



A Decade of Action

e.on



Michael Lewis
Chief Executive, E.ON UK

Energy is an essential service. Whether at home or in business, public or private sector, on our roads or rails, the public expects a safe, secure, affordable and increasingly lower carbon supply.

Today our industry faces unprecedented challenges that will result in a fundamental realignment of the sector. At the heart of this shift is the climate emergency and the obligation this places on the

UK Government to respond with a 'can-do' message for the public and investors alike.

Parliament must step up to the challenge and implement new policies to enable action by all sectors to get the country back on track – delivering not just the existing fourth and fifth carbon budgets, but also to be well positioned for meeting the sixth carbon budget.

"Parliament must step up to the challenge and implement new policies to enable action by all sectors to get the country back on track"

2020 is the year of action, beginning the 2020s as the decade of action. 2020 ends with Glasgow hosting COP 26, an opportunity for the UK to showcase not just its ambitions on Net Zero, but the policies that will be essential for translating this into delivery.

First and foremost we must see a relentless focus on improving the UK's 27 million homes. Higher levels of insulation means homes are more comfortable and will allow people to reduce their carbon footprint, heating demand and energy bills. As a minimum, the Government should accept the recommendations of the National Infrastructure Commission and commit to putting new insulating measures into 21,000 homes every week, and assess whether greater ambition can be pursued and acted upon in the 2020s.

Highly efficient homes are the first steps to decarbonising heat. Removing fossil fuels from home heating will play a key role, and that is why we need the installation of at least 100,000 heat pumps this year, more than have ever been delivered under the Renewable Heat Incentive. This should be supported by Government investment in innovation to drive down the cost of heat pumps, replicating the success we've already seen in reducing the cost of renewables: by a factor of five for solar and three for offshore wind. We must also prioritise the implementation of a new regulatory framework for low carbon heat networks so they can play a pivotal role across our cities.

We already have proof of success in reducing the carbon emissions in electricity production. The next challenge is to help the public to play a greater role, in particular encouraging more homes and businesses to meet their energy needs through technologies such as solar and battery products.

After homes and heating comes transport and phasing out petrol and diesel cars. The Committee on Climate Change (CCC) have indicated that the system is able to support a more ambitious 2030 ban on new internal combustion engine (ICE) vehicles, but we need to complement this with policies to help customers and business adopt cleaner more efficient electric vehicle technology faster.

The benefits are clear, not only since transport is the biggest emitter of greenhouse gases, but also the wider impact it will have on improving local air quality.

The multi-billion pound investment needed over the next three decades will, rightly, be spearheaded by the private sector because investment in clean energy is good for the economy and employment. However, unlocking this opportunity requires a market that is attractive to investors, one that is based on a new partnership between industry and Government – which means that efficient players operating in the market and delivering for customers should be able to earn a fair profit.

"Unlocking this opportunity requires a market that is attractive to investors, one that is based on a new partnership between industry and Government"

We need to heed the lessons of the last few years which have seen more than 20 suppliers, large and small, exiting the market. Exits to this degree are not how a market should operate in normal times in any sector, let alone with an essential service such as energy. Rules for entering and operating in this market need to be tightened further so customers have confidence their supplier is not going to disappear overnight, and only sustainable business practices are countenanced. The Government should also remove the remaining market distortions which currently allow for some smaller operators to avoid paying their fair share of costs which are designed to help the most vulnerable in our society.

If we get this right, we can deliver sustainable green growth, we can improve the lives and lifestyles of countless people and save them money in the process. We can relieve the burden on our NHS caused by damp and draughty homes and from the toxic air in our streets, and we can help to create and sustain tens of thousands of high value jobs across the country. This is the opportunity that must be seized but we must ensure the transition is fair for all. It is imperative we take all our customers with us in the pursuit of a carbon free energy system that works for everyone.

Michael Lewis
Chief Executive, E.ON UK

The 2020s: A Decade of Action

The Opportunity

The 2020s will be a pivotal decade for putting the UK on a path to Net Zero. After the UK became the first major economy in the world to commit to a Net Zero emissions target by 2050, 2020 provides not only the first real opportunity to set out a roadmap for how we reach this historic target but ultimately to legislate for the policies we will require for delivering action in this decade.

There is a clear opportunity for all of this work to be showcased at COP26 in Glasgow at the end of 2020. This conference provides the UK with an unprecedented opportunity to reinvigorate a claim for climate leadership and to demonstrate to the rest of the world how a major industrialised country can set out on a path to rapidly decarbonise whilst continuing to grow the economy.

Where are we now?

The Government's own projections show that current policies and plans are insufficient to meet the fourth or fifth carbon budgets (2023-2027 and 2028-2032). The Committee on Climate Change (CCC) has indicated that this policy gap has widened in the last year with projected increases for future emissions outpacing the impact of climate policies.

Ahead of COP26, the CCC will set out advice to Government on the appropriate level for the sixth carbon budget. However, policy makers already know that to have any chance of achieving Net Zero the UK must dramatically increase the pace of transition, especially with respect to heat and transport sector emissions. This document sets out policy proposals which E.ON believe must be introduced by the Government in order for the UK to be credibly aligned with the concept of Net Zero and ensure the 2020s is a decade of delivery.

What needs to be done?

We already have the technologies to achieve the policy goals that we are advocating, but the remaining challenge is ensuring we take consumers with us. At the heart of this is an issue of fairness. We cannot allow political expediency to delay policy action any further. With this in mind, our proposed policies have been developed with a just transition at their core. We fully agree with the CCC that the Treasury review is essential for a successful and just transition. The review should be the foundation for the strengthening of climate policies across all sectors of the economy going forward.

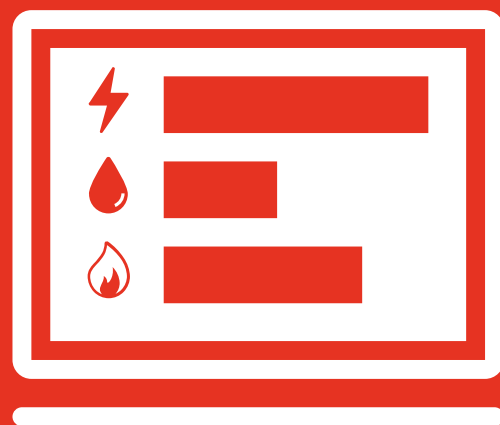
There is no doubt that we all understand the scale of ambition required, and the time for policy action is now. We call for politicians of all parties to have the courage to proactively lead the UK towards a Net Zero target, a target which is required by necessity but can be driven by opportunity.

Energy efficiency

Where are we now?

There are currently 27 million homes in the UK, which according to the CCC account for 14% of total UK emissions¹. The majority of UK housing has a D rating for energy efficiency (13 million homes)², which can make bills £500 a year more expensive than those who live in an EPC A/B rated property. Poorly insulated homes are also contributing to extra winter demand pressures in the health service, which is estimated to cost the NHS £1.4 billion a year³.

At a time when the country should be prioritising investment in energy efficiency, levels of investment have fallen considerably over the second half of this decade, leaving millions of homes unfit for the 21st century. For example, the Energy Company Obligation (ECO) which is now focused on vulnerable customers has more than halved since 2013 to £640m per annum⁴.



What needs to be done?

1) Make energy efficiency a national infrastructure priority

Ramp up the number of installations from 9,000 to 21,000 per week. Incentives alone will not deliver this, and will need to be complemented with stronger regulations.

2) Boost the current ECO budget from £640 million to £2 billion

This could be done through reforming Winter Fuel Payments (£1 billion) and using a small portion of the health budget (£0.5 billion).

3) Strengthening regulations

Private Rented Sector regulations should be strengthened so landlords can only let buildings which meet at least an EPC C level by 2030. There should also be a compulsory requirement on all building owners including home owners to upgrade their fabric efficiency at key trigger points such as around point of sale, modernisation and extensions.

4) New tax incentives

Make it pay for people to invest in their own homes. Encourage investment in energy efficiency by trialing stamp duty and business rates relief as well as council tax holidays in 2020, in order to assess which measures have the greatest impact in changing behaviour.

5) Green Mortgages

Reduce the risk for commercial banks lending to households and businesses investing in energy efficiency by providing them with Government guarantees. This will enable and incentivise them to offer low cost finance.

Benefits

- **Economy:** A Parliamentary briefing⁵ suggested that investing in energy efficiency would more effectively stimulate the economy than cutting VAT, reducing fuel duty or investment in capital infrastructure projects such as HS2. In fact for every £1 invested by Government in domestic energy efficiency, GDP could be increased by £3.20 and tax take by £1.27, providing a significant boost to the economy.
- **Health:** Investment in energy efficiency would help take some of the burden off the NHS, reduce the number of respiratory illnesses caused by poorly insulated homes and help reduce the 17,000 excess winter deaths attributed to cold homes. Proactive policies could also tackle the estimated £1.4 billion cost to the NHS each year, allowing funding to be diverted to other areas⁶.
- **Emissions:** Total energy use could be reduced by an estimated 25% by 2035 through these cost-effective investments in energy efficiency, the equivalent of six Hinkley Point power stations, and would be a big step on the path to Net Zero⁷.

The role of smart meters

Where are we now?

We believe it is impossible for the UK to meet Net Zero without a smart meter in every building in Britain, and they will play an immediately crucial role in improving the energy efficiency of the UK's housing stock. E.ON have installed more smart meters, and more SMETS2 meters, than almost any other supplier in the UK (2.3 million) and by the end of 2020 we expect to have installed a smart meter for more than half of our customers.

What needs to be done?

1) Switch to an opt-out programme

We should learn the lessons of other transition programmes such as workplace pensions and move to an opt-out regime which will significantly increase uptake. This should be complemented by transitioning over time to a mandatory scheme, starting with the measures set out below. In addition, as the customers who do not have a smart meter reduce to a small minority, suppliers should over time be able to recover from those customers the additional costs of serving them and having to keep a "classic" meter system in place.

2) Make smart meters compulsory to secure Government funding

Smart meters should become part of the eligibility criteria for any form of Government funding or subsidy such as the Energy Company Obligation and Warm Home Discount schemes.



3) Compulsory when selling or letting a property

Smart meters should be included in the energy efficiency criteria that all landlords and home-owners are required to meet prior to signing a rental or sales agreement.

⁵ POST Parliamentary Briefing (2017): <http://researchbriefings.files.parliament.uk/documents/POST-PN-0550/POST-PN-0550.PDF>

⁶ APPG for Healthy Homes and Buildings White Paper (2019)

⁷ CIED (2017): <http://www.cied.ac.uk/news/energy-wasted-in-uks-homes-is-equivalent-to-output-of-six-hinkley-point-c-power-stations/>

¹ Committee on Climate Change, 2019, UK housing: Fit for the Future?

² MHCLG, 2017, English Housing Survey Headline Report, Annex Table 2.6

³ APPG for Healthy Homes and Buildings White Paper (2019)

⁴ BEIS Household Energy Efficiency statistics, headline release June 2019



Decarbonising heat

Where are we now?

The way we heat our homes has not changed for a generation. The dominant form of heating is gas, with boilers installed in more than 85% of today's homes⁸. In 2018, the residential and business sectors together accounted for 36% of all carbon dioxide (CO₂) emissions (18% each), whilst the public sector accounted for a further 2%⁹. The heat sector faces a significant challenge to decarbonise as policy action to date has been limited and it will need millions of home and business owners to take decisions to invest differently in their buildings over the next few years.

What needs to be done?

1) Fossil fuel scrappage scheme

Under all credible scenarios, heat pumps will play a key role in delivering Net Zero. We cannot wait any longer and should take action now to ramp up deployment. The Renewable Heat Incentive (RHI) should be replaced by a new capital grant fossil fuel scrappage scheme enabling customers to replace their gas boilers with low carbon alternatives. This should be easy for customers to understand and provides confidence for UK manufacturers to innovate and scale up production. It should in year 1 be designed to support a minimum of 100,000 installations, rising to 300,000 in the fifth year of the Parliament.

2) Green finance

Government guarantees to enable commercial banks to offer low or zero interest green finance.

3) Changes to ECO

The next phase of ECO should only allow low carbon heating solutions to be installed in the homes of vulnerable customers.

4) Set a phase-out date for installation of new fossil fuel boilers

The market should be given a clear signal to move away from fossil fuel heating. Progressively tightening regulations and setting a phase out date of 2035 for gas boilers will give investors confidence and credibility that the transition will happen without damaging a well-established market with a skilled workforce.

5) Address market distortions

Electricity pays its fair share of a carbon price today, however other fuels such as gas and oil are currently able to avoid these costs for heating. A more balanced approach is required which means introducing a carbon price signal for oil and gas heating that rises over time. This is consistent with Net Zero and will encourage the deployment of alternative low carbon heating systems. At the same time the monies raised from this scheme should be given back to customers via a carbon dividend, providing a strong protection for vulnerable customers.

6) Legislate for a new heat network framework

Low carbon heat networks have a vital role to play, including in helping house developers meet tighter emission standards from 2021. A new heat network regulatory framework is also needed to drive up standards and create an investable framework.



⁸ BEIS, 2018, Clean Growth – Transforming Heating

⁹ BEIS, 2019, 2018 UK Greenhouse Gas Emissions, Provisional Figures

¹⁰ *ibid.*

Decarbonising power

Where are we now?

Of all the major sectors, power generation has been the fastest to decarbonise so far. In 2018 53%¹¹ of the UK's electricity generation came from low-carbon sources, including renewables and nuclear. Whilst we welcome this success, it is important we continue the path to substantially decarbonising the power sector by 2030. Increasing electrification of heating and transport will require further growth in renewable generation in the 2020s, from both large and small-scale sources.

What needs to be done?

1) Changes to VAT and Business rates

Zero rate VAT applied to low carbon technologies including solar PV and battery. Ensure businesses are not liable for higher business rates for improving the energy performance of buildings.

2) Green finance

Government guarantees to enable commercial banks to offer low or zero interest green finance.

3) Tighten New Build Standards

Legislate for tighter interim housing standards to unlock opportunities for onsite generation and storage to be incorporated within new build housing developments from 2020.



4) Making the system smarter and more flexible

There is an important role for Government to play in encouraging Ofgem to look more urgently at flexibility in the electricity system. Imperial College London have said that the UK could save £17-40 billion across the electricity system between now and 2050 by deploying flexibility technologies¹³. To harness these benefits we support structural reform to create a single system operator across transmission and distribution.

5) Network charging reform

Recent network charging reforms by Ofgem undermine the transition to Net Zero by making it far more challenging for small scale solutions to be commercially viable. Decentralised energy solutions will play a pivotal role in the transition to Net Zero, and need to be better reflected in the network and system regulatory environment.

¹¹ The Guardian (2019): Low-carbon energy makes majority of UK electricity for first time: <https://www.theguardian.com/environment/2019/jul/25/low-carbon-energy-makes-majority-of-uk-electricity-for-first-time>

¹² BEIS, 2019, UK Greenhouse Gas Emissions, Provisional Figures

¹³ Carbon Trust (2016).: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/568982/An_analysis_of_electricity_flexibility_for_Great_Britain.pdf



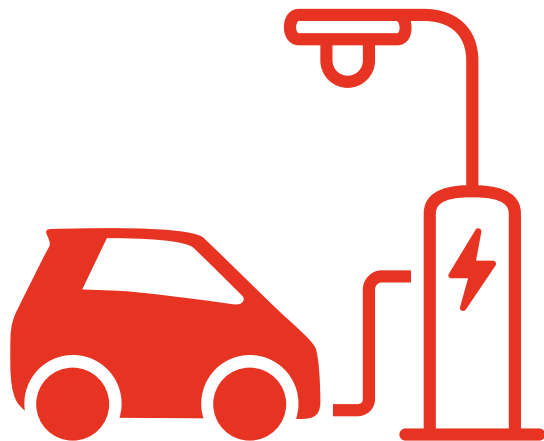
Decarbonising transport

Where are we now?

The World Health Organization has declared that air pollution poses the greatest environmental threat to global health in 2019¹⁴, a view supported by Public Health England¹⁵, who cited air pollution as the biggest environmental threat to health in the UK.

In our towns and cities, road transport is a major contributing factor and, within that, diesel vehicles. Nearly 40% of all Nitrogen Oxides (NO_x) emissions within London came from diesel vehicles. Without a fundamental shift in how we move people and goods it will be impossible to make our air cleaner and to reduce air pollution levels down to legal and healthier levels. Investing in new generation capacity will be required to electrify vehicles alongside making smarter use of our existing network, but an orderly and cost effective transition is possible.

At E.ON we have made the decision that all future company cars for employees will be fully electric. We believe that not only does this help to reduce the carbon footprint but that it will also help drive change in the business world, with new EVs eventually finding their way to the second-hand market and providing more viable alternatives for consumers.



What needs to be done in 2020?

1) More ambitious targets

Accelerate the date for banning the sale of petrol and diesel cars to 2030.

2) Vehicle scrappage scheme

Introduce a vehicle scrappage scheme to remove the worst polluting ICE vehicles from our roads, delivering immediate health benefits as well as helping to speed up consumer take-up of EVs.

3) Benefit-in-Kind tax regime

The company car tax regime should be set out to 2025 and the low levels which come into force from April 2020 for EVs should remain in place throughout this period to facilitate a significant volume of EVs in the second-hand market.

4) Investing in public charging infrastructure

We expect the vast majority of charging to take place at home, work and key destination points of interest. However, to address range anxiety and overcome barriers for households with on-street parking, there is a strong case for starting the investment in a UK wide strategic public charging network.

5) Fuel Duty

Consult upon how to fairly transition away from fuel duty revenues to an alternative taxation approach which could facilitate a just transition (e.g. per mile charging regime).



¹⁴ World Health Organisation (2019): <https://www.who.int/emergencies/ten-threats-to-global-health-in-2019>

¹⁵ Public Health England (2019): <https://www.gov.uk/government/news/public-health-england-publishes-air-pollution-evidence-review>

¹⁶ BEIS, 2019, 2018 UK Greenhouse Gas Emissions, Provisional Figures

Refocus on the retail market

E.ON announced in 2019 that we would be the first major supplier in the UK to supply electricity backed by 100% renewable sources to all of our domestic customers, free of charge.

Where are we now?

Markets are the single most effective method we have to create and deliver products and services we want at a price that we're willing to pay.

Unleashing the power of markets in the energy sector has helped crash the cost of new technologies like offshore wind farms, allowing massive investment in infrastructure whilst keeping prices on a par with other countries around the world.

Delivering Net Zero will require energy suppliers with the expertise and capability to innovate the right products and deliver at pace and scale. We will need to help change the energy use of all of the homes and businesses in the country to reach the Net Zero target.

Even with the best of intentions, Government interference in markets tends to create disruption, inefficiency, and unintended consequences.

The balance of risk and reward in the current regulatory framework for energy retail needs urgent reform. A third of energy suppliers have left the market in the last two years because they can't make the finances add up.

To deliver Net Zero we need an energy market where all suppliers pay their fair share and are incentivised to serve all customers, and where the rewards of investing for their customers aren't overwhelmed by the risks.

What needs to be done in 2020?

1) Playing field has been tilted too far

All suppliers should pay their fair share of the cost of operating in the energy supply market, irrespective of their scale or experience in the market, with no exemptions to remove the existing market distortions.

2) End the ability of some suppliers to free-ride

Suppliers should be required to make more frequent payments towards the cost of low carbon programmes to reduce the impact on all customers if they fall into administration or fail to pay their share.

3) Ensure protection of vulnerable customers

Change is needed to make sure it is in the interest of all suppliers to supply some of the more vulnerable in society, by socialising the additional costs of providing the extra services required by those customers across the market.





For more information visit
eonenergy.com

A Decade of Action

E.ON Energy Solutions Limited
Registered Office: Westwood Way
Westwood Business Park
Coventry CV4 8LG
Registered in England and Wales
No. 3407430