

## Zero Carbon Homes and Zero Waste

The Visiting Diocesan Environment Group like to get out and about and see environment good practice in action. For their February meeting they made two contrasting visits in close proximity on Leeds.



Firstly, to Citu's [Climate Innovation District](#) in the heart of Leeds, where they were given a tour of the first zero carbon homes. [Citu](#) have built their own house building factory in on site to ensure high quality pre constructed units for their homes, which will use a mere 2,000kwh annual energy and generate electricity from roof top solar panels.

When complete the whole development will have over 500 homes, built deliberately at the heart of the city for easy access to employment and services. These are largely family homes and a primary school is planned for 2021 as well as a small commercial development.

It was refreshing to see very low carbon building standards, careful design, community living and social responsibility being put into practice. The development is an inspiring vision of what a low carbon society could look like.



Artist's impression of the Citu waterfront when fully developed.

Over lunch, kindly hosted by St Hilda's Cross Green, the group had the chance to attend to some Diocesan Environment Group business. Then it was on the Veolia [Recycling and Energy Recovery Facility](#) (RERF) at Cross Green.



This plant evokes a curious mixture of awe, hope and revolt. The iconic 42m high building is constructed largely from glass and timber. It has a green 'living' wall to the southern façade to enhance the visual impact and provide biodiversity, the green wall is one of the largest of its kind in Europe.

In Leeds about 40% of waste is recycled and the Council are proud of this relatively high separation rate. All the black bin waste comes to the RERF. The facility has two stages, the first where any recyclable materials are separated

from the general waste. This ensures that a further 10% of the waste is recycled.

For our tour we were taken to the top floor where we could see the second stage of the process. Here the "claw" lifts 165,000 tonnes of unrecyclable waste into the incinerator each year. Burning this waste generates around 13 MW of electricity for supply to the National Grid – sufficient to power in the region of 22,000 homes.

The plant reduces the greenhouse gas emissions for the city in number of ways. Firstly, less energy is needed to develop products from recycled materials, secondly energy generated from burning waste replaces fossil fuel generated electricity and thirdly the waste is no longer going to landfill where methane generation was a substantial problem.



The Diocesan Environment Group at the RERF

The RERF is impressive and anyone can join a tour of the plant. However, it also acts as a salutary reminder of the wastefulness of our consumer culture and for the need to develop a circular economy so that we can better care for God's creation.