

London Borough of Hammersmith and Fulham

Home Energy Conservation Act Report 2015

1. Introduction

The Department of Energy and Climate Change (DECC) published new statutory guidance in July 2012 on the Home Energy Conservation Act 1995 (HECA). It requires local authorities to report to Government on practical energy conservation measures that are considered cost-effective, and likely to significantly improve the energy efficiency of residential accommodation in their area. Progress reports are to be submitted at two yearly intervals up to March 2027.

This report provides a snapshot of the current housing and demographics in the Borough, outlines the current trends in domestic energy use, and details current and planned activity to improve household energy efficiency.

2. Profile of Hammersmith and Fulham

The Borough has an area of 6.3 square miles with a population of 185,237 with 80,600 households. It is the 6th most densely populated Borough in the UK. The population is projected to rise by 2% by 2018.

It has a relatively young population with 37% young adults aged 25-39, higher than the average for London and the UK. 10% of the population are over 65 which is close to the average for London. The majority of residents are of working age, between 20 and 50. Unemployment is 4.3% which is very near the London and national averages.

It is a Borough of contrasts, where property prices and private rents are amongst the highest in London but yet there are significant pockets of deprivation and the borough is ranked as the 42nd most deprived local authority area in the country.

27% of our residents are considered to be in poverty compared with 17% in England and 18% in London. To reflect this, there are 41 designated areas of low income in the Borough that will qualify for Carbon Savings Community Obligation (CSCO) funding for insulation works from utility companies.

Housing

The housing stock is generally old with 74% of houses built before 1919, so the construction is predominantly solid wall with only 16% having cavity walls.

27% of dwellings are houses, predominantly terraced and 73% flats (42% of which are purpose built).

The table below shows the different housing tenures as a percentage of all dwellings, taken from 2011 Census data

	Hammersmith and Fulham	London	England
Social rented - from Council	15.7%	17.1%	3.2%
Social rented - from Housing Association / Registered Social Landlord	15.4%	9.2%	6.1%
Owner occupied	35.6%	56.6%	68.8%
Private rented	33.2%	17.2%	12% ¹

Social housing context

Our Housing and Regeneration department was formed in April 2011 when the arms-length housing management organisation returned to the council. Around 13,000 homes are rented to tenants and 4,500 are leased. The vast majority of dwellings are flats, predominantly in medium or high rise blocks and a significant proportion have flat roofs, limiting the scope for roof insulation. 72% of windows are double glazed.

There are over 40 different Registered Social Landlords (RSLs) with properties are active in the borough, representing around 12,000 dwellings. The majority of RSL properties are owned by a few providers such as Notting Hill Housing Trust and Shepherds Bush Housing Association.

Private housing context

The privately owned properties are predominantly solid wall construction making them difficult to effectively insulate. Many areas of the Borough are in a Conservation Area which makes external wall insulation especially difficult to achieve, along with the high costs of the work and lengthy payback period

The percentage of the private rented sector is the 6th highest in London and 8th highest in the UK. Many of these homes are the least energy efficient.

Current performance and trends in energy use

The table below shows the baseline figures related to energy use in the borough and fuel poverty based on Department of Energy and Climate Change (DECC) carbon emissions and fuel poverty data for 2012.

	Hammersmith and Fulham	London	England
Households considered to be in fuel poverty	9.2%	8.9%	10.4%
Domestic emissions per capita (tonnes)	2.1	2.1	2.4
Average SAP rating in the private sector	53	No data	53.7
Average SAP rating in the council owned sector	74	No data	53.7

Fuel poverty

9.2% of all households are estimated to be fuel poor, this figure has reduced from 11.5% in 2008 and is slightly below the London average rate of 10.8% of households, but nearly twice as high as the average for England. The way that fuel poverty is recorded has changed in this time from the 10% definition to the low income high cost method.

Excess Winter Deaths

This measures the difference between the number of deaths in the population during the winter months December to March and the average number of deaths during the other months of the year. The latest figures from the Office of National Statistics estimated that there are 24.8% excess winter deaths in this Borough compared with London average of 18.3% and is therefore an important issue in Hammersmith and Fulham.

Energy consumption and carbon emissions

Energy consumption in housing accounts for 29% of the Borough's total carbon emissions. The emissions from homes is in line with the average for London and has been fairly steady since 2005.

3. Current and Planned Activity

ACTION	EXAMPLE	TIMING
i) Local energy efficiency ambitions and priorities		
<p>The Council's Community Strategy prioritises the delivery of a Cleaner Greener Borough. There is a commitment to:</p> <ul style="list-style-type: none">• Cutting waste and increasing recycling.• Promote energy conservation and efficiency both in its own estate and in consideration of future planning applications.• Investigate and encourage, where feasible, the use of renewable energy for both existing and new development. <p>The council have signed up to the Nottingham Declaration on Climate Change, in which a commitment is given to actively tackle climate change and work with others to reduce emissions. To help achieve these aims, the council have partnered with the Carbon Trust and produced a Carbon Management Plan which commits the council to a target of reducing CO2 from its activities by 40% by 2016. The plan is managed by the Climate Change Project Management Board.</p> <p>The Private Sector Energy Efficiency Strategy for the Borough aims to:</p> <ul style="list-style-type: none">• Improve the energy efficiency of private sector dwellings by facilitating measures to optimise the energy performance of the energy performance of domestic dwellings using the Standard Assessment Procedure (SAP). This rates the energy performance of a dwelling by measuring the energy usage per unit floor area, which allows a comparison to be made between different dwellings.• Reduce levels of fuel poverty of households in private sector.		

- Reduce the incidence of excess winter deaths in the private sector

Building Regulations

The current Part L (Energy Efficiency) in the Building Regulations 2013 requires that all new homes achieve a 6% reduction of carbon emissions compared to the 2010 Part L standard. We ensure that all new residential developments meet these standards where the building regulations application is made through the Council's Building Control service. It is expected that in the future further measures will be introduced by the government towards the 2016 aim of achieving zero carbon homes.

Planning

The council's planning policies aim to implement the London Plan sustainable energy policies, including a requirement that all new developments should reduce their carbon dioxide emissions. In particular, major developments (i.e. those with 10 or more residential units) are required to implement the Mayor's energy hierarchy in order to meet the 2015 London Plan carbon dioxide emissions reduction targets. Currently this is set at a 35% improvement on the 2013 Building Regulations requirements.

The residential led regeneration of the Earls Court and West Kensington Opportunity Area will result in an environmentally sustainable new urban quarter. The redevelopment must deliver sustainable energy measures, including a district heating network and the use of low and zero carbon technologies, including renewable energy sources.

Similarly, the Planning Framework for the White City Opportunity Area sets out how the regeneration of this part of the borough must take advantage of the opportunity to take a co-ordinated approach for the provision of energy to the area and address climate change. This includes managing energy demand and minimising energy use, establishing a decentralised energy network and incorporating appropriate renewable energy sources.

Housing

Asset Management Plan

A key objective of the HRA Asset Management Plan is to incorporate energy efficiency in all new programmes wherever practically possible. This may extend to retrofit where applicable. The plan recognises that energy use in housing is a significant contributor to climate change, with 27% of all carbon emissions deriving from the domestic housing sector. As the major provider of social housing the council is acutely aware of

its responsibilities. Improving overall energy efficiency, together with ensuring that all heating and insulation installations exceed minimum standards, is essential for the future maintenance of the housing stock. The current estimated average SAP rating for council dwellings is 74 and reflects many of the improvements undertaken particularly on heating systems, windows and roofs. Since the start of the current repairs partnership contract over 2,000 Energy Performance Certificates have been produced (18% of stock) and these are now held on a central database which will be an invaluable tool when developing improvement programmes and targeting priorities.

The Asset Management Plan aims to ensure that all residents can achieve and maintain healthy and comfortable temperatures at affordable costs. Affordable Warmth is a necessary solution to the problem of fuel poverty

ii) Measures that take advantage of financial assistance and other benefits offered from central government initiatives

<p>Green Deal and the Energy Company Obligation (“ECO”)</p>	<p><i>Green Deal</i></p> <p>This is the new Government scheme for improving the energy efficiency of domestic buildings where a new financing mechanism will allow a range of measures such as double glazing, solid wall insulation, replacement of boilers to be installed with no upfront cost. The cost will be covered by the savings made by the measures and paid back through the properties energy bills.</p> <p><i>Energy Company Obligation (ECO)</i></p> <p>Funding from energy suppliers to support the installation of energy efficiency measures in low-income households and areas, and in properties that are harder to treat.</p> <p>The approach that we are taking with regard to the Green Deal and ECO is to provide information to residents on the schemes and distribute as widely as possible throughout the Borough. The initial focus is on the identification of ECO opportunities for social housing.</p>	
	<p>Actions</p>	
	<p><i>Build awareness of Green Deal and ECO to residents. Working with Kensington and Chelsea and</i></p>	

	<p><i>Westminster to provide tailored information on the schemes on the council website and leaflets, including details of other funding available and contact details for the Energy Savings Trust and various utility companies for ECO as well as general energy saving advice .</i></p>	Ongoing
<p>Our Own Stock</p>	<p>Hammersmith Homes</p> <p>Stock upgrades</p> <p>Hammersmith and Fulham Council manages a total of 17,155 properties in the borough. The residential stock is overwhelmingly flatted accommodation and predominantly situated in medium rise or high rise blocks. Nearly half the stock is pre 1940.</p> <p>Since the changes to ECO in 2013, HD's Property Services has been working with its contractor partner and energy suppliers to explore alternative options for the delivery of large-scale improvements to its housing stock. Various innovative projects are in development including the extensive retrofitting of two 14-storey LPS tower blocks, Hartopp Point and Lannoy Point, in Fulham which will include external cladding and potentially a Combined Heat & Power network and the installation of photovoltaics</p> <p>A potential scheme is under development at The Grange, Lisgar Terrace, a nine storey 1960's concrete-framed deck block. Proposed works include the provision of an insulated render system to front and rear walls, external cladding to flank walls, and a new roof. The installation of photovoltaic panels is also being considered.</p> <p>Richard Knight House is currently undergoing major works incorporating a green roof as well as new double-glazed windows.</p> <p>Other works completed since 2013, or now in progress, include:</p>	<p>Estimated start 2016 with completion in 2018</p> <p>Estimated start in 2016 with estimated completion of 2017</p> <p>Estimated completion 2016</p>

The refurbishment of the three 1970s residential tower blocks on the Edward Woods Estate provides an exemplar project of sustainable tower block regeneration. The scheme includes extensive overcladding and rooftop extensions, as well as, incorporates the largest building-integrated renewable energy array in London. A case study is attached at the end of this document.

Installation of new double-glazed windows to various blocks on White City Estate (Calvert, Carteret, Ellenborough, Lawrence, Mackenzie); Chelmsford Close/St Albans Terrace; Richard Knight House; Philpot Square/Peterborough Road; and various other sites benefiting over 500 homes

Continuation of programme to provide double-glazing to all sheltered housing stock in borough, completion anticipated 2016

Replacement of old, inefficient communal and district heating boilers at various sites with high efficiency models. This programme has so far benefited near 1,000 homes across 13 sites, predominantly sheltered housing schemes.

Replacement of circa 1,500 old gas central heating boilers with A-rated appliances

The replacement of old luminaires within communal areas of blocks and estate grounds with new energy efficient luminaires utilising LED technology

The Councils current procurement process does not allow for Carbon related works to be procured. The GLA have a RENEW procurement vehicle which could be used.

Innovation

A major project is ongoing with an audit of all landlord's energy bills with analysis taking place of peaks in billing that may result in an electrical check to identify faults that result in high energy consumption.

'Climate Change Adaptation' is considered in landscaping projects, with retrofit of green roofs, and rain gardens, permeable paving, swales etc now considered when scoping refurbishment or improvement projects. Successfully installed at Flora Gardens, Queen

	<p>Caroline Estate, Cheesmans Terrace and with further projects planned at Field Road estate, Ashcroft Square, Jepson House this year.</p> <p>A new approach to recycling is being trialled on a housing estate – Repurpose – to maximise opportunity for re-use of items, and to improve our flow of materials to a range of recycling initiatives. Ease of access to recycling has been improved on a number of estates with the installation of ‘direct recycling’ points, encouraging greater resident participation.</p>	
	<p>Actions</p>	
	<p><i>Consult with the GLA RENEW team to seek possible ECO funding for insulation for planned refurbishment work.</i></p> <p><i>Investigate using the GLA Renew Procurement Framework to procure for carbon related works</i></p> <p>Implement the aims of the Asset Management Plan</p> <p><i>Development and implementation of an Energy strategy which will meet the needs of Affordable warmth requirements This strategy will be jointly developed and delivered in conjunction with our Partnering contractor Mitie.</i></p> <p><i>Incorporating practicable energy efficiency improvements in all maintenance and Improvement programmes</i></p> <p><i>Increasing the average energy rating of the housing stock</i></p> <p><i>Providing training, advice and information for residents as to the most efficient and effective use of their heating Development and implementation of an Energy strategy which will meet the systems.</i></p> <p><i>Investigating the use of renewable technologies</i></p>	<p>Summer 2015</p> <p>March 2016</p> <p>Ongoing</p> <p>Ongoing</p>

	<p><i>Working with the Government agencies, energy companies and its maintenance partners to bid for external funding for renewable technologies and energy efficiency initiatives</i></p> <p><i>Exploring the practicalities of implementing a Retrofit programme</i></p>	
Registered Providers	<p>Working with Registered Social Landlords (RSLs)</p> <p>We have engaged with RSLs that have properties in the Borough with regard to the Green Deal and ECO. It appears that they have had difficulty successfully accessing ECO funding but have continued to invest in the energy efficiency of their stock. We are currently assisting Notting Hill with a Central Heating Fund application and will continue to pass on details of funding opportunities and provide support where necessary.</p>	Ongoing
	Actions	
	<i>Continue to work with RSLs to identify and take advantage of opportunities for collaboration.</i>	Ongoing
Private Rented Sector	<p>Working with Landlords and Tenants in the Private Rented Sector</p> <p>We are aware that private tenants are disproportionately likely to be in fuel poverty, partly due to the nature of the rented housing stock. We particularly target the hazard Excess Cold when assessing rented properties under the Housing Health and Safety Rating System and take appropriate action, including enforcement as necessary, to remove any Category 1 hazards.</p> <p>105 Excess Cold hazards were identified between 2013 and 2015 and subject to enforcement the majority of these are now resolved.</p>	
	Actions	

	<p><i>Public Health funding has allowed us to take on an additional Environmental Health Officer with a view to taking more proactive enforcement action on excess cold hazards. It is hoped that a more proactive approach to enforcement linked to publicity and advice will make landlords more aware of their obligations and improve the energy efficiency of the housing stock.</i></p> <p><i>The Trading Standards team will be checking local estate agents and managing agents to ensure that they are complying with the commission and supply of Energy Performance Certificates for private sales and lettings</i></p>	<p>March 2017</p> <p>March 2017</p>
Fuel Poverty	<p>We take advantage of any funding that may be available for energy efficiency initiatives and work in partnership with other organisations and other Boroughs particularly in the West London Sub Region to try and achieve these aims.</p> <p>We have successfully bid for funding from Tri-borough public health to create the Healthier Homes project in Hammersmith and Fulham. This is a fuel poverty and home safety referral scheme that aims to ensure residents are living in warm, safe homes. We have £260,000 for a period of two years to install and repair heating systems, provide draught proofing and insulation and a wide range of advice services</p> <p>Hammersmith Homes are also seeking to provide assistance to their tenants through Green Doctor home visits via a project running on three estates providing advice and guidance to residents to address fuel poverty , and lifestyle factors that contribute to issues such as condensation.</p> <p>Fuel Poverty Training</p> <p>As part of the Healthier Homes project we are running training sessions on Fuel Poverty for health and social care workers and third sector referral partners. This will raise awareness of the issues of fuel poverty and the options available to tackle it</p>	<p>March 2016</p>
	Actions	
	<i>To meet the targets of the Healthier Homes project in numbers of referrals, home visits and heating</i>	<p>March 2016</p>

	<p><i>installations</i></p> <p><i>To create a sustainable referral network for fuel poverty referrals</i></p> <p><i>To create ongoing partnerships with health and social services to identify and assist vulnerable residents in the borough.</i></p>	
<p>iii) Measures developed to implement street by street approaches</p>		
	<p>Research and Mapping</p> <p>We have recently commissioned a thermal imaging survey of the borough and will be using this combined with other local information to identify potential target areas.</p> <p>We have also recently requested our EPC to provide more detailed information on the local housing stock. We will be using this as a tool to identify target areas for investment and any potential area based schemes</p>	<p>Ongoing</p>
<p>iv) Time frame for delivery and national partners</p>		
	<p>Working with our Tri-borough partners Hammersmith and Fulham and Westminster City Council</p> <p>We are currently in the process of integrating the Environmental Health functions of Kensington and Chelsea and Hammersmith and Fulham and management of HECA now sits under a single officer. Good practice and learning will be adopted for future initiatives and, where practical, these will be developed and rolled out across both boroughs.</p> <p>Work with the health and third sectors</p> <p>Through the expansion of the Healthier Homes project, the Council has developed strong</p>	<p>Ongoing</p>

	relationships with local partners including the NHS and a number of third sector organisations, notably Age UK and Citizens Advice. The Council will seek to continue working with these groups in the future to ensure a coordinated response to tackling fuel poverty in the borough. We have also developed stronger links with Tri-borough Public Health.	
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Review date: 31 March 2016

Submission of progress report due: 31 March 2017

Signed off by.....

Position.....

For further information on this report please contact:

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Edward Woods Estate Case Study

EDWARD WOODS HAMMERSMITH

RESIDENTIAL TOWER PROJECT

Client:	London Borough of Hammersmith and Fulham
Brief:	Complete refurbishment of three residential tower blocks
Contract Value:	£16.3m
Status:	Complete
Sustainable Initiatives:	Re-use of existing building, thermal overcladding upgrade to current building regs, Photovoltaics panels, Solar Thermal Collectors, condensing boilers, roof mounted wind turbines

Towers after



The refurbishment of the three 1970s residential towers on the Edward Woods Estate provides an exemplar project of sustainable tower block regeneration.

The scheme includes extensive overcladding and rooftop extensions, as well as, incorporates the largest building-integrated renewable energy array in London.

Before the refurbishment works began many residents within the towers had been at risk of fuel poverty. A survey in 2007 found that two-thirds of residents suffered from excessive cold and damp in winter, and that many were worried about rising energy bills.

ECD’s initial report for the project documented residents’ concerns as well as detailed the

current condition of the towers, identified various issues involved in the work, and provided an outline budget.

From this report, proposals were developed to improve each building’s structure and energy performance as well as:

- refurbishing the communal areas
- the construction of 12 penthouses for private sale
- new lighting and refurbishment of main electrical systems
- double glazing to windows in stairwells
- installation of gas central heating to bedsits
- conversion of ground floor space to provide seven offices for voluntary organisations

Hammersmith & Fulham’s overall ambition of this complex project was high, and works were further complicated as:

- Each of the 24 storey blocks provides 176 homes, and their residents would remain in occupation throughout the project’s duration
- Much remedial work on the building was required before the cladding of the blocks could begin.

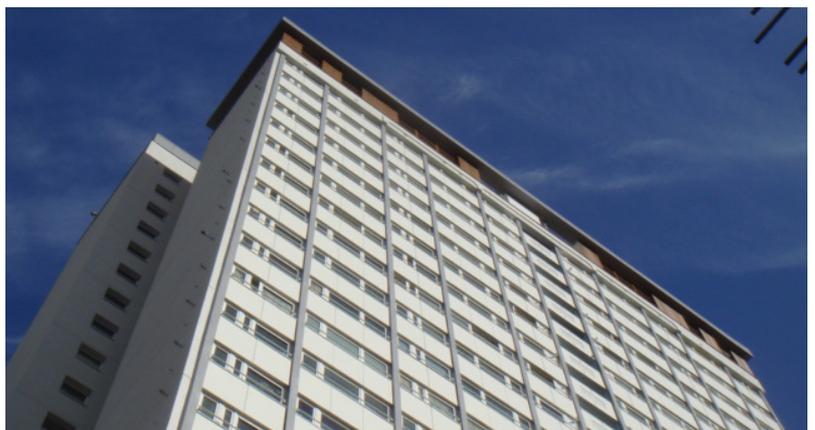
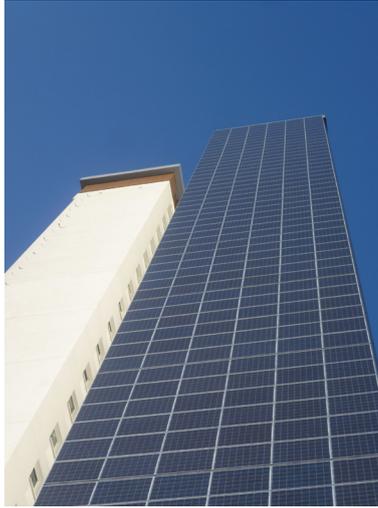
Meetings and consultations were held throughout the design processes to discuss proposals with residents and gain their support for the project, and a Resident Liaison Officer was required as part of the contractor appointment to ensure this support continued despite the length of the project’s duration on site.

Developing the project proposals, we worked extensively with our supply chain to establish the viability of the renewable energy aspects of the scheme and ensure residents would not be negatively impacted by these additions.

Towers before



Towers after



As well as the money generated from the sale of the 12 new penthouse flats, the team successfully applied for grant funding. This included funding from:

- GLA targeted Funding for energy saving £5.24m
- CESP Funding for energy saving £0.60m
- s106 (from previous regeneration scheme) £1.67m
- HRA capital £3.52m
- Capital Receipts £5.10m

The results of this project have:

- transformed the visual impact of Edward Woods at both estate and wider neighbourhood scale;
- addressed the problems of unsatisfactory stock condition and an unattractive environment caused by deficient design and historic underinvestment;
- delivered reductions in energy consumption and costs, and hence CO2 emissions;
- created a flagship renewable energy project within the Borough.

However, the success of this project has not just been about carbon reduction, warmer homes and lower bills. It has been about

the opportunity to enhance and re-brand homes, to build stronger communities and a healthier environment.

The retrofit of the towers on the Edward Woods estate was used by the London School of Economics (LSE) as an exemplar project in a study into the social impact of the large scale retrofit of residential buildings. This study culminated in a report published in October 2012 'High Rise Hopes'.

Within the conclusions of this study the authors note:

We were surprised how positive the feedback from residents was on social conditions on the estate.

For an estate which gained local notoriety for being a "no-go" area in bygone decades, today it can be described as popular.

This report has highlighted project's many successes as well as suggested items for improvement – such as specific items for discussion with residents and the need to provide off-site accommodation for decanting selected residents who require it – providing us clear new items which we are incorporating within our current refurbishment and retrofit projects as well as highlighting items which we are doing correctly and should continue to do so.