

NETWORKS REIMAGINED

A Forward-Looking Vision for GB Energy Networks

BASECAMP CONFERENCE

LAURA SANDYS CBE

Chair of the Taskforce

The scale of the challenge: by 2040... ofgem



We expect a 71% increase in industrial demand



There will be 17 times more EVs on the road

Annual cost of curtailment could rise to £3bn

Up to 30% of UK homes could be equipped with air conditioning



Data centre annual demand might rise to over 50 TWh



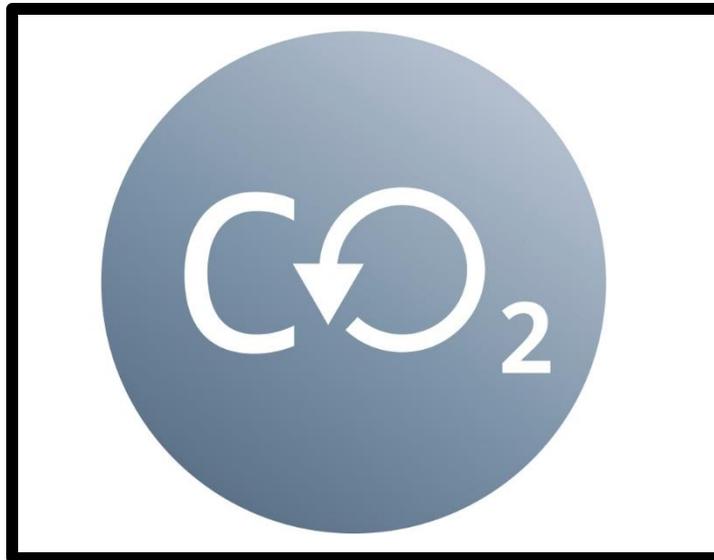
Over 250 TWh of natural gas demand replaced

Residential ASHP uptake could increase 38-fold.



14% of cars could be highly autonomous

Taskforce's Challenge Objectives



**Whole
Systems
Partnership**



£800 million over 5 years

5 Moonshots – 15 smaller challenges

Enabling economic growth

Serving customers' needs

Unlocking decarbonisation

Driving down energy costs

Mission 1:
Fast, seamless grid connections

Mission 2:
Create a more adaptable and faster built network design

Mission 3:
Achieve world leading grid operation

Mission 4:
Simplifying customer journeys

Mission 5:
A grid that is resilient to shocks and quick to recover

15 working groups held to date with experts from customers, networks, innovators and supply chain participation

Some Potential Examples

Instant Customer Connections

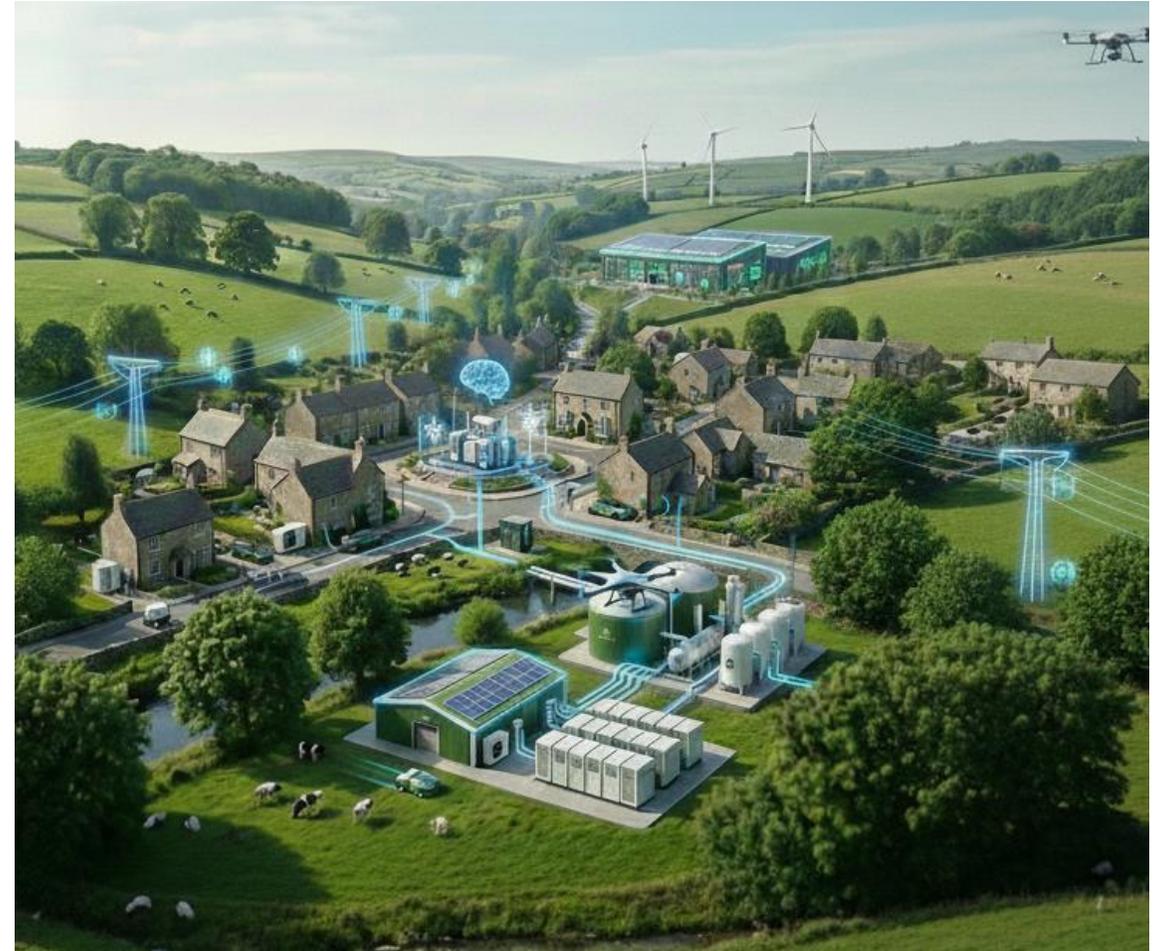
Isolate and Self Heal Networks

Decentralised bottom-up balancing

Halving Network Construction Times

Cross-vector resilience protocols

Zero Touch Domestic Connections



We will need YOU to identify problems and solutions to the long-term strategic Innovation Challenges

Can we learn from others?

**Pakistan installed
32GW solar PV
between 2020 &
2024**

**Estonia
Integrates &
automates
customer services
seamlessly**

**In China, 11-
storey apartment
block assembled
in just 28 hours
and 45 minutes**

**Ukraine made
fundamental system
operation, configuration
& regulatory changes in
weeks, rather than years**

**Space X executes
autonomous collision
avoidance manoeuvres
entirely without human
intervention**

New Approach

