

An independent assessment of the Clean Growth Strategy

Technical Annex – Waste

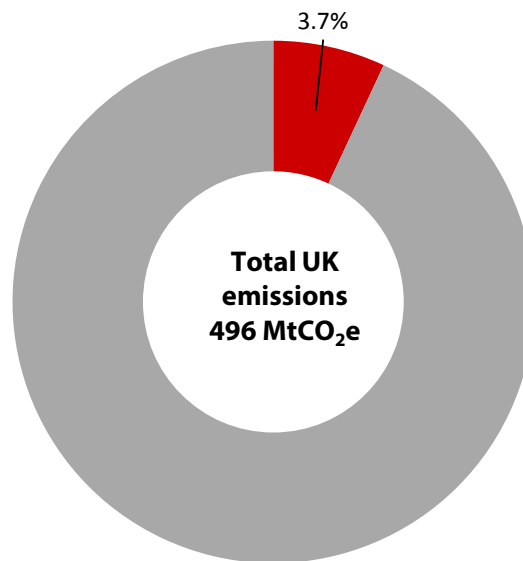
Under the Climate Change Act, the government is required to publish a set of policies and proposals that will enable the legally-binding carbon budgets, on track to the 2050 target, to be met. The Clean Growth Strategy, published in October 2017, presents the Government's plans.

Our report, *An independent assessment of the Clean Growth Strategy: From ambition to action*, sets out our overall assessment of the Strategy. This technical annex sets out the analysis for the Waste sector underpinning that report, in three sections:

- i) Emissions from the Waste sector today
- ii) Ambition in the Clean Growth Strategy
- iii) Policy development required to deliver ambition in the Clean Growth Strategy

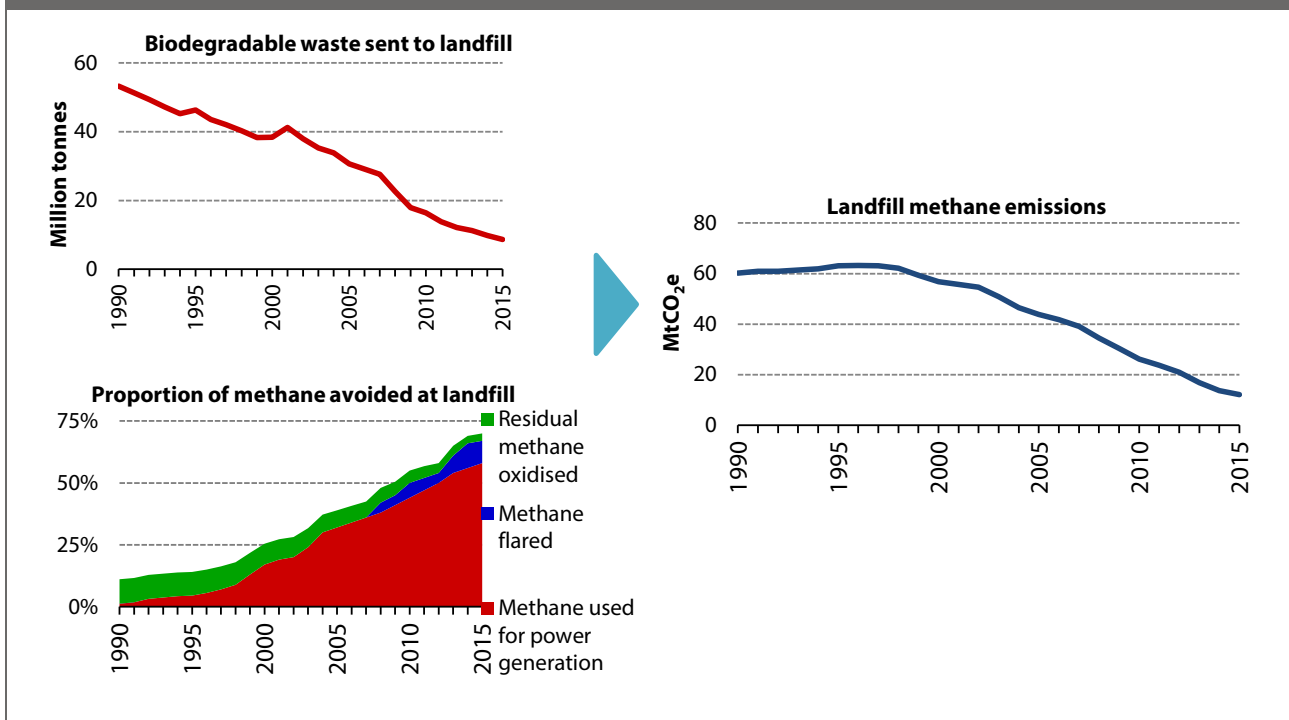
i) Emissions from the Waste sector today

Figure 1. Waste sector emissions as a share of UK total, 2015



Source: BEIS (2017) *Final UK greenhouse gas emissions national statistics 1990-2015*.

Figure 2. Historic emissions (1990-2015)



Source: BEIS (2017) 'Final UK greenhouse gas emissions national statistics 1990-2015'.

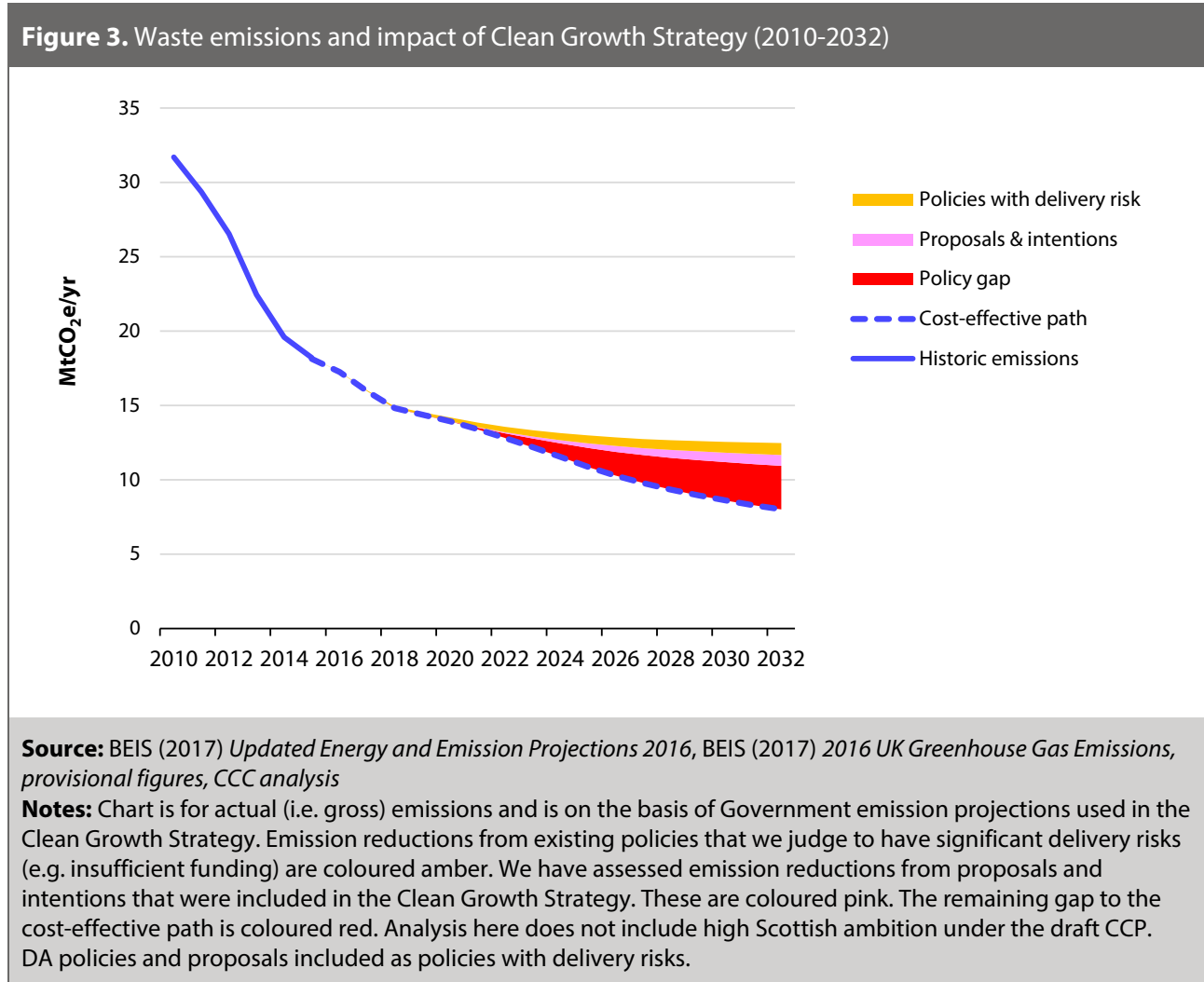
Notes: Biodegradable waste and proportion landfill methane not avoided do not equal landfill methane emissions. Emissions also depend on methane yield from waste.

ii) Ambition in the Clean Growth Strategy

Table 1. Ambition in key low-carbon technologies and behaviours in waste

Key technology / behaviour	CCC scenario	Clean Growth Strategy ambition	What we have assumed for quantification
Reduce waste to landfill	No food, paper/card, wood, textiles & garden waste to landfill by 2025	Work towards no food waste entering landfill by 2030	Delivers a fifth of CCC savings by 2030

Source: CCC analysis.



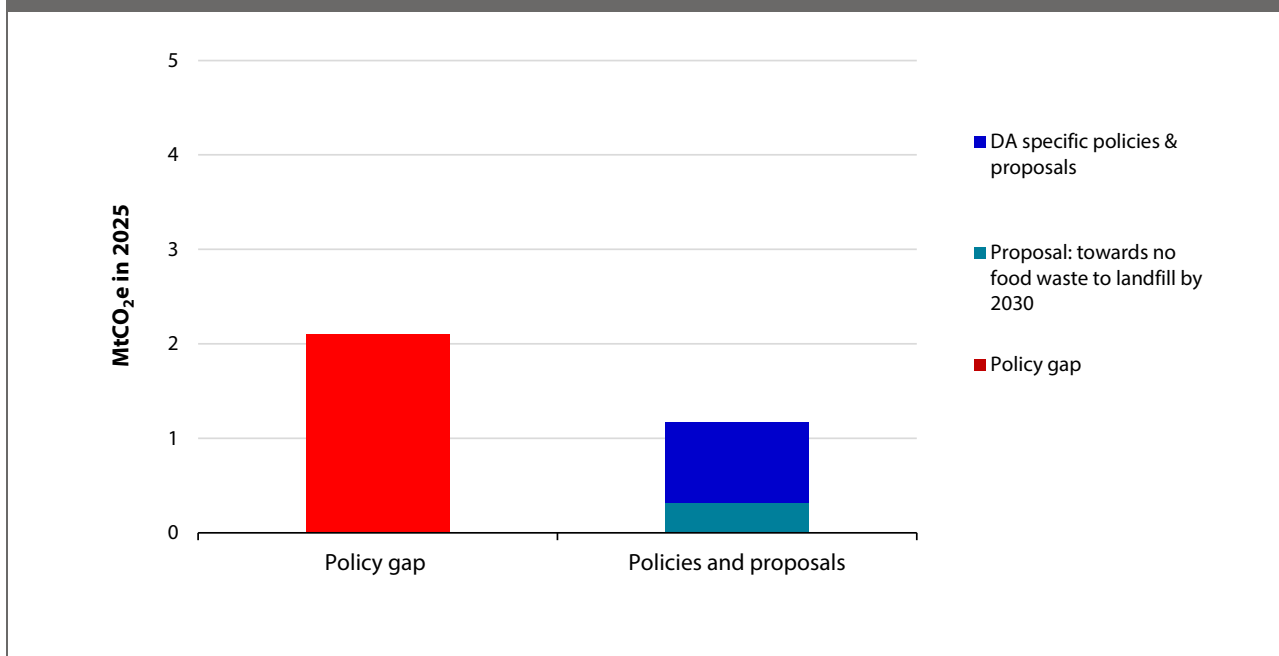
iii) Policy development required to deliver ambition in the Clean Growth Strategy

Table 2. Progress against the Committee’s recommendations in 2017 Progress Report

Recommendation in 2017 Progress Report	Clean Growth Strategy proposal	Assessment	Commentary
<p>Strengthened approaches through the waste chain, from creation to disposal, including:</p> <ul style="list-style-type: none"> • reducing waste arising • separate collections (e.g. of food waste) • stopping biodegradable waste going to landfill, and • maintained or increased methane capture at landfill sites. 	<p>Work towards no food waste entering landfill by 2030.</p> <p>Explore new and innovative ways to manage emissions from landfill</p> <p>Publish a new Resources and Waste Strategy in 2018</p>	Partially met	<p>Mandate a landfill ban - no food, paper/card, wood, textiles & garden waste - to take effect by 2025</p> <p>Complete research to assess best methods in management and aftercare</p> <p>Set out specific policies that can deliver reductions in waste emissions</p>

Source: CCC analysis.

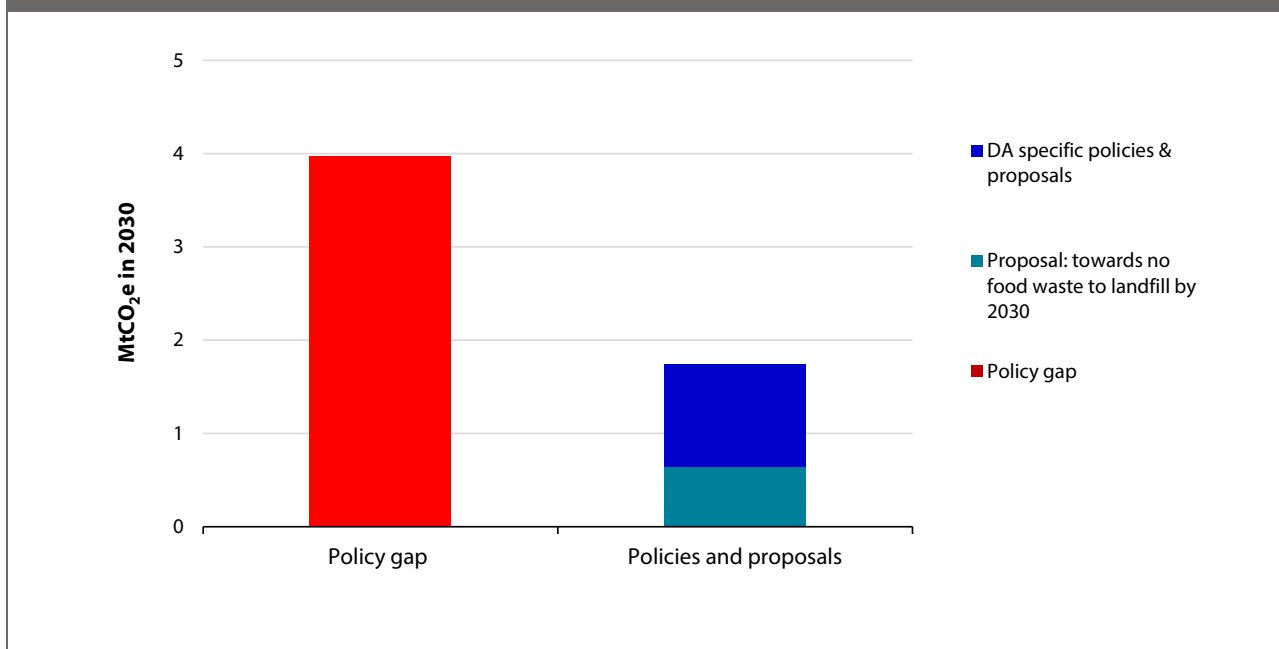
Figure 4. How policies and proposals in the Clean Growth Strategy could close the 2025 waste policy gap



Source: CCC analysis.

Notes: Policy gap assessment in our 2017 Progress Report to Parliament; represents the gap to the cost-effective path, rather than to carbon budgets; (Devolved Administration (DA) policies and proposals includes the higher ambition in the Scottish draft Climate Change Plan.

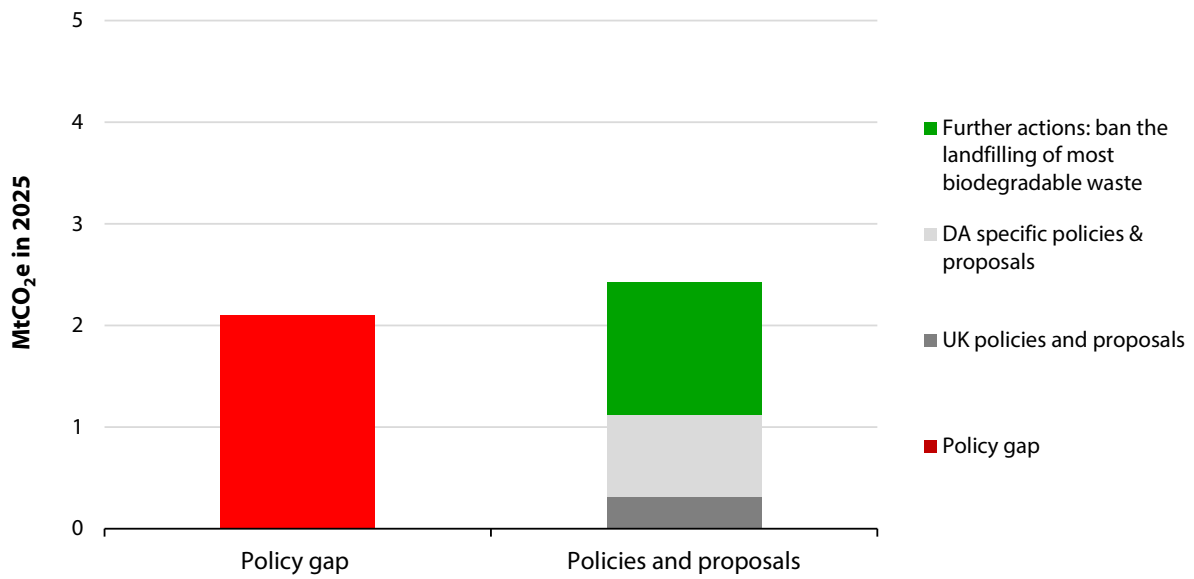
Figure 5. How policies and proposals in the Clean Growth Strategy could close the 2030 waste policy gap



Source: CCC analysis.

Notes: Policy gap assessment in our 2017 Progress Report to Parliament; represents the gap to the cost-effective path, rather than to carbon budgets; DA policies and proposals includes the higher ambition in the Scottish draft Climate Change Plan.

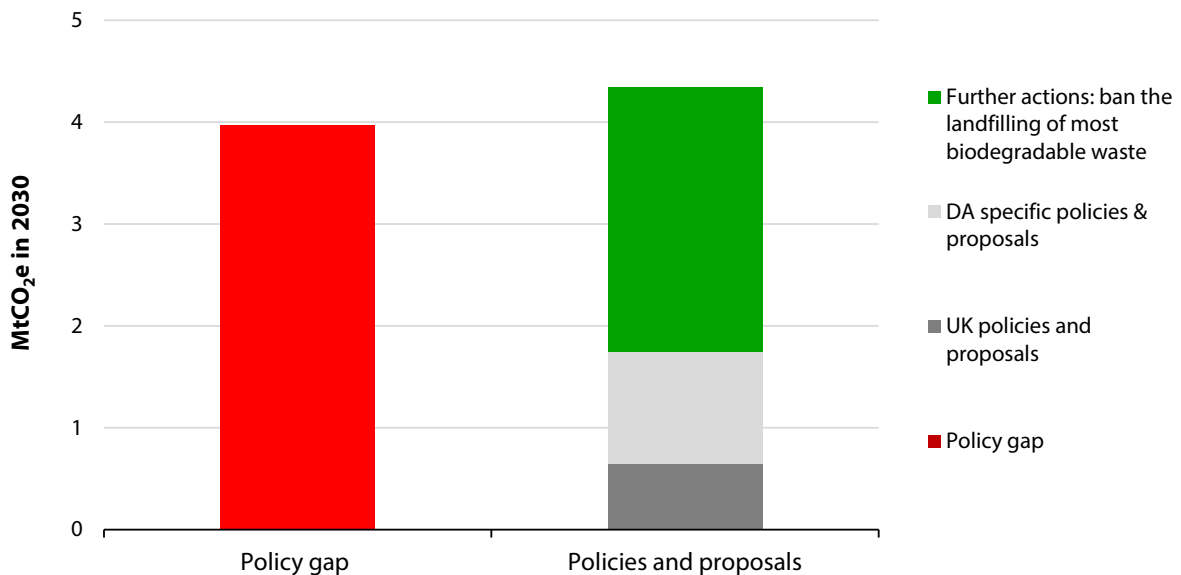
Figure 6. Additional actions required to close the 2025 policy gap in waste.



Source: CCC analysis.

Notes: DA policies and proposals includes the higher ambition in the Scottish draft Climate Change Plan.

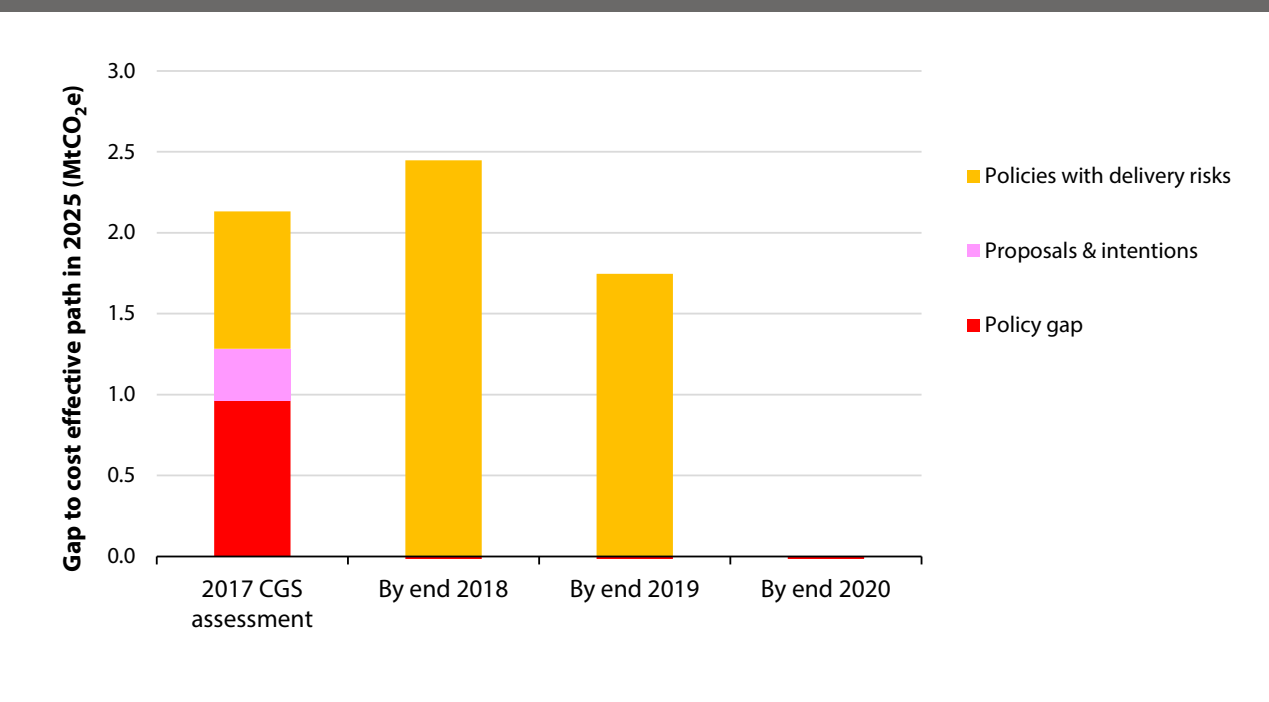
Figure 7. Additional actions required to close the 2030 policy gap in waste.



Source: CCC analysis.

Notes: DA policies and proposals includes the higher ambition in the Scottish draft Climate Change Plan.

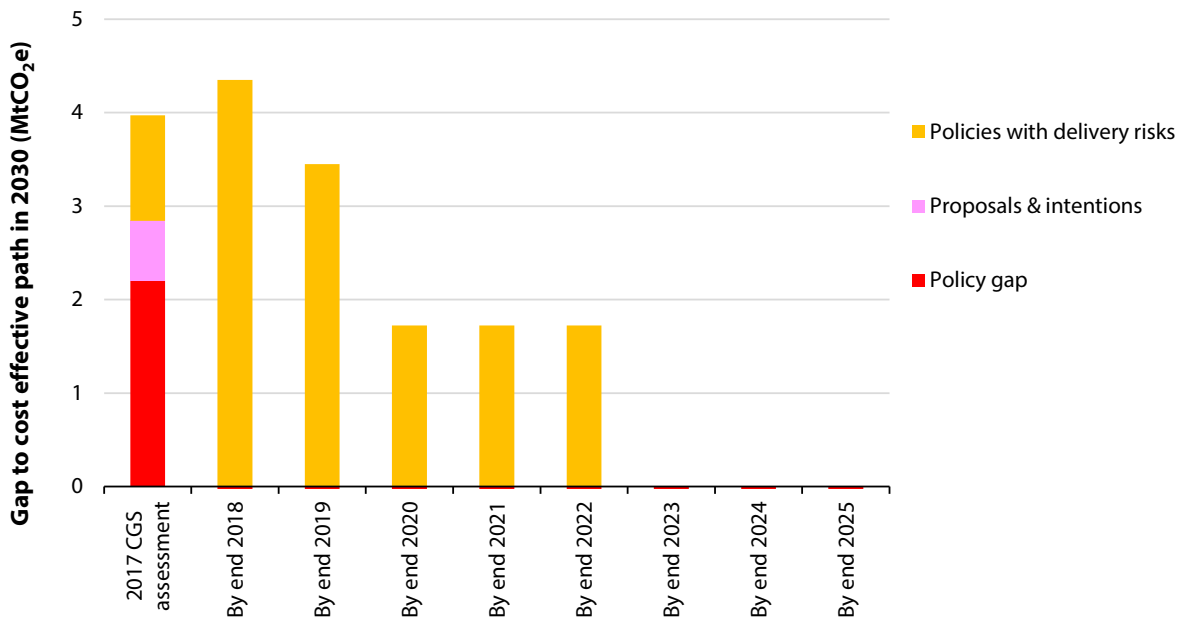
Figure 8. Fourth carbon budget: The waste policy gap in 2025 and how Government policies should develop over time to close this gap



Source: BEIS (2017) *Updated Energy and Emission Projections 2016*, CCC analysis.

Notes: This chart reflects the Committee's detailed assessment of how the remaining gap to the cost-effective path can be closed and how current policies, proposals and intentions are firmed up so that delivery risks are largely eliminated. This is based on an assessment of the current status of policies, proposals and intentions, and the potential to strengthen policy by 2020. The chart focuses on annual emissions in 2025, the middle year of the fourth carbon budget period, and the gap to meeting the cost-effective path. This assessment is based on the government emission projections used in the Clean Growth Strategy. New projections were published in January 2018. These reduced the level of projected future emissions in 2025, and therefore imply a smaller policy gap to be closed. Higher Scottish ambition from the draft Climate Change Plan is included.

Figure 9. Fifth carbon budget: The waste policy gap in 2030 and how Government policies should develop over time to close this gap



Source: BEIS (2017) *Updated Energy and Emission Projections 2016*, CCC analysis.

Notes: This chart reflects the Committee's detailed assessment of how the remaining gap to the cost-effective path can be closed and how current policies, proposals and intentions are firmed up so that delivery risks are largely eliminated. This is based on an assessment of the current status of policies, proposals and intentions, and the potential to strengthen policy by 2025. The chart focuses on annual emissions in 2030, the middle year of the fifth carbon budget period, and the gap to meeting the cost-effective path. This assessment is based on the government emission projections used in the Clean Growth Strategy. New projections were published in January 2018. These reduced the level of projected future emissions in 2030, and therefore imply a smaller policy gap to be closed. Higher Scottish ambition from the draft Climate Change Plan is included.

Table 3. Timetable for closing the waste policy gap

Policy	2018	2019	2020	2021	2022	2023	2024	2025	2026-32	
Work towards no food waste entering landfill by 2030.	Set out a commitment to ban by 2025, the main bio-degradable waste streams including food entering landfill	Defra to publish specific strategies on how to reduce each of main biodegradable waste sources (specifically food, paper/card, and wood) from households and businesses				Review policies and strengthen if required				
Explore new and innovative ways to manage emissions from landfill	<ul style="list-style-type: none"> Results from Scoping study – end March 2018 Pending the results - initiate field trials/further research to assess best methods in management and aftercare 	Pending the results of field trials/ further research, develop and implement cost-effective policies.					Review policies and strengthen if required			

Legend: Green – Government commitment and timing in Clean Growth Strategy; Blue – Government commitment in Clean Growth Strategy with CCC timing and/or detail added; Orange – CCC recommendation.