

Air source heat pumps: Osprey Housing



1 Project overview

Introduction

In 2022, Osprey Housing completed the installation of 61 air source heat pumps. This accounted for around 20% of their off-gas housing stock. The properties are located in Burghead, Garmouth, Keith and Aberchirder.

Prior to the installation, tenants raised concerns about the cost of their storage heaters on a regular basis. The association were also aware that many tenants were only partially heating their homes due to high running costs. Osprey Housing felt that heat pumps provided a solution for whole property heating, while being a more cost-effective alternative to storage heating.

Project name: Moray and Aberdeenshire heat pumps
Landlord: Osprey Housing



Installer: Heatcare
Tenant support: Rural Environmental Action Project (REAP) and Mitsubishi



Overall cost: £965,566
Funding source: Social Housing Net Zero Heat Fund: £342,441
Osprey Housing: £623,125



Heat technology: Air Source Heat Pumps

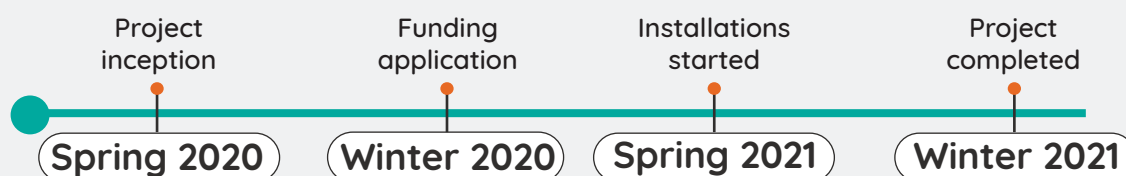


Building archetype: Detached and semi-detached bungalows, flats and detached houses. Totalling 61 properties.
Year: 2000s
Tenure: Social housing



Location: Burghead, Garmouth, Keith and Aberchirder in Moray

Project timeline:



Measures

A survey was conducted with tenants to explore which heating systems they would be interested in. This included two options: high heat retention storage heaters, or an air source heat pump with radiators. Information on both options was provided to tenants. The majority of tenants opted for an air source heat pump. The housing association agreed with this, as it is a cost-effective option that would provide whole property heating.

The majority of properties had recently received loft insulation and the remaining properties received a loft top-up as part of this work. Due to age of the properties, they were already well insulated, making them suitable for air source heat pumps.

2 Project management

Contractors



The housing association used the Procurement for Housing Framework to ensure they worked with a compliant installer. The selected installer, Heatcare, had worked with the properties as part of a previous project installing loft insulation. This meant that Osprey Housing were able to work with an organisation that had a pre-existing relationship with the households involved.

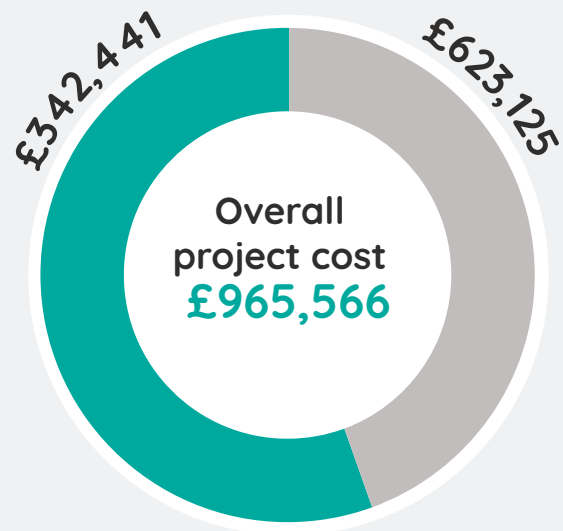
Tenant support and engagement were provided by the Rural Environmental Action Project (REAP) and Mitsubishi.

Tenant engagement

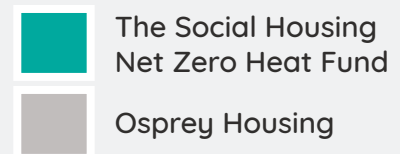


Asking tenants for their preference of heating system helped engage them with the process from the beginning. Osprey Housing arranged for REAP and Mitsubishi to deliver a tenant engagement day. This was done on the streets outside the properties, which were located near each other, to maximise tenant access. The engagement day proved successful as the tenants were able to get information about the new system from an organisation other than their landlord. Mitsubishi talked tenants through how the infrastructure would appear in the property. REAP supported tenants with tariff switching advice. The installer also attended the event; having worked with the tenants previously, they were able to drive participation in the project.

3 Costs



FUNDED BY



The total project cost was £965,566. The Social Housing Net Zero Heat Fund funded £342,441, which was used to support the cost of purchasing and installing the equipment. It also covered the cost to involve REAP.

The remaining £623,125 was covered by Osprey Housing. Project management, impact evaluation and other tenant engagement activities were covered by staff costs.

The cost for each property ranged from approximately £7.8k to £15k. The average cost was £11,578.

4 Project impact



Evaluation approach

Tenant satisfaction

Evaluation was carried out internally and was planned from the project's inception. An initial householder survey captured thoughts on existing and proposed heating systems and energy cost data. A second survey was issued 12–18 months after installation, ensuring the tenants had used the new heating system throughout a winter period. The survey received 13 responses and explored the change in costs, comfort and usability compared to their previous heating systems.

Energy performance rating

Energy Performance Certificates (EPCs) were completed before and after the installation to show the impact on modelled energy performance of the properties.



Results

Tenant satisfaction

Households reported many positive impacts from the change in their heating system. The following gives a summary of the results reported by Osprey Housing:

- Half of the respondents reported an increase in the temperature of their properties.
- The majority of respondents reported that their home has a more comfortable temperature most or all of the time.
- Half of the respondents stated that their heat pump is easier to control than their previous system.

Energy performance rating

The average Standard Assessment Procedure (SAP) score increased by nine points, improving the EPC bands. This table shows how the number of properties in each EPC band changed from pre-installation to post-installation:

EPC bands	Pre-installation	Post-installation
B	6	25
C	33	28
D	22	0
Unknown	0	8



5 Challenges and recommendations

Tenant engagement



Challenge:

The association wanted to make sure they engaged with a significant number of their off-gas properties. Having secured Scottish Government funding for 61 of these households, it was important that they successfully engaged the majority of proposed households, so that the significant investment resulted in the intended impact.

Solution:

Osprey Housing managed to get all households to participate by engaging with tenants from the project inception and creating a survey to identify which heating system they would be interested in. Delivering tenant engagement days and ensuring staff involved had a relationship with the households helped to secure engagement.

Recommendation:

Consulting tenants on the approach to zero direct emissions heating and conducting information events that are easy to access can increase engagement.

Tenant advice



Challenge:

Many of the tenants were unfamiliar with the controls of the new system and needed further support. In addition, the tenants needed to change to a single rate tariff from a two-rate storage heater tariff, to make the heat pumps more affordable. Osprey Housing wanted to ensure this step did not put tenants off.

Solution:

The housing association had the support of experienced tenant engagement organisations. They worked with tenants throughout to ensure they understood how to use the system. An impartial organisation gave advice on switching to energy tariffs that worked with the new system.

Recommendation:

Working with external organisations with experience of supporting tenants with the practicalities of a heat pump installation can ensure the process goes smoothly.

6 Project contact

Osprey Housing welcomes enquiries about site visits from other social landlords. Please email Jane McWhirr: mcwhirr@ospreyhousing.org.uk

This is part of a suite of case studies that can be found on [the ClimateXChange social housing decarbonisation webpage](#), alongside a summary report, which gives an overview of the key learnings and recommendations.