THE ASSOCIATION FOR RENEWABLE ENERGY & CLEAN TECHNOLOGY

UK ETS Consultation Member Discussion 1:

ETS Proposals on Energy from Waste

10th May 2022

Agenda

- Context for the Consultation
- Overview of how the UK ETS Works
- Overview of High-level UK ETS Proposals
- Deep dive into Proposals for inclusion of EfW into UK ETS
- Focus on Proposals for Reviewing 20 MWth Threshold
- Next Steps

Webinar will be recorded for note taking purposes.

"Developing the UK Emissions Trading Scheme (UK ETS)"

UK Emission Trading Scheme (UK ETS) Authority are seeking input on a large number of proposals to further develop the UK ETS

Follows commitments in the Net Zero Strategy to consider expansion of the Emission Trading Scheme and alignment with Net Zero ambitions.

Since 1st January 2021 the UK ETS was established to replace UK Participation in EU ETS.

"Our goal is to make the UK ETS the world's first net zero consistent cap and trade market, and ensure it plays a crucial role towards achieving the UK's ambitious climate targets, including net zero greenhouse gas emissions by 2050."

UK Withdrawal Agreement Also committed both parties to exploring the options of linking the UK and EU ETS.

HM Government

Net Zero Scotland
Scottish Government

Department of Agriculture, Environment and Rural Affairs
www.daera-ni.gov.uk

Llywodraeth Cymru
Welsh Government

How does the UK ETS work?

The UK ETS is a ‘Cap and Trade’ Scheme on obligated parties.

Government sets a cap that limits the total amount of certain Green House Gasses that can be emitted by sectors covered by the scheme. This cap decreases over time to reduce emissions.

Within the cap, obligated parties receive free allowances and can also buy allowances at an auction or trade within the secondary market, to ensure they meet their obligation. A carbon allowance therefore has a market value.

Each year, installation operators and aircraft operators covered by the scheme must surrender allowances to cover their reportable emissions.

The ETS is separate to the Voluntary Carbon Market (a credit-based system) .

Who does the UK ETS Currently Apply too?

- Energy Intensive Industries
- Power Generation Sector
- Aviation Industry (UK Domestic and to EEA flights)

The scheme currently covers activities involving the combustion of fuels in installations with a total rated thermal input of more than 20 MW

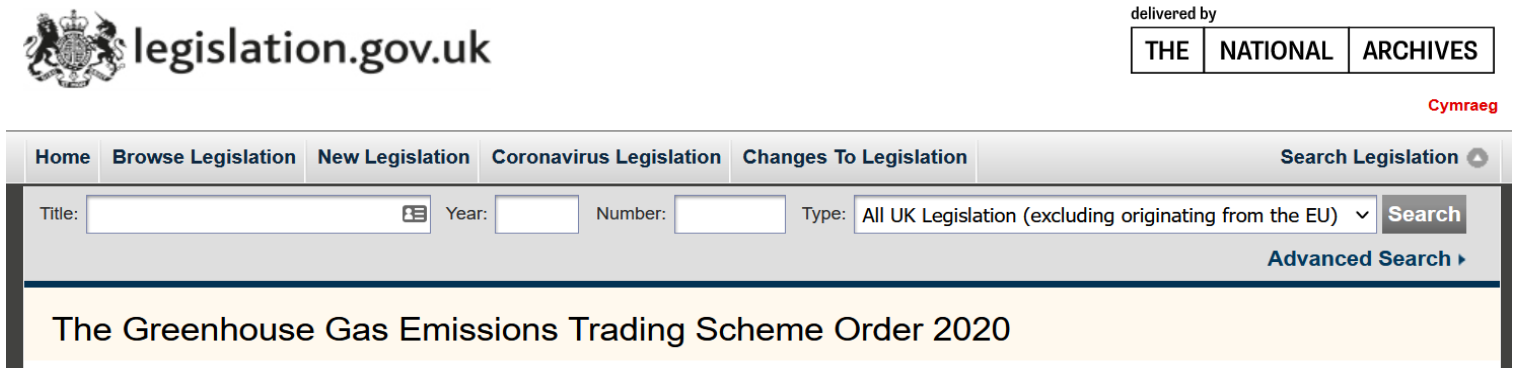
Exemptions currently apply for Biomass and Energy from Waste.

Northern Ireland electricity generators remain in the EU ETS under the Ireland / Northern Ireland Protocol

Why is Energy from Waste and Biomass Energy Production Currently Exempt?

Energy From Waste is exempt on grounds of it being a sanitation service, treating waste and diverting it from land fill.

Biomass is exempt on the grounds that it is defined as renewable – releasing biogenic carbon part of the carbon cycle, in accordance with the IPCC Green House Gas Inventory.



Meaning of installation

2.—(1) Subject to sub-paragraph (2), in this Order, "installation" means a stationary technical unit or units where one or more regulated activities are carried out.

(2) "Installation" does not include any of the following (which are outside the scope of the UK ETS)—

(a) an installation that uses only biomass as a fuel;

(b) an installation, or part of an installation, the primary purpose of which is research and development (including the testing of new products and processes);

(c) an installation, the primary purpose of which is the incineration of hazardous or municipal waste;

(d) a relevant Northern Ireland electricity generator.

(3) In sub-paragraph (2), a reference to an installation is a reference to what would be an installation, but for that sub-paragraph.

(4) References in this Order to an installation include references to part of an installation.

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Overview of High-level UK ETS Proposals

Overview of High-level Proposals in Consultation

High-level Proposal	REA initial Position
UK ETS Cap And Trajectory **S**ets out proposals for changes to align the UK ETS cap and trajectory with net zero target. It would allow a total cap for the entire first Phase (2021-2030) of between 887 – 936 million allowances. Compared to the current legislated cap for the whole phase, this would equate to a reduction of between around 30-35% over the course of the phase.	REA to support tightening of cap to ensure scheme is aligned to net zero. Although will need to be carefully considered dependent on the put come of other proposals
Free Allowances under the Industry Cap The authority has proposed to reset the industry cap (ie the share of free allocation under the UK ETS cap for industrial and energy production) to align it with a net zero consistent cap. This proposal would reset the industry cap to make up a percentage of the cap (37%) rather than being set as fixed numbers, as in current legislation.	

Overview of High-level Proposals in Consultation

High-level Proposal	REA initial Position
Future Market Policy Asks if the following mechanisms remain fit for purpose: • Auction Reserve Price • Cost Containment Mechanism • Auction process • The market stability mechanism • Banking and borrowing of allowances	REA welcomes specific comments relating to specific market adaptions.
Aviation The Authority is considering withdrawing free allocation for the aviation sector, including the following three policy options. • Early phase-out: full auctioning will apply from 2026. • Intermediate phase-out: full auctioning will apply no later than 2028. • Later phase-out: full auctioning will apply from the start of 2031. The Authority has proposed including flights to Switzerland as part of the UK Aviation ETS.	REA likely to support intermediate phase out to allow time for establishment of Sustainable Aviation Fuel market.

Overview of High-level Proposals in Consultation

High-level Proposal	REA initial Position
Expanded UK ETS Coverage within Covered Sectors • The Authority proposes extending the Monitoring, Reporting and Verification (MRV) regime to cover carbon dioxide from venting. • The Authority proposes revision to 20MWth combustion threshold, or an alternative threshold that is specific to vented CO2. • The authority proposes methane could be converted to its carbon dioxide equivalent by multiplying the mass of methane emissions by the appropriate GWP. • The authority proposes the UK ETS be expanded to allow for the transportation of CO2 through non-pipeline transport.	REA will be working with effected members to understand impact of the proposals on venting and methane. Specific discussion later on MWTh threshold We will support non-pipeline transport of CO2
Biomass Sustainability Governance To apply sustainability criteria to solid, liquid and gaseous biomass for all installations as part of the ETS (currently these criteria are only applied to bioliquids under the UK ETS). Exemption will be dependent on criteria. **Green House Gas Removals** The Authority is launching a call for evidence to help gather views and evidence on how the UK ETS could in time become a market for GGRs.	REA holding a second Members discussion on the proposals on Friday 13th May, 10.30 – 12.00

Questions and Discussion

Any intial comments relating to High level proposals?

Very happy to receive specific point by email to policy@r-e-a.net or set up a bilateral phone call.

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Deep dive into proposals for inclusion of EfW into UK ETS

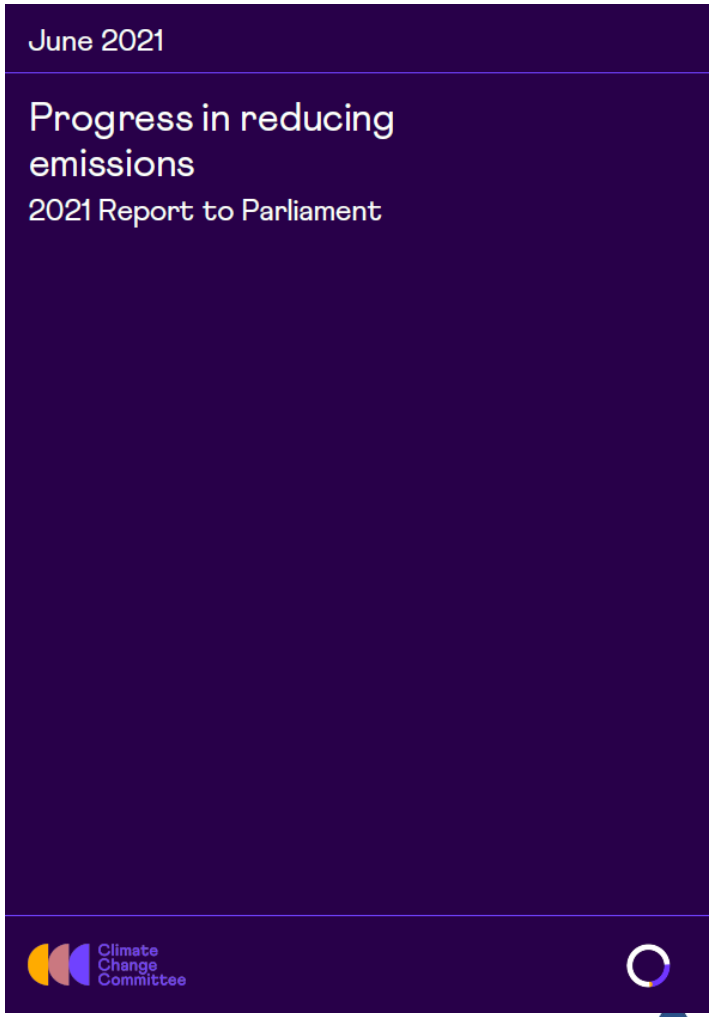
Call for Evidnce on Expanding UK ETS to Include Waste Incineration an EfW

Address with urgency the rising emissions from, and use of, **Energy from Waste (EfW)**, including by ensuring that the capacity and utilisation of EfW plants is consistent with necessary improvements in recycling and resource efficiency, providing support to enable existing EfW plants to begin to be retrofitted with CCUS from the late 2020s, and introducing policy to ensure that any new EfW plants are built either with CCUS or are 'CCUS ready'.

CCC Recommended consulting on introduction of a carbon tax to curb rising emissions.

Current proposals considering application to:

- Incineration without energy recovery,
- Energy from Waste
- Advanced Conversion Technologies (ACT)



Presented Reasoning and Timing

- Raise efficiency of plants, incentivising more to also supply heat.
- Encourage treatments which lowers overall emissions (E.g. Chemical recycling)
- Provide investment incentive to reduce emissions from EfW.
- Potentially provides investment incentive to support installation of carbon capture and storage. *Although proposal, at this stage, does not consider how negative emissions maybe rewarded as part of this.*

Timing:

- *To align with wider waste reform, propose to see introduction of UK ETS by mid-late 2020s.*
- *Further guidance on how this would work expected as part of government response.*

Concerns raise by Members relating to inclusion of EfW in UK ETS

- Places additional costs on sanitation services, effecting Local Authorities and ultimately consumers
- Targets costs within only one section of the waste system, carbon price should be applied across whole waste stream if encouraging efficiencies.
- Given negative emissions are not yet considered, unclear route to market for CCS investment.
- Could disincentives development of innovative uses of waste in hard-to-treat sectors key to net zero (e.g Sustainable Aviation Fuel, Hydrogen, Green Chemicals)

Point of Obligation

Government starting proposition is that the UK ETS should cover the incineration of fossil material by all waste incinerators. Obligation for monitoring, reporting and Verification would be placed on all EfW (inc. ACT).

Areas for further consideration in application:

- Appropriateness of this being applied to hazardous waste streams where only option for treatment is incineration.
- Existing 20 MWth Threshold
- Application of exiting simplified Scheme for small business:

Hospital and Small Emitter Scheme – installations that emit less then 25,000 tonnes CO2 /year requires emission targets to be put in place but not be part of the ETS.

Ultra Small Emitter – installations that emit less then 2,500 tonnes of CO2 (or GHG equivalent) each year just requires emission monitoring.

Questions and Discussion

126) Do you agree that the UK ETS should be expanded to include waste incineration and EfW? (Y/N) Please outline your reasoning, including alternative options for decarbonisation of the sector outside of the UK ETS.

124) Do you agree with the proposed timing for when waste incineration and EfW could be introduced into the UK ETS? (Y/N)

127) Do you agree that all types of waste incinerators should be included in the UK ETS? (Y/N) If you believe certain incineration activities should be exempt, e.g. incineration of hazardous or certain healthcare waste, please provide details and specify which waste stream.

128) Do you believe ATT should be included in the UK ETS? (Y/N) What challenges could arise as a result of including ATT, if any, that are different to conventional waste incineration plants?

Monitoring, reporting and verification (MRV) of emissions

Consultation recognises that EfW plants already required to monitor emissions and report to Environmental Regulatory Authorities or Local Authorities.

Proposals that the ETS obligation would apply to the processing of **fossil waste only**, in line with IPCC standards on estimating the climate impact of waste incineration.

Two Proposals on MRV

Option A: Individual Plant Monitoring

This approach would require individual operators to determine the ratio of fossil and biogenic CO2 that is being emitted from their plants. Different methods exist to determine this:

- Radiocarbon 14C Isotope method
- Balance Method - combines data on the chemical composition of biogenic and fossil organic matter

Option B: Emission Factor Approach

This approach would involve using an estimate for the composition of waste (an 'emissions factor'). This could be national or regional, e.g. using composition data prepared by WRAP.

Factor would then be multiplied by the tonnes of waste processed by a plant to estimate their emissions from burning fossil waste.

Questions and Discussion

129) Do you agree that the point of MRV obligation for the UK ETS should be placed on the operators of waste incinerators and EfW plants? (Y/N)

130) If the point of MRV obligation is placed on operators of waste plants, should waste companies/operators or customers (either LAs or commercial and industrial customers) be responsible for meeting compliance obligations? (Y/N)

131) Do you believe that the Small and Ultra Small Emitter schemes that are currently available to eligible UK ETS participants should also be available to waste incinerators and EfW plants? (Y/N)

132) Which MRV proposal do you believe should be implemented to determine the UK ETS obligation for waste incinerators and EfW plants?
i) If Option A, please provide your views on which methods could be used, along with any information on the practicality of their implementation and likely costs.
ii) If Option B, please provide your views on how these emissions factors should be calculated, along with any information on the practicality of implementation and likely costs.
In your answer, please outline how frequently fossil emissions should be monitored under both options and consider whether there are other suitable MRV options that we have not identified.

133) Do you believe that one of the MRV options proposed is more likely to lead to perverse incentives (e.g. more waste diverted to landfill) or to unintended consequences as a result of applying the UK ETS to waste incineration and EfW? Please consider different scenarios and provide evidence to support your views where possible.

134) Do you believe any additional greenhouse gases, other than CO2, that are emitted by EfW plants or incinerators, should be covered by the UK ETS? (Y/N) If so, please provide details on which gases and how it could work in practice.

Distributional, Policy and Market Impacts

Consultation also asks for views on how this might impact wider market factors, including interaction with planned policies:

- **Carbon Capture and Storage –** *Business models still being developed and could come in as EfW join ETS.*
- **Recycling targets and Packaging Reforms –** *large number of new targets in place across all administrations, plus new waste reduction schemes (EPR and Single Use Plastics)*
- **Landfill Tax –** *consideration of how landfill tax arrangements across administrations will need to adapt*
- **Environmental Permitting –** *how permitting might need to adapt if UK ETS in place*
- **Disruption to the Waste Hierarchy** - *If landfill or Export becomes cheaper then using EfW*
- **Additional costs to Local Authorities or businesses –** *costs could be passed through to consumers due to long term contracts being in place*
- **Availability of waste management infrastructure –** *will LA's have capacity to deal with waste, either recycling or other treatments if price increases.*

Questions and Discussion

135) How would the application of an ETS to waste incineration and EfW impact stakeholders (including operators of waste incinerators, operators of EfW plants, LAs, consumers, customers)?

136) Could the introduction of a carbon price incentivise waste operators and/or LAs to improve their operations or processes to reduce fossil waste being incinerated? (Y/N) Please outline your reasoning in as much detail as possible and provide evidence to support your views.

137) Could the introduction of a carbon price incentivise LAs to support households to improve recycling practices? (Y/N) Please outline your reasoning in as much detail as possible and provide evidence to support your views.

138) Is there opportunity (in the medium-long term) for the carbon price to incentivise waste operators and/or LAs to invest in carbon capture and storage infrastructure, to reduce fossil carbon emissions? (Y/N) Please outline your reasoning in as much detail as possible and provide evidence to support your views.

139) In the event of the carbon price being applied to waste operators, will waste operators be able to pass through their costs to customers (including LAs)? (Y/N) Please explain in as much detail as possible why, how, and to what extent this may or may not occur.

141) Do you believe that government should consider phasing in ETS obligations to the sector over time? (Y/N) If yes, please outline why, how, and to what extent phasing options could be provided.

142) Would operators of incineration/EfW plants be exposed to competitiveness impacts abroad and carbon leakage risk, in the event of being exposed to the carbon price? (Y/N) Please explain in as much detail as possible and provide evidence to support your views.

143) Have you identified any other distributional impacts (including wider environmental or social impacts) arising from this proposal? (Y/N) Do you have views on how government could address these concerns?

Questions and Discussion

144) What additional policies would be needed to support the UK ETS in decarbonising waste incineration and EfW? How would this change over time?

145) How would the expansion of the UK ETS to waste incineration and EfW interact with existing and planned policies in waste incineration, EfW, and waste management more broadly, as well as any other relevant non-decarbonisation policies?

146) Are there other parts of the waste management system that should be included in the scope of the UK ETS? For example, landfill or wastewater. (Y/N) Please explain in as much detail as possible and provide evidence to support your views.

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Focus on Proposals for Reviewing 20 MWth Threshold

20MWth threshold and 3MW aggregation threshold call for evidence

The threshold for combustion has been set such that only installations where the combustion of fuels in units with a total rated thermal input exceeding 20 megawatts are operated are required to participate in the UK ETS

Additionally, installations which operate above the 20MWth threshold but below 3MWth may qualify for Hospital and Small Emitters (HSE) status while installations operating above 20MWth but have low emissions qualify as Ultra-Small Emitters (USE).

Consultation considered if these thresholds are set at the right level?

- Consultation raises concern that the threshold is failing to meet ETS objectives by encouraging smaller installations below the threshold.

- Currently evidence as to how many combustion units exist under the 20MWth threshold is lacking but preliminary analysis has suggested that they might account for almost a third of industrial emissions.

- Government state they Would consider a change in the threshold if it can create a more level playing field by requiring more installations to consider the carbon price. This should not be at the expense of creating adverse distortions in the markets in which these installations operate.

Questions and Discussion

102) Do you have data on the number, scale and/or emissions level of installations that are currently not monitored under the UK ETS because of the two thresholds? (Y/N) If so, please provide this where possible.

104) Do you have data regarding the compliance costs of installations and likely compliance costs of those outside of the UK ETS (i.e., exempt, USE, HSE)? (Y/N) If so, please provide this where possible.

105) Do you have evidence of distortion in relevant markets caused by the 20MWth threshold (e.g., in the form of smaller installations coming on to the market at an increasing rate)? (Y/N) If so, please provide this where possible.

107) Do you believe there is other evidence that should be taken into account when considering lowering the 20MWth threshold? (Y/N) If so, please provide this.

108) Do you believe that there is a case for lowering the 20MWth threshold to bring more operators of combustion units under the scope of the UK ETS? (Y/N) If so, please state why?

109) Do you have evidence of distortion in relevant markets caused by the 3MWth threshold for calculating total thermal input? (Y/N) If so, please provide this where possible.

111) Do you believe the UK ETS is an appropriate policy to ensure the decarbonisation of small power generators in alignment with Net Zero? (Y/N)

Next Steps

Second Webinar on UK ETS: Friday 13th May, 10.30 – 12.00

Focuses on proposals for Green Gas Removal and Biomass Sustainability. Sign up on the REA events webpage.

Draft Response will be circulated to members by the end of the month.

Any further points should be send to policy@r-e-a.net, or we are happy to arrange a bi lateral phone call.

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