

LEWISHAM COUNCIL ENERGY POLICY 2014-2018

July 2014

Lewisham Council is committed to creating a borough that is clean, green and liveable. The use of energy is fundamental to the way the council works, and a proactive and efficient approach to energy management one of the most important ways the Council can cut its costs and lead the way in promoting a sustainable environment.

The Council needs to reduce its net general fund budget by £95m over the next four years. With a growing population and services already under pressure achieving this is going to be very challenging, particularly in relation to energy where costs have been rising significantly over a long period. Ensuring we understand and manage our energy use is an essential part of minimising our exposure to energy markets. The generation and supply of energy also offer potential opportunities for generating income.

This Energy Policy sets a new target of a 20% reduction in carbon emissions over 5 years across the Council's operational sites and identifies how the Council's management of energy will contribute to the Council's corporate priorities through:

- Reducing exposure to rising energy costs and achieving value for money energy contracts
- Cutting waste and driving efficiency across operational buildings
- Enabling schools to meet increased pupil numbers while controlling energy costs
- Reducing the Council's carbon footprint and contributing to wider environmental objectives
- Minimising the risk of energy supply disruption and maintaining acceptable temperatures in buildings delivering services to service users and staff
- Ensuring the Council complies with legislation and statutory functions relating to energy supply and use in corporate buildings

The Council will also seek to take a strategic approach in the use of its assets across the borough, being ambitious in using our estate as a tool to unlock new opportunities for the generation and supply of energy. This includes work in partnership with others to promote district heating; the use of photovoltaics and other renewables to cut carbon emissions as well as create opportunities for further investment; and exploring the scope for energy supply as a means to deliver against wider social and environmental objectives and generate economic benefits.

Delivering on our commitment

Lewisham Council commits to delivering a 20% reduction in annual carbon emissions from energy use in buildings across the Council's operational estate by March 2018 from a baseline of 2012/13.

The baseline for 2012/13 is 8,548 tonnes per year. Achieving the reduction will result in annual carbon emissions of 6,838 tonnes in 2017/18. Based on 2012/13 energy prices this would be expected to translate into an annual financial saving of approximately £360,000 in 2017/18 compared to the energy spend in 2012/13.

The Council also commits to achieving a 20% reduction in carbon emissions per pupil averaged across our school's estate with a target of 260 kg CO₂ per pupil per year for primary schools and 540 kg CO₂ per pupil for secondary schools by March 2018.

We will achieve our commitments through improvements in

1) Monitoring and targeting

- Establishing an evidenced based approach to improving energy efficiency
- Benchmarking against best practice
- Identifying and responding to high consuming buildings

2) Staff engagement and better use of buildings and equipment

- Establish clear roles and responsibilities and support staff and others to reduce energy use
- Updated protocols for heating standards

3) Investment in more energy efficient buildings

- Design for new build
- Standardised specifications for equipment across buildings
- Targeted maintenance programmes ensuring equipment runs efficiently
- Upgrading heating systems and plant where there is an economically viable case to do so

4) Delivery of a fit for purpose operational estate

- Taking a strategic approach to operational

Data and target setting explained

The Council's operational estate covers 106 buildings that provide council services and are covered by corporate energy and maintenance contracts

Lewisham Council reports annually against the Government's Carbon Reduction Commitment (CRC) scheme and, separately, on greenhouse gas emissions using the Department of Energy and Climate Change methodology. The targets and baseline data used within Lewisham's Energy Policy draws on this data, with the following adjustments

- Energy use in schools is likely to be under greater pressure due to increased pupil places and achieving a 20% reduction in total emissions would be impractical so a per pupil target has been substituted
- The operational estate does not include hostels although these are covered by the council's greenhouse gas reporting
- There are a small number of other buildings not included in the operational estate which are very small and significant reductions in energy use are likely to be difficult to achieve

The data used for the baseline is based on data submitted for the Council's Carbon Reduction Commitment report for the financial year 2012-13, which is the most accurate data available.

The Council's energy spend in 2012/13 on the operational sites covered by the target was £1.8m.

<p>sites; getting more out of the buildings we use</p> <ul style="list-style-type: none">• Enabling schools to meet the demands of today and the future while managing energy consumption	<p>Details of Lewisham Council's reporting on Greenhouse Gas Emissions can be found in our annual use of resources statement</p> <p>http://www.lewisham.gov.uk/get-involved/environment/energyefficiency/taking-the-lead/Pages/default.aspx</p>
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Roles and responsibility

- All Council services are responsible for ensuring the effective use of resources in the delivery of their functions
- Corporate Asset Services has overall responsibility for delivering the Energy Policy and achieving the target of a 20% reduction in energy consumption
- The Corporate Asset Services Energy Forum will lead on development and delivery of the action plan underpinning the Energy Policy
- Building managers and staff in posts that involves management of sites are responsible for conforming with corporate policies and procedures in relation to energy use and the maintenance of plant and equipment
- All staff should take responsibility for the energy they use including switching off unnecessary equipment

Energy Policy monitoring and reporting

- Lewisham Council's Energy Policy was agreed in July 2014 and forms part of the Council's Strategic Asset Management Plan
- The Energy Policy will be monitored and delivered through Corporate Asset Services Energy Forum working closely with a range of Council services.
- An annual report on progress will be provided to the lead Cabinet Member for sustainable energy and published on the Council's website.

This Energy Policy is part of the Council's wider commitment to delivering services as efficiently as possible and targeting our resources where they are needed most.

Through this Energy Policy the Council is setting itself a new target of a 20% reduction in carbon emissions across our operational estate over 5 years. This will protect the Council against the continuing rise in costs of gas and electricity and ensure we get value for money from the services we run.

Improving efficiency in Council buildings and schools will be an important priority, but this Energy Policy will also be used to drive energy efficiency across the Council's vehicle fleet, street-lighting and the services we deliver with and through other organisations including leisure centres, the management of parks and open spaces and community centres.

With local authorities continuing to face rising financial pressures there is no time to lose or energy to waste in getting this Energy Policy implemented and I look forward to seeing the results.

Cllr Rachel Onikosi
Cabinet Member for Public Realm

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Annex A - Lewisham Council Energy Policy Action Plan

	Ref	Action	Milestone	CAS Lead
Monitoring and targeting	1.1	Set benchmarks and KPIs	March 2014	SRG
	1.2	Implement data management procedures	July 2014	SRG
	1.3	Conduct audits based on targeted information / follow up on high consumption sites	Oct-Apr annually	SRG
	1.4	Monitor meter data / follow up out-of-hours use and other unnecessary consumption	Oct-Apr annually	FM/SRG
	1.5	Conduct controls checks based on targeted information / follow up on high consumption sites	Oct-Apr annually	FM/SRG
	1.6	Set year on year 5% targets in CAS work programmes	April 2014	SRG
	1.7	Carry out annual review of monitoring and targeting scheme, highlighting areas where potential savings exist and reporting progress against targets	August 2014	SRG
	1.8	Develop 'bottom up' set of projects against 25% target	September 2014	SRG
	1.9	Report 13/14 data to Schools Forum and agree offer to schools	September 2014	SRG
Staff engagement and better use of buildings and equipment	2.1	Agreed heating season protocol / temperature settings	July 2014	FM
	2.2	Agreed roles and responsibilities for building managers	September 2014	FM
	2.3	Communications plan and staff motivation	January 2015	SRG
	2.4	Improved PPM standards agreed with contractors and active monitoring of them (e.g. boiler efficiency, energy saving control systems, low energy replacement lamps, etc.)	September 2014	FM/SRG
Investment in more energy efficient buildings	3.1	Identify and deliver cost-effective programme of investment in CAS buildings to improve energy efficiency. To include bid for new £50k Energy Fund for minor energy efficiency works not covered by	June 2014	SRG

		maintenance		
	3.2	Agree energy and environmental standards for products (e.g. boilers, roof insulation, etc.)	September 2014	FM
	3.3	Capital programme for renewal works re: boilers, roofs, controls	June 2014	FM
	3.4	Ensure whole life costing including within decision making on new sites, expansion of existing sites	September 2014	SRG/FM
	3.5	Develop business case for investment in renewables on CAS properties	July 2014	FM/SRG
	3.6	Change project management processes to ensure energy and maintenance officers consulted on design and specification decisions for buildings	September 2014	FM/SRG
	3.7	Change project management processes to ensure energy issues resolved by end of defects period e.g. snagging and commissioning of heating systems	September 2014	FM/SRG
Delivery of a cost efficient and fit for purpose corporate estate	4.1	Ensure energy procurement strategy follows best practice to ensure best value	Ongoing	SRG
	4.2	Ensuring contract administration procedures for energy contracts are as cost-efficient as possible	May 2014	SRG
	4.3	Identification of buildings for disposal including consideration of energy costs and carbon emissions	December 2014	SRG
	4.4	Deliver against CRC requirements and GHG reporting responsibilities	July 2014	SRG

CAS – Corporate Asset Services

SRG – Sustainable Resources Group (Martin O'Brien; Peter Gibbs; Suzanne Wallis; Paul Bailey; Taulant Mucaj)

FM – FM Buildings and Contracts team (Paul Shipley; Frank Crossley; Mark Johnson)

Document revised 2 July 2014

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Annex B - Workplace Heating Protocol for Lewisham Council July 2014

Key Points for Facility Management Staff

- When maintenance staff set room temperatures using heating controls they must use the following settings:
 - > Offices 21^oC (maximum)
 - > Reception areas, libraries, corridors and toilets 19^oC (maximum)
 - > Kitchens 18^oC (maximum)
- For cooling systems the temperatures must be set to:
 - > Offices 24^oC (minimum)
 - > Reception areas, libraries and corridors and toilets 23^oC (minimum)
 - > Kitchens 21^oC (minimum)
- The heating and cooling hours for each building will be set for the times that staff occupy the building. An early morning warm up period should be allowed for. There should be no overnight or weekend heating when the building is closed.
- The controls settings for air-conditioning systems and heating systems must be set up so that cooling and heating of rooms can not happen at the same time.
- Dates at which heating systems are shut down for the summer and switched on again in the autumn will be set by Principal Building Services Engineer and the Energy and Sustainability Engineer. These are currently Frank Crossley (x46815) and Paul Bailey (x48978).
- Some sites are used by people that are vulnerable to cold temperatures such as people with health problems and young children. The summer shut-down date will be later and the autumn start-up date will be earlier for these sites. They will be provided by Principal Building Services Engineer and the Energy and Sustainability Engineer. A list of the sites is shown in the Appendix of this document.
- Where the staff in a building are concerned about temperatures being too hot or too cold, facilities management staff should check if the control settings are correct and they the right temperatures are actually being achieved. Where the problem cannot be resolved to the satisfaction of the occupants, it should be referred to the Energy and Sustainability Engineer and the Energy Manager. These are currently Paul Bailey (x48978) and Peter Gibbs (x48375).
- Where temperature or time controls have to be overridden in an emergency to ensure a heating service can be provided, a record must be kept. Engineers must return to make the required repair as a matter of

Workplace Heating Protocol for Lewisham Council

1. Introduction

This protocol sets out the limits that will be set to the heating and cooling services used in Council buildings. It covers space temperatures, daily heating periods and the length of the winter heating season.

The protocol has been developed by the Council's Energy Forum within Corporate Asset Services (CAS) and forms part of the Council's over-arching Energy Policy which covers all aspects of energy saving and carbon reduction. The workplace heating protocol concentrates specifically on reducing energy waste by heating and cooling services in Council buildings.

2. Temperature Levels

2.1 Heating

The CIBSE (Chartered Institute of Building Services Engineers) Design Guide A: Environmental Design is the most authoritative source for recommended temperatures. All designers routinely use the CIBSE standards. They were developed for each type of working space through independent research, and take into account:

- The level of activity (or metabolic rate) of the occupants
- The type of clothing the occupants should be wearing
- The air flow through the space, i.e. the "wind-chill effect"

For heating purposes during the recommended "winter" temperatures are:

Office Space	21-23 ⁰ C
Reception Areas / Entrance Halls	19-21 ⁰ C
School Classrooms	19-21 ⁰ C
Kitchens (commercial)	15-18 ⁰ C
Toilets	19-21 ⁰ C
Corridors	19-21 ⁰ C
Libraries (main areas)	19-21 ⁰ C
Libraries (store rooms)	15 ⁰ C
Museums and Art Galleries	19-21 ⁰ C
Sports Halls (halls)	13-16 ⁰ C
Sports Halls (changing rooms)	22-24 ⁰ C

Temperatures within sites managed by Lewisham Council should not exceed these figures.

2.2 Cooling

For cooling the lower limit rather than the upper limit is important. For cooling purposes the recommended "summer" temperatures are:

Office Space	22-24 ⁰ C
Reception Areas / Entrance Halls	21-23 ⁰ C
School Classrooms	21-23 ⁰ C

Kitchens (commercial)	18-21 ⁰ C
Toilets	21-23 ⁰ C
Corridors	21-23 ⁰ C
Libraries (main areas)	21-23 ⁰ C
Museums and Art Galleries	21-23 ⁰ C
Sports Halls (halls)	14-16 ⁰ C
Sports Halls (changing rooms)	24-25 ⁰ C

Temperatures within sites managed by Lewisham Council should not be lower than these figures.

3. Length of Heating Season

3.1 Switching On Heating

The heating systems in centrally managed sites are switched on by the Council's maintenance contractor under the instructions of the appropriate officer in Corporate Asset Services. This is currently the Energy and Sustainability Engineer.

The earliest date for switching on each year is mid-September. If the outside air temperatures are mild and the forecast is for fine weather, then there will be a delay until there is a sustained period of cooler temperatures. The judgement on whether or not to delay switching on will be taken by the Principal Building Services Engineer and the Energy and Sustainability Engineer.

Those CAS sites that provide services to people that are vulnerable to cool temperatures are treated differently from the rest. The heating in these sites will be switched on while outside temperatures are at a higher level. Vulnerable persons are defined as:

- a) Persons with existing health problems
- b) Persons vulnerable to illnesses or infections
- c) Persons with a low level of physical activity
- d) Very young or old persons

Examples of these sites would be day centres used by elderly people, young children or people with disabilities. A list is shown in the Appendix.

The Council also has local managed sites such as schools. They have autonomy over their site management procedures. This policy should be used as guidance by school managers and their premises officers. It is recommended that schools consider switching on their heating on mid-September each year but delay doing so if the outside temperatures are mild.

3.2 Switching Off Heating

A similar process takes place for switching off heating as for switching on. From the beginning of May onwards the Principal Building Services Engineer and the Energy and Sustainability Engineer will consider whether it is possible to switch off heating bearing in mind the current and forecast outside air temperatures. The switching off of vulnerable sites is delayed until after the rest.

4. Control of Heating

The heating hours for every site should be matched to the needs of the service occupying it. Centrally managed sites should have their heating programmes set by CAS officers or the Council's maintenance contractor. Locally managed sites are expected to have their staff set their programmers correctly by premises officers or call in a qualified person to do so.

Buildings need to have reached the minimum required temperature by the normal starting time for the working day. Modern heating controls are sophisticated and are able to pre-heat buildings just long enough to ensure the correct temperature is reached. It is not necessary for members of staff to interfere with control settings.

Similarly, modern controls are sophisticated enough to provide frost protection for buildings. It is not necessary for members of staff to leave heating on all night to prevent burst pipes.

Controls should only be adjusted by CAS officers or the Council's maintenance contractor. As a general rule no member of staff should alter heating control settings unless trained to do so by a CAS officer and adhering to the settings given to them during the training. Also, no unauthorised persons should be entering boiler-rooms or plantrooms without the appropriate Health and Safety training.

5. Control of Cooling

There is a widespread use of small air conditioning units in many of the Council's buildings. These are usually controlled by local controls or programmers. Staff are able to adjust control settings to their own personal preferences. This often results in buildings being over-cooled, or cooling being used at the same time as heating, cooling being left on 24 hours a day or cooling being left on while windows are open.

Cooling should be only used to achieve reasonable temperatures, i.e. no lower than those shown above. Cooling should only be used during working hours.

Where a building has separate heating and cooling systems, all staff should be reminded to turn off heating before switching on air conditioning to prevent simultaneous operation.

6. Unauthorised Electric Heating Appliances

No unauthorised portable electric heaters should be used on Council's premises. If they are owned by members of staff they will not have undergone electrical testing in line with the Council's Health and Safety Policy. These should be removed by the building manager.

Some buildings have Council owned portable heaters for use in emergencies. These should not be used unless the building's main heating system has failed. Any problems with underheating in a building should be reported to the Council's maintenance contractor.

7. Implementation of Heating Protocol

7.1 Identifying Non-Compliance with Protocol

CAS officers will identify sites where sites are not complying with this policy and tackle issues on a site-by-site basis. This will be achieved by:

- a) Monitoring out-of-hours consumption using remote reading of meters
- b) Analysing consumption data to identify high energy users

- c) Visiting sites to make inspections
- d) Reacting to reports of overheating by staff or visitors using the sites

CAS officers will take action to ensure heating controls are set correctly.

7.2 Tackling Non-Compliance with the Protocol

The protocol will not be imposed unilaterally on sites. A process of negotiation will take place where staff are opposed to reductions in their comfort levels or heating hours. Given the financial implications of unmanaged energy consumption staff altering control settings to over-ride the heating policy or ordering the Council's maintenance contractor to do so will be asked to justify their actions.

Various reasons are given by staff for over-riding heating policies. For example, needing to leave heating on all night to prevent burst pipes or to prevent damp, turning heating on in the summer because of a cold spell, or needing high temperatures because of a personal sensitivity to cold.

In the case of cooling, staff have other reasons for rejecting good practice. For example, needing to leave the air conditioning systems on all night to cool the building down.

CAS officers will negotiate to achieve adherence to the policy. Where staff are behaving unreasonably they will be challenged. The appropriate line managers and budget holders will be contacted as appropriate. A reasonable level of comfort appropriate to the needs of staff and their level of activity will be agreed as a result of negotiation and persuasion.

Staff at each site will be able to report overheating to the Council facilities management and maintenance contractor directly to get it rectified. This facility should be publicised to all staff.

7.3 Automated Control Systems

Heating and air conditioning services are controlled by automated controls which have a variety of energy saving functions. If they are set up correctly the plant runs as efficiently as possible. Owing to the sophistication of these systems, a great deal of knowledge and experience is required in order to set them correctly. All controls should be adjusted to the correct settings regardless of their complexity.

Control settings and the operation of control equipment will be monitored regularly by CAS officers and action taken wherever possible to ensure the systems are operating correctly. A range of actions will be necessary, for example:

- a) Ordering repairs and adjustments by maintenance contractor
- b) Arranging for specialist controls contractor to carry out repairs where maintenance contractor does not have sufficient expertise
- c) Requiring maintenance contractor to train personnel to the level that enables them to carry out control repairs competently
- d) Ensuring the maintenance contractor adopts the Council's preferred settings for functions such as weather compensation, optimum start, etc. Also, the Council's preference of gas over electricity for heating and hot water services
- e) Where the maintenance contractor over-rides a control system on a temporary basis to ensure continuity of service they will report the need for a repair so that control can be reinstated
- f) Providing training to premises officers and building occupants on setting controls correctly

Appendix: List of Sites with Vulnerable Occupants

5 Steps Community Nursery, 15 Lambourne Grove, Rotherhithe London SE16 2TA
Bellingham Childrens Centre Area 4, R/O 109 Randlesdown Rd., Bellingham
London SE6 3HB

Bellingham Gateway Youth & Community, 185 Brookhouse Road, Bellingham
London SE6 3TT

Evelyn Childrens Centre, 231 Grove Street, London SE8 3PZ

Hatcham Oak Childrens Centre, 29 Wallbutton Rd, Brockley London SE4 2HL

Honor Oak Early Years Centre, Brockley Way, Brockley London SE4 2LW

Ladywell Childrens Centre, 30 Rushey Mead, London SE4 1JJ

Ladywell Day Centre, 148 Dressington Avenue, Brockley London SE4 1LF

Leemore Resource Centre, 29/39 Clarendon Rise, Lewisham London SE13 5ES

Meliot Road 50 (Meliot Family Care Centre), 50 Meliot Road, Catford London SE6
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