Sub. 10

SYNERGEN
Dublin Bay Power Plant

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Environmental Protection Agency

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Waste Licence Application Reg. No. W0232-01

Dear Sir

The above refers to an application by Dublin City Council for a licence for a waste to energy (WTE) facility at Pigeon House Road, Ringsend, Dublin 4.

This submission is made by Synergen Power Ltd., Pigeon House Road, Ringsend, Dublin 4. Synergen's interest in the application arises as owner of a combined cycle gas turbine (CCGT) electricity generating station (also known as Dublin Bay Power Plant), which is to the west of the proposed development.

Synergen does not oppose the development of the WTE facility proposed by Dublin City Council. However, issues that it wishes the Agency to take into account in its permitting of the WTE facility are as follows:

Cooling Water Discharge

The arrangement for abstraction and return of condenser cooling water is noted, as is the modelling in the Environmental Impact Statement (EIS) of discharges to the Liffey Estuary. The Agency has previously indicated that the area for which Dublin Bay Power Plant is responsible in relation to its own discharge of condenser cooling water extends to include the area in which the discharge from the WTE facility is now proposed. This location differs significantly from the location indicated by Elsam to Synergen in discussions at an earlier stage in the project.

Synergen's concerns are as follows:

- The inclusion of third-party discharges in an area for which the Agency has deemed Dublin Bay Power Plant to be responsible.
- The ability of Dublin Bay Power Plant to demonstrate compliance with its Integrated Pollution Control and Prevention (IPPC) Licence Reg. No. P0486-01.
- The ability to separately attribute impacts of different discharges.
- The use in modelling of recorded volumes of cooling water discharges rather than the volumes that are licensed and the establishment of the future baseline situation on the basis of these lower volumes.
- The indicated necessity to undertake excavations in the cooling water channel and its potential impacts on operations at Dublin Bay Power Plant.

In the earlier discussions the possibility of discharging downriver was the preferred option. Synergen has been led to believe that that the current proposal for the point of cooling water discharge has been made on the basis of reduced construction costs for the WTE facility.

Cooling Water Recirculation

The EIS states that for normal conditions the maximum excess temperature at the Synergen cooling water intake is about 0.5 °C for normal operation, occurring on average for less than an hour on each tide, and increasing to 1.0 – 1.5 °C for abnormal operations.

It is unclear as to the exact conditions under which this could arise.

The issue of concern to Synergen is the increase in water temperature at the location and depth of its cooling water intake (based on maximum licensed discharges to the Liffey Estuary rather than recent recorded averages). An increase in the temperature of water recirculating to Synergen's cooling water intake has two implications. Firstly, it will reduce the thermal efficiency of the plant, resulting in a loss of output, and, secondly, will sub-optimise the environmental performance due to the attendant loss of process efficiency.

Dust

The power generation process at a CCGT power plant involves the air compressor: component of the gas turbine taking in large quantities of air from the atmosphere and compressing it into the combustion chamber where fuel is injected and ignited.

At Dublin Bay Power Plant, the air intakes on the compressor are oriented towards the site of the WTE facility and are fitted with air filters to ensure clean combustion air, which is critical to the process. Concern arises from the potential for dust generation leading to a reduction in the output and efficiency of the process as a consequence of fouling of the filters, as well as the additional requirement to replace the air filters more frequently. Again, any process efficiency loss will adversely affect the environmental performance of the plant.

The ongoing output and efficiency reductions would mean use of additional fuel. Furthermore, any filter replacement would require a plant outage. Any such dust impact from the WTE plant would be a major concern for Synergen.

The above concern, primarily related to traffic, is based partly on certain anomalies in the Waste Licence application. It is stated in Attachment D1 - Site Infrastructure that the facility will not be equipped with a wheel wash system and in Attachment E.6 – Environmental Nuisances under the title *"Dust Control"* that site roads and parking areas will be paved with asphalt or concrete and that no dust should be generated by traffic using them. However, it is also indicated in Attachment E.6 under the title *"Road Cleaning"* that the site will be kept clean and litter free through regular sweeping and cleaning.

There is concern that dust will be generated by traffic and that regular sweeping, which itself may be a dust generating activity, will be a feature. The EIS states as follows: *"In particular, the construction activities may generate quantities of dust in the immediate region of the construction facility and along the route of the haulage trucks."* It is noted that this same route will be used by all traffic associated with the

facility's operation. Any dust control measures that may be in place during construction evidently will not be in place thereafter.

As stated above, while Synergen does not oppose the development of the Waste to Energy facility, it does have significant concerns in relation to cooling water discharge and recirculation and to dust impact. These have the potential to significantly impact the operations of the Synergen plant and its performance. It requests that the Agency take the above concerns into account in considering the WTE waste licence application.

Yours faithfully

pp **Caitriona Kinsman**

General Manger

Synergen Power Ltd.