BACKGROUND UNDERFLOOR HEATING WORKING PARTY TERMS OF REFERENCE

Background

The current electric background underfloor heating system on the Barbican Residential Estate has been in place for over 40 years. During the last three years the system (underfloor pads, fuses, switches, risers and distribution systems) have been found to be in excellent condition and should be useable for the foreseeable future with minimal maintenance cost.

Until May 2017 the underfloor heating was controlled in three basically similar cycles system was switched on or off by a cyclo control system managed by EDF. The on/off status was determined by comparing the outside air temperature with a pre-determined profile. These profiles were loaded in the 80s or before and the control system was effectively a black box with no user serviceable access.

During 2017 a new control system was installed, which enables a much finer control of the heating system. This control system is now easily modified by the Barbican Estate Office building management system and can operate switching on a block by block basis.

Further, during 2016/17 the opportunity was discovered of achieving substantial savings by offering the national grid the potential to switch off or on our heating system for very short periods of time. This Demand Side Response could be implemented either directly or through an aggregator.

Objectives

The Background Underfloor Heating Working Party (BUHWP) will take the opportunity to capitalise the opportunities presented by these two developments to improve the comfort of Barbican residents and reduce the costs of our underfloor heating bills. It will immediately evaluate;

- the feasibility of using Demand Side Response and its potential for reducing costs,
- the potential for increasing the level of heat provision during the shoulder periods of October and May, either by shifting some of the total consumption from the peak winter months of January and February or by increasing total annual consumption,
- the potential for incorporating feedback into the control system, so that our control system operates more like a standard domestic thermostatically controlled system,

- the potential for incorporating weather forecasts into our control system,
- the potential for installing controls that would enable residents to control their own heating, and
- *the potential for reducing the carbon footprint of the heating system.*

Modus operandi

The BUHWP will recruit its members from residents and City officers. It will be chaired by a resident, preferably a Common Councillor who serves on the BRC. However, the full working party, including City Officers will need to meet only occasionally. Most of the work will be carried out by a sub-group of residents who will from time to time call upon the officer members for technical support. This sub-group may also need to call for assistance from other City officers. This sub-group will be chaired by a resident who will be Deputy Chair of the working party. The Chair and Deputy Chair will be elected annually from members of the BUHWP

The BUHWP will report progress to and seek guidance from the RCC. This will take place at each RCC meeting.

The full BUHWP and the sub-group will keep minutes, and provide an annual report, all of which will be submitted to the RCC.