



Comhairle Cathrach
Bhaile Átha Cliath
Dublin City Council

Environment and Transportation Department,
Block 2, Floor 6,
Dublin 8.

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To Each Member of the Climate Action, Environment and Energy Strategic Policy Committee

Report on Dublin Waste to Energy (DWtE) Facility

1 DWtE Facility

The DWtE Project is a partnership between Dublin City Council (the Authority) acting on behalf of the four Dublin Local Authorities (DLAs) and Dublin Waste to Energy Limited (DWTEL) the PPP Company. The DWtE Facility is designed to treat 600,000 tonnes per annum (tpa) of non-hazardous residual municipal and industrial waste and is operated by Encyclis.

1.1 Overview of Operations:

The Facility has managed and treated approximately 435,000 tonnes of non-hazardous residual municipal and industrial waste in the year to date and will treat just under 600,000 tonnes by the end of 2023.

Each combustion line has its own independent train of Air Pollution Control (APC) equipment. Throughout the air pollution treatment process the emissions are continuously monitored using a real time continuous emissions monitoring system (CEMS). Each stack has its own CEMS. In addition, a redundant CEMS is continuously on standby in the event of one of the live systems going down. These systems are calibrated weekly and certified on an annual basis to best practice and EPA guidance. Furthermore, quarterly independent stack testing is undertaken as per Schedule B.1 of the Facility IE Licence.

From data submitted to the EPA by DWTEL it is clear that the facility operates well within its licence limits with respect to concentration Emission Limit Values (ELVs) and mass flows.

The data indicates that emissions to air from the Facility are generally running at less than 10% of the licence limits with respect to the concentration Emission Limit Values (ELVs) and mass flows. The only exception to this statement is with respect to NO₂ which is averaging 70% of the ELV, these values are still well below the relevant limit values.

In addition to stack testing undertaken by an independent monitoring company appointed by the operator, the EPA also appoints an independent third party to undertake emissions monitoring at the stack, who report directly to the EPA.

1.1.1.1 Environmental Performance

The CEM data and stack test results for the Facility are available for review and download on the Facility's website. The half hourly data for the previous day is also available for review at <https://www.dublinwastetoenergy.ie/About-the-Facility/Emissions-Data>

Additional information in respect of the EPA site visits and monitoring is available at <https://epawebapp.epa.ie/terminalfour/ipcc/ipcc-view.jsp?regno=W0232-02>

1.2 Compliance with Statutory Consents

In 2022, there were 2 incidents reported to the EPA and 1 non-compliance issued by the EPA. A summary of the Non-Compliance notice is set out below:

Category	Description
1 ELVs	1 no ELV's for Carbon Monoxide

The ELV breach for Carbon Monoxide was as a result of two separate events relating to compressed air/gas bottles in the furnace. It was noted that all daily ELV's remained compliant on the day of the incident.

There have been no further incidents or non-compliance since February 2022.

1.3 Overview of the Project Economics for Dublin City Council.

1.3.1 Risk/Revenue Sharing

The Dublin Waste to Energy Project Agreement contains a number of key risk sharing mechanisms, related to project revenues as set out below.

1.3.1.1 Authority Contingent Obligation (ACO)

During the first 15 years of the Facility's Operation, 'the PPP period', the DLA's are bound by an Authority Contingent Obligation (ACO) mechanism to underpin the waste market revenue of the Facility. Under the ACO the DLA's will provide partial (i.e. 58%) revenue support in respect of any shortfall below a threshold waste revenue. The ACO only becomes effective if the Operator fails to achieve the threshold waste revenue in any year during the PPP period.

1.3.1.2 DLA Revenue Streams

In return for the provision of the ACO, the DLA's will receive 54% of all DWtE waste revenue above the threshold waste revenue for the PPP period (i.e. the first 15 years). In addition, they will receive 25% of energy revenue above an agreed energy revenue threshold for the PPP period and 45% of energy revenue above the same threshold for the merchant period (i.e. the subsequent 30 years – (years 15 to 45)).

Actual returns to the DLA's will depend primarily on the development of the waste and electricity markets.

1.3.2 2023 Revenue

The Dublin Local Authorities will receive a payment of approximately €23.7m from DWTEL in 2023. With the payments to the respective local authorities set out in the table below:

Local Authority	Amount
Dublin City Council	€9.81m
Fingal County Council	€5.10m
South Dublin County Council	€4.95m
Dún Laoghaire Rathdown County Council	€3.86m
Total	€23.72m

The total revenue received by the four DLAs since the commencement of operation in 2017 is €67.37m, with the payments to the respective DLAs set out below.

Local Authority	Amount
Dublin City Council	€27.92m
Fingal County Council	€14.50m
South Dublin County Council	€14.04m
Dún Laoghaire Rathdown County Council	€10.91m
Total	€67.37m

1.4 Overview of Council Regulation EU 2022/1854

Council regulation EU 2022/1854 ("an emergency intervention to address high energy prices"). The European Commission and Ireland implement EU 2022/1854 from the 1st December 2022 to the end of June 2023, in order to address high energy prices primarily within the electricity market. Under the regulation, the threshold price for Waste to Energy is set at €180/MWh, evaluated monthly. The average price in Dec 2022 was €277/MWh, so the intervention will apply for that month. It is noted that all subsequent months saw prices significantly below the threshold, therefore the facility has no liability in 2023.

1.5 Update on application Process for an Increase in Treatment Capacity at the DWtE Facility

An Bord Pleanála approved the planning application, for the increase in treatment capacity at the Dublin Waste to Energy Facility from 600,000 tonnes per annum to 690,000 per annum in December 2021.

The Environmental Protection Agency (EPA) has issued their Preliminary Decision in March 2023, granting the increased throughput. The decision was preliminary and the process allowed for observations from either the applicant or the public up until the 19th of April. The process then allow a further four months, from the 19th of April for the EPA to consider any submission(s) and issue a final decision.

There were no observations issued by any third parties or members of the public in respect of the preliminary decision and it is anticipated that the EPA will issue their final decision in October 2023 at the earliest.

1.6 Management of Incinerator Bottom Ash (IBA)

DWTEL are currently in the process of developing a more sustainable, on-island, solution for the treatment and recovery of Incinerator Bottom Ash (IBA) from the facility. Currently IBA is loaded onto ships (every two weeks) for recovery and reuse in the Netherlands. There the metal is recovered and recycled, and the remaining ash is 100% reused in the construction sector. It is intended to carry out this operation in Ireland from late 2024 onwards. The delay to-date in progressing this has been caused by waiting for the IBA processing site in Ireland to receive planning permission and an EPA licence to carry out this activity, which it now has. Once the building and plant are constructed DWTEL will commence moving the IBA to the facility. Transport from DWTE will be via road (Port Tunnel) in covered vehicles. To ensure there is no additional traffic impact the IBA will be removed from DWTE Facility using the same vehicles that deliver waste to the site.

After the metal is removed the resulting ash can be reused in the construction sector, as a replacement for virgin raw materials. However, prior to using the ash it must be designated as *End of Waste (EoW)* by the EPA. Once EoW is achieved DWTEL will have developed a more sustainable solution for the IBA produced at the facility.