



Developing the UK Emissions Trading Scheme

Response from the Renewable Transport Fuel Association

The [Renewable Transport Fuel Association](#) is a new trade association, established in September 2020 with 12 founder members. It now has 36 corporate members, including all UK bioethanol and biodiesel producers, all companies dispensing biomethane for transport and all prospective manufacturers of sustainable aviation fuel.

The RTFA represents producers of renewable transport fuels. Many of our members are large employers with multimillion pound installations which are considering further major investments. We support the high-level points made by the Emissions Trading Group on policy design aspects such as the net zero consistent cap, free allocations, the need to maintain alignment with the EU ETS and the need for clarity to enable businesses to plan. These are extremely important points, but are generic to industry as a whole.

Our response is narrowly focused on specific points unique to the production of renewable and low carbon fuels.

Aviation

There are no dedicated facilities to produce sustainable aviation fuel in the UK, although the Government has ambitions for the equivalent of 10% of fuel uplifted in the UK to be SAF by 2030. The ETS will set an overarching carbon signal, but policies such as the SAF mandate and – if the UK wants a domestic SAF production industry – a CfD programme, will be essential.

ETS revenues from aviation have been suggested as a potential source of funding for a CfD programme.

Q59. Should emissions reductions delivered through SAF supplied to comply with the proposed SAF mandate contribute towards reductions in UK ETS obligations for aircraft operators?

Yes. Although currently the ETS prices are too low for this to make a material difference, it is appropriate to include these emissions as it provides the right signal to the market.

61) Do you agree that we should continue to ensure that UK ETS rules keep pace with the latest SAF sustainability criteria? This would include reflecting the latest amendments to the RTFO sustainability criteria. (Y/N) Please explain your answer.

Yes, consistency with respect to sustainability across different incentive mechanisms is extremely important. Two changes are due to be made to the RTFO; the inclusion of Recycled Carbon Fuels (RCFs) and once the SAF Mandate is introduced, the removal of aviation fuel from the category of development fuel. The inclusion of RCFs is extremely important due to the GHG savings they can deliver and the avoidance of creating perverse incentives in the management of heterogeneous wastes.

96) Do you agree with the proposal that we implement sustainability criteria for solid, liquid and gaseous biomass for installations?

Yes – it is very important there is confidence that biomass is sourced responsibly.

97) Which sustainability criteria should the UK ETS apply to solid, liquid and gaseous biomass (RO, CfD etc.), and would there be any value in developing UK ETS specific criteria? Please explain your reasoning.

Sustainability criteria should be common across policies. Those of the RTFO are most robust, and it is recommended that these be used.

98) What are your views on the proposal that for installations and combustion units which only burn biomass to be exempt from the UK ETS, operators must only use sustainable biomass?

We agree.

Expanding the UK Emissions Trading Scheme to new sectors

RTFA supports the extension of the UK ETS to domestic maritime, where there should be an incentive to use renewable and low carbon fuels. The only current incentive is provided by the RTFO, which was changed this year to include renewable fuels of non-biological origin, (a development the RTFA was not supportive of ¹). We agree with the proposal to calculate emissions based on volume of fuel multiplied by carbon intensity (Q112) and recommend that the GHG methodology used for the RTFO, which caters for blends of renewable and non-renewable fuel, and will also be expanded to cater for recycled carbon fuels.

Energy from Waste

Q124) Do you agree with the proposed timing for when waste incineration and EfW could be introduced into the UK ETS?

Yes. The inclusion should be made as soon as possible. In general terms the UK has been far too slow at developing its waste management infrastructure. When many of today's EfW plants were first mooted, the carbon intensity of the grid was far higher, and they would have been helpful in bringing it down. However, it is no longer desirable for the significant pipeline of EfW projects to be built. It will result in the MSW resource being used to generate high carbon intensity electricity, and hindering the decarbonization of transport. We welcome the CCC recommendation that the Government should "address with urgency the rising emissions from, and use of, Energy from Waste".

We note that the Scottish Executive has just published the A review into energy from waste (EfW) in Scotland, which recommends that no further planning permission be granted to facilities in the country².

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.

Yes. Including EfW combustion technologies for the production of electricity will disincentivise the further development of this high carbon intensity form of power generation. Greater GHG

¹ See pages 17 & 18 of [our response to the Government Consultation](#) this change to the RTFO.

² <https://www.gov.scot/publications/stop-sort-burn-bury-independent-review-role-incineration-waste-hierarchy-scotland/documents/>

reductions can be achieved if waste is converted into fuel, e.g. via Advanced Thermal Technologies (such as gasification and Fischer Tropsch).

A combination of the following is needed

- disincentivising EfW for power generation (through the UK ETS)
- encouraging fuel production from waste (through the RTFO and Sustainable Aviation Fuel (SAF) Mandate coupled with a CfD programme)

Building capacity in fuel production can be seen as a stepping stone on the way to chemical recycling enabling the reuse of wastes (e.g. using unrecyclable plastic rather than crude oil as the basis for virgin plastic production, or using end-of-life tyres to make new tyres, rather than making them out of natural rubber and crude oil).

If the UK is to encourage domestic capacity for fuel production from waste, then investors will need bankable incentives. The development fuel sub target of the RTFO provides a potentially high level of reward, but it is not certain. Construction of new paraffinic diesel for road fuel in the UK is therefore extremely challenging. The production of Sustainable Aviation Fuel is more attractive as the demand is longer term, plus there will be market pull from the forthcoming SAF Mandate. However, this is not enough to create a domestic industry in the UK, as building new first of a kind projects will entail project finance, and this will not be possible without a Contract for Difference (i.e. a policy to eliminate the risks of revenue and regulatory uncertainty).

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?

As argued in Q126 and below, making fuel from waste (via ATT), as opposed to incinerating it should be encouraged. If it is brought into the ETS and required to pay for its carbon emissions, this means complementary policies will need to overcome this additional cost (although the benefits achievable in the longer run from GGRs rewards could compensate for much of this).

We are clear on the overall result that should be achieved; **there must be a move to better GHG outcomes from the use of waste, which means favouring ATTs and fuel production over conventional EfW**. Whether this is best achieved by bringing both EfW including ATTs into the UK ETS but compensating the ATTs through creating stronger incentives via complementary policies (RTFO, SAF mandate, CfD et) or by only bringing in conventional EfW, is a question that needs to be address across multiple government departments. At present incentives for the production of fuel from ATTs are insufficient, and paying for carbon emissions through the ETS will make it even more challenging. On this basis our answer to the question posed is No. Advanced Thermal Treatment (ATT) and Advanced Conversion Technologies (ATC) used for chemical recycling and fuel production **should not be** included in the ETS; whereas ATT and ATC for power generation / heat production **should** be included.

If used for power generation, the overall GHG performance of ATT is not much superior to conventional EfW. That is because the electricity it displaces has already been decarbonized to some extent by renewable and nuclear generation. However, if the end product is liquid fuel that displaces either road or aviation fuel, then far greater GHG savings can be achieved, as it displaces fossil fuel (see questions 124 & 126).

The Government is seeking to encourage the production of these fuels through the RTFO, and following on from that, the Sustainable Aviation Fuel Mandate (expected to be implemented in 2025). It would be counterproductive to require these projects to be encompassed within the ETS as they are primarily GHG saving measures. The GHG savings achieved range from 65% to, if coupled with CCS, well over 100%, which is possible via the gasification route followed by Fischer Tropsch synthesis. Also, the production of biohydrogen through ATT technologies is a low carbon hydrogen pathway (in line with the recently published low carbon hydrogen standard). Therefore ATTs will play an important role in delivering the Government 10GW hydrogen production target. These technologies enable the production of negative GHG emissions fuel, as very high concentration pre-combustion CO₂ can be removed during the process of "balancing" the syngas.

The end result is a liquid fuel with virtually no aromatic content, which if used in aviation delivers further climate benefits through reduce contrail formation. This characteristic is even more beneficial in reducing global warming than the reduction in CO₂ emissions.

We also think there is a case for making an exemption from the ETS for the pyrolysis of end of life tyres. Fuel production (e.g. SAF or paraffinic diesel) using wastes converted via ATTs is essentially chemical recycling of waste, and it should be viewed as higher up the waste hierarchy than energy recovery. The outputs may also be used for the production of chemical feedstocks for durable items (from plastics to new tyres) and this will be an increasingly important pathway in the future, net zero world. The production of fuels can be viewed as an important stepping stone on this path. See Q 126.

Greenhouse gas removals

Chapter 8 calls for evidence on the role of the UK ETS as potential longterm market for GGRs and how emissions from agriculture and land use can be suitably measured, reported and verified.

Negative GHG emissions must be catered for properly under the UK ETS. This is clearly a very complex policy area. Ultimately the aim must be to fully internalise the external costs of carbon and other greenhouse gas emissions and reward the external benefits of the associated benefits (e.g., biodiversity, reduced flooding etc). Therefore, it makes sense to consider how negative GHG emissions technologies can be catered for.

Another general point to make is that wherever possible, there should be consistency across policies when it comes to; definitions of sustainability, eligibility criteria for biomass feedstocks, quantification of carbon intensity / GHG emissions. There already some discrepancies across different policies, and wherever this occurs it is detrimental to companies as more administration is entailed for no benefit. Renewable fuel production can deliver negative GHG emissions, as described above (syngas balancing in Q128 and the sequestration of carbon from CO₂ sources from AD, biomethane clean up, fermentation etc. The quantification of GHG emissions, including negative emissions is therefore already a feature of the Renewable Transport Fuel Obligation. It is desirable that the detailed methodologies used under the UK ETS are consistent with the RTFO.

147) Do you believe the UK ETS could be an appropriate long-term market for GGRs? (Y/N) Please explain why, highlighting benefits and risks where possible.

Yes.

148) How could the design of the UK ETS be adapted to include GGRs while still maintaining the incentive to decarbonise for ETS participants?

Allowances should be awarded where the MVR methodology demonstrates that carbon savings have been achieved (as would be the case with engineered GGRs injecting biogenic CO₂ into networks for sequestering in secure repositories).

If and when the UK ETS has been adapted to cater for GGRs, exempt ATT fuel plants should have the option of opting in to the scheme.