5 Year Environment Plan Performance Overview

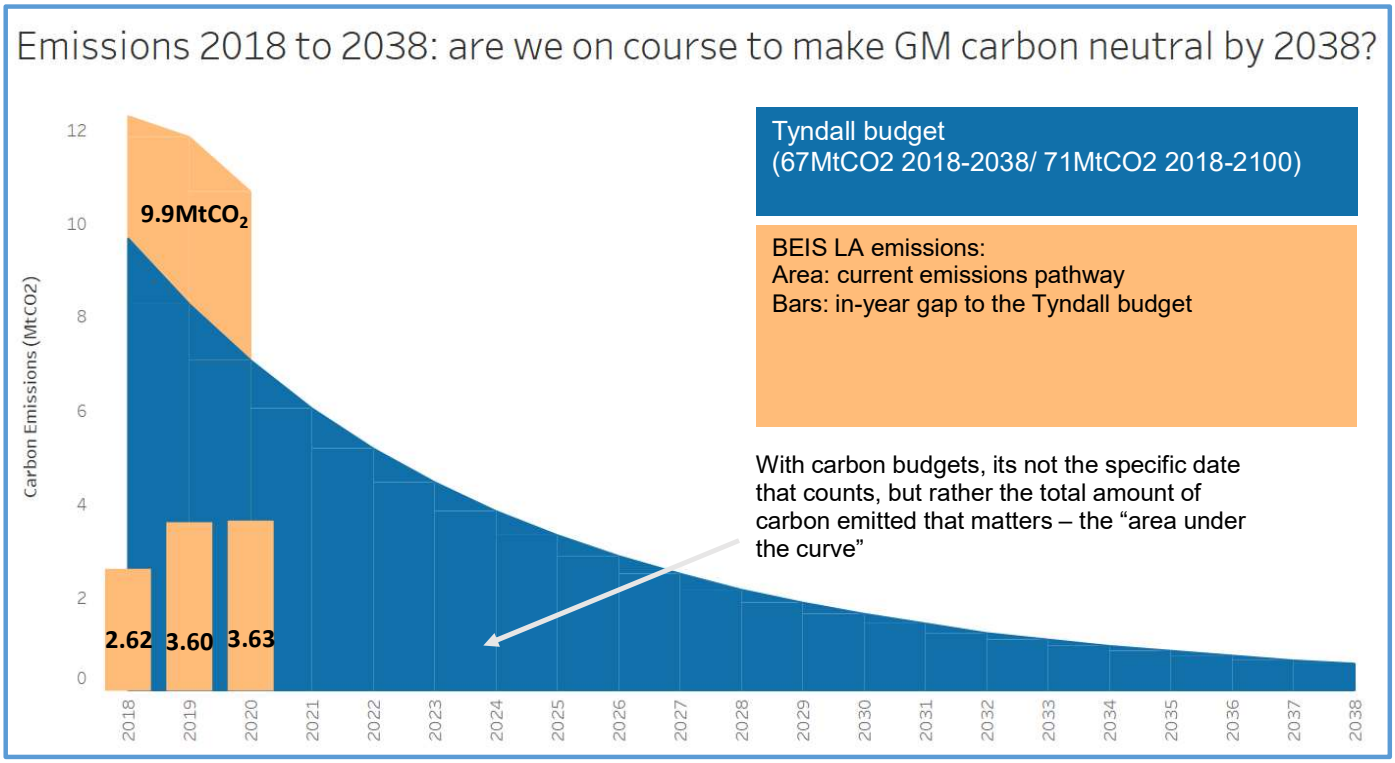
Priorities/KPIs			
Ref	**Priorities (2024)**	**Status**	
Energy	Add at least 45MW of local renewable energy by 2024	↑	Amber
	Additional 10TWh of low carbon heating by 2024	↑	Red
	Add at least a further 45MW of diverse and flexible load by 2024.	↑	Amber
Buildings	Retrofit 61,000 homes/year (target 305,000 by 2024, 887,000 in total)	↑	Red
	Build 30,000 net zero carbon social rented homes by 2038.	↑	Green
	Reduce heat demand from existing commercial and public buildings	↑	Amber
SCP	38% reduction in industrial emission by 2025.	↑	Green
	Limiting any increase in waste to 20%.	↓	Amber
	Achieve a recycling rate of 55% by 2024, and 65% by 2035.	↔	Red
Natural Env.	Managing our land sustainably, including planting 1m trees by 2024.	↑	Green
	Managing our water and its environment sustainably.	↓	Amber
	Achieving a net gain in biodiversity for new development.	↓	Amber
	Increasing investment into our natural environment.	↑	Green
	Number of volunteer hours	↑	Green
	Increasing our engagement with our natural environment.	↓	Amber
Transport	Reduce car use to no more than 50% of daily GM trips	↔	Green
	Support expansion to 200,000 EVs in city region by 2024	↑	Green

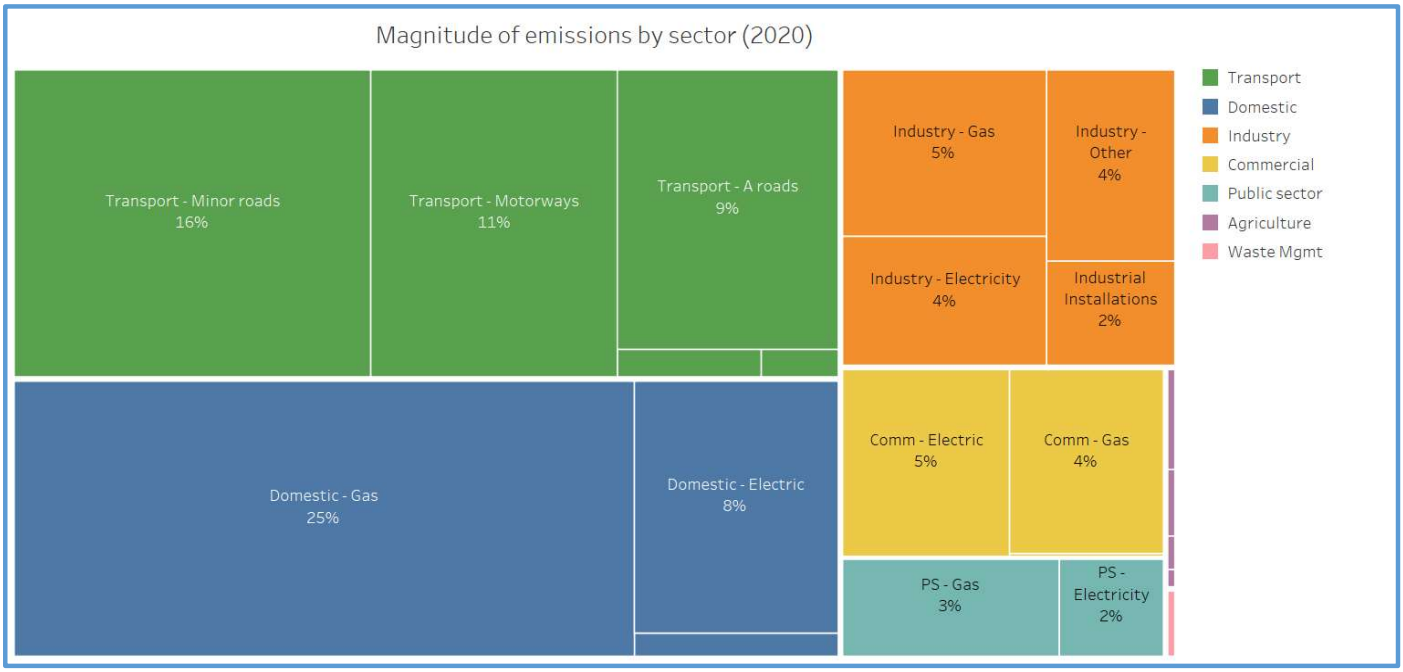
2038 Carbon Target	Costs	Resources	Overall Delivery	Risk
Red	Green	Green	Amber	Amber

Key Risks

Risk Event	Risk	Mitigation Plan	Post Risk
Failure of Environment Plan to achieve a step change in carbon emissions.	Red	Regular reporting to Greater Manchester Green City Region Partnership Board and WLT.	Amber
Level and depth of retrofit required to meet our overall ambitions is highly challenging.	Red	Focus on retrofit accelerator proposals as way of overcoming these barriers in a coordinated way.	Amber
Failure to meet recycling and diversion targets.	Red	New contract in place. Waste and Resource strategy to be developed.	Amber
Failure to add an additional 10TWh of low carbon heating by 2024	Red	Focus on acceleration of Retrofit including the launch of the 'Your Home Better' service, Octopus Heat Pump offer and DEEP project delivery.	Amber

The Mission: Carbon Neutral by 2038





To achieve the 2038 mission, the GM 5-Year Environment Plan outlines our 'fair' carbon budget contribution of 67 mega tonnes for 20 years (2018-2038). The critical focus is not exceeding our total budget (67MtCO$_2$).

Across 2018-2020*, GM's emissions are 9.9MtCO2 above the Tyndall budget, i.e. an additional 9.9MtCO$_2$ savings need to be made on top of the Tyndall budget. This gap has been increasing year on year.

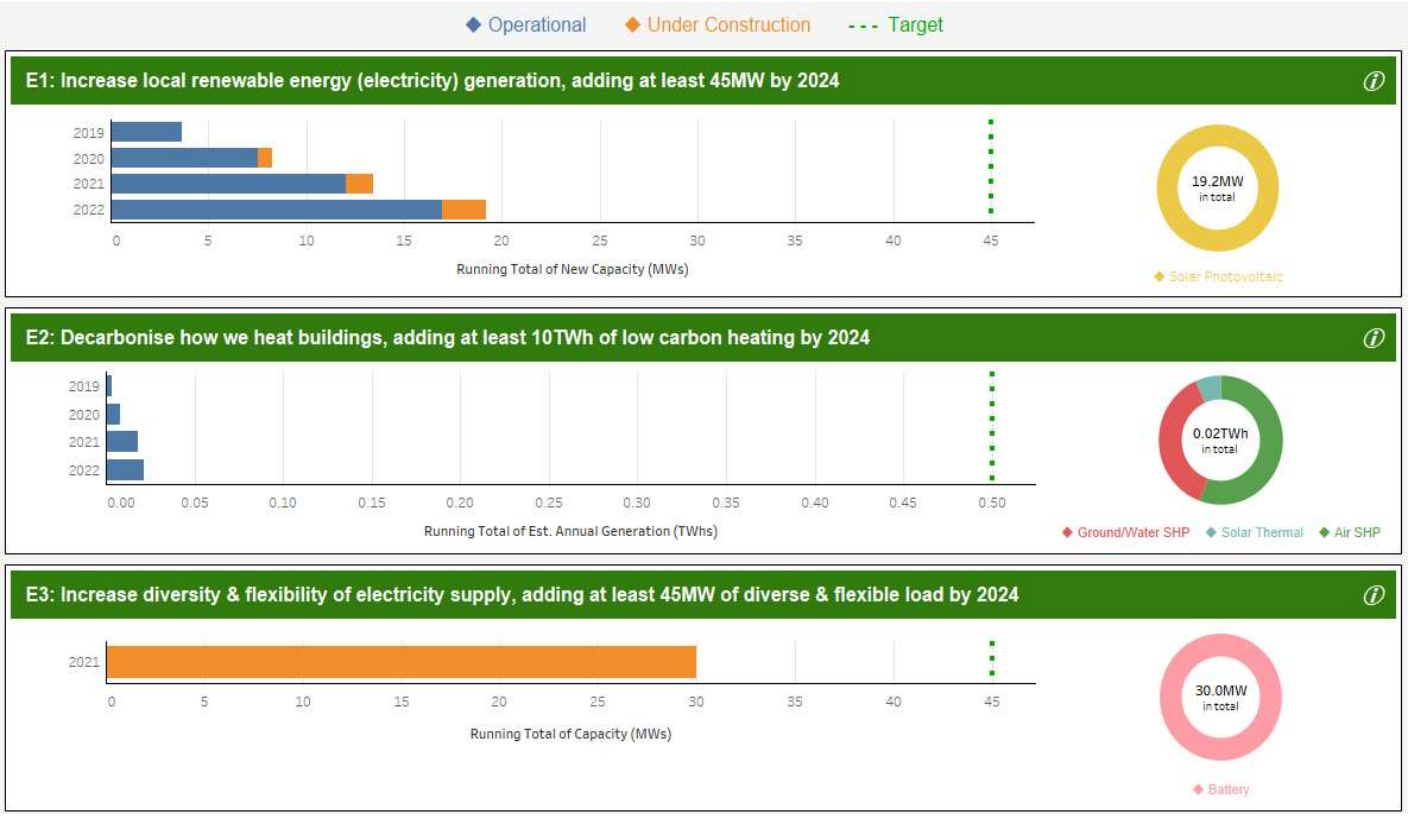
Key point is that significant cuts must happen now.

At our current (2020) rate of emissions, we will have exhausted our carbon budget within the next 4 years (2024).

*across 2015-2020 as previously reported, this is 12.9MtCO$_2$.

Energy

E1: Add at least 45MW of local renewable electricity by 2024
E2: Additional 10TWh of low carbon heating by 2024
E3: Add at least 45MW of diverse and flexible load by 2024



Progress

E1: Add at least 45MW of local renewable electricity by 2024
19.2MWs of local renewable electricity added since 2019 (including 2.3MW under construction), including:
- 15.8MW small scale solar PV (<50KW)
- 3.4MW large scale solar PV (>150KW)

The data above comes from two national data sources - the renewable planning energy database and the MCS installations database. There is a gap in visibility for installations between 50 and 150kWs: PSDS programme level data shows just under 7MW of additional capacity has been installed in GM that is not captured in the above data.

E2: Additional 10TWh of low carbon heating by 2024
0.02TWh of small scale low carbon heating added since 2019, including:
- 0.012TWh from air source heat pumps
- 0.008TWh from ground & water source heat pumps
- 0.001TWh from solar thermal

In addition, the Heat Network Planning Database reports that Middleton Arena has a heat pump with 0.45MW of capacity, while a further heat pump with 0.12MW capacity is under construction at Moss Side Leisure Centre.

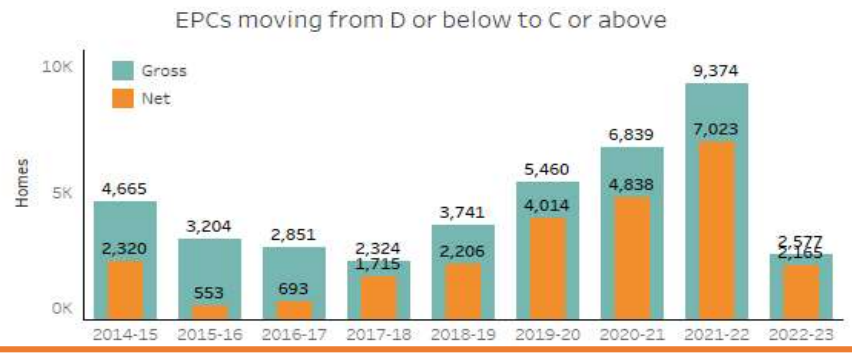
E3: Add at least 45MW of diverse and flexible load by 2024
30MW battery installation under construction at Moston Vale (10MW) and Rochdale (20MW).
The 49.9MW Liquid Air Energy storage which was previously classed as under construction at Carrington Power Station has been revised and a new application submitted; this is not currently classified as under construction or in operation and therefore is not reported in our numbers.

Progress being made with policy work, e.g. Retrofit Accelerator, Go Neutral, PSDS.

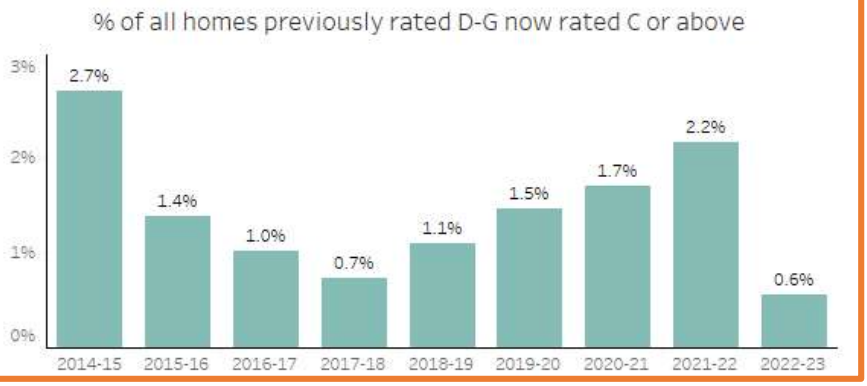
Buildings

B1: Retrofit 61,000 homes per year, achieving 57% reduction in heat loss
B2: Reduce heat demand from existing commercial and public buildings by 10% by 2025
B3: Reduce heat demand in new buildings

B1: Retrofit 61,000 homes per year (305,000 by 2024)

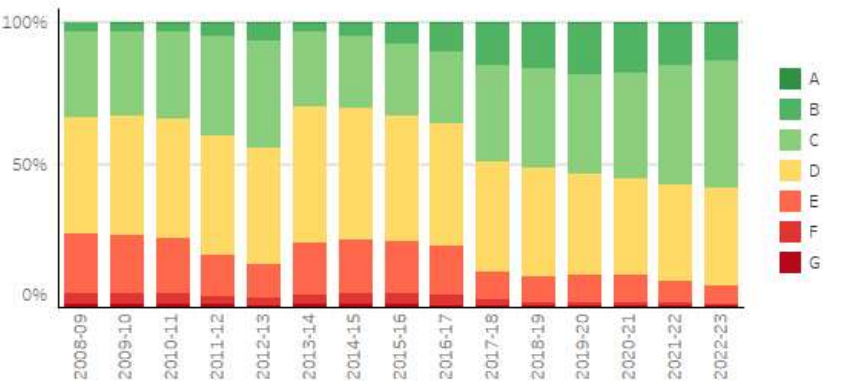


What proportion of inefficient homes are we improving each year?



Proportion of EPC certificates in each band (running total)

Proportion of EPC certificates in each band (registered in that year)



Progress (B1)

EPC data provides a proxy measure for retrofit of homes. EPC grades are a measure of energy affordability and is affected by heating fuel.

- EPC data only known where property requires updated certificate (required at point of sale of rent, and valid for 10 years) → EPC data will be an underestimation of progress.

36,636 EPCs were updated in 2021/22.

- Of these, **9,374** recorded a change to EPC grade C or better (2,351 also moved backwards from C+ to D-).

Since 2019, **18,040** properties have recorded a net improvement form EPC D or below, to C or above.

- In the first quarter of 22/23, **2,165** EPCs had a net improvement from D or below to C or above.

Based on the limited view EPC provides, **2.2%** of GM's inefficient homes (EPC D-G) were made efficient (A-C) in 21/22. After one quarter of 22/23, it looks like a similar rate of improvement is being maintained (~2.4%pa).

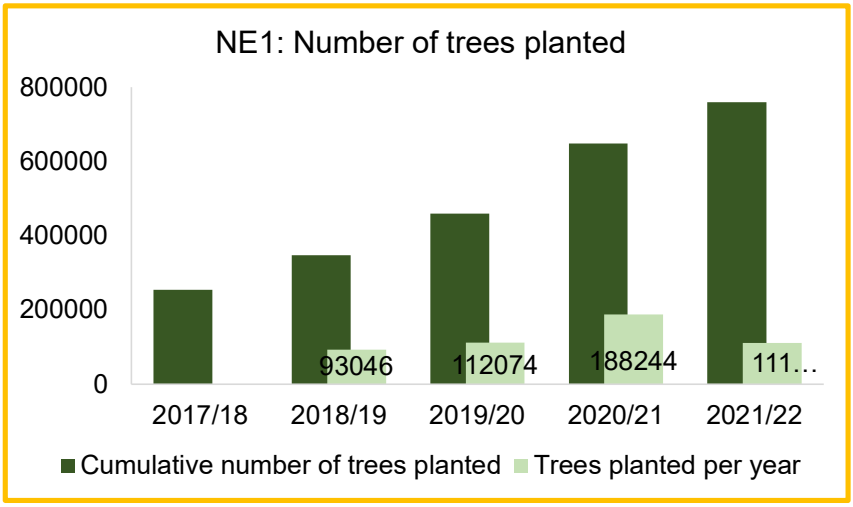
40% of GM's homes with an EPC are still rated D or lower, though this is slowly improving. The majority of EPCs newly registered each year are rated B or C (as has been increasingly the case since 2018-19), but there remains a slowly shrinking supply of D-G EPCs also registered.

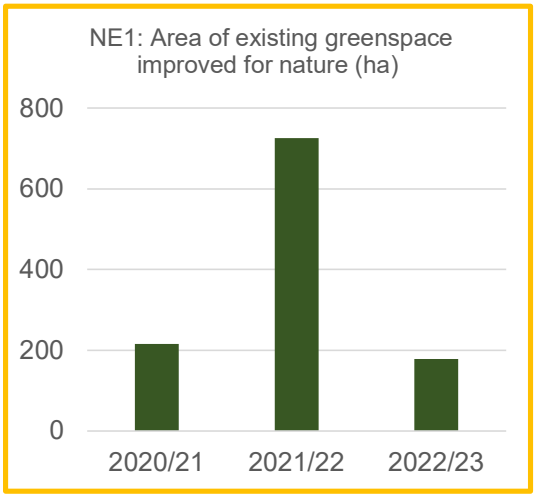
Progress (B2 and B3)

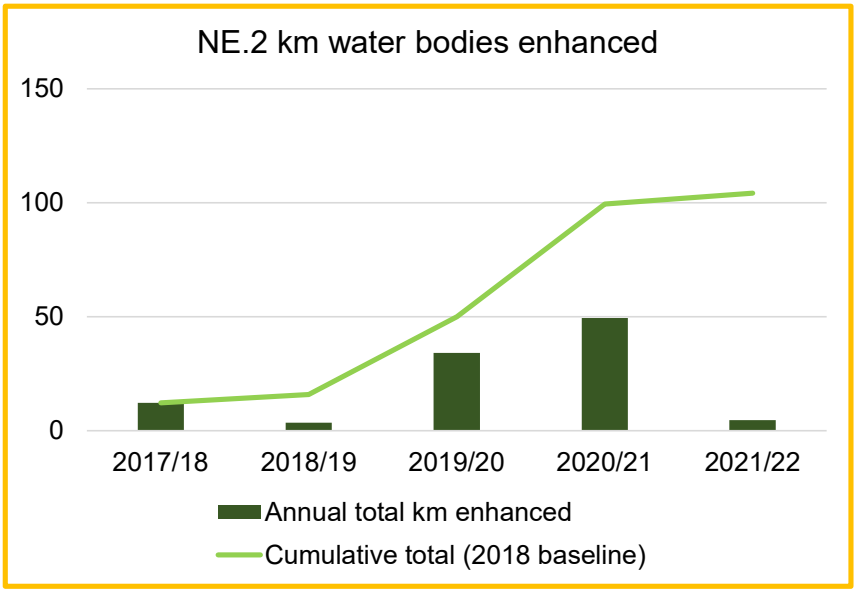
We are still identifying the best measure to report against a reduction in heat demand in public/commercial buildings (B2) and new builds (B3). Progress is being made through PSDS projects for public sector buildings.

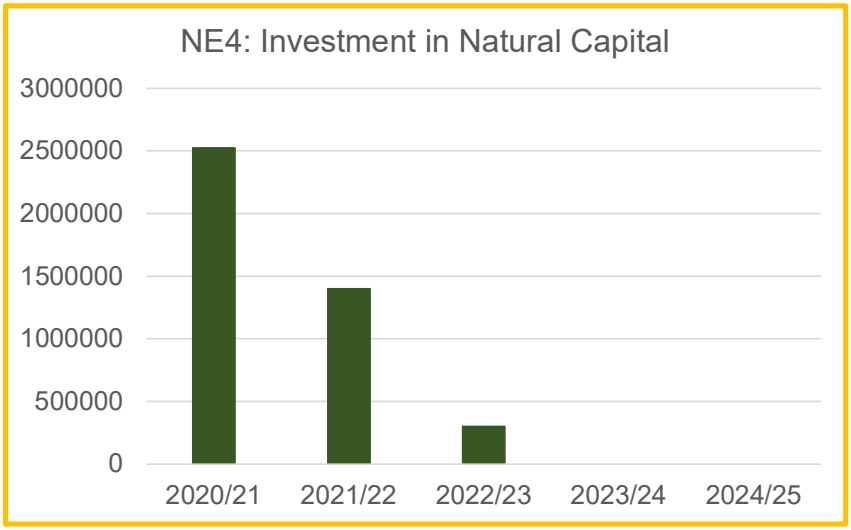
Natural Capital

NE1: Plant one million trees by 2024 and manage land sustainably
NE2: Sustainable water management
NE3: Net gain in biodiversity for new developments
NE4: Increasing investment in our natural environment
NE5: Increasing engagement with our natural environment









Progress

NE1:

- 76% progress made towards 2024 target of 1million trees planted (759,856 trees planted).
- 12% of GM Parks achieved green flag status in 2022/23 (compared to 16% in 2017/18).
- Over 1100ha of existing greenspace improved for nature since 2019.

NE2:

- 24% progress made towards 2024 target of 542km waterways enhanced.

NE4:

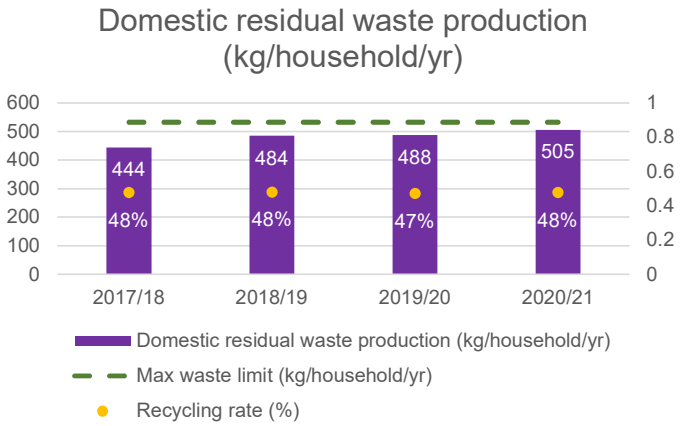
- £2,523,016 of funding secured in 2020/21. £1,400,000 secured to date for 2021/22.

NE5:

- 95,243 volunteer hours spent in nature from 2018/19 to date, with 20,396 individual volunteers.

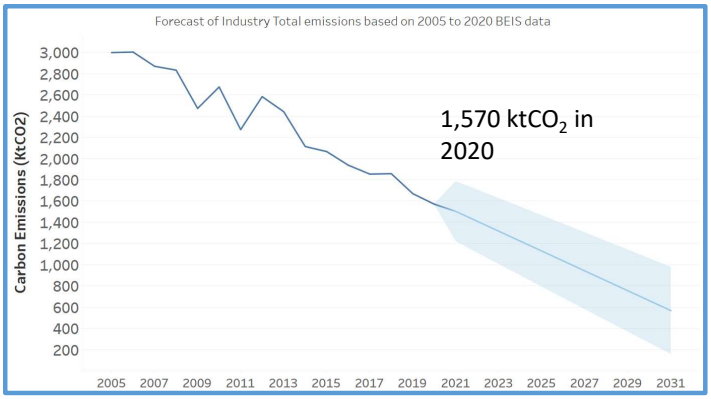
Sustainable Consumption and Production

SCP1: 38% reduction in industrial emissions by 2025
SCP2: Limit any increased waste to 20%
SCP3: 55% recycling rate by 2024 and 65% by 2035
SCP4: Reduce unnecessary food waste



Progress

- 61kg increase in domestic waste per household since 2017/18.
  - Target is to limit growth to 20% maximum (to 532kg) by 2024
  - Rate is now 27kg beneath this maximum waste limit.
- Recycling rate has remained static at 47-48%.



Progress

1,570ktCO$_2$ industrial emissions in 2020.

- 38% reduction (from 2018 levels) to 2025 would be **1,152** ktCO2.
- This projects a forecast in 2025 to be 1,128 ktCO2. At this rate GM will achieve its target to reduce industrial emissions by 38%.

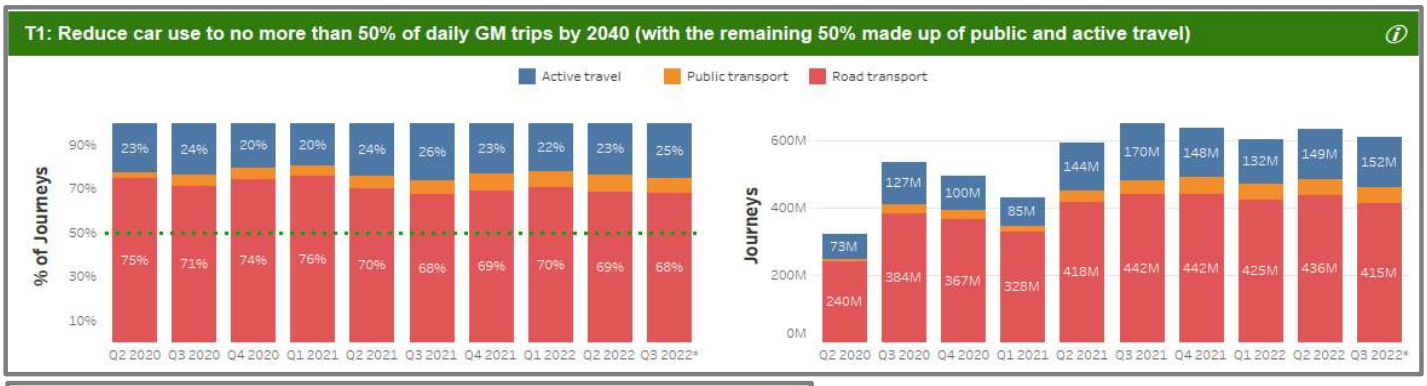
Industrial emissions fuel breakdown (2020):

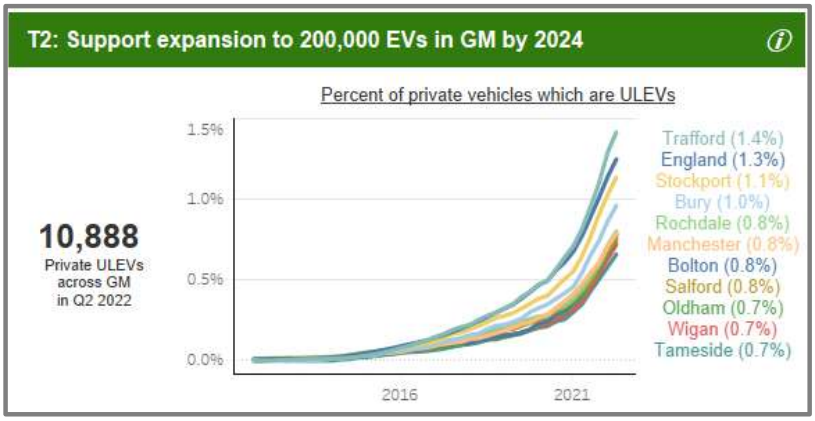
- 34.6% gas
- 26.9% electricity
- 24.8% 'other' fuels
- 13.8% 'large industrial installations

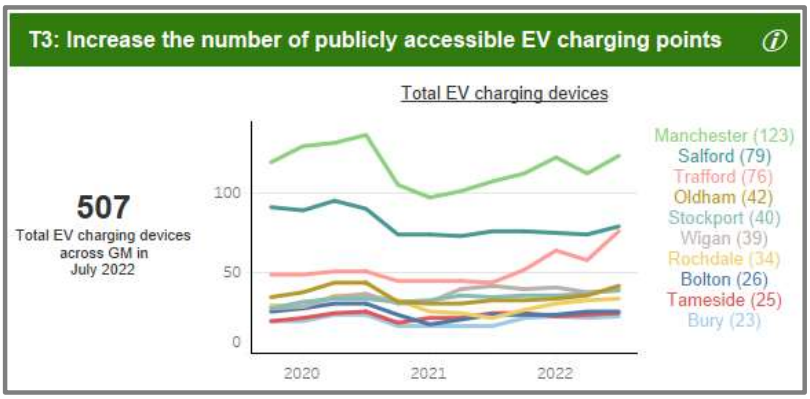
Increasing levels of grid decarbonisation means that the future rate of reduction in industrial emissions may slow.

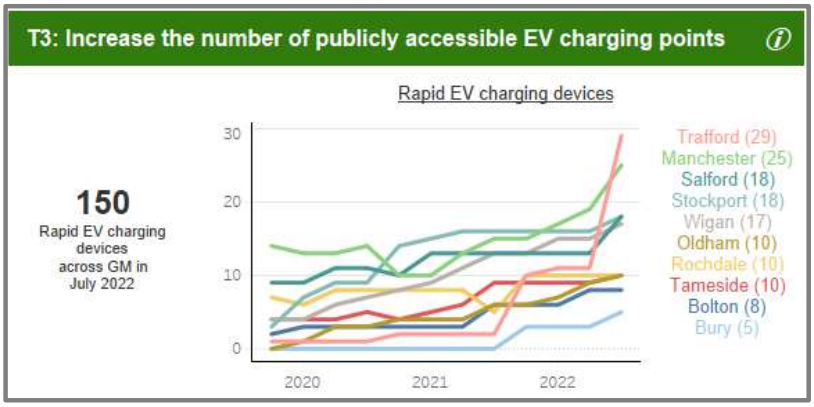
Transport

T1: Reduce car use to no more than 50% of daily GM trips, by 2040 (remaining 50% to be public, or active travel)
T2/T3: Support expansion to 200,000 EVs in city region by 2024.
T4: 100% of all busses to be zero emissions (at tailpipe) by 2035
T5: Decarbonising freight transport and shifting freight to rail and water transport









T1: N.B Q3 2022 data as shown only includes data up to 25th September (not the full quarter). Journey numbers are an estimate based on ticketing and sensor data.

Progress

- 10,888 privately owned EVs within GM. (EV ownership greater in more affluent areas)
- 507 publicly available charging points (Jan 2022). 150 are rapid chargers (25kW or above).
- 9,776 charging points installed in GM homes as a result of an EVHS grant since the start of 2019.

Increase the use of public transport and active travel modes

- Over 460 bikes now in operation across 41 hire stations (up from 220, June 2022).

Increase the number of zero emissions buses

- Order placed for 50 ZEB for Tranche 1 Wigan and Bolton.

Tackling the most polluting vehicles on the road

- In Q2 2022, 23 non-compliant HGVs retrofitted, and 13 non-compliant buses retrofitted.

EV charging Network to support 200,000 vehicles

- 280 publicly owned EV connectors, 826 publicly accessible EV connectors in GM (via ZapMap).
- 71 additional connectors installed in 22/23 (against target of 200 for the year).