

Project Documentation

**POST PROJECT EVALUATION DOCUMENT
(PPE)**

**Energy Efficiency and Thermal Comfort Works at
Westward House, Chichester**

Release:	Draft
Date:	7 March 2023
Author:	Cally Antill
Approved by:	<Name and date>

Document History

Revision Date	Version	Summary of Changes	Reviewer(s)
04/01/2023	1.0	Initial draft	

Consideration by the Corporate Improvement Team

Date	Reviewing Officer	Comments for Consideration
13/01/2023	Jenny Westbrook	Minor comments and suggestions for additional narrative to be included fed back to author.

Approvals

This document requires the following approvals:

Name of person, group or committee
SLT
Cabinet

Distribution

A final copy of the approved document will be distributed to:

Name	Job Title
Cally Antill Project Co-ordinator	West Sussex County Adaptations manager/Project Co-ordinator
Kerry Standing Project Sponsor	Divisional Manager Revenues, Benefits and Housing
Liz Reed	Housing Standards and enabling Manager
Teresa O'Toole	Housing Solutions Manager
Mark Hughes	Housing Accommodation Team Leader
Victoria McKay	Divisional Manager Property and Growth
Strategic Leadership Team	
Alan Sutton	Cabinet Member for Housing, Communications, Licensing and Events

1. PURPOSE OF DOCUMENT

This document provides a review of how the Energy Efficiency and thermal comfort works at Westward House, Chichester project performed against the original intentions set out in the Project Initiation Document (PID).

It allows lessons learned to be passed on to other projects and ensures that provisions have been made to address all open issues and risks alongside follow-on actions and recommendations where appropriate.

It also provides the opportunity to assess any expected outcomes that have already been achieved and/or provide a review plan for those outcomes yet to be realised.

2. ORIGINAL PROJECT DESCRIPTION

Installation of energy efficiency measures in 41 units at Westward House.

3. PROJECT OBJECTIVES

The project will enable the installation of high heat retention storage heaters and additional thermal insulation to the accommodation at Westward House. The PID also allowed for the opportunity to add further measures, budget permitting.

3.1 Outputs

As outlined in further detail below, the project successfully enabled the installation of high heat retention storage heaters and other measures to the accommodation at Westward House.

3.2 Outcomes

- Energy Performance

Set out in the original PID:

The installation of high heat retention storage heaters and additional thermal insulation will improve the energy performance of the accommodation.

The EPC available for the accommodation at Westward House is based on an assessment of the house which is 'E' rated (A rating is most efficient, and G least efficient). EPCs for all the properties will be assessed as part of the 'whole house' surveys being undertaken in April 2022. At that time the level of improvement in EPC which can be achieved will be determined.

Post project evaluation:

EPCs were calculated for each property before the agreed measures were installed and these were assessed at D and E.

41 properties received new high heat retention storage heaters, new bathroom heated towel rails and new LED lighting to kitchens and bathrooms.

The revised EPCs which were assessed following completion of the works show a significant improvement with all properties moving up at least a whole rating (15 properties) and many (26 properties) increased by two grades. The properties are now all EPC rating B and C (except for the detached house which rose to a D).

- Thermal Comfort

Set out in the original PID

The installation of the energy efficiency measures will improve the thermal comfort for residents who will be provided with a more controllable, modern heating system. The improvement will positively improve health and wellbeing, and it is hoped the reduction in energy consumption will result in lower energy bills.

Post project evaluation:

The work is assessed via the improvement to the EPC ratings to have improved the thermal comfort for the residents of the Council's short stay accommodation but it is not easily possible to establish if it has improved the residents' health and well-being. A high number of residents have moved on from the short stay housing since the project commenced and new residents have moved in without having experienced the previous level of thermal comfort. Lower energy bills for residents were anticipated, however, the dramatic rise in energy costs over the last few months has coincided with this project, meaning that benefit is harder to calculate. It is likely that the timeliness of the work has mitigated some of the impact on the residents of the short stay housing accommodation.

- Energy Consumption

Set out in the original PID:

The improvement to the energy performance of the accommodation through the installation of high heat retention storage heaters and thermal insulation will allow residents to reduce their energy consumption whilst maintaining a comfortable indoor temperature.

Post project evaluation:

High heat retention storage heaters were installed but as the insulation levels were assessed to be good during the whole house inspection additional insulation was not required. This enabled additional measures such as replacement bathroom heaters and LED lighting to be installed.

Residents are able to reduce their energy consumption due to the installation of the new measures however this is currently masked by the dramatic rise in energy prices. In due course, an assessment of energy use (rather than costs) will be possible by comparing electricity usage from electricity bills and meter readings over a two year period.

- Reduced Maintenance

Set out in the original PID:

The existing heaters are obsolete and the controls can no longer be repaired or replaced so heating unit failures are time-consuming and costly. The installation of modern units will provide confidence to staff managing the accommodation, and future repairs can be actioned more quickly and efficiently.

Post project evaluation:

All the heaters have been replaced in all 41 properties (the heaters in the other 3 flats at Westward House were replaced as part of the Freeland Close/Westward house development project). They have a 12 year warranty and should not need maintenance (unless damaged) for a considerable period. The life expectancy of the heaters is estimated between 15 and 20 years so the replacement date in the ARP can be moved forward by at least 15 years.

3.3 Outcome Measures

Set out in the original PID:

Warmworks will undertake surveys of all 41 properties, draw up 'whole house plans', undertake 'retrofit assessments', and calculate the EPC ratings before and after the work.

The effectiveness of the measures installed will be measured by the improvement in the EPC ratings compared with the baseline ratings. The energy performance certificates will also provide data regarding carbon savings which will be achieved following the installation of energy efficiency measures.

Post project evaluation:

As set out in 3.2 above all this work was completed and the outcome measures achieved. A significant 54% reduction in energy use has been assessed by the Council's Carbon Reduction Projects Manager with a resulting reduction in CO₂ emissions.

3.4 Dis-benefits

There are no assessed dis-benefits

4. PROJECT COSTS

Set out in the original PID:

The early indicative costs (for the Council's contribution) provided by Warmworks to deliver (a basic number of) the high heat retention storage heaters and thermal insulation is £79k. However, there is the potential for this cost to increase once surveys have been completed, (the number of heaters are known), up to date quotes are received, and additional energy efficiency measures have been identified. A ventilation assessment is also required as part of the whole house assessment.

Warmworks has suggested that the Council should plan for a maximum contribution of up to £100k with a maximum grant of £205k being available for this project.

Warmworks, the Managing Agent, will be responsible for managing delivery of the works. However, it will be necessary to appoint a CDC project lead who will be responsible for finalising the specification of the works and overseeing the installation and completion of the project. This role will be sourced from existing resources within the Housing department. Input will also be needed from Finance to ensure payments can be made within the 7 days required under the contract.

Post project evaluation:

Cally Antill was asked to take on the role as project coordinator. Warmworks provided the project management and Carbon Rewind were the contractor. The Government grant was confirmed at £205,000. The Council agreed a contribution of up to £135,000. This was approved in three tranches (£20,000, £80,000 and £35,000) as the project progressed and the surveys and whole home assessments led to better assessment of the measures which would be most appropriate and more accurate costs could be established in a fast-changing market. The final account is awaited.

5. PROJECT PLAN

Project Stage	Scheduled Completion Date	Actual Completion Date	Comments
Stage 1 Approval and contract			
Seek emergency agreement for £20k approval to survey Westward House flats	Completed 28 th February 2022		Already completed prior to PID approval.
CDC to sign contract with Managing Agent, Warmworks	Completed 1 st March 2022		Already completed prior to PID approval
PID approval	5 th April 2022	5 April 2022	Cabinet approval
Stage 2 survey and final proposals			
Survey of 41 units at Westward House. Access to be arranged by CDC.	Mid – April 2022	25 th April to 6 th May 2022	‘Whole house’ assessments and plans and pre work EPC surveys.
Surveys to be evaluated; property eligibility confirmed, additional energy efficiency measures proposed by Warmworks	30 th April 2022	June 2022	This included a number of tasks including identifying roles and responsibilities, technical inspections, review meetings, development of costings schedule, agreeing measures to be installed.
CDC to consider Warmworks’ final proposal ensuring sufficient funding is available and project objectives will be met.	May 2022	June and July 2022	Included identification of a contractor to deliver the works, review of supply chains, securing funding from CDC (cabinet and council) Technical surveys and inspections by the

			appointed contractor, risk and method statements, insurance check, lead in period notifying tenants. Prestart meetings.
Stage 3 - works			
Works begin on site	May 2022	10 th August for 2 and half weeks Mop up visits from 5 th Sept.	Also included site set up and contractor inductions, review of Risk and Method Statements.
Post work inspections		12 th sept for two weeks	Quality checks and sign off to rectify any issues found after the quality inspections and where heating units had not been available etc
Post works EPC assessment and calculations		October 2022	
Remedial and outstanding works		November 2022	
Stage 4 – evaluation			
Project review and close	July 2022	January 2023	
Post Project Evaluation Report	January 2023	January 2023	Cabinet meeting March 2023

6. PROJECT MANAGEMENT PROCESS

The project management process worked well with an in-house CDC project coordinator and Warmworks dedicated to the project management of the surveys, inspections and the actual work onsite. Warmworks were responsive to issues and problems which arose along the way. They managed the on-site contractor, looked after the health and safety aspects, inspected, checked and approved the works post installation and arranged any remedial works required.

It was initially a challenge to obtain the grant via the Greater South East Energy Hub (GSEEH) as there were several stages to go through and hurdles to get over when obstacles were placed in the way. The first provider (Eon) contracted with the GSEEH withdrew from the process at very short notice leaving several regions across the country with no provider. Warmworks were able to step in and pick up some of the areas and it was necessary for the council to show that the project in Chichester would be straightforward for them to deliver and that we could act at speed. This problem however left the deadline even more challenging than it had been originally as so much time was lost securing a replacement.

GSEEH held regional meetings with those due to receive the funding initially every week and then every two weeks due to the uncertainty surrounding eligibility, moving deadlines, funding availability etc. they also reported updates from BEIS when these were released.

The initial project timetable was very ambitious as it was driven by the need to try and put everything in place by the end of June 2022 (the Govt deadline) in order to

secure such a large amount of funding (£205,000). However national issues and supply chain problems and capacity in the system as part of this national project created delays and confusion (as well as the time lost described above).

There were ongoing statements from BEIS about funding deadlines and whether they would be extended or not. The initial deadline of June 2022 was only extended to September 2022 at the last minute. Had this not been extended, the project was at risk of not being completed on time. However, once this confirmation had been received, the project proceeded in line with the new project plan and practical completion was achieved by the new deadline.

There were also concerns about the availability of the heaters, the impact on supply chains and potential for costs of the heaters and other fittings to escalate due to supply and demand in the market. A shortage of qualified assessors and surveyors was identified on the risk register due to the scale of the funding being offered nationally. CDC were fortunate to be able to mitigate these risks by demonstrating that their project was deliverable as many other funding requests failed due to the lack of capacity and the tight and changing funding deadlines.

7. FURTHER ACTION

There are no outstanding issues or actions.

8. REVIEW PLAN

The electricity bills and electricity usage will be measured after a year in October 2023 so that the council can assess the impact of the works and confirm the reduction in energy usage.