

CONFIDENTIAL

ADE Missions

Plan - August-October 2024

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Overview

Missions and audience

Introduction

The ADE is launching 2 Missions –

- Empowering Energy Demand
- Decarbonising British Heat

We are launching these Missions to push these areas higher up the political agenda in the first 100 days of Government.

Target audiences

- MPs – With a particular focus on the Labour Party and the Ministerial team
- Energy industry
- Broader public



Empowering Energy Demand



Embracing the value of a decarbonised, demand-led energy system, creating a future where households, businesses and industry are properly rewarded.

What does the future look like?

A system where on an overall net basis, the future energy system will pay households, businesses and industrial sites more to participate in the system than they pay into that system to support low carbon generation assets.

How we can support Labour's priorities

Clean Energy 2030:

- Across households, businesses and industry, integrating demand more fully into the electricity system is a cheaper and lower carbon path to Clean Energy 2030 operability

Industrial strategy:

- Billions of pounds of investment in industrial decarbonisation investment to support Labour's green Industrial Strategy

What we need from the Government

- To use its upcoming major decisions on the future energy system to create a core role for active demand –
 - Review of Electricity Market Arrangements: Decide for zonal pricing to create proper price signals in the wholesale market
 - Establishment of the NESO: Changes to the NESO's licence and Strategy and Policy Statement
- To introduce sector and product regulation that provides an enabling framework for flexibility
- To set out a bold Industrial Strategy that sets out an investable roadmap beyond the Track 1 clusters
- [Under development with members: To use schemes such as GB Energy and the National Wealth Fund to invest in innovative demand-led solutions, including industrial infrastructure outside of the Track 1 clusters]
- [Under development with members: Role of Warm Homes Plan in supporting active demand and the roll-out of low carbon technologies]

Decarbonising British Heat

Transforming how UK homes and businesses are heated, for a future where heat is secure, clean and drives economic growth

What does the future look like?

A system where heat decarbonisation is driving local economic growth and every town and city has a heat network making an offshore wind-sized billion-pound investment with the majority spent on local materials and jobs.

How we can support Labour's priorities

Economic growth:

- Leveraging more than £3 in private investment for every £1 invested: Heat networks are already outperforming this within the GHNF. The sector is investing £2bn in infrastructure and in the next 5 years, the pipeline constitutes a further [£Xbn] of projects ready to invest and with local jobs that cannot be offshored
- Building 1.5m homes this Parliament: Industry is already demonstrating significant innovations to make inexpensive new housing zero carbon a reality

Clean Energy 2030:

- Using the currently 310TWh of underused homegrown heat to deliver the lowest cost pathway to decarbonised heat
- Heat decarbonisation can provide flexibility to the electricity system, lowering the cost of electricity sector decarbonisation

What we need from the Government

- [Under development with members] Achieve parity between new low carbon electrified heating and existing gas boilers through:
 - Confirming the phase-out of gas boilers from 2035
 - Implementing the Future Homes and Buildings Standard's new standards on zero carbon new homes in a way that supports heat pumps and heat networks
 - Early action to re-balance levies
 - A national policy framework for unused sources of GB heat, including from EfW and industrial CHP
 - Concessionary finance through the National Wealth Fund for low carbon heat
 - Using the Warm Homes Plan to support building decarbonisation
- Deliver a strong strategic pipeline of heat network zones that can attract £bn in private sector investment from 2025



Approach

Channels



Week	Focus			Press		Face to face	
	Demand	Heat	Social media	Trade press	National press	1:1s	Events
5 th August	Launch of the Missions		Launch videos	Press releases	Press releases	Ongoing work to reach all stakeholders set out here: https://miro.com/app/board/uXjVKtArk-A=/ Site visit programme with MPs [To be accompanied with A5 flyer for each Mission of key offers and asks]	Using upcoming Decentralised Energy Conference to engage key stakeholders
12 th August	Lower cost path to Clean Energy 2030	Economic growth: Private investment	Weekly posts		The ADE will use opportunities as much as possible to secure coverage in the national papers and in targeted publications such as Labour List		
19 th August	Lost investment in industrial decarb	Underused heat that can secure our energy independence	Weekly posts	Edie Op-Ed			
26 th August	Overall Mission	Overall Mission	Extended videos				
2 nd September	Our asks of the NESO	Our asks of GB Energy	Weekly posts	Op-Ed with VPs			
9 th September			Weekly posts				
16 th September	What we learnt from Party Conferences	What we learnt from Party Conferences	Weekly posts				
			Weekly posts				
			Weekly posts				
23 rd September							
30 th September							
7 th October	Our asks of Mission Control	2024 Budget	Weekly posts				
14 th October			Weekly posts				

Further work

Priorities with members

Finalising offers and asks

- GB Energy and the National Wealth Fund: Workshop with members on 8th August
- Finalising quick wins for both Missions for Mission Control
- Agreed position on trade union engagement
- Agreed position on the Missions' position relative to key think tanks' positions on social tariffs and broader support for low income households

Getting involved

- Providing case studies and "Spotlight" social media posts on our key Mission themes (e.g., Clean Energy 2030, economic growth)
- Coordinating engagement during Party Conferences



Appendix

Key statistics



Empowering Energy Demand

INTERNAL – Key stats

Labour's key priorities

- **Achieve Clean Energy 2030:** Accelerating renewable capacity

What's a big risk/opp for this?

- To keep the system operable, a solution to over/under-abundance in renewables needs to be found – without substantially increasing consumer bills or prolonging unabated gas power generation

How can we help mitigate this risk?

- Integrating demand more fully into the electricity system is a cheaper and lower carbon path to Clean Energy operability
- Flexibility from households, commercial buildings and industry can significantly reduce price volatility in a system dominated by renewables

What's our proof?

- National Grid FES estimates demand could cost-effectively provide **over 70GW** to keep the grid operable by 2050 [Holistic Scenario, FES 2024]
- Reduces the need for investment in a shadow back-up system by the equivalent of **4 new gas power stations by 2030** and **costs of £3.5bn** [Cornwall Insight, 2023]
- System savings of **£14.1bn/yr in 2040** [Cornwall Insight, 2023]
- A more **demand-led** system will save **£105/yr in 2040** in energy bills for even those households that don't participate directly [Cornwall Insight, 2023]

Empowering Energy Demand

INTERNAL – Key stats

Labour's key priorities

- **Achieve Clean Energy 2030:** Accelerating renewable capacity
- ***2nd layer of messaging - REMA***
- The Government needs to take key decisions on Review of Electricity Market Arrangements (REMA) this year

What's a big risk/opp for this?

- REMA makes only incremental reforms that increase costs to consumers and store up further problems in the late 2020s

How can we help mitigate this risk?

- A shift to zonal pricing and associated reforms to the Capacity Market and ancillary services markets would support significantly higher levels of flexibility and lower costs

What's our proof?

- There is already an average difference of **£84/yr** between customers in East Midlands and those in Wales [DESNZ, 2023]
- Zonal pricing could create **£24bn-£59bn** in savings for consumers to 2050 [DESNZ, 2023]
- Zonal pricing could create the cheapest electricity costs in the Europe for customers in Scotland [FTI, 2022]

Empowering Energy Demand

INTERNAL – Key stats

Labour's key priorities

- **Achieve Clean Energy 2030:** Accelerating renewable capacity
- ***2nd layer of messaging - NESO***
- The National Energy System Operator will sit at the heart of the energy transition and will be a key part of this Government's long-term legacy

What's a big risk/opp for this?

- As the ESO, NESO has not been accountable to the energy sector, privileging incumbents
- Cultural and technological inefficiencies continue to frustrate shifts towards energy system modernisation and grid operability, and investments being made now risk compounding this problem

How can we help mitigate this risk?

- [Under development with members]

What's our proof?

- [Under development with members]

Empowering Energy Demand

INTERNAL – Key stats



Labour's key priorities

- **A strong green Industrial Strategy**

What's a big risk/opp for this?

- Lack of current focus on industrial decarbonisation beyond the Track 1 clusters is not well justified – Technical and commercial challenges will be more significant, take longer than is currently assumed and will lead to offshoring of investment

How can we help mitigate this risk?

- Investment of [up to £XXbn] towards broader industrial decarbonisation

What's our proof?

- **10-year** wait times for connections for industrial sites looking to invest in efficiency and decarbonisation technologies
- Companies are increasingly investing elsewhere due to barriers faced in the UK
- *[Case studies being collected now from members]*

Empowering Energy Demand

INTERNAL – Key stats

Labour's key priorities

- **A strong green Industrial Strategy**
- ***2nd layer of messaging: A sustainable roadmap for CHP***

What's a big risk/opp for this?

- Lack of current focus on creating a sustainable pathway for CHP will reduce industrial competitiveness, reduce strategic sources of industrial heat and reduce overall system efficiency

How can we help mitigate this risk?

- [Under development with members]

What's our proof?

- [Under development with members]

Empowering Energy Demand

INTERNAL – Key stats



Labour's key priorities

- **A strong green Industrial Strategy**
- ***2nd layer of messaging: Industrial electrification**

What's a big risk/opp for this?

- A significant proportion of UK industry will decarbonise through electrification. However, there are significant technical and commercial barriers to widespread shifts and the lack of political and policy focus is likely under-estimating lead-in times for solutions, including grid reinforcement

How can we help mitigate this risk?

- *[Under development with members]*

What's our proof?

- Industry outside of the first clusters accounts for the majority of industrial emissions [BEIS, 2021]
- Industrial companies are facing 10-year wait times to secure the grid connections needed to decarbonise
- *[Case studies being collected now from members]*

Decarbonising British Heat

Key stats

Labour's key priorities

- **Economic growth #1:**
- Investment in strategic clean energy through GB Energy and the National Wealth Fund creates publicly owned assets and more than £3 in private investment for every £1 of public money invested

What's a big risk/opp for this?

- **#1 Economic growth**
- The Local Power Plan under-invests due to challenges in scaling community energy
- As it did with onshore and offshore wind, the UK once again misses out on investing in key strategic infrastructure as heat networks are built out across GB

How can we help mitigate this risk?

- **Economic growth #1**
- Heat networks are already investing £2bn in infrastructure and in the next 5 years, the pipeline constitutes a further [£Xbn] of projects ready to invest

What's our proof?

- Green Heat Network Fund was designed and has **out-performed** the National Wealth Fund's requirement of **£3 of private sector investment for every £1 of public funds spent**
- The CCC expects heat networks to comprise at **least 20%** of heating demand and independent research puts this at **40%** [Aalborg University, 2018]

Decarbonising British Heat

Key stats



Labour's key priorities

- **Economic growth #2:**
- Building 1.5m homes during this Parliament



What's a big risk/opp for this?

- **#2 Economic growth**
- All new homes will need to be zero carbon *and* low cost to developers and homeowners - This is challenging due to upfront and ongoing costs



How can we help mitigate this risk?

- **Economic growth #2**
- Industry is already demonstrating significant innovations to make zero carbon cheap new housing a reality



What's our proof?

- [Case studies: Chilton Woods' use of innovation and flex to reduce the cost of zero carbon to below that of gas boilers; Octopus' Zero Bill Homes]

Decarbonising British Heat

Key stats



Labour's key priorities

- **Clean Energy by 2030**
- Reducing the cost of energy decarbonisation by 2030



What's a big risk/opp for this?

- Heat decarbonisation is too expensive to achieve significant progress quickly during this Parliament



How can we help mitigate this risk?

- The UK significantly underuses homegrown heat that could be providing a lower cost and secure cost of heat



What's our proof?

- The UK wastes **310TWh of heat** [BEIS, 2021]
- Heat networks are **40% cheaper than low carbon alternatives** in towns and cities [PWC for InnovateUK, 2022]
- Heat from CHP, including from EfW, is currently **17% renewable**, a new record [DESNZ, 2024]

Decarbonising British Heat

Key stats



Labour's key priorities

- **Clean Energy by 2030**
- Reducing the cost of energy decarbonisation by 2030



What's a big risk/opp for this?

- Heat decarbonisation can play a role in reducing the cost of *electricity decarbonisation* but this isn't being realised currently



How can we help mitigate this risk?

- Flexibility provision from domestic heat pumps and storage tanks
- Investment in significant, city-scale thermal storage in UK towns and cities



What's our proof?

- Domestic heat could provide **almost 11GW** of flexibility to the electricity system at the same time as the social value of heat by 2050 [Holistic Scenario, FES 2024]
- Thermal storage in heat networks currently amounts to **2000 cubic metres of heat storage** under development to 2025 [DESNZ, 2023] and could avoid the need for **up to 18GW of battery storage** [Deghan et al., 2024]