

County Council

22 June 2022

Public Question from Mr N Kasch

The Committee for Climate Change say that 'If EfW usage continues to rise unchecked, then its emissions will exceed the CCC pathway' to net zero greenhouse gas emissions by 2050, stating that it will be important instead to achieve at least a 68% recycling rate by 2030. Given this, are the plans to operate the Tees Valley Energy Recovery Facility past 2050 consistent with our international commitments under the recent COP26 agreement, our national commitment to net zero by 2050, and our local commitments we made when declaring a Climate Emergency? Are we signing a contract that we will be unable to fulfil when it is found to clash with legally binding emissions and recycling targets, which will reduce the TVERF's feedstock?

A report from the All-Party Parliamentary Group on Air Pollution (APPGAP) last December heard evidence on the risks of ultrafine particulates, persistent organic pollutants and other products of incinerators and recommended a moratorium. Do the council think that these findings indicate a risk of harm to local residents in Redcar, does this change the risk that this investment will eventually be written off and be a potential source of liability for the council?

Response by Councillor M Wilkes, Cabinet Portfolio Holder for Neighbourhoods and Climate Change

Firstly, I'd like to thank Mr Kasch for the question and for his interest in environmental matters and his obvious concern to see the best possible environmental outcomes for the county, an ambition we share.

The question is in two parts and I will address each separately:

The first part of the question relates to the relationship between our residual waste disposal strategy and our net zero ambitions, both locally and nationally.

The Council's existing residual waste treatment solutions are due to expire in 2025/2026 and therefore, a new waste treatment contract is required to ensure that we can continue to fulfil our obligation to residents to dispose of their waste. An essential service to maintain a clean and sanitary environment. As such, Durham County Council, along with the other six partner authorities, are seeking to jointly procure a safe, reliable and long-term energy recovery solution, known as the Tees Valley Energy Recovery Facility (TVERF) to treat the region's residual waste left over after recycling has taken place.

The partner authorities anticipate that recycling rates will continue to improve in the region as new national and local policies are introduced, with national government setting an ambitious target to reach an average municipal recycling rate of 65% by 2035 across England.

As a council we are committed to increasing the amounts of waste which is recycled to the maximum possible levels. Whilst we may have some of the highest recycling rates in the north-east, our ambition remains to improve consistently.

As we work towards net zero as a council and as a country between now and the 2040s we are going to see a significant increase in the amount of materials which normally would need to be disposed of being reused or even not used at all.

This of course will take some time to achieve and we should all seek to aim for a circular economy in the next few decades. To achieve this requires a fundamental shift in the way in which we operate as a society.

Even if everybody committed to this tomorrow we would still be looking at several decades to get to the point where we live in a no waste Society.

Key to this is action by government in terms of legislation and funding and giving direction as well as a shift in everyone's way of thinking.

We have just commenced the biggest campaign on recycling the council as ever carried out.

Decontaminating our recycling streams and increasing the percentage of recycling from its current rate just around 40% to a level of 65% would still mean that the EFW would be required.

The risk of not doing this is the potential for a massive increase in the cost of disposal of waste in landfill, which would also have a significant negative impact on the environment.

Each year, it is envisaged that the new facility will process up to 450,000 tonnes of residual waste from the region and use it to generate up to 49.9MW of electricity – enough to power the equivalent of 60,000 homes.

The Government department for Business, Energy and Industrial Strategy (BEIS) has announced its decision to fund two of the UK's first Carbon Capture, Usage and Storage (CCUS) Clusters, one of which is the East Coast Cluster (which is a collaboration between Net Zero Teesside, Zero Carbon Humber and Northern Endurance Partnership NEP). This means that the Government will support carbon capture technology on Teesside from 2026 which would allow the TV ERF to connect to it and potentially be among the first purpose-built facilities that incorporates Carbon Capture and Storage technology in the UK

Since up to 50% of the Carbon Dioxide that will be emitted from the TV ERF is derived from biogenic (non-fossil fuel) sources (the remaining being derived from fossil fuel sources), this will mean that the facility could in fact become a negative carbon dioxide emitter which will contribute significantly to the ambitions of the Council to reduce carbon emissions to net zero by 2030.

Carbon emissions from the TV ERF can also be reduced by removing as many plastic-based materials as possible from the residual waste stream through recycling and waste avoidance – which residents will play a significant role in helping to deliver.

Recovering energy from waste only takes place after recycling and is an important component of the waste hierarchy – the policy framework which determines the best environmental solution for dealing with waste. It is therefore complementary to efforts to reduce, re-use and recycle as much as possible.

Technology continues to improve, and our ambition is to have full carbon capture in the north-east sitting alongside this plant. Technology which has the potential to be rolled out across the world.

The second part of the question relates to issues of air quality.

The report published by the All-Party Parliamentary Group (APPG) on Air Pollution sought to compile a summary of a number of presentations delivered by a small group of invited speakers on the health and air quality impacts of waste incineration.

The APPG report therefore does not draw from the larger body of scientific evidence, which underpins the position of the UK regulatory authorities that modern, well-run, energy from waste facilities do not pose an unacceptable risk to human health. The use of energy recovery is subsequently approved by the UK public health authorities.

The Environmental Services Association has provided examples of studies which, it suggested, showed EfW in a more favourable light, including a 2020 study by Air Quality Consultants for the Greater London Authority which conducted a literature review of 35 recent academic studies on population exposure and health risks. The literature review concluded that any potential health risks associated with direct emissions from “modern, effectively managed and regulated” EfW’s in London were “exceedingly low”.

The use of energy recovery in England is approved by Public Health England (PHE) and, following the results of a major study on municipal waste incinerators by Imperial College London published in 2018 and 2019

Energy from waste plants are among the most heavily regulated industrial installations in the world and must meet strict environmental standards. The Tees Valley Energy Recovery Facility will use mature, proven and robust technology (that has been used successfully across the UK and many other European countries for decades now) to process waste (including clean flue gases before they can be safely released from the plant). Like all facilities of this type, the Tees Valley Energy Recovery Facility will also be subject to stringent permit conditions for emissions factors, including particulate matter, and will be closely monitored by the Environment Agency to ensure that it operates well within the limits set by the regulator.

In practice, these facilities often operate at just a fraction of permitted emissions levels and, as a result, make only a small, if detectable, contribution to local concentrations of pollutants such that any impact on health from reduced air quality is negligible.

The use of energy recovery is approved by the UK’s health protection authorities and, as such, the position of the partner authorities remains that energy recovery is a safe, responsible and sustainable way to treat the region’s rubbish.

When this project was first introduced to me in my Role as Cabinet Portfolio I have to say I also had my reservations. What has become abundantly clear however is that my reservations were not based on the best information and now my support for the scheme is fundamental.

We cannot have a situation where we go in to reverse and start digging holes in the ground and putting waste to landfill and far from this EFW being bad for the environment it actually has the potential to assist in a fundamental shift towards achieving our net zero goals.

Even with a massive increase in our recycling rates this plant will still be required for the next few decades.

Between now and then it is for the council to strive to reduce waste across the county and for government, businesses and individuals to do the same. All this with the aim that at the point at which this plant reaches the end of its life it will hopefully not need to be replaced.