

# **Scottish Government Response to:**

## **Stop, Sort, Burn, Bury? The Independent Review of the Role of Incineration in the Waste Hierarchy in Scotland**

June 2022



Scottish Government  
Riaghaltas na h-Alba  
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## Ministerial Foreword



As the Minister responsible for Circular Economy, I am pleased to publish the Scottish Government's response to Stop, Sort, Burn, Bury? The Independent Review of the Role of Incineration in the Waste Hierarchy in Scotland.

A circular approach to our economy, where we move from a 'take, make, and dispose' model, to one where we keep materials in use, is imperative if we are to tackle the nature and climate crises. My first eight months in this role have underlined the importance of this mission, and the commitment of all across Scotland - but also the challenges of making it a reality.

Each year Scotland produces around 4.5 million tonnes of residual waste, that is waste that is sent to landfill or incineration, such as 'black bag' waste. This is particularly shocking when we know that around four-fifths of Scotland's carbon footprint comes from the products and services we manufacture, use and throw away. We also know that 90% of global biodiversity loss and water stress is caused by resource extraction and processing. I am clear this isn't sustainable, and we must change. As our Environment Strategy sets out, if everyone lived as we do in Scotland we would need three planets to sustain ourselves.

While we make the transition to a circular economy, we need to ensure that we treat residual waste in a way that minimises environmental impacts and is firmly aligned with our emissions reduction ambitions.

I am grateful to Dr Church for undertaking the Review in an inclusive manner and delivering a high-quality report, and would like to thank all those who provided evidence, took part in discussions or shared their experiences. It has provided us with a robust evidence base and recommendations that will now inform policy decisions and guide how we manage and reduce Scotland's residual waste, supporting us on our journey towards a circular economy.

A handwritten signature in brown ink that reads "Lorna Slater".

**Lorna Slater MSP**

Minister for Green Skills, Circular Economy and Biodiversity

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# 1. Introduction

1. Scotland is moving away from our current ‘take, make, and dispose’ model of the economy towards a circular economy, where we move we keep materials in use. But while we make this transition, we will still produce residual (‘black bag’) waste, which cannot be reused or recycled.

2. Scotland currently produces around 4.5 million tonnes of residual waste each year<sup>1</sup>. Although this will decline as we move to a fully circular economy, we need to ensure that how we treat this waste aligns with our emissions reduction targets and minimises any other environmental impact.

3. That is why we committed to undertake a review into the role of incineration in the waste hierarchy in Scotland (the Review), setting out this commitment in our Programme for Government<sup>2</sup> and reaffirming it in the Bute House Agreement between the Scottish Greens and Scottish Government<sup>3</sup>.

4. The Scottish Government appointed Dr Church in November 2021 as Independent Chair to oversee the Review.

5. As Independent Chair, Dr Church determined the detailed scope of the review within defined parameters set by the Minister for Green Skills, Circular Economy and Biodiversity. These were to prioritise an analysis of national capacity requirements; consider the societal impacts of residual waste treatment, including health and community impacts; and consider how emissions from existing infrastructure could be reduced and residual heat may be reused.

6. Dr Church set out to answer five overarching questions for the Review in the context of the treatment of household and commercial and industrial waste streams. These waste streams were chosen as the Review considered them likely to be captured by the forthcoming ban on sending certain biodegradable waste streams to landfill, they comprise a large proportion of waste incinerated, the incineration of these waste streams has increased significantly since 2013<sup>4</sup>, and municipal waste incinerators are often the object of stakeholder concerns. The five overarching questions were:

1. Given Scotland’s waste management ambitions and current progress towards these, what capacity is required to manage residual waste in Scotland?
2. What are the options for managing residual waste?
3. What are the economic, environmental and social trade-offs of those residual waste management options?

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<sup>1</sup> Summary Table, [SEPA Waste from all sources: waste data tables 2018](#)

<sup>2</sup> [A Fairer, Greener Scotland: Programme for Government 2021-22 - gov.scot \(www.gov.scot\)](#)

<sup>3</sup> [Scottish Government and Scottish Green Party: draft shared policy programme - gov.scot \(www.gov.scot\)](#)

<sup>4</sup> [SEPA Waste Incinerated in Scotland Data Release Commentary 2020](#)

4. How do we decide where capacity should be located, and in what form?
5. What can be done to improve existing residual waste treatment facilities in terms of carbon performance and societal impacts?

7. To answer these questions, the Review considered existing evidence and commissioned additional capacity modelling, an appraisal of waste treatment options and a rapid evidence review of the potential health impacts of incinerating waste. Additionally, the Review opened a Call for Evidence and held a range of stakeholder events and meetings which allowed all organisations and individuals with an interest in incineration to submit written and verbal evidence and considerations for the Review.

8. Stakeholders were clear that the Review should be concluded as quickly as possible to avoid lengthy impacts on planning and investment decisions, and to avoid delaying Scotland's transition towards a circular economy. Dr Church, therefore, agreed to deliver his report before Easter.

9. Dr Church delivered his report<sup>5</sup> to Ministers on 13 April 2022 and we published this on 10 May. Publication of the report was deferred until after the local government elections on 5 May, given the potential for the Report's findings and recommendations to raise issues that could be of particular local interest.

10. While the report provides provisional recommendations to decarbonise existing residual waste treatment infrastructure, further research has been commissioned in this area, as outlined in Dr Church's Call for Evidence<sup>6</sup>. At the request of Ministers, Dr Church has agreed to extend his role to provide independent oversight of this work. Dr Church will provide independent oversight of this work and carry out further stakeholder and industry engagement, with a view to a second report being submitted to Ministers in December 2022.

11. Chapter 2 provides a summary of the Review's findings and recommendations and Chapter 3 sets out how we will respond to the 12 recommendations and our initial response to the two provisional recommendations.

## **2. Summary of main findings and recommendations**

12. Dr Church sets out 14 recommendations in his report. Two of these recommendations, on decarbonising incineration infrastructure, are provisional pending completion of the further work on options to decarbonise residual waste infrastructure.

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<sup>5</sup> [Stop, Sort, Burn, Bury - incineration in the waste hierarchy: independent review - gov.scot \(www.gov.scot\)](https://www.gov.scot/stop-sort-burn-bury)

<sup>6</sup> [Role of incineration in the waste hierarchy - review: call for evidence](#)

13. The Review report based these 14 recommendations on key findings around capacity and strategic planning, local authority preparations for the forthcoming ban on landfilling biodegradable municipal waste, data, community engagement, and decarbonisation.

14. In terms of managing residual waste, the Review noted that the best form of residual waste treatment is to prevent it occurring in the first place, by reducing waste and recycling. Evidence submitted to the Review noted that up to 60% of residual waste is made up of recyclable materials. The Review, therefore, recommends that the Scottish Government rapidly seek further reductions in the proportion of recyclable materials in the residual waste stream (recommendation 1).

15. Where residual waste does occur, the Review assessed the feasibility of several options to deal with this waste. The Review considered feasibility along with an appraisal of social, health, and climate considerations relating to these options. The Review found that incineration's current place within the waste hierarchy is correct, meaning that overall it is preferable to other forms of residual waste treatment, such as landfill, but less preferable than reducing the quantity of residual waste either through recycling or not producing it (reflected in Recommendation 7).

16. On capacity, the Review found that there is likely to be a gap between the amount of residual waste produced and the treatment capacity available in Scotland in 2025 when the ban on landfilling biodegradable municipal waste comes into force. While this capacity gap could be closed by Scotland achieving its waste and recycling targets, stakeholders raised concerns to the Review about the likelihood of achieving these targets, drawing on experience and comparisons with other nations as evidence of what could be possible. The Review also found that only using infrastructure with long operational lifespans to manage this capacity gap presents a risk of overcapacity in the long-term. Moreover, the Review found that there is enough capacity across facilities that are operational and currently in development (i.e. being built or with planning permission) to manage Scotland's residual waste from 2027 onwards. In light of these findings, the Review recommends that Scotland should:

- limit the granting of further planning permissions for incineration infrastructure (Recommendation 4); and
- develop an indicative cap for the residual waste treatment needed as Scotland transitions towards a fully circular economy (Recommendation 5).

17. While the Review found that Scotland has enough capacity to manage its residual waste in the development pipeline, stakeholders raised concerns in the Call for Evidence that decisions regarding the location of facilities and future developments were not undertaken in a strategic way. The Review, therefore, notes that, despite the recommendation to limit planning permission to incineration facilities (Recommendation 4), it may be justifiable to allow the development of some capacity in remote and rural locations. This led the Review to recommend that the Scottish Government:

- work with local authorities in remote and rural areas to explore options that might, if fully justified, lead to the creation of a small amount of additional capacity (Recommendation 10)
- work with industry to develop a strategic approach to planning and deploying waste collection, reprocessing and management facilities (Recommendation 11)

18. Given the findings on the potential capacity gap in 2025, balanced against the long-term risk of overcapacity, the Review found that the risk of lock-in in waste management contracts is genuine. This is particularly important for local authorities who are looking to procure contracts for their residual waste ahead of the forthcoming ban on sending biodegradable waste to landfill in 2025. In light of this finding, the Review recommends that local authorities specifically address this within their contracts (Recommendations 6).

19. During its review of available evidence, it became apparent to the Review that there were deficiencies in both data and community engagement that require attention. The Review noted that the quality, quantity and accessibility of some data around waste management in Scotland is lacking. This includes the quality of commercial and industrial waste arisings and the accessibility and transparency of carbon emissions data. To address this, the Review sets out recommendations for:

- The Scottish Government should develop better waste management data and improve its capacity to model future trends across the whole waste management system (Recommendation 2); and
- Industry, local authorities and the Scottish Government should do more to improve the transparency and accessibility of waste data, particularly for incineration (Recommendation 3).

20. The Review also noted stakeholders' concerns around the difficulties they had experienced when attempting to engage with planning processes, as well as ongoing difficult relationships with local facilities more generally. The Review found that communities deserve more authentic and committed engagement from local authorities and industry than is sometimes the case (reflected in Recommendations 8 and 9).

21. On improving the carbon performance of residual waste treatment, the Review found that currently, incineration is less damaging to the environment than landfill. However, changes to waste composition and wider decarbonisation of the energy system could change this.

22. The Review has commissioned separate work to inform further consideration of opportunities to decarbonise the residual waste treatment infrastructure sector in Scotland. In the meantime, the Review notes four ways to redress the balance for incineration:

- removal of plastics from the waste before burning;

- greater use of by-products;
- improved efficiency through the use of the waste heat; and
- capturing carbon emissions.

Although, the Review notes that the first, stopping plastic from being incinerated, is the quickest and most reliable route to reduce the carbon impact of incineration. Pending conclusion of the further work, the Review has provisionally recommended improving pre-treatment processes before incineration, with a particular focus on plastics (Recommendation 13) and pursuing combined heat and power for as many incineration facilities as possible (Recommendation 14).

23. To help Scotland monitor the decarbonisation of the residual waste sector, as well as improve the accessibility of carbon emissions data (Recommendation 3), the Review has also recommended that greenhouse gas emissions from incineration are reported separately from other energy-related emissions (Recommendation 12).

### 3. Responses to recommendations

#### 3.1 Improving waste reduction and recycling (recommendation 1)

**Recommendation 1: Scottish Government should rapidly seek further reductions in the proportion of recyclable materials in the residual waste stream. It should do this in the forthcoming Route Map.**

24. **The Scottish Government accepts the recommendation** to reduce the proportion of recyclable material in the residual waste stream.

25. A circular approach to our economy, where we move from a “take, make and dispose” model to one where we keep materials in use and minimise the amount of residual waste produced, is imperative if we are to tackle the climate and nature crises.

26. We have a range of measures already in place or in development that will make a significant contribution to achieving this goal, including: bans on problematic single-use plastic items; the implementation of Scotland’s Deposit Return Scheme; reform of extended producer responsibility for packaging and our £70 million investment in local authority recycling infrastructure.

27. The consultation on our draft Route Map<sup>7</sup>, published on 30 May 2022, also proposes a range of additional legislative and non-legislative interventions across the

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<sup>7</sup> [Delivering Scotland's circular economy - route map to 2025 and beyond: consultation - gov.scot \(www.gov.scot\)](https://www.gov.scot/publications/route-map-2025-consultation/pages/10/index.aspx)

entire materials value chain, from reducing consumption to improving recycling, that will reduce waste and increase the proportion of waste recycled.

28. Proposals in the Route Map to reduce the proportion of recyclable materials in the residual waste include: promoting responsible consumption and production including through reducing consumption of single-use items, promoting product design and stewardship and mainstreaming reuse; reducing food waste from households and businesses, including through enhanced support for businesses and organisations and strengthening community food redistribution networks, including additional funding; and improving recycling from households and businesses, for example, by facilitating the co-design of high quality, high performing household recycling and reuse services and strengthening the monitoring and reporting framework.

29. This recommendation underlines the importance of a Route Map that takes bold action to reduce the proportion of recyclable materials in the residual waste stream and will inform the development of the final Route map.

### **3.2 Data and modelling (recommendations 2, 3 and 12)**

**Recommendation 2:** The Scottish Government should develop better waste management data, especially around the composition of all types of waste and the arisings and fate of commercial and industrial waste, and improve its capacity to model future trends across the whole resource and waste management system. The forthcoming Route Map should set out how the Scottish Government will do this.

30. **The Scottish Government accepts this recommendation.** This is in line with the ongoing work to implement Scotland's 10-year waste data strategy ([A strategy for improving waste data in Scotland, 2017](#)). This strategy is overseen by a project board which is made up of representatives from The Scottish Government, Scottish Environment Protection Agency (SEPA) and Zero Waste Scotland. Activities within the strategy to improve the quality and timeliness of data to support decision-making include: developing and implementing a digital waste tracking service in partnership with other UK governments and administrations, with an aim to implement the service in late 2023/early 2024; a new programme of household waste composition analysis by Zero Waste Scotland that is currently underway (2021-24); and planned publication of additional data by SEPA following its [Waste Data Consultation](#).

31. In response to the Review, we will build on the activity currently underway both through the interventions set out in our Route Map consultation and new work to examine options to model future trends in the waste management system.

32. We have included proposals in our draft Route Map to conduct a national compositional study of waste from commercial premises and for the Scottish Government to work in partnership with other organisations to develop our modelling and forecasting capability. To support this, we are seeking views on research, data and evidence related to waste in the Route Map consultation.

33. Following consultation on our draft Route Map, we will also undertake a feasibility study to identify priorities and examine the options and associated costs to develop modelling of future trends across the whole resource and waste management system. The study will also take into account data improvements expected to be delivered by digital waste tracking.

34. The current timeliness and coverage limitations of our data may limit our short-term ability to robustly forecast future trends. The implementation of a digital waste tracking service is likely to have the largest impact on the quality and timeliness of waste data. The current go-live date for the service is 2023/24, depending on the transition needs of businesses, but given this recommendation, we will work with other governments and agencies to implement this as soon as possible.

35. A feasibility study would be required to determine the options for forecasting future trends, the associated costs of this modelling and any data gaps likely to remain. This feasibility study will need to consider carefully what our needs are and how the Scottish Government can capitalise on the improved quality of data from digital waste tracking while managing the increased quantity of data.

36. Undertaking a feasibility study after the consultation on the Route Map has been completed will allow the study to consider consultation responses. We intend to set out any further steps to improve forecasting in the final Route Map.

37. The timeline for this work could also impact our response to Recommendation 5, developing an indicative cap, since detailed modelling will be required to give a robust estimate of the ongoing capacity requirements.

**Recommendation 3: Industry, local authorities and the Scottish Government should do more to make data around waste in general, and around incineration in particular, more transparent and accessible for all stakeholders. This should be done alongside development and implementation of the Route Map.**

38. **The Scottish Government accepts this recommendation**, which is in line with the ongoing work to implement Scotland's 10-year waste data strategy (A strategy for improving waste data in Scotland, 2017). Activities include exploring different ways to share and present waste data so that it is accessible to a range of

audiences – for example, the planned publication of additional data by SEPA following its [Waste Data Consultation](#).

39. In light of this recommendation, the consultations on our Circular Economy Bill and the development of our Route Map propose to strengthen the monitoring and reporting framework for local authority waste services by 2025 and explore the introduction of a requirement on local authorities to report publicly on end destination of household recycling collected. In the meantime, we will work with local authorities and SEPA to explore how to improve the transparency and accessibility of data for stakeholders.

40. With the recommendation highlighting the need for accessible data around incineration in particular, we will also work with SEPA and the waste industry to consider what reporting information on incineration facilities and other waste sites can be made available and how to make this data as accessible as possible. This reporting information includes data on carbon emissions and other pollutants.

**Recommendation 12:** The Scottish Government should report greenhouse gas emissions from incineration separately from other energy-related emissions as soon as possible, ideally from the 2021 data onwards.

41. **We accept this recommendation.** Official Statistics on Scottish greenhouse gas emissions are published annually and used to monitor progress towards Scotland's statutory emissions reduction targets. These statistics are based on a disaggregation of the UK Greenhouse Gas (GHG) Inventory, which is overseen by the UK Government Department for Business, Energy and Industrial Strategy (BEIS) and compiled in line with international scientific guidance.

42. At the time of writing, the UK Inventory does not allow for the isolation of data for emissions from waste incineration plants as opposed to other energy sector emissions. Decisions around the UK Inventory are a matter for BEIS and are informed by the UK National Inventory Steering Committee, which includes representation from Scottish Government officials.

43. We will work with BEIS and the UK National Inventory Steering Committee to explore the potential to break down our GHG inventory reporting to provide a separate Energy from Waste source within our future publications. However, given the time required to develop a new methodology, it is unlikely that this will be ready in time for our next publication using 2021 data.

### 3.3 Capacity and strategic planning (recommendations 4, 5 and 11)

**Recommendation 4:** Effective immediately, the Scottish Government should ensure that no further planning permission (i.e. beyond that already in place) is granted to incineration infrastructure within the scope of this Review unless balanced by an equal or greater closure of capacity. The only exceptions to this should be those outlined in Recommendation 10.

44. **The Scottish Government accepts this recommendation** while remaining conscious of relevant statutory obligations which must apply to all planning decisions.

45. The Review makes it clear that Scotland does not need additional municipal waste incineration facilities to treat our unavoidable and unrecyclable municipal residual waste beyond those for which planning permission has already been granted, with limited exceptions and mindful that there will be a short-term capacity gap in 2025.

46. The statutory decision-making framework for planning applications requires that all relevant matters are considered, in the individual circumstances of each case, before deciding whether to grant or refuse planning permission. We will work within existing statutory and other frameworks to set out clearly that the Scottish Government does not support the development of further municipal waste incineration capacity in Scotland, with very limited exceptions. New national planning policy will be introduced through National Planning Framework 4, which will be presented to the Scottish Parliament for approval later this year.

47. In light of the Review's findings on capacity, we will keep in place the Energy from Waste Notification Direction<sup>8</sup>, which had previously been made for a temporary period during the review. This requires planning authorities to alert Scottish Ministers of new planning applications that involve incineration facilities and to notify Scottish Ministers if they are minded to grant planning permission for incineration facilities.

**Recommendation 5:** As part of an overall strategic approach to planning and deploying waste management capacity (see Recommendation 11), the Scottish Government should develop an indicative cap that declines over time for the amount of residual waste treatment needed as Scotland transitions towards a fully circular economy.

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<sup>8</sup> Town and Country Planning (Notification of Applications) (Energy from Waste/Incineration and advanced thermal treatment Facilities) Direction 2021

48. **The Scottish Government accepts this recommendation** and we will develop an indicative cap to support planning discussions and decisions.

49. It is important that any indicative cap is as robust as possible and developing such a cap is likely to be a significant piece of work. Dr Church acknowledged that this would require careful consideration and further analysis, including the need to consider essential 'buffer' capacity/headroom /manage risks or unintended consequences. Recommendation 2 highlights the challenges around the quality and timeliness of waste data which will need to be overcome to ensure any indicative cap is as robust as possible.

50. Our consultation on the development of a Route Map sets out a proposal to develop a Residual Waste Plan by 2024 to set the strategic direction for management of residual waste to 2045 and to bring this area in-line with net zero targets.

51. As part of this proposed Residual Waste Plan and strategic direction setting, the Scottish Government will explore options to build upon improvements in data, for example through the delivery of the digital waste tracking service, and a feasibility study on modelling options (see response to recommendation 3) to develop an indicative cap for the amount of residual waste treatment capacity required.

**Recommendation 11: Scottish Government and local authorities should work with industry to develop a strategic approach to planning and deploying waste collection, reprocessing and management facilities by the end of 2023, which takes account of the key issues. The Scottish Government should consider how best to incorporate this into the proposed fourth National Planning Framework.**

52. **We accept this recommendation**, which is well-aligned with our proposal to develop a Residual Waste Plan by 2024, set out in our Route Map consultation. The Residual Waste Plan aims to set the strategic direction for the management of residual waste to 2045 and to bring this area in line with net zero targets.

53. As a result of the Review, we will consider how this strategic approach for residual waste infrastructure interacts with and could be extended to include key issues across waste collection and reprocessing infrastructure. We will also take opportunities to embed a strategic approach to infrastructure in any interventions taken forward in our Route Map following consultation. For example, our Route Map consultation sets out a proposal to facilitate the co-design of high-quality, high-performing household recycling and reuse services by the end of 2023, working with service operators and users. This will require consideration of the infrastructure required to deliver high-performing services and investigation of the potential for further collaboration and partnerships between multiple authorities on service provision to achieve economies of scale.

54. We will also consider how best to implement this strategic approach. For example, it may be more appropriate to incorporate this approach into more dynamic waste management guidance, rather than the National Planning Framework which is an overarching longer-term strategy.

### **3.4 Preparation for the landfill ban (recommendations 6, 7 and 10)**

**Recommendation 6:** When negotiating contracts for residual waste management treatment, local authorities should specifically address the risks of lock-in and ensure those contracts are aligned with meeting Scotland's current and future targets on resource and waste management.

**Recommendation 7:** The most feasible treatment options to manage Scotland's residual waste are incineration, landfill and export of waste. Scottish Government should work with local authorities to ensure they have a solution to manage their residual waste in 2025 based on this.

**Recommendation 10:** Scottish Government should urgently work with local authorities in remote and rural areas of Scotland without a settled residual waste management solution to meet the Ban to explore options that might, if fully justified, lead to the creation of a small amount of additional capacity.

55. **The Scottish Government accepts these recommendations.** Through Zero Waste Scotland, we are working closely with local authorities to support those that do not currently have solutions to the forthcoming ban on landfilling biodegradable municipal waste in 2025. The support includes facilitating collaborative procurement and providing technical, procurement and legal support for local authorities.

56. Through this collaborative procurement, we are encouraging local authorities to ensure contracts take into account Scotland's resource and waste ambitions and reduce the risk of lock-in effects.

57. Recommendation 10 highlights that local authorities with remote and rural communities may face particular challenges and opportunities in managing their residual waste. With Zero Waste Scotland, we have established a specific Highlands and Islands group involving relevant local authorities and will continue to work through this, and with individual authorities, to support the procurement of residual waste management options.

### 3.5 Community engagement (recommendations 8 and 9)

**Recommendation 8:** As part of the strategic approach referred to in Recommendation 11, Scottish Government and Local Authorities should ensure that adequate time and resource is dedicated to local and community engagement.

**Recommendation 9:** Operators of all residual waste treatment facilities should work to significantly strengthen community engagement and trust before, during and after development. Clear guidelines for authentic and effective community engagement should be co-produced by Scottish Government with community groups and local authorities by the end of 2023.

58. **The Scottish Government accepts these recommendations.** We will facilitate the co-production of guidelines for effective community engagement by the end of 2023. These guidelines will be developed in collaboration with community groups and local authorities and will build on examples of best practices identified through collaboration with industry. The detailed scope of the guidelines will be determined through a co-production process which we expect to include consideration of those elements identified in the review, including:

- Transparency in construction processes and operations.
- Signposting to statutory and best practice arrangements on community engagement through the planning process.
- The accessibility of data around a plant's operations, including emissions data.
- Ensuring local voices are heard at every stage of the process.
- Engaging with local concerns, providing evidence and reassurance relating to impacts of waste management without being misleading or engaging in 'greenwashing'.

59. In developing this guidance, we will work with local authorities and community groups to identify opportunities to ensure these groups can and know how to effectively engage with waste planning processes. We will co-produce guidance and look to local authorities and industry to firmly embed this guidance. If that doesn't have the desired effect, we will look at options to make the guidance statutory.

### 3.6 Decarbonisation (recommendation 13 and 14)

**Recommendation 13:** (Provisional) The Scottish Government should immediately strengthen existing requirements for pre-treatment and work with local authorities and industry to apply them to all existing and future incineration facilities to remove as much recyclable material as feasible, with a particular focus on plastics.

**Recommendation 14:** (Provisional) The Scottish Government and local authorities should continue to work with industry to deploy combined heat and power for as many existing incineration facilities as possible.

60. We will respond to these recommendations in full once the further work on options to decarbonise residual waste infrastructure has concluded. However, we know, and the Review has confirmed, that rapid progress is needed to ensure progress towards our Net Zero Ambitions. That is why we have proposed actions to restrict the carbon impacts of incineration in the consultation on our draft Route Map.

61. Our Route Map consultation sets out a proposal for the Scottish Government to facilitate the development of a sector-led plan by 2024 to restrict the carbon impacts of incineration. This includes consideration of how to ensure energy from waste plants are more efficient, for example, through the deployment of combined heat and power.

62. The consultation on the Route map also proposes to work with the waste and resources sector to accelerate the reduction of the carbon impacts of existing incineration plants. We will begin by focusing on measures to divert the highest carbon-emitting materials from incineration, such as plastics.

63. The final version of the Route Map will consider the outputs from the further work on options to decarbonise residual waste infrastructure, commissioned by the Review.

## 4. Summary of actions and next steps

Summary of recommendations for Scottish Government	Key actions and timelines
1. Seek further reductions in the proportion of recyclable materials in the residual waste stream.	Delivery of Recycling Improvement Fund (ongoing). Implementation of DRS (August 2023)

	<p>Deliver extended producer responsibility for packaging, working with the other UK administrations (from 2024)</p> <p>Develop final Route Map following consultation (early 2023).</p>
<p>2, 3 &amp; 12: Develop better waste management data, especially around the composition waste and the arisings and fate of commercial and industrial waste</p> <p>Improve capacity to model future trends across the whole resource and waste management system.</p> <p>Make data around waste more transparent and accessible for all stakeholders (also for industry, local authorities).</p> <p>Report greenhouse gas emissions from incineration separately from other energy-related emissions as soon as possible, ideally from the 2021 data onwards.</p>	<p>Continue with implementation of Scotland's 10-year waste data strategy.</p> <p>Continue to work with UK Government on the implementation of a digital waste tracking service (2023/24, TBC following analysis of consultation responses).</p> <p>Work with SEPA and the waste industry to consider what reporting information on incineration facilities and other waste sites can be made available and how to make this data as accessible as possible (by end 2023).</p> <p>Publish Route Map (early 2023) and implement initiatives to improve the quality and quantity of waste data (TBC following consultation).</p> <p>Undertake a feasibility study to examine the options to develop modelling of future trends across the whole resource and waste management system (Summer 2023).</p>
<p>4. Ensure no further planning permission is granted to incineration infrastructure within the scope of this Review unless balanced by an equal or greater closure of capacity.</p>	<p>Work within existing statutory and other frameworks to set out clearly that the Scottish Government does not support the development of further municipal waste incineration capacity in Scotland, with very limited exceptions (By end of 2022).</p> <p>Continue to keep Town and Country Planning (Notification of Applications) (Energy from Waste/Incineration and advanced thermal treatment Facilities) Direction 2021 in place (Completed).</p>
<p>5. Develop an indicative cap for the amount of residual waste treatment needed.</p>	<p>Explore options to build upon improvements in data through the Route Map (Early 2023).</p> <p>Undertake a feasibility study to examine the options to develop modelling of future trends across the whole resource and waste management system (Summer 2023).</p>

<p>7 &amp; 10 Work with local authorities to ensure they have a solution to manage their residual waste in 2025 based on this.</p> <p>Work with local authorities in remote and rural areas of Scotland without a settled residual waste management solution to meet the landfill ban in 2025.</p>	<p>Continue to work closely with local authorities to support those that do not currently have solutions to the forthcoming ban on landfilling biodegradable municipal waste (by 2025).</p>
<p>8 &amp; 9. Ensure that adequate time and resource is dedicated to local and community engagement (also for local authorities).</p> <p>Co-produce clear guidelines for authentic and effective community engagement (with community groups and local authorities).</p>	<p>Facilitate the co-production of guidelines for effective community engagement (by the end of 2023).</p>
<p>11. Develop a strategic approach to planning and deploying waste collection, reprocessing and management facilities (with industry and local authorities).</p>	<p>Develop final Route Map following consultation (Early 2023) and develop a Residual Waste Plan to set the strategic direction for the management of residual waste and explore opportunities to embed a wider strategic approach to waste infrastructure. (2024, but TBC following consultation)</p>
<p>13 &amp; 14 (provisional) Strengthen existing requirements for pre-treatment and work with local authorities and industry to apply them to all existing and future incineration facilities to remove as much recyclable material as feasible, with a particular focus on plastics.</p> <p>(Provisional) The Scottish Government and local authorities should continue to work with industry to deploy combined heat and power for as many existing incineration facilities as possible.</p>	<p>Respond in full to final recommendations (Following completion of work on options to decarbonise the waste sector in Scotland, expected to be delivered by end of 2022).</p> <p>Following consultation of the draft Route Map, facilitate the development of a sector-led plan (depending on responses to consultation) to restrict the carbon impacts of incineration by 2024 (TBC following consultation).</p>



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St Andrew's House  
Edinburgh  
EH1 3DG

ISBN: 978-1-80435-629-6 (web only)

Published by The Scottish Government, June 2022

Produced for The Scottish Government by APS Group Scotland, 21 Tennant Street, Edinburgh EH6 5NA  
PPDAS1101942 (06/22)

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