

# Underfloor Heating Working Party RCC June 2021

## **Recruitment**

The resident members of the WP met on 13 April to welcome new members. A full meeting of the WP including officers will be held on 9/10 June. Sadly, one of the new members of the WP has withdrawn.

## **Seasonal Load Shift Experiment**

The seasonal load shift experiment was completed on 30 April. It was a technical success; in that we achieved the load shift objectives we set ourselves. A brief note of the outcome is attached to this report. Managing this experiment involved a significant amount of work by the Barbican's Chief Engineer.

The next step is to canvass residents to determine the success of the experiment from the viewpoint of residents, and to determine if it should be extended to next year. Now the unofficial extension to the heating season is over we can start this.

## **Intra-Day Load Shift**

The heating load profiles that determine the times of day when the heating is turned on were based on the hourly profile of energy costs in the 1960's. The working party has set out to evaluate the potential for redistributing these load profiles optimally. We've produced a model of how flats respond to changes in heating load. All we need now is a cost by hour-of-day profile to enable us to move this investigation on.

## **Individual Controls**

We now have a specification and ballpark price for individual flat based controls. This is likely to be a divisive topic, and as these investigations proceed, we need to handle the issue sensitively. (See Hearts and Minds below.)

## **Hearts and Minds**

The modest seasonal Load Shift experiment generated significant discussion around the estate. Most of this discussion was based on incorrect information. We have three major projects afoot, all of which need careful handling, better information, and more feedback from residents. We plan to launch a campaign to inform residents exactly how our heating works and to determine residents' views on these initiatives.

## **The City's Climate Action Strategy**

Following a massive information gathering exercise, the City's Climate Action Strategy Group will be coming back towards the end of June with proposals for interventions that we hope might include suggestions/financial support to reduce our carbon footprint.

## Seasonal Load Shift Experiment

Following a vote in 2020 it was decided to carry out a shift in the distribution of heating load from the months of January and February to October and April, for the 20/21 heating season.

Over the seven months of the heating season, 88,239 minutes of heating were delivered to each flat. During this period October was “gifted” 1180 minutes, April was “gifted” 883 minutes; 941 and 992 minutes were “stolen” from January and February, respectively. There were no changes to the heating loads in November or January. This is all shown in the table below

Seasonal load shift; additional and reduced minutes of heating by month							
	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21
<b>Additional minutes</b>	1180	0	0	0	0	0	883
<b>Reduced minutes</b>	0	0	0	941	992	0	0

The objective was to balance out the transfers so that the net change was zero. As it turned out a total of 130 minutes extra were delivered over the seven months. For context this compares with the 438 minutes of additional heat delivered on the single day of 6 May this year.

The total minutes of heating load together with the amount of adjustment, is shown by day in the chart below. It is interesting to note the enormous variation in the heating load from day to day, and the extremely high level of heat delivered during April,

