

Overview

Hull City Council is committed to reducing its energy use and costs. It has a strategy to reduce its carbon emissions by 34 per cent by 2020.

Under the National Re:fit programme, the Council is delivering a phased retrofit of improvements to 10 of its buildings. This will save 20 per cent on energy costs across the buildings, equivalent to 846 tonnes of CO₂ per annum and the energy bill reduced by more than £190,000 per year. The project's planned investment is £1 million, with an agreed payback period of seven years.

The council's National Re:fit project encompasses 10 buildings with a wide range of uses, including:

- leisure centre/civic offices
- libraries/art gallery/public hall
- depot/administrative offices.

The Council, supported by Local Partnerships, ran a mini-competition under the Re:fit programme and Mitie was identified as preferred bidder in February 2015. Following changes in the Feed-in Tariffs (FITs) and subsequent negotiations with Mitie, Hull decided to split the programme into two tranches, the first one of which is to include five buildings.

Investment Grade Proposals for Tranche One by Mitie are to be completed by the end of spring 2016, with installation works for the five buildings in Phase One commencing in 2016

Project:	Hull City Council – 10 Corporate Buildings. Two tranches	
Savings tranche 1:	£114,000 energy spend reduction per annum 27% savings on energy cost	497 tonnes of CO ₂ per annum saved 23% reduction
Value tranche 1:	£683,000	Simple payback of six years
Timescale:	Installation to be completed in 2016	



The project encompasses 10 buildings, including civic offices (above), leisure centre, libraries, art gallery, public hall, depot and administrative offices.

“This Re:fit project is helping Hull Council in its ongoing commitment to achieve real savings with reduced energy consumption and CO₂ emissions. Local Partnerships’ professional support helped deliver a tailored approach, which is a tried and tested solution. It also provided the technical expertise to help review the differing approaches for energy reduction and help select the most appropriate for the Council.”

Martin Budd, Environment and Climate Change Strategic Advisor, Hull City Council

Summary of Energy Conservation Measures (ECMs)

Lighting upgrade

A lighting upgrade replacing existing luminaries for LED across the five sites will yield 311 tonnes of carbon and £72,000 worth of electricity savings per year.

Boiler optimisation

A staggering saving of £20,028 per year, equating to 20.4 tonnes of carbon, will be achieved by avoiding dry cycling of the boilers with a unit that integrates with the rest of the controls.

Window seals

Window seals provide faster warm-up times and longer heat retention with an increase in comfort levels, yielding savings of £8,810 per year and 47 tonnes of carbon. Average payback is 8.5 years.

Insulation

Heat loss through un-insulated pipework can generate high surface temperatures and this is a health and safety risk if touched. Insulating pipes and flanges will ensure savings of around £3,000 and 15.6 tonnes of carbon per annum.

Refrigeration controls

Optimising equipment being fitted to refrigeration AC motors will save Hull City Council 10.3 tonnes of carbon and £2,201 a year. The average payback of this ECM is 4.5 years.

Voltage optimisation

Voltage optimisation units are being fitted to three of the five sites in this tranche, with total savings achieving 27.8 tonnes of carbon and £5,918 per year.

Destratification

Using a range of fans to combat stratification of warm air at the top of high-ceiling rooms will save the Streetlife Museum around £2,000 a year and more than 10 tonnes of carbon. The payback is 6.2 years.

Energy efficiency and financial savings through Re:fit

Re:fit is a procurement framework and support service available to all public sector organisations in the UK. Since 2009 it has been helping organisations to deliver “spend-to-save” environmental retrofit projects that both improve their buildings and, importantly, make substantial guaranteed financial savings.

For further information

For more information about the National Re:fit Programme, contact robert.mckinnon@local.gov.uk or phone 0792 0702 297.