



By 2020 Western Sydney will be sending at least 1.62 million tonnes of waste to landfill each year.

That's enough to fill 2400 Olympic size swimming pools, every year.

Instead of landfill, we can turn that waste into sustainable energy. Cleanaway is proposing to use world-leading, safe, energy-from-waste technology here.

As used in cities across Europe, material that cannot be recycled and currently goes to landfill will be turned into valuable electricity, producing green energy for over 65,000 homes. The project would create over 800 jobs during construction and 50 local highly skilled jobs during operation.

Cleanaway has a long track record of delivering high quality waste and recycling services to the NSW community. We are committed to maximising resources at every stage, from waste avoidance, to reuse and recycling.

It's safe

What you see coming out of the stack is steam

Some 99.9% of the volume leaving the stack are gases common to air - oxygen, hydrogen, nitrogen, water vapour, as the centre has equipment that cleans the emissions.

Removing particles

Particles are already in our air. They are created by mowing the lawn; our car exhausts and brakes; from wood heaters; heating a BBQ; industrial processes; and even sea salt.

We know that the levels of particles in Sydney's air are low compared with other cities. To keep our air quality at these good levels, there are rules and limits we must abide by.

Studies show that energy-from-waste contributes very small amounts of particles to the air. Emissions from these modern facilities are approximately **1000 times lower or more, than normal levels** in the air.

This is because the emissions are cleaned before they leave the facility.

For example, the average number of particles released from the stack would be the same as the emissions released from 4 modern semi-trailers driving at a speed of 90km/hour on a motorway.

Things like lawn mowing, driving a car, our weekend BBQs, and gardening all release particles into the air.



Smart city technology

Approximately 500 similar facilities operate across Europe for household waste. This is safe and smart city technology. Facilities are being constructed around the world in urban areas.

This energy-from-waste plant below, in Lakeside, London includes an education centre where students learn about improved waste management. The centre is 400 metres from homes. The centre achieves 100% diversion of waste from landfill.

See www.energyandresourcecentre.com.au for more information on similar overseas energy-from-waste centres.

It's good for climate change

The proposal would save on climate change gases that contribute to the heating of our planet. The savings are equivalent to more than 450,000 tonnes each year of carbon dioxide. This is the same as taking approximately 100,000 cars off the road.



This is a solution for red bin waste generated in Western Sydney...

Cleanaway would work with Western Sydney councils and businesses to target the waste from red bins, to recover the energy and reduce the need for landfill.

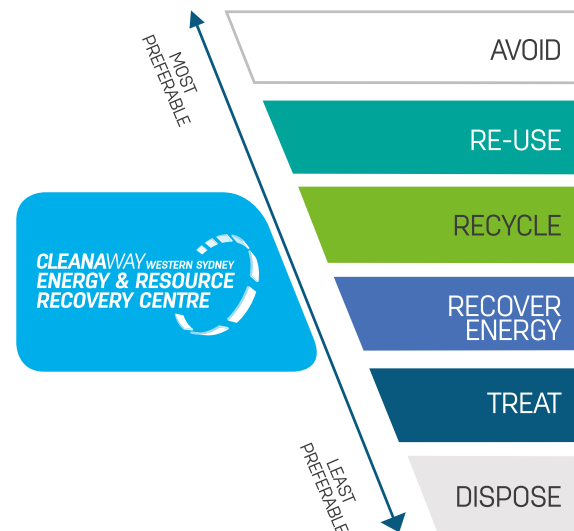
The sorts of things that people put in their red bin are plastic toys, packaging materials, old games, nappies and sanitary items, tissues, bits of wood, and kitchen items we have finished with.



...in line with the NSW waste hierarchy

Cleanaway invests in education programs and supports innovative ideas to reduce red bin waste.

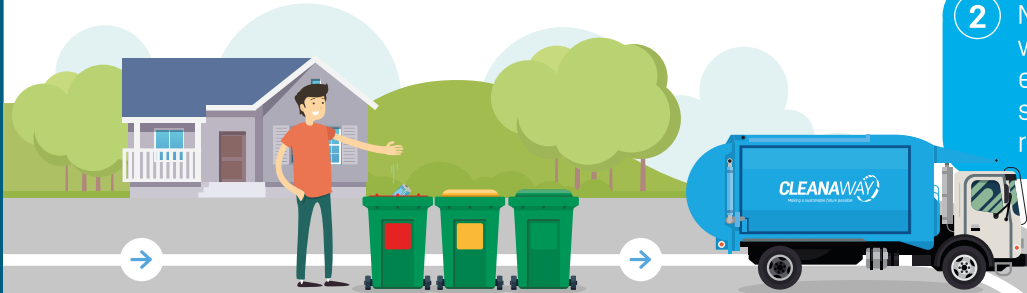
For example, we help households recycle their food and garden organics across Australia. In 2019, we educated over 27,000 students on best practice recycling.



What is an energy-from-waste plant?

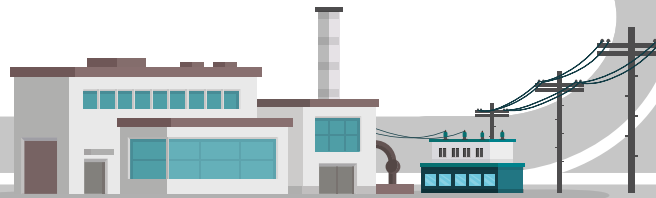
This diagram shows the steps of waste collection and treatment.

1 Waste sorting starts at home.



2 Non-recyclable red bin waste is transported to the energy-from-waste plant, a sealed building, for energy recovery.

3 Waste is converted into energy. Electricity is transferred to a substation and our powerlines.



4 Electricity is used in our homes and businesses.



5 Recyclable materials from the centre (metals and ash) continue on their way to be reused.



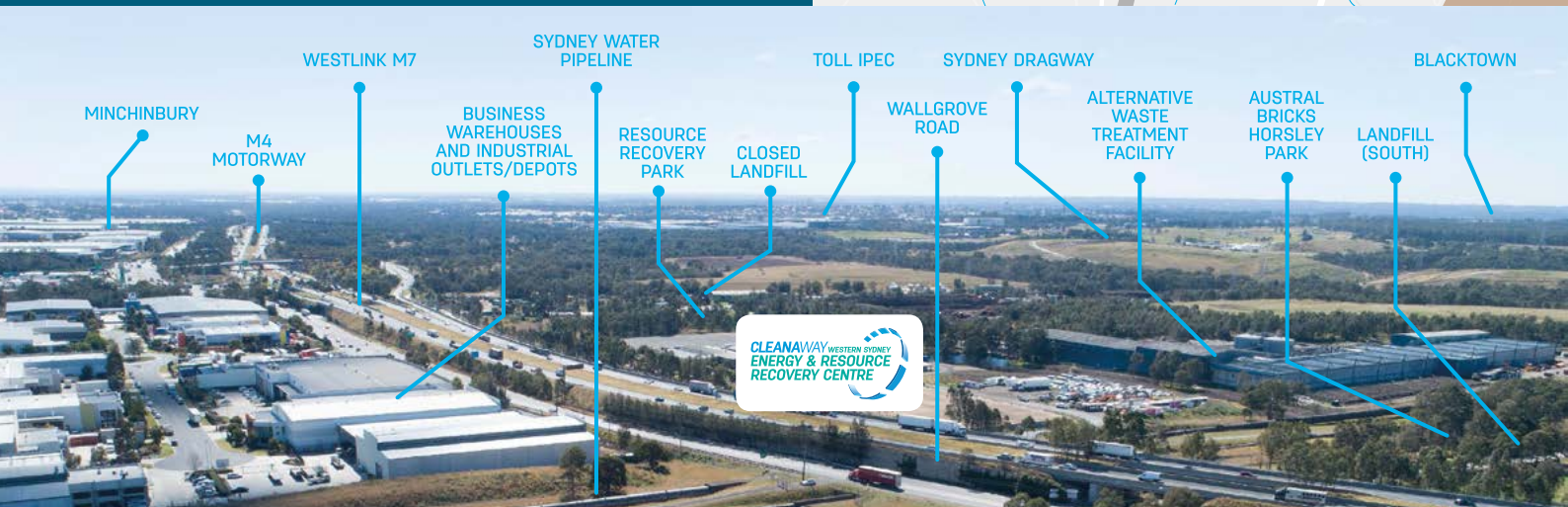
When is it proposed?

The project will be considered by the Government in 2020 and if approved, Cleanaway will commence building in 2021. It would take 3 years to build.

Where is it proposed?

The site is in an industrial area, 339 Wallgrove Road, Eastern Creek.

- A** Proposed project site location
- B** Eastern Creek landfill (closed)
- C** Mixed waste organic material
- D** Environmental Services (landfill)
- E** Industrial buildings opposite



What does that planning process look like?



Who we are

The project is being delivered by Cleanaway and Macquarie Green Investment Group, with technical support from ARUP and Ramboll.



Cleanaway Waste Management Limited is Australia's leading total waste management, industrial and environmental services company. Our 6,000 highly trained staff, in over 300 locations around Australia are supported by more than 5,000 specialist vehicles and state-of-the-art facilities. We are working hard to deliver our mission of making a sustainable future possible for all.



Macquarie Capital is a leading equity investor, participant and sponsor in the development and construction of global renewable energy infrastructure assets. Macquarie's Green Investment Group adds a new dimension to our green energy offering in Australia and New Zealand, through access to a deeper and broader range of capabilities, including global best practice, technological innovation and the specialist expertise of more than 350 dedicated green energy professionals. Together, we have invested in over 30 waste and biomass projects globally including Australia's first thermal waste to energy project, Avertas Energy in Western Australia.



Ramboll is recognised as one of the world's leading energy-from-waste engineering consultants. We have 60 dedicated energy-from-waste project managers and specialists, with in-depth knowledge of processes, world-leading technologies, suppliers and facility operations. Ramboll have designed over 150 energy-from-waste facilities in 45 countries, including Australia's first facility in Western Australia.



A global leader in energy-from-waste and recovery of resources, Arup is an independent firm of designers, planners, engineers, consultants and technical specialists, working across every aspect of the built environment. Together we help our clients solve their most complex challenges – turning ideas into reality as we shape a better world.

Good examples of this technology



On the website there are fact sheets about different overseas centres that are very similar to this proposal. All with residents living safely nearby.

Community engagement

Get in touch

We welcome your questions. On the website sits a document called 'Your questions answered'. This anticipates many community questions, however we know a conversation is better.

Community engagement activities will be posted on the website, www.energyandresourcecentre.com.au and we can keep you updated if you leave your details with us.

Contact Us

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Our mission is to make a sustainable future possible.