

Case Study:

# Leeds RERF Centre

Acoustic louvre installation at prestigious  
Recycling and Energy Recovery Facility





Energy from Waste (EfW) is the process of generating energy in the form of electricity and / or heat from the primary treatment of waste. In this particular project, black bag rubbish from the local community is sorted; removing any recyclables and using the remaining waste to power up to 20,000 local households. The process has a significant impact on the amount of waste needed to go to landfill, reducing the environmental impact, whilst generating power and heat for neighbouring communities.

Once recyclables have been removed (estimated to be around 10% of the total delivered to the site), the remaining waste is burnt under carefully controlled and monitored conditions. The main purpose of the combustion process is to heat water and produce steam to drive a turbine capable of generating 13MW of electricity. The residual thermal energy generated will also have the ability to heat local homes and businesses.

Environmental impacts such as air quality, traffic, smell, noise and the appearance of the building itself are all carefully considered prior to a site being built and becoming operational. In the case of this particular site located near the Cross Green industrial estate, East Leeds, each potential environmental concern has been scrutinised to produce a facility that is clean, efficient and kind to the environment, without causing negative impact on people living and working nearby.

As with most other forms of power generation, noise is often a nuisance by-product of the process and is carefully modelled to predict any potential issues once a facility is operational. By the very nature of combustion, a balance must be kept between allowing enough air to enter the building whilst in tandem, containing any generated noise. In the case of this particular project, IAC Acoustics won the contract to supply all of the acoustic louvres across the site to aid the ventilation of the building, whilst minimising noise.

Installed in multiple locations across each of the 3 main buildings, the acoustic louvres allow the site to be fully operational 24/7. Most of the louvres provided are in fixed positions in the walls plus around plant equipment located within the roof section of the imposing glue laminated timber frame building. On the eastern flank, beneath the main archway, a section of removable louvres have also been installed to allow an acoustically treated airflow, whilst keeping a vital access point for any large scale maintenance work to the turbine and boiler. This entire section has been manufactured using a standard modular construction with associated supporting steel framework. Lifting points have been placed throughout the 4 large sections at regular intervals to allow easy removal if required.

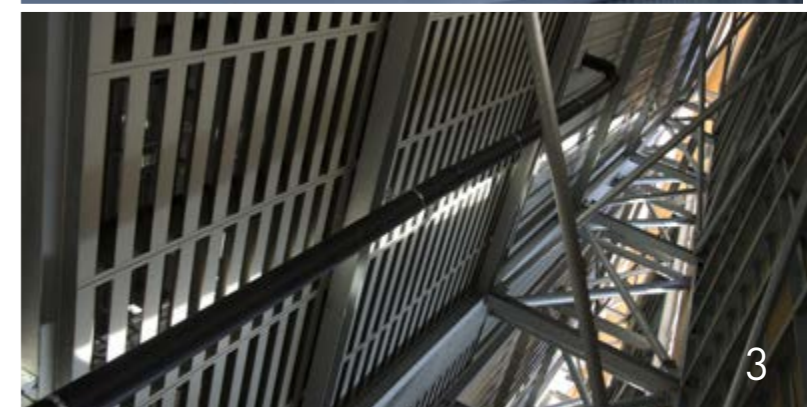
This successful project is one of other similar EfW schemes IAC Acoustics has worked on for Clugston and their client Veolia.

IAC Acoustics were a pleasure to work with and efficient when it came to installation, they provided engineered solutions to meet all our needs on site that also met the architectural aspirations of the original planned scheme.

**Neil Webster**

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 Clugston







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