

## Case Study — Hope Rise, Bristol

A 100% social rent, 2 storey building above a steel podium on an existing car park

**Client:** Bristol City Council

**Type of Construction:** Volumetric Modern Methods of Construction

**Location:** Chalks Rd, St George, Bristol BS5 9EN

**Description:** Full Turnkey for building 11 Space standard compliant one-bed apartments using ZED PODS designs and BOPAS accredited build system which are owned 100% by ZED PODS Ltd.



The net zero-carbon development of 11 number residential dwellings, working with the Bristol City Council, Bristol Housing Festival and YMCA, is an example of innovative sustainable development above an existing public car park (including improvements to the car park layout and other associated works) with retention of the site's use as a public car park.



*There is a crisis in the availability of affordable housing across the UK. The pressing need to build high-quality, energy-efficient homes, combined with rapidly rising construction costs, is making the delivery of new homes for council tenants increasingly difficult. Hope Rise has shown us that innovation is essential as we seek to deliver homes fit for the future to meet Bristol's housing need. We hope the learning from this pilot project will lead to the design and delivery of hundreds if not thousands of homes."*

**Councillor Tom Renhard**

Cabinet Member for Bristol City Council



[Watch project clip on BBC The One Show](#)



[Watch Project Video](#)



[Interiors 3D Virtual Tour](#)

# As Built Energy Performance

## Energy Consumption

Based on the mix of model and actual data, the site is a net exporter of energy based on total consumption (regulated plus unregulated energy)

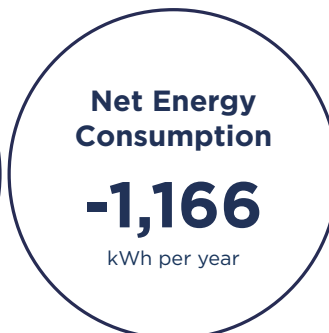
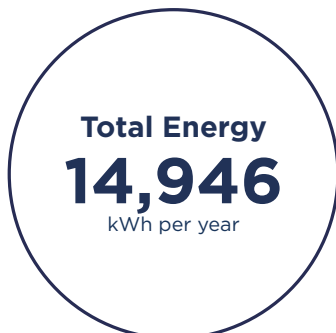
22<sup>nd</sup> December 2020 – 21<sup>st</sup> June 2021

One-bed Apartments

**11,862 kWh**

Two-bed Apartments

**3,084 kWh**



## PV Energy Production

The 105 panel roof mounted photovoltaic panels generate enough energy to cover the yearly demands of residents and also provide surplus power to the national grid.

22<sup>nd</sup> December 2020 – 21<sup>st</sup> June 2021

One-bed Apartments

**12,429 kWh**

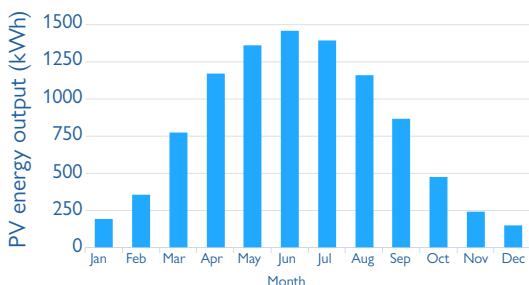
Two-bed Apartments

**3,683 kWh**

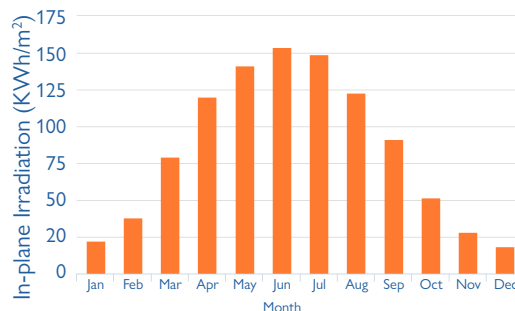
Total Annual PV Energy Production

**105 panels**

**16,112 kWh**



Above: Monthly energy generation



Above: Monthly Irradiance

## Average Operational Carbon Footprint per unit

Combining the different zero carbon strategies each unit at hope rise achieves a negative dwelling emissions rate with a greater than SAP energy and carbon ratings.

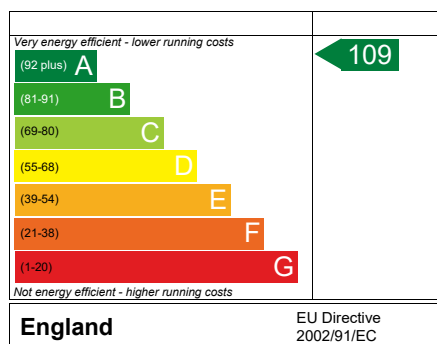
**-0.91 tonnes CO<sub>2</sub> eq**

**Dwelling Emission Rate**

**-10.54 kgCO<sub>2</sub>/m<sup>2</sup>**

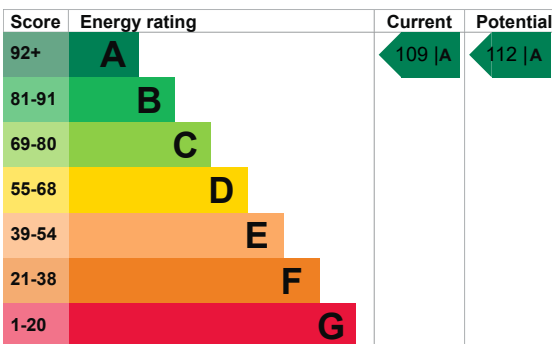
### SAP—As Design

Predicted Energy Performance



### SAP—As Built

Measured Energy Performance



# 'Hope RISE' — COP26 Virtual Pavilion

The only modular social housing development in the UK showcased at COP26



## Residents' Testimonials



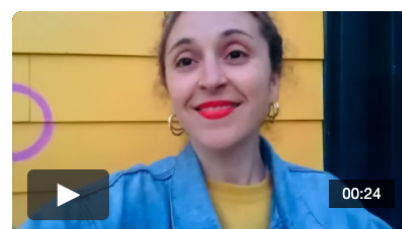
I have lived in a ZED PODS home for over a month now & I still have to stop to appreciate how nice of a house I have at such a young age. I was nervous about moving in so close to Christmas because of winter & most people I know when they first move in it's always cold. However, the homes are really warm & don't take long to heat up.

I fell in love with ZED PODS at first read. I loved that they are energy-efficient and environmentally friendly. The house designs had come up on my home choice and my heart just leapt. To see such a wonderful house show up on home choice was a shock to me and to be living here now I don't suppose any words can describe how I feel about my home.

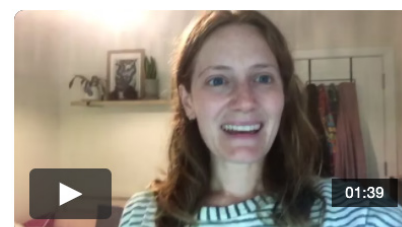
ZED PODS are not only a very practical way of trying to help tackle the housing crisis and giving more to communities. They give pride to the people that live in them. I feel proud that the house I live in not only looks both breath taking on the outside but beautiful on the inside."

**Sam Lindo, Resident of "Hope Rise"  
(also a "Community Builder" for the scheme)**

[Click to play](#)



Sam Lindo\_Hope Rise Resident

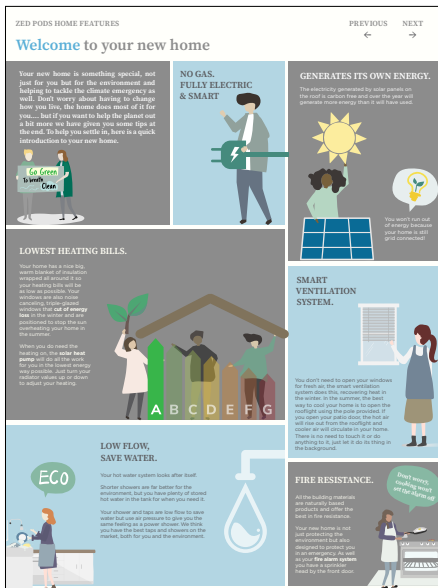


Katherine Hall\_Hope Rise Resident

ZED PODS have been fully involved in the post occupancy handover and developed the O&M and handover documents. ZED PODS have also conducted post occupancy evaluation, energy monitoring and follow-up customer satisfaction surveys. Including fortnightly hand-over meetings with the client for 3 months post-handover. Hand over included video home user guides, M&E training, F&M training and BIM model training.



Above: ZED PODS 'Home User Guide'



## CASE STUDY

Jamal (name changed to protect anonymity) came to the UK as an unaccompanied minor from Syria and was under the care of Social Services until he was 21. He had most recently lived in a shared house with support which was coming to an end, meaning he needed to move on. His support worker referred to him as a model tenant and thought he would be ideal for Hope Rise.

Jamal himself was keen as he was used to living as part of a community when growing up and wants to be part of something where he can make friends. Jamal worked with a Community Builder and the YMCA to access paid work experience as a labourer on a site alongside the Community Builder. This enabled him to gain invaluable skills which he has transferred across to his carpentry apprenticeship. Jamal feels very much at home at Hope Rise; he is extremely grateful and happy for the help he has received from the Community Builders and other residents and looks forward to integrating more within the community over the next few months. He recently passed his driving test and can now drive further afield for work. He is also keen to obtain his Construction Skills Certification Scheme (CSCS) card."



Above: Post Occupancy Evaluation for 'Hope Rise' ZED PODS development, the project is the first completed MMC project to receive a grant from Innovate UK, Commonwealth Housing and University of the West of England.