Norfolk Territorial Emissions 2022

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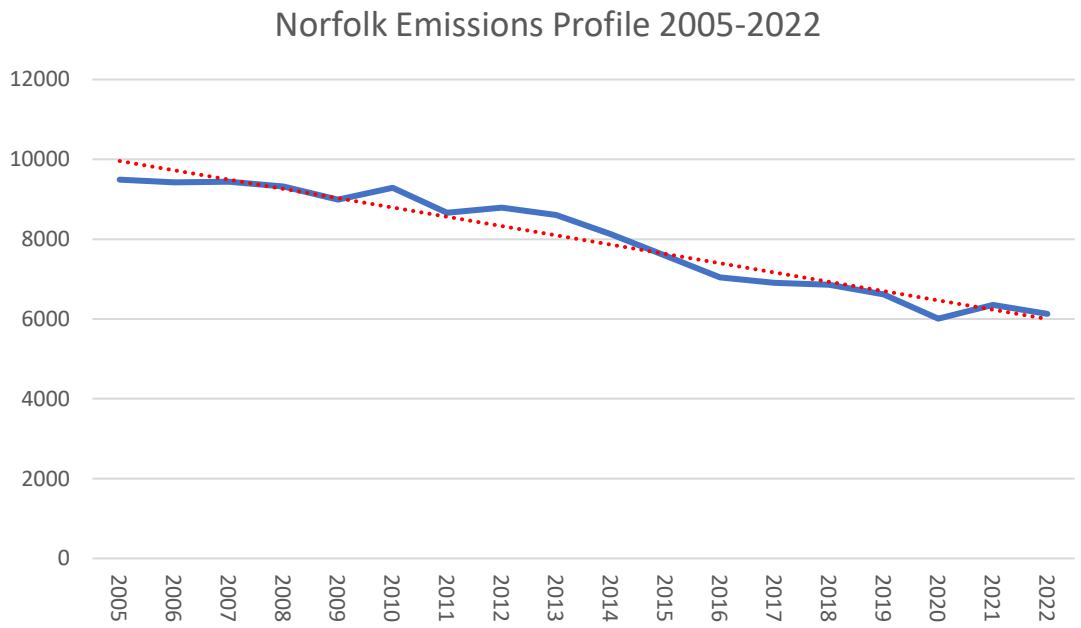
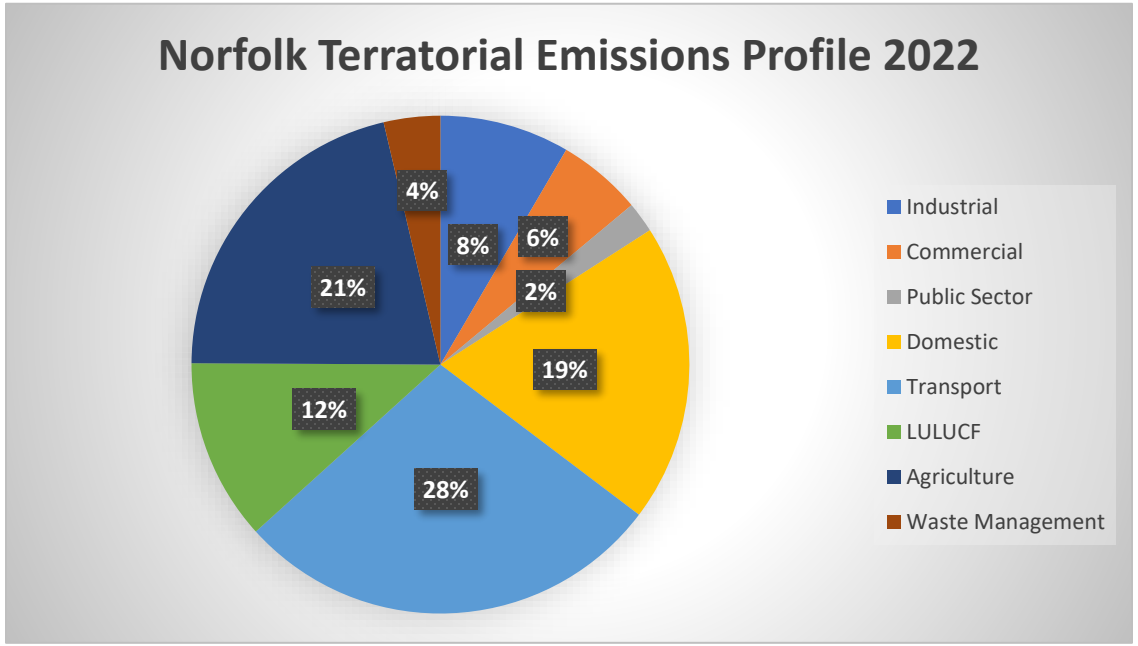


Year	2019	2020	2021	2022	% change from 2021	% change from 2019
Total Emissions	**6617**	**6007.6**	**6351.6**	**6131.3**	**-3.47%**	**-7.34%**
Industrial	575	516.4	536.7	517.2	-3.63%	-10.05%
Commercial	365.9	301.7	339.7	337.2	-0.74%	-7.84%
Public Sector	122.1	111.8	134.1	121.8	-9.17%	-0.25%
Domestic	1345.5	1335.9	1340.9	1188.4	-11.37%	-11.68%
Transport	1953	1563.4	1695.9	1716.2	1.20%	-12.12%
LULUCF	707.8	708.3	719.3	723	0.51%	2.15%
Agriculture	1365.9	1326.6	1372.7	1302.4	-5.12%	-4.65%
Waste Management	181.7	143.5	212.3	225	5.98%	23.83%



Overall Emissions Profile

- Overall emissions have decreased by 3.47% compared to 2021 and 7.34% compared to 2019 which would appear to suggest that the impact of the Covid pandemic on emissions profiles has finished.
- The largest areas of emissions reduction relate to domestic & public sector buildings which have benefited from retrofit interventions. There is however still a significant reduction required for these to achieve national 2050 NetZero targets for territorial emissions.
- Transport & LULUCF emissions are increasing. It is worth noting that transport emissions remain significantly lower than pre-pandemic levels.

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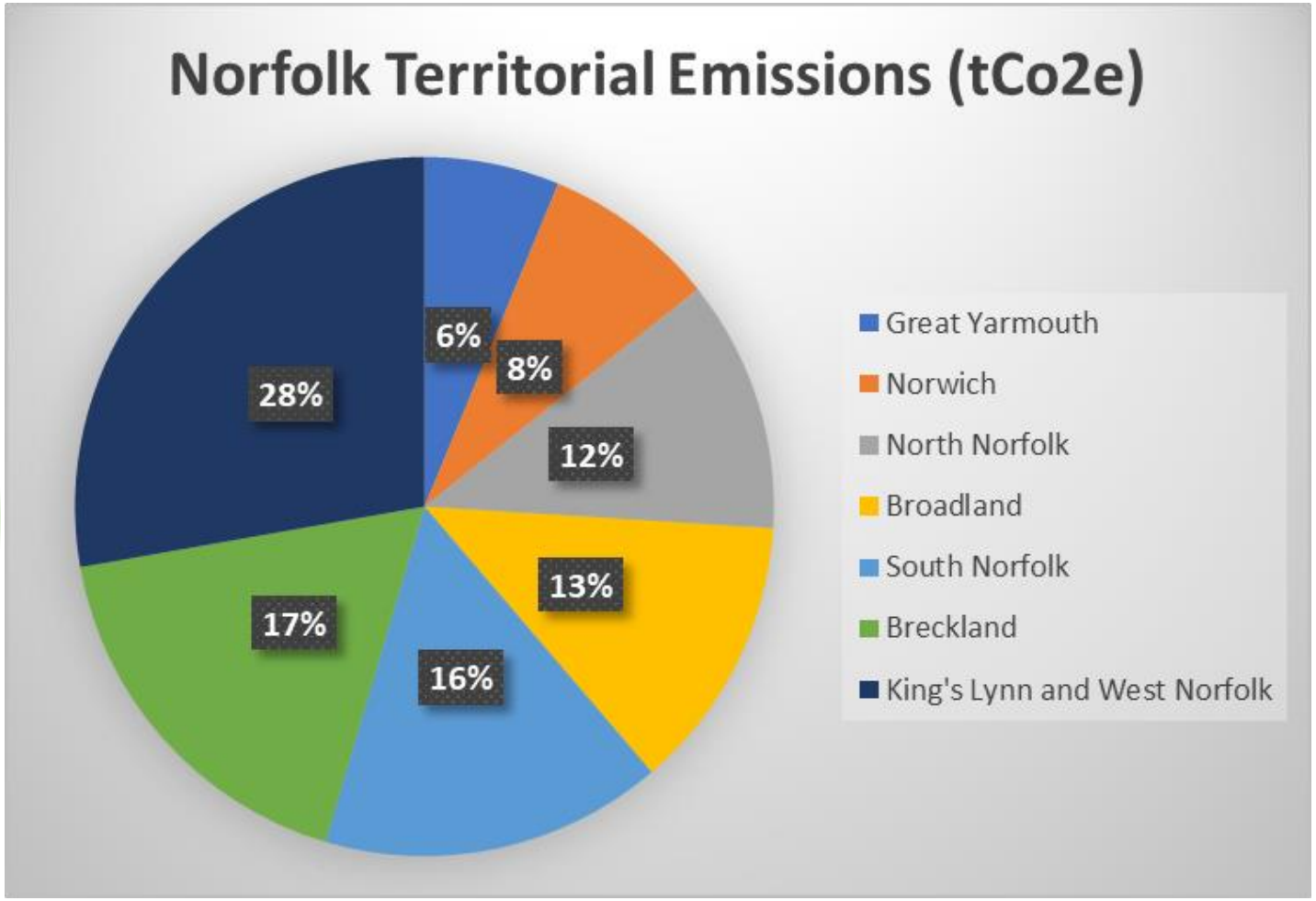
District contributions to overall Norfolk territorial emissions



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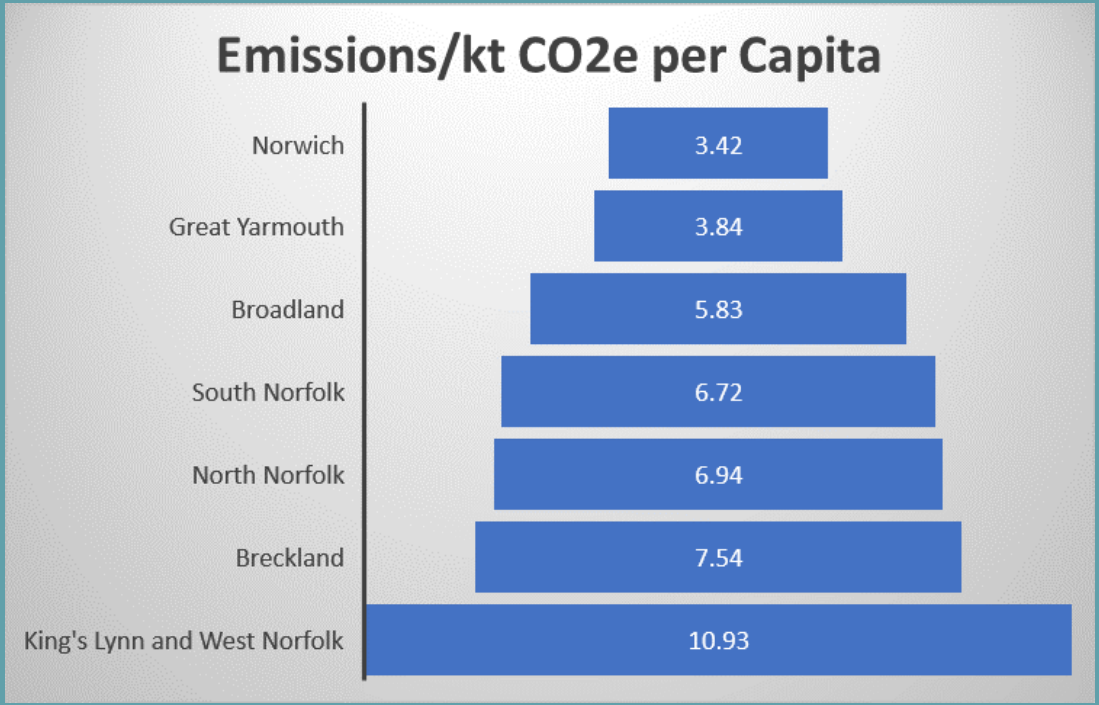
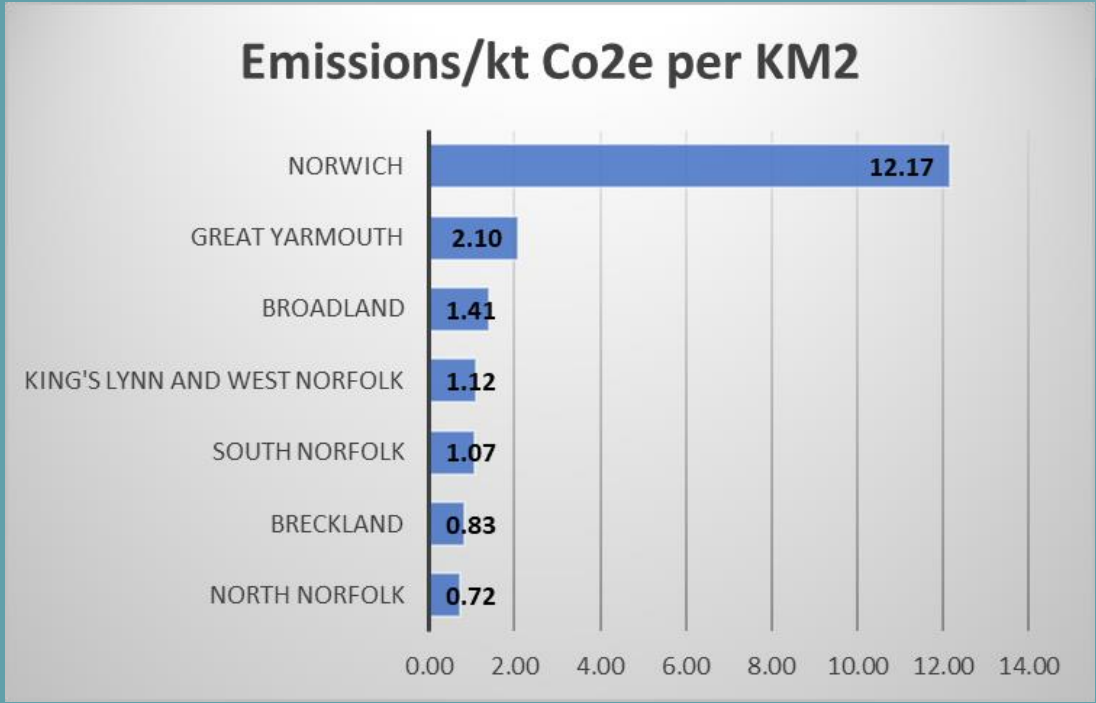
Emission per capita & KM2





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Position in the United Kingdom: Total Emissions				
Out of 374 Councils, 1 = lowest emitter 361 = highest emitter				
Local Authority	Rural Urban Classification 2011 (3 fold)	ktCo2e	UK Ranking Total emissions	Percentile
Great Yarmouth	Urban with Significant Rural	383.80	28	Lowest 10% of Emitters
Norwich	Urban with City and Town	493.70	64	Lowest 20% of Emitters
North Norfolk	Mainly Rural	716.30	140	Lowest 40% of Emitters
Broadland	Urban with Significant Rural	780.80	165	Lowest 50% of Emitters
South Norfolk	Mainly Rural	971.90	227	Highest 40% of Emitters
Breckland	Mainly Rural	1081.90	248	Highest 30% of Emitters
King's Lynn and West Norfolk	Largely Rural	1702.90	314	Highest 20% of Emitters

Position in the England: Total Emissions				
Out of 309 Councils, 1 = lowest emitter 296 = highest emitter				
Local Authority	Rural Urban Classification 2011 (3 fold)	ktCo2e	England Ranking Total emissions	Percentile
Great Yarmouth	Urban with Significant Rural	383.80	22	Lowest 10% of Emitters
Norwich	Urban with City and Town	493.70	54	Lowest 20% of Emitters
North Norfolk	Mainly Rural	716.30	124	Lowest 50% of Emitters
Broadland	Urban with Significant Rural	780.80	146	Lowest 50% of Emitters
South Norfolk	Mainly Rural	971.90	199	Highest 30% of Emitters
Breckland	Mainly Rural	1081.90	217	Highest 30% of Emitters
King's Lynn and West Norfolk	Largely Rural	1702.90	266	Highest 20% of Emitters

Position in the East of England: Total Emissions				
Out of 45 Councils, 1 = lowest emitter 45 = highest emitter				
Local Authority	Rural Urban Classification 2011 (3 fold)	ktCo2e	East of England Ranking Total emissions	Percentile
Great Yarmouth	Urban with Significant Rural	383.80	7	Lowest 20% of Emitters
Norwich	Urban with City and Town	493.70	11	Lowest 30% of Emitters
North Norfolk	Mainly Rural	716.30	22	Lowest 50% of Emitters
Broadland	Urban with Significant Rural	780.80	25	Highest 50% of Emitters
South Norfolk	Mainly Rural	971.90	35	Highest 30% of Emitters
Breckland	Mainly Rural	1081.90	36	Highest 30% of Emitters
King's Lynn and West Norfolk	Largely Rural	1702.90	44	Highest 10% of Emitters

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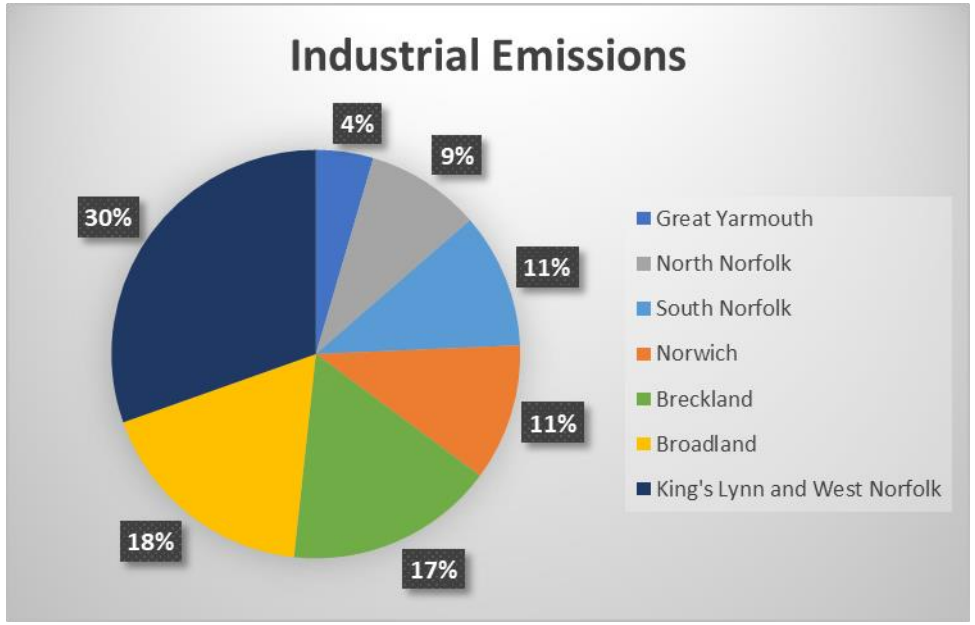
How does Norfolk compare in the UK, England & regionally

Industrial Emissions

Position in the England: Industrial Emissions				
Out of 296 Councils, 1 = lowest emitter 296 = highest emitter				
Local Authority	Rural Urban Classification 2011 (3 fold)	ktCo2e	England Ranking Industrial Emissions	Percentile
Great Yarmouth	Urban with Significant Rural	23.50	30	Lowest 10% of Emitters
North Norfolk	Mainly Rural	46.90	107	Lowest 40% of Emitters
South Norfolk	Mainly Rural	55.40	125	Lowest 50% of Emitters
Norwich	Urban with City and Town	56.00	128	Lowest 50% of Emitters
Breckland	Mainly Rural	85.70	176	Highest 50% of Emitters
Broadland	Urban with Significant Rural	92.40	185	Highest 40% of Emitters
King's Lynn and West Norfolk	Largely Rural	157.40	240	Highest 20% of Emitters



- Emissions have reduced by 3.6% or 19.5 kt CO2e compared to 2021.
- Significantly lower than pre-pandemic emission levels (2019), 10.1% reduction or 57.2 kt CO2e
- Overall accounts for 8.5% of Norfolk's emissions profile
- Breckland, Broadland & West Norfolk are the larger contributors to county emissions, with West Norfolk being a significant outlier.
- Nationally half of district the areas benchmarking in bottom 50% of emitters in England.

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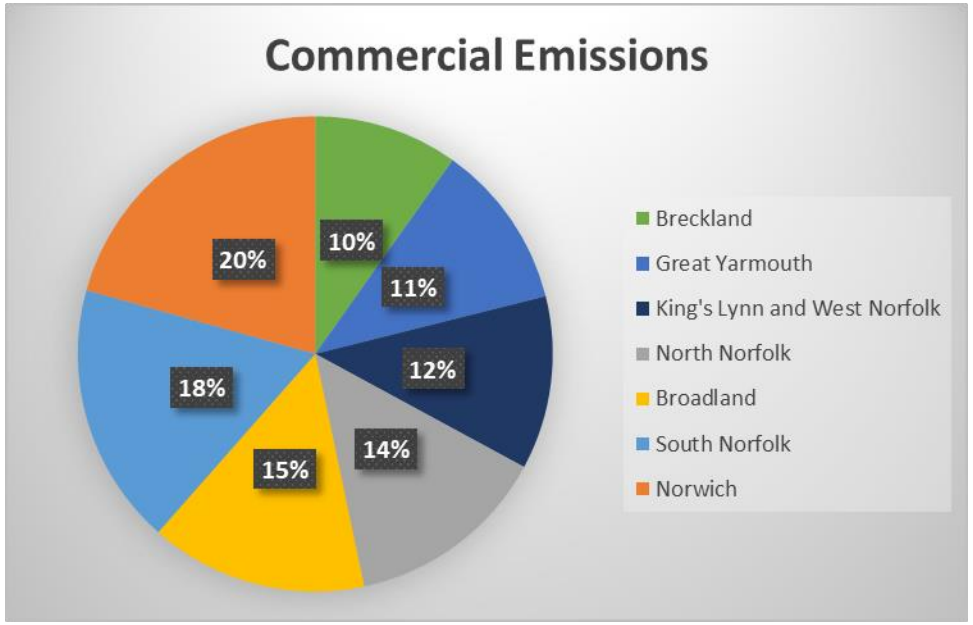
Commercial Emissions

Position in the England: Commercial Emissions				
Out of 309 Councils, 1 = lowest emitter 296 = highest emitter				
Local Authority	Rural Urban Classification 2011 (3 fold)	ktCo2e	England Ranking Commercial Emissions	Percentile
Breckland	Mainly Rural	33.10	33	Lowest 30% of Emitters
Great Yarmouth	Urban with Significant Rural	38.00	51	Lowest 30% of Emitters
King's Lynn and West Norfolk	Largely Rural	39.80	59	Lowest 30% of Emitters
North Norfolk	Mainly Rural	46.50	81	Lowest 30% of Emitters
Broadland	Urban with Significant Rural	49.90	96	Lowest 40% of Emitters
South Norfolk	Mainly Rural	60.10	123	Lowest 50% of Emitters
Norwich	Urban with City and Town	69.70	152	Highest 50% of Emitters

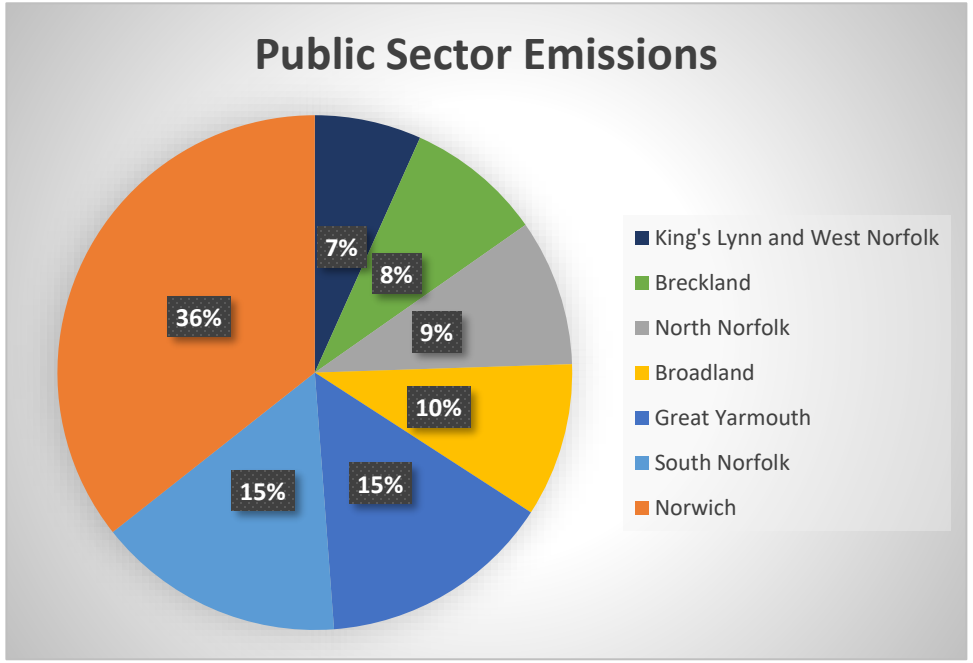


- Emissions have reduced by 0.7% or 2.5 kt CO2e compared to 2021.
- Significantly lower than pre-pandemic emission levels (2019), 7.8% reduction or 28.7 kt CO2e
- Overall accounts for 5.5% of Norfolk's emissions profile
- Norwich & South Norfolk have the highest proportion of emissions due to the larger concentrations of retail in their areas.
- Nationally six of district the areas benchmarking in bottom 50% of emitters in England with Norwich sit just above that.

NORFOLK CLIMATE CHANGE PARTNERSHIP

Public Sector Emissions

Position in the England: Public Sector Emissions				
Out of 309 Councils, 1 = lowest emitter 296 = highest emitter				
Local Authority	Rural Urban Classification 2011 (3 fold)	ktCo2e	England Ranking Public Sector Emissions	Percentile
King's Lynn and West Norfolk	Largely Rural	8.17	21	Lowest 10% of Emitters
Breckland	Mainly Rural	10.43	46	Lowest 20% of Emitters
North Norfolk	Mainly Rural	11.22	52	Lowest 20% of Emitters
Broadland	Urban with Significant Rural	11.77	56	Lowest 20% of Emitters
Great Yarmouth	Urban with Significant Rural	17.87	114	Lowest 40% of Emitters
South Norfolk	Mainly Rural	18.95	119	Lowest 40% of Emitters
Norwich	Urban with City and Town	43.42	230	Highest 30% of Emitters

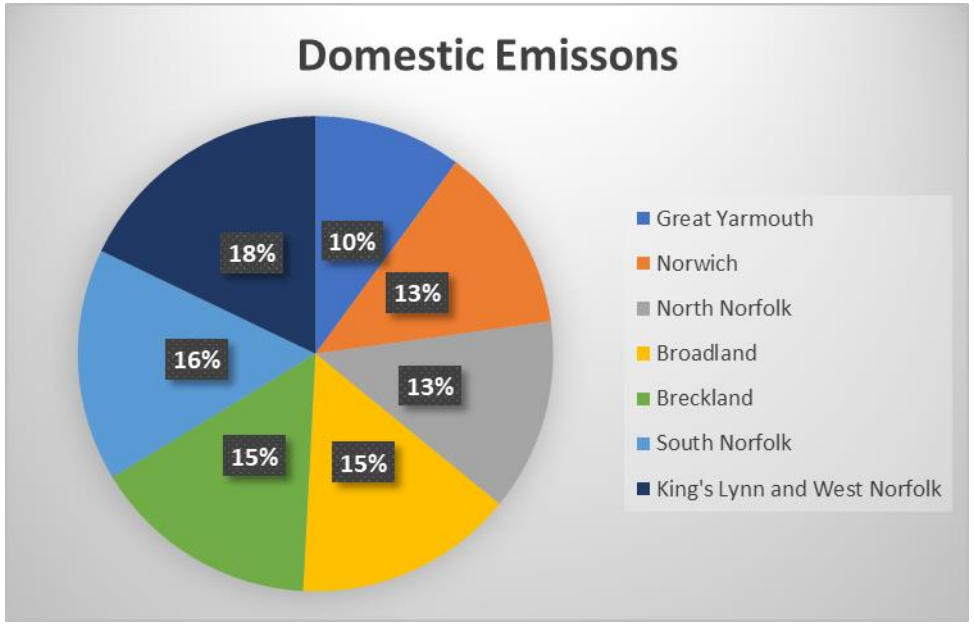


- Emissions have reduced by 2% or 12.3 kt CO2e compared to 2021.
- Levels are comparable to pre-pandemic emission levels (2019), 0.2% reduction or 0.3 kt CO2e
- Overall accounts for 2% of Norfolk's emissions profile
- Norwich accounts for just over a third of emissions it is hypothesised that this is this due to higher concentration of public sector buildings, e.g. councils, hospital, university
- Nationally six of district the areas benchmarking in bottom 50% of emitters in England with Norwich being the outlier in the top 30%

NORFOLK CLIMATE CHANGE PARTNERSHIP

Domestic Emissions

Position in the England: Domestic Emissions				
Out of 309 Councils, 1 = lowest emitter 296 = highest emitter				
Local Authority	Rural Urban Classification 2011 (3 fold)	ktCo2e	England Ranking Domestic Emissions	Percentile
Great Yarmouth	Urban with Significant Rural	119.93	40	Lowest 20% of Emitters
Norwich	Urban with City and Town	151.24	99	Lowest 40% of Emitters
North Norfolk	Mainly Rural	155.41	107	Lowest 40% of Emitters
Broadland	Urban with Significant Rural	177.49	133	Lowest 50% of Emitters
Breckland	Mainly Rural	183.65	140	Lowest 50% of Emitters
South Norfolk	Mainly Rural	188.32	150	Highest 50% of Emitters
King's Lynn and West Norfolk	Largely Rural	212.39	175	Highest 50% of Emitters

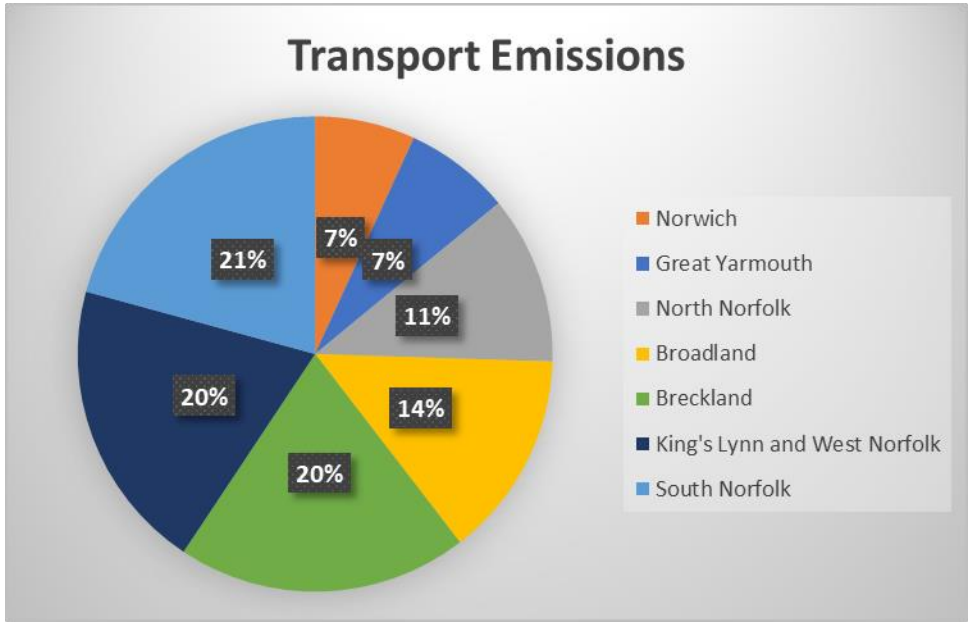


- Emissions have significantly reduced by 11.4% or 152.5 kt CO2e compared to 2021. This is before the cost-of-living crisis so is likely to be the impacts of grid decarbonisation
- Significantly lower than pre-pandemic emission levels (2019), 11.7% reduction or 157.1 kt CO2e
- Overall accounts for 19.4% of Norfolk's emissions profile
- South Norfolk, Breckland, Broadland & West Norfolk are larger contributors to county emissions profile, this likely because of a high concentration of off-gas communities
- Five of the district areas benchmark in bottom 50% of emitters in England with the remain just above that.

NORFOLK CLIMATE CHANGE PARTNERSHIP

Transport Emissions

Position in the England: Transport Emissions				
Out of 309 Councils, 1 = lowest emitter 296 = highest emitter				
Local Authority	Rural Urban Classification 2011 (3 fold)	ktCo2e	England Ranking Transport Emissions	Percentile
Norwich	Urban with City and Town	117.04	36	Lowest 20% of Emitters
Great Yarmouth	Urban with Significant Rural	124.20	43	Lowest 20% of Emitters
North Norfolk	Mainly Rural	196.40	92	Lowest 30% of Emitters
Broadland	Urban with Significant Rural	241.18	127	Lowest 50% of Emitters
Breckland	Mainly Rural	339.65	193	Highest 40% of Emitters
King's Lynn and West Norfolk	Largely Rural	341.41	196	Highest 40% of Emitters
South Norfolk	Mainly Rural	356.33	207	Highest 40% of Emitters



- Emissions have increased by 1.2% or 20.3 kt CO2e compared to 2021.
- Significantly lower than pre-pandemic emission levels (2019), 12.1% reduction or 236.8 kt CO2e
- Overall accounts for 21.2% of Norfolk's emissions profile
- South Norfolk, Breckland & West Norfolk are significantly larger contributors to county emissions profile this is likely due to the presence of the A11, A17, A47, A140
- South Norfolk, Breckland & West Norfolk are in the highest 40% of emitters in England for transport

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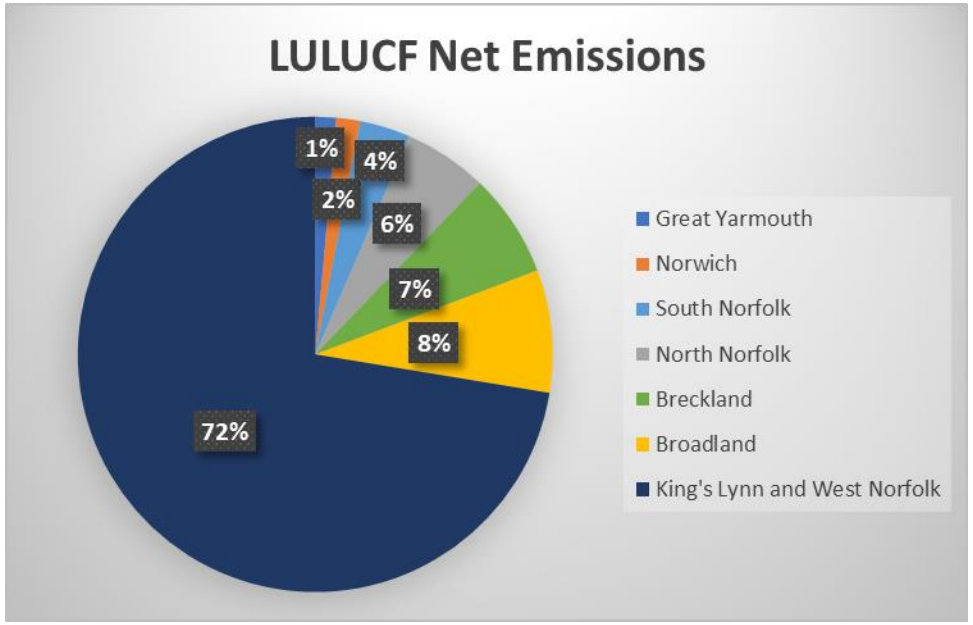
Land Use, Land Use Change & Forestry Emissions

Position in the England: LULUCF Emissions				
Out of 309 Councils, 1 = lowest emitter 296 = highest emitter				
Local Authority	Rural Urban Classification 2011 (3 fold)	ktCo2e	England Ranking LULUCF Emissions	Percentile
Great Yarmouth	Urban with Significant Rural	10.31	247	Highest 17% of Emitters
Norwich	Urban with City and Town	11.72	249	Highest 16% of Emitters
South Norfolk	Mainly Rural	24.94	256	Highest 14% of Emitters
North Norfolk	Mainly Rural	41.20	263	Highest 12% of Emitters
Breckland	Mainly Rural	51.05	268	Highest 10% of Emitters
Broadland	Urban with Significant Rural	60.28	270	Highest 9% of Emitters
King's Lynn and West Norfolk	Largely Rural	523.51	294	Highest 1% of Emitters



- Emissions have increased by 0.5% or 3.7 kt CO2e compared to 2021.
- Emissions have increased compared to pre-pandemic emission levels (2019), 4.6% increased or 15.2 kt CO2e
- Overall accounts for 11.8% of Norfolk's emissions profile
- King's Lynn significantly larger than all others & third highest in England
- Three of the district areas are in top 10% highest emitter in England and all are in top 17%
- National Land use framework has been delayed; UK Climate Change commission identified this as a concern

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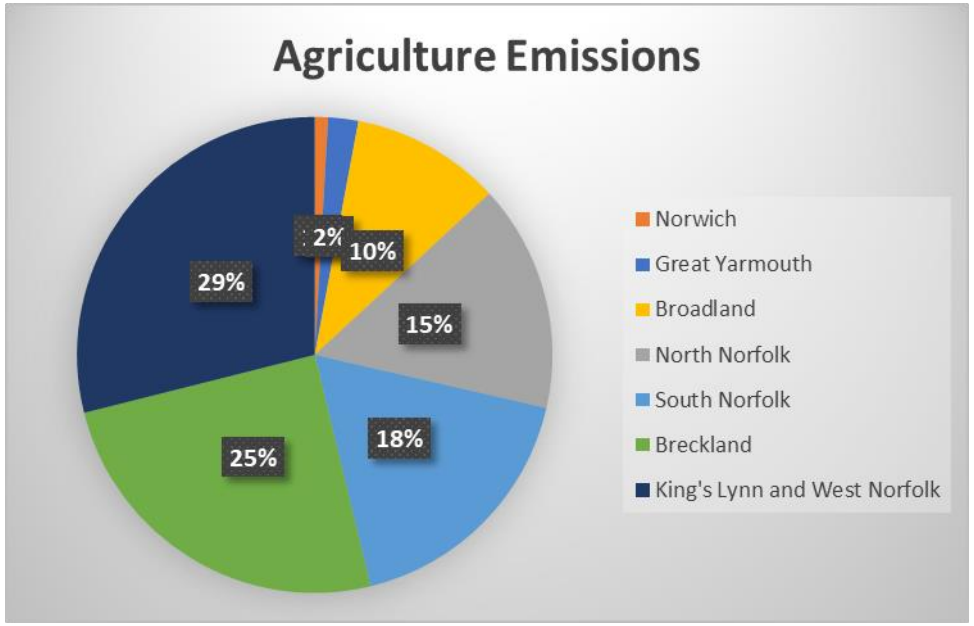
Agriculture Emissions

Position in the England: Agriculture Emissions				
Out of 309 Councils, 1 = lowest emitter 296 = highest emitter				
Local Authority	Rural Urban Classification 2011 (3 fold)	ktCo2e	England Ranking Agriculture Emissions	Percentile
Norwich	Urban with City and Town	11.78	113	Lowest 40% of Emitters
Great Yarmouth	Urban with Significant Rural	26.67	141	Lowest 50% of Emitters
Broadland	Urban with Significant Rural	132.67	238	Highest 20% of Emitters
North Norfolk	Mainly Rural	201.18	257	Highest 14% of Emitters
South Norfolk	Mainly Rural	229.60	262	Highest 11% of Emitters
Breckland	Mainly Rural	323.88	275	Highest 8% of Emitters
King's Lynn and West Norfolk	Largely Rural	376.59	280	Highest 6% of Emitters



- Emissions have decreased by 5.1% or 70.3 kt CO2e compared to 2021.
- Emissions have decreased compared to pre-pandemic emission levels (2019), 4.6% decrease or 63.5 kt CO2e
- Overall accounts for 21.2% of Norfolk's emissions profile,
- However, it is worth noting that combined with LULUCF emissions which is predominantly impacted by agriculture this would account for a third of all of Norfolk's emissions.
- Five districts in the top 20% of emitters in England, with Breckland and King's Lynn & West Norfolk being in the top 10% of emitters

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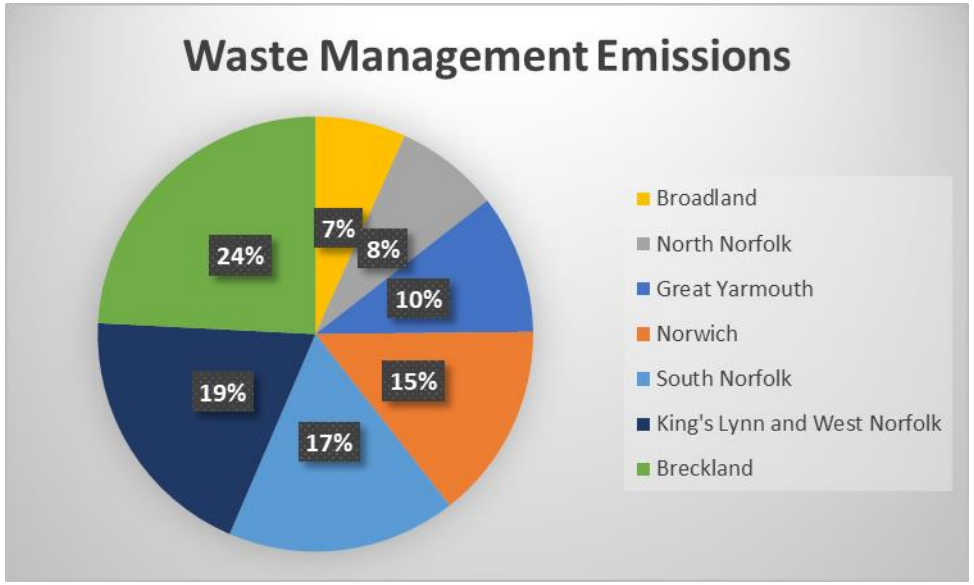
Waste Management Emissions

Position in the England: Waste Management Emissions				
Out of 309 Councils, 1 = lowest emitter 296 = highest emitter				
Local Authority	Rural Urban Classification 2011 (3 fold)	ktCo2e	England Ranking Waste Management Emissions	Percentile
Broadland	Urban with Significant Rural	15.14	54	Lowest 20% of Emitters
North Norfolk	Mainly Rural	17.44	67	Lowest 30% of Emitters
Great Yarmouth	Urban with Significant Rural	23.32	99	Lowest 40% of Emitters
Norwich	Urban with City and Town	32.81	128	Lowest 50% of Emitters
South Norfolk	Mainly Rural	38.33	148	Lowest 50% of Emitters
King's Lynn and West Norfolk	Largely Rural	43.56	179	Highest 40% of Emitters
Breckland	Mainly Rural	54.44	209	Highest 30% of Emitters



- Emissions have decreased by 6% or 12.7 kt CO2e compared to 2021.
- Significantly increased compared to pre-pandemic emission levels (2019), 23.8% reduction or 43.3 kt CO2e
- Overall accounts for 3.7% of Norfolk's emissions profile
- This is mainly relating to estimated methane emissions from waste going to landfill and attributed back to it source authority (taken from government returns) – this is not necessarily linked to local authority collections and can be attributed to private disposals.
- Five district areas in the lowest 50% of emitters in England with West Norfolk in the highest 40% and Breckland in the highest 30%.

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