Waste to Energy Steering Group meeting

31/05/2024

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  - ➢ Competitively sensitive information covers any non-public strategic information about a business's commercial policy. It includes, but is not limited to, future pricing and output plans
  - ➢ Please note this session is being recorded for note taking purposes.

Agenda

- **Industry news:** General election, Defra permit ban/residual waste report, NIC report
- **Consultations:** UK ETS waste expansion, CBAM, Scottish bioenergy, Non-pipeline CO2
- **Policy updates:** Waste ICC, Hydrogen, SAF mandate, Landfill, REMA, Simpler Recycling

General/industry news

General election

- Parliamentary business has now ceased. Simpler Recycling has made it into Law as planned, and the Finance Bill – implementing the latest Budget – will be passed setting Departmental spending. We are refining our manifesto of asks for each forum and will be continue engagement with parties and potential MPs throughout this period.

Defra permit ban/ RDF report

- Permit ban has now been lifted. We have been informed that the scoping report Defra is undertaking to review of the capacity needed for waste incineration facilities against waste objectives has been ready for a while so we can hopefully expect this soon.

National Infrastructure Commission report

- Report recommends a ban of non-CCUS energy from waste and instructs local authorities to not sign or renew long term energy from waste contracts without credible plans for this technology, and to break out of existing long-term unabated EfW contracts at the end or via break clauses where possible.

UK ETS: Waste expansion

Consultation closes 18/07/2024

The consultation sets out further detail in the following areas

Area	Details	Questions
Scope and coverage	• Coverage • Inclusion threshold, hospital and small emitter and ultra small emitter status • Exemptions	Q 1- 15
Adjusting the UK ETS cap	• General approach for new sectors • Proposed approach for waste incineration	Q 16 – 18
Participating in the scheme	• Regulatory regime and operator requirements • MRV-only period • Monitoring and reporting requirements • Guidance	Q19 – 35
Impacts of the scheme and reducing adverse risks	• Diversion to landfill and waste export • Decarbonisation pathways • Accurate apportioning of cost pass through • Equality considerations	Q36 – 57
UK ETS and heat networks – a call for evidence	• Incentivising heat networks	Q 58 – 62

UK ETS: Waste expansion

Scope and coverage

Scope

- Regulates incineration and combustion of waste, and other energy recovery from waste, including Advanced Thermal Treatment (ATT), Advanced Conversion Technology (ACT), waste-to-fuel, and other related advanced waste treatment activities.
- Only direct fossil CO_2 emissions from incineration are considered, not but not further life-cycle emissions from their outputs.

Chemical recycling

- Government not minded to capture facilities that break down waste into polymers and monomers for re-use in the circular economy i.e. chemical recycling. Awareness that some facilities may produce both fuels and polymers and monomers to be used as raw materials in the coming years, and we will consider this further before coming to a position.

Questions ask:

- *Whether proposals should apply to incineration of waste and other energy recovery and fuel production*
- *Any technologies missing from the list,*
- *how chemical recycling should be treated.*

UK ETS: Waste expansion

Scope and coverage

- **Inclusion threshold:** The existing Ultra-Small Emitters threshold (less than 2,500 tonnes of CO2e) will still apply, as will Hospital and Small Emitter threshold (less than 25,000 tonnes of CO2e) will also apply. However unlike in the existing scheme, the 35MW thermal input threshold used for combustion activities in existing sectors will not apply, on the basis that the thermal input of a facility will depend on the heterogeneous content of the waste it receives.
- Facilities that have fossil emissions lower than 25,000 tCO2e would be classed as a low emitter and would therefore be subject to less onerous emissions monitoring and reporting in line with HSE status.
- **Exemptions:** No exemptions for any waste, including hazardous or clinical, from the UK ETS. This maintains a level playing field between different waste types which will minimise the risk of any perverse incentives (e.g. misdescription) arising to try and avoid obligations under the UK ETS.

Questions ask:

- *Whether hazardous or clinical waste should be included*
- *Risk of mislabelling for ETS avoidance*
- *Whether HSE emission targets would incentivise clinical waste to decarbonise*

UK ETS: Waste expansion

Participation in the scheme

Requirements on participants during the MRV-only period

Option 1: Mandatory MRV-only period Waste incineration facilities become full participants of the ETS. If the period is mandatory, we propose that waste incineration facilities are required to apply for a Greenhouse Gas Emissions Permit and submit a monitoring plan to their regulator ahead of 2026, although obligation to purchase and surrender allowances will not begin until 2028.

Option 2: Voluntary MRV-only period Waste incineration facilities will not become full participants of the UK ETS until 2028. Operators would not need to apply for a Greenhouse Gas Emissions Permit nor submit a monitoring plan for 2026 but could choose to share data with the Authority/customers. How they choose to monitor their emissions could differ from eventual requirements post-2028.

Questions ask:

- *If mandatory: should waste incineration have the same MRV requirements during period as from 2028?*
- *If voluntary: would operators monitor emissions, and would they share results?*
- *Whether knowing expected costs before implementation would incentivise early reduction to reduce exposure*

UK ETS: Waste expansion

Impacts of the scheme/ reducing adverse risks

Refuse Derived Fuel and Solid Recovered Fuel export

UK ETS Authority would like to explore the possibility of allowing RDF/SRF export to continue to be an option without disincentivising decarbonisation of the waste sector. An export ban would rule out this option, and a tax could go against trade openness rules. Permits or charges are being considered alongside other domestic policies protecting against this risk, such as Defra's planned consultation on a non-OECD plastic waste exports ban. The EU's proposed extension of waste incineration under the EU ETS would influence the flow of RDF/SRF exports.

Potential ETS expansion to landfill

- Option of expanding the UK ETS to landfill emissions to reduce diversion.
- Evidence welcomed in this consultation on whether expanding the UK ETS to landfill would be feasible and would provide an effective decarbonisation incentive.

Questions ask:

- *Gate fee expectations across materials/ regions*
- *whether an increase in gate fees would cause diversion to landfill/export*
- *potential ETS expansion to landfill*
- *best approach to deal with RDF/SRF export risk from options mentioned.*

GGRs in the UK ETS

Consultation closes 15/08/2024

Integrating Greenhouse Gas Removals into the UK ETS

The consultation recognises both nature-based solutions (like afforestation, soil carbon sequestration, and habitat restoration) and engineering-based approaches (like Bioenergy Carbon Capture and Storage (BECCS), Direct Air Carbon Capture and Storage (DACCS), biochar, and enhanced weathering) as necessary for NZ in the UK.

There are 34 questions in total across five key areas:

- Principles for Policy Design
- The cap: considers what happens to the cap when GGRs are integrated into the UK ETS.
- Allowance design: considers how allowances should be awarded to GGR operators, the extent to which they differ from existing emissions allowances and how allowances should enter the UK ETS market.
- Permanence: considers how carbon storage could be valued under the UK ETS, including duration of storage provided and associated risks of that carbon being re-released to the atmosphere.
- Pathways to integration: considers the degree to which GGRs should be integrated into the UK ETS, and when integration should take place.
- We will as be doing a members call on this once we have an initial response, but any thoughts?

Open consultations

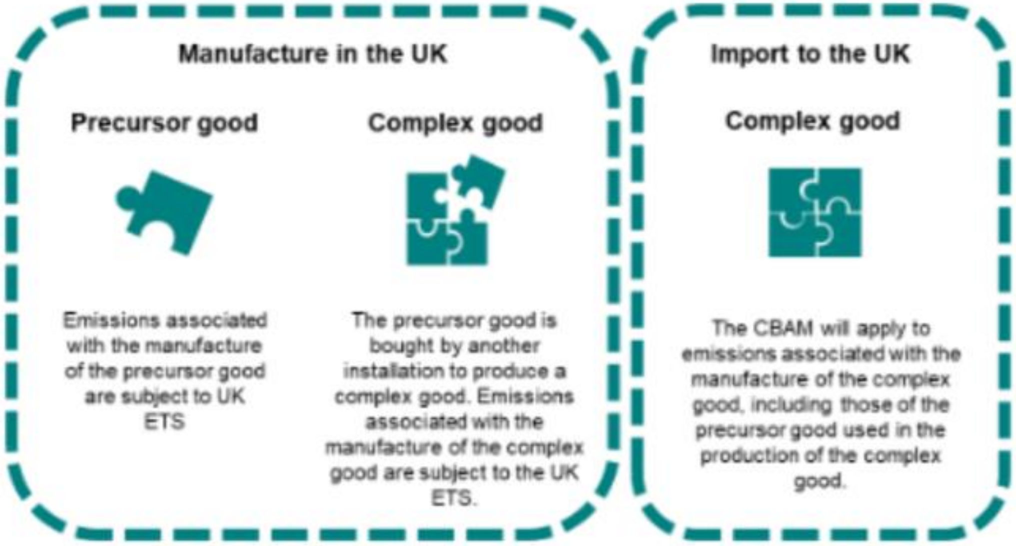
Consultation closes 13/06/24

CBAM – closes 13/06/24

- Introduced from January 2027, following the EU's CBAM in 2026. The UK CBAM will place a carbon price on some of the most emissions-intensive industrial goods imported to the UK to mitigate carbon leakage risk.
- 7 sectors will be covered from January 2027: aluminium, cement, ceramics, fertiliser, glass, hydrogen, iron and steel, with more goods precursor goods to be specified at a later date.

Non-pipeline & cross-border CO2 transport – 16/07/24

• Consultation considers how NPT might be developed in the UK, considering cost, value chain data and how it fits in with wider CCUS policy considerations.



Scottish bioenergy policy statement – 12/06/24

- Maps out bioenergy priority use frameworks for Scotland; similar to UK Biomass Strategy but more high level.
- Supportive of CCUS, increased AD, biochar, hydrogen and RTS/SAF.
- Draft response just circulated and happy to have feedback from EfW members as have mainly heard from biomass.

Waste ICC: April 2024 update

Waste Industrial Carbon Capture (ICC) business model update (April 2024)

- ICC models for Track-1x and T2 support move towards a market-based model, which would see the reference price evolve from a fixed trajectory to a price more closely aligned to carbon market prices.
- Asymmetric payment structure to limit emitters' liabilities, drive improved strike prices, and make the model more consistent with CCUS support to industrial projects internationally.

Adapting ICC business model support

- Support will be adaptable to SAF mandate interactions and other revenues, subsidies or support schemes.
- Possible adaptation options include a negotiations process for support, or mechanistic adjustment to business model payments. Factors considered include where multiple fuels are being produced in combination; variability of these fuel proportions; extent to which ICC contractual protections (including for T&S outages and unavailability) may be required.

Summary of key commercial model changes

	Track 1	Track-1 Expansion and Track-2
Reference Price	Fixed trajectory reference price	(Applicable) carbon market reference price
Payment Symmetry	Asymmetric payments	Updated asymmetric payments
FA Treatment	• Price assurance via FA forfeiture and compensation • Volume assurance	• No FA forfeiture and compensation • No volume assurance
Biogenic Emissions	No biogenic emissions monitoring	• Biogenic/fossil split emissions monitoring • Introduce sustainability criteria

These changes seek to move the ICC business model towards a more market-based model as market confidence grows whilst still retaining some protections to ensure we are balancing the right incentives to attract necessary investment

90% biogenic CO_2

Waste ICC BM

Project planning to use a feedstock composition which will generate under 90% biogenic CO_2

GGR BM

Projects planning to use a feedstock composition which will consistently produce ≥ 90% biogenic CO_2

SAF mandate

Sustainable Aviation Fuel mandate

- DfT published the final policy decisions 25 April. Key points confirmed include target levels 2025-2040 and details of sustainability criteria.
- Due to come into force from 1 January 2025. SAF will cease to be eligible for the main RTFO from that point.
- Legislation to put it in place requires active Parliamentary approval (affirmative resolution procedure). The draft legislation was not laid before Parliament before the election was called, but could be brought in on time if promptly addressed post-GE.

Multiple incentives

- Fuels not eligible for RTFO if they have benefitted from a support scheme in the UK or EEA. The government response confirms its proposal to extend those provisions to cover fuel produced anywhere in the world.
- In doing so, tax-related support will be removed from the RTFO definition of a support scheme (with the same provision in the SAF mandate), leaving the UK Trade Remedies Authority to investigate anything relating to tax and remain WTO-compliant.
- Very significant concerns remain as (for example) US IRA support therefore not covered and there are current major concerns around imports of HVO to UK from USA
- We have a member meeting on **Wed 4 June (1000-1200) covering the above**. RSVP.

Revenue certainty mechanism consultation

- New consultation launched, runs until 20 June
- Further support will be needed if want to encourage UK production of SAF. Lead option is a(nother) variation of contracts for difference

Landfill gas

- Period of support for ROCs for landfill gas electricity generation is coming to an end soon. Around 85% ends April 2027, with the remainder tailing off by April 2031

- For all but a handful of sites it's not viable to continue generation if dependent on power sales alone, with site managers and electricity generators (often separate companies) having to make choices now/in the near future.

- Methane getting increasing focus give its potency as a greenhouse gas. Risk of going backwards on methane capture rates. Once engines decommissioned and engineering teams disbanded it will be very hard to put back together again.

- We have engaged with DESNZ and Defra to make the case for interim support to enable a long-term policy to be developed and put in place.

THE ASSOCIATION FOR RENEWABLE ENERGY & CLEAN TECHNOLOGY

Hydrogen updates

Sara Bartle

GREEN GAS

Hydrogen update

Hydrogen Announcements and publications December 2023

Successful projects in the first hydrogen allocation round (HAR1)
11 new electrolytic projects, receiving a total of ~£2bn in funding and up to 125MW , through 15-year contracts, need to be operational from 2025.
Launch of the second hydrogen allocation round (HAR2)
Award of contracts of up to 875MW. Expressions of interest (EOI) window closed 5th Feb 2024 and for applications on 19th April 2024 Eligibility criteria for HAR2 will include hydrogen production methods, ie ***"gasification/pyrolysis of biomass/wastes (without CCS)".***
Projects will need to demonstrate the project can be operational, 31 March 2026 – 31 March 2029.

Strategic policy decision on hydrogen blending into the GB gas distribution networks

UK Low Carbon Hydrogen Standard, Version 3

includes updates to the treatment of electricity from waste; eligible PPA definition, REGO requirements, and calculations for transmission and distribution losses.

- **Consultation on Hydrogen to Power (H2P) Market Intervention** Consultation closed on 22 February 2024.
- **Hydrogen transport and storage (T&S) networks pathway**
- **Consultation on Hydrogen transport business model market engagement document** Closed on 1 February 2024.
- **Consultation on Hydrogen storage business model (HSBM) market engagement document** Closed 1 February 2024

Hydrogen update

Hydrogen Investment Forum

Held 27th February 2024 at the Institute of Innovation and Technology

Net Zero Hydrogen Fund strands 1 and 2: successful applicants (Round 2)

7 successful applicants from the NZHF strands 1 and 2: round 2 (April 2023) competition.

Allocation of over £21 million to support the development and deployment of low carbon hydrogen production, subject to contracts being signed.

The winners are from both strand 1 and strand 2 competitions.

Green Industries Growth Accelerator: hydrogen and CCUS supply chains

The Green Industries Growth Accelerator (GIGA) is a £960 million fund announced in Autumn 2023 to support the expansion of clean energy supply chains across the UK, including: carbon capture, usage and storage (CCUS), engineered greenhouse gas removals (GGRs) and hydrogen. Call for evidence closed 23rd April.

European Hydrogen Bank Auction

Auction for green electrolytic hydrogen production subsidies.

€720 million awarded to 7 projects totaling 1.5GW of electrolyser production.

~ €0.48/kg (against imposed limit of €4.5/kg)

HAR1 projects strike price was ~£241/MWh or £9/kg

REMA Consultation Response

REA have submitted a response to the second REMA consultation.

Key messages within the response:

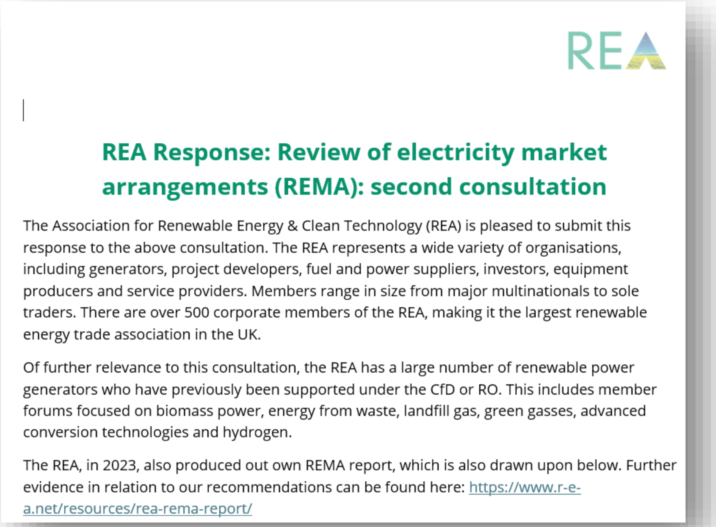
Corporate PPA
- We support the evolution of the corporate PPA market but highlight that this needs stable energy policy and market structures for corporations to be able to commit to long-term contracts.

Evolving the CfD
- Support for the development of a deemed CfD, which would pay generators based on what they could generate rather than meter readings, this would leave generators free to respond to wider market signals while still having a bankable revenue stream
- We make clear that deemed CfDs should be offered alongside traditional CfDs, recognising that the current scheme is working well and is still needed to ensure the continued deployment of renewable generation.

Evolving the Capacity Market
- Support the use of minima within the capacity market, which would ensure desirable characteristics are brought forward in awarding contracts. However, we warn that this must be aligned with net zero targets and should not be used to support new unabated gas generation.

Locational Pricing
- We emphasise that physical barriers, like grid constraints and planning, must be addressed if locational market signals are to be effective.

Legacy Arrangements
- We emphasise that the Government must speed up their analysis of impacts on legacy arrangements and existing assets. We stress that both operational assets and pipeline projects that have reached financial close need to be assured that any changes to market arrangements will not undermine their existing business model.


REA

REA Response: Review of electricity market arrangements (REMA): second consultation

The Association for Renewable Energy & Clean Technology (REA) is pleased to submit this response to the above consultation. The REA represents a wide variety of organisations, including generators, project developers, fuel and power suppliers, investors, equipment producers and service providers. Members range in size from major multinationals to sole traders. There are over 500 corporate members of the REA, making it the largest renewable energy trade association in the UK.

Of further relevance to this consultation, the REA has a large number of renewable power generators who have previously been supported under the CfD or RO. This includes member forums focused on biomass power, energy from waste, landfill gas, green gasses, advanced conversion technologies and hydrogen.

The REA, in 2023, also produced out own REMA report, which is also drawn upon below. Further evidence in relation to our recommendations can be found here: https://www.r-e-a.net/resources/rea-rema-report/

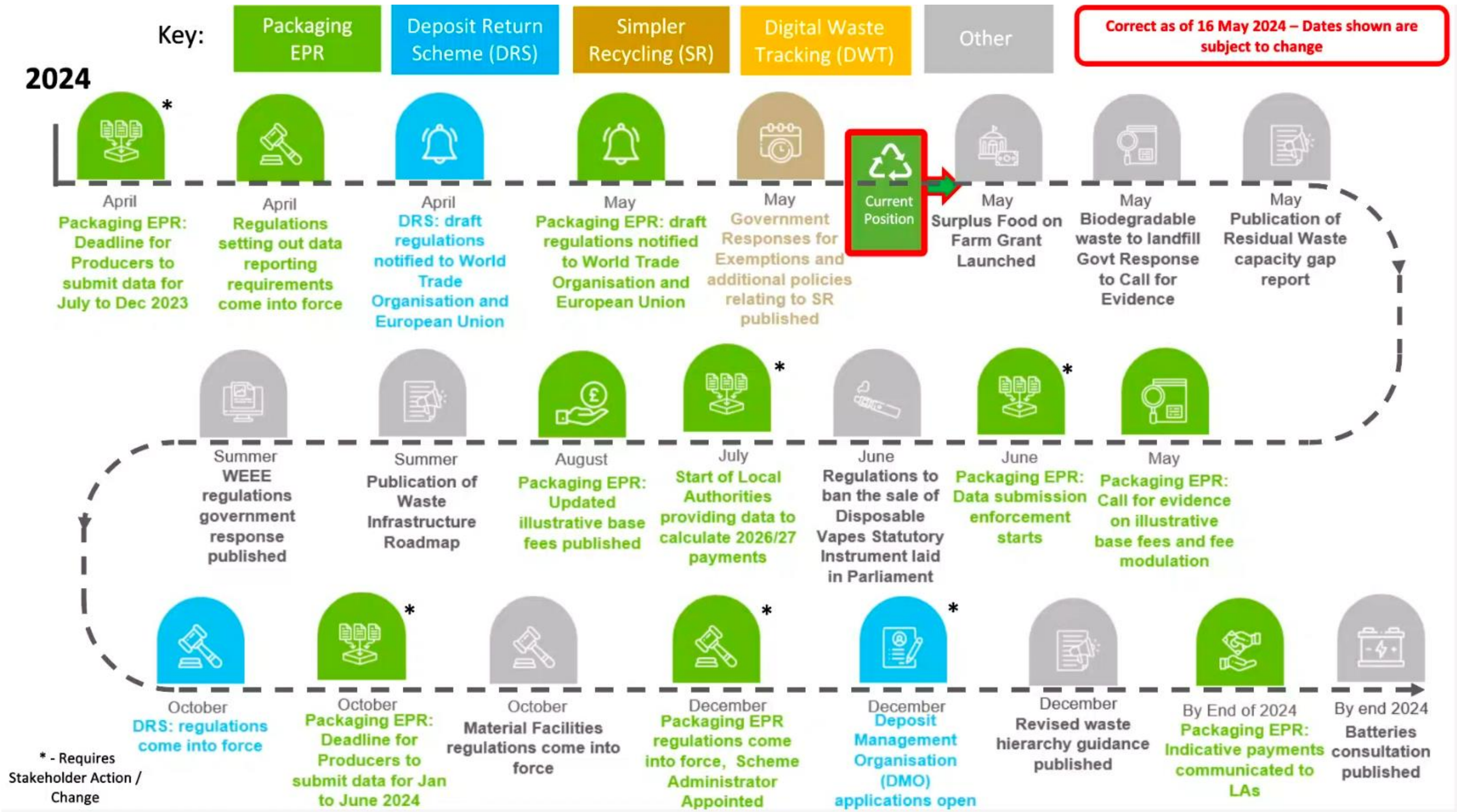
Full Briefing and Response here: https://www.r-e-a.net/resources/rea-response-rema-2/

Simpler Recycling update

Overview of Simpler Recycling

- The Government has published the commencement regulations that bring into force the implementation dates for Simpler Recycling in England.
- The regulations confirm that separate food waste, garden waste and other recycling collections must be in place by 31st March 2026 for households, and 31st March 2025 for relevant waste from non-domestic, industrial or commercial premises.
- Government have confirmed that the exemptions to allow co-collection of materials will proceed as proposed. This means food and garden waste may be collected together. 'Dry' recyclables can also be collected together.
- **Transitional arrangements:** These regulations also confirm which local authorities have been given transitional arrangements for introducing food waste collections - 31 local authorities, with dates ranging from 2026 to 2043.

Resources and Waste Reforms



Source: Defra

Resources and Waste Reforms

Source: Defra

Date of Next Meeting, AOB

Date of next meeting?