

CLEAN GROWTH

The Heart of the South West has pledged to be a pioneer with its bold commitments to clean growth, and an ambition to place the HotSW area on a resilient pathway to net zero by the 2040s or sooner.

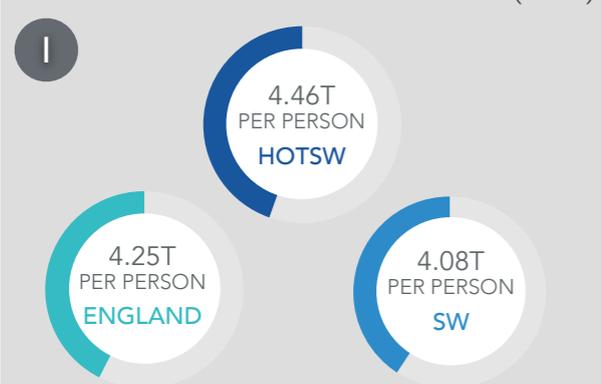
HotSW has made a number of positive changes but, in many instances, not enough to catch up with England and not nearly enough to meet wider zero carbon targets.

These indicators suggest that a major shift in pace and scale is required if climate emergency targets and aspirations for clean growth are to be met.

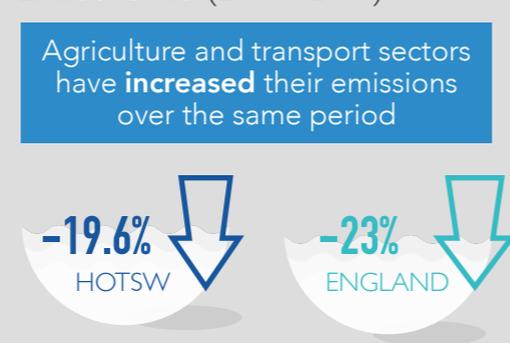
1850

2020

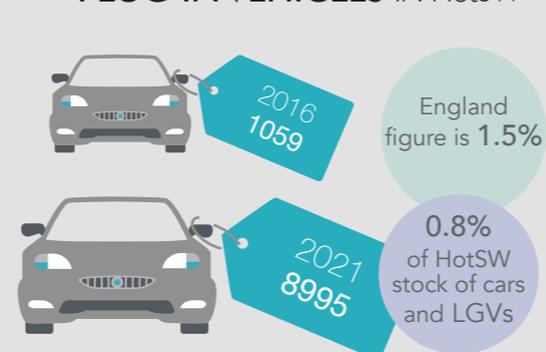
PER PERSON CO2 EMISSIONS (2019)



REDUCTION IN TOTAL CO2 EMISSIONS (2011 - 2019)



PLUG-IN VEHICLES IN HotSW



KEY ISSUES

HotSW LEP can play several roles to drive better performance in these underlying indicators. It can invest more, it can target more clearly, it can impose conditions on wider developments and it can use its strategic influence.

CO2 EMISSIONS

CO2 emissions are not reducing fast enough to reach carbon targets. Agriculture and transport sector emissions are increasing.

OPPORTUNITIES

HotSW is creating more jobs but fewer new companies than England in Environmental Industries. More focused investment needed.

ENERGY PRODUCTION

Too much electricity in the UK is still generated from fossil fuels. In HotSW, renewable energy production grew 113% between 2015 and 2020.

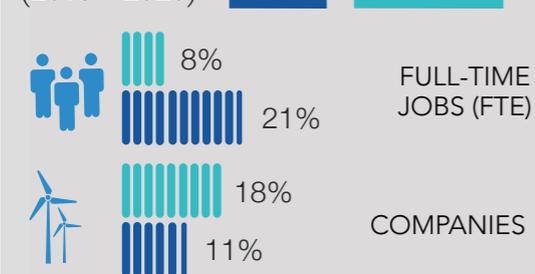
TRANSPORT

Electric vehicles make up a tiny, but increasing, percentage of those on the road. More EV charging are needed in rural areas.

ENERGY CONSUMPTION

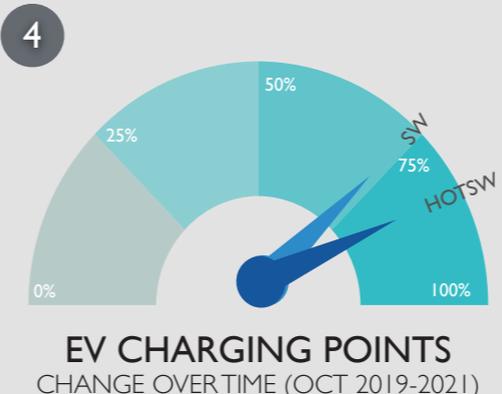
Overall, energy consumption in HotSW is increasing faster than England, with the transport sector using the highest proportion.

ENVIRONMENTAL INDUSTRIES (2015 - 2020)

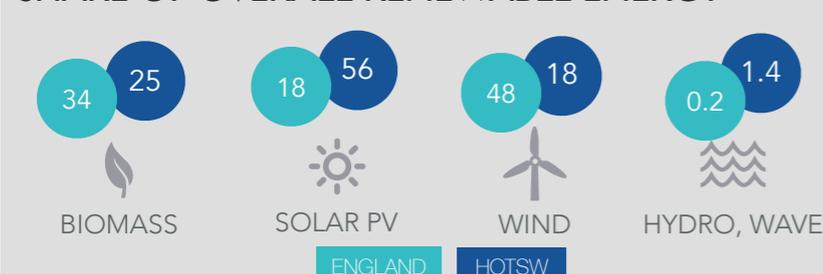


2 According to the Great South West prospectus, there is potential to add £10 billion of GVA and 175,000 jobs by 2030 within the energy sector alone - across the GSW area.

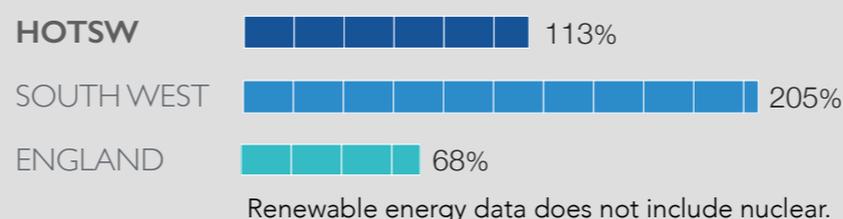
In 2020, within, HotSW, there were 8,600 FT and 780 PT employees working in Environmental Industries.



SHARE OF OVERALL RENEWABLE ENERGY

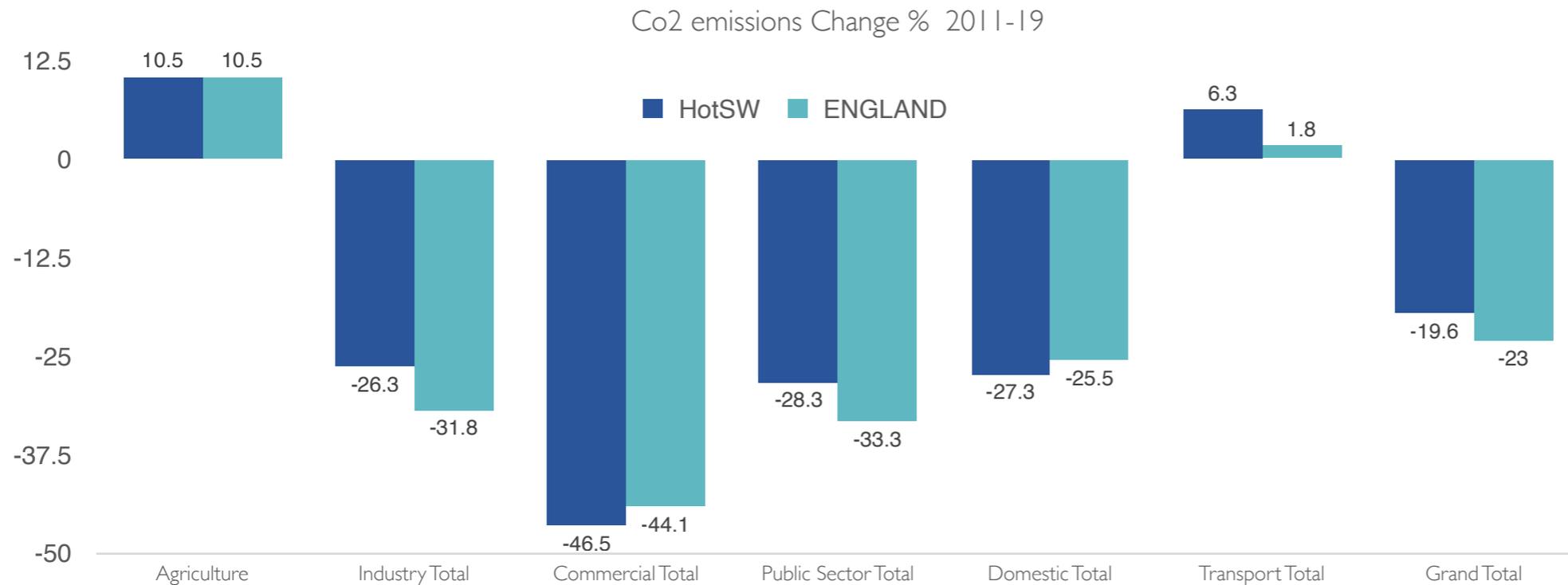


RENEWABLE ENERGY GENERATION INCREASE 2015-2020 (%)



CLEAN GROWTH - CO2 emissions

HotSW has higher emissions per head than England and while emissions have reduced they have not fallen by the same proportion. This lower relative reduction is wholly explained by actual increases in carbon emissions from transport and agriculture - particularly in rural Devon and Somerset.



[UK Government CO2 emissions data](#)

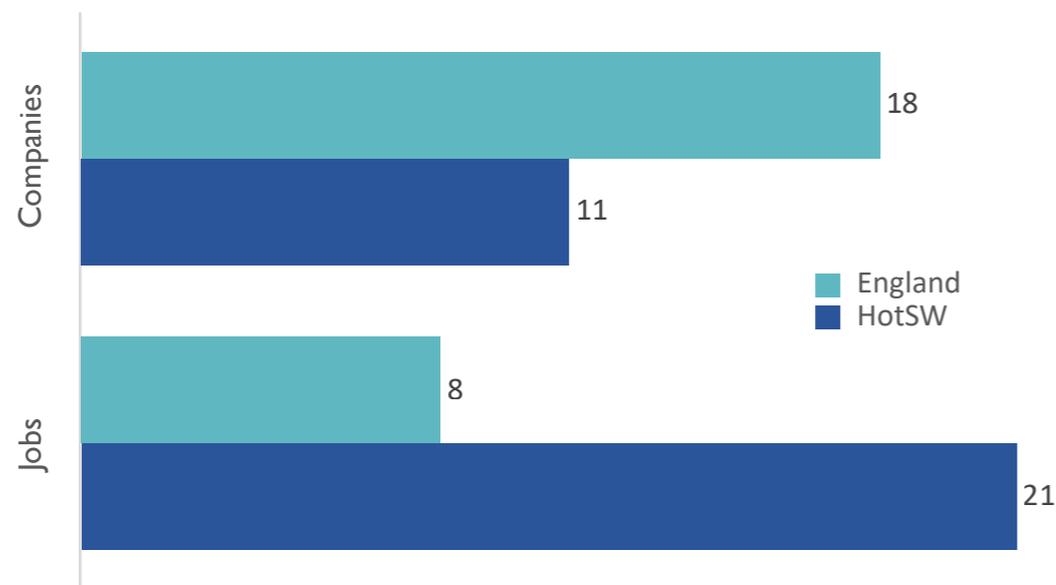
The agriculture emissions data should be treated with some caution – % changes over the period are identical across all areas suggesting the national data is used as a control factor for local data.

CLEAN GROWTH - environment

Environmental industries

HotSW has seen growth in FT and PT employees and the number of companies operating within the Environmental Industries sector (using its own relatively wide definition). There were 8600 FT employees in 2020 and 780 PT employees.

% Change 2015-20 for Environmental Industries



[NOMIS environmental industry - jobs \(to query page\)](#)

[NOMIS environmental industry - companies \(to query page\)](#)

Waste

While the HotSW has a higher recycling rate than England (51.2% to 43.5%) and Devon has the highest recycling rate at 56% (2020). The HotSW generates more waste per household than England (435 kg per person compared to 407kg per person). Somerset generates an even higher figure of 452kg per person.

	Collected Household Waste per person (kg)	% of household waste sent for reuse, recycling or composting (Ex NII92)
England	407.3	43.5
Plymouth	391.2	35.3
Torbay	431.3	41.2
Devon	436.3	56
Somerset	451.7	52.4
HOTSW	435	51.2

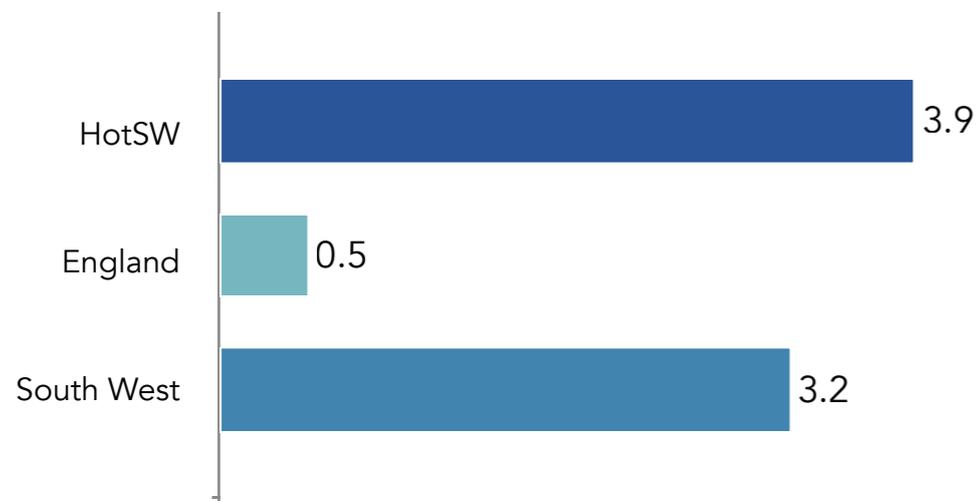
[Annual waste collection tables - at local authority level](#)

CLEAN GROWTH - energy consumption

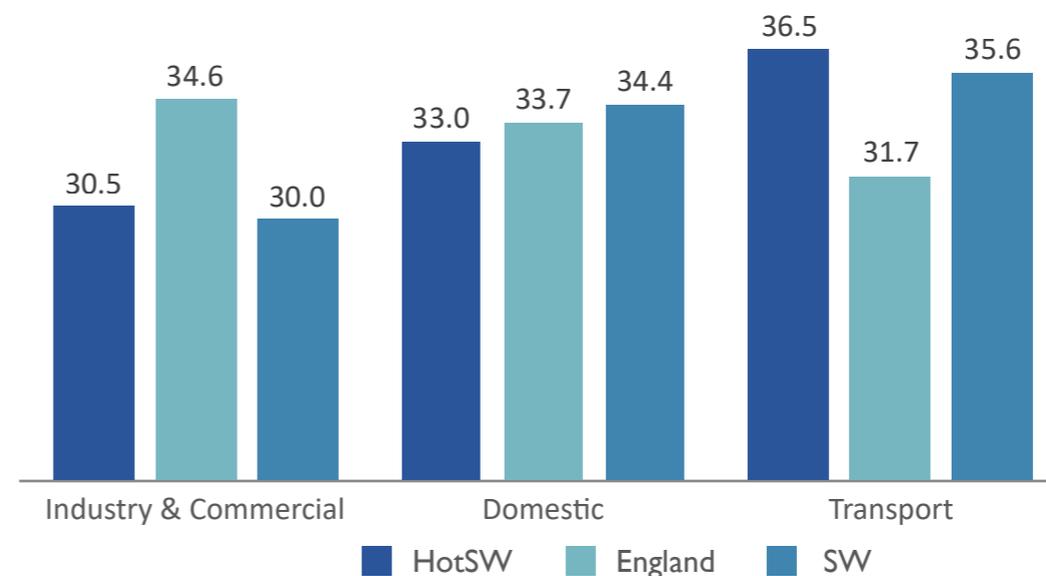
Energy consumption within HotSW increased by 3.9% between 2014 and 2019, a higher increase than England (0.5%). In 2019 the share of energy consumption is lower for the industrial and commercial sector in HotSW than England, but higher for the transport sector – reflecting greater rurality and dependency on personal transport.

The latest update (30 | 09 | 2021) no longer uses gigawatt hours as a measure, it uses kilotons of oil equivalent (KTOE).

% Change in Energy Consumption (2014 - 2019)



Energy Consumption 2019 by Consuming sector (% of total)



[Energy consumption by sector](#)

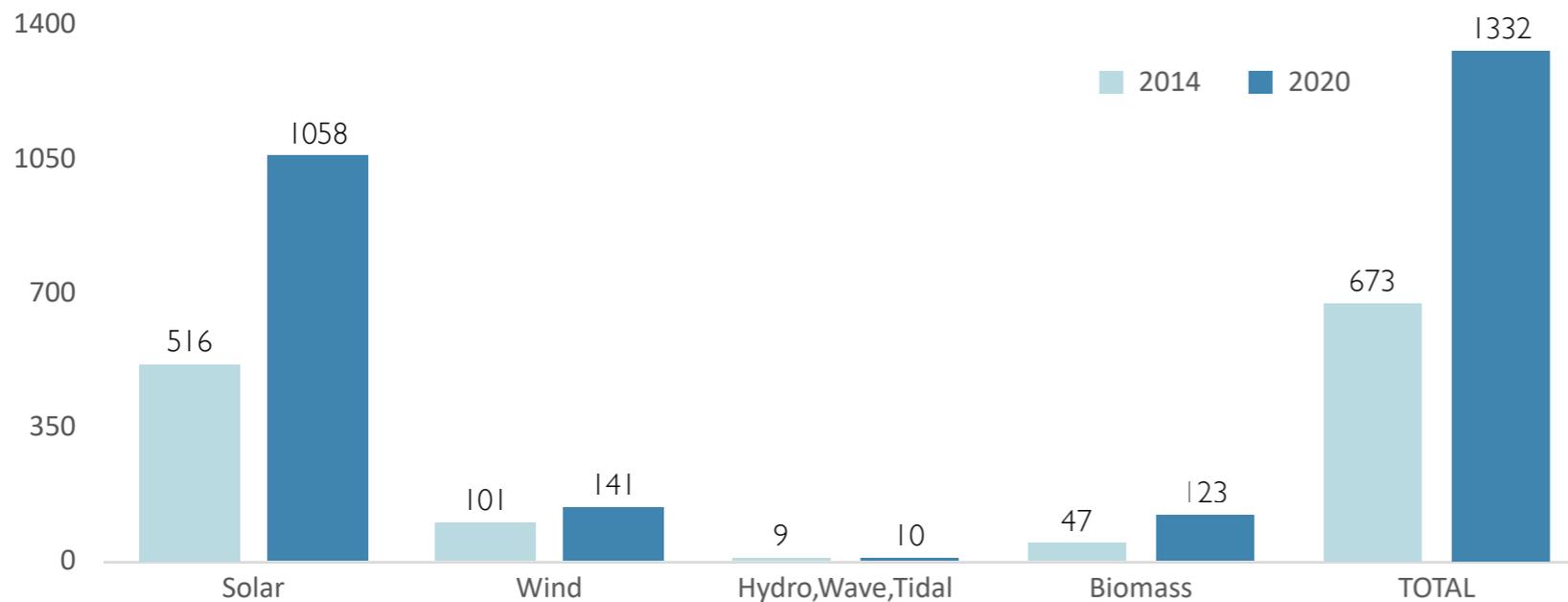
CLEAN GROWTH - renewable energy

Total renewable energy capacity within HotSW has grown from 673 Mw in 2014 to 1332 Mw in 2020 - a 98% increase compared to 105% increase for England.

There has been clear growth in the installed capacity for solar, wind and biomass. Biomass however lags some way behind the share of the total compared to England despite the opportunities that exist in terms of food waste, agricultural and forestry by-products etc. The adoption of biomass has been affected by the significant reduction in deployment (non-domestic) due to changes in the Renewable Heat Incentive (RHI) tariffs.

The UK government classifies Nuclear as a 'clean' energy. However, Nuclear energy is not included within the renewable energy data and it is only measured at the national level.

2014-20 Change in the share of Renewable Energy Installed Capacity Mw



[Renewable energy consumption at local authority level](#)

CLEAN GROWTH - plug-in vehicles

The HotSW has seen a clear and high growth in the number of plug in vehicles, although since 2016 this growth has lagged both England and the South West.

Plymouth was the only sub region with a higher growth rate than England. There were 8895 registered plug in vehicles in Q2 of 2021 which amounted to 0.8% of all registered cars and Light Goods vehicles in HotSW, a figure which lags the England equivalent of 1.5%.

Plug in Vehicles are defined cars and light good vehicles which are identified as battery electric, plug-in hybrid electric, or range-extended electric.

	2016 Q2	2017 Q2	2018 Q2	2019 Q2	2020 Q2	2021 Q2	Change	Change %	per 100k pop.
England	63436	97373	140647	187853	268372	485333	421897	665	858.2
HOTSW	1159	1823	2821	4099	5445	8995	7836	676	507.2
Plymouth	52	85	159	201	272	548	496	954	
Torbay	61	86	125	180	280	477	416	682	
Devon	660	1081	1721	2538	3210	5186	4526	686	
Somerset	386	571	816	1180	1683	2784	2398	621	



Plug-in vehicle data (Table VEH0131)

CLEAN GROWTH - charging points

HotSW has seen a greater increase in rapid charging points than England and the SW, although the numbers by sub area are low, for example 5 in Torbay and 9 in Plymouth (against 416 and 496 plug in vehicles respectively).

Increasing the amount of accessible rapid charging points should be a focus within future investments e.g. should it be policy that all physical developments supported by the LEP include the installation of rapid charging points?

Total devices represent publicly available charging devices at all speeds, including: slow, fast, rapid and ultra-rapid devices.

Rapid devices are those whose fastest connector is rated at 43kW and above.

All chargers	Oct-19	Oct-20	Oct-21	Change	Change %	per 100k pop.
ENGLAND	12549	16456	21925	9376	74.7	38.8
HotSW	310	460	568	258	83.2	32
Plymouth	41	70	74	33	80.4	
Torbay	9	25	26	17	188.9	
Devon	174	243	301	127	73	
Somerset	86	122	167	81	94.2	

Rapid chargers	Oct-19	Oct-20	Oct-21	Change	Change %	per 100k pop.
ENGLAND	2008	2909	4058	2050	102.1	7.2
HotSW	59	93	119	60	101.7	6.7
Plymouth	4	8	9	5	125	
Torbay	2	5	5	3	150.0	
Devon	40	58	70	30	75	
Somerset	13	22	35	22	169.2	

 UK Government charging point data

CLEAN GROWTH - data notes

Slide 1

Co2 emissions data – HOTSW area is aggregated from Local Authority data

Slide 2

Environmental Industries – HOTSW area data is published under the LEP geography for UK Business Counts and BRES

Waste - HOTSW area data is derived from Local Authority data

Slide 3

Energy Consumption data is aggregated from Local Authority data

Slide 4

Renewable Energy Capacity is aggregated from Local Authority data

Slide 5

Plug In Vehicle Data is aggregated from Local Authority data

Slide 6

Rapid Charging point data is aggregated from Local Authority data

Each slide gives a direct link to where the latest data we have sourced is found, however over time these links may show later data than has been used in this report. For the two Nomis links (for jobs and companies which use the HotSW defined Environmental Industries category) the link is to a holding query page that would require some familiarity with how Nomis works, as geographic area, date, type of employment and individual sector will all need to be selected before accessing the data.

These links act as confirmation of the data source.

All data used is publicly available under the terms of the Open Government Licence and UK Government Licensing Framework.

Unless otherwise stated data has been sourced, collated, analysed and visualised by Ash Futures Ltd.