



# CLOSING THE CARBON GAP

WWF'S RECOMMENDATIONS  
FOR THE UK'S EMISSIONS  
REDUCTION PLAN

# INTRODUCTION

The Government has committed to publishing its Emissions Reduction Plan (ERP) in early 2017. The ERP will set out the policies the Government intends to put in place to reduce UK carbon emissions in line with the fourth and fifth carbon budgets. As well as outlining the roadmap for meeting the fifth carbon budget (a net UK carbon budget of 57% reduction by 2030 on 1990 levels), the plan must set out how the UK will decarbonise in line with the cost effective path to meeting the 2050 target to reduce emissions by 80%.

The UK has made good progress on emissions reduction to-date, but this is mainly down to decarbonisation in the power sector, where emissions are accounted for on a net basis. In other areas – particularly buildings and transport – emissions reductions are not on track to meet even the early carbon budgets, let alone achieve the reductions needed in 2030. The Committee on Climate Change (CCC) has identified that this potential policy gap will result in a shortfall of 100 MtCO<sub>2e</sub> in 2030 between projected emissions and the cost effective path.<sup>1</sup> A failure to adhere to the cost effective pathway would result in the need for steeper and more costly emissions reductions as we near 2050, weighting the burden of decarbonisation more towards future generations of bill-payers and tax-payers.

WWF UK is calling on the Government to produce a robust and credible ERP that sets out the detailed policy measures needed for the UK to meet its climate change targets<sup>2</sup>. The Government must extend and implement existing policies immediately, at the same time introducing significant new policies in the areas of energy efficiency, heat and transport.

Without new action in these areas, the UK will fail to achieve the emissions reductions required by the fourth and fifth carbon budgets. However, action in these areas also continues to provide huge opportunities for growth and jobs – including in sectors like wind and its supply chain, and data use for smart technologies, where the UK leads the world. Particularly as we leave the EU, this kind of growth to secure homegrown, renewable energy, will be critical to the UK's future success. WWF-UK is keen to see and support interaction, therefore, between the Government's Emissions Reduction Plan and the forthcoming UK Industrial Strategy – capitalising on the economic growth benefits that the low-carbon economy presents.

## WWF UK is therefore calling for:

- Stronger policies and leadership on decarbonising **buildings**, including a comprehensive programme to improve the efficiency of the UK's housing stock.
- A commitment to put the UK on track to an almost entirely carbon-free **power** system by 2030, with a clear long-term investment plan for renewable energy sources. The Government should also commit to reducing territorial emissions, rather than focusing on the net carbon account, and set out a clear sequencing for policies that will pay back in later budgets.
- Direction and leadership on decarbonising **transport**, including new policies and removal of barriers for a transition to low-carbon vehicles, alongside a framework for controlling aviation emissions within the ERP.

<sup>1</sup> CCC 2016 Progress report to Parliament, p13.  
<https://www.theccc.org.uk/wp-content/uploads/2016/06/2016-CCC-Progress-Report.pdf>

<sup>2</sup> This briefing builds on the recommendations in the joint NGO briefing, "Future low carbon investment in the UK" 2016, Green Alliance et al

# KEY CONCERNS



## BUILDINGS

Progress on decarbonising the UK's building stock has been slower than anticipated. Energy efficiency is one of the lowest cost ways to reduce emissions, and research consistently suggests that reducing energy demand from our homes by 20% to 30% is one of the most cost effective ways to meet the UK's 2050 carbon target<sup>3</sup>. However, stop/start policy in this area has affected investor confidence and resulted in a significant policy gap stretching out into the 2020s.

Action to facilitate the transition to low carbon heat has also been limited, with successive Governments having delayed decisions on decarbonisation pathways. Low carbon technologies are at an earlier stage of development in the heat sector and so policy in the short term must prioritise innovation, development and testing. Although this work will not result in significant emissions reductions in the R&D period, it requires planning and funding now to enable large scale rollout in later decades.

## Recommendations

### Energy efficiency

- A target for all homes to have an energy performance rating of C or above by 2030.
- The introduction of minimum standards on efficiency for existing homes, enforced at the point of sale, and backed up by incentives (for example, implemented through council tax or stamp duty), grants and zero interest loans.
- Specific policies to tackle fuel poverty by prioritising the focus of energy efficiency measures on fuel-poor housing.
- All new buildings must be 'nearly zero energy' by 2020, as specified under the EU 'Energy Performance in Buildings Directive'. As the UK goes through the process of leaving the EU, these standards or higher must be incorporated into UK law. This would ensure that we do not face costly retrofit in future years and create certainty for industry.

### Heat

- Accelerate the pace of change in off-gas-grid areas (eg develop supply chains for strategically important technologies like heat pumps) and the roll-out of district heating in urban areas.
- Use a local authority-led approach to ensure we have a long term plan for all buildings.
- Test solutions for on-gas-grid buildings, with a clear timeline for deciding the way forward.
- Ensure carbon benefit from biomass heat using domestic feedstocks is debited from UK land sector account.

<sup>3</sup> Carbon Connect (2014) Pathways for heat: low carbon heat for buildings



## POWER

The Government has made good progress to date on low-carbon power, but it is essential to build on this and keep up momentum in this sector. With 25% of our electricity generated from renewables, and dramatically reducing costs, the UK now stands poised to secure an affordable low carbon power system. The further deployment of renewables presents opportunities for major economic benefits, both at a national and a local level. However, there is currently little clarity on Government policies for low-carbon power beyond 2020.

Due to the accounting rules of the Climate Change Act, the carbon budgets do not account for real, 'territorial', emissions from the power sector and industry - sectors which are part of the EU Emissions Trading Scheme (EU ETS). The level of the fifth carbon budget is therefore less ambitious than the CCC's recommended 'cost-effective' path to 2050; for actual emissions the recommended budget requires a 61% reduction from 1990 to 2030<sup>4</sup>. In addition to their advice on the level of the fifth carbon budget, the CCC therefore recommended that the Government should reduce the carbon intensity of the power sector to below 100g CO<sub>2</sub>/kWh by 2030<sup>5</sup>. This would ensure territorial emissions in the power sector would decline in line with the cost effective path. The Government has so far declined to set a target to achieve this.

The ERP should build on the progress made to date in decarbonising the power sector. It must put the UK on track to an almost entirely carbon-free power system by 2030 (achieving the CCC's recommendation of a power sector carbon intensity of below 100g CO<sub>2</sub> / kWh), with a long-term investment plan for renewable energy sources. Policy clarity could bring significant opportunities for jobs and export growth and could mobilise around £47 billion of investment in the early 2020s.

## Recommendations

- A commitment to reducing territorial emissions rather than a focus on the net carbon account. Reduce the emissions intensity of the power sector to below 100g CO<sub>2</sub>/kWh by 2030, in line with the CCC's advice.
- Urgently set out a programme for competitive allocation of low carbon funding in order to give investors and developers greater certainty around the policy framework and, with greater deployment, drive down supply chain costs and realise efficiencies. This should include the timing and amount available for CfD auctions, as well as exploring devolution of auctions for more established technologies - enabling devolved administrations to pursue deployment of onshore wind and larger-scale solar.
- Deploy around 2GW of offshore wind per year, 0.5GW of onshore wind or equivalent in large scale solar per year, and 0.3GW of negawatts pa.
- Remove barriers in the electricity market for innovative new technologies, such as storage and demand management technologies, in order to increase competition, maximise cost reductions, and build greater security of supply without reliance on new baseload.
- Implement policies and procedures to ensure that there is no unabated coal use for power generation beyond 2025 at the latest.

<sup>4</sup> The Fifth Carbon Budget: Power Sector Scenarios, CCC, 2015, p14

<sup>5</sup> The Fifth Carbon Budget: The next step to a low carbon economy, CCC, 2015, p12 <https://www.theccc.org.uk/wp-content/uploads/2015/11/Committee-on-Climate-Change-Fifth-Carbon-Budget-Report.pdf>

Avoid carbon lock in by avoiding any new programme of CCGT build.

- Implement the recommendations of the NIC in full in order to become a world leader in the development and integration of low-carbon energy systems.
- Bring forward policies to help communities generate their own renewable energy past 2019.
- Rule out support for any new biomass power-only projects, and strengthen sustainability requirements for biomass CHP.

## TRANSPORT

Transport is an important source of emissions in the UK, but Government action to date has not reduced emissions in line with the CCC's advice. This is an immediate gap, similar to the policy gap for buildings, and it requires urgent attention. Quick wins include setting targets for the full electrification of consumer road transport and interim targets for vehicle efficiency. Sustainable biofuels, made from wastes and residues, may also have a role to play, but the sustainability risks associated with first generation crop-based biofuels outweigh any potential benefits.

International aviation is a special case, as this fast-growing source of emissions is not currently accounted for in the net

carbon account. However, the 2050 goal does take international aviation (and shipping) emissions into account, and so these emissions are important when considering the cost effective path to the 2050 goal, setting carbon budgets and developing policies towards these objectives. The Government therefore needs to set out how it will limit aviation emissions to the level advised by the CCC – a challenge that will be made all the more difficult by a new runway at Heathrow

### Recommendations

#### Road vehicles:

- Ensure all new cars sold in the UK are ultra-low emission by 2030 at the latest.
- Develop a nationwide network of publicly accessible low carbon charging points, using public and private capital investment.
- Phase out the most polluting cars, buses, vans, HGVs and other vehicles, through road pricing, low emission zones and tax signals.
- Set out interim standards to improve vehicle efficiency during the 2020s.

#### Biofuels:

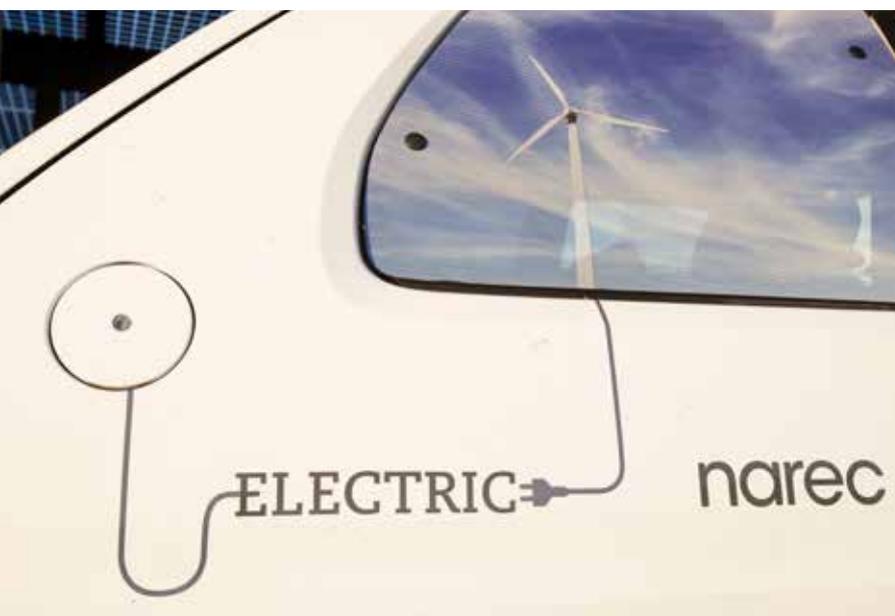
- Phase out the use of unsustainable crop-based biofuels.
- Strengthen support for sustainable biofuels made from residual biomass, particularly in hard-to-treat sectors such as planes, ships and trucks.

#### Local transport infrastructure:

- Expand hybrid and electric bus routes
- Reopening train stations and lines
- Expand walking and cycling schemes

#### Aviation:

- Set out a strategy for limiting 2050 aviation emissions in line with CCC advice, without shifting the burden to other countries or sectors of the economy.
- Ensure that the aviation emissions framework is finalised before final Parliamentary approval of a new runway at Heathrow.



# MEASURING SUCCESS

Overall, the Emissions Reduction Plan must be robust enough to tackle the significant policy gap ahead. To assess the success of the plan, we will be assessing the plan both in terms of the specific policies it contains and in terms of how these are expressed. Our criteria for judging how the plan is delivered are that it should fulfil the MATCH criteria as follows:

## Measurable

Every policy in the ERP should have specific, measurable outputs, expected climate outcomes and a timeframe for implementation.

## Ambitious

The ERP should front load ambitious new policies to secure the biggest possible impact, particularly for transport, land use, heat and energy efficiency

## Transparent

The ERP should provide clarity on how each expected policy outcome has been calculated and which body is responsible for implementing each policy.

## Credible

The ERP must show how all annual targets on the cost effective pathway to 2050 will be met. The ERP should prioritise policies over proposals and regulation over voluntary action.

## Holistic

The ERP should take account of the wider distributional benefits of policies (e.g. social, economic and health), as well as detailing their climate and financial impacts.

### FOR MORE INFORMATION

Please feel free to contact Gareth Redmond-King, Head of Climate and Energy, WWF-UK.

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