Holme Valley Parish Carbon Reduction calculator to be Carbon Neutral by 2030 PLAN

Rev 07 17th June 2021

PROGRESS REPORT - June 2021

Carbon tCO2e emissions by end user			aseline 20	19	Reductions in carbon emissions each year to 2030								Baselin	e Pl	lanned reductions in carbon emissions in HVPC Action Plan					Potential Action to achieve reductions	Comments	
UK Government report to IPPC - 2017	Percentag published in	es as E	Baseline 2019	Baseline 2019	Year 1 2019		ear 3 Year 4 021 2022									Planned %	Reduction achieved	tCO2e savings	tCO2e capture	tCO2e Net Carbon		HV Population = 27,000, HV households = 12,000
emission figures and percentages	Action P	lan		REVISED											n	necessary	todate	by 2030	by 2030	in 2030		
TOTALS TONNES CO2e			179,036	189,886	,									189,	386			-158,975	-20,250	10,187	10,66	1 10MW new renewable energy by 2030
CHANGE IN YEAR EMISSIONS SINCE ACTION PLAN				0% 100.0%	-2.4% 97.6%	-4.4% 93.3%												-83.7%	-10.7%	-94.6% 5.4%		
REDUCTION SINCE ACTION PLAN				100.0%	2.4%	6.7%														94.6%		
Energy (generation and consumption)		39.3%	75,494		74.390															54.670		-
o Domestic Gas - heating 13%	18.7%	35.3%	35,474		35,051									35,	118	95%	7%	-33,647	0	1,771	Replace gas boilers - by a national hydrogen gas grid replacing natural gas, or by biomass boilers or electric boilers or district heating national green electricity grid. Or Passiv houses with Heat Pumos	Higher household gas consumption in HV area - from data
o Domestic Electricity - lighting/power 8%	8.2%		16,561	15,567	15,511	14,602								15,	567	95%	6%	-14,789	0	778	Decarbonise electricity grid energy - by increasing renewable	Higher household elec consumption in HV area
o Domestic Other (coal, oil etc) – heating 1%	1.0%		753	1,939	2,014	1,896								1,	939	95%	2%	-1,842	0	97	energy component. Other sources of energy - either green electricity or biomass heating.	
o Public 2.5%	2.7%		5,081	5,040	4,949	4,703								5,	040	95%	7%	-4,788	0	252	Decarbonise grid energy - national green electricity or district	
o Industry Gas 15%	6.6%		13,730	12,562	12,782	11,738								12,	562	95%	7%	-11,934	0	628	heating. Decarbonise - replace natural gas with a national hydrogen ga	
o Industry electricity 10%	2.1%		3,896	4,013	4,083	3,750								4,	013	95%	7%	-3,812	0	201	grid. Decarbonise electricity grid energy - by increasing renewable	consumption Lower industry in South Kirklees, lower elec
o Renewable energy electricity - carbon credi	0.0%		0	0	0	0										0%			-8,750	-8,750	energy component. Carbon credits from surplus locally generated green electricity	consumption Carbon credits of new HV wind turbines - above
		25.49/	-		-	-									0	0%	0%	0	-6,750	-6,750	Carloth Creats from supposed energy schemes such as wind farms or solar PV farms. Allow for say additional 10MW of installed capacity of wind power	average in HV
o Passenger Cars 17%	20.1%	35.4%	66,619 37,939		65,243 36.911									38.	152	90%	7%	-34,336	0	3.815	Electric + public transport - switch to electric automonous)	Higher car use and ownership in the HV
o Light road transport 5%	5.8%		10,614		10,640									10,		90%		-9,840		1,093	cars, with better public or shared transport via autonomous 'uber' style passenger vehicles. Electric transport - switch to electric or other clean energy	Rural area high distribution distances in the HV
																	7%		0		vehicles and support infrastructure	
o HGV road transport 5%	5.3%		10,350	10,023	9,902	9,378								10,		90%	6%	-9,020	0	1,002	Electric transport - switch to electric or other clean energy vehicles and support infrastructure	Rural area high distribution distances in the HV
o Other (internal shipping/flying/rail/bus) 4%	4.3%	5 40/	7,716	8,142	7,790	7,606								8,	142	90%	7%	-7,328	0	814	Decarbonised transport	
o Cattle industry 5%	1.0%	5.4%	9,955 1,769	10,255	9,740	9,670								1,		75%		4.267		456	Factor and a second factor of factor and second	Few cattle in the HV
o Cattle industry 5%	1.0%			1,822	1,761	1,/1/										/5%	6%	-1,367	0		Eat less meat - reduce need for meat food, more natural production.	Few cattle in the HV
o Soils emissions 2.5%	1.4%		2,352	2,617	2,468	2,437								2,		50%	7%	-1,309	0	1,309	Sustainable farming practices	Little arable, mainly pasture land in the HV
o Other 3%	3.1%	0.4%	5,834	5,816	5,511 718	5,517 628								5,	316	50%	5%	-2,908	0	2,908	Sustainable farming practices	
o Domestic energy - see above	0.0%	0.4%	753 0	582	/18	0										90%		0	0		House energy efficiency - insulate, airtight etc and move	
			-		-	-									Ū		0%	0	0		towards Passiv house standards, for new build and also for retrofits. Develop rapid retrofit methods.	
o Other	0.3%		753	582	718	628									582	95%	-8%		0	582		
Business and Industry (excl. energy)		2.9%	5,740	5,525	5,272	5,116													0			
 Industrial processes (non-energy) 2.4% Refrigeration and AC 2.5% 	1.2% 1.2%		2,258 2,352	2,326 2.229	2,169 2,168	2,174 2.039								2,		50% 75%	7%	-1,163 -1,672	0		Decarbonise processes Decarbonise processes	Less industry in HV, say Less industry in HV, say
o Other 1%.	0.5%		2,352 1,129	2,229	2,168 934	2,039 903									229 969	75% 50%	9%	-1,672	0	485	Decarbonise processes	Less industry in HV, say
Waste and resources	0.5%	1.8%	3,613	3,334	3,088	3,036									,05	50%	7%	-465	0	405		
o Landfill 3%	0.6%	21070	1,167	1,202	1,170	1,130								1,	202	66%	6%	-793	0	409	Reduce landfill, 3Rs - Kirklees in good shape with <5% waste	Low landfill in Kirklees <5%
- 14/	0.6%		1.694	1.163	1.050	1.052										500/	••••	-582		582	going to landfill	
o Wastewater 1% o Other 1%	0.5%		1,694 753	1,163	1,050 868	1,052								1,	163 969	50% 50%	10%	-582	0	485	3Rs - YWS to decarbonise its processes	
Environment / LULUCF (net reduction)	0.5%	1.7%	-6,963	3,179	2,714	2,736									969	50%	12%	-485	0	485		
o Forestry -4% (reduction or carbon offsets)	-3.3%	1.776	-6,605	-6,281	-6,063	-5,832								-6,	281	0%	7%	0	-7,500	-13,781	Plant more trees 700 hectares - incentivise land use practices to increase HV land use for carbon sink purposes	Woodlands in South Kirklees is 9%, in UK 10% -
o Cropland 2%	3.6%		4,517	6,785	6,484	6,325								6,	785	50%	7%	-3,393	0	3,393	Better land use and sustainable farming practices	
o Grassland -2% (reduction or carbon offsets)	-0.4%		-7,528	-775	-690	-832									775	0%	7%	0	-2,000	-2,775	Better land use - incentivise land use practices to increase HV	Pasture/grassland in HV - higher % than UK - 20
o Peat/wetlands 0.1%	0.9%		207	1,706	1,394	1,530								1,	706	0%	7%	0	-2,000	-294	land use for carbon sink purposes Better land use - incentivise land use practices to increase HV land use for carbon sink purposes	Moorland in HV - pet, bogs, wetland in HV - hig % than UK 110%
o Other 2%	0.9%		2,446	1,745	1,590	1,546								1,	745	50%	7%	-872	0	872	Better land use and sustainable farming practices	
Other		2.6%	4,893	4,847	4,654	4,448																
o Exports 2.5%	2.6%		4,893	4,847	4,654	4,448								4,	347	50%	8%	-2,423	0	2,423	Reduce global, more local - encourage local production and circular economy in HV to reduce goods transport etc.	
o Other	0.0%		0	0	0	0									0	0%	0%	0	0	0		
o International activities (IPPC exclude)		89.4%	18,932	169,511 20,375														-148,788		473		not required by IPPC (only UK based emissions
o Flying / aviation 7.6%	9.1%		15.733	17.273	16.332	16 190								17.	773	50%	C 0/	-8.636		8.636	Reduce flying /overseas trips	reported) Afluent area, more holidays/trips/flying
o Shipping 1.7%	9.1%		3.199	3.102	3,236	.,								3,		50%	6% 4%	-8,636	0	8,636	Reduce trijing /overseas trips Reduce trips /decarbonise	suscent area, more nonudys/trips/hying
			.,===		.,	,								5,	-		₩70					
		100.1%		189,886														-158,975	I	10,661	<u> </u>	

Annual UK greenhouse gas emissions data based on UK government published data by UK CCC and reported internationally to IPPC - data can be downloaded as EXCEL file at link:

Aminal or greemious gas emissions and assed union or government publication and y or CCC and reported metanolamy or Pro-C and can be downloaded as EACCE in a time. https://www.gov.uk/government/statistics/inai-uk/gerenhouse-gas-emission-andiana-statistics-i90-2017 NOTE THE EASELINE FIGURES AVAILABLE IN OCTOBER 2019 WHEN THE HYPC ACTION PLAN AND CARBON FOOT PRINT WAS ESTIMATED - UK REPORTED 2017 EMISSIONS WERE 460.2 TONNES COE PER ANNUM THESE BASELINE FIGURES AVAILABLE IN OCTOBER 2019 WHEN THE HYPC ACTION PLAN AND CARBON FOOT PRINT WAS ESTIMATED - UK REPORTED 2017 EMISSIONS WERE 460.2 TONNES COE PER ANNUM THESE BASELINE FIGURES WAS REVISED IN 2019 DEREICE TICREFASED PERTAINABOR CARBON EMISSIONS AND UK REPORTED 2017 EMISSIONS WERE INCREASED TO 474.2 TONNES COE PER ANNUM https://data.gov.uk/dataset/9568363e-57e5-4c33-9e00-31dc528fcc5a/final-uk-greenhouse-gas-emissions-national-statistics