The rising cost of heating your home.

Why is it so expensive to heat my home?

Cost of Electricity & Gas

Over the last 2 years the wholesale price of electricity has risen by approximately 415% and the wholesale price per unit of gas has risen by approximately 777%. Although this has been excerbated by the situation in Ukraine and Eastern Europe, the real issue is more systemic. The increase in the quantity of Pounds Sterling (282%) and US Dollars (209%) over the last 22 years has led to increases in prices of every day items like food, electricity and childcare. Simply put, the more £ or $ there are floating around, the less valuable each one is. This creates consistent upward pressure on prices of almost everything.

Performance of Your Home

In times gone by, most homes were constructed without insulation and single glazed windows in the United Kingdom due to the relatively low cost of heating the home using either coal or gas. However in more rural areas in Europe, the idea of insulation and energy efficiency isnt new. An example is the 1893 polar exploration ship named 'Fram' which utilised multiple layers of insulation, air tight membranes and triple glazing to survive the harsh climate.

Unfortunately as previously mentioned the cost of almost everything is rising, but the performance of new build homes hasn't moved in the same direction, due to a plethora of different factors which can be condensed down to one simple reason, house builders don't have to.

This relates directly to UK Building Regulations and the Energy Performance Certificate or EPC, which we explain later. All in all we strongly encourage anyone looking to purchase either an existing or new home to scrutinise the energy efficiency of the home, in order to negate against future rises in utility costs. Additionally it is fair to assume that a dwelling which costs less to operate will sell for a higher price than its less efficient competitor.

EPC Rating System

The Energy Performance Certificate was brought into existence in August 2007 as a result of a European directive focused on improving the efficiency of buildings. The certificate is designed to estimate the cost of operating the building in question, the environmental impact of the building and the potential improvements that can be made. The scale is from 100 (A, "very energy efficient") down to 1 (G, "not energy efficient"). In reality, the certificate has several flaws that are commonly known within the industry, namely; accuracy of the assesment itself, appropriateness of the ranking system and the lack of enforceability.

"we strongly encourage anyone looking to purchase either an existing or new home to scrutinise the energy efficiency of the home, in order to negate against future rises in utility costs"

Stoic Homes

How can I reduce my heating costs?

There are many ways to lower the heating cost of your home, here are some examples:

→Commission an air tightness test of your home, with a view to bringing it below (airtightness (n50) ≤ 5 h -1 @ 50 Pa) This is equivilent to all the air in your home changing 5 times per hour @ 50pa of presure)

→Install a MVHR (Mechanical Ventilation Heat Recovery) Unit when air tightness is below the level shown above.

→Request a free assesment of your wall cavity by contacting a local 'Green Deal Assessor' who will be able to provide you with more information as to any grants or other support you may be entitled to.

→Fill your loft/roof with at least 300mm of insulation ensuring the are no air gaps between the rolls and going all the way to the external walls. We suggest using non-toxic insulation such as sheeps wool, hemp, wood fibre, recycled plastic or Celulose. Contact your energy provider to see if your eligible for the ECO scheme.

→Upgrade windows to those with an insulated frame and triple glazed glass. It is equally important to ensure they are installed correctly and have an airtight seal to the internal and external walls.

→Ensure all external doors are installed correctly ensuring air tightness & replace if necessary

→Maximise solar gain by leaving curtains open during the day

→Completely renovate your home to meet the Enerphit® Standard. This is the most comprehensive way to upgrade your home and ensure maximum energy efficiency. Contact us for more information.

Efficiency standards explained.

EnerPHit®

The ultimate renovation standard

Meeting the EnerPHit standard is the peak achievement for retrofitting an existing property to be energy efficient.

This is an extensive version of the points covered in the previous section but to a higher standard, consisting of improved insulation, windows, air tightness, heat recovery ventilation etc.

To meet EnerPHit standards, you must achieve:

→A space heating and cooling demand of 25kWh/m2/year

→An airtightness performance of 1.0 air changes per hour, the Building Regs for new homes require between 5 and 15 according to the Chartered Institution of Building Services Engineers

The typical cost of achieving EnerPHit standard is between £800-£1200 per m2 but will reduce your monthly energy bills buy up to 90%.

Passivhaus®

The highest achievable standard for new builds

"Passivhaus is the leading international low-energy design standard. With over 30,000 Passivhaus buildings completed worldwide, it offers a robust, proven and cost effective method to help the UK achieve its challenging carbon reduction targets for the built environment sector."
- *Chris Herring, Chair, Passivhaus Trust.*

Contact us:
If you have a project in mind or just want to chat to us about our homes, garden rooms or anything else, we'd love to hear from you.

Email: enquiries@stoichomes.com ↗
or visit www.stoichomes.com ↗