

Committee(s): Resource Allocation Sub-Committee for information Communications and Corporation Affairs Sub-Committee for information	Dated: 30 th October 2024 28 th November 2024
Subject: Considerate Lighting Charter Operational Property Update	Public
Which outcomes in the City Corporation’s Corporate Plan does this proposal aim to impact directly?	Leading Sustainable Environment Flourishing Public Spaces
Does this proposal require extra revenue and/or capital spending?	No
If so, how much?	0
What is the source of Funding?	N/A
Has this Funding Source been agreed with the Chamberlain’s Department?	N/A
Report of: City Surveyor & Executive Director for Environment	
Report author: Graeme Low – Head of Energy and Sustainability	

Summary

The Lighting Supplementary Planning Document ('SPD') was adopted on 24th October 2023. This document includes a Considerate Lighting Charter ('the Charter') which the City of London Corporation encourages those involved in lighting in the Square Mile, particularly the owners, managers and occupiers of existing buildings, to commit to.

The Charter is a voluntary commitment and includes nine main actions (with additional sub-actions) for existing buildings in the City to commit to achieving the right light, in the right place at the right time.

The Planning Policy Team hosted a 'round-table' meeting with building owners, managers and occupiers from within the Square Mile on 30th May 2024. This discussion gathered valuable information from these stakeholders as to their thoughts, and concerns, on the implementation of the Charters actions in their buildings.

Following the meeting, officers are considering various options for implementing and publicising the Charter. Also, they are reviewing the framing of the Charter and processes around it to ensure that signing up is an attractive prospect. A paper will be brought by the Planning Policy Team to the relevant committees in the near future.

A previous paper, presented to Resource Allocation Sub-Committee in early 2024, included a background to the Charter and the estimated cost implications (based on industry standard benchmark data from CIBSE Guide F) for seventeen of the City of London Corporation’s buildings to be compliant with the nine top-level actions required by the Charter.

Until the Planning Policy Team can confirm the process of achieving compliance it has been agreed that the 'quick win' actions are to be targeted first. This is to show that the City of London Corporation is keen to lead by example, and share their experience, towards obtaining compliance. Some of the costs to achieve compliance will be met from existing Climate Action Strategy funding. Other actions, that will not have any energy or carbon saving potential, will need alternative funding if they are later deemed to be required to achieve compliance.

Recommendations

The Resource Allocation Sub Committee is asked to:

- Note the reallocation of existing Climate Action Strategy (CAS) funding to Considerate Lighting Charter actions that, in addition to working towards compliance, will identify future energy and carbon saving options at seventeen City of London Corporation operational buildings (listed in Appendix three).
- Note that further work and costs that come from the proposals outlined in this paper may require additional 'unidentified' funding later. For example, the implementation of the actions identified during survey works.

Main Report

Background

1. To provide insight of the costs involved for other building owners, managers and occupiers, external consultants were asked to quote to deliver the Charter actions (detailed in Appendix A).
2. When requesting quotes each action was considered in isolation. Some multi-disciplinary consultancies stated that they could deliver surveys for different actions simultaneously. As the survey works would require nighttime working and two personnel this multiplicity could provide overall cost savings.
3. Some actions can be achieved using internal volunteer resources (Climate Champions) at low, or no, cost. However, this may not be an option for other organisations in the Square Mile. Once the compliance process has been finalised these actions may require independent verification that may come at an additional cost.

Delivery programme

4. Please reference Appendix One for further details of quotes against the required actions. The bullet points below give a brief overview of how these actions are being delivered:
 - Instruct respective teams to switch lights off as part of a daily routine (Action 1) and close blinds (Action 13) - this is being completed as a no cost option utilising existing Facility Management (FM) contracts. (no cost)
 - Conduct lighting surveys (Actions 4, 6 & 11) – this is being paid for using existing CAS funding to identify energy and carbon savings. Any opportunities identified will require additional funds that will be sought at a later stage. (£100k for all seventeen buildings following successful trial at one building below).
 - The first lighting survey is being conducted at Walbrook Wharf in November and the results will be used to determine the approach for surveying the full scope of buildings (£8,500 as per bullet above).
 - Commission lighting pollution impact report (Action 7) – a night-time walk, guided by an expert in the lighting sector, is planned for November for Climate Champions (a network of City of London volunteers) and interested parties to be shown good and bad examples of building lighting pollution and its impact on the external, local environment. Following this, the Climate Champions will be asked to use this learning and apply this to the seventeen buildings in scope and conduct out of hours surveys to identify a baseline to record progress against, using photographic evidence to support the issue identified (no cost).
 - Install blinds and curtains (Action 12) – as a proof of concept, the existing blinds in an area of the 4th floor, Guildhall North Wing are being automated

to operate according to outside light levels. The £10,000 cost for this trial will come from existing CAS funds but additional funding will be required to retrofit into the rest of the building should it prove successful (£10,000).

- Procuring sustainable light fittings (Action 14) - the City of London Corporation have a Responsible Procurement toolkit and have published an [Impact Report](#). Luminaires are included in this procurement toolkit to ensure that the most sustainable versions are purchased for City of London Corporation buildings. This is also supported by the application of the Corporation's Net Zero Design and Technology Standards, that looks at material use, circularity and whole life carbon that can be attributed to projects (sunk cost).
- Minimise the impacts of our lighting: Replace luminaires (Action 15) - from September 2023 T8 and T5 fluorescent lamps were banned from being placed into the Europe market which means that LEDs lighting has now become the default lighting choice. As such, this action will be completed through repair and replacement in future (no direct cost).

Corporate and Strategic Implications

11. **Strategic implications:** The Lighting SPD and Considerate Lighting Charter is in line with the aims and objectives of the 'leading sustainable environments and flourishing public spaces' elements of the City of London Corporation Corporate Plan and People Strategy 2024-29.
12. **Financial implications:** The Considerate Lighting Charter includes recommendations, many of which constitute best practice for lighting. This will have an individual impact on future projects where it is used as guidance and, in many cases, the recommendations will result in a lower operational cost.
13. **Resource implication:** This paper should give more information as to the resource implications of making seventeen City of London Corporation buildings compliant with the Considerate Lighting Charter. For example, it is expected that key staff will engage with requirements to close blinds in the evening and turn off all unnecessary lighting.
14. **Equalities implications:** The Lighting SPD, including the lighting charter, has been subject to an equality screening exercise, which concluded that it would not have any negative impacts on those who share a protected characteristic. Any decisions regarding the approach to lighting on City Corporation's Operational Buildings will be subject to the City Corporation's Public Sector Equality Duty 2010 and appropriate equality impact assessment where necessary.
15. **Climate implications:** The Lighting SPD and Considerate Lighting Charter will complement the City Corporation's Climate Action Strategy.

16. **Legal implications:** The Lighting SPD has been developed in line with the statutory requirements of the Town and Country Planning (Local Planning) (England) Regulations 2012.
17. **Risk implications:** Failure to implement the Considerate Lighting Charter within the City Corporation's Operational Buildings will risk reputational damage and likely consequence that other organisations fail to adopt the Considerate Lighting Charter across the square mile.
18. **Security implications:** There are no security implications arising from this report. Additional lighting as part of security measures is considered carefully before being implemented, any reduction in external lighting must not compromise safety and security.

Conclusion

19. This paper seeks to inform Members of the steps already happening to implement the Charter into identified City of London Corporation operational buildings. Once the route to compliance is confirmed these actions will be submitted as evidence of compliance to 'lead by example'.

Appendices

Appendix One – Cost and funding source for each Charter action

Appendix Two – How to achieve the Charter actions

Appendix Three – City of London Corporation buildings being seeking to achieve Considerate Lighting Charter compliance

Report author

Graeme Low – Head of Energy and Sustainability, City Surveyors Department

Appendix One
Cost and Funding Source for Each Charter Action

Charter Action (numbered from Appendix two)	Cost	CAS funding already available	Could CAS funding be made available	Funding from elsewhere	Time to implement	Internal or external resource to implement	Planned start date	Future funding required
Instruct respective teams to switch lights off as part of a daily routine (1).	£0	N/A	N/A	N/A	<3 mos	Internal through existing FM contract.	Immediately	No
Design and produce publicity for "Switch it Off" campaign (2).	TBC	N/A	N/A	N/A	3 - 6 mos	Internal through Climate Champion Network.	To be picked up as part of a wider behaviour change campaign.	Yes
Install sub metering of lighting circuits to enable monitoring (3).	TBC	TBC	TBC	Yes	>12 mos	External.	Potentially future cost could be covered by CWP or FM budgets.	Yes

Conduct lighting surveys to either install additional controls or replace lighting (4). & Commission lighting survey on existing installation (6).	£100,000	£100,000	N/A	N/A	Spread over the next few years.	External.	From Q4 of 2024	No
Mobilisation of staff, regular training sessions, embed a 'Switch if off culture' (5).	£0	N/A	N/A	N/A	<3 mos	Internal through Climate Champion Network.	To be picked up as part of a wider behaviour change campaign.	No
Commission lighting pollution impact report (7).	£15,866	No	No	15,866	3 mos during winter.	External.	During winter months	Yes
Commission Equality, Diversity and Inclusion (EDI) on existing lighting (8).	£15,866	No	No	£15,866	<1 mos	External.	Soon	Yes
Engage with stakeholders (9).	£0	N/A	N/A	N/A	<3 mos	Internal.	Soon	No

Review our lighting system: Considering biodiversity (10).	£8,700 to £15,866	No	No	£15,866	1 year to accommodate all seasons	External.	During winter months	Yes
Instigate glare survey (11).	£26,500	No	No	£26,500	3 mos during winter	External.	During winter months	Yes
Install blinds and curtains (12).	£94 for a 'dumb' blind £344 an automated blind.	No	No	TBC	>two years	External.	TBC	No
Close blinds (13).	£0	N/A	N/A	N/A	<3 mos	Internal through existing FM contract.	Now	No
Procuring sustainable light fittings (14).	£0	N/A	N/A	N/A	Ongoing process	Internal.	TBC	Yes
Minimise the impacts of our lighting: Replace luminaires (15).	£0	No	No	TBC	Ongoing process ~ 10 to 20 years	Internal.	TBC	Yes

Appendix Two

Costs from external consultants to achieve the Charter actions

Manage lighting well: Turning lights off when not in use

1. Instruct respective teams to switch lights off as part of a daily routine.

This quote was requested from the Facility Management (FM) contractors providing security and/or cleaning services to the City of London Corporation buildings to provide a benchmark cost for other owners, managers or occupiers.

City of London Corporation FM providers stated that as a signal of their continual improvement within their contract they would instruct their security staff to turn lights off, where safe and possible to do so, in the buildings within their managed contract at no additional cost.

It is recognised that changes such as this to an existing contract may only be applicable with an additional cost, or if included as a component of a retendering exercise. Specific cost will be on a building basis and so cannot be identified for this paper.

For ongoing contracts there may be a delay in implementation until existing FM contracts finish and new ones begin with this requirement added as a new performance indicator.

2. Design and produce publicity for “Switch it Off” campaign.

The City of London Corporation have a ‘Climate Champion Network’ of volunteers across the corporation to help reduce the climate impact of the City of London Corporation activities. Whilst this is unique to the City of London Corporation a number of owners, managers or occupiers of buildings may have something similar, although this might be on a floor-by-floor basis rather than across numerous buildings.

It is proposed to use the network of volunteers to distribute/install and renew a bespoke Switch it Off campaign of leaflets to encourage building users to switch lights off to comply with the Charter.

However, this is to be delivered as part of a wider behaviour change campaign that is being planned for later in the 2024/25/26 period.

3. Install sub metering of lighting circuits to enable monitoring.

At this stage the cost cannot be calculated as it is reliant on the results of the lighting survey 11a. Typically a sub-meter would cost in the region of between £150+ per meter depending on the complexities of installing, monitoring the data and the electrical load being measured.

Manage lighting well: Installing control systems.

4. Conduct lighting surveys to either install additional controls or replace lighting.

Typically, lighting supply companies will provide lighting surveys and designs 'free of charge' on the proviso that the building owner would go onto purchase their products thus indirectly paying for the survey.

Whilst this would work if the installation was going to proceed this is not the case with this project and so consultants were asked to provide quotes to complete lighting surveys that would look at controls, existing luminaires and provide independent costs to replace with luminaires that would be Charter compliant but not necessarily from one supplier.

For the seventeen buildings in scope these surveys would cost **£100k**. These costs are calculated based on building floor area with some of the larger buildings likely to take several days to survey but the smaller ones being completed in one day.

Manage lighting well: Embedding good lighting management practise

5. Mobilisation of staff, regular training sessions, embed a 'Switch if off culture'.

The City of London Corporation have a Climate Champion network of volunteers across the corporation to help reduce the climate impact of the City of London Corporation activities. Whilst this is unique to the City of London Corporation some owners, managers or occupiers of buildings will have something similar although this might be on a floor-by-floor basis rather than numerous buildings.

It is proposed to use the network of volunteers to distribute/install and renew a bespoke Switch it Off campaign of leaflets to encourage building users to switch lights off to comply with the Charter.

However, this is to be delivered as part of a wider behaviour change campaign that is being planned for later in the 2024/25/26 period.

Review our lighting system: Carry out an initial review.

6. Commission lighting survey on existing installation.

This action will be covered by 11a by the same contractor. The two actions could be considered separate as it would be possible to have good quality luminaires that provided all the required lighting installed but for it to be badly controlled e.g. a buildings reception area to be lit 24/7 when there is no receptionist and all office staff have left for the day.

However, for this stage of the project the proposed contractor will be able to consider both actions within the same audit.

For the seventeen buildings in scope these surveys would cost **£100k** (this has already been accounted for in 11a)

7. Commission lighting pollution impact report.

This survey comprises of several nighttime audits to undertake visual appraisal of the following elements of the Charter:

- lighting pollution impact,
- EDI on existing lighting,
- biodiversity impact audit.

Each of the actions will be logged onto a standardised spreadsheet comparable per building and would provide recommended actions to rectify the findings of the audit to make the building Charter compliant.

Cost of £47,600 for all three actions

Cost of £15,866 per action.

8. Commission Equality, Diversity and Inclusion (EDI) on existing lighting.

This survey is already covered in 13b.

A conversation with Oliver Sanandres, CoL Director and Head of Profession (Health & Safety) suggested that whilst EDI needs to be considered for internal lighting it is thought less of an issue with external lighting as this is unlikely to impact on any listed characteristics. It was suggested that an email address could be provided so that any individual who felt that the City of London Corporation's buildings external lighting had impacted on their listed characteristic could report this for further investigation.

Cost of £47,600 for all three actions

Cost of £15,866 per action.

Review our lighting system: Consult neighbouring properties.

9. Engage with stakeholders.

Building custodians were contacted to ask whether they already had communication with their nearest neighbours. Those that replied typically had communication 'channels' already in place with some, if not all, of their immediate neighbours and suggested that any remaining could be engaged with at little to no cost.

For the sites that did not have any previous communication it would be possible to work with colleagues in the Planning department to use their existing 'residential layer' with the CityMaps Geographical Information System (GIS) to identify the address of these neighbour to arrange a mail-out to proactively engage with them. This would be a similar approach to that already used when making notifications of Planning Permission applications.

Review our lighting system:

10. Considering biodiversity.

Surveys would be conducted to assess whether there are ecological receptors or greenspaces that would be subject to the requirements of the Charter. This will comprise of a desk-based appraisal using publicly available information in

conjunction with a site-based assessment to record both on-site and adjacent habitats (access permitting) using the UK Hab methodology.

A design note statement report presenting the above survey results advising which building complies, or does not comply, with the City of London Corporation SPD, as well as those that require more detailed ecological survey work to assess compliance.

A cost range of **£8,700 to £15,866** depending on which consultancy is used. The higher values are from multi-disciplinary consultants as part of a multiple survey offer with the lower value coming from a smaller consultancy.

Minimise the impacts of our lighting: Reducing Glare and Light Spill.

11. Instigate glare survey.

This survey would be completed at the same time as action 15 if provided by the same consultancy working on both actions during the same site survey.

It would comprise of a nighttime survey to better understand the impact of lighting from the building. This would include measurement of lighting colour temperature (CCT) and colour rendering index (CRI), measurement of illuminance (lux) on areas of sensitive receptors and adjacent the building, visual assessment of uplighting on building that are contributing to sky glow and light pollution and visual assessment of glare from lighting fixtures.

At a cost of **£26,500**

12. Install blinds and curtains.

In order to provide costs to install blinds in each of the seventeen buildings each one would need to be surveyed in depth with each external facing window measured and quoted for. This is not practical at this stage and so blind supplying contractors were invited to the Guildhall to review the windows in the North Wing and provide an indicative quote to install a simple 'dumb' blind such as those already installed, an automated blind that opened and closed according to a time clock and/or external lighting conditions and the cost of supplying a number of windows in one installation.

These numbers can then be used to better understand the order of magnitude to install blinds in buildings that currently don't have any installed.

At a cost of **£94** for a 'dumb' blind

At a cost of **£344** for a single automated blind

At a cost of **£40,924.44** to install 71 automated blinds to the entire 4th Floor, North Building, The Guildhall.

13. Close blinds.

This quote was requested from the Facility Management (FM) contractors providing security and/or cleaning services to the City of London Corporation buildings to provide a benchmark cost for other owners, managers or occupiers.

City of London Corporation FM providers stated that as a signal of their continual improvement within their contract they would instruct their security staff to close blinds, where safe and possible to do so, in the buildings within their managed contract at no additional cost.

It is recognised that changes such as this to an existing contract may only be applicable with an additional cost, or if included as a component of a retendering exercise. Specific cost will be on a building basis and so cannot be identified for this paper.

For ongoing contracts there may be a delay in implementation until existing FM contracts finish and new ones begin with this requirement added as a new requirement.

Minimise the impacts of our lighting:

14. Procuring sustainable light fittings.

The City of London Corporation have developed a Net Zero Design standard for use in their buildings to take their buildings to Net Zero. This document brings together design guide, standards and processes from multiple guides, including the Considerate Lighting Charter, to cover all aspects to achieve a Net Zero Building. The lighting section provides details of procurement processes, recommended luminaires, colour standards, lux levels etc.

15. Replace luminaires.

From September 2023 T8 and T5 fluorescent lamps were banned from being placed into the Europe market which is resulting in a limited time of existing stocks being available in Europe and the UK with the prices of these likely to rise as stock diminish. This means that as existing lamps fail building owners, occupiers and manager will need to decide whether they replace the lamps with LED replacements utilising the existing luminaire (not best practise due to the linear lighting output of LEDs compared to the 360° light output of fluorescents) or replace the entire luminaire with new LED versions that should include in controls to reduce operation.

As such, this charter action is already happening across building portfolios as lamps fail. Building manager, owners and occupiers should decide whether their strategy for replacement is to replace every luminaire at an agreed time (for instance at 20% failure rate) or replace as each lamp fails. As this will be considered a maintenance cost this is within the normal building running costs and so no cost is provided for this action.

Appendix Three

City of London Corporation buildings being seeking to achieve Considerate Lighting Charter compliance

	Site Name	Floor area m²
1	Mayor's Court	1,600
2	Central Criminal Court	38,553
3	Walbrook Wharf	13,718
4	Barbican Arts Centre	70,292
5	Barbican Estate Office	1,251
6	Guildhall Complex	64,352
7	21 New Street	8,282
8	Bishopsgate Police Station	10,864
9	Mansion House	8,236
10	Artizan Street Library and Community Centre	946
11	CoL Magistrates Court	1686
12	Roman Bath House	643
13	Portsoken Community & Health Centre	201
14	Portsoken Pavilion	325
15	City Information Centre, St Paul's Churchyard	130
16	Temple Bar & Paternoster Lodge	122
17	The Monument	19