

2025 Landfill (Bio-degradable Municipal Waste) Ban

1.0 EXECUTIVE SUMMARY

1.1 The aim of this report is to provide the Short Life Working Group on Climate Change with a high level summary of:

- The background of the 2025 Landfill ban,
- Recent policy changes,
- The environmental benefit of compliance.

1.2 Details of the financial impact of the ban and the technical solutions proposed can be found in the Waste Strategy Reports to the Environment, Development and Infrastructure committee in September 2019. The reports pack and minute of the meeting can be found using the following link: <https://www.argyll-bute.gov.uk/moderngov/ieListDocuments.aspx?CId=546&MId=8387&Ver=4>

1.3 The report includes details of Scottish Governments policy position on the Biodegradable Municipal Waste ban and the types of financial and practical support the council is seeking to enable compliance.

1.4 This report shows that using the UK government conversion factors and our own waste data that landfill as method generates a large amount of CO₂e. The report goes on to make clear that the alternative forms of disposal proposed (Composting and Energy from Waste (Incineration)) have a significantly lower level of CO₂e generation.

Recommendation

1.5 It is recommended that Members:

- consider the content of the report and;
- note that further updates relating to the Waste Strategy will be considered by the Environment, Development and Infrastructure Committee in due course.

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2.0 INTRODUCTION AND BACKGROUND

2.1 Argyll and Bute Council is both a waste collection and waste disposal authority.

Waste collection is carried out by Council staff with assistance from third sector organisations who have responsibility for some recycled materials. Waste disposal is carried out by using three separate models across the Council:

- Island sites which are operated directly by the Council;
- A 25 year PPP contract covering the mainland excluding Helensburgh and Lomond, this contract runs until 2026;
- Helensburgh and Lomond where waste is collected and disposed of at third party sites out-with Argyll and Bute.

2.2 The dominant Waste Disposal methodology for non-recyclable Residual waste across Scotland is disposal via landfill. However disposal of waste via landfill is a significant contributor to Scotland's overall Green House Gas production. Landfill gases contain large amounts of Methane, which is around 6 times more damaging than Carbon Dioxide.

2.3 In response to Climate Change caused by Green House Gas emission, the Scottish Government since 2009 has pursued a programme of policy changes designed to move Scotland towards Carbon Neutrality and a Circular Economy. It is the view of the Scottish Government and Zero Waste Scotland that better more responsible resource management will play a critical part in achieving both Carbon Neutrality and a Circular Economy. Landfill accounts for around half of the councils' annual production of Carbon Dioxide equivalent emissions (CO₂e).

- 2.4 The landfill ban is a measure brought in under the Waste Regulations (Scotland) 2012. By ending Landfill as a means of disposal and switching to disposal via Energy from Waste (EfW) the Scottish Government expect a significant reduction in CO₂e generated from Waste. The ban was planned to come into force across all of Scotland from January 2021. However the deadline for compliance with the ban has now been put back to January 2025, further details on the change in policy can be found in section 4.
- 2.5 The council recognises the serious global impacts of climate change and is committed to reducing the environmental impact of the council and its residents. In September, the council established a short life working group to develop policy options and opportunities for strategic projects and activities that will further enhance the councils' contribution to addressing this global issue and delivering the Climate Change (Scotland) Act. The council fully supports the goals and objectives of the Scottish Governments policy of a ban on the disposal of Biodegradable Municipal Waste in Landfill. The council accepts and endorses that increased waste reduction, reuse and recycling is critical to achieving the Scottish Governments 2045 target of a net zero carbon economy.
- 2.6 Changing the council waste disposal methodology with a move away from landfill to EfW is extremely challenging for every local authority. However, Argyll and Bute faces a unique set of circumstances that disproportionality increase this cost challenge of landfill ban compliance. The challenges faced by the council include:
- Argyll and Bute's geography resulting in poor access to market leading to a dramatic and an ongoing increase in revenue costs as a result of haulage/ferry requirements;
 - A Waste PPP contract with Renewi (covering mainland Argyll, Bute and the Small Isles excluding Helensburgh and Lomond) that subsists until September 2026. The introduction of the ban on disposal via landfill constitutes a material change on this contract. The PPP contract is very difficult and costly to vary in anyway.
 - A low overall level of residual waste tonnage feedstock that rules out standalone Argyll and Bute based EfW operations;
 - High capital cost impact of the conversion of existing landfill facilities into a network of Waste Transfer Sites that would allow for the bulking and transport of waste to EfW plants;
 - The significant revenue cost increase as a result of Scottish EfW gate fees resulting from an ongoing shortfall nationally of EfW capacity;
 - The impact on ferry capacity and road infrastructure as a result of the increased haulage requirements from transporting waste to be recovered as EfW.

3.0 RECOMMENDATIONS

3.1 It is recommended that Members:

- consider the content of the report and;
- note that further updates relating to the Waste Strategy will be considered by the Environment, Development and Infrastructure Committee in due course.

4.0 POLICY POSITION

- 4.1 The Biodegradable Municipal Waste landfill ban is a measure brought in under the Waste Regulations (Scotland) 2012. The ban was planned to come into force across all of Scotland from January 2021.
- 4.2 Non-compliance with the Biodegradable Municipal Waste ban is not an option. Ministers expect local authorities and private sector suppliers to be working towards a solution at pace and that non-compliance may be subject to sanctions. Non-compliance with landfill licence requirements could become a criminal matter.
- 4.3 All local authorities in Scotland face significant cost challenges as result of transition to ban compliant methods of recovery such as EfW. In May of 2019 the Scottish Government published their analysis of the waste market and available Scottish EfW capacity for the period from the ban “go live date” of 2021 to 2025. The results of that study show that there is a likely shortfall in Scottish EfW capacity of around 1 million tonnes in year one of the ban falling to 0.5 million tonnes in year two and dropping further but remaining at a deficit until beyond 2025.
- 4.4 The large deficit in Scottish EfW capacity identified in the report highlighted that if the ban was to come into force in 2021 as planned; it force at least 50% of the local authority waste to be either exported to the EU (for recovery) or England (for landfill or EfW). The export of waste to be disposed of elsewhere was viewed by COSLA, the CIWM and the Waste Managers network as contrary to the aims and objectives of the ban. Already faced with significant pressure from rural and island authorities now compounded by additional pressure resulting from the conclusions of the report into the market the Scottish Government announced in July that they would consider delaying the implementation of the ban to allow authorities and the market additional time to prepare for the ban.
- 4.5 The change of implementation date from January 2021 to January 2025 was announced by the Cabinet Secretary for Environment, Climate Change and Land Reform, Roseanna Cunningham MSP (CabSec) in her letter to stakeholders dated the 19th of September.
- 4.6 The reasons for the change in implementation date from 2021 to 2025 are noted in the CabSec’s letter to stakeholders. The key reasons can be summarised as:
 - The Scottish Governments publication of their own evaluation of the landfill ban Waste Market assessment shows that with a 2021 implementation date that there would be a shortfall of Scottish EfW capacity of around 1.2m tonnes in the first year of the ban falling to around 600k tonnes by 2022. Due to this shortfall large amounts of residual waste would have to be either sent for recovery via EfW in the EU or alternatively landfilled in England. Landfill of

Scottish local authority waste in England is viewed by the Scottish Government as being unacceptable both from an environmental and landfill tax perspective. In addition the costs of export to the EU of waste for recovery via EfW are uncertain due to Brexit.

- Pressure from COSLA, SOLACE, industry and local Authorities on the Scottish Government to reevaluate the 2021 implementation date to allow for development of EfW capacity and combined development and sourcing of ban solutions.
- 4.7 The CabSec's letter to stakeholders frames the landfill ban as a key part of the Scottish Government's drive towards a net zero Carbon economy. As is noted in the letter the Scottish Government have taken advice from the Committee for Climate change and have stepped up their commitment to achieved net zero Carbon economy by 2045. This along with other measures formed a key part of the Scottish Government's programme for Government announced by the First Minister in September.
- 4.8 The tone of the letter from the CabSec is clear that changing the terms of the landfill ban by delaying the implementation date is viewed by the Scottish Government as a necessity all be it one that poses political challenges. The letter does acknowledge some challenges faced by the sector in complying with the landfill ban as laid out in 2.1. However the CabSec also makes it very clear that the Scottish Government is disappointed in the "lack of progress made to date". The CabSec also goes on to say that she expects "local authorities and the commercial sector to make further progress at pace before the legislation needed to extend the deadline is made." However from a local authority perspective this request must be met with a strong commitment from the Scottish Government to work with local authorities to develop and resource solutions that will enable compliance with the ban and reduce its revenue cost impact.
- 4.9 The CabSec goes on to say she plans to implement a centrally coordinated intervention to *"to help the remaining local authorities procure solutions for the remaining tonnage of waste that provide the necessary contract length to support investment."* This will take the form of a joint COSLA/Scottish Government working group, this is currently not in place.
- 4.10 The letter does provide certainty on the revised ban implementation date but does leave open questions on Landfill Tax. It is suggested by the CabSec in her letter that an incremental accelerator will be applied to Landfill Tax to incentivise early compliance. Officers to date have been given no details of what this accelerator will look like and by what rate it will rise to by 2025. It has been suggested that one of the first tasks of the new joint officer working group will be to study and report on and recommend to the Scottish Government what an appropriate rate would be. Anecdotally Scottish Government Officials are keen to avoid an overly punitive rate increment as they feel that it may result in an unintended consequence of the export of waste to landfill in England.

- 4.11 The CabSec's letter makes no reference to regulatory change in relation to rural food waste exemptions. Currently to qualify for a food waste collection and disposal service settlements must reach a population count of 10k, the only area to meet this criteria in Argyll and Bute is Helensburgh and Lomond. The Scottish Government has made it clear that they are going to carry out a review of the rural exemption and will be seeking to create a more nuanced approach rather than a population count. The timescale of the review is currently unknown but is likely to take place in early 2020 with a view to make recommendations prior to the next Holyrood election. Changes in the status of food waste collections will have a significant impact on the PPP agreement and proposals for landfill ban compliance. It is also unclear if this would be viewed by the Scottish Government as a new burden on rural/island local authorities and as a result would be funded by them. It is likely that this review will come under the brief of the new joint officer working group.
- 4.12 Argyll and Bute council is now represented on the joint officer working group by the Head of Roads and Infrastructure Services (Jim Smith) with support from the Waste Strategy Project Manager (Peter Leckie). The first meeting of the group is due to take place in February 2020.

5.0 ENVIRONMENTAL IMPACT OF BAN COMPLIANCE

- 5.1 Globally it is estimated that Waste Disposal accounts for around 4% of all Greenhouse gas emissions. Disposal via landfill is the worst performing of all disposal methodologies as it not only allows for high production of CO₂e/Greenhouse Gas as the material breaks down but it also does not recoup any value for the material. Food waste and other Biodegradable material make up around 70% of the material in our residual waste bins. When this material breaks down in landfill it releases Methane and other Greenhouse Gases into the atmosphere. Methane is 6 times more damaging to the atmosphere than CO₂. The landfill ban would see this biodegradable material capture and recovered via EfW which would reduce CO₂e production from landfill by around 95%.
- 5.2 In the Waste Strategy the council committed to working to meet the Scottish Governments Zero Waste and Circular Economy targets by basing our waste disposal services around the Waste Hierarchy. Achieving this objective will have positive effect on the councils Green House Gas output. Through framing the policy initiative on the Waste Hierarchy we will also able to achieve savings as a smaller decreasing amount of Waste goes to Disposal or Recovery (EfW). Using promotional tools such as Social Media and the Councils Websites as well as direct engagement at events etc. We will educate residents, business, visitors and Council employees on the need to Reduce, Reuse and Recycle following the waste hierarchy to reduce Waste going for either Disposal or Recovery.
- 5.3 In the Waste Strategy the council acknowledged that the public of Argyll and Bute have a crucial role to play in not only maintaining current recycling and diversion rates levels, but also making positive changes supporting the Councils ability to increase diversion and recycling rates. Strong education and communications will be implemented and sustained with regular refreshes of

content to reinforce the waste reduction message. From feedback from the waste strategy consultation it is clear that the public value their waste disposal services and they strongly support all efforts made to promote waste reduction, reuse and recycling. To increase engagement and to support the public's desire to reduce, reuse and recycle we intend to make several improvements to our content:

- Clear unambiguous guidance on what can and cannot be recycled by the council;
- Cradle to grave information on all of our different waste streams, detailing the end destinations of our waste;
- Advice on how to reduce food waste;
- Active promotion of local reuse charities and groups;
- Guidance on beach cleans and marine litter;
- Publication of the council's annual waste performance information.

5.4 The Scottish Government recognised that imposing a ban on the disposal of Biodegradable Municipal Waste at landfill would effectively end landfill as a disposal method. In turn authorities would have to implement alternative arrangements for the disposal of their residual waste. Incineration via EfW that recovers heat for use in the generation alongside composting are viewed as the most viable alternatives.

5.5 The main environmental benefit of moving away from landfill is a drop in the amount of new CO2e generated. Using the 2018 waste performance figures, Table 1 below shows the CO2e levels generated in a year where landfill was the dominant methodology.

Table 1

2018 Baseline Performance							
Tonnage Landfilled	Landfill CO2e	Tonnage Recovered/Recycled	Recovery Recycling CO2e	Total Arisings	Residual Haulage Mileage/Week	Haulage CO2e	Total CO2e
30,084	17,645	28,872	617	58,956	0	0	18,261

5.6 Using the 2018 tonnage information but applied to the different compliance options (composting and EfW) open to the council when we run the same tonnage quantity through a mixture of IVC and Waste Transfer with the same conversion factors applied there is a significant drop in CO2e produced of around 17k tonnes. This is a drop of around 94% in the amount of CO2e produced. This would equate a reduction by almost 45% in the councils overall CO2e footprint. The increase haulage required would generate an increase of 86 kilos of CO2e. This demonstrates that from a purely CO2e perspective that the Composting and EfW model has a lower carbon cost and therefore greater environmental benefit.

Table 2

IVC and Transfer to EfW							
Tonnage IVC	IVC CO2e	Tonnage Recovered/Recycled/ EfW	Recovery Recycling EfW CO2e	Total Arisings	Residual Haulage Mileage/Week	Haulage CO2e	Total CO2e
12,034	125	46,922	1,002	58,956	1,524	86	1,214

5.7 Comparing the carbon cost of the composting/EfW solution with some waste transfer solution to system of EfW only indicates that there would be slight increase in the amount of CO2e generated. However, when compared to a Landfill solution there is still significant CO2e saving of around 17k tonnes per annum.

Table 3

Transfer to EfW only							
Tonnage Landfilled	Landfill CO2e	Tonnage Recovered/Recycled	Recovery Recycling CO2e	Total Arisings	Residual Haulage Mileage/Week	Haulage CO2e	Total CO2e
0	0	58,956	1,259	58,956	2,074	118	1,377

5.8 It is important to note that the figures used to calculate the potential reduction are based on the councils' own metered data. The Carbon equivalent factor used in the calculations is not fixed as is set by the UK Government. As such the factor is subject to regular review and may change in future.

6.0 CONCLUSION

6.1 Changing Waste Disposal methods from landfill by 2025 to EfW does have significant benefit to our local and national environmental performance. The council's assessment of the costs of compliance with the Biodegradable Municipal Waste ban shows that there will be a significant increase in revenue costs to the council. Depending on the solutions that are put in place the range of cost increase could be between £3.6m and £6m per annum. There is also a significant capital cost requirement to support the necessary transition to ban compliance of around £2m to £3m.

6.2 Argyll and Bute Council remain committed to complying fully with the ban ahead of the 2025 commencement date. However, due to the disproportionate challenge the council faces due to our rural/island geography and our existing contractual commitments to the Waste PPP agreement we require a mixture of practical and financial support from the Scottish Government to achieve this transition and secure a significant reduction in CO2e generation.

7.0 IMPLICATIONS

7.1 Policy – It is the policy of the council to support the aims and objectives of the landfill ban. However without additional funding and practical support compliance ahead and after 2025 poses a serious challenge.

- 7.2 Financial - The financial impact of the Biodegradable Municipal Waste ban present significant challenge to the council with a worst case scenario of an increase in revenue spending of around £6m per annum.
- 7.3 Legal - the Council will be required to comply with any new national legislation regarding waste disposal.
- 7.4 HR - None.
- 7.5 Fairer Scotland Duty:
 - 7.5.1 Equalities - protected characteristics- None known
 - 7.5.2 Socio-economic Duty - None known
 - 7.5.3 Islands – EQSEIA, Island Impact Assessment of the landfill ban to be carried out by the Scottish Government
- 7.6. Risk - Significant risk of increased costs as result of compliance with the Biodegradable Municipal Waste ban, compliant solution cannot be procured or contract varied in time.
- 7.7 Customer Service - Improvements on the information we provide on Waste disposal and recycling will play a key part in achieving our environmental goals and supporting compliance with the Biodegradable Municipal Waste ban.

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19/12/2019

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APPENDICES

None