Minimising the effects of an energy from waste facility on south Aberdeen and the coast through design iteration and control measures during operation.

The facility would be of a scale exceeding the nearby built environment and would exert a visual impact on the surrounding area, which comprises: residential properties to the north and west; the coast to the east; and a country park to the south. The approach to external design of the facility was a key feature of the EIA, being influenced by design workshops with the determining authority and by public consultation on design options. Close liaison between the EIA team, architects, project engineers and the client played an essential role in influencing the scheme design.

Site constraints, resulting from the capacity of the existing road network, existing air quality baseline (including traffic), cumulative development and a local Air Quality Management Area (AQMA) were key considerations for the EIA, the design process and community consultation. In addition, public perception of impact as a result of the local ‘harr’ weather condition informed the assessment methodology.

The project is being brought forward by Aberdeen City Council in partnership with Aberdeenshire and Moray Councils and will process up to 150,000 tonnes of residual waste per annum. A key driver behind the project is the Scottish Government’s landfill ban on the disposal of recyclable and biodegradable waste from 1st January 2021. The facility would operate alongside the Councils’ kerbside recycling schemes.

The facility would convert the waste, via a moving grate process, into heat and power for export to the grid network and district heating. The development site is located within the East Tullos Industrial Estate in south Aberdeen on a disused gas holder site.

Planning permission was granted by Aberdeen City Council in October 2016 following a public hearing.
Lessons learnt

Key to the design approach was early ongoing consultation between the client and the technical teams (architect, engineer, EIA and planning) to establish operational and design parameters, taking account of the site and surrounding environment. This approach informed a comprehensive options review which was subsequently issued to key stakeholders for feedback. It proved challenging to balance the diverse views of different stakeholders, which included SEPA, planners, landscape officers and heritage officers. Feedback on design options was also sought through the public consultation process to ensure that the views and preferences of the local community were incorporated into the final design.

The EIA process informed the identification of mitigation measures responding to existing poor baseline conditions within the AQMA. Enhanced measures, such as advance Selective Non-Catalytic Reduction (SNCR) within the Flue Gas Treatment, was incorporated to ensure that the plant would not influence existing high baseline concentrations. The EIA assessed that there would be a negligible change to concentrations within the AQMA.

Lessons learnt cont.

In response to local concerns, additional modelling was undertaken as part of the EIA to assess potential air quality effects during local harr weather conditions. The EIA assessed that dispersion of stack emissions during harr would be more favourable than during typical average weather conditions as a result on the more stable weather conditions which occurs during harr.

Understanding and managing local residents’, along with key stakeholders’ concerns and aspirations during the design and EIA process along with site and surrounding constraints was essential to the successful outcome of the planning application.

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