

Exeter Energy from Waste Unit Visit, 27th November 2019

Present: Councilors Dewhirst (Chair), Colthorpe, Radford, Slade and Whitton

Members met with Wendy Barratt (County Waste Manager), Rod Jakeman (Plant Manager of Exeter Energy Recovery Facility) and Lucy Mottram (DCC Waste Management Officer (Education & Communities)).

The Energy from Waste Unit was built in 2013 and became fully operational by July 2014. The plant has an annual capacity of 60,000 tonnes with a calorific value of 9.3 Mj/Kg. This results in a throughput of 7.7 tonnes per hour which produces 4.2 - 4.7 MW electricity per hour and 1,996 MWh per month (June 2019). This can power approx. 5000 homes, i.e. 1 in 10 homes in Exeter. Emissions are regularly tested for over 11 types of pollutants. The mean daily average in 2019 of all these pollutants were well under the maximum permitted daily average emission.

DCC owns the site and supplies residual waste to plant. Viridor is DCC's contractor for waste disposal for this area. Dalkia are EfW specialists contracted to design and build the plant. Cyclerval-UK are contacted by Dalkia contracted to operate the plant until 2019.

The plant operations are licensed and regulated by The Environment Agency. The plant operates for 8,000 hours a year with around 18 people work in shifts at the plant 24 hours per day.

The waste is burned in an oscillating kiln at a temperature of at least 850°C. The resulting heat is used to heat water to steam which turns a turbine, producing electricity. The plant has the potential for further heat recovery in the future. The residual bottom ash and fly ash are both recycled after the process. Metal is removed and also recycled.

Related articles:

<https://www.devon.gov.uk/wasteandrecycling/the-exeter-energy-from-waste-facility/>

<https://www.exetercityfutures.com/exeter-energy-recovery-facility/>

Future steps:

Continued communication with the DCC Waste Team regarding further visits to other units, such as Plymouth.