenity impact. The impact on these viewpoints is greater where the surrounding landscape has higher sensitivity, being within the Western Sydney Parklands and viewpoints that are in closer to the proposal. Visual impacts are typically reduced with increased distance from the site.

The lighting design is proposed to achieve a dim glow from localised areas of the proposal and will not be directed at building facades, rather it will portray a glow within the building. Viewpoints with an existing high brightness area or further away from the proposal would be less impacted by lighting from the proposal. Those viewpoints which are intrinsically dark (having a high sensitivity) would be more impacted by lighting from the proposal. Overall lighting impacts are assessed to be moderate to negligible for all viewpoints.

The proposal includes design embedded mitigation measures to help mitigate landscape character and visual impacts:

- Architecture design to reduce the bulk and scale of the building
- Careful selection of low-reflective materials
- Incorporation of green walls.

Social

Any negative social impacts during construction and operation of the proposal have been assessed to be medium to very low. These impacts correlate to the anticipated visual, noise, air quality and traffic impacts as outlined in other sections.

The proposal would also have the positive social impact of creating employment and business opportunities along the supply chain during construction and operation. The proposal will allow a shift towards more sustainable initiatives which align with community values and will offer crucial infrastructure for the community.

Relevant mitigation measures for broader impacts associated with noise, air quality, visual and traffic will also help to reduce any social impacts. Specific mitigation for social impacts includes:

- A targeted stakeholder and community engagement strategy and program with regular proposal updates and discussions with sensitive receptors about impacts
- A construction skills and employment strategy to support employment of local people in construction and boost the construction business base in the local study area and wider region.

Greenhouse gas and energy efficiency

Greenhouse gas (GHG) emissions from construction works will be generated through the clearing of vegetation for the proposal footprint and operation of vehicles and machinery during the works. The construction of the proposal would result in the addition of about 4,073t CO₂-e to the atmosphere.

The ongoing operations of the proposal would generate about 321,408t CO₂-e over the first year of operations.

Through the thermal treatment of residual waste, the proposal will generate an equivalent electrical output exported to the grid of 424,000MWh per year. This will reduce in GHG emissions of 310,731t CO₂-e.

The diversion of residual waste which would otherwise be disposed to landfill will reduce methane gases produced during the decomposition process of landfilled waste. Based on the alternative disposal of waste to landfill, equivalent carbon emissions were 401,192tpa CO₂-e.

While the facility will generate GHG emissions, considering factors like export of electricity back to the grid and the diversion of the equivalent waste which would otherwise be sent to landfill, the overall net reduction of GHG emissions will be by around 390,000tpa CO₂-e.

Part of the electricity generated from the proposal qualifies as renewable and displaces fossil fuel-based energy supplied to the grid, which also contributes to emissions reduction. The proposal supports Australia's efforts to mitigate climate change by decreasing GHG emissions and transitioning to a low-carbon economy.

A few energy efficient measures have been considered and incorporated in the design of the proposal, with further measures to be applied during operation of the EfW facility. These measures will maximise resource and energy recovery, thus maximising overall energy efficiency and reducing unnecessary GHG emissions.

Heritage

An Aboriginal Cultural Heritage Assessment Report (ACHAR) has been prepared to assess the impacts of the proposal on Aboriginal heritage. Aboriginal consultation has been conducted as part of this ACHAR process. The assessment found that there are cultural heritage values associated with the general local area. However, as there are no known Aboriginal archaeological sites or areas of Aboriginal archaeological potential within the proposal area, the proposal is unlikely to impact on Aboriginal heritage. The proposal area exhibits a very low sensitivity for Aboriginal archaeological sites and high levels of previous disturbance. The archaeological potential of the proposal area is assessed as very low.

There are no non-Aboriginal heritage features located at the site which could be potentially impacted by the proposal, so there are no potential impacts on non-Aboriginal heritage.

There is potential for Aboriginal heritage elements to be incorporated in detailed design, including, but not limited to plaques, murals, paving, visitor and education centre display.

Utilities and services

During construction, private, internal electrical, water and telecommunication networks serving the existing buildings will be disconnected, where not needed for construction. This will be done before starting demolition works, to avoid impacts to the existing networks.

Construction works will be carried out to avoid impacts on the WaterNSW Warragamba Pipeline Corridor. WaterNSW will be consulted during the design period, to agree on design proposals, mitigation and monitoring measures.

Once operational, the proposal will need energy during start-up operations, water, sewer and telecommunication services. Consultation with the relevant asset holders has confirmed there is enough capacity within their networks to cater for the demand of the proposal.

Biodiversity

Direct impacts from the proposal will result in the removal of 0.45ha of Cumberland Plain Woodland, which is listed as critically endangered under the *NSW Biodiversity Conservation Act 2016* and serves as foraging and marginal roosting habitat for southern myotis listed as vulnerable under the same Act. Site landscaping and restoration of cleared native vegetation communities, ecological communities and impacted aquatic habitats is proposed following construction of the facility to minimise impacts to biodiversity. Proposed restoration works will be carried out consistent with the draft Vegetation Management Plan prepared for this EIS.

Indirect impacts from the proposal could include noise, light and litter impacts, impacts to habitat viability, dust and air quality impacts and impacts from weeds, pests and pathogens. These impacts are negligible with the application of suitable design measures and construction controls.

Potential prescribed impacts associated with the proposal include impacts on the connectivity of habitat, water quality and potential for vehicle strike. With the application of appropriate mitigation measures, the prescribed impacts are considered to be of negligible consequence to biodiversity values within and next to the proposal site.

The proposed realignment of the overland flow path will cause temporary loss of aquatic habitats and displacement of aquatic fauna. However, the riparian corridor will be rebuilt and enhanced after construction, incorporating improvements to stream connectivity and the restoration of riparian vegetation and aquatic habitats.

Related development

This EIS seeks approval for the construction and operation of the WSERRC. A few additional developments offsite, referred to as related development, are needed to support the operation of the WSERRC. These will be assessed and determined through separate approval processes.

Related development projects fall into two planning approval categories: those where Cleanaway applies for development consent under Part 4 of the EP&A Act or those where a public authority approves an activity under Part 5 of the Act.

Although related development will be assessed and determined separately from this proposal, the consent authority still must consider all likely environmental impacts, in line with EP&A Act s.4.15(1)(b)).

The additional projects that comprise related development include:

- A processing facility for the pre-processing of waste before delivery to WSERRC
- An IBA processing and secondary metals recovery facility
- An electrical connection to the high-voltage network
- Water and sewer connections.
- Telecommunications connections
- Site access works.

As the WSERRC related developments are at an early stage in their respective planning processes, an assessment has been completed of the potential environmental impacts of the related developments to the extent these can be predicted at this stage. The assessment has attempted to determine potential impacts associated with related development to the extent possible (noting that sites and locations are not yet known in many cases). The applicant will further progress the relevant related development assessments at the appropriate time.

Cumulative impacts

A qualitative cumulative impact assessment has been completed considering impacts from eight major projects within a 3km radius of the proposal site.

Construction impacts which could result in cumulative impacts include noise, air quality and odour, biodiversity and transport, which may generate social impacts in terms of the change in amenity experienced by people living and working in the surrounding areas. As construction impacts are temporary in nature and can typically be managed with standard construction environmental management measures, they are not considered significant. The site is located away from residential areas and is close to other industrial activities and major transport infrastructure including the M7. These existing land uses influence the general amenity of the area within which the proposal construction impacts would be limited.

Once the proposal is operational, it has the potential to cause cumulative impacts that relate to air quality and consequentially human health impacts, noise, traffic, social and visual impacts. These cumulative impacts are inherently mitigated in the embedded design of the proposal and by operating the proposal in line with required licences and approvals.

The air quality impact assessment also included a quantitative cumulative impact assessment with the predicted emissions from the Next Generation Proposal as required by SEARs. Even with the Next Generation Proposal, the air quality impacts are within criteria.

Mitigation measures

The avoidance and minimisation of environmental impacts has been a key driver in the selection of the site, the choice of EfW technology and the layout and design of the facility.

Inherent mitigation measures have been incorporated into the proposal through site selection, technology chosen and site layout and design. Additional mitigation and management measures are recommended to minimise environmental impacts during construction and operation of the proposal.

Evaluation and conclusions

Through the EIS, the proposal has demonstrated that it is a proven approach to addressing the need to increase the amount of waste diverted from landfill.

Acknowledging that recycling rates need to increase in New South Wales, there will be an ongoing need to manage residual waste. The proposal offers an opportunity to increase the amount of waste diverted from landfill and supports boosting recycling rates through recovery of metals and ash, while New South Wales transitions towards greater source separation of waste, and changes to how products are designed materialise.

The proposal has been sized to offer a viable residual waste management infrastructure solution, while not needing to attract or cannibalise waste that be effectively and economically reused, repaired or recycled.

Importantly, the EIS demonstrates that the proposal can operate within stringent environmental performance standards, including for air quality and human health, by using best available techniques as defined in the EU BREF 2019.

The proposal will also generate a source of baseload energy, part of which is categorised as renewable, and will supply heat and steam to local industrial users.

The proposal acknowledges that while EfW is a recognised and proven approach to waste management in other jurisdictions, it is a relatively new technology for New South Wales, and that the community have concerns about air quality and human health. In response, an Air and Health Citizens Panel was formed to enable a detailed explanation of the approach to the air and health assessments to be provided with an opportunity for the community to seek clarifications from the relevant technical experts. The proposal is committed to continuing its engagement with the community following lodgement of the EIS and through the construction and operation phases.