



Case Study

East Riding of Yorkshire
Council



Introduction

East Riding of Yorkshire Council (ERYC) was awarded funding to deliver interventions under Category 1 and Category 2 of the WHF. The Category 1 project began in November 2017 and, following extensions to the delivery window, concluded in 2022. The Category 2 project began in June 2018, and was completed after also being extended to 2022; the purpose was to install air source heat pumps (ASHP) and a small number of oil boilers in households in rural areas.

NEA completed an evaluation of ERYC's WHF projects, which was undertaken in parallel to, but separately from, the present programme-wide evaluation of the WHF. The findings in this case study are based on this parallel evaluation, but are supplemented by relevant findings from the programme-wide evaluation where appropriate.

What were the aims and objectives?

ERYC's Category 1 project was intended to deliver first-time gas central heating to 180 homes in the private sector with an Energy Performance Certificate (EPC) of E, F or G. After some amendments, Category 2 targets were revised due to changes in ECO, which disallowed oil boilers under the first-time central heating element of ECO3, and restricted delivery to specific cases where a heating system was broken. At the end of the programme, 232 installations were completed: 180 Category 1 installations and 52 Category 2 installations, with the latter consisting of 48 ASHP installations, and 4 oil heating systems that were completed prior to the amendments to ECO3.

Throughout delivery of the programme, all homes that were identified as having insufficient loft and/or cavity wall insulation were given this through ECO funding or other funding accessible to ERYC. Furthermore, all beneficiaries of the programme were offered energy-related advice and support during and after their installation – especially concerning how to use and operate their new heating system.

Who did it involve?

Although delivered primarily by ERYC, the project built on a number of partnerships and referral relationships to identify fuel-poor and vulnerable

households for the programme. Prominent among these collaborations was Health Through Warmth, a local fuel-poverty partnership managed by ERYC, which aims to help residents whose health is made worse or put at risk by inadequately heated homes. The varied network of organisations participating in Health Through Warmth included Age UK, Humber Fire and Rescue, local Citizens Advice Bureaus, the British Red Cross, and the NHS – in addition to relevant ERYC services such as social services, money and benefit advice teams, and related customer service departments. The partnership was described by ERYC delivery personnel as critical for successfully targeting the most-in-need households, especially those that might not otherwise come to their attention. For example, delivery personnel described how referrals from health and social care professionals, such as in respite care, social services and carer support, significantly helped the programme – they led those who were most vulnerable to the cold into the arms of a project that could improve the energy efficiency of their homes and support them with income maximisation.

A large proportion of ERYC's projects were focused on the private rental sector. Despite some challenges, specifically regarding changes in ECO eligibility, there were considerable successes in how the programme engaged with and recruited private landlords. Some larger landlords became 'champions' of ERYC's attempts to improve energy efficiency, by helping to spread the word about the programme to other landlords, which boosted referrals of private sector tenants. As one ERYC

delivery representative described, *"[it] is just a matter of being a lot more friendly with them and explaining [...] get the gas central heating and it is going to be a lot less you are paying out. The landlord I have dealt with recently has turned round and said [his tenant's] rent arrears [...] have reduced by 75%, because they are not spending as much on the electric portable heaters."* This was not only seen as relevant for the delivery of the WHF projects, but also for the future, when forthcoming Minimum Energy Efficiency Standards (MEES) regulations are likely to be tightened.

How was it funded?

In addition to internal funding and funding provided by the WHF, ECO was the most important source of match funding for beneficiary households (although this was not without its challenges, as will be discussed below). Over the course of delivery, ERYC was also able to leverage gap funding other than from ECO, and internal funds to supplement and enhance the heating system installation offer. The installation of air source heat pumps under Category 2 was supported by Northern Powergrid, which paid for upgrades to the home's electricity network connection to the grid if they were required. ERYC delivery personnel noted that this was *"quite a lot of money in some instances"*; and if a household cannot meet the cost of the upgraded connection, which is likely given the low-income eligibility criteria of fuel poverty programmes, then the installation is cancelled if the scheme cannot source the necessary funds from elsewhere. In addition, ERYC delivery personnel also discussed other small pots of internal and external funding that could be accessed in specific circumstances, such as emergency grants of £200–£300, available through local charities to fund additional home improvements. The evaluation concluded that the ERYC delivery personnel's flexible, proactive approach to identifying and accessing small sources of gap funding helped to ensure that works went ahead without any contribution from the households.

What were the impacts on households?

- Before their installation, 99% of questionnaire respondents couldn't easily keep their whole homes warm. Afterwards, 96% of respondents said they now could.

- Over 95% of beneficiary households reported a better temperature in their home, an easier heating system to use, and more control over their heating system since the intervention.
- While approximately half of questionnaire respondents felt it was too early to confidently state if there had been any change to their energy affordability, two-fifths reported improvements.
- Post-installation, 74% of respondents reported that their physical health was better now than it was before, and 74% of respondents also reported that their mental health had improved.
- Before installation, energy modelling data shows that average running costs of ERYC beneficiary homes was £2,045. Afterwards, this fell to £1,282, and the average fuel poverty gap for households defined as living in fuel poverty fell from an average of £733 to £137.
- CO₂ emissions (kg/yr) dropped from an average of 4,996 kg/yr per household to an average of 2,648 kg/yr: a reduction of almost half.

Who did it help?

Although no household interviews were undertaken as part of the evaluation of ERYC's projects, findings from the evaluation show the main characteristics of beneficiaries. Most notably, approximately four in five households supported through the projects reported one or more cold-related health conditions, illnesses or vulnerabilities in their household; particularly those related to musculoskeletal, cardiovascular and respiratory conditions, as well as conditions related to mental ill-health. Of those who returned a questionnaire, 73% agreed they couldn't keep warm at home, and it affected their physical health, while 70.3% of respondents couldn't keep warm, and it affected their mental health. In an open text item on each questionnaire, some respondents specifically referenced how the cold temperatures of their home had exacerbated respiratory problems, with one noting that "I'll suffer from asthma and the cold makes it difficult to breathe"; while a second commented that *"the heating in the house was too expensive to use, so we had to use a Calor gas heater to project enough heat, obviously the fumes were not ideal!"* After the interventions, questionnaire respondents commented that *"the increased warm in the house now helps with muscle and bone problems and makes life less restrictive"*; while

another respondent with lower body paralysis stated that *“the new gas heating makes my life a lot more comfy as my body is warm.”* The impact of the projects on those at risk of cold-related ill-health was summarised by ERYC delivery personnel, who stated *“you are getting them the benefits, you are getting them a warm home, they are not going back into hospital, [they] are managing the condition better.”*

What were the main enablers of success?

A key enabler of the success of ERYC's projects was the design and implementation of a holistic delivery model to fuel-poor households. 'Holistic' fuel poverty offerings are sometimes described as involving 'whole house' or 'whole home' delivery models, whereby a range of tailored, person-centred services are provided in one delivery model to a household. These services can be described as both 'technical' (i.e., concerned with improving the heating system, insulation, or other parts of the dwelling) and 'social' in nature (i.e., providing the household with broader financial and energy-related support), and are enabled by partnership-working with different organisations that can deliver additional provision if required (e.g., fire and rescue, debt advice charities). ERYC delivery personnel explained that the programme was able to deliver these different kinds of provision to each beneficiary where appropriate. This included enabling homes that required cavity wall or loft insulation to have it funded through ECO or other funding sources, and ensuring that households in debt or underclaiming benefits could be offered support to maximise their incomes. Furthermore, ERYC delivery personnel noted how their ability to refer solid fuel users to Fire and Rescue services for a safety inspection (e.g., checking smoke detectors) was particularly beneficial for older households, who may have used a solid fuel fire for some decades without ever having a safety inspection carried out.

The strength of holistic delivery models is that they enable a bundling of the benefits of financial gains (e.g. through supplier switching, income maximisation) and behaviour change (e.g. using heating controls more optimally) with the benefits of insulation and heating system installation. This simultaneously improves the efficiency of the property, the household's ability to pay for energy, and encourages changes in behaviour that can make a relatively small but nonetheless significant difference to energy consumption. In

addition, ERYC delivery personnel narrated how the advice and support delivered to households, at the point of installation and after, was also a crucial part of the delivery model. They described how they provided beneficiary households with *“three bites of the cherry”* regarding advice and instruction: one at the point of installation, to explain how the system works and is used; and two follow-up visits, to ensure the system is being used as intended and to answer any lingering concerns or questions. This was noted as especially important for ASHP installations; delivery personnel described how their ASHP contractor *“will spend about a good hour before the heat pump goes in explaining how they work and how the system is, because we don't want people to get something and really struggle with it.”* The findings of the evaluation demonstrated that this model was critical in enabling households to confidently use and control their new heating systems.

In addition, the projects' ability to navigate challenges associated with match and gap funding was important to the overall success of the scheme. The changing status of ECO3 presented numerous challenges to the programme at different points of its delivery, especially the decisions to restrict ECO3 measures allowed in privately rented dwellings, and to disallow oil boilers under the first-time central heating element of ECO3. ECO3 and also the Renewable Heat Incentive (RHI) both assisted the financing and delivery of the projects, but the uncertainty and 'stop-start' nature of these schemes were described as challenging. ERYC's ability to work collaboratively with partners and the WHF ensured that the impacts of these changes on delivery targets were renegotiated and minimised; however, the lack of synchronicity between different funding streams was highlighted as a challenge for ERYC as well as other WHF projects, and must be addressed in the energy efficiency schemes of the future.

What are the lessons we can learn?

- A holistic delivery model, which is dependent on the needs and requirements of the household, and can encompass energy efficiency improvements, first-time central heating system installation and instruction, and broader financial and energy related support, is critical for achieving good outcomes for fuel-poor households.

- The ways in which different funding streams synchronise and work together is important for ensuring projects can deliver successfully to the most-in-need households, and should receive more attention in the energy efficiency and fuel poverty programmes of the future.
- Working with landlords can be challenging, but adopting a collaborative approach and making them aware of the knock-on impacts of energy efficiency work on tenants' financial circumstances can open doors to the private rental sector, especially if certain friendly landlords can become 'champions' in their local areas.
- Wide-reaching referral partnerships stretching across the voluntary sector, health and social care, emergency services, and different departments in local authorities, can drive referrals of the most vulnerable residents to fuel poverty programmes. Involving health and social care practitioners within these partnerships is especially important for targeting households with cold-related health conditions, who might not otherwise ever become aware of a project's existence.
- Including the relevant distribution network operator within a project from the beginning can secure free and timely upgraded connections to the electricity network, where these are required for air source heat pump installations.

What is the project doing next?

ERYC is continuing to deliver energy efficiency improvements and energy advice to fuel-poor households, building on the successes and challenges of its WHF delivery. Specifically, ERYC was successful in a bid to deliver over £2mn of Home Upgrade Grant measures through BEIS's Sustainable Warmth Competition, and is continuing to implement measures through the Local Authority Delivery element of BEIS's parallel Green Homes Grant.