

ENVIRONMENT MINISTER UNAWARE THAT WASTE INCINERATION CO₂ TO TRIPLE BY 2030

- Government intervention required to halve incineration emissions in line with CCC net-zero pathway
- 50 planned waste incinerators in England incompatible with UK net-zero and recycling targets
- Targets only reachable with incineration tax, restrictions on burning plastic, carbon charge, planning review
- Shift to circular economy needed if UK to secure green jobs, £1.6 billion in annual recycling revenue

London, 16 July 2021—At the recent G7 talks, Prime Minister Boris Johnson committed to a ‘green revolution’ and pledged to halve emissions, and recently Environment Minister Rebecca Pow confirmed that the government’s waste strategy is designed so that, ‘ultimately, there will be less [waste] going to incineration’. However, incineration capacity in England is actually set to double by 2030, which would effectively push the UK’s climate and recycling goals out of reach, warns a new XR Zero Waste report, released today.

The report calls for urgent government action to prevent the realisation of 50 new incinerators, all of which have obtained government planning approval and are due to become operational by 2030, 17 of them by 2025.

‘If the government allows these 50 incinerators to come on stream, incineration capacity in England will double within the decade, from 14 to 27 million tonnes, and associated CO₂ emissions will nearly triple,’ said energy and sustainability expert Dr Rembrandt Koppelaar, lead author of the report.

‘To meet its net-zero target by 2050 and its 65% recycling target by 2035, the UK government urgently needs to introduce appropriate measures to stop incineration expansion and restrict the burning of plastics,’ he said.

If built, the 50 new plants would cause incineration CO₂ emissions to triple, from 5.5 to 15 million tonnes. As a result, total waste sector emissions would increase to 28 million tonnes by 2035, instead of dropping below 16 million tonnes, as required by the Climate Change Committee’s net-zero pathway for the sector.

To enable the UK to reach its net-zero target, the government would have to cut incineration emissions in half by 2035, which it can only do by implementing measures that both prevent incineration expansion and require the removal of most plastics from incineration waste streams.

The report highlights that the expansion of waste incineration across England is in direct competition with the UK’s recycling targets. If the 50 approved incinerators were to be built and operate at capacity, only 34% of the total waste generated in England would be available for recycling in 2035, not the 65% to be mandated by UK law. Local authorities that sign incineration contracts, many of which cover 25 years, are legally obligated to keep incinerators running at capacity. In practice, that means they are incentivised to send recyclables to incineration to avoid financial penalties, even as waste generation dwindles in line with government policy.

The analysis indicates that, absent government intervention, England’s incinerators would be able to burn more than twice as much waste as the country would produce by 2035 if recycling targets were met: 27 million tonnes of capacity would be available to treat only 12 million tonnes of waste per year. Those 15 million tonnes of overcapacity would translate into a lack of progress on recycling or a very high risk of stranded incineration assets.

The report also points out that incineration prevents green job growth, noting that reuse and repair alone generate 15 times more jobs than the waste disposal sector. Moreover, the planned expansion would put recycling revenue at risk, causing the UK economy to forego £1.6 billion per year from recycling.

‘Alarm bells should be going off about the imminent construction of 50 unnecessary incinerators, each with a lifespan of about 50 years,’ noted Dr Koppelaar. ‘Instead, England’s waste sector is currently seeking planning consent for yet another 30 incinerators. It is high time for the government to step in.’

The report makes the following **urgent recommendations**:

- In the Finance Bill 2022, **introduce an energy-from-waste (EfW) incineration tax**, including on exported waste, to boost investment in recycling infrastructure. Announce the tax in advance.
- **Restrict EfW incinerators to burning only low-carbon feedstock** so as to reduce greenhouse gas emissions, preferably by amending the Waste Regulations 2011 or, alternatively, in the Energy Bill.
- Amend the National Planning Policy to **require reassessments of existing EfW planning permission** to ensure compatibility with the UK's recycling and net-zero targets.
- **Institute a carbon charge** in the Finance Bill to correct market distortions and enable the UK to meet its 2050 net-zero carbon target. Announce the charge in advance.

Geraint Davies MP has endorsed the report:

Geraint Davies MP, chair of the All-Party Parliamentary Group on Air Pollution, welcomed the report's call for a drastic restriction of the burning of plastics, saying: 'As a growing body of scientific evidence is demonstrating, the incineration of plastics contributes both greenhouse gases to climate change, and a cocktail of pollutants that are toxic to human health—from nitrogen oxide to furans, dioxins, metals, and ultra-fine particulates that escape through even the most advanced incinerator filters.

'Incineration is big business and is encouraged by the lack of taxation from a government committed to double the number of incinerators by 2030. We need a fiscal framework that promotes sustainability. A tax on incineration would add value to recycling plastic and encourage more recyclable plastic alongside biodegradable alternatives,' said Davies.

'The XR Zero Waste analysis shows that we need an incineration tax, that we should stop burning plastics, and that we must stop the construction of incinerators we can't defend if we're serious about climate change and public health,' he added.

On 6 July 2021, Geraint Davies MP asked Environment Minister Rebecca Pow about the government's plans to introduce an incineration tax at a meeting of the Environment, Food and Rural Affairs Committee (skip to 15:08:40 for the first incineration-related question: <https://www.parliamentlive.tv/Event/Index/4ce44852-38d6-4bed-b270-f81dd270ccc4>). Here is a partial transcript:

15:08:40

Geraint Davies MP (chair of the All-Party Parliamentary Group on Air Pollution): Minister, you knew that the health impacts on poorer people living in difficult neighborhoods—congested, housing near busy roads—is much more severe although they produce less pollution. And, in general, urban incinerators tend to be in poorer areas. And the government's got a plan now to double the amount incinerators and the amount of incineration between now and 2030. And I was wondering whether you have had any conversations with the Treasury about how we could reduce that incineration in urban environments in order to help public health and whether there should be taxes on incineration as opposed to just taxes on landfill, which are driving local authorities to incinerate more.

15:09:35

Environment Minister Rebecca Pow: Well, you touch on some interesting points. I want to see some data about whether, as you are suggesting, incinerators are just located in areas where people low incomes live.

Geraint Davies: Not just—they're more likely to be.



Rebecca Pow: Also, I'm sure you know, Geraint, that our entire waste and resources strategy is moving us to produce less waste and moving us to a whole ethos of repair, reuse, recycle. And incineration is very near the bottom of the hierarchy and so all of the measures we're bringing in, actually, that are coming in through the Environment Bill—the extended producer responsibility, the deposit return, consistent collections—they will produce less waste. [15:10:20] So, ultimately, there will be less going to incineration.

15:10:26

Geraint Davies: Right, so the plan, as you just said, is produce less, not more incineration. Right, okay.

Rebecca Pow: But also, the incinerators operate under the best available techniques and best available techniques would have to be applied in any incinerator and indeed energy captured. So I want to have a bit more detail on what you're saying, Geraint, because I'm not sure I agree with you.

15:10:52

Geraint Davies: Right, well, my understanding was that the government is planning to double the level of incineration.

15:10:55

Rebecca Pow: It might be like that in Wales.

15:11:00

Geraint Davies: No, no. They put a moratorium in Wales, you'll be relieved to hear. Then on incineration and on the capture of nanoparticulates, my understanding is that nanoparticulates are getting through these filters. And there's been evidence in various studies. There's one well-known one in Italy, in fact, finding dioxins and heavy metals in children's toenails, in fact, leading to leukemia. So it sounds like you are concerned about not increasing incineration because of the public health problems with it. Is that correct?

Rebecca Pow: I don't think I've actually said that in so many words, Geraint. You said that.

Geraint Davies: You said you wanted to have less incineration. [difficult to hear... something about public health or climate change]

Rebecca Pow: We're moving towards a situation of producing less waste in this country and a circular economy. And that's the exact focus of our waste and resources strategy. And that's what many measures in the Environment Bill will be putting into practice. But we do have very strong permitting systems for all of these, whether you have an incinerator or not, all has to be permitted and all has to be checked and enforced by the Environment Agency. So, I don't have specific details about the nanoparticulates that you refer to, but I'm always open to any information on that if you want to pass it to me.

Geraint Davies: I certainly will. Thank you very much. And may I ask Mr Parrish then what evidence you've got about the contribution of incinerators to particulates in urban environments, in particular in poorer areas.

Bill Parish (Head of Air Quality and Industrial Emissions, Department for Environment, Food and Rural Affairs): Firstly, waste incinerators are subject to an industrial emissions directive and are strictly regulated by the Environment Agency. So the Environment Agency will assess what the process is likely to release into the environment and require the incinerator to put better abatement technology in place in order to limit the emissions. And they will factor in the proximity of the people who live in the area, likely exposure of the population to different pollutants that are likely to be released by the incinerator, and they will require monitoring and enforce provisions, if necessary, if the incinerator abatement is failing or they need to actually do more. So I think it's quite strict regulation already.

Geraint Davies: So I'm clear on this: are you confident that the Environment Agency is protecting public health? Because I've heard evidence, in particular from Ulster University, about how nanoparticulates penetrate the filters in existing incinerators and are affecting people's health. And, moreover, you mentioned earlier on that background PM 2.5 in particular. But obviously we're concerned about background any PM, which is toxic and, obviously, the smaller PM 2.5 is much worse than PM 2.5. So are



you confident that the background PM nanoparticulates from incinerators aren't adversely affecting children's health, in particular in urban environments as we speak?

Bill Parish: I think the Environment Agency are implementing the requirements as far as possible. Pollution from not just incinerators, but all sorts of other industrial processes, which can also release dioxins and other harmful substances. This is not unique to incinerators. The issue about nanoparticulates, or ultrafine particulates, is that until very recently, we didn't know very much about them because it was just impossible to physically measure them. It's difficult enough to measure PM 2.5 as an entity. Ultrafine particulates are, because they are so small, it's very difficult to find a filtration process that can capture them all. I think what we need to ensure is that we have a method by which we are able to monitor the presence of substances in the environment. [...]

15:16:43

Geraint Davies: Mr Parish, you did mention that you're looking at density of people in terms of exposure, quite rightly. So, given that and given the uncertainties over incineration and the fact it generates nanoparticulates, et cetera, wouldn't it be a good idea to have incinerators not in the middle of cities where the precautionary principle would tell us it would be better, if there's a risk, to have them elsewhere, in the countryside, and so there isn't such immediate exposure to risk?

Bill Parish: I think the principle of — when you've got significant point sources of pollution, the further away they are from people, the less people are exposed.

The full report, *Expansion of incineration in England at odds with UK recycling and net-zero carbon targets*, is available at <https://www.xrzerowaste.uk/actions>.

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