

CIE-MAP

Centre for Industrial Energy, Materials and Products

CIE-MAP Stakeholder Event

May 12th, 2016

CIE-MAP



Centre for Industrial Energy, Materials and Products



Department
of Energy &
Climate Change



green
alliance...



Department
for Business
Innovation & Skills



The Alliance
for Sustainable
Building Products



The
University
Of
Sheffield.



Engineering and Physical Sciences
Research Council

CIE-MAP

Centre for Industrial Energy, Materials and Products

EUED Centres



**RCUK Centre for
Energy Epidemiology**

DeMand

DYNAMICS OF ENERGY, MOBILITY AND DEMAND

i-STUTE

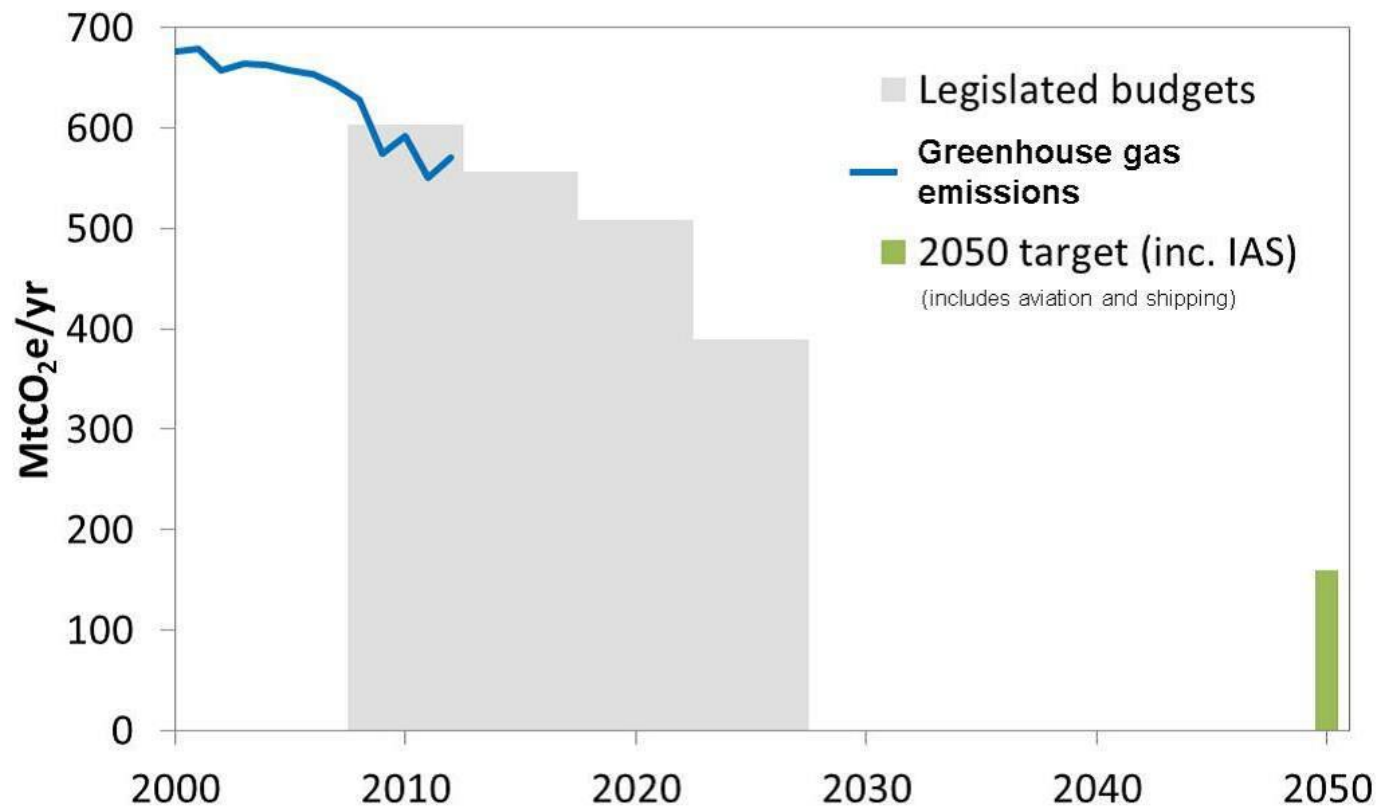


About CIE-MAP

Working closely with government and industry, the Centre for Industrial Energy, Materials and Products conducts research to identify all the opportunities along the product supply chain that ultimately deliver a reduction in industrial energy use.



The challenge



Bath Research

- Focus on future; horizon scanning, selection of appropriate transition pathways to inform strategic thinking
- Decomposition analysis of UK manufacturing, e.g., cement sector energy demand
- Drivers of energy (and material) demand in different sectors
- Key thermodynamic constraints on industrial performance improvement; comparison of metrics, the (embodied and process) energy and carbon implications, implications of process electrification, potential of heat networks
- Priorities for change, e.g., energy intensive versus non-energy intensive subsectors, emissions intensity across subsectors
- Benchmarking industrial performance against competitor nations, e.g., Japan and Sweden
- Evaluating the prospects for a 'circular economy'; reduce, reuse, recycle

Cardiff Research

- Identify assumptions made about the role of various publics in low material futures in policy, industry and research.
- Explore public perceptions, values, meanings and emotions surrounding resource efficiency strategies and broader low material futures.
- Engage with decision makers.

- Understand the relationship between materials, energy and the economy
- Development approaches to understand the energy demand implications of UK consumption
- “Invisible Energy Policy” collaboration with DEMAND Centre exploring the role of non-energy UK Government policy on energy demand
- Calculate the role of resource consumption as an option for climate change mitigation
- Understand the implications on employment, GDP and other economic indicators of industrial energy policy

- Elucidating consumers' expectations of product lifetimes for a range of durable and semi-durable goods.
- Identifying opportunities for product life extension through repair and reuse of discarded goods, particularly electrical and electronic equipment.
- Design interventions aimed at improved material efficiency of cars by extending their lifespans or by improving their use-intensity.
- Potential role of household upcycling in reducing material demand.
- Exploring changes in the expectations of customers of integrated product-service offerings towards how their needs are met.

Today's outcome

Insights and advice
from you on the
research programme
to guide the
remaining 2 years of
CIE-MAP



Our questions

- What are the industrial decarbonisation opportunities?
- What is the role of energy efficiency and resource consumption in reducing industrial energy demand?
- How can material efficiency strategies be adopted by industry and create new business opportunities?
- What is the role of the construction sector and the National Infrastructure Plan in reducing embodied energy?
- What is the role of the public in achieving different material efficiency strategies?

