**LCAN Site Visits**

**Social housing retrofit/ regeneration**

**Colne and Mersea tower blocks, Harts Lane Estate, London Borough of Dagenham and Redbridge**

When the Colne and Mersea tower blocks were scheduled for Decent Homes works, the opportunity arose to adapt the two buildings for climate change at the same time. The towers, comprising 200 flats, underwent extensive retrofit; photovoltaic panels, triple glazed windows, external insulation and a new communal boiler were just some of the measures employed on the project. Low flow taps and low fill baths were also installed, alongside venetian blinds on south and west elevations. The flats were also fitted with smart meters- a full summary of measures can be found in [this London Climate Change Partnership report](http://climatelondon.org.uk/wp-content/uploads/2013/02/Your-social-housing-in-a-changing-climate.pdf), published in January of this year.

Built in the late 1960s/ early 70s for social housing, Colne and Mersea are today still home to mostly social tenants. Following the publication of a Three Regions Climate change Group report on “[Your home in a changing climate](http://climatelondon.org.uk/wp-content/uploads/2012/10/Your-home-in-a-changing-climate.pdf)”, the London Borough of Barking and Dagenham allowed for the report’s recommendations to be tested in the blocks. The report that emerged from the work is intended to be used as a guide for large scale retrofit in a social housing context.

Barking and Dagenham are also currently working on a [huge sustainable regeneration project](http://www.lbbd.gov.uk/Environment/EnvironmentalSustainability/Pages/Sustainableregeneration.aspx) in the Barking Riverside area.

**Edward Woods Estate, London Borough of Hammersmith and Fulham**

Comprising of 3 high rise blocks, the Edward Woods Estate falls in the 12% most deprived areas of the county. London Borough of Hammersmith and Fulham commissioned a £16.3 million refurbishment of the estate, with improved energy efficiency as one of the main objectives. Hailed as “an exemplar case study for how the Green Deal ‘whole building’ approach can apply to high-rise building and socially-rented estates”, retrofit measures included high grade wall insulation, cavity wall insulation, roof insulation and integrated photovoltaic solar panels.

Further details can be found in the [High Rise Hope report](http://www.rockwool.co.uk/files/RW-UK/site%20images/facade/High%20Rise%20Hope-Full%20Report.pdf); written by a group of researchers from LSE who interviewed residents during the renovation works in order to better understand the social impacts of energy efficiency measures on low-income areas. A second phase of research is due to be carried out in 2013.

**Mayes Road, Haringey, Metropolitan Housing Partnership**

Metropolitan Housing Partnership has undertaken a rolling programme of refurbishment of 62 hard to treat Victorian properties in Haringey. Measures installed include double glazing, internal, loft and floor insulation, low energy lighting and a solar PV panel. The retrofits are [listed on the Superhomes site](http://www.superhomes.org.uk/superhomes/london-haringey-mayes-rd-metropolitan-housing-partnership/), so they’d probably be willing to accommodate a visit of some kind.

**Ashmole Estate, Lambeth**

Metropolitan Housing have also been involved in the refurbishment of the Ashmole Estate in the Oval Ward of Lambeth. A mix of 1930s 5 storey walk-up blocks, 1970s tower blocks, maisonettes and houses, the estate needed extensive renovation when it was acquired by Metropolitan (then MHT) in 2010.

The refurbishment programme includes a variety of works to reduce carbon emissions, including roof, wall and walkway insulation; cladding on two tower blocks and 3 blocks of maisonettes; new double glazing and insulated wall panels; and new, energy efficient heating and hot water systems. Annual CO2 emissions are expected to fall by 1.9-5.2 tonnes per unit per year, depending on property type and its place on the estate.

Metropolitan have also undertaken extensive landscaping to increase Ashmole’s biodiversity and provided energy advice training for staff and residents. Please see [here](http://www.metropolitan.org.uk/about-us/regeneration-and-development/ashmole-regen/) for further information.

**Roscoe Street Towers, Islington**

Also [listed on the Superhomes site](http://www.superhomes.org.uk/superhomes/london-islington-roscoe-towers-peabody-trust/), these 1950s towerblocks were refurbished as part of the [Carbon Assessment and Reduction in Regeneration Areas (CARRA) project](http://www.londoncouncils.glegroup.co.uk/europe-unlocked/case-studies/eerd/carbon-assessment-and-reduction-regeneration-areas), led by the London Borough of Islington. Running from 2004-2005 and funded by the EU LIFE programme, five action projects were developed and implemented, aimed at targeting and engaging different sectors of the community in reducing CO2 emissions. Measures including timber and aluminium double glazing, external wall insulation and an EPS built up roof were implemented in order to improve the energy efficiency of the towers and increase the SAP ratings for their 104 flats. Community engagement was also undertaken, with energy efficiency advice and energy/climate change fridge magnets made available to residents.

**Ferrier Point, London Borough of Newham**

Completed in 1968, at 23 storeys Ferrier Point is the tallest residential tower block in Newham. Refurbishment works began in 2010 to upgrade the 115 flats to Decent Homes Standards, as well as overcladding the building with an insulated rainscreen and 370m2 of grant funded photovoltaic cladding, capable of generating 10% of the buildings electricity demand. New condensing boilers and triple glazing were also installed to help residents use less energy. Works were completed in 2011. Further details [here](http://www.insidehousing.co.uk/tall-order/6513584.article), [here](http://ecda.co.uk/projects/retrofit/-/article/5) and [here](http://www.rydon.co.uk/case-studies/affordable-housing/ferrier-point). Works were funded by the GLA, Newham Council and DECC.

**Queens Park Retrofit, Westminster**

A retrofit of seven terraced properties within the Queens Park Conservation Area and Low Carbon Zone, this project is being used (was used?) by the BRE as a pilot for their ‘BREEAM Domestic Refurbishment Standard’. Once completed, the properties will be let by the local Housing Association. Further details (including installed measures) can be found [here](http://ecda.co.uk/projects/retrofit/-/article/8).

**The Gardens, Stamford Hill**

Not a retrofit, but an interesting redevelopment of a site in Stamford Hill, half of which is dedicated to social housing. It’s unusual as it was developed specifically for the Orthodox Jewish Community who often have large families, and therefore it has a high proportion of 3, 4 and 5 bedroom flats, maisonettes and houses with up to ten bed spaces. One of the requirements of the original design brief was also to enable residents to create a sukkah (a hut-like structure) for the Festival of Sukkot that takes place each October. Designed to level 3 of the Code of sustainable Homes, the development also incorporates solar thermal water heating and photovoltaic energy generation. Further details [here](http://www.britishhomesawards.com/archive/TheGardens) and [here](http://www.penoyreprasad.com/projects/the-gardens/).

**Energy**

**King’s Cross Energy Centre**

King’s Cross Energy Centre houses a CHP plant which developers hope will one day provide 100% of the site’s heat and hot water needs, and 80% of its electricity. The CHP system will be one of the largest of its kind in the UK, and other onsite renewable technologies will include roof-mounted wind turbines, solar panels, gshp and solar thermal systems. Please contact [Clare Hebbes](mailto:clare.hebbes@argentgroup.plc.uk) for more information.

[Website](http://www.kingscross.co.uk/the-energy-centre-at-kings-cross)

**Bunhill Heat and Power**

Bunhill Energy Centre and the district wide heat network uses gas-fired CHP technology to provide cheaper, greener heat to homes on several estates and buildings in Islington.

[Website](http://www.islington.gov.uk/services/parks-environment/sustainability/sus_energy/Pages/decentralisedenergy.aspx)

**Pimlico District Heating Undertaking**

Located on the Churchill Gardens estate, the PDHU provides energy to approximately 3,256 homes, 50 commercial premises and 3 schools. They are open for site visits; please contact [Chris Richardson](mailto:crichardson@cwh.org.uk).

[Website](http://www.cwh.org.uk/locations/churchill-gardens/the-pimlico-district-heating-undertaking-pdhu-/)

**South East London CHP Plant**

Energy Recovery Facility in Deptford, receiving up to 420, 000 tonnes of household waste per year from residents of Lewisham, Greenwich, Westminster and Bromley. The energy recovered from the waste supplies enough power for 48,000 homes. Tours can be [organised](http://www.selchp.com/visit.html).

[Website](http://www.selchp.com/index.html)

**London Array**

If you fancy a quick trip to the seaside you could also visit the [London Array](http://www.londonarray.com/), which has just announced that [all of its turbines are now fully operational](http://www.guardian.co.uk/environment/2013/apr/09/london-array-world-largest-windfarm)! Ok, so they are situated 20km offshore, but you could always go for a daytrip to their [operations and maintenance base](http://www.londonarray.com/the-project/operations-maintenance/)…