MAYOR OF LONDON

Quick Wins to reduce building energy consumption

1. Make sure you have the right amount of heating, cooling, ventilation and lighting at the right time:

- **Check timers** to ensure systems operate only when spaces are typically in use.
- **Check "run-on" features** on heating, cooling and ventilation systems are only extending use for an appropriate time and are resetting to default afterwards.
- **Limit thermostats** to only provide temperatures that are actually required, e.g. between 21°C and 24°C should be sufficient.
- **Reset thermostats** on a regular basis as users frequently set them to maximum or minimum. These could be thermostats on radiators or room controllers but could also be hidden within a building management system.
- **Check if lighting levels can be reduced** using manual or automatic controls, as more light may be being provided than is required.

2. Provide the heating and cooling you require as efficiently as you can:

- **Open windows**[1] when they can cool a space, but close them if heating or cooling systems are needed
- **Optimise start and stop times** for heating and cooling systems so that they come into the required temperature range just as building occupancy begins for the day and goes out of range just at the end of occupancy.
- **Vary indoor heating and cooling supply temperatures** depending on the occupancy of the building and/or the external temperature e.g. if outside temperature is mild, the trigger for heating or cooling could be lowered or raised respectively.
- **Check fan and pump speeds** are not being operated at higher speeds than required. It may also be possible to set them up to vary their speed with demand.
- **Cool at night-time.** It can be more efficient to cool a building by opening windows (security allowing) or run fans at night time when the air is usually cooler.

3. Make sure heating and cooling systems are not competing with each other:

- **Make sure heating and cooling setpoints don't overlap**
  The settings of adjacent heating and cooling devices are frequently found to overlap resulting in both heating or cooling at full capacity (also creating discomfort). Avoid this by adjusting temperature settings to ensure there is at least a 2°C range in which neither heating or cooling is taking place (e.g. heat up to 21°C, cool down to 24°C, with no heating or cooling in between)
- **Make sure air isn't heated then cooled back down again**
  Make sure that 'air handling units' that supply air into offices are not set up so that they heat up cool outside air, only for that air to be cooled back down again by cooling units in the office space. These 'air handling units' can usually be set up so that the temperature they supply air at responds to the heating or cooling demand of the building.

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[1] Always consider the air quality impacts of doing so.