



Environment Protection Authority

Better Regulation Statement

Protection of the Environment Operations (General) Amendment
(Thermal Energy from Waste) Regulation 2022



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The Protection of the Environment Operations (General) Amendment (Thermal Energy from Waste) Regulation 2022 will amend the Protection of the Environment Operations (General) Regulation 2021 to provide for a prohibition, in some circumstances, on the thermal treatment of waste that involves or results in energy recovery, except where it is carried out at certain precincts or premises.

This *Better Regulation Statement* considers how the better regulation principles apply to the Amendment Regulation.

1. Introduction

1.1. Purpose of this document

The *NSW Government Guide to Better Regulation* (2019) requires all significant new or amending regulatory proposals to demonstrate that the **better regulation principles** (listed below) have been met. This ensures that the regulation is required, reasonable and responsive to the economic, social and environmental needs of NSW.

The purpose of a 'better regulation statement' is to provide information for decision-makers and ensure transparency and accountability in the regulatory development process for business and the community.

This *Better Regulation Statement* articulates how the Protection of the Environment Operations (General) Amendment (Thermal Energy from Waste) Regulation 2022 meets the better regulation principles listed in the table below.

The better regulation principles

1. The need for government action should be established. Government action should only occur where it is in the public interest, that is, where the benefits outweigh the costs.
2. The objective of government action should be clear.
3. The impact of government action should be properly understood, by considering the costs and benefits (using all available data) of a range of options, including non-regulatory options.
4. Government action should be effective and proportional.
5. Consultation with business, and the community, should inform regulatory development.
6. The simplification, repeal, reform, modernisation or consolidation of existing regulation should be considered.
7. Regulation should be periodically reviewed, and if necessary reformed, to ensure its continued efficiency and effectiveness.

1.2. Purpose of the Protection of the Environment Operations (General) Amendment (Thermal Energy from Waste) Regulation 2022

The Protection of the Environment Operations (General) Amendment (Thermal Energy from Waste) Regulation 2022 (the Amendment Regulation) will amend the Protection of the Environment Operations (General) Regulation 2021 to provide for a prohibition on the thermal treatment of waste that involves or results in energy recovery. The Amendment Regulation translates the *NSW Energy from Waste Infrastructure Plan* (the Infrastructure Plan) into law.

The Amendment Regulation will introduce exceptions to the prohibition, including:

- where the activity or work is carried out in certain precincts
- for eligible waste fuels
- where thermal treatment is carried out to replace coal, coal-derived solid fuel or certain liquid petroleum-based fuels where
 - the coal, coal-derived solid fuel or certain liquid petroleum-based fuel was, or was lawfully able to be, thermally treated at the premises immediately before the commencement day of the Amendment Regulation

and

- at least 90% of the energy generated from thermally treating that coal, coal-derived solid fuel or certain liquid petroleum-based fuel was used in, or to power industrial or manufacturing processes on the same site
- and**
- at least 90% of the energy recovered from thermally treating the waste is used in or to power industrial or manufacturing processes at the site
- if the activity was:
 - lawfully able to be carried out, and first carried out, before the commencement day of the Amendment Regulation
 - and**
 - established and operating immediately before the Amendment Regulation commenced

The Amendment Regulation defines ‘thermal treatment’ and specifically excludes some activities that are considered to be necessary waste treatment or genuine recycling.

1.3. What is changing?

The key change resulting from the Amendment Regulation is that energy from waste facilities and activities will be prohibited in NSW except in the following prescribed locations (subject to limited exemptions and future needs analyses to identify if additional energy from waste facilities are needed):

- West Lithgow Precinct
- Parkes Activation Precinct
- Richmond Valley Regional Jobs Precinct
- Southern Goulburn Mulwaree Precinct.

1.4. Who does the Amendment Regulation apply to?

The Amendment Regulation applies to any person seeking to carry out, or cause or allow to be carried out, the thermal treatment of waste if:

- the thermal treatment involves or results in energy recovery from the waste
- and**
- one or more activities carried out at the premises is a scheduled activity that requires a licence under the *Protection of the Environment Operations Act 1997*.

1.5. Consultation

External stakeholders

The NSW Government published the [NSW Waste and Sustainable Materials Strategy 2041](#) (the Waste Strategy) in June 2021.

Following this, the EPA advised the waste industry and the public that the NSW Government would be undertaking further planning around energy from waste, based on infrastructure needs identified in the Waste Strategy.

The EPA undertook public consultation on the draft Amendment Regulation between 1 February and 20 March 2022. Approximately 400 submissions were received from industry and industry associations, councils, community groups and individuals. The EPA considered issues raised in the submissions, and made a number of amendments to the draft Amendment Regulation. See Appendix 1 for a summary of comments and recommendations and the EPA’s response.

NSW Government agencies

The *NSW Energy from Waste Infrastructure Plan* (the Infrastructure Plan) supports the Waste Strategy. It guides strategic planning for energy from waste facilities.

The plan was jointly prepared by the EPA, the Department of Planning and Environment (DPE) and the Department of Regional NSW. These agencies will continue to work together to deliver the plan and related changes to regulations, policies and legislation set out in this Statement.

2. The NSW waste management framework

The NSW waste management framework comprises several pieces of legislation, including the:

- *Protection of the Environment Operations Act 1997*
- Protection of the Environment Operations (General) Regulation 2021
- Protection of the Environment Operations (Waste) Regulation 2014
- *Waste Avoidance and Resource Recovery Act 2001*.

A number of policies, strategies and programs support and build upon the legislative and regulatory framework. The most important are the:

- *NSW Waste Avoidance and Resource Recovery Strategy 2014–21*
- *NSW Waste and Sustainable Materials Strategy 2041*
- *The NSW Energy from Waste Policy Statement*
- *NSW Energy from Waste Infrastructure Plan*.

The waste management framework is underpinned by the principles of ecologically sustainable development and the waste hierarchy set out in the *Waste Avoidance and Resource Recovery Act 2001* and the *Protection of the Environment Operations Act 1997*. The waste hierarchy ranks waste and resource management options, with avoidance and reduction the most-favoured options and disposal the least-favoured.

The objectives of NSW's waste management framework are:

- to protect human health and the environment from the harm that may be caused by poor waste management practices
- to promote a sustainable waste and resource recovery sector that recognises and manages 'waste' as a valuable resource that can contribute to the social, economic and environmental wellbeing of the NSW community.

To achieve these objectives, a strategic mix of waste management systems, processes, technologies and infrastructure is required, including:

- material recovery facilities
- storage, processing and recycling plants
- treatment processes
- landfills
- energy recovery facilities.

The type, location and number of waste management facilities in NSW is largely determined by market forces.

3. The transition to a circular economy

NSW, with its large economy and growing population, creates around a third of Australia's total waste. NSW waste volumes are forecast to grow from 21 million tonnes in the 2021 financial year to nearly 37 million tonnes in the 2041 financial year.¹

This growth in waste generation presents social, environmental and economic challenges. But it also presents opportunities that can be maximised if the waste and resource recovery sector is strategically planned and regulated.

The Waste Strategy focuses on the environmental benefits and economic opportunities that could be created by transitioning to a more circular model of waste and resource management (commonly described as a circular economy). A circular economy will ensure that resources are retained in the active economy longer through re-use, repair and recycling and that the volume of residual waste relative to population will decrease over time.²

Another document, the *NSW 2040 Economic Blueprint*, also recognises the importance of the circular economy to NSW's future. The Economic Blueprint identifies a major need to change the way we produce products and consume resources, to reduce our impact on the environment. It also foresees that a circular economy strategy will be critical to delivering on sustainability objectives and creating strong employment growth in the environmental goods and services sector.³

To drive this transition to a circular model of waste and resource management and take advantage of its potential environmental and economic benefits, NSW needs strategies, programs and regulatory interventions to:

- reduce the volume of waste generated
- re-use, repair and recycle unavoidable waste
- ensure there is capacity to safely dispose of the material that cannot be recycled.

The Waste Strategy highlights two key elements that will help NSW transition to a circular economy:

- a more strategic approach to the location and scale of waste management infrastructure
- the appropriate role of energy from waste within the mix of waste management systems, processes and technologies.

¹ *NSW Waste and Sustainable Material Strategy 2041*, p.11

² *NSW Waste and Sustainable Material Strategy 2041*, p.21

³ *NSW Waste and Sustainable Material Strategy 2041*, p.16

4. Energy from waste in NSW

The NSW Government supports energy from waste as a residual waste management option where:

- it can deliver positive outcomes for the community
- human health and the environment are protected.

Any energy from waste proposals must accord with the transition to a circular economy model of waste and resource management that the Waste Strategy aims for. Operators of energy from waste facilities must be ‘good neighbours’.⁴ It is essential that proponents provide effective information and undertake genuine public consultation about their proposals as those proposals progress from concept stage to the development stage.

Energy from waste is an emerging industry in Australia. At present NSW has no large-scale, purpose-built energy from waste plants. However, since the release of the *NSW Energy from Waste Policy Statement* in 2014, industry has become more interested in the use of energy from waste technologies. There are eight energy from waste development proposals at various stages of assessment within the planning system, and many more proponents have expressed interest in establishing facilities in NSW.

4.1. Waste Strategy recommendations

The Waste Strategy assesses and sets out:

- the extent to which energy from waste is needed in NSW to manage residual waste
- locations in which energy from waste infrastructure would deliver the most social, economic and environmental benefits while minimising any associated risks.

A mix of infrastructure is needed to meet the State’s residual waste needs over the next two decades. The Waste Strategy recommends the development of a limited number of energy from waste facilities, extra landfills and new ‘material recovery facilities’.

It identifies that at least one large-scale energy from waste facility might be needed to service Greater Sydney by 2030 and at least three additional large-scale facilities may be required by 2040 across the State.

For the Hunter and Northern Rivers regions, the Waste Strategy identified either extra landfill capacity or a medium-scale energy from waste facility would be needed by 2030 to manage waste.⁵

4.2. Energy from Waste Infrastructure Plan

As flagged in the Waste Strategy, the NSW Government developed the Infrastructure Plan to ensure a more strategic approach was taken to the appropriate role and location of energy from waste activities in NSW.

While energy from waste facilities have been identified as a necessary part of the State’s residual waste infrastructure needs, their locations need to be strategically planned to ensure they meet the State’s waste management demands into the future and maximise the innovation, energy and waste management opportunities in NSW.

⁴ *NSW Energy from Waste Policy Statement*, p. 3

⁵ *NSW Waste and Sustainable Material Strategy 2041*, p.21

The following principles will guide future energy from waste infrastructure in NSW and improve certainty to industry around acceptable locations and facilities. Energy from waste in NSW must:

- improve certainty for communities and industry around acceptable locations and facilities
- adhere to the precautionary principle where there is a greater risk of harm to human health due to proximity to high population areas (now and in the future), and in areas where there are regular exceedances to air quality standards from existing sources
- maximise efficiencies in infrastructure, waste management, innovation and energy recovery.

These principles will ensure that NSW is taking a precautionary approach to managing the social and human health risks of energy from waste, and that energy from waste is strategically planned to provide the highest public value.

Consistent with the approach underpinning the *NSW Energy from Waste Policy Statement*, the principles and requirements set out in the Infrastructure Plan apply to all thermal energy recovery from waste technology. This is because the potential risks to human health and the environment, as well as the potential impacts to higher order resource recovery options such as recycling are not limited to one type of thermal treatment technology over another.

All energy from waste facilities, regardless of their location, must comply with the *NSW Energy from Waste Policy Statement*, including demonstrated supply of feedstock in accordance with the resource recovery criteria. The *NSW Energy from Waste Policy Statement* was revised in June 2021 on the advice of the Chief Scientist and Engineer and sets out the most rigorous environmental controls in the world.

5. Need for a regulatory response

A regulatory response is needed to implement the Waste Strategy and the Infrastructure Plan efficiently and effectively, so that energy from waste in NSW provides the greatest environmental, social and economic benefits to the NSW community and supports the transition to a circular economy.

The current planning and environmental regulatory regime, coupled with the *NSW Energy from Waste Policy Statement*, allows individual energy from waste facilities to be robustly assessed. However, this regime does not take account of the needs or strategic direction of the NSW waste management framework as a whole.

The *NSW Energy from Waste Policy Statement* was released in 2014. Since then, waste sector stakeholders have become much more interested in developing energy from waste facilities in NSW.

Without intervention, there could be a significant oversupply of energy from waste facilities in NSW. This could create inconsistency with the waste hierarchy and undermine the use of higher-priority, more beneficial, waste management options (such as resource recovery and recycling), by raising the demand for feedstock for energy from waste facilities. This issue is exacerbated by the fact that one of the Waste Strategy's primary objectives is to reduce the volume of non-recyclable or residual waste in NSW as the circular economy gradually takes effect over the next two decades.

An oversupply of energy from waste facilities also risks creating a class of stranded assets as the circular model of waste and resource management takes effect and the volume of available residual waste feedstock declines. The Amendment Regulation is designed to ensure that energy from waste forms part of a sustainable and viable resource recovery sector.

6. Objectives of the Amendment Regulation

The Amendment Regulation gives effect to principles set out in the Infrastructure Plan for locating future thermal energy from waste facilities in NSW. It is designed to:

- maximise efficiencies in infrastructure, waste management, innovation and energy recovery and ensure consistency with the transition to a circular economy
- adhere to the 'precautionary principle', by not locating energy from waste in areas
 - where there is a greater risk of harm to human health due to proximity to high population areas (now and in the future) and
 - where there are regular exceedances to air quality standards from existing sources
- improve certainty for industry operators and investors around acceptable locations and facilities
- complement existing NSW Government policies and strategies, including the Waste Strategy, the *Net Zero Plan 2020–2030*, the *NSW Clean Air Strategy 2021–30*, the *NSW Electricity Infrastructure Roadmap*, the *20-Year Economic Vision for Regional NSW* and the *NSW Energy from Waste Policy Statement*.

The establishment of energy from waste in the right locations ensures communities will be well placed to attract investment opportunities and benefit from:

- improved transport and freight infrastructure
- secure and sustainable access to energy
- opportunities for education and training
- a stable business environment.

Setting priority infrastructure areas will also ensure energy from waste is located in areas aligned with community and economic need. This includes activating job and economic potential in towns and aligning with recycling and waste management priorities in the *20-Year Economic Vision for Regional NSW* to support growing regional centres.

The Infrastructure Plan restricts new energy from waste infrastructure to four priority infrastructure areas in NSW:

- West Lithgow Precinct
- Parkes Activation Precinct
- Richmond Valley Regional Jobs Precinct
- Southern Goulburn Mulwaree Precinct.

Outside these areas, energy from waste will only be permitted:

- for eligible waste fuels⁶
- if the activity is carried out to replace coal, coal-derived solid fuel or certain liquid petroleum-based fuels where
 - the coal, coal-derived solid fuel or certain liquid petroleum-based fuel was, or was lawfully able to be, thermally treated at the premises immediately before the commencement day of the Amendment Regulation

⁶ As set out in the NSW EPA *Eligible Waste Fuels Guidelines*

and

- at least 90% of the energy generated from thermally treating that coal, coal-derived solid fuel or liquid petroleum-based fuel was used in, or to power industrial or manufacturing processes on the same site

and

- at least 90% of the energy recovered from thermally treating the waste is used in or to power industrial or manufacturing processes at the site

- if the activity was

- lawfully able to be carried out, and first carried out, before the commencement day of the Amendment Regulation

and

- established and operating immediately before the Amendment Regulation commenced.

The Infrastructure Plan also aims to provide flexibility for future energy from waste infrastructure by providing for a needs analysis to be conducted by 2025, and again by 2030. If additional energy from waste priority infrastructure is required, it will be considered only for areas that meet the principles set out in the Infrastructure Plan, and which are one of the following:

- former mine premises
- former thermal electricity generation premises
- Activation Precincts
- Regional Jobs Precincts.

This will ensure future energy from waste infrastructure in NSW continues to protect the environment and human health and maximises efficiencies for waste innovation, management and energy recovery.

Other thermal waste processing activities that are not considered to be energy from waste but which may be inadvertently caught by the Amendment Regulation have also been specifically listed and excluded to ensure those processes may still lawfully be carried out across NSW.

All energy from waste proposals are still required to comply with current environmental and planning legislation. Proponents must also demonstrate that they meet the requirements of the *NSW Energy from Waste Policy Statement*.

7. Options considered

7.1. Option 1: Base case (no amendment to the Regulation)

The base case represents the current situation, to which other options are compared. For energy from waste, the base case means continuing with NSW's current regime for planning and environmental regulation.

As outlined in chapter 5, the current regulatory regime, coupled with the *NSW Energy from Waste Policy Statement*, provides for a robust assessment process at the individual facility level. However, it has not adequately considered or incorporated the needs or strategic direction of the NSW waste management framework as a whole, particularly as NSW transitions to a circular economy.

Without decisive and well-targeted regulatory intervention, the current regulatory approach could lead to a significant oversupply of energy from waste facilities in NSW, potentially located in undesirable places.

Adverse impacts

One of the Waste Strategy's primary objectives is to reduce the volume of non-recyclable, residual waste in NSW over the next two decades. The amount of feedstock available to energy from waste facilities will fall in absolute terms. Facilities will compete for this feedstock. As the volume of residual waste feedstock falls, energy from waste facilities could risk becoming a class of stranded assets. Energy from waste will also compete with, and could undermine, higher-priority and more beneficial uses, such as resource recovery and recycling.

In addition, the current regulatory framework does not facilitate the placement of energy from waste facilities in the most suitable locations in terms of avoiding air quality impacts and co-locating facilities in close proximity to infrastructure and key markets.

Persisting with the current regulatory framework for energy from waste in NSW will generate adverse outcomes for the community, industry and the environment, including:

- undermining the integrity and sustainability of the waste and resource recovery framework, particularly as it transitions to a circular economy
- creating financial risks for those who invest in energy from waste facilities.

Finally, Option 1 risks failing to take advantage of the social, economic and environmental benefits that will be provided by taking the more strategic, principled approach proposed by the Amendment Regulation (Option 2).

7.2. Option 2: Amendment Regulation (energy from waste limited to prescribed locations, with some exemptions)

Option 2, the Amendment Regulation, is the preferred option because it is the most effective and efficient way to address the shortcomings of the current regulatory framework. It would ensure that energy from waste in NSW is strategically planned for and located to minimise risks and deliver positive social, economic and environmental outcomes for NSW.

The Amendment Regulation achieves this outcome, giving effect to the principles set out in the Infrastructure Plan, by:

- ensuring that an appropriate number of future thermal energy from waste facilities in NSW are established in locations that maximise efficiencies in
 - infrastructure
 - waste management

- innovation
- energy recovery
- ensuring consistency with a transition to a circular economy
- providing certainty to the community by adhering to the precautionary principle for areas where there is greater risk of harm to human health. Such areas could be those that
 - are close to high population areas (now or in the future)
 - often have poor air quality (i.e. standards are regularly exceeded), due to existing sources
- improving certainty for industry operators and investors around acceptable locations and facilities
- complementing existing NSW Government policies and strategies, including the Waste Strategy, *Net Zero Plan 2020–2030*, *NSW Clean Air Strategy 2021–30*, the *NSW Electricity Infrastructure Roadmap*, the *20-Year Economic Vision for Regional NSW* and the *NSW Energy from Waste Policy Statement*.

Addressing the problems of Option 1

By limiting energy from waste to prescribed areas, Option 2 eliminates the significant risk of an oversupply of energy from waste infrastructure likely to occur under Option 1, where market forces are the predominant factor determining the number and location of energy from waste facilities in NSW. This will ensure consistency with the waste hierarchy by maximising the recovery and recycling of high value wastes. It will also capture the environmental, social and economic benefits provided by a transition to a circular model of waste and resource management.

Flexibility for future needs

The Amendment Regulation provides for future needs for energy from waste infrastructure by identifying additional areas the EPA may nominate and gazette as precincts or premises for energy from waste. If they are required, additional energy from waste priority infrastructure areas will be considered only where they meet the principles set out in the Infrastructure Plan and are one of the following:

- former mine premises
- former thermal electricity generation premises
- Activation Precincts
- Regional Jobs Precincts.

This will ensure future thermal energy from waste infrastructure in NSW continues to protect the environment and human health and maximise efficiencies for waste innovation, management and energy recovery while providing sustainable resource recovery.

Exceptions to prohibition on energy from waste

The Amendment Regulation provides that thermal treatment of waste will only be permitted:

- in four nominated precincts
- for eligible waste fuels
- if the activity is carried out to replace coal, coal-derived solid fuel or certain liquid petroleum-based fuels where
 - the coal, coal-derived solid fuel or liquid petroleum-based fuel was, or was lawfully able to be, thermally treated at the premises immediately before the commencement day of the Amendment Regulation

and

- at least 90% of the energy generated from thermally treating that coal, coal-derived solid fuel or liquid petroleum-based fuel was used in, or to power industrial or manufacturing processes on the same site
- and**
- at least 90% of the energy recovered from thermally treating the waste is used in or to power industrial or manufacturing processes at the site
- if the activity was
 - lawfully able to be carried out, and first carried out, before the commencement day of the Amendment Regulation
 - and**
 - established and operating immediately before the Amendment Regulation commenced.

Adverse impacts

While Option 2 clearly addresses the shortcomings of the existing regulatory regime and provides a range of positive outcomes for the community, environment and waste management sector, this option may have adverse impacts for five of the eight proponents of current State Significant Development energy from waste facility proposals. This is because the proposed locations of those developments are outside the precincts prescribed by the Amendment Regulation.

Despite the potential impacts on these proponents (noting that their development applications have not yet been determined), as flagged and previously considered by Government in the development of the Infrastructure Plan, the medium- to long-term social, economic and environmental benefits for the community, the broader industry and government make Option 2 the preferred option.

7.3. Option 3: Placing a cap on the volume of waste used as energy from waste feedstock

Option 3 is to place a cap on the volume of residual waste feedstock available for use by energy from waste facilities in NSW, over a set period of time. This approach has recently been taken in Victoria.

This option could protect the integrity of the waste management hierarchy and support more environmentally and economically beneficial waste management options such as avoidance, re-use and recycling; however, it has shortcomings.

Shortcomings

Aspects of Option 3 make it less preferable to Option 2, the Amendment Regulation:

- The volume of residual waste can fluctuate naturally over time, for a variety of reasons. Setting a fixed numerical cap for the amount that can be treated by energy from waste decreases flexibility and can lead to poor waste management outcomes. This is particularly true when the volume of residual waste spikes dramatically and unpredictably (as has happened in NSW during natural disasters and the COVID-19 pandemic).
- While appearing to protect 'higher order' options for residual waste (e.g. recycling), merely capping the volume of energy from waste feedstock does not strategically plan for or regulate energy from waste so that it takes advantage of infrastructure and waste management synergies. Similarly, it will not contribute to sustainable jobs and industrial opportunities in circular waste management in the regions that need them most.
- Option 3 fails to embrace the principles of ecologically sustainable development or other key principles set out in the Infrastructure Plan. By contrast, Option 2 (the Amendment Regulation) does embrace those principles.

- Although setting a cap on the volume of residual waste feedstock provides certainty for industry, it is also relatively inflexible compared with the existing resource recovery criteria central to the *NSW Energy from Waste Policy Statement*. These requirements allow feedstock to be used for energy from waste only if it meets criteria designed to ensure that it is genuinely non-recyclable and free from contaminants. This gives industry greater flexibility and permits fluctuations in the volume of residual waste generated over time.

For these reasons, Option 3 is not the preferred option.

8. Conclusion

It is recommended that, consistent with Option 2, the Amendment Regulation is made to limit thermal treatment of waste involving, or that results in, energy recovery to prescribed locations unless specific exemptions are met.

Of the options evaluated, Option 2 (the Amendment Regulation):

- will achieve the Government's objectives in relation to a modern circular model of waste and resource management
- meets the community's expectations in relation to protecting human health and the environment by observing the precautionary principle
- is consistent with existing government policies on clean air and energy, waste and resource recovery and building the economic resilience of regional NSW
- secures the best medium- to long-term outcomes for industry, the environment and the community.

Appendix A: Submissions summary and EPA response

| Section of consultation draft Regulation | Recommendation or comment | EPA response |
|--|--|--|
| Clause 128A Definitions | Changes requested to the types of waste included as eligible waste fuels, including allowing tyres to be used in EfW facilities (not just cement kilns), and defining manufactured fuels as eligible waste fuels | <p>Out of scope – the list of eligible waste fuels sits in the Energy from Waste Policy Statement and are defined in the Eligible Waste Fuels Guidelines. This Amendment Regulation is not the vehicle to amend those documents.</p> <p>An energy from waste facility can use eligible waste fuels but may also use other waste streams.</p> |
| Clause 128A Definitions | Changes requested to definition of energy recovery | Amended to refer to recovery of different types of energy, including electrical, mechanical, heat and a fuel. |
| Clause 128A Definitions | Changes requested to energy recovery to refer to the combustion of fuel | No change – the wording is consistent with the Energy from Waste Policy Statement. |
| Clause 128A Definitions | <p>‘Less environmentally sound fuel’:</p> <ul style="list-style-type: none"> • should include gas and other fuels • should be defined as ‘acceptable replacement fuel’. | No change – the EPA does not consider that substituting waste for gas will result in better air quality outcomes. This clause is not intended to define fuels that can replace coal or petroleum-based fuels but rather to ensure waste does not replace specific fossil fuels. |
| Clause 128A Definitions | Thermal treatment– pyrolysis should be excluded from definition. | No change – this would make the definition inconsistent with that in Schedule 1 of the <i>Protection of the Environment Operations Act 1997</i> (POEO Act) and the Energy from Waste Policy Statement. Facilities undertaking pyrolysis will be able to do so in the four nominated precincts. |
| Clause 128A Definitions | Thermal treatment of biosolids – define biosolids and what thermal treatments are acceptable. | <p>Amendment made to specify that terms used in the Regulation have the same meaning as in the POEO Act unless specifically defined.</p> <p>No need to specify the type of thermal treatments permitted.</p> |

| Section of consultation draft Regulation | Recommendation or comment | EPA response |
|--|---|---|
| Clause 128A Definitions | Thermal treatment for the incineration of waste for destruction or disposal – provide more clarity in definition. | No change, as this could limit the definition for licensing purposes. |
| Clause 128A Definitions | Provide clearer definitions of former mine site, former thermal electricity generating site and Regional Jobs Precinct | More clarity provided on definition of former mine site and former thermal electricity generation site. Clause 128C(1)(c) already clarifies that a Regional Jobs Precinct is as identified on a map or specified in a notice published in the Gazette by the EPA. |
| Clause 128A Definitions | Thermal treatment of waste plastic – 75% conversion into plastic products or inputs for plastic products unachievable. | Amendments made based on further consideration of current technological capabilities. This figure has been revised down to 65%. |
| Clause 128A Definitions | Thermal treatment of waste plastic – what is meant by plastic inputs? | No change. The EPA considers that this is sufficiently clear. |
| Clause 128B | Amend to permit some energy recovery at scheduled premises by applying a threshold for energy re-use at scheduled [premises]. | No change – clause 128C allows this to some extent already. |
| Clause 128B | Broad reference to scheduled activities should be limited to specific activities. | No change – it is too limiting to list only specific scheduled activities and would be inconsistent with the intention of the objectives of the Regulation. |
| Clause 128C (1) | <p>Many comments were received on appropriateness of the four listed precincts. They included recommendations for removing one or more of the precincts and adding others, such as:</p> <ul style="list-style-type: none"> • the former Wallerawang Power Station site • Clean Manufacturing Precincts • Renewable Energy Zones • whole Local Government Areas, not just precincts • land zoned for industrial purposes. | No change – any change to the four precincts would be inconsistent with the NSW Government decision on the priority infrastructure zones as set out in the Energy from Waste Infrastructure Plan. |

| Section of consultation draft Regulation | Recommendation or comment | EPA response |
|--|--|---|
| Clause 128C (1) | Many queries were made around the gazettal process, including timing and how to progress additional precincts. | <p>The EPA will gazette maps of the Richmond Valley Regional Jobs Precinct, Southern Goulburn Mulwaree Precinct and West Lithgow Precinct (by Notice in the <i>NSW Government Gazette</i>) at the same time as the Amendment Regulation is published.</p> <p>Additional precincts may be nominated and gazetted following a future needs analysis of energy from waste in the State (see page 9 of the Energy from Waste Infrastructure Plan). It is not proposed that industry or councils can nominate a precinct for gazettal on an ad hoc basis outside of the needs analysis process as this would undermine the strategic intent of the Infrastructure Plan and Regulation.</p> |
| Clause 128C (2) | The EPA should not be able to vary or revoke a gazetted precinct as this would generate an unacceptable level of risk for industry and should not be able to occur once Secretary's Environmental Assessment Requirements have been issued under the <i>Environmental Planning and Assessment Act 1979</i> . | The EPA does not anticipate that it would vary or revoke a gazetted precinct unless there were no interest in that precinct by industry and/or a future needs analysis determined another precinct to be a better option. However, such a decision will be determined based on the circumstances of each case. |
| Clause 128C (3) | Concern that if an energy from waste facility is permitted that is below the licensing threshold in Schedule 1 to the POEO Act then councils will be the appropriate regulatory authority. | The POEO Act nominates councils as the appropriate regulatory authority for all activities below the licensing threshold in Schedule 1 – there is no change to that situation. |
| Clause 128C (3) (a) (i) | Suggest removal of the words 'thermally treated' to be replaced with 'used' | No change – this Amendment Regulation only applies to thermal treatment of waste and not to other activities |
| Clause 128C (3) (a) (ii) | Query around wording 'energy generated from the energy' | No change. This clarifies the intention that energy generated directly from waste and/or any energy obtained from that energy is subject to the requirements of 128C(3)(a)(ii). |

| Section of consultation draft Regulation | Recommendation or comment | EPA response |
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| Clause 128C (3) (a) (ii) | <p>Alternative Fuel and Raw Materials is used in cement production to primarily replace coal and gas to provide heat and not power industrial processes.</p> <p>Recommended clause be redrafted to read ‘... the energy recovered from thermally treating the less environmentally sound fuel, including any energy generated from the energy (fuel?), is mostly used to power and/or to provide heat to industrial or manufacturing processes on site’.</p> | <p>Change made to this clause that addresses this issue. We also note that the reference to ‘mostly used’ has been removed and replaced with the figure 90% which was previously contained in the definition of ‘mostly used’.</p> |
| Clause 128C (3) (b) | <p>Query as to whether the grandfathered activities can be expanded or amended after commencement, and how it will impact on proposals in the planning system</p> | <p>No change – any existing proposals in the planning system that are located in one of the nominated infrastructure precincts will be assessed under the planning and environmental frameworks and, if approved, be issued with an environment protection licence. If they are not in one of the precincts they will not progress.</p> |
| Clause 128C (4) | <p>There were queries about the achievability of 90% energy recovery to be used on site</p> <p>What if the manufacturing or industrial site utilising the energy from an energy from waste facility were to close but the energy from waste facility continued operation?</p> | <p>Wording amended but no change to 90%. This is to prevent exporting to the grid in normal operating periods.</p> |
| Clause 128D | <p>There was concern about the effect of the Note on the prohibition</p> | <p>The Note is simply explaining the effect of existing provisions of the <i>Environmental Planning and Assessment Act 1979</i>. The Note has been amended to also refer to State Significant Infrastructure.</p> |
| Other issues: Waste levy | <p>Industry is seeking clarity in the Amendment Regulation that the waste levy will not be payable on waste received on site at an energy from waste facility that will be thermally treated.</p> | <p>It is not necessary to clarify in the Amendment Regulation, as this situation is already clearly dealt with under the Protection of the Environment Operations (Waste) Regulation 2014. The waste levy will not be payable on waste received on site at a licensed energy from waste facility that will be thermally treated. Any residual waste sent for disposal will be levy liable.</p> |