

Energy security strategy analysis: Huge missed opportunity not to put energy efficiency at heart of strategy

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The failure of the new British Energy Security Strategy to address energy efficiency is a huge missed opportunity to deliver immediate

assistance to families suffering under the cost-of-living crisis, energy experts from the University of Sussex Business School warn.

Instead, the government has adopted a flawed "trickle-down" philosophy which will not deliver support at anywhere near the level or urgency needed for millions either in fuel poverty or facing the imminent prospect of living in fuel poverty. By failing to address the [energy efficiency](#) crisis in the UK and improve some of Europe's least efficient housing stock, the UK Government is prioritizing energy firm's profits and dividends over people's well-being, the experts say.

The absence of any significant funding or policy on energy efficiency SPRU experts say is also at odds with public opinion as it is the number one policy (84% in favor) response to reduce reliance on Russian gas and oil among the British public according to the latest YouGov poll.

The SPRU experts are also calling for the UK Government to be bolder in prioritizing renewable projects which deliver profit shares to the local community as a faster acting response than nuclear to the current cost-of-living energy crisis.

Our experts are also warning about the deliverability and security risks of the UK Government's huge gamble to trust in nuclear to resolve its energy security issues. And they also highlight that nuclear lacks the flexibility that a future net zero energy system will need drawing on a variety of renewables including sources from other countries such as Norwegian hydropower and Icelandic geothermal.

Any attempts to resuscitate the UK's failed domestic shale gas industry would not be a credible or timely response to the cost-of-living crisis and Ukraine conflict, SPRU academics also highlighted.

Dr. Matthew Lockwood, Senior Lecturer in Energy Policy in the Science

Policy Research Unit (SPRU) at the University of Sussex Business School and Co-Director of the Sussex Energy Group, said: "Ministers are hesitant to really push energy efficiency for all sorts of reasons—worry about backlash over regulations, the absence of an insulation lobby, bad experience of poorly designed schemes in recent years, and currently strong pushback from a Treasury that is suddenly worried about spending.

"But all of this is manageable, if senior politicians really put their minds to it. It's about seeing energy efficiency measures as investment in the nation's housing stock, and offering people warm homes, help with costs and energy security. We had pretty effective energy efficiency programs in the 1990s and 2000s, which have contributed to significant household energy savings. We do actually know how to do this."

Dr. Mari Martiskainen, Senior Research Fellow in the Science Policy Research Unit (SPRU) at the University of Sussex Business School and Co-Director of the Sussex Energy Group, said: "The British Energy Security Strategy's focus is on fixing energy supply and committing the UK to expensive and polluting long-term options like nuclear and more fossil fuel exploration. The IPCC reported this week that now is the last time to act to avoid catastrophic climate crisis. Pushing for more North Sea fossil fuel exploration would lock us into fossil fuels, which are getting more and more expensive, for years to come.

"The [energy crisis](#) needs a mixture of measures to deal with, but speeding up those solutions which we already have at hand would be the most sensible way forward. We need a fast reduction in [energy demand](#). We can start by insulating every home in the UK, and switching to renewable heating like heat pumps. This would reduce reliance on gas and reduce emissions, but more importantly help those who now have to choose between heating and eating due to energy price hikes.

"We have the methods to fix our leaky and cold homes, and it's time to sort it out. A deep home energy demand reduction program via a national insulation scheme would be the first essential step. The government can afford to do it, as it would be a major step towards securing energy in the UK."

Dr. Marie Claire Brisbois, Senior Lecturer in Energy Policy in the Science Policy Research Unit (SPRU) at the University of Sussex Business School and Co-Director of the Sussex Energy Group, said: "Implementing energy efficiency measures will help people use less energy. This means that people won't need to buy as much energy. Buying less would be a very welcome development for people struggling to pay bills, but won't look great on the balance sheets of big energy generators."

"The current government strategy appears to be very focused on energy solutions like nuclear, offshore wind, and hydrogen that allow for big economic gains which will then theoretically trickle down to those shivering at home. However, the current crisis calls for more direct support for people who need help in order to be able to use—and pay for—less energy."

Andy Stirling, Professor of Science and Technology Policy in the Science Policy Research Unit (SPRU) at the University of Sussex Business School, said: "The terrible conflict in Ukraine has forced the UK and other countries rapidly to assess issues around their energy supply, which they have been putting off for years. But by limiting the focus so much to fossil fuels, discussions of a new UK energy security strategy are overlooking the equally troubling conflict and security challenges that also come with [nuclear power](#)."

"Much has been made of restricting use of Russian oil and gas, but there has been little attention to Rosatom, whose main self-declared mission is

to support Russian nuclear military capabilities, and which remains entirely unsanctioned in its big western civil nuclear energy businesses. And with Europe facing risks of contamination from war-damaged nuclear energy facilities, one of the lessons most directly relevant to [energy policy](#) so far, has been how unrealistic past assumptions have been about the stability of conditions that nuclear power relies on.

"Yet it is just the proposals to back nuclear that the government, led by the Prime Minister as the most vociferous cheerleader, noisily chooses to highlight as their key initiative in this area so far—entirely neglecting the clearly greater contributions to security from energy efficiency and renewables. Whatever we might think about the rights and wrongs of different energy pathways, it is disturbing that Government should be using this unfolding catastrophe so exclusively to promote nuclear power—ignoring the security benefits of efficiency and renewable options that are entirely domestic, present no catastrophic targets for attack and threaten no links to weapons of mass destruction."

Dr. Laurence Williams, Research Fellow in Environmental Politics in the Science Policy Research Unit (SPRU) at the University of Sussex Business School, said: "The government should not waste valuable time and resources pursuing bad options. Attempting to resuscitate the failed attempt to develop a domestic shale gas industry does not constitute a credible solution to either of these crises.

"Simply put, unless the pace of development can be massively sped up, fracking and shale gas do not offer a solution to our current predicament. Meaningful quantities of gas are unlikely to be produced until after 2030, by which point the EU aims to have stopped purchasing Russian gas. Moreover, by the time meaningful quantities of gas are likely to be produced, the UK's electricity production will need to be zero carbon and we will need to be drastically reducing gas consumption in other areas like domestic heating.

"Even if the serious social and political challenges were overcome, the UK does not have proven reserves of shale gas because insufficient exploratory drilling has occurred to tell us how much gas could be commercially produced. In other words, it would likely take years of exploratory drilling, bruising political battles and widespread local community protests just to find out how much gas could be commercially produced."

Dr. Matthew Lockwood, Senior Lecturer in Energy Policy in the Science Policy Research Unit (SPRU) at the University of Sussex Business School and Co-Director of the Sussex Energy Group, said: "Currently we are using gas to manage variability but in the longer term we cannot do this. In future, flexibility to manage variability will come from several different sources, which together will have to replace the role of gas. These include interconnection with other countries (including Norway's hydropower and possibly Iceland's geothermal), industrial and commercial users flexing demand, and the use of electrical storage, including what will eventually be millions of electric vehicle batteries, and possibly hydrogen.

"Nuclear power is not a good option here as it works best baseload power source and is costly to flex. The biggest challenge we face is that every few years we have a several days of still, cold weather when wind output falls off but demand is high. Innovation in energy storage to meet this challenge should be one of our key priorities for the electricity sector."

Provided by University of Sussex

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