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CASE STUDY


NORTHAMPTONSHIRE
PARTNERSHIP HOMES TO
UTILISE AICO'S
'HOMELINK CONNECTED
HOME SOLUTION'



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CONNECTED HOME
SOLUTION' FOR RETROFIT
VALIDATION FOR OVER 400
PROPERTIES.

CONTENTS

- 01 Achieving net zero through retrofit
- 02 Implementing IoT technology for Retrofit validation
- 03 Providing training to maximise the benefits of the solution
- 04 The Future: The full picture



Northamptonshire Partnership Homes (NPH) has initiated a retrofit programme across 400 properties, in accordance with PAS 2035. This initiative has been partially funded by the Social Housing Decarbonisation Fund: Wave 1 (SHDF). PAS 2035 requires pre-retrofit assessment and post-retrofit monitoring, and NPH will utilise the HomeLINK Connected Home Solution to measure the effectiveness of the programme.

NPH is an arms-length management organisation (ALMO) that manages West Northamptonshire Council's housing services. They provide homes which enable people to live happy and healthy lives in enriched communities. They are always looking to improve and maintain the quality of their homes.

ACHIEVING NET ZERO THROUGH RETROFIT

A large portion of the UK's social housing stock does not provide the levels of energy efficiency or sustainability required to meet the Government's target of achieving net zero by 2050. NPH applied for wave 1 funding from SHDF, which allows registered providers of social housing to finance improvements of the energy performance of their housing portfolio.

They were successful in their application and plan to retrofit over 400 properties with the following energy efficiency measures (EEMs):

- External wall insulation
- Loft insulation
- New windows and doors
- Improved ventilation

Additionally, they will install:

- The Ei1000G Gateway and two Environmental Sensors into each property
- Aico Fire and Carbon Monoxide (CO) detection to Grade D1, LD2 specifications.

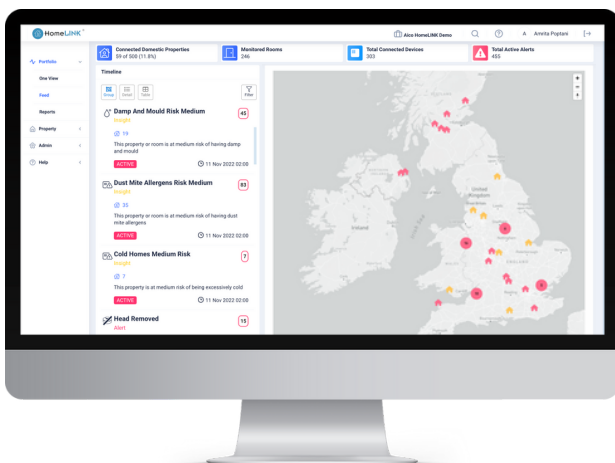
PAS 2035 is the specification for 'whole house' retrofit when installing EEMs, and focuses on assessing domestic dwellings for energy retrofit and is implemented in conjunction with PAS 2030: 2019, which sets out the standards required for installing EEMs.

IMPLEMENTING IOT TECHNOLOGY FOR RETROFIT VALIDATION

ANPH plan to complete the rollout of Aico's Ei1000G Gateway and HomeLINK Environmental Sensors across 400 of their social homes by summer 2023.

NPH opted to install HomeLINK's Connected Home Solution to monitor the impact of the installed retrofit measures across their housing stock, to identify any unintended consequences, and to inform future retrofit strategies. For example, enhancing a property's thermal efficiency will result in increased airtightness. With higher levels of airtightness within a property to improve energy efficiency, there are increased risks of damp, mould, and poor indoor air quality.

The Ei1025 Environmental Sensor monitors temperature, humidity, and carbon dioxide. The Environmental Sensors wirelessly interconnect with the Gateway, which is designed to monitor fire and carbon monoxide alarm systems remotely. With a central hub for all data, NPH can benefit from increased efficiency and improved asset management, creating safer homes for residents. The HomeLINK Portal provides actionable insights into damp and mould risk and indoor air quality of a property and can help to identify residents at risk of fuel poverty. The homes in the SHDF project are not assisted living, they're regular social homes.





At NPH, we have worked with Aico to install HomeLINK sensors as part of our Social Housing Decarbonisation Fund programme, to monitor home energy performance, suitability of ventilation, and internal air quality.

The retrofit programme aims to install HomeLINK devices in over 400 homes this year. Aico has supported us through procurement and engagement with supply chain, delivered training to our installers, and provided guidance to our back office team for interpreting and understanding the data displayed via the online Portal. Right away the data began to show us the impact of the retrofitted energy efficiency improvements, as well as offering indicators for risk of fuel poverty and damp, mould, and condensation.

The HomeLINK Portal provides NPH with a non-intrusive understanding of how the home is performing, assisting our asset management processes and enabling us to be more proactive on issues such as fuel poverty, and to empower households using the HomeLINK App for Residents.

Paul Tucker, Sustainability Manager, Northamptonshire Partnership Homes



PROVIDING TRAINING TO MAXIMISE THE BENEFITS OF THE SOLUTION

Regional Specification Manager from Aico, Katie Couelle, provided 12 of NPH's installation team with Aico's FIA CPD accredited Expert Installer Training which ensured they were equipped with the knowledge they needed to be confident in installing Aico products.

NPH's Retrofit, IT, EICR and Assisted Living teams received training on how best to utilise the information from the HomeLINK Portal and how to set it up for their specific user requirements.

They also covered the HomeLINK App for residents during training. They are hoping to further empower residents to improve their own home life safety with actionable insights available through the HomeLINK App. Residents will receive tailored recommendations, advising them on how to remedy issues or incorporate preventative maintenance solutions, to stop issues from occurring in the first place.

THE FUTURE: THE FULL PICTURE

Once the retrofit programme has been completed NPH will have a complete overview of the health of their housing stock. They will be able to monitor if the intended outcomes have been achieved and identify elements that may not be working as intended.



“It has been a pleasure working with Northamptonshire Partnership Homes, on the retrofit properties, installing Aico’s HomeLINK Connected Home Solution. Northamptonshire Partnership Homes are working towards ensuring that their homes are safe and energy efficient for their residents.

With ongoing training throughout Northamptonshire Partnership Homes, on the Portal and the HomeLINK App for Residents, I look forward to seeing the results as the project moves forward.”

Katie Couelle, Regional Specification Manager.



To find out more about how the Connected Home Solution can help provide Retrofit monitoring and evaluation for PAS 2035, please visit: www.aico.co.uk/homelink/retrofit