



EDWARD LUCAS

Britain is ill-equipped to dodge the draught

Leaky homes mean we waste billions on energy bills but simple fixes can make a huge difference

Edward Lucas

Monday January 29 2024, 12.01am, The Times



Our airing cupboard has rarely attracted my interest since we moved into our house 15 years ago. But buried at the back is an unpleasant secret. Disused pipework from a long-gone water tank acts like a second chimney, sending our costly heat hurtling out into southwest London.

We had long suspected something was amiss. At a recent dinner, two guests even wore their outdoor coats. The boilerman insisted that nothing was wrong with the heating system. The thermostat was set to toasty, our bills hefty. Yet most of our house was proving impossible to heat.

So we summoned Diane Hubbard, a Cumbria-based engineer who runs a company called Home Energy Doctor. She began by creating a giant gale, using a fan fitted to a screen that temporarily replaced our back door. As that ripped through the house, she used an infra-red camera to show where the heat was escaping. The results were alarming. Like millions of other British dwellings, our house was built in an era when energy efficiency was not a priority. Like many other householders, we have tried to improve it, but the benefits are, literally, patchy.

In normal circumstances the heat-leakers lurk unseen. Hubbard's techniques revealed them starkly. Our wooden floors are painted and varnished but not, it turns out, properly sealed. A seemingly tiny gap between boards and skirting amounts to a big hole when it runs all round a room.

Another unpleasant discovery involved our top-floor ceiling, where we had recently replaced the insulation. A comforting bright yellow on the camera screen showed the new rolls of fibreglass. But it was crisscrossed with deep red lines: the uninsulated joists. And the ceiling image was edged in an ominous deep black, signalling the icy outside temperature. Our builders had not bothered to make sure the new insulation fitted snugly right into the eaves. Nor had they laid the second layer at right angles to the first, nor taped the results to make it airtight. They had not suggested this; I did not know to ask them, or how to check their work.

It was a similar story elsewhere: a new door leading on to a balcony was doing a fine job — but careless installation had left an invisible inch-wide gap under the threshold. The front door has sagged slightly on its hinges, creating another whistling draught. “All in all, it’s as if you had a couple of windows permanently open,” was Hubbard’s crisp summary. No wonder we were shivering.

Other north Europeans regard our draughty habits with horror. They build to higher standards and take better care. I remember snug Soviet winters even in minus 30C temperatures. In the autumn we used soap paste and thin strips of paper to plug every crack in our leaky old windows. It worked.

But in modern Britain we lack the knowledge and the incentives to do this properly. The problem is not technology. If a house is ineffectively insulated, installing a heat-pump, or a hydrogen boiler, or rooftop panels, or any other pricey, cutting-edge form of heating will help little. Instead, says Michael Liebreich, an energy-efficiency bigwig, “it’s all about draught-proofing”.

Armed with Hubbard’s report, we now know what to do. The tape, sealant and draught-excluders we will need to fix the worst problems will cost at most a couple of hundred pounds. It will take a couple of days’ fiddly work. The benefits will be huge. But for most people getting the initial expert assessment is hard. Our approach to energy-saving is plagued by hesitation. People want to make their homes more efficient but fear spending money on the wrong thing, says Lucy Johnson, who runs Green Salon, a specialist consultancy.

Our current scoring system, which rates houses from G to A, puts box-ticking ahead of results. Having the right kind of insulation scores well; whether it has been painstakingly or carelessly installed is all but irrelevant. Commercial incentives are skewed too. For heating contractors, selling a new boiler is quick and lucrative. Plugging draughts is not. “There’s no relationship between the performance of the house and the remuneration of the builder,” notes Liebreich. He also suggests that home-buyers and prospective tenants should insist on seeing the energy bills for previous years.

The poorest and worst-insulated households do benefit from a scheme that makes energy companies provide help with efficiency. But the £1 billion Great British Insulation Scheme, which aimed to help 300,000 households fix their homes by the end of March 2026, has attracted barely 2,000 takers in its first year.

We had long suspected something was amiss. At a recent dinner, two guests even wore their outdoor coats. The boilerman insisted that nothing was wrong with the heating system. The thermostat was set to toasty, our bills hefty. Yet most of our house was proving impossible to heat.

So we summoned Diane Hubbard, a Cumbria-based engineer who runs a company called Home Energy Doctor. She began by creating a giant gale, using a fan fitted to a screen that temporarily replaced our back door. As that ripped through the house, she used an infra-red camera to show where the heat was escaping. The results were alarming. Like millions of other British dwellings, our house was built in an era when energy efficiency was not a priority. Like many other householders, we have tried to improve it, but the benefits are, literally, patchy.

In normal circumstances the heat-leakers lurk unseen. Hubbard's techniques revealed them starkly. Our wooden floors are painted and varnished but not, it turns out, properly sealed. A seemingly tiny gap between boards and skirting amounts to a big hole when it runs all round a room.

The low skills base, baffled consumers, stop-start policy-making and broken business models comprise a multibillion-pound problem for Britain. Our homes emit roughly as much carbon as our cars, and much more wastefully. Moreover, every molecule and electron that we save is one that we don't have to buy. Basic upgrades to our 13 million least-efficient homes could cut £24 billion from our energy bills by the end of the decade, the Citizens Advice Bureau estimated last year. It would also save 6,000 lives, and £2 billion for the NHS by curbing respiratory illnesses. Draughts are deadly, costly and planet-cooking. Too often, we deal with them by cranking up the thermostat.

Amid Diane Hubbard's gloom was a sliver of good news: Panda, our dog, is equivalent to a 70-watt heater. Put him on the bed.