

Temperature Policy
City of London Corporation

FINAL DRAFT V2.1
20/10/2017

Document control sheet

Objectives and milestones:	Aug-17	Consultation on policy
	Oct-17	Final draft of policy
	Nov-17	Committee approvals and adoption
	7 th Nov.	Energy Board
	22 nd Nov.	CASC
	Dec-17	Policy launch and communication
	Jun-18	Energy awareness campaign & satisfaction survey
	Apr-18	Quarterly review
	Jul-18	Quarterly review
	Oct-18	Quarterly review
	Jan-19	Energy awareness campaign & satisfaction survey
	Jan-19	Annual policy review
Development and consultation	<p>A draft of the policy was received by the Summit Committee on 6 June 2017, and approved for internal consultation.</p> <p>In August 2017 all CoL department and staff were invited to read and respond to the draft Policy.</p> <p>Specific stakeholders consulted included: Energy Board (i.e. Chief Officers) and sub-committees; Corporate HR representatives; Departmental and Corporate health and wellbeing representatives; and the Unions.</p> <p>A report was produced summarising the consultation responses and the draft policy was further developed based on these findings.</p>	
Approval	The final draft Policy will be presented to the Energy Board and CASC for approval in November 2017.	
Dissemination and implementation	Communication and implementation of the Policy is set out in section 9 and 10 of the Policy.	
Training	No formal training is required.	
Audit	If an audit of the documents produced is required, the Corporate Energy Team will be approached to support this work.	
Review	The Energy Board will review this Policy in accordance with the above proposed timeline and every year or as it becomes necessary.	
Link with other policies	The Policy supports the CoL Climate Mitigation Strategy and the Carbon Descent Plan.	
Equality and diversity	A 'Test of Relevance: Equality Analysis' was carried out in October 2017, see Appendix D. The Temperature Policy aims to set out what is generally reasonable, but allows for justified exceptions, and does not supersede responsibilities as set out in Corporate Health, Safety and Wellbeing policy. Therefore it was decided a full Equalities Analysis was not justified.	

Revisions

Ver.	Page / Para. No.	Description of changes	Date approved
1.0		Draft for consultation	06/06/2017
2.0		Final draft for Energy Board. A number of changes made, as informed by the consultation responses.	20/10/2017
2.1		Minor corrections	21/10/2017

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Executive summary

The Temperature Policy sets temperature limits for heating and cooling buildings to minimise the energy consumed for maintaining occupant thermal comfort. The heating and cooling of buildings is a significant source of energy consumption for the City of London, resulting in higher operating costs and greater environmental impact. Lowering temperatures by just 1°C when the heating is operating can on average save 8% on the fuel consumption¹. This supports the City of London's Carbon Descent Plan and Climate Change Mitigation Strategy.

The Policy applies to all buildings occupied by City of London workers, including: Members, City of London Police, independent schools, agency staff, casuals, volunteers and others working for or on behalf of the Corporation, such as contractors. The policy applies to the operation of existing building, but also has implications for the hand-over of new or refurbished buildings.

The Policy sets out the limits to which the internal air temperature should be maintained by heating and cooling systems (where present) for different buildings and areas, under normal circumstances. The below presents and explains the limits for offices, others are presented section 5.

Cold weather (mostly winter): 1 st Nov. to 31 st March	During colder weather, heating systems, when required, are set to raise temperature in all office areas to 21°C and no higher, where practical.
Warm weather (mostly summer): 1 st June to 31 st August	During warmer weather, cooling systems (where present), when required, are set to lower office areas to 24°C and no lower, where practical.
Variable weather: (mostly spring/autumn)	Heating and cooling systems are set as above depending on the weather, or switched off completely if not required to maintain all areas within a 21-24°C range.

The limits have been informed by a number of sources of guidance, including the Health and Safety Executive (HSE), and the Chartered Institute for Building Service Engineers (CIBSE). Thermal comfort is a complex combination of environmental and personal factors and additional supporting guidance is provided on considerations beyond the air temperature.

All employees should be aware of and adhere to the Policy and associated guidance. The policy also sets out responsibilities for Service Managers, those responsible for properties and facilities, and the Corporate Energy Team. The Policy will be supported by guidance on managing temperature complaints, for occupants managing their own thermal comfort, and managing buildings in an energy efficient manner.

During the first year of the Policy, monitoring will be carried out on its implementation and impact, including air temperatures, changes to heating/cooling controls, and occupant satisfaction.

The Energy Board will review implementation progress on a quarterly basis during the first year and review the Policy in Q4 2018/19.

¹ Carbon Trust, Technology Guide: Heating Control, https://www.carbontrust.com/media/10361/ctg065_heating_control.pdf

Policy statement

1. Introduction

- 1.1 The Policy sets out the internal air temperature limits which buildings should be maintained during different weather conditions.
- 1.2 The Policy applies to buildings occupied and managed by City of London workers, including: Members, City of London Police, independent schools, agency staff, casuals, volunteers and others working for or on behalf of the Corporation, such as contractors.
- 1.3 The Policy does not apply to buildings or areas leased to other organisations.

2. Reason for the policy

- 2.1 Heating and cooling is a significant source of energy consumption within City of London buildings. Establishing best practice guidelines on internal temperatures will support occupant thermal comfort while minimising energy consumption. This supports the City of London's Carbon Descent Plan and Climate Change Mitigation Strategy which aim to reduce the City's energy consumption and resulting carbon emissions.
- 2.2 On average, lowering heating temperatures by just 1°C can save 8% on fuel consumption². For example, for every 1°C the internal temperature of Guildhall Complex is reduced by saves about £10,500 per year in the heating system cost. Significant additional savings are possible through preventing overcooling of buildings, and preventing heating and cooling systems operating when not required.
- 2.3 The Policy, being more up-to-date and relevant, supersedes the previously approved CoL Set Temperature Policy.

3. Aims and objectives

- 3.1 The aim is to maintain reasonable air temperatures, within buildings occupied and managed by City of London workers, throughout the year, in an energy efficient manner.
- 3.2 Objectives:
 - A minimum of 80% of occupants are satisfied with their overall thermal comfort, without resulting in discriminated.
 - Minimise energy use by maintaining internal air temperatures within the Policy limits in an energy efficient manner.
 - Raise awareness on air temperatures considered reasonable under normal conditions.
 - Provide guidance for occupants on actions they can take to maintain their personal thermal comfort.
 - Provide guidance on managing occupant complaints relating to temperatures and associated thermal comfort.
 - Provide guidance for staff with responsibilities for managing facilities on controlling heating and cooling systems in an energy efficient manner.

² Carbon Trust, Technology Guide: Heating Control, https://www.carbontrust.com/media/10361/ctg065_heating_control.pdf

- Provide guidance to project managers on the air temperatures considered reasonable by the City of London for hand-over of new build or refurbishment properties to be occupied and managed by City of London workers.

4. Regulations and guidance

- 4.1 The Policy has been informed by *Workplace (Health, Safety and Welfare) Regulations 1992*, and guidance provided by the HSE, CIBSE, and the Unions.
- 4.2 Temperatures in the indoor workplace are covered by the *Workplace (Health, Safety and Welfare) Regulations 1992*, which place a legal obligation on employers to provide a 'reasonable' temperature in the workplace³. The regulations also apply to schools and other public buildings. The *Approved Code of Practice* suggests the minimum temperature in a workplace should normally be at least 16°C. If the work involves rigorous physical effort, the temperature should be at least 13°C.
- 4.3 Although there are no specific legal maximum working temperatures for offices, schools or other workplaces, regulation 7 requires employers to ensure that temperatures should be 'reasonable'.
- 4.4 Appendix A provides further details on the regulations and guidance.

5. Temperature limits

- 5.1 Under normal circumstances, for the majority of occupants, it is considered reasonable for the internal temperatures to be maintained within the limits set out in Table 2 (page 8). The table sets out the limits to which different occupied areas should be cooled or heated during warmer or colder weather and table 1 below explains this.

Table 1.

Colder weather Typically: Nov-Mar	During colder weather, heating systems, when required, are set as required to raise the air temperature in occupied areas to achieve the stated temperature and no higher.
Warmer weather Typically: Jun-Aug	During warmer weather, cooling systems (where present), when required, are set as required to lower the air temperature in occupied areas to achieve the stated temperature and no lower.
Variable weather Typically: Apr-May, Sep-Oct	Heating and cooling systems are set as above depending on the weather, or switched off completely if areas are naturally within the stated cold weather and warm weather temperature limits.

³ <http://www.hse.gov.uk/temperature/law.htm>

Table 2. Heat and cooling air temperatures limits for different building areas

		Cold weather (when heating is required)	Warm weather (when cooling is required, if present)
General building areas			
Corridors, staircases and other circulation spaces		19°C	24°C
Entrance halls, foyers, lobbies			
Toilets			
Waiting areas			
Kitchens (commercial)		16°C	
Specific buildings areas			
Offices: all open plan and cellular areas (including areas with workstations and meeting rooms)		21°C	24°C
Airport terminals:	Baggage reclaim	16°C	25°C
	Check-in areas ^[2]	18°C	
	Concourse (no seats)	19°C	
	Customs area	18°C	
	Departure lounge	19°C	
Churches:		19°C	25°C
Computer rooms ^[3] :		19°C	25°C
Dwellings:	Bathrooms	20°C	25°C
	Living rooms	22°C	
	Bedrooms and kitchens (domestic)	17°C	
Educational:	Teaching spaces, lecture halls ^[4] , laboratories and other spaces with normal levels of activity	19°C	25°C
	Special schools ^[5]	23°C	
	Workshop	16°C	
Law courts:		19°C	24°C
Libraries:	Lending, reference areas ^[6] , store rooms	19°C	25°C
	Reading rooms	22°C	
Museums, art galleries: displays, storage ^[7] :		19°C	25°C
Public assembly/entertainment:	Exhibition halls	19°C	25°C
	Concert hall, theatre ^[8] , cinema	21°C	
	Changing and dressing rooms	21°C	
Prison cells:		19°C	25°C
Restaurant/dining:	Dinning areas	21°C	25°C
	Night clubs, public house, cafeteria	19°C	
	Bars/lounges	20°C	
Sports facilities (including those within educational premises) ^[9] :	Hall and other areas with high levels of physical activity ^[10]	15°C ^[10]	16°C ^[10]
	Changing rooms and other areas where occupants may be wet or partially clothed for a significant length of time. ^[11]	23°C / 25°C ^[12]	25°C
	Swimming pools halls	1°C above pool-water temperature ^[13]	

5.2 Appendix B provides additional notes on the above annotated table items.

5.3

5.4 The upper temperature limit, during warmer weather, only applies for areas within buildings which have a comfort cooling system present. For areas without comfort cooling, the *Workplace (Health, Safety and Welfare) Regulations 1992* still apply.

5.5 Internal temperatures are likely to vary within buildings over each day due to heat gains or losses from internal and external factors as well as limitations to environmental systems (e.g. heating system). For example, if an office has only one internal air thermostat, or a slower response system, it may not be possible to maintain a uniform temperature throughout the whole office all day. The temperature limits should be used as guidelines to establish appropriate set temperatures on control systems and inform strategies such as the pre-heating periods. Those responsible for managing the environmental systems should apply the accompanying Policy guidance where possible to their local situation.

5.6 For most occupied areas, such as offices, it is considered reasonable for the temperature to vary over the year between the warmer summer season and the colder winter season. Occupants are expected to take personal actions, such as adjusting clothing for the season (e.g. long or short sleeve shirts), to maintain their comfort while reducing the need for excessive energy-intensive heating or cooling. For example, during occupancy hours within an office working area it is considered reasonable for the temperature to vary between 21°C to 24°C over the course of the year.

5.7 Thermal comfort is a complex combination of environmental and personal factors, and air temperature is one of six factors described by the HSE¹⁶. The Policy sets out specific upper and lower limits on air temperatures which are deemed acceptable under normal circumstances, when other factors are within a reasonable range. For example, HSE suggest that relative humidity between 40% and 70% does not have a major impact on thermal comfort. Therefore under conditions where the humidity is within the 40-70% range the Policy air temperatures are considered reasonable, but if the humidity was unusually below 40% or above 70% some flexibility maintaining the air temperatures would be acceptable in order to maintain occupant comfort.

5.8 Additional supporting guidance is provided for occupants, and those who manage the buildings, on how other personal and environmental factors should be considered for maintaining thermal comfort in an energy efficient manner.

5.9 Table 1 suggests the typical periods when colder and seasonal weather conditions occur but this will vary each year and will have a varying impact on buildings due to factors such as differing insulation levels. The exact timing of when comfort heating or cooling systems are used is therefore building specific and is the responsibility of those who operate the systems. However, when the comfort heating or cooling systems are in operation they should only be operated to maintain air temperatures within Policy limits.

5.10 The Policy aims to maintain internal air temperatures which the majority (80%) of occupants are be satisfied, without discrimination. Local authorities have a duty for due regard to the characteristics protected by the Equality Act 2010 before and during policy formation¹⁷. The Policy applies to areas occupied by City of London workers and the public and therefore covers the entire diversity of people. It is recognised that some people may have particular needs in regards to maintaining their thermal comfort due to

¹⁶ <http://www.hse.gov.uk/temperature/thermal/factors.htm>

¹⁷

<http://colnet/Departments/Community%20and%20Childrens%20Services/Pages/Equality%20and%20Inclusion/public-sector-equality-duty.aspx>

their characteristics or health. The Policy does not supersede the HSP1 Corporate Health, Safety and Wellbeing Policy¹⁸ which aims to ensure the health, safety and wellbeing of our employees, service users, visitors and contractors involved in the delivery of our services. This sets out the responsibilities for both the employer and employees.

- 5.11 Where Policy temperature limits pose a risk to the health and wellbeing of occupant's, action should be taken in accordance with the responsibilities set out in HSP1. Depending on the circumstances it may be appropriate to consider how thermal comfort can be improved through the control of the six factors, such as draughts, as outlined by the HSE. In some circumstances the local air temperatures may need to be maintained outside of the Policy limits. In these circumstances the arrangements should be agreed in writing and consideration given to how this can be achieved in the most energy efficient manner.
- 5.12 The internal temperatures will normally be controlled during the occupancy times of each area in a building. Some areas may require out of hours or continuous temperature control to preserve assets, fabric, or artefacts.
- 5.13 Where the heating or cooling system is failing to maintain internal temperatures additional equipment may be required on a temporary basis to prevent service disruption while maintenance is carried out.
- 5.14 The policy does not apply to rooms within buildings which are infrequently occupied, such as store rooms, plantrooms, garages, lobbies, cloakrooms, etc. In such areas the provision of heating or cooling should be minimised as far as possible. However, *Workplace (Health, Safety and Welfare) Regulations 1992* apply in all circumstances and any special requirements for environmental control for reasons such as stored materials/equipment and fabric protection.
- 5.15 Table 1 presents the temperature limits for a number of typical areas under their normal use conditions. In some circumstances a building or room(s) may have requirements outside of those set out in table 1 due to the specific nature of the building or its functions (permanent or temporary). In these circumstances exceptions to the temperature limits may apply and should be agreed with those responsible for managing the area and with advice from the Corporate Energy Team.

6. Policy guidance

- 6.1 The Corporate Energy Team will produce the following guidance documents to support the Policy:
- **Facilities guidance:** providing advice on the typical energy efficient approaches for managing thermal comfort in a building. This will focus on building controls (for heating, cooling and ventilation systems), but also cover approaches for naturally ventilated buildings and good housekeeping measures for controlling thermal gains/losses and air movement.
 - **Occupant guidance:** providing a simple guide to occupants on actions they should take to maintain their thermal comfort, but also sign-posting where they can access the Policy.

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<http://colnet/Departments/Town%20Clerks/Corporate%20HR%20Unit/Health%20and%20Safety/Documents/HS%20Policies/HSP1%20-%20Corporate%20Health%20Safety%20and%20Wellbeing%20Policy.pdf>

- **Complaints guidance:** to set out best practice for departments to manage and monitor complaints relating to internal air temperatures and thermal comfort. It will also highlight occupant and manager roles in addressing personal and local thermal comfort issues, where appropriate, prior to raising a complaint.

7. Energy efficiency

- 7.1 New builds and refurbishment projects should be informed by the relevant requirements and guidance on passive and lower energy solutions within the following:
- City of London planning policy *CS15 Sustainable Development and Climate Change*¹⁹
 - The London Plan's SPG *Sustainable Design and Construction (April 2014)*²⁰
 - GLA *Guidance on preparing energy assessments (March 2016)*²¹
- 7.2 Options for passive and lower energy measures should be maximised where viable before additional more energy intensive options.
- 7.3 The viability of options should be assessed on a whole-life-cost basis in accordance with City of London *Responsible Procurement Policy*²², taking into account the ongoing operating costs which includes energy consumption.
- 7.4 For occupied buildings, where internal temperatures are found to be consistently outside the Policy limits, options should be investigated to implement an energy efficient long term solution.
- 7.5 Environmental systems (e.g. heating, cooling, ventilation, humidification) will be controlled through a Building Management System (i.e. automated central controls), where viable, to facilitate good control for service provision and energy efficiency.
- 7.6 Building services will be controlled in an energy efficient manner.
- 7.7 Outside of occupancy and operational times the internal temperatures should be maintained to a different (typically lower) temperature to provide frost protection.
- 7.8 City of London properties will be maintained, where viable, to minimise sources of uncontrolled thermal gain or loss, including: solar gain, electrical/ICT equipment, and heating/cooling distribution pipes.
- 7.9 Where a centralised heating and/or cooling system is provided in buildings, the use of local equipment (e.g. plug in heaters, coolers units) to provide heating, cooling or humidification may only be used in the following circumstances.
- Under conditions where the heating or cooling systems (if present) are unable to maintain the internal temperature within the Policy temperature limits for a period of more than 60 minutes. In such circumstances the City Surveyor's Facilities

¹⁹ <https://www.cityoflondon.gov.uk/services/environment-and-planning/planning/design/sustainable-design/Pages/Sustainable-development-planning-requirements.aspx>

²⁰ <https://www.london.gov.uk/what-we-do/planning/implementing-london-plan/supplementary-planning-guidance/sustainable-design-and>

²¹ <https://www.london.gov.uk/what-we-do/planning/planning-applications-and-decisions/pre-planning-application-meeting-service-0>

²² <http://colnet/Departments/Chamberlains/City%20Procurement/Pages/Policy/Responsible-Procurement.aspx>

Management (FM) Service should be contacted to investigate. Where necessary they may authorise the use of supplementary equipment on a temporary basis.

- In exceptional cases, for regular use only during times outside the normal building occupancy periods where it is assessed by the FM Service, to be more cost effective than operating fixed building services. Consideration should be given to options for zoned control of the existing fixed systems if a long term solution is required.
- On the basis of health grounds, as approved by the departmental health and safety manager.

In all circumstances the following applies:

- Desk fans can be used if approved as appropriate and necessary by the line manager.
- Approval is required in writing by the FM Service and the appropriate line manager before equipment is purchased, issued or used. The FM Service will ensure the purchased equipment is sufficient, efficient, and appropriate.
- Equipment is only plugged into specific sockets approved by the FM Service, to avoid overloading of power circuits.

8. Responsibilities

8.1 The Policy does not supersede the Corporate Health, Safety and Wellbeing Policy which sets out what is expected by departments and the responsibilities we all have to ensure the CoL is providing a safe working environment for its staff and visitors. Health & Safety is delegated down to each department to line managers and, through the Risk Management processes in place, departments will identify their own hazards and risks involved with their particular activities.

Employees

8.2 All employees should be aware of and adhere to the Policy and associated guidance.

8.3 Where occupants are dissatisfied with their thermal comfort:

- Employees should in the first instance refer to the Policy and associated guidance to check air temperatures against the limits (via wall mounted thermometers if provided).
- If air temperatures are within the limits, occupants should consider actions they could take to improve their own thermal comfort, referring to Policy guidance.
- Where discomfort may be the result of actions from other occupants, such as leaving windows open, this should be discussed amicably where possible or raise with the line manager.
- If air temperatures are outside of Policy limits for more than an hour or where discomfort may be caused by other factors (such as humidity or air movement), employees should raise this with their line manager and inform the Service Manager or Staff responsible for managing and maintaining the building as appropriate.

Service Managers and other employees with management responsibilities

8.4 Service Managers will communicate to employees and occupants, the Policy and supporting guidance, including the actions occupants can take to maintain their own thermal comfort and the guidance on addressing complaints on thermal comfort.

- 8.5 Service Managers will provide hard copies to employees who do not have access to the Policy and guidance via Colnet.

Staff responsible for managing and maintaining the building

- 8.6 Depending on the building and nature of the services the management of a building may involve a number of different parties who may have shared responsibilities:

- **City Surveyor's Facilities Management (FM) Services:** maintain the City of London's buildings and the building services. FM services are currently managed by the City's Surveyor's FM teams and provided via external contractors. For more information:
<http://colnet/Departments/City%20Surveyors/IPG%20Facilities%20Management/Pages/Default.aspx>
- **Premises Controller:** for a tenant department, who occupy the corporate building concerned.
- **Premises Manager** (who may also be known as the facilities, property, complex, or site manager): in addition, someone may be responsible for the day-to-day management of the building and its services. In some circumstances where there is no a dedicated Premises Manager these responsibilities may be with a Service Manager.

Premises Managers and Premises Controllers should work in partnership with the City Surveyor's FM Services to ensure the following items are provided in support of the Temperature Policy.

- 8.7 Manage the building and controls (where available) to maintain internal temperatures in accordance with the Policy in an energy efficient manner.
- 8.8 Regularly communicate to occupants the changes to building services which may impact on the workplace environmental conditions and the actions occupants should take to maintain their thermal comfort in an energy efficient manner. For example, when entering a period of colder weather when the heating system is switched on (automatically or manually), remind occupants the internal air temperature will be maintained as set out in the Policy for colder weather (i.e. 21°C for offices), and what actions occupants should take to maintain their own thermal comfort (such as ensuring windows are closed).
- 8.9 Routinely inspect buildings to identify any potential risks to maintaining the Policy temperatures which may be related to the management of the building, the operation of the building services, or the building fabric.
- 8.10 Where on-going issues have been identified with a building maintaining the policy limits in an energy efficient manner this will be investigated and rectified where possible within existing allocated resources. This includes investigating issues of humidity, air movement and radiant gains/losses which may result in inefficient use of environmental systems to maintain comfort levels.
- 8.11 Where existing allocated resources are not available to investigate or resolve on-going issues, the departmental Energy Representative should be informed.
- 8.12 Provide Facilities to allow occupants to easily monitor internal temperatures within the areas they occupy.
- 8.13 Enable occupants to communicate queries or dissatisfaction with air temperatures or thermal comfort or any potential building issues which may relate to this. Records should be maintained of such communications to allow monitoring of issues.

8.14 Respond, investigate and take appropriate actions to occupant queries in a timely manner.

Energy Representatives

8.15 The Energy Representatives Group consists of senior managers within CoL departments and corporate sites. The group are responsible for communicating the Policy and any associated guidance to their departments and supporting its implementation.

8.16 Energy Representatives are responsible for ensuring their departments establish web links as appropriate to the Policy Colnet location.

8.17 Energy Representatives are responsible for identifying any on-going issues with maintaining air temperature within the Policy limits. Where it is not viable to investigate or resolve issues within existing allocated resources (including funding), this should be further investigated. Opportunities should be considered for: bringing forward items on existing asset management plan, proposing new projects for funding, and applying for the Energy Efficiency Fund.

City Surveyor's Corporate Energy Team

8.18 The Corporate Energy Team will provide on-going support to sites and departments on implementing the policy, including operating environmental systems in an energy efficient manner, investigating and applying for resources to resolve issues of poor building performance.

8.19 The Corporate Energy Team will conduct a periodic annual Policy review, see section 11.

Energy Board

8.20 The Energy Board, who consist of Chief Officers, are responsible for endorsing the Policy and reviewing the Policy on a periodic basis.

9. Communication

9.1 The Corporate Energy Team, in collaboration with Town Clerk's Communication Team, will coordinate the communication of the Policy. The following actions will be taken in January 2018:

- Published the Policy on a dedicated web page on Colnet.
- Highlight the Policy and web page in the bi-weekly eLeader staff newsletter.
- Highlight in the regular Town Clerk's bulletin.

10.Implementation

10.1 Following the publishing and communication of the Policy, Appendix C details the plan for implementing the Policy temperature limits.

10.2 In some buildings the current air temperatures may not be within the limits set out in the policy. It is appreciate the launch of the policy itself will not 'fix' temperature issues. However the Policy responsibilities and their implementation aims to identify and resolve such issues.

11.Review

- 11.1 Within 13 months of Policy adoption the Corporate Energy Team will present a report to the Energy Board and CASC with a review of the Policy and recommendations. The report will present findings on the implementation and outcomes of the policy with recommendations. The report will also review legislation, guidance and other City of London policies and guidance.

Appendix A. Regulations and guidance

- 1.1 The Policy has been informed by *Workplace (Health, Safety and Welfare) Regulations 1992*, and guidance provided by the HSE, CIBSE, and the Unions.
- 1.2 Temperatures in the indoor workplace are covered by the *Workplace (Health, Safety and Welfare) Regulations 1992*, which place a legal obligation on employers to provide a 'reasonable' temperature in the workplace²³. The regulations also apply to schools and other public buildings. The *Approved Code of Practice* suggests the minimum temperature in a workplace should normally be at least 16°C. If the work involves rigorous physical effort, the temperature should be at least 13°C.
- 1.3 Although there are no specific legal maximum working temperatures for offices, schools or other workplaces, regulation 7 requires employers to ensure that temperatures should be 'reasonable'.
- 1.4 These temperatures are not absolute legal requirements; the employer has a duty to determine what reasonable comfort will be in the particular circumstances.
- 1.5 HSE provides guidance for employers²⁴ and employees²⁵.
- 1.6 The HSE suggest a minimum of 80% of workers occupying a building should find the temperature comfortable.
- 1.7 While air temperature is the most commonly used indicator of thermal comfort it should always be considered in relation to other environmental and personal factors. The other environmental factors are radiant temperature, air velocity, and humidity. The personal factors are clothing insulation and metabolic heat.
- 1.8 Unison publishes a guide for Unison health and safety representatives on a group of six Regulations popularly known as 'the health and safety six pack'.²⁶ This guide summarises the regulations: Employers must ensure that during working hours, the temperature in all workplaces inside buildings is 'reasonable' and although no *maximum temperature is given in the Regulations or Code*, 'all reasonable steps should be taken to achieve a comfortable temperature'.
- 1.9 Unison also publishes an information sheet specifically on 'temperature at work'²⁷, which states generally, the acceptable area of comfort for most types of work is between 16°C to 24°C, but employers should attempt to reduce temperatures if they went above 24°C or workers felt uncomfortable. The information also states the requirements under Acts or regulations must be complied with, sometimes without any limit, but often, so far as is reasonably practicable. This means that employers do not have to take measures to avoid or reduce a risk if they are technically impossible or if the time, trouble or cost of the measures would be grossly disproportionate to the risk.
- 1.10 Until October 2012, legal requirements which specified the minimum temperatures which had to be maintained in school classrooms were set out in the *Education School Premises Regulations 1999*²⁸. These Regulations provided that, in areas where there was a normal level of physical activity associated with teaching, the appropriate minimum temperature was 18°C. In areas where there was a lower than normal level of activity (e.g. sick rooms) or higher than normal level of activity (e.g. gymnasias and also

²³ <http://www.hse.gov.uk/temperature/law.htm>

²⁴ <http://www.hse.gov.uk/temperature/thermal/managers.htm>

²⁵ <http://www.hse.gov.uk/temperature/thermal/workers.htm>

²⁶ <https://www.unison.org.uk/content/uploads/2016/05/23568.pdf>

²⁷ <https://www.unison.org.uk/content/uploads/2014/08/TowebTemperature-at-Work-Information-Sheet-Aug14-update2.pdf>

²⁸ <http://www.legislation.gov.uk/ukSI/1999/2/contents/made>

washrooms), the appropriate minimum temperatures were 21°C and 15°C respectively. These regulations were replaced as of 31st October 2012 by the *School Premises (England) Regulations 2012*²⁹. These regulations do not specify minimum temperatures for any parts of a school. Despite removal of this regulation, the National Union of Teachers (NUT) position remains that temperatures in school classrooms should be at least 18°C.³⁰

- 1.11 There are no legally-prescribed maximum temperatures for school premises or other workplaces. The NUT provides specific guidance on high temperature in classrooms. NUT policy, as agreed at Annual Conference 2007, is that 26°C should be the absolute maximum temperature in which teachers should be expected to work, other than for very short periods. The NUT believes that because of the nature of the way in which teachers work, and the presence of children, a maximum indoor working temperature lower than the TUC recommendation is appropriate. The TUC has called for a maximum temperature of 30°C, 27°C for those doing strenuous work, although employers should still attempt to reduce temperatures if they exceed 24°C and workers feel uncomfortable. The NUT expects schools to implement planned measures to reduce temperatures as soon as staff complain that working conditions are beginning to become uncomfortable or as soon as it is known that temperatures are going to become uncomfortable, according to the weather forecast. If in doubt, 26°C should be used as the trigger for these measures.³¹
- 1.12 The NHS provides the following advice on maintaining room temperatures at home³² “if you have reduced mobility, are 65 or over, or have a health condition such as heart or lung disease, you should heat your home to at least 18°C. If you're under 65 and healthy and active, you can safely have your house cooler than 18°C, if you're comfortable”.
- 1.13 The Chartered Institute of Building Services Engineers (CIBSE) Environmental Design Guide³³ provides guidance on thermal comfort and provides a temperature range for winter and summer periods for different rooms and building types.
- 1.14 Performance standards for new school buildings are set out in *Building Bulletin 101*.³⁴ This includes standards addressing overheating and air temperatures for swimming pool halls. The government consulted on replacing the guidance in 2016.³⁵ The proposed new guidance recommends normal, minimum and maximum operative temperatures for different school areas during the heating season.
- 1.15 The following guidance has informed the Policy and associated guidance on an energy efficient approach to controlling buildings services to maintain the internal environment: *CIBSE Guide F Energy Efficiency in Buildings*, *CIBSE Guide H Building control systems*, and *Building Bulletin 101*.

²⁹ <http://www.legislation.gov.uk/uksi/2012/1943/contents/made>

³⁰ https://www.teachers.org.uk/sites/default/files/2014/heating-england_2.doc

³¹ <https://www.teachers.org.uk/sites/default/files/2014/high-classroom-temperatures.doc>

³² <http://www.nhs.uk/Livewell/winterhealth/Pages/KeepWarmKeepWell.aspx>

³³ Chartered Institution of Building Services Engineers, Guide A, Environmental Criteria for Design, Table 1.5

³⁴ <https://www.gov.uk/government/publications/building-bulletin-101-ventilation-for-school-buildings>

³⁵ <https://consult.education.gov.uk/capital/bb101-school-design-iaq-comfort-and-ventilation/>

Appendix B. Notes on table 2

1.	The elevated metabolic rate permits less stringent temperature control.
2.	Based on comfort requirements for check-in staff.
3.	Follow computer manufacturers' recommendations if necessary, otherwise design for occupant comfort.
4.	Podium may require special consideration to cater for higher activity level.
5.	Where needs of pupils tend to be complex and varied, including pupils with physical difficulties or profound and multiple learning difficulties.
6.	Based on comfort requirements of staff.
7.	Conditions required for preservation/conservation of exhibits may override criteria for human comfort; abrupt changes in temperature and humidity should be avoided.
8.	Studios: performers may have a wider range of activity and different clothing levels than audience, along with higher radiant component (e.g. subject to heat from lighting), necessitating special provision.
9.	Audience may require special consideration depending on likely clothing level.
10.	When used for physical activities. If used for sedatory activities (e.g. examinations, assembly) then the limits for an educational building teaching space apply.
11.	Where pupils or adults may be wet and partially clothed for a significant length of time. No more than 1°C above or below that of the water temperature in pool halls subject to a maximum of 30°C
12.	Where young children or those with SEN (Special education needs) or physical disabilities may be wet or partially clothed for a significant length of time rapidity of air movement can lead to chilling by evaporation and to compensate, a higher design temperature may be required.
13.	To a maximum of 30°C, except in the case of hydrotherapy pools and warm-water pools where the air temperature should be cooler than the water temperature.

Appendix C. Implementation plan

Who	What	When (completion)
Corporate Energy Team	Draft the supporting Policy guidance set out in section 6 of the Policy.	Jan-18
Energy Representatives	For buildings which have a BEMS, work with the maintenance contractor to establish automatic monitoring and reporting of the set and internal air temperatures.	Mar-18
Corporate Energy Team	Will carry out the above monitoring and reporting action for the Guildhall Complex and Walbrook Wharf.	Mar-18
Corporate Energy Team	Further direct consultation with departments with significant non-office use areas on the implementation of the Policy.	Jun-18
Corporate Energy Team and Town Clerk's	Conduct an energy awareness campaign focusing on implementation of the Temperature Policy. Include in the campaign a staff satisfaction survey on workplace temperatures.	Jun-18
Energy Representatives	Report at each Energy Representatives Group meeting on actions taken, outcomes, challenges, and complaints received in maintaining building internal temperatures within policy limits	Mar-18, Jun-18, Sep-18, Dec-18
Corporate Energy Team	Present quarterly monitoring reports for the Energy Board on the implementation plan, summarising key findings and recommendations.	March 2018, June 2018, September 2018
Energy Board	Review quarterly monitoring reports and recommendations.	Mar-18, Jun-18, Sep-18
Corporate Energy Team	Draft an annual policy review report as detailed in section 11 of the Policy.	Jan-19
Energy Board	Review the policy as detailed in section 11.	Jan-19

Appendix D. Test of Relevance: Equalities Analysis

1. Proposal / Project Title: Temperature Policy				
2. Brief summary (include main aims, proposed outcomes, recommendations / decisions sought): The aim is to maintain reasonable air temperatures, within buildings occupied and managed by City of London workers, throughout the year, in an energy efficient manner. Key outcomes are: <ul style="list-style-type: none"> • A <u>minimum</u> of 80% of occupants are satisfied with their overall thermal comfort, ensuring people of particular characteristics are not discriminated against. • Minimise energy use by maintaining internal air temperatures within the Policy limits in an energy efficient manner. • Raise awareness across on the internal air temperatures considered reasonable under normal conditions. 				
3. Considering the equality aims (eliminate unlawful discrimination; advance equality of opportunity; foster good relations), indicate for each protected group whether there may be a positive impact, negative (adverse) impact or no impact arising from the proposal:				
Protected Characteristic (Equality Group) <input checked="" type="checkbox"/>	Positive Impact	Negative Impact	No Impact	Briefly explain your answer. Consider evidence, data and any consultation.
Age	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	They may have different needs relating to their thermal comfort and the air temperature than the average occupant. The Policy does not however supersede the Corporate HSP1 Corporate Health, Safety and Wellbeing Policy. Therefore where negative impacts due to air temperature are raised the Policy allows for exceptions to be made. The Policy could potentially have a positive impact by providing a mechanism to maintain more comfortable temperatures.
Disability	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	As per explanation for Age.
Gender Reassignment	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	No evidence has been found within HSE and other guidelines that this characteristic has particular needs relating to air temperatures or thermal comfort.
Marriage and Civil Partnership	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	No evidence has been found within HSE and other guidelines that this characteristic has particular needs relating to air temperatures or thermal comfort.
Pregnancy and Maternity	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	As per explanation for Age.
Race	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	No evidence has been found within HSE and other guidelines that this characteristic has

				particular needs relating to air temperatures or thermal comfort.
Religion or Belief	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	No evidence has been found within HSE and other guidelines that this characteristic has particular needs relating to air temperatures or thermal comfort.
Sex (i.e gender)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	However there may be some evidence women who are in menopause may have different needs relating to their thermal comfort and the air temperature than the average occupant. As per explanation for Age.
Sexual Orientation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	No evidence has been found within HSE and other guidelines that this characteristic has particular needs relating to air temperatures or thermal comfort.
4. There are no negative/adverse impact(s) Please briefly explain and provide evidence to support this decision:		The Policy aims to ensure a high level of occupant satisfaction with thermal comfort by setting out temperature limits which aims to ensure the majority of occupants are comfortable. Due to the diversity of occupant characteristics, and limitations with the buildings and their environmental systems, it is widely acknowledged there is no single air temperature which will ensure all occupants are comfortable all of the time. However it is recognised that the Policy should ensure that people of any particular characteristic are not over-represented within those who are dissatisfied with their thermal comfort. The limits set out in the Policy are in accordance with HSE guidance amongst others, but this does not negate the employers regulatory responsibility to ensure that temperatures should be 'reasonable'.		
5. Are there positive impacts of the proposal on any equality groups? Please briefly explain how these are in line with the equality aims:		There may already be disproportionately higher adverse impacts on occupants of particular characteristics due to known difficulties in maintaining internal temperatures within comfortable boundaries. However no study is available to evidence this. But it could be argued the implementation of the Policy, which aims to adhere to HSE and other guidelines, could reduce any existing adverse impacts. The Policy also recognises there may be exceptions to this, one grounds such as health. In all circumstances the Corporate HSP1 Corporate Health, Safety and Wellbeing Policy would apply. Therefore where a risk to health or wellbeing is identified the responsibilities under HSP1 would supersede the need to maintain the Policy temperature limits where required. However in some circumstances it may be possible to address such issues through factors other than air temperature, such as reducing draughts.		
6. As a result of this screening, is a full EA necessary? (Please check appropriate box using <input type="checkbox"/>)	Yes	No	Briefly explain your answer: The Temperature Policy aims to set out what is generally reasonable, but allows for justified exceptions, and does not supersede responsibilities as set out in Corporate Health, Safety and Wellbeing policy. Therefore it is recommended a full Equalities Analysis is not justified.	
	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
7. Name of Lead Officer: Mark Donaldson		Job title: Energy Officer		Date of completion: 18 October 2017