

Project overview



What's proposed?

Jerrara Power Pty Ltd is proposing to build and operate a facility in NSW to process up to 330,000 tonnes of residual household, commercial and industrial waste each year to generate sustainable baseload electricity.

Residual waste, not suitable for recycling, would be sourced from the Sydney basin and transported to the facility where the waste would be thermally processed at high temperature using world-leading grate combustion technology.

The heat from combustion would boil water to create steam. The steam drives a turbine connected to a generator to produce reliable baseload electricity. This would be fed into the grid to power homes and businesses.

Once fully operational, the facility would feed an average of 28 megawatts of power to the grid. This is enough electricity to supply 43,000* homes.

**Source: IPART 2020*

The Project is considered a State Significant Development under NSW planning legislation.

The Department of Planning, Industry and Environment will assess the Proposal and the consent authority will be either the Minister for Planning and Public Spaces or the Independent Planning Commission.

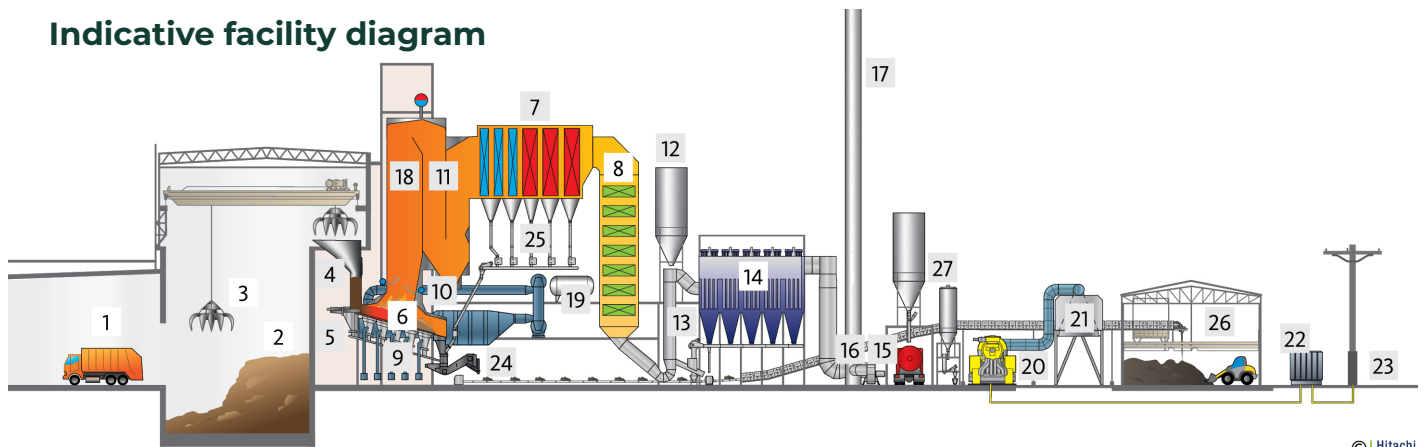
What else is included?

- a visitor and education centre
- car park for visitors and employees
- administration building
- weighbridges
- truck parking and hardstand areas
- internal roads
- stormwater and surface water management infrastructure
- fencing and landscaping
- temporary construction workforce accommodation facility
- overhead power lines to a 66kV substation



New South Wales

Indicative facility diagram



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Waste delivery and storage

1. Delivery hall
2. Waste bunker
3. Waste crane

Combustion and boiler

4. Feed hopper
5. Ram feeder
6. HZI grate
7. Superheater
8. Economiser
9. Primary air
10. Secondary air
11. Five-pass boiler

Flue gas treatment

12. Activated carbon silo
13. HZI SemiDry sorption process
14. Fabric filter
15. Induced draught fan
16. Silencer
17. Stack (emits CO₂ and steam)
18. Selective non-catalytic reduction system

Energy recovery

19. Feed water system
20. Turbine
21. Air cooled condenser
22. Transformer
23. Electrical power generation

Residue handling and treatment

24. Bottom ash extractor
25. Boiler and fly ash extraction
26. Bottom ash treatment plant
27. Residue silos



Waste produced in NSW in 2018/19
19 million tonnes*



Waste sent to landfill in NSW in 2018/19
7 million tonnes*

*Source: National Waste Report 2020

Why do we need energy from waste?

Despite our community's increasing efforts at reducing, reusing and recycling waste, we still have a lot of residual waste in NSW that has to be landfilled. We know that, over time, more wastes will become commercially viable for recycling but, right now, more than 3 million tonnes of unrecyclable wastes from the Sydney metropolitan area and about 7 million tonnes from all of NSW goes to landfill every year.

Energy from waste facilities are the missing link in Australia's waste reduction and landfill diversion goals. Energy from waste can bridge the gap between existing recycling systems and future systems that will eventually divert a greater proportion of wastes.

Energy from waste also produces reliable baseload electricity. This supports intermittent renewable energy generators such as wind and solar that depend on weather and offsets the use of unsustainable energy sources like coal-fired power stations.

What are the benefits?

The Project will reduce greenhouse gas emissions by displacing carbon dioxide emissions from coal-fired electrical generation and avoiding methane emissions by processing 330,000 tonnes of waste that would have gone to landfill. This Project has the potential to reduce overall greenhouse gas emissions by more than 500,000 tonnes per year. This is equivalent to taking 114,000 cars off the road.

The Project would also provide new employment and training pathways for local people.

Jerrara Power is proposing a range of additional community benefits that would include indigenous traineeships, emergency response vehicles for community use, a community grants program and sponsorship opportunities.

How does this Project align with NSW government policy?

In NSW, government policy encourages the recovery of energy from waste if this can deliver positive outcomes for people and the environment. Energy from waste is a reliable, proven and stringently controlled technology that has been used widely overseas for decades.

In 2021, the NSW Environmental Protection Authority (EPA) released an updated **Energy from Waste Policy Statement** to support increased investment in energy from waste infrastructure and deliver regulatory certainty to industry.

The NSW Energy from Waste Policy sets out a framework for the operation of new purpose-built facilities. It is the primary policy in NSW that governs assessment of energy from waste proposals. The Policy and the EPA's licensing framework ensures any facility is benchmarked and assessed against international best practice.

In September 2021, the NSW government released the **Energy from Waste Infrastructure Plan** to support the **NSW Waste and Sustainable Materials Strategy 2041**.

This plan guides strategic planning for future thermal energy from waste facilities and identifies areas where energy from waste infrastructure can be located.

What are the potential impacts of the Project?

As part of the assessment process, a variety of technical studies will be carried out to determine the Project's potential environmental issues.

These technical studies will address:

- Aboriginal and non-Aboriginal heritage
- Air quality and odour
- Biodiversity
- Bushfire
- Flooding
- Greenhouse gases and climate change
- Hazards and risks
- Human health
- Land contamination
- Landscape character and visual amenity
- Land use
- Noise and vibration
- Socio-economic
- Soils and geology
- Surface and groundwater
- Topography
- Traffic, transport and access
- Waste

What will it look like?

Hitachi Zosen Inova (HZI) is a world leader in energy from waste facilities and would design and build the Jerrara Power facility. HZI is constructing the East Rockingham energy from waste facility pictured above. The Jerrara Power facility will be a similar design.

There is a second energy from waste facility under construction in Western Australia at Kwinana and two more are approved for construction in Victoria at Laverton North and Maryvale.

Energy from waste technology is extensively used in the UK, Europe, Asia and the Middle East.

Artist's rendering of the energy from waste from waste facility under construction in Western Australia at East Rockingham



Jerrara Power is a **privately-owned Australian** company



The total cost of the Project is about **\$600 million**



The facility will produce enough **electricity to power 43,000 homes**



Divert **330,000 tonnes** of residual waste from landfill per year



Reduce greenhouse gas emissions by more than **500,000 tonnes** per year



The facility will operate **24 hours** a day, **seven days** a week



300 direct construction jobs



60 full-time ongoing jobs



Construction duration including commissioning is about **3 years**



The facility will have an operational life of at least **25 years**



Where is the Project at now and what happens next?

We're in the Scoping phase which is the first step in the NSW Government's planning assessment process. This is where we work with technical experts to identify the possible environmental, economic and social impacts of the Project.

An important part of this phase is talking to the community and other stakeholders to hear what concerns they have about the Proposal.

We will also be asking our community:

- how they want to be consulted and communicated with
- how we can ensure everyone who wants to has a chance to participate.

This information will be included in our Scoping Report and provided to the Department of Planning, Industry and Environment (DPIE).

The DPIE will use this information to issue the Secretary's Environmental Assessment Requirements (SEARs). This will tell us what we need to do to progress the Project and what consultation is needed so we can lodge an Environmental Impact Statement (EIS).

How I can get in touch with Jerrara Power?


We're committed to engaging with the community and other stakeholders throughout the planning and assessment process. There will be opportunities for people to have their say about various issues during scoping, preparation of the Environmental Impact Statement (EIS) and when the EIS is placed on public exhibition.

Our consultation opportunities will be promoted locally through the media, on our website and our Facebook page.

We encourage you to register on our website for updates that we'll send via email. You can also call us toll-free or email us at any time.

 jerrarapower.com.au

 [@jerrarapower](https://www.facebook.com/jerrarapower)

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The planning and assessment process

