



# University of Nottingham - Heating and Cooling Policy.

## Purpose

The University of Nottingham's Space Heating and Cooling Policy aims to manage energy consumption related to temperature control within its buildings while aligning with our environmental Sustainability goals, legal requirements, whilst balancing occupant comfort.

With annual utilities Spend of approximately £35 million, around 20% of which is directly attributed to the energy used by heating, cooling, and ventilation. This contributes significantly to the University's Carbon emissions. Therefore, it is imperative to manage this energy usage. This commitment aligns with the University's carbon reduction objectives and financial sustainability goals.

## Scope

This policy covers the portfolio of residential, academic and support buildings on all the University's UK campuses. It excludes areas where temperature sensitive research is conducted.

## Legal Requirements

The policy adheres to the Workplace (Health, Safety and Welfare) Regulations 1992. mandates that maintaining a reasonable internal temperature during working hours, with a minimum of 16°C within an hour of starting work (or 13°C if the work involves severe physical effort). There's no statutory maximum temperature.



## Cooling Policy

### Non-Residential Buildings.

Cooling will only be provided in areas where it is critical to control temperature for statutory or regulatory reasons, process driven purposes (Laboratories, Supercomputers/Data Centres/Specialist Research Equipment), and areas with significant internal heat gain of 80W per square meter that cannot be mitigated by other means. Offices with occupancy levels in accordance with that recommended by the space management team will not exceed this value and cooling will not be provided.

In areas that have openable windows (natural ventilation) or forced Mechanical ventilation unless critical to control temperatures cooling systems will not be provided. Where a cooling system is installed, cooling it will be controlled by the central Building Management System. Cooling will operate when Outside air temperature is more than 26°C and internal temperatures exceed 24°C.

A charge may be levied for cooling that is operated outside working hours.

### University managed Halls of Residence

Cooling systems will not be provided within halls of residence.



## Heating Policy

The university uses a complex Building Management System to control heating and cooling systems in most of its buildings. This is based on internal and external conditions, which modulates the temperature of the central heating systems and adjusts the start time of heating systems. The system maximum internal setpoint shall be 21°C.

In the Winter (November, December, January, and February) Spring & Autumn (March, April, May, September, and October) the heating will be active when the outside temperatures are below 16°.

In the Summer (June, July, and August) the heating will be turned off.

### **Non-Residential Buildings.**

We will endeavour in working hours to heat to temperatures of between 19°C and 21°C in all our non-residential buildings, (with the exception of plant rooms, staircases etc.) central heating systems will have an optimised start time in order to reach set point for standard working hours.

centrally bookable spaces out of hours heating will be provided to when they are in use. This will be arranged through the helpdesk via a works request. A charge may be levied for heating or cooling that is operated outside standard working hours defined here as 8:00 to 17:00.

### **University managed Halls of Residence**

We will endeavour to maintain internal temperature between 19°C and 21°C in all University managed halls of residence. When Halls are occupied, during the hours of 7:00 – 23:00 seven days a week as above, The Heating will be modulated based on the Outside air temperature, central heating systems will have an optimised start time in order to reach set point for those times.



### Supplementary Heating

The use of portable heaters is not authorised in any University premises. With out express permission of the estates department This is because:

- Supplementary heating can prevent heating from being provided in other parts of a building as they cause false temperatures to be sensed by the BMS which can hold off the buildings primary heating systems.
- The increased the risk of fire associated with overloading the buildings electrical installation, which may not be designed for heavy electrical loads associated with portable heaters potentially causing overloads, trips, and disastrous circuit failures., or by using a style of heater not expressly authorised by the safety office this currently is 1.5kW oil filled radiators only.
- Portable heating/cooling Use more energy and thus produce more CO<sub>2</sub> compared to centralised heating/cooling systems and are significantly more costly to operate.

Where existing systems have been found to be incapable of meeting acceptable conditions, the Estate Office will if practicable Temporarily provide portable heating until the situation is rectified this should be returned `to estates once the issue is resolved.



### Expectation of Building users

- perception of a comfortable temperature is subjective. It is based on a combination of factors including air temperature, humidity, individual metabolism, and the clothing you wear. It is recognised that not everyone will achieve ‘thermal comfort’ at the same temperature, and it is expected that occupants will moderate their own comfort by dressing appropriately for their preference.
- Take reasonable measures to retain heat or cooling within buildings when the respective systems are running by closing windows and doors when appropriate.
- Ensure any locally controlled heating and cooling is switched off when not needed or when leaving a room.
- Ensure radiators and grilles are not blocked with furniture, clothing or other items which might prevent the heating or cooling system from operating effectively by stopping the transference of heat (or air) from the heat emitter.
- It is not permitted to use any heaters that are not provided by the estates department.
- Supplementary electric heaters must not be left on if the room is left un-occupied for more than 15 minutes. If un-monitored heaters are found, these may be removed.
- All Maintenance and heating or cooling Issues must be reported to the online Estates Help <https://estateshelpdesk.nottingham.ac.uk> 0115-9516666 at the first instance.