

D 2.5 Principles of Self-Sufficiency and Proximity

The current Waste Management Plan for the Eastern Midlands Region 2015-2021 was published in May 2015. The Plan recognises the significant advances in the development of thermal recovery capacity in Ireland, where the principal use of the waste is as a fuel to generate energy.

Energy recovery within the region included Refuse Derived Fuel (RDF) recovered at a waste to energy (WtE) facility, and Solid Recovered Fuel (SRF) used as an alternative fuel source in two cement manufacturing facilities. Ireland's first municipal waste WtE facility, located at Carranstown, County Meath, licenced to treat up to 200,000 tonnes of waste per year was fully operational in 2012. The EPA has granted a licence for a second WtE facility in the region at Poolbeg, Dublin and this will be commissioned in 2017. Cement kilns while not classified as waste facilities, also accept SRF for use as fuel.

It is policy of the Plan to aim to improve regional and national self-sufficiency of waste management infrastructure for the reprocessing and recovery of particular waste streams in accordance with the proximity principal.

Dublin Waste to Energy Ltd, Poolbeg (W0232-01)

The licence was granted in December 2008 and authorises the acceptance of 600,000 tonnes non-hazardous construction, demolition, commercial, industrial and household wastes. At full capacity the plant will generate in the region of 130,000 tonnes of non-hazardous bottom ash annually. It is a condition of the licence that the bottom ash is tested to confirm it is non-hazardous.

Condition 2 D of the amended licence requires Dublin Waste to Energy Ltd (DWEL) to ensure that the waste generated in the carrying on of the activity shall be prepared for re-use, recycling or recovery, or where that is not technically or economically possible disposed of in a manner which will prevent or minimise any impact on the environment.

DWEL's preferred option is the recycling/recovery/disposal of the ash in Ireland. Currently the only approved recovery option for bottom ash in Ireland is use in engineering works in licensed non-hazardous landfills. In the short term (12 -24 months) there is also the potential for use as engineering materials at the IED licensed mines.

There are currently no recycling options, but in the medium to longer term there is the potential to use the bottom ash as an additive in cement manufacture, as bound and unbound fill in road construction and as aggregate in concrete block manufacture.

While these uses have been approved in a number of other EU member states, in Ireland they will a) require confirmation from the Irish cement and concrete manufacturers and the National Standards Authority of Ireland (NSAI) that the bottom ash meets the relevant performance specifications and b) the achievement of 'end of waste' status.

All of the end-uses require the pre-treatment of the ash to remove the metal content, which can comprise up to 10% by weight. Further preparation involving crushing and screening may be required to meet the specifications for use in cement manufacture, construction works

and concrete block manufacture, however approval is not being sought for this additional processing.

Proposed Ash Management Plan

In the short to medium term it is proposed to send the ash to PANDA's Materials Recovery Facility at Beauparc (W0140-04). DWEL has agreed a long term contract with PANDA to accept the non-recyclable fraction of the municipal solid waste it collects. The waste will be delivered in articulated trailers and it will be processed internally to remove the metals. The removal of the metals is the only processing that will be carried out.

It is envisaged that it could take up to 18 months to demonstrate that the treated ash is suitable for use in construction works and the manufacture of products and to obtain approval for an end-of-waste protocol. During this period it is proposed to use some of the treated ash in engineering works in non-hazardous landfills and, subject to Agency approval, in the mines.

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