



How the UK can learn from countries climbing out of gas dependence

In light of UK energy policy failings, **Andrew Simms** and **Freddie Daley** from the Rapid Transition Alliance look at where, even before the rapid shift in EU energy policy triggered by Russia's invasion of Ukraine, huge leaps were being made in other countries' transition away from dependence on polluting gas.

Does it seem odd that in a gas price crisis, there have been people arguing we should dig ourselves deeper into the grip of that particular fuel? We've been here before – and it didn't end well. A poorly regulated banking system crashes and its defenders say that even less rules are needed to recover. Or, house prices go through the roof and instead of controlling property speculation, more money is poured into the market without either regulating prices or building substantially more homes.

In the grip of yet another fossil fuel price crisis, there are already voices saying that we need more of what got us into the mess in order to escape it. It's like thinking, 'my head hurts because I knocked it, if I hit it even harder the second knock will take away the pain of the first.' When it comes to the energy issue, some seem incapable of even imagining a situation in which economies stop hitting themselves on the head with further fossil fuel addiction.

And that's a shame, because there's an abundance of evidence of the ability to shift rapidly to much less economically and ecologically damaging energy systems. Collaborating with UK research body Nesta, the Rapid Transition Alliance looked at several cases of successful escape pathways from dependence

on gas, with all its pollution, price volatility and dangerous geopolitical leverage.

Fossil gas is still a very common fuel used for heating homes, being literally plumbed into our daily lives. The idea that this could change quickly is hard to grasp. But it's easy to forget how recently and radically home life has changed in many European homes. Only two generations ago, one in four homes in England and Wales still [lacked an indoor shower, bath or toilet](#). In just over two decades, that number fell to 1%.

Tellingly for current decision makers, charged with delivering not just stable, affordable energy supplies, but meeting zero carbon targets in a matter of decades, [the transition from outdoor to indoor plumbing](#) required large-scale modernisation of existing infrastructure, new technologies, supportive and targeted legislation, and significant changes in behaviour. The shift then was also propelled by a variety of environmental and health concerns to do with sanitation pushed by citizens, just as issues of air pollution and harm from global heating are pushing the need for change today.

There are big, immediate lessons to be learned in our [case of the Netherlands](#). The Dutch have been hooked on gas for decades. Gas to the Netherlands is what oil is to the Gulf

States. In 1959, the ninth largest natural gas field in the world was discovered in the northern province of Groningen. Within just five years, nearly all Dutch homes were connected to the gas grid. As of 2018, gas heated nine in every ten homes in the Netherlands.

But now the [Netherlands plans to abandon its gas grid and use this transformative shift to drive the decarbonisation](#) of its wider built environment. It may never have happened without a combination of public outrage and ultra-local decision making. The trigger for change was outcry following a series of earthquakes linked to fracking. And, in 2019, the Dutch decided to go completely gas-free by 2050, and to halt domestic production by 2030, or possibly sooner.

Things began happening quickly. In July 2018, six business associations representing everything from distribution systems to construction companies and housing corporations announced an initiative to disconnect at least 100,000 houses from the gas grid by 2021. By late 2018, 27 cities had presented a plan to each take at least one neighbourhood off gas by 2020.

By the end of 2018, the Dutch subsidiary of German supermarket chain Lidl had disconnected all its 410 supermarkets in the Netherlands from the gas grid, taking just four years to change to heat pumps powered by electricity from renewables. To hit national climate targets, the Dutch needed to disconnect between 30,000 and 50,000 homes from gas every year up to 2022, and 200,000 homes a year from then on. It's a work in progress but with a clear direction set.

With gas typically used for heating homes, the big question for countries like the UK has been: what is the alternative? Step forward the overlooked relation of renewable energy technologies, the heat pump. Here, chilly [Finland has shown the way ahead](#). In 1970, 90% of Finland's space heating was provided by burning timber and oil. By 2012 a combination of district heating schemes, where heat is transmitted from a centralised source through a network of insulated pipes to multiple buildings, and electricity and heat pumps had completely changed the picture with oil reduced to just 11% of fuels used and biomass 21%.

The total energy output of heat pumps in Finland now meets around 15% of the heating needs of the residential and commercial building stock. In 2018 alone, sales rose 22%, with more than half a billion euros of investment seeing 75,000 heat pumps installed. A country of around 2.7 million households is now home to one million heat pumps. Since 2000, the amount of energy used by Finnish households for heating has also declined by about 15%. Never let anyone tell you that heat pumps don't keep homes warm and cosy, [because the European countries with the coldest climates are also the ones with the highest number of heat pumps](#).

The shift in Finland happened with a different dynamic to the one now underway in the Netherlands. It began at the small business and household level because people recognised that heat pumps were a simple, practical technology that worked. The example showed how informal peer-to-peer learning can galvanise the spread of new, low carbon energy technologies. But to quickly scale-up, it also shows the importance of creating a positive regulatory environment with financial incentives to accelerate uptake – a case of bottom-up and top-down working together. This, it needs repeating, is the very opposite of the inconsistent and unpredictable policy environment in the UK which has dramatically undermined the roll out of the renewable technologies solar and wind, and also any home



[The Netherlands plans to abandon its gas grid and use this transformative shift to drive decarbonisation](#)

energy efficiency retrofit programme (see Phil Webber's article on p.37).

But the real cruelty of this particular crisis is the suffering it causing for families who are stuck using costly gas. In the UK, families watch prices rising while fossil fuel companies furnish themselves with billions in profit. The projections are truly grim: [two million more households are expected to slide into fuel poverty after current price rises](#). This means that the total number of British households in fuel poverty will reach six million – the highest level since records began. Meanwhile fossil fuel firms, like BP, [are promising over one billion pounds of share buybacks as they are set to cash in on the crisis](#). If the climate crisis is enough to challenge the social licence of these firms, then profiting on pushing millions of British families into fuel poverty ought to be the last straw.

For many of these families, getting off gas for environmental reasons will be lower concern than having to choose between warmth and food, but it should be the urgent priority of any responsible, caring government, not least for the wider economic benefits and job creation it will bring. Following Brexit the UK government claimed that it was still 'open for business', but right now it needs to be open to ideas and the examples set by those nations that are moving quickly to ditch dependence on gas.

Andrew Simms is Assistant Director of SGR. He has a background in political economics and development studies, including working for the New Economics Foundation and Oxfam.

Freddie Daley is a researcher for the Rapid Transition Alliance, <https://www.rapidtransition.org>