

Colville Road Phase 3

**Renewable & Low Carbon Technologies  
Maintenance Programme**

Apr 2024

Document Ref: CM020-MP-01 Rev 0

### **Executive Summary.**

This document has been produced to summarise the maintenance requirements of all renewable and low carbon technologies and plant as shall be installed on the development.

This information has been prepared in conjunction with our Mechanical Subcontractor and the eventual building owner.

### **ASHP (Air Source Heat Pumps)**

Air Source Heat Pumps are to provide heating and hot water to the development. There are two forms of ASHP being utilised on the scheme. To the each of the two blocks, totalling 45no. flats, an array of large hear pump units are linked in series to provide heating and hot water via a communal looped system, with hot water stored in buffer vessels within the main plant room.

To the 3no. houses on the development, smaller individual units are provided to each dwelling, with their own hot water cylinder located within each property.

The following units are being installed respectively:

Flats: Mitsubishi CAHV-P500YHA

Houses: Mitsubishi PUZ-WM60VAA(-BS) Ecodan R32 Monobloc

The maintenance of ASHP's is such that they will be serviced on an annual basis with a schedule of maintenance provided for each individual unit.

The development, once complete, will be owned and managed by Cambridge City Council's Housing Company, as such they will be responsible for the regular upkeep of this plant, to maintain its operation, efficiency and product warranties.

### **PV (Photovoltaic Panels)**

PV panels require very little general maintenance other than cleaning. PV panels are less effective when obscured, for example by buildup of bird foul or fallen leaves from nearby trees. This will vary from site to site, and can also vary dependent on inclement weather conditions.

The development, once complete, will be owned and managed by Cambridge City Council's Housing Company, as such they will be responsible for the PV. It is recommended an annual inspection of the panels is undertaken by the Housing Company to ensure correct function and preservation of product warranties.

Should the panels not function correctly an LED will illuminate on the inverter panel, and remedial action can then be taken.

### **Solar Thermal Panels**

There are components within a solar thermal system such as the pump and valves that must be kept in good working order to maximise the amount of renewable heat produced and maximises the life span of the system.

A service should be carried out on an annual basis, and should include a visual inspection as well as system checks on hydraulic pressure, levels of antifreeze, flow rates etc. Heat Transfer fluid should be replaced every 5 years to ensure that the pH and antifreeze-protection levels are correct.

The development, once complete, will be owned and managed by Cambridge City Council's Housing Company, as such they will be responsible for the Solar Thermal panels and all associated mechanical plant. It is recommended an annual service of the panels is undertaken/arranged by the Housing Company to ensure correct system functionality and efficiency, and for preservation of product warranties.