



# Energy Efficient Homes

## The Retrofit Toolkit

### Sheet no 4: Opportunities to Begin the Journey

#### Moving House

Depending on your circumstances, this provides an opportunity to tackle several elements of the Whole House Plan at the same time. For example, if you are changing the heating system to a Ground or Air Source Heat Pump, the upheaval of installing an under-floor system (which is the most efficient) is considerably less when the house is empty. From the point of view of convenience this is also the best time to change the windows and insulate the walls.

#### Regular maintenance and repairs

Can you combine repainting or redecorating with improvements to insulation, or use the presence of ladders or scaffolding to tackle other steps in your Whole House plan?

#### New bathroom, kitchen or conservatory

This is an opportunity to install low-energy lighting systems and water saving measures such as waste water collection and re-use. It might also be

possible to combine these improvements with measures in other parts of the house.

#### Installing flood protection

Take advantage of major internal work to consider one-way toilet and wastewater valves, raised electrical sockets and floor tiles instead of carpets.

#### Changing electricity or gas supplier

Switching to a 100% renewable supplier is the quickest way to reduce your carbon footprint. The carbon emissions of the different electricity suppliers can be found on the Fuel Mix of UK Domestic Electricity Suppliers page of [electricityinfo.org](https://electricityinfo.org):

<https://electricityinfo.org/fuel-mix-of-uk-domestic-electricity-suppliers>



<https://southshropshireclimateaction.org>



## Replacing boiler

- If you have a condensing or combi gas boiler, ensure that it is running to maximum efficiency to save money and carbon emissions. See <https://strettonclimatecare.org.uk/wp-content/uploads/2023/09/No.-37-Running-a-gas-boiler-efficiently.pdf>
- Before changing your boiler improve the home insulation so that the new heating system is not over-specified
- Is this the time to consider an Air or Ground Source Heat Pump? (See Information Sheet 11)
- If initially unable to afford a heat pump, provide for one in the future by installing suitably sized radiators and cupboard space for a hot tank, control gear etc.

## Re-roofing

This is the time to consider any strengthening required for solar hot water and P.V. panels.

Maximise the use of any scaffolding to combine measures – see Information Sheet 6.

## Improving insulation, ventilation and shading

Consider the new ventilation and breathability characteristics of the materials used.

Anticipate the requirements for airtightness, shading and possible mechanical ventilation and heat recovery.

If you are having new windows they should be installed before any external insulation.

If adding insulation to solid floors this would be the time to consider underfloor heating pipe work

## Other sheets available in this series

1. Fabric First: Planning changes to your home?
2. Preparing for Retrofit: Resources on your doorstep
3. The Energy Hierarchy: The Principle behind the Whole Building Plan
- 4. Opportunities to Begin the Journey**
5. First Retrofit Priorities
6. Insulation: Roof & Attic
7. Insulation: Walls
8. Insulation: Windows & Ventilation
9. Insulation: Floors
10. Water Efficiency
11. Heating systems
12. Lighting
13. Renewables
14. Costs & Grants

If external insulation is considered, guttering may need to be repositioned. This is the time to consider whether a deeper section is needed to cope with expected heavier rainfall and effective rainwater discharge off the roof into the guttering. Downpipes will also need to be moved. This may also be the time to consider underground filtered rainwater storage.

For further information see Information Sheets 7 to 10.