Appendix Two: Energy and Low Emissions Strategy Indicators – updated July 2022

#	Indicator	Baseline (2017 unless otherwise indicated)	New/ amended/ existing	Data source	Direct or indirect indicator of emissions	Lead or lag indicator[1]
1.	Total carbon dioxide emissions (kt CO2)	8812.2	Existing	BEIS	Direct	Lag
2.	Total carbon dioxide emissions (kt CO2e)	9290	New	Scatter	Direct	Lag
3.	Per capita carbon dioxide emissions (tonnes per person)	4.9	Existing	BEIS	Direct	Lag
4.	Carbon emissions from 6 main sectors (industry/commercial/public sector/domestic/transport/LULUCF)	Industry: 1654.6 Commercial: 824.6 Public Sector: 282.6 Domestic: 2574 Transport: 3836.6 Land Use, Land Use Change and Forestry: -360.3	Amended	BEIS	Direct	Lag
5.	Greenhouse gas consumption-based emissions (kt CO2e)	19508.0	New	DEFRA	Direct	Lag
6.	Per capita greenhouse gas consumption-based emissions (tonnes per person)	10.9	New	DEFRA	Direct	Lag
7.	Annual exceedance of key air pollutants	2 site failures for NOx and 2 site failure for O_3 (2018)	Existing	Kent Air	Indirect	Lag
8.	Number of days of moderate or higher air pollution[2]	78 days (21.3% of the year), where at least one pollutant recorded levels of moderate or higher air pollution (2018)	Existing	Kent Air	Direct	Lag
9.	Fraction of mortality attributable to particulate air pollution (%)	Kent: 7.7% (2018) Medway: 8.9% (2018)	Existing	Public Health	Indirect	Lag

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[1] Lead indicators predict future emissions reductions, lag have a time delay between the action and the effect.
[2] Methodology changes might result in slightly different air quality indicators moving forward, this will remain under review.

#	Indicator	Baseline (2017 unless otherwise indicated)	New/ amended/ existing	Data source	Direct or indirect indicator of emissions	Lead or lag indicator[1]
				England		
10.	Number of air quality management areas	43 air quality management areas (2019)	Existing	DEFRA	Indirect	Lead
11.	Tree canopy coverage %	17%	Existing	National Tree Map	Indirect	Lag
12.	Carbon storage value of habitats (Net carbon sequestration from land use) (kt CO2)	-360.3	Existing	BEIS	Direct	Lag
13.	Carbon storage value of habitats (carbon sequestration from land use subsets)	Croplands: 70.6 Forest land: -363.5 Grassland: -150.2 Settlements: 82.9 Wetlands: 0.0	New	BEIS	Direct	Lag
14.	Average domestic energy consumption (gas and electricity) per customer (kWh)	16,781	Existing	BEIS	Direct	Lag
15.	Carbon emissions from gas and electricity consumption across all sectors (mega tonnes CO2)	4.87	Existing	BEIS	Direct	Lag
16.	Renewable electricity generated in Kent and Medway (GWh/yr)	4,386.32	Amended	BEIS	Direct	Lag
17.	Active travel to school (walking, cycling, scooting)	64.2% of primary school children. 36.6% of secondary school children (2018)	Existing	National Travel Survey	Indirect	Lead
18.	Active travel to work (% of people working within 5km of home that actively travel to work in Kent)	32% (2011)	Existing	Census	Indirect	Lead
19.	Vehicle registrations by type	Diesel: 12,901,603 Petrol: 18,759,927 Hybrid: 336,896 Plug-in hybrid: 79,442	Existing	DfT	Indirect	Lead

#	Indicator	Baseline (2017 unless otherwise indicated)	New/ amended/ existing	Data source	Direct or indirect indicator of emissions	Lead or lag indicator[1]
		Battery electric: 42,021				
20.	Average miles travelled per year per person (South East region, excludes aviation) Active travel modes and non-active travel modes	Active travel: 266 Non active travel: 7,184 Total: 7,554 (2017/18)	New	National Travel Survey Data (DfT)	Indirect	Lag
21.	Road transport fuel consumption (tons of oil equivalent)	1,182,943	Existing	BEIS	Direct	Lag
22.	Number and percentage of households in fuel poverty	73,010 (9.6%) households in fuel poverty	Existing	BEIS	Indirect	Lag
23.	Excess winter deaths	1,610 (2017/18) Across Kent and Medway, 29.6% more deaths occurred in the winter months compared with the non-winter months (2017/18)	Existing	Public Health England	Indirect	Lag
24.	Household water consumption (litres per day)	145 (3-year average April 2018 – March 2021)	Existing	Water UK	Indirect	Lag
25.	Energy Performance Certificate (EPC) rating of homes (% rated A or B)	13.9% A or B (2022)	Existing	C-Path (using EPC data)	Indirect	Lead
26.	% of domestic properties in Kent and Medway predominantly heated by oil, gas or mineral solid fuels	86.8% (2022)	New	C-Path (using EPC data)	Indirect	Lead

#	Indicator	Baseline (2017 unless otherwise indicated)	New/ amended/ existing	Data source	Direct or indirect indicator of emissions	Lead or lag indicator[1]
27.	MCS certified[3] heat pumps installed (air, ground and water source)	185	New	MCS	Indirect	Lead
28.	Number of energy efficiency measures installed in homes under the Energy Company Obligation (ECO) and Green Homes Grant Local Authority Delivery Scheme in Kent and Medway (cumulative since the launch of ECO)	38,974	Existing	BEIS	Indirect	Lead
29.	Percentage of households in receipt of at least one ECO measure (since the launch of ECO)	4.3%	New	BEIS	Indirect	Lead

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[3] MCS (Microgeneration Certification Scheme) is a nationally recognised quality assurance scheme, supported by the Department for Business, Energy & Industrial Strategy. Whilst certification of a heat pump system via MCS is not mandatory, it is best practice and is required for Renewable Heat Incentive Payments and other government financial incentives.

Indicators for further development

#	Indicator	Baseline (2017 unless otherwise indicated)	New/ amended/ existing	Data source	Direct or indirect indicator of emissions	Lead or lag indicator
30	Background air quality measurements – average annual air quality measures for NO_2, O_3 and particulate matter (average annual)	tbc	New	Kent Air [4]	Direct	Lag
31	Total annual gas consumption of local authority estates owned and managed (all 14 councils)	tbc	Amended	LASER and each local authority	Direct	Lag
32	Length of network made more accessible (excludes vegetation clearance) (km)	Figures available for KCC, clarity being sought from Medway	Amended	Public Rights of Way teams	Indirect	Lead
33	Usage of public footpaths and cycle lanes	tbc	New	Strava Metro	Direct	Lag

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[4] Whilst local DEFRA data is available, it is purely modelling and not actuals. For this reason, two AURN sites have been chosen on the advice of air quality officers to represent a rural background (Rochester Stoke) and an urban background (Canterbury).