

POWERTY

Renewable energies for vulnerable groups

STUDY VISIT N° 2

AABEN HOUSING COMPLEX

Manchester – 17 of January 2020



1. INTRODUCTION

As part of the POWERTY project meeting undertaken in January 2020 to Manchester, a site visit was undertaken to the Aaben housing complex, developed by the One Manchester Housing Association. One Manchester is Manchester's largest not-for-profit and non-governmental provider of housing and community services. One Manchester currently own more than 12,000 homes in central, south and east Manchester.

2. DESCRIPTION AND LOCATION

The Aaben is a new £23million development of 105 homes, all available for market rent. The development is a mixture of 1-, 2- and 3-bedroom apartments (85) and 3-bedroom townhouses (20). All apartments are heated, and hot water is provided, via air source heat pumps that are located on the roof of the development, alongside improved ventilation, thicker windows and insulation which help to keep bills down.



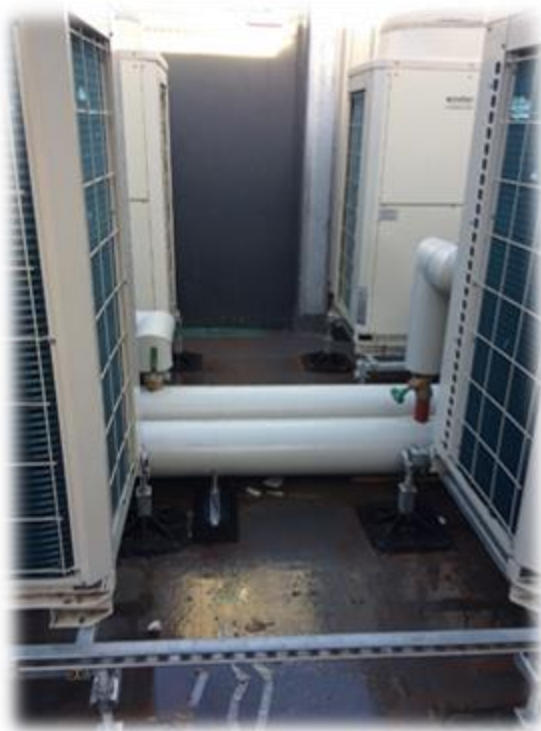
*Photo 1: The Aaben development that was visited during the project meeting. Photo by Novalia.
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During the site visit, we had an opportunity to observe the pumps in action, and talk about the technical and social challenges associated with managing the development with representatives from One Manchester.



Photo 2. The Aaben Development. Source: One Manchester.

3. TECHNICAL DATA



- 105 flats and townhouses served by the system.
- Estimated power to all the dwellings from the heat plant (using EPC data) has been calculated at 312,731kwh (this is not accounting for heat loss from plant to properties from pipework).
- Installed capacity is 344 kWh.
- No CO₂ savings have been indicated or calculated on the project.
- Electrical sub-metering was installed at Aaben in 2021, but not all meters are yet fully operational.

Photo 3. Solar Heat Pumps at the Aaben Development. Source: One Manchester

4. CONCLUSIONS

The visit highlighted the multiple benefits of innovative renewable energy installation for a social housing provider like One Manchester, as well as the financial, technical and social difficulties associated with the process.

One of the main discussion points was that engagement and discussion with residents prior to the introduction of new forms of energy generation is crucial to the successful deployment of the infrastructure.

Lessesons learned from the project includes appropriate metering and data platforms (which allows you to isolate and measure electric supply into the plant facility only and heat output from the plant) need to be considered in the early design phases and need to be ready to go live as soon as the plant is commissioned. This allows you to effectively monitor and act quickly to any variances of plant performance. This is important in order to manage costs of running the system and therefore ensure value for money for the end users.

In addition, when creating a Heat network where residents pay the landlord for heat supply, we now know that it is important to employ appropriate resource as soon as the system goes live in order to regularly monitor the efficiency of the plant facility, the electric cost supplying the system and to regularly monitor customer heat accounts and engage with customers on their heat usage to ensure they are using the system efficiently and get the best value for money from their supply.

5. ANNEX

More informatiob about Aaben:

<https://www.onemanchester.co.uk/housing/find-a-home/developments-rent-or-buy/theaaben>