

Energy Saving on the Golden Lane Estate

This report is a compilation of all the things Golden Lane residents have done to reduce the heat loss from their homes, together with some general energy saving advice and information on where to source the things you need to act on the advice included. Where they have agreed to it, contact details of the resident who came up with the idea are included, with the hope that residents will look to each other for advice and support in improving their homes. This document is therefore just the starting point, and it would be great if people add their own ideas to it, as well as any tips or pictures that will help people follow the advice provided. Happy draughtproofing everyone!

Saving Heat

Windows

One of the biggest barriers to conserving heat on Golden Lane are the large areas of single glazed windows, especially where these are metal framed. Various options exist to try to improve this, all of which work on the principle of trapping a layer of air within or next to the window to slow the rate of heat loss. These are discussed in increasing order of cost, complexity and effectiveness.

Window Insulation Film

Window insulation films are transparent plastic films that are attached to the inside of the window frames using double sided sellotape and then heated with a hair dryer to shrink-fit them tightly and transparently. Depending on how the film is attached, this might mean that you can no longer open the window e.g. if the handle/latches are covered.

Personally, I have no experience of these films (anyone that does please do share!), but reading internet reviews people who have used them seem to like them. They are also very low cost at £1-2/m².

Secondary Glazing

Where space allows in the gap between the window and the inner surface of the wall the window is in (the window reveal), a second pane of glass and frame can be fitted. These are closer to double glazing than insulating films, both in terms of price and effectiveness. Although they can be installed without affecting the exterior of the property, they are likely to require listed buildings consent so you should seek advice before getting anything installed. Low emissivity glass will also improve the performance of secondary glazing.

Secondary glazing kits are available for the proficient DIYer to install themselves - these cut down on costs but may not be as effective as professionally installed units. The quote for one resident in a maisonette for professionally installed secondary glazing for the ground floor living room window, the top half of the sliding window and the two bedrooms was £5,115 + VAT.

Double Glazing

Although double glazing is the most energy efficient window option, it is also the most expensive, and limited in its applicability to Golden Lane because of the listed building constraints. That said, there are examples of residents successfully installing double glazing. One resident has been able to insert thin double glazing units into the steel framed critall windows without affecting the external appearance. Depending on the depth available on the timber framed window units, it is possible to remake some of these with double glazing units whilst keeping the external face the same. Ros Diamond in Stanley Cohen house can provide further advice on this.

Insulated Curtains

Heavy-weight curtains can help reduce heat loss by blocking draughts and adding an insulating layer between a warm room and a cold window. To be most effective, the top of insulating curtains should be covered by a pelmet and they should reach to the floor. Although not as effective as secondary glazing, insulated curtains can make for a cost-effective intervention, especially if you want to install or change your curtains anyway.

Blocks this is relevant to: All (depending on weight-bearing capacity of curtain track/rail)

What's involved: Heavyweight curtain fabric; [Thermal Black out curtain lining](#)¹

- Either buy the heaviest weight curtain fabric you can afford or buy a second hand pair of curtains from a charity shop.
- If you're good with a sewing machine then you can follow one of the many guides and videos available on the web. If not then a curtain maker will put the materials you provide together for you (this [website](#) has a lengthy discussion on a reasonable price to pay). If anyone knows or wants to put themselves forward as a curtain maker then please do so! The photo below shows the curtain with the blackout lining sewn onto the back:



¹ Hussain Fabrics, 123 Green Street, Upton Park, London E7 8JP, 020 8548 4601 – quote the ebay price and you should be able to get the material at this price in store.

- The issue with these heavy curtains is the robustness of your curtain track or rail being able to take the weight. As these photos show, in the example quoted above the resident had to install a weight bearing beam and new curtain pole.



Door Curtain

It's also possible to put up a curtain behind your door to help block draughts coming in from there. This requires a portiere curtain rod, which are readily available on the internet.

Draughtproofing

Draughtproofing involves blocking any uncontrolled opening that lets cold air into your home and warm air out. Some ventilation is necessary to keep your home damp and condensation free but this should be achieved by controlled means such as trickle vents on windows (crittall windows have these), air bricks or extractors in bathrooms and kitchens. There are many ways that draughts can get into your home but the most problematic are likely to be windows and doors, with the vertical sliding windows in the maisonette blocks especially troublesome! Whilst many of these repairs are suitable for DIY, it is worth bearing in mind that the City of London is responsible for all external features of your property i.e. doors, walls and windows, so any problems with these features can be flagged up as being in need of repair.

Blocks this is relevant to: All

What's involved: This depends on where the draught is coming in. Assuming it's not painfully obvious; a good way to locate draughts is to go in the opposite direction to the smoke from a lit incense stick. Likely sources include windows, doors (including keyholes and letterboxes), electrical fittings on walls and ceilings, pipework leading outside and ceiling-to-wall joints.

Many draught problems can be resolved by a confident DIYer. Where the draught is will determine what you do to stop it. The easiest problem to resolve are small gaps around hinged windows. These can be fixed with self adhesive foam rubber strips, available from [City Hardware & Electrical](#) on the Goswell Road. You stick these to the frame of the window

where the window would sit on top of it when closed to create a seal. For larger gaps, one Great Arthur House resident has advised using wet newspaper that then dries hard, but can still be removed in the spring/summer time. In the maisonette blocks, residents have used thick rubber strips and wooden batons to seal gaps around kitchen windows.

For sliding windows, residents have also used foam rubber strips to fill gaps around these, bought from the Pentonville Rubber company. The double-height vertical sliding windows in the maisonette blocks comprise a special case and are hard to draughtproof effectively. In some cases, Metwin, the CoL metal framed window contractors, have re-felted the channels that the windows slide in. In others they have said nothing can be done.

Assuming your front door still closes reasonably flush with the door frame; gaps around front doors are best resolved using external door seal kits which screw on to the outside part of the door frame. If your door no longer closes flush with the frame, the hinges may need adjusting, the door rehanging or the door and/or frame replaced in a worst case scenario. Further draughtproofing can be achieved through key hole and letter box covers, and [a sausage type draught excluder](#) that sits on the inside at the bottom of the door.

You can fill small gaps around pipe work with silicon fillers. Fill larger gaps with expanding polyurethane foam. This is sprayed into the gap, expands as it dries, and sets hard. This is also effective for blocking entry points for rodents.

Further information on draughtproofing can be found on the [Energy Saving Trust](#) website, and [cus.net](#). Great Arthur House residents whose windows are so badly warped that they pose a health hazard should contact common councilman Gareth Moore and who will expedite any repairs requests to the repairs team.

Wall Insulation and Radiator Panels

It is possible to apply some insulation to the inside of exterior walls, especially beneath the windows in the maisonettes. The materials for this cost £200-300 plus installation and making good

What's involved: This work is most economically done in conjunction with other refurbishment work. Internal solid wall insulation usually involves fitting ready-made rolls or boards of insulating material over the inside walls of your house. This can be disruptive – you'll need to relocate plug sockets, radiators and fitted furniture.

Your walls will need to be carefully prepared before internal insulation can be fitted. Any damaged plaster needs to be either repaired or removed, and bare brickwork should be treated to eliminate areas where air can escape. You'll also experience a slight reduction in floor space due to the extra thickness of insulated walls.

One further and very low cost intervention is to stick reflective radiator panels behind any radiator attached to an outside wall. These work by reflecting heat back into the room that would otherwise have been absorbed by the wall and lost to the air. Reflective plastic panels can be bought from a hardware store, or can be made by attaching tinfoil to squares of any rigid insulating material.

Saving Electricity

Using less electricity essentially involves turning things off, turning things down or replacing lightbulbs, appliances etc. with lower energy/more efficient versions of the same thing. This section includes some tips on how to reduce your electricity consumption and data on the CO₂ benefit of various energy saving actions.

In decreasing order of impact, simple changes include:

- Buy EST 'Energy Saving Recommended' products when replacing appliances (especially fridge freezers – this appliance alone could save **138kg CO₂ / year**). Even when buying an energy efficient appliance, it's worth remembering that the larger it is, the more electricity it will use.



- Fit energy saving lightbulbs (**135 kg CO₂ / year**)
- Turn appliances off, unplug chargers when not in use and avoid standby (**126 kg CO₂ / year**)
- Wash your laundry at 30 ° (**44 kg CO₂ / year**)
- Only boil as much water as you need (**28 kg CO₂ / year**)
- Turn your lights off when leaving the room (**24 kg CO₂ / year**)

Further information

This report was co-produced by Waste Watch and residents from the Golden Lane Estate, City of London, as part of the 2011-12 Our Common Place project.

Please seek professional assistance and permission from relevant authority before carrying out any major alterations to the internal or external fabric of your home.

Copies are available on request from ourcommonplace@wastewatch.org.uk

Or via the Golden Lane website: <http://www.goldenlaneestate.org/>