CHALLENGES WE FACE from publications by the UK GOVERNMENTS CLIMATE CHANGE COMMITTEE [UK CCC]

Sixth Carbon budget report page 19 - decarbonisation actions and % performance to get to net zero carbon
Report published December 2020

Table 1
Comparison of the UK decarbonisation actions with global average pathy

	UK – Balanced Net Zero Pathway
Coal % of electricity generation – 2030	0% (by 2024)
Low-carbon % of generation – 2030[1]	87%
Electric Vehicles % of car fleet – 2030	43%
Electric Vehicles % of car sales – 2030	97%
Average heat pump installation rate – 2030 (heat pumps/thousand people/yr)	15.3
Low-carbon hydrogen production – 2030 (kg / person /yr)	10.7
CCS per capita – 2030 (tC O_2/person/yr)	0.32
Engineered removals – 2030 (tC O_2/person/yr)	0.07

Sixth Carbon budget report page 27 - decarbonisation pathway timescales and progress to get to net zero carbon

Table 2
Key metrics for actions in the Balanced Pathway to meet the Sixth Carbon Budget

		2019	2025	2030	2035	2050	Trend
UK greenhouse gas emissions	UK greenhouse gas emissions ($MtCO_2e$)	522	445	316	191	0	
	UK greenhouse gas emissions per person (tCO_2e/capita)	7.8	6.5	4.5	2.7	0	
Demand reduction	Weekly meat consumption (g) (includes fresh and processed meat)	960	880	770	730	630	
	Weekly dairy consumption (g)	2,020	1,840	1,620	1,620	1,620	
	Plane-km per person	11,700	11,000	11,000	11,400	13,700	
	Car-km per driver	12,900	12,600	12,400	12,200	11,700	
	Remaining waste per person, after prevention & recycling (kg)	490	400	310	280	300	
Efficiency	Carbon-intensity of a new HGV (gCO_2/km)	680	580	420	20	0	
	Increase in longevity of electronics	0%	30%	80%	120%	120%	
Electrification, hydrogen and carbon capture and storage	Carbon intensity of UK electricity (gCO_2e/kWhe)	220	125	45	10	2	
	Offshore wind (GWe)	10	25	40	50	95	
	Share of BEVs in new car sales	2%	48%	97%	100%	100%	
	Heat pump installations (thousand per year)	26	415	1,070	1,430	1,480	
	Manufacturing energy use from electricity or hydrogen	27%	27%	37%	52%	76%	
	Low-carbon hydrogen (TWh)	<1	1	30	105	225	
	CCS in manufacturing ($MtCO_2$)	0	0.2	2	5	8	
	CCS in rest of the economy ($MtCO_2$)	0	0.1	20	48	96	
Land	UK woodland area	13%	14%	14%	15%	18%	
	Energy crops (kha)	10	23	115	266	720	
	Peat area restored	25%	36%	47%	58%	79%	
	Land-based carbon sinks ($MtCO_2$)	18	18	20	23	39	
Removals	Greenhouse gas removals ($MtCO_2$)	0	<1	5	23	58	

Sixth Carbon budget report page 28 - phase out dates for high carbon activities to get to net zero carbon

Table 3
Phase-out dates of high-carbon activities under the Balanced Pathway

Technology/behaviour	Phase out date (sales)
New fossil-fuelled cars and vans	2032 (including plug-in hybrids)
Gas boilers	2033 (in residential homes) 2030-33 (in commercial properties)
Oil boilers	2028 (in residential homes) 2025-26 (in commercial properties)
Gas power generation (unabated)	2030 (no new build of unabated gas plants)
HGVs	2040
Biodegradable waste sent to landfill	N/A
Unabated energy-from-waste plants	From today, new plants and extensions should be built with CCS or CCS ready