



CENTRE FOR RESEARCH INTO ENERGY DEMAND SOLUTIONS

Environmental Change Institute, University of Oxford, OUCE,  
South Parks Road, Oxford OX1 3QY, UK

[www.creds.ac.uk](http://www.creds.ac.uk)

# Strategy and policy statement for energy policy in Great Britain: CREDS response

---

**02 August 2023**

Evidence submitted by Nick Eyre and Colin Nolden from the University of Oxford on behalf of the [Centre for Research into Energy Demand Solutions](http://www.creds.ac.uk).

The full consultation response, as submitted, is below.

CREDS Consultation 035 | August 2023

## Introduction

This is the response by the Centre for Research into Energy Demand Solutions (CREDS). Our focus is on the energy demand issues in the draft strategy and policy statement.

### Question 1

Does the strategy and policy statement identify the most important strategic priorities and policy outcomes for government in formulating policy for the energy sector in Great Britain? If not, please provide details of the priorities that you think should be included.

Our main concern with the statement is the lack of attention to the scope for, and importance of, energy efficiency and energy demand reduction.

CREDS research shows that energy efficiency has been the main source of greenhouse gas reductions from the UK in the last 30 years (Lees and Eyre, 2021). The International Energy Agency now identifies energy efficiency as the 'first fuel' globally. Our analysis shows that UK energy use will need to change fundamentally if we are to deliver a zero-carbon energy system: to be reduced, become more flexible and rely on decarbonised vectors (Eyre and Killip, 2019). The potential for demand reduction is very large: more than a 50% reduction by 2050 (Barrett et al, 2022). Reducing energy use therefore needs to be central to UK energy strategy. More details and supporting analysis are set out on the CREDS website under our [research findings](#).

We recognise and welcome that the statement does mention energy efficiency in the following places:

- "Driving the net zero transition by achieving government targets for renewable and low carbon deployment, innovation and uptake of clean technologies, and providing opportunities to increase energy efficiency" (16)
- "Ofgem and ESO/TSO plan to work together to consider opportunities to shift and reduce demand through energy efficiency and smart solutions such as energy storage, demand side response" (17)
- "Competitive, coordinated, and effective flexibility markets which are open to all technologies of all sizes, including energy efficiency and demand-side solutions, and which unlock the full benefits of flexibility to best serve our net zero targets" (26)
- "Distribution Network Operators are required to tender for flexibility services as an alternative to network reinforcement where it is economically viable (cost-effective). They must also promote the uptake of energy efficiency measures, including through procuring energy efficiency services where it is economic and efficient to do so. Ofgem should continue to support network operators to deliver these outcomes. This includes

the development and use of methods to economically value energy efficiency against other network interventions, and methods to procure and deploy energy efficiency measures” (28)

However, the emphasis of the strategy is largely on the supply side. We agree that the strategy should give a high priority to expansion of low cost renewable electricity from solar and wind energy. However, these cannot replace fossil fuels without electrification of the demand side, which itself enables major improvements in energy efficiency (Eyre, 2021).

Demand reduction and electrification are the other major pillars of a coherent energy strategy.

In the short term, demand side solutions can also be the main contributor to addressing the crisis in energy affordability and risks to national energy security (Eyre and Oreszczyn, 2022). To a certain extent, the strategy recognises the importance of flexibility “from technologies such as electricity storage, smart charging of electric vehicles, flexible heating systems and interconnection could save up to £10bn per year by 2050 by reducing the amount of generation and network needed to decarbonise and create 24,000 jobs” (27). But this misses the importance of efficiency.

We therefore recommend a more prominent positioning of energy efficiency in this Strategy and Policy Statement by cutting across the priority areas of ‘Enabling Clean Energy and Net Zero Infrastructure’, ‘Ensuring Energy Security and Protecting Consumers’, and ‘Ensuring the Energy System is fit for the Future’. In particular, we recommend that:

1. In the section “Enabling Clean Energy and Net Zero Infrastructure” it is suggested that driving the net zero transition will require the UK to “increase and diversify the supply of energy”. This is simply incorrect. There are no plausible scenarios (from Government, CCC or any other source) in which total energy supply in the UK is increased. The word “increase” should be replaced by “reduce”.
2. The section on “Government’s Strategic Priorities” refers to “providing opportunities to increase energy efficiency”. This implies that these activities are primarily the role of non-Government actors, which is not defensible, as Government has the key role in policy. The strategy should commit Government to setting targets for reducing energy use in each consumption sector, adopting policies to ensure this and including compatible provisions in the duties of Ofgem and the FSO.

## References

Barrett, J. et al. (2022). Energy demand reduction options for meeting national zero- emission targets in the United Kingdom. *Nature Energy*, 7: 726-735.

Eyre, N. (2021). From using heat to using work: reconceptualising the zero carbon energy transition. *Energy Efficiency* 14(7): 77.

Eyre, N. and G. Killip (2019). Shifting the focus: energy demand in a net-zero carbon UK. Centre for Research into Energy Demand Solutions, Oxford, UK.

Eyre, N. and T. Oreszczyn (2022). The energy price crisis – issues for energy use. CREDS Policy brief 023. . Oxford, UK., Centre for Research into Energy Demand Solutions.

IEA (2019). Energy efficiency is the first fuel, and demand for it needs to grow. International Energy Agency: [Energy efficiency is the first fuel, and demand for it needs to grow – Analysis - IEA](#).

Lees, E. and N. Eyre (2021). Thirty years of climate mitigation: lessons from the 1989 options appraisal for the UK. *Energy Efficiency*, 14(4): 37.