COUNTY COUNCIL

6 December 2023

PUBLIC QUESTIONS

Question from K Fotheringham

When did the public consultation about the proposal to build the Tees Valley Energy Recovery facility take place and what was the public response?

Response:

Durham County Council has an established Waste Management Strategy that sets out our ambitions to increase the reuse and recycling of materials and reduce the amount of waste for disposal from households in the county. The implementation of this strategy has seen us become the authority with the highest levels of recycling in the North-East despite the recent challenges of the pandemic and the associated change in public behaviours. Furthermore, the Council's waste strategy embeds the principle that we will aim to recover as much value as possible from the waste left over after recycling by avoiding the use of landfill and instead, use the waste that we collect to create energy to help power the national grid and a left-over ash that then can go for further recycling. Landfill is not a solution for County Durham as even the best managed landfills create methane emissions that are a potent greenhouse gas and incredibly harmful.

This strategy for waste management - encapsulated in the phrase 'reduce reuse recycle' – and including the use of energy from waste as a treatment solution was subject to full public consultation when it was developed and we continue to deliver against those principles on a daily basis, emptying a million bins a month for the people of county Durham.

To date our residual treatment solution has been delivered through a commercial contract utilising energy from waste technology at Haverton Hill on Teesside, while this is the best solution currently available it will need to be replaced. The construction of the Tees Valley Energy Recovery project represents a continuation of the County Durham waste strategy but by developing publicly owned state of the art infrastructure, which will be cleaner, greener and better value for money than current arrangements and will secure a reliable waste management solution for the county for decades to come.

The Gunning principles are the founding legal principles for consultation in England and these state that consultation should be undertaken when

proposals are at a formative stage. The council adhered to this principle by fully consulting when energy from waste became the strategic solution to the county's residual waste treatment. The new facility continues to deliver on this strategy by providing the best practical environmental option for the future. This council will not return to using landfill as a primary treatment option, nor will it stand still when better environmental options can be delivered, especially when these are better financial options as well.

The facility itself is also subject to rigorous planning controls, which are both extensive and transparent, allowing for both public commentary and consultation and statutory consultation with relevant public agencies, including the Environment Agency. The outcome of the planning process to date has been that Outline Planning Permission was granted in July 2020. Reserved Matters applications, which again were subject to both statutory and public consultation, were considered and subsequently granted planning permission in July 2023.

As the plant is further developed there will be a permitting process through the Environment Agency, again subject to public and statutory consultation, which will set out the detailed conditions under which the facility will run to ensure environmental compliance.

The council continues to be open and transparent in its policies and operations, we have delivered extensive public engagement in all areas of our environmental and climate change policies, and we will continue to make information available online and in the public domain.

Question from Mr N Watson

How will CO2 emissions from the plant be controlled given that TV ERF has failed to secure funding from the government under the sequencing process for carbon capture?

Response:

Durham County Council along with the other Tees Valley Energy Recovery Facility partner authorities has a legal duty to provide public sanitation services in their respective areas and this includes the safe collection, treatment and disposal of both residual and recyclable waste.

The Council does this in accordance with its waste strategy, aiming for the maximum levels of reuse and recycling possible with available equipment and facilities. The council empties over a million bins a month from the two hundred and thirty thousand households of County Durham.

There will however, always be waste left over after recycling and the only viable and reliable means of treating this waste is through either landfill or energy recovery. Over the past decade, and in accordance with the waste hierarchy and our own waste strategy, Durham County Council has moved away from treating residual waste through landfill. It is the least preferred environmental option as even the most carefully managed landfill sites result in significant pollution. All of the partner authorities therefore have a shared goal of sending zero waste to landfill.

Landfill facilities not only present a long-term environmental risk that must be carefully managed, both during their operation and for several decades after the landfill ceases to accept waste, but also release substantial volumes of methane – a potent Greenhouse Gas. Methane is estimated to be 80 times more harmful to the atmosphere than CO2.

In a hypothetical scenario whereby the TV ERF is not developed, the net result would be an increase in Carbon Dioxide Equivalent (CO2Equ) emissions derived from the residual waste that is generated each year by the seven partner authorities, either as a result of the residual waste being treated through an older (and less efficient) energy recovery facility (if indeed, sufficient capacity actually existed) or by having to be disposed of via landfill (resulting in the largest increase in Carbon Dioxide Equivalent (CO2Equ) emissions).

Local efforts in the future to improve recycling, re-use and waste prevention, as well as other factors such as population growth, have all been taken into account when setting the specification of the TV ERF over the lifetime of the facility. It has been designed with a capacity to treat approximately 450,000 tonnes of residual waste each year, which represents the volume of waste requiring treatment in the long term after all recycling has taken place, including the separate collection and recycling of food waste, which will be implemented in accordance with government policy over the next few years.

The carbon emissions associated with this vital waste treatment duty are very challenging to avoid completely, but carbon reduction will be supported by strategies to avoid waste, encourage re-use and reach higher recycling rates – particularly for plastics.

The Government's Resources and Waste Strategy promises major reforms to support local authorities in these goals, and in the county we maintain our efforts to improve the quality and volume of waste going for recycling by providing a robust twin bin solutions supported by education and enforcement efforts to reduce contamination coming through our recycling bins.

Additionally, there are measures which will be technical solutions deployed within the TV ERF operation to support the reduction of carbon emissions. The Contractor will be required to produce a Carbon and Environmental Management Plan which will demonstrate how they will reduce carbon emissions from the operation year-on-year over the duration of the contract. This will be achieved primarily through increases to the efficiency of the plant; potential future heat-offtake and by consciously removing as much plastic as possible from the waste stream.

The TV ERF has been designed to be Carbon-Capture Ready, which will allow the facility to potentially be connected to the Northern Endurance Partnership (NEP) carbon capture and storage (CCS) infrastructure as part of the East Coast Cluster.

Unfortunately, following an announcement by DESNZ in March 2023, the TV ERF was not one of the three projects supported in this round.

Success through this process would have enabled the TV ERF to deploy carbon capture and storage technology from the outset – capturing carbon emissions from the plant and storing them in offshore storage as part of the East Coast Cluster. However, it is likely that future funding rounds will occur and, once built, the TV ERF will be well placed to apply again should the opportunity arise as it has been designed to be 'carbon capture ready'.

The Department for Energy Security and Net Zero is due to publish details regarding the 'Track 1 Expansion Process' which will look to fill additional storage capacity in the East Coast Cluster and HyNet Cluster.

Whilst the seven partner authorities remain interested in carbon capture and storage for the TV ERF, having the ability to capture carbon emissions for utilisation or storage is not a condition that the TV ERF, or indeed any other UK energy recovery facility, must meet in order to operate.

The TVERF is the best environmental and financial option for the Council to dispose of its residual waste and aligns with our carbon reduction aspirations and targets.

Question from Mr B McArdle

Contract terms for the Tees Valley Energy Recovery Facility (TVERF) include a duration of 25 years for the main contract. There is also provision for an 11 year extension. If the planned start date is 01.04.26, the main contract will expire in 2050. The extended contract would expire in or about 2060. There is great uncertainty about future recycling rates, residual waste flows, grid connections, possible CCS arrangements and other factors.

Why is Durham County Council prepared to sign off these contracts for such long terms?

Response:

Durham County Council, along with the six other partner authorities involved in the TV ERF project, have a statutory duty to manage waste material safely and in accordance with the law, ensuring that all residents can enjoy a clean and sanitary environment. The development of the TV ERF will allow the Councils to continue to discharge these duties in the long term – whilst maximising carbon emission reductions, maximising recycling, providing control and long-term security as well as a solution that is affordable and provides value for money.

The TV ERF is a critical and essential infrastructure development and will serve more than 1.5 million people living across County Durham, Tees Valley and Newcastle. It will provide a local, secure, reliable and affordable treatment solution for residual waste (the rubbish left over after recycling has taken place) produced in the region, helping move towards the goal of sending zero waste to landfill, whilst ensuring that an essential sanitisation service is maintained.

The project partners are currently in the process of jointly procuring a contractor to Design, Build, Finance and Operate the Tees Valley Energy Recovery Facility (TV ERF). The facility has been designed with sufficient capacity to treat residual household waste from across the region and, in doing so, will generate up to 49.9MW of electricity for export (sufficient to power the equivalent of 60,000 homes). It will be Combined Heat and Power (CHP) enabled, potentially allowing the export of heat to nearby users, and has been designed to be ‘Carbon-Capture Ready’ to allow the future development of carbon-capture infrastructure which can then be integrated into the TV ERF. As such, the facility will be well placed to deploy these technologies should a viable opportunity arise over the lifetime of the project.

The existing residual waste treatment solutions of the partner authorities are due to expire in 2025/2026. This contract provides an excellent opportunity for the joint procurement of a new, long-term, resilient solution within the full control of the partner authorities that will deliver value for money through economies of scale to each of the partners, including Durham County Council.

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 - and is therefore complementary to efforts to recycle, re-use and reduce as much as possible.

The partner authorities anticipate that recycling rates will continue to improve in the region as new national and local policies are introduced. However, not everything can be recycled and even under the most ambitious future local recycling scenarios, there will still be a proportion of residual waste that will need to be treated through energy recovery to avoid sending it to landfill. The TV ERF will not impact upon the pursuit of this higher recycling performance – indeed this has been factored in when specifying the capacity of the new facility. For reference, the top ten best recycling local authorities in England all utilise energy recovery for the final treatment of their residual waste.

The contract duration of 29 years reflects the time required to construct the facility followed by a 25-year Services phase. At the end of the contract, the facility will revert to the ownership of the seven partner authorities, including Durham County Council.