CENTRE FOR RESEARCH INTO
ENERGY DEMAND SOLUTIONS

CREDS Update

Oxford Energy Day 2022

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The Centre for Research into Energy Demand Solutions (CREDS)

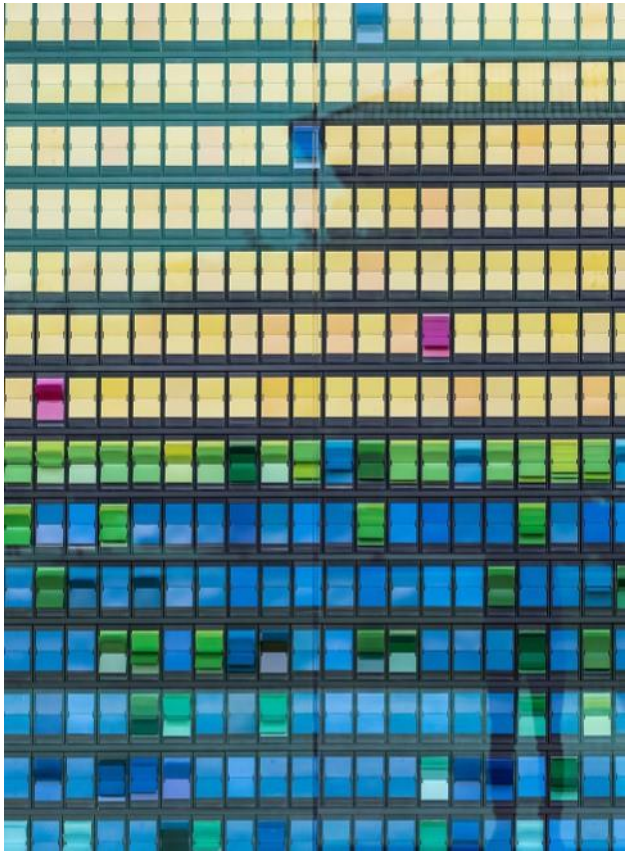
CREDS is:

- A UKRI funded Centre, from April 2018 to March 2023, with a budget of £19.5 million.
- A distributed centre, involving more than 20 universities, led from Oxford.
- The hub for energy demand research in the UK.

A a UKRI call for the next phase is now out.

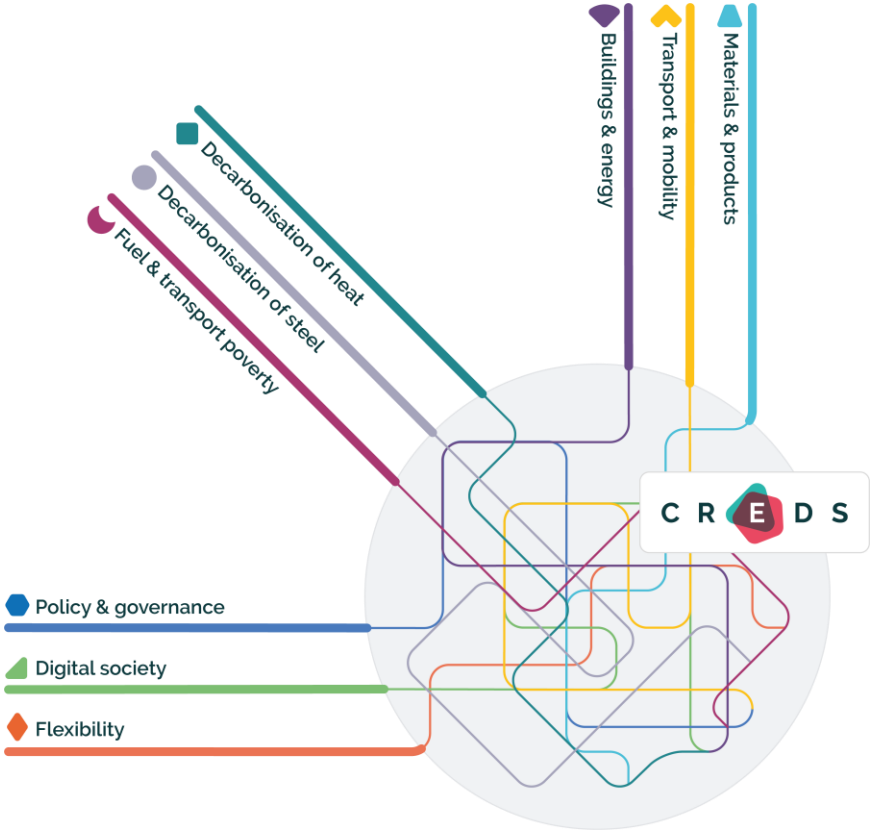
The Aims of CREDS

- to develop and deliver internationally leading research, focussing on energy demand;
- to secure impact for UK energy demand research in businesses and policymaking; and
- to champion the importance of energy demand, as part of the strategy for transition to a secure and affordable low carbon energy system.



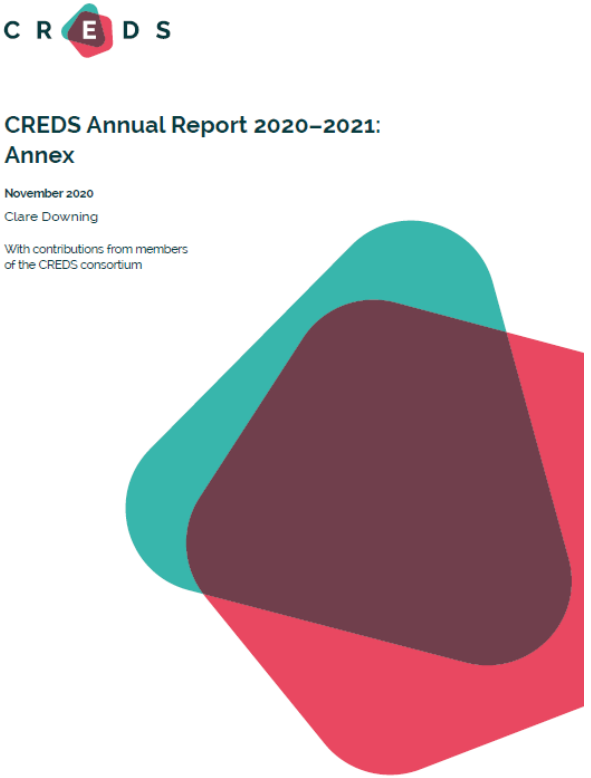
CREDS Research Programme

- Three sectoral themes: Energy in Buildings. Transport and Mobility, and Materials and Products,
- Three cross-cutting themes: Flexibility, Digital Society and Policy and Governance,
- Three challenges: Decarbonization of Heat, Fuel and Transport Poverty, and Decarbonisation of Steel



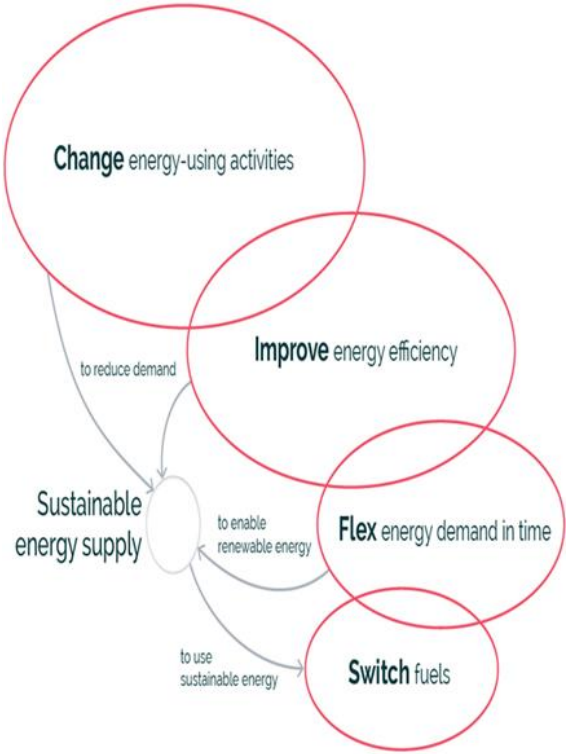
CREDS Outputs

Publications	350
Collaborations & Partnerships	25
Further Funding	34
Next Destination	2
Engagement Activities	692
Influence on Policy, Practice, Patients & the Public	184
Research Tools & Methods	3
Research Datasets, Databases & Models	6



CREDS Key achievements

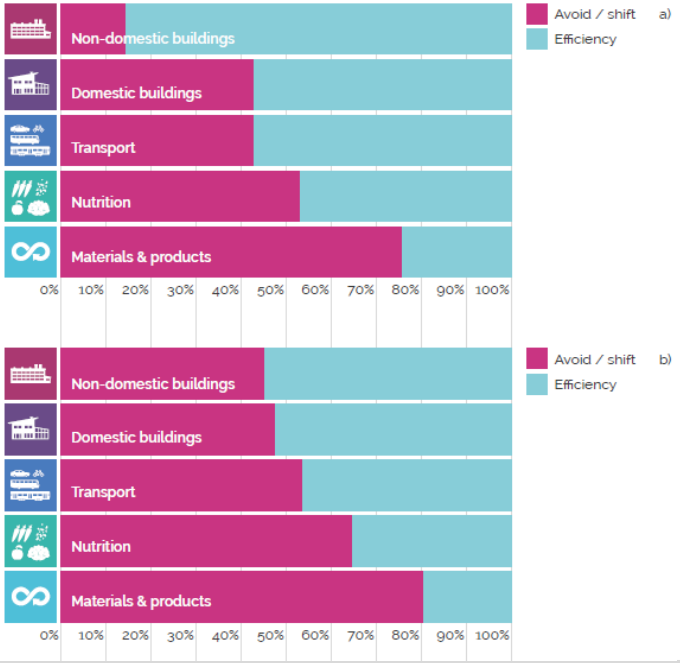
- Changing the term of debate:
  - energy use as central to the energy transition,
  - demonstrating the scope for large demand reduction.
- Developing people:
  - building capacity in energy demand research,
  - increasing diversity.
- Contributing practical solutions:
  - Responding to stakeholder needs,
  - developing methods, models and tools,
  - professionalising knowledge exchange.



A Case Study: CREDS Low Energy Demand scenarios

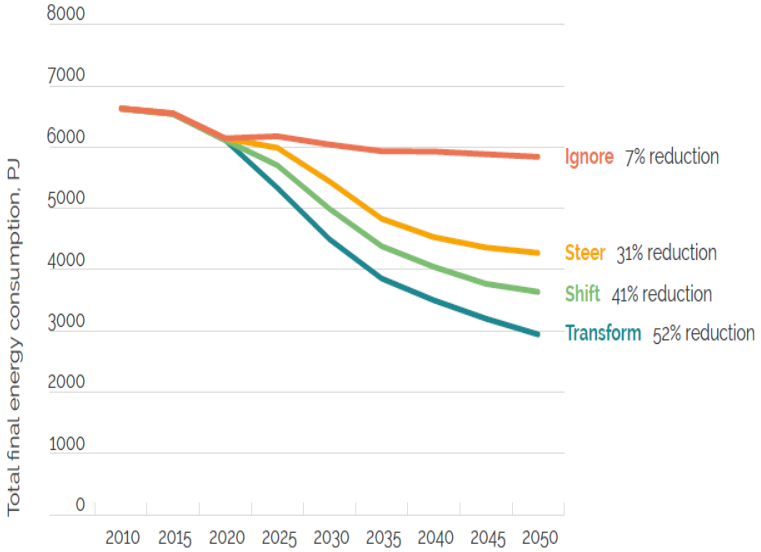
Reductions are possible in every energy –using sector

Using a combination of increased technical efficiency and social change



CREDS Low Energy Demand scenarios: Overview of findings

- Demand can be halved by 2050
- Reducing demand will be central to delivering net zero commitments,
- It is not a 'hair-shirt' agenda – it can help with improvements in comfort, accessibility, air quality and health
- It reduces the need for electricity sector growth, and reduces reliance on uncertain and problematic options,
- It needs an explicit plan.



Our recommendations to Government in the current crisis: The urgent need for comprehensive energy demand plans

- Demand reduction is essential to meet climate targets, it increases resilience against global markets and conflict, and lower costs for households and businesses.
- We need a short term plan, for the period before bills next winter. This should include
  - Major public information and advice programme,
  - Rapid investment in basic housing fitness and energy efficiency measures,
  - Targeted funding for local authorities, charities etc. to address fuel poverty,
  - Direct financial support for low-income households,
  - Increased support for active transport and public transport.
- Leading a longer-term plan for energy demand reduction
  - Plans and targets for every energy-using sector,
  - A major increase in skills investment,
  - Restoration of programme to at least pre-2012 levels.
  - Revision of the fuel poverty strategy and retail energy regulation.