

Energy Efficiency in a Bio-Based Economy

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Challenges for UK & bio-based industry

- Net Zero Target
- Increased competition for materials
- Higher energy cost than elsewhere
- 2050 Roadmap
- Support to a de-carbonised future
- Global context – connected world

2050 Decarbonisation Targets

- Climate Change Act 2008
 - Requires GHGs to be at least 80% lower than 1990 baseline
 - Strong cross-party political support - 463 vs 3 – amended via SI
 - Established the Committee on Climate Change to set budgets and provide advice
- New CCC report recommending net-zero by 2050
 - Scotland net zero by 2045/ Wales 95% by 2050
- Revised UK target of net-zero by 2050 now law
 - Chancellor estimated cost of £1 trillion
 - 5 year review to check matching actions/ Potential use of international credits
- EU discussion moving towards a similar target – in the longer term?
 - Response to growing pressure from green groups, some business leaders, direct action
- CPI position – discussion paper to take to Council
 - Sustainable paper as part of the answer, but need support during transition....

2050 Net Zero – what does this mean?

- Stopping carbon being emitted
 - Fully decarbonised electricity network including auto-generation
 - No use of natural gas for heating
 - No fossil fuel used for transport
- Capturing carbon after emission – changed land use to focus on capture of GHGs
 - Huge tree planting programme – doubling of UK cover
 - Addressing emissions from farming – less intensive animal production
 - Halving food waste
- Policy issues
 - Airport/transport projects/shipping?
 - Decarbonising heat
 - International context. UK emissions circa 1.2% of total; Global emissions +2%
 - Reducing UK emissions by de-industrialising?

2050 Roadmap

- Steering group meetings held quarterly (open invitation to attend)
- Context of net-zero by 2050 – how do we respond?
- Link to Industrial Strategy Challenge Fund - Transforming Foundation Industries Bid (includes £5m sector match fund as part of developing funding case)
- New support schemes:
 - Industrial Heat Recovery
 - Industrial Energy Transformation
 - Industrial Energy Efficiency Accelerator
 - Decarbonising Industrial Clusters
 - Transforming Foundation Industries
 - Scaling up business energy efficiency

UK GOVERNMENT GRANT FUNDING PROGRAMMES FOR ENERGY INTENSIVE INDUSTRIES

Industrial Heat Recovery Support (IHRS) Programme	To increase industry confidence to invest in technologies to recover heat from industrial processes and increase the deployment of such technologies in England and Wales	£12 million designated Capital Expenditure and £6 million designated Programme Expenditure	all industrial manufacturing sectors as set out in the ONS SIC codes 10-33, and data centres	TRL 9; or commercially available technologies only	Assessing projects bid of the 1 st window	The IHRS programme is managed by BEIS and supported by consultancy ICF
Industrial Energy Transformation Fund (IETF)	To support businesses with high energy use to transition to a low carbon future and to cut their bills through increased energy efficiency	£315 million to 2023-24	Tbc	Tbc	Design	Announced in Budget 2018 – BEIS in the lead
Industrial Energy Efficiency Accelerator (IEEA)	To increase the number of innovative energy efficiency technologies available to British industry to help reduce energy consumption and cut carbon emissions	Up to £9.2 million will be available for the programme to 2020-21	all industrial and manufacturing sectors in the UK, including datacentres, water utilities and waste sector	TRL5-8	Phase 2 for bids runs from 1 February – 30 April 2019	The IEEA is managed by the Carbon Trust and supported by engineering consultancy Jacobs
Decarbonising Industrial Clusters	To have the first “net-zero carbon” cluster by 2040 to cut emissions	£170 million under ISCF wave 3	areas with several carbon-intensive manufacturing sites	Tbc	Design	UKRI in the lead
Transforming Foundation Industries	To transform UK foundation industries so that they are internationally competitive in manufacturing products vital for our economy in a sustainable way	£66 million under ISCF wave 3 over 5 years if industry commits to spending £83m	Foundation industries, including EIs	TRL 6 and lower	Design	UKRI in the lead
Scaling up business energy efficiency	To support the development of new business models that aggregate and scale up the delivery of small-scale energy efficiency building retrofit/refurbishment projects	£7 million	Non-domestic sector	N/A	SBRI competition – early procurement stage	BEIS in the lead