

Management Plan for Air Source Heat Pump System – St Mary's C of E Primary School

Site Location: Brookpit Lane, Clymping, West Sussex BN17 5QU

Introduction

This document has been produced by ReEnergise, who are project managing the delivery of the air source heat pump (ASHP) system at St Mary's C of E Primary School. The project is being undertaken as part of a wider heat decarbonisation project for the Diocese of Chichester, which is being partially funded by the Public Sector Decarbonisation Scheme Phase 4.

The correct operating procedures for the two 16 kW Viessmann Vitocal 150-A units for the main building alongside the digital interfaces provided by Viessmann for automated management are outlined below. Staff at St Mary's C of E Primary School will be trained in and use these operating procedures. The systems are weather compensated and can be monitored and adjusted remotely, so will require minimal adjustment by the school staff other than setting schedules for heating and inputting the holiday dates.

System Description

A courtyard on the eastern side of the school close to the existing plant room will be used to site the outdoor ASHP units, which will be placed on an existing concrete base. The system will be connected to the existing distribution system within the plant room and new controls will be installed.

Operation of Plant Room

As outlined above, the operation is controlled digitally, and its function will be automated. The following management will be needed from the site team:

- Weekly checks of the system and pressure gauges to ensure the system is pressurised.
- Setting heating programmes for school days and weekends, and inputting holiday dates. During holidays the system will set temperatures to reduce consumption while ensuring the building and pipework does not freeze.
- Regular checking of the remote monitoring app or the control panel to ensure there are no faults.
- Ensuring correct annual servicing takes place and the plant room receives correct maintenance.
- As part of the PSDS project, annual consumption and performance information will be collected and submitted to ensure the performance of the system. This will be provided using the Viessmann remote monitoring system.
- Once the system is installed, there will be a handover training session with the heat pump installers and Viessmann to train the staff on the basics of the heat pump, common faults, and how to deal with faults. This information will also be outlined in the handover documentation and any faults will send an alert on the remote monitoring app.

Energy Management

During the first two years of installation, the installers will be under the Defects Liability Period. During this time, they will continue to make any necessary micro adjustments to the operation of

the system to ensure it is performing at the highest level to minimise energy consumption for the school.

In addition, the Diocese of Chichester will be provided with information on the heat pump systems and a set of guidelines on how the schools should operate them to ensure they are run efficiently. In doing this it shall allow the school to continue to optimise their energy consumption, therefore reducing the school's running costs.

Health and Safety

During the handover training, guidelines for the safe operation and maintenance of the heat pump system will be provided. These will form part of the Viessmann heat pump technical documentation that is included in the handover documentation.

In the event of any concerns, each heat pump has an individual isolator, or the whole system can be isolated from the main electrical supply. If any faults are present, the schools will inform ReEnergise, and the installers will rectify the situation while ensuring all health and safety regulations are followed.

Sound

As the system is being installed in a school where minimal disruption is required, extra care has been taken to select heat pump units that are quiet and locate them where noise impacts will be minimised. See separate Sound Assessment for further information.

Servicing

Each year the heat pumps will be serviced by a suitably trained and competent engineer to ensure the system is operating efficiently. Any issues are raised immediately and actioned to ensure the longevity and performance of the system.

Ideally a separate contract would be set up with the installer so they could take on the servicing of the system after the Defects Liability Period ends. If required, a separate tender exercise could be run to appoint a contractor to undertake the servicing of the system.

Documentation and Record Keeping

All handover documentation will be supplied in a digital and paper format that will be stored in the plant room or main office. This will include all the relevant documentation on the operation, maintenance and servicing of the heat pumps.

Documentation of all maintenance activities, repairs and inspections related to the heat pump system will be stored in the plant room.

Any modifications or upgrades made to the system over time will be added to the handover documentation to ensure any future contractors are aware of the variations to the original system installed.