

Mid Devon District Council Greenhouse Gas Inventory 2021/22

Company Information

Mid Devon District Council (MDDC)

Phoenix House, Phoenix Ln, Tiverton EX16 6PP

Reporting Period

1st April 2021 to 31st March 2022

Quantification and Reporting Methodology

The quantification of emissions has been undertaken in accordance with Chapter 3 of *HM Government 2019, Environmental Reporting Guidelines: Including streamlined energy and carbon reporting guidance*¹.

The 2018 UK Government GHG Conversion Factors for Company Reporting (version 1.01) were used in the calculations².

Organisational Boundary

The financial control approach has been used.

Operational Scopes

Scopes 1, 2 and certain Scope 3 emissions (as described in the detailed inventory) have been measured in metric tonnes of carbon dioxide equivalent (tCO₂e).

Summary Inventory

Emissions by scope measured in tCO₂e are shown in the inventory and graph below.

Total gross emissions in 2021/22 were 20,744 tCO₂e and the net emissions were 20,503 tCO₂e.

¹ <https://www.gov.uk/government/publications/environmental-reporting-guidelines-including-mandatory-greenhouse-gas-emissions-reporting-guidance>

² <https://www.gov.uk/government/collections/government-conversion-factors-for-company-reporting>

Base Year

The base year is taken as this year, namely 2018/19. Subsequent years will report progress against the base year.

Reasons for Change in Emissions

Overall gross emissions increased by over 3,000 tCO₂e compared to the previous year, with the main reason for this being a significantly greater procurement spend in this year.

Headline changes within the inventory are as follows:

- Scope 1 emissions from buildings remained broadly similar, though this is in the main due to the same assumptions made regarding the building stock where specific site data was not available, especially in the case of council owned dwellings. For non-domestic buildings there was a moderate increase in emissions, perhaps due to a return to more usual occupancy of Leisure Centres post-Covid. This year's footprint has also separated out buildings within Scopes 1 and 2 as those that are occupied by MDDC and those that are let out. The total emissions from buildings Scopes 1 and 2 are 8,548 tCO₂e of which 13% are from buildings occupied by MDDC.
- Overall, emissions from electricity fell by 4% (93 tCO₂e) predominantly due to a drop in the carbon intensity of the national grid.
- There was a 2% decrease in fuel consumed by the council's own vehicles. This is due to a very small reduction in fuel uses and a minor improvement in fuel conversion factor for diesel.
- Procurement spend on goods and services calculated within the footprint³ increased from £13.7 million to £19.2 million from 2020/21 to 2021/22⁴. It is noted that this calculation approach is very approximate, and it would be preferable to work towards a position where suppliers provide more accurate emission data.
- Emissions from commuting fell by 58 tCO₂e due to an assumed lower average annual commuting distance (the calculation was based on simplified assumptions as a detailed employee travel survey was not available).
- The amount of offset emissions increased by 233 tCO₂e due to newly evidenced REGO backed electricity supply at the New Exe Valley Leisure Centre, Phoenix House, and New Pannier Market sites.
- Other parts of the footprint are comparatively small and did not change by significant amounts.

Targets

Mid Devon District Council has committed to achieving net zero emissions by 2030.

Intensity Measurement

Emissions have been quoted in absolute terms only.

³ There are additional aspects of MDDC spend that have not been converted to emissions for example, where they are just financial transactions or already accounted in the footprint in some other way

⁴ This year revisions were made to the method of allocating spend to sectors, to ensure a more consistent approach between years.

External Assurance Standard

The inventory has been compiled by the Centre for Energy and the Environment at the University of Exeter.

Carbon Offsets

No carbon credits have been purchased.

Detailed Inventory

Emissions by type and in detail measured in tCO₂e are shown in the inventory below.

Scope 1

Scope 1 includes four emission categories. The assumptions made for each of these were as follows:

1. **Stationary Combustion:** Emissions associated with combustion of fuels in stationary equipment (typically boilers in buildings). This includes all owned buildings including leased out buildings as these are on an Operating Lease. Calculations were undertaken following an information hierarchy with consumption or metered data (in some cases extrapolated to give 12 months of data) being used first, or if this was unknown to use area based benchmark data. Emissions from Council Owned housing has been taken to be a Scope 1/2 emission as it is assumed they are let on an "operating lease" as per Appendix F of the Greenhouse Gas Protocol. Emissions were calculated based on main heating fuel together with national average energy consumption per dwelling.
2. **Owned Transport:** Emissions associated with mobile equipment, typically transport equipment. The calculation is based on provided fuel consumption (litres of diesel) for a range of departments, and also for pool cars (based on amount spent on fuel and average annual fuel prices) taken as being owned transport.
3. **Process Emissions:** Waste collection is part of the Council's obligations - those emissions are included within transport based emissions (2. Owned Transport). Waste processing is a function of upper tier authorities and so are out of scope for second tier authorities. There are no other process emissions.
4. **Fugitive Emissions:** Emissions associated with refrigerant leaks from cooling equipment. MDDC state that this is minimal, and so has been taken as zero in the footprint.

The results are shown in the Table below.

No	Category	2018/19	2019/20	2020/21	2021/22
SCOPE 1: Direct GHG emissions and removals		6499	6851	6993	7041
1. Stationary combustion		5633	6095	6111	6178
1	MDDC Occupied				
1	Council Offices/Buildings	91	91	83	111
1	Sports and Leisure Centres	453	453	459	590
1	Public Conveniences	0	0	0	0
1	Cemeteries/Chapels	3	3	3	3
1	Miscellaneous (occupied)	7	7	7	6
1	Let Out				
1	Council Owned Homes	5008	5470	5488	5397
1	Industrial Units (let out)	45	45	45	44
1	Letting Units	11	11	11	11
1	Miscellaneous (let out)	12	12	12	12
1	Residential lettings	4	4	4	4
1	HRA shops (let out)	0	0	0	0
2. Owned transport		866	756	882	863
2	District Officer	9	0	7	7
2	Grounds Maintenance	63	0	48	49
2	Property Services	10	0	3	0
2	Recycling	210	0	292	273
2	Refuse	454	0	372	386
2	Street	70	0	87	76
2	Trade Waste	46	0	75	72
2	From fuel use unallocated to department	3	756	0	0
3. Process emissions		0	0	0	0
3	Not applicable	0	0	0	0
4. Fugitive emissions		0	0	0	0
4	Not applicable	0	0	0	0

Scope 2

Scope 2 includes one emission category. The assumptions made were as follows:

- Electricity: Emissions associated with purchased electricity. This includes all owned buildings including leased out buildings as these are on an Operating Lease. Calculations undertaken using the same principles as for 1. Stationary Combustion.

The results are shown in the Table below.

No	Category	2018/19	2019/20	2020/21	2021/22
SCOPE 2: Energy GHG indirect emissions		3628	2698	2462	2370
5. Electricity		3628	2698	2462	2370
5	MDDC Occupied				
5	Council Offices/Buildings	15	13	101	92
5	Sports and Leisure Centres	256	231	115	230
5	Public Conveniences	13	11	10	9
5	Cemeteries/Chapels	0	0	0	0
5	Miscellaneous (occupied)	84	67	70	65
5	Let Out				
5	Council Owned Homes	2904	2054	1873	1706
5	Industrial Units (let out)	46	41	38	34
5	Letting Units	262	237	216	197
5	Miscellaneous (let out)	16	14	13	12
5	Residential lettings	5	5	4	4
5	HRA shops (let out)	27	25	23	21

Scope 3

Scope 3 includes five emission categories. The assumptions made for each of these were as follows:

6. Purchased material and fuel: Embedded emissions of all purchased materials and fuels. Emissions from bought goods were estimated by examining total procurement spend by the council and allocating each line of spend to a sector within the economy (comprised mainly of goods and services). These were then multiplied by emission factors from Annex E of Environmental Reporting Guidelines. It should be noted that these factors are from 2009 and so result in a large area of uncertainty. Well to Tank (WTT) emissions from fuels and processes were calculated from all the other sections in the inventory with the exception of sections 3, 4, 8, 9 and 10.
7. Transport related activities: Emissions from grey fleet, business travel and commuting. Grey fleet emissions were calculated based on mileage claims with the assumption that journeys were in an average car with unknown fuel. Business travel (road/rail/air) emissions were estimated for rail journeys based on known spend on rail travel and a generic cost per km factor. Commuting emissions were estimated based on number of staff and national annual average commuting distances, with the assumption that journeys were in an average car with unknown fuel together with a stated proportion of staff working at home compared/working at an office. Councillor mileage calculated based on mileage claims with the assumption that journeys were in an average car with unknown fuel.
8. Waste disposal: Emissions associated with disposal of the Council's own waste e.g. from its offices (as opposed to waste produced by constituents). Emissions have been calculated based on the known annual waste produced by the council at each of its sites.
9. Leased assets and franchising, outsourcing: Embedded emissions of all purchased services. These have been estimated in the same way as goods have in 6. Purchased material and fuel.

10. Sold goods and services: MDDC state that no additional sold goods or services have been identified.

The results are shown in the Table below.

No	Category	2018/19	2019/20	2020/21	2021/22
SCOPE 3: Other indirect GHG emissions		9951	9682	7959	11333
6. Purchased material and fuel		7427	6577	5496	8370
6	Procured Goods	5431	4812	3899	6165
6	Well to Tank Emissions fuels	1996	1765	1596	2205
7. Transport related activities		444	459	155	119
7	Grey Fleet (business travel in own cars)	46	55	8	28
7	Business travel train	1	1	0	0
7	Commuting	385	385	147	89
7	Councillor Mileage	10	8	0	2
7	Pool Cars	3	11	0	0
8. Waste disposal		2	2	2	2
8	Recycled waste	1	1	1	1
8	Residual waste	2	2	2	2
9. Leased assets and franchising, outsourcing		2079	2644	2306	2841
9	Procured Services	2079	2644	2306	2841
10. Sold Goods and Services		0	0	0	0
10	Not applicable	0	0	0	0

Net Footprint

As well as the headline gross footprint, the net footprint can be reported as a secondary output. This can include reductions in GHG emissions associated with the export of generated renewable energy, and the purchase of carbon offsets. REGO backed supply at three sites resulted in 241 tCO₂e offset.