

GROUNDWORK GREATER MANCHESTER



Carbon Reduction Plan

Vision

We have a vision of a greener, fairer and stronger future for all people, communities and places in Greater Manchester. We will create solutions that put power in local hands, create skills and jobs for a greener economy and deliver greenspaces for nature, for climate and for everyone. To be true to this vision and to uphold our values we recognise the need to reduce our own Green House Gas emissions, and to achieve net zero in our operations by 2050 at the latest, in line with UK targets.

We are fortunate to operate in a City Region that is seeking to localise power, working in partnership to develop greener economies and build greener places, and finding innovative solutions to tackle social and economic inequalities. We support the GM ambition to achieve net zero by 2038 and will seek to use every opportunity to accelerate own plans, where this lies within our control, in order to achieve this target.

We will be bold and collaborative on our journey to net zero, embracing new technologies, adapting our ways of working and harnessing our creativity to help us get there. However, this plan excludes highest risk opportunities in favour of deliverable realistic targets. Maintaining our presence at key environmental forums in GM will continue to be a priority for us, and we will proactively seek out opportunities to expediate our route to net zero wherever possible. At each annual review we will consider whether our reduction targets can be moved forward.

Aim

The aim of this document is to confirm our commitment to reducing carbon emissions to achieve Net Zero emissions by 2050, and to outline our plan for achieving interim targets for this pathway.

We have committed to reach net zero by the government's current target of 2050. Following staff consultation and evaluation of our current operations and associated emissions, we have set the following interim targets for this pathway:

1. To reduce our baseline scope 1 and 2 emissions by 51% by March 2030
2. To reduce our baseline scope 3 emissions by 28% by March 2030
3. To reduce our baseline scope 3 emissions by 51% by March 2035

This plan was approved by our Board of Trustees in April 2023.



Deborah Murray
Executive Director
Groundwork Greater Manchester



Tina Cunliffe
Chair, Board of Trustees
Groundwork Greater Manchester

1 Context

The climate emergency is increasingly important to our staff, and the need to play our part in addressing it is intrinsically linked to our organisational value of being environmentally responsible. As a leading environmental organisation in Greater Manchester which is providing net zero consultancy services to others we recognise the need to lead by example in this field.

Our carbon reduction plan will require ongoing monitoring, review and flexibility to ensure that it provides an effective pathway to net zero. We have scheduled major reviews in 2027 and 2030, alongside half-yearly progress reviews.

Implementation of this plan is highly dependent on external market factors which are difficult to predict or plan for with any certainty in the medium-term. Sustainability and technological advances for the vehicle industry and in our homes will have a significant impact and our plan relies heavily on transitioning our fleet to EV but the market is currently facing ongoing shortages in the supply chain. Funding was announced in the March 2023 government budget to support charities with energy efficiency and sustainability, but there are insufficient details at present to incorporate any such support into our plans.

Our business model for most of our non-land-based programmes is designed around bringing our services to our beneficiaries in their homes and communities. Our strategy for 2023-26 is focused on delivering services where they are needed most, and in order to do that, many of our team are continually on the move throughout Greater Manchester, engaging with our communities. Currently most of this travel is by private car; consideration has been given to operating a fleet of pool EV for this purpose but this is currently neither cost-effective nor practical from a delivery perspective.

Carbon emissions from waste and fleet use by our land-based teams are significant and account for over half of our total emissions. We plan to gradually transition to EV, as mentioned above, and are already implementing a plan which will see a significant reduction in emissions from waste in the coming year.

Over recent years we have become increasingly carbon-aware as an organisation, and achieved Carbon Literate Gold organisation status during 2022. The majority of our team has been trained in Carbon Literacy and our aim is to provide this training for every member of staff and all

learners on longer programmes. As well as adding the first EV to our fleet during 2021, we have begun to invest in electric hand tools. Individual teams have developed team action plans to reduce their carbon footprint; actions taken include changing stock ordering for the energyworks team to reduce packaging and changing waste handling systems in the fencing and landscaping team to reduce journeys associated with waste disposal.

We have also invested in improving the energy efficiency of our buildings. We have upgraded half of the lighting at Birchcroft to LED and have secured a grant towards upgrading the remaining lighting during 2023. A shower was installed at Birchcroft in 2022 to encourage cycling to work. In 2023 we plan to upgrade the boiler at Birchcroft and to insulate the annexe roof space. Also in 2022, we installed new glazing at The Ecology Park, having previously installed solar PV at the Meeting Place in 2020.

2 What is Net Zero?

Net zero means balancing greenhouse gas emissions from our activities with things that remove them. Climate scientists say we must reach net zero before 2050 to avoid the worst impacts of climate change, with the first target being a halving of actual greenhouse gas emissions by 2030. A robust net zero approach focuses on immediate actions, includes all scopes and achieves at least 90% reduction in emissions by 2050, offsetting only these residual 10% emissions.

3 What does it mean for us?

Our footprint in 2022/23 is 123 tCO₂e scope 1 and 2 emissions and 110 tCO₂e scope 3 emissions, which is a total of 233 tCO₂e.

Scope	Activity	tCO ₂ e
Scope 1 & 2	Trust-owned vehicles	107
	Gas	7
	Electricity	6
	Mobile machinery	4
Scope 3	Employee business mileage	24
	Waste	26
	T&D electricity	0.2
	Water treatment & supply	0.5
	Commuting	53
	Working from home	7

Our 2021/22 footprint was 104 tCO₂e scope 1 and 2 and 125 tCO₂e scope 3 emissions, which is a total of 229 tCO₂e.

We have taken the decision to use 2022/23 as the baseline year for our carbon reduction target, as this is the first full year of normal delivery unaffected by Covid-19 since the merger. In addition, our emissions calculations for business travel, waste, commuting and homeworking are more accurate than in previous years.

We monitor our scope 3 emissions for commuting, business mileage, water and waste, and will continue to do so, but we currently cannot report on the full range of scope 3 emissions, nor do we expect to have the resource to do so within the foreseeable future (certainly not before 2030). Therefore for our reporting we consider scope 1 and 2 together and consider those elements of scope 3 separately.

79% of our emissions relate to transport, with the biggest contributor being our fleet, which accounts for 46% of our total emissions, and commuting contributing 23% of our total. 11% of our total emissions relate to waste and almost all of this is project waste.

It is important to note that over recent years, against the backdrop of increased staff awareness and initiatives to reduce our carbon emissions mentioned above, we have seen a steady and significant increase in transport-related emissions. Of this, emissions from our vehicle fleet is by far the largest and also the most rapidly increasing, which reflects the increase in size and geographical coverage of our land-based teams. Alongside the planned gradual transition to EV in our plan we have factored in a continued increase in emissions from our fleet, albeit more modest, in recognition that this is currently inherent in our business model. Emissions from staff business mileage have also gradually and significantly increased, which reflects the growth in our energyworks and employment teams in particular. Our plan aims to prevent further increase in emissions but does not see any reduction for several years. Maintaining these current levels and limiting the increase in fleet-related emissions will take a concerted effort and should not be interpreted as a lack of action or commitment.

Compared with previous carbon footprint calculations there has also been a significant increase in emissions linked to waste and whilst this too reflects the increased size of our land-based teams, it should be noted that some of the increase in this area can be attributed to improved reporting.

By 2050 we need to have reduced our carbon emissions by at least 90%, which equates to a reduction of 210 tCO₂e. We would then try to offset the residual 10% or 23 tCO₂e.

In order to ensure we are on track to achieve this reduction, we have set out detailed plans for reducing scope 1 and 2 emissions by 51% during the period 2023-2030, and for reducing scope 3 emissions by 51% during the period 2023-2035.

4 Our initial pathway to reduction

Table 1 and 2 provide an overview of actions taken to achieve our initial reduction targets.

- Fleet upgrade to EV is the single biggest contributor to reduced emissions. It is difficult at present to accurately predict the availability or cost of larger, tipper truck vehicles in the near future but we have made estimations based on current information. Most fleet upgrades are planned to align with anticipated new contracts and costs will be incorporated into contract bids.
- Initial vehicle upgrades are for small vans but from 2024/25 we hope to begin to upgrade some vehicles in our fleet of tipper trucks. Upgrading the smaller vehicles is more expensive for us, as we own the current vehicles and costs have been fully depreciated. The new EV will be secured on a lease basis and so the annual lease costs are in effect a new cost not previously borne, although some cost would have been incurred anyway as these vehicles are due to be replaced around the planned upgrade dates. Upgrades to the large trucks have a relatively lower cost as new EV replace vehicles currently leased.
- For the first two years of the scope 1 and 2 plan we have factored in a 5% increase in fleet fuel each year. This reflects the likely continued growth in our land-based teams and our current delivery model. We do not anticipate a reduction in fleet fuel until 2026/27 and from that year we anticipate modest annual reductions in fuel.
- Our premises emissions will reduce significantly in 2023/24 due to the swap to 100% renewable electricity at Birchcroft and The Ecology Park and a new boiler and upgrade to LED lighting at Birchcroft. Utilities emissions at Hamer Vale until 2028/29 have been assumed to remain at or slightly lower than current levels. This is in recognition that the building is expected to have higher occupancy aligning with our growth plans for green skills. However, increased efficiency should enable usage to remain static.

- We invested in a suite of new electric hand tools in 2022/23, which should see emissions associated with petrol tools reduce by around one-third in 2023/24. We plan to gradually increase use of electric tools as manufacturing improvements increase battery life, resulting in phasing out of petrol hand tools by 2030.
- Plans have been drawn up to recycle our own hardcore waste in the yard at Birchcroft. If the planning application is successful, work will be taking place during 2023/24 and this is expected to result in a 25% reduction in waste emissions in that year, followed by a further 10% reduction the following year as the system embeds. Thereafter there will be a gradual reduction year-on-year.
- Employee business mileage is expected to remain at current levels until 2026/27. Given our business model, we recognise that to avoid an increase the staff team will need to change working habits and prioritise more sustainable travel and journey planning. The reduction in emissions related to business mileage from 2026/27 is a gradual pathway of modest decreases and reflects an anticipated increase in staff EV ownership over the following years.
- Emissions relating to commuting and homeworking are also expected to remain at current levels until 2026/27, and from then to gradually decrease, as staff ownership of private EV increases and homes become more efficient. Staff wellbeing is a priority focus area for us at present and we are aware that our teams value meaningful connection with their colleagues and want more of this; we are currently trialling different ways of facilitating this, but we recognise that most solutions involve travel to the workplace.

5 Costs

Reducing our carbon emissions requires significant investment in resources and we have recorded the key investments below, along with the associated carbon emissions saved.

Period	Item	Cost	One-off or Annual	tCO ₂ e saving
2023/24	Swap to renewable electricity tariff at owned premises	£2,000	Annual	7.1t
	Vehicle upgrades to EV – 2 x small vans	£8,000	Annual	3.5t
	Installation of mobile crushing unit at Birchcroft	£8,000	One-off	8.5t
	Purchase of electric hand tools and battery packs	£500	One-off	1.3t
	Insulation of roof in the annexe at Birchcroft	£1,200	One-off	0.3t
	Lighting upgrade to LED at Birchcroft	£2,000	One-off	0.3t
	New boiler at Birchcroft	£5,000	One-off	0.2t
	Installation of EV charging station at Hamer Vale	£4,000	One-off	-
2024/25	Vehicle upgrades to EV – 3 x tipper truck, 1 x small van	£7,600	Annual	21.4t
	Installation of EV charging station at Birchcroft	£7,000	One-off	-
	Purchase of electric hand tools and battery packs	£500	One-off	0.71t
2025/26	Vehicle upgrades to EV – 5 x tipper truck, 1 x small van	£10,000	Annual	31.6t
	Installation of EV charging station at the Ecology Park	£7,000	One-off	-
2026/27	Purchase of electric hand tools and battery packs	£1,000	One-off	0.9t
2028/29	Vehicle upgrade to EV – 1 x minibus	£6,000	Annual	1.4t
	Purchase of electric hand tools and battery packs	£500	One-off	0.51t
2029/30	Swap to renewable electricity tariff at leased premises	£125	Annual	1.5t
2023-2030	TOTAL	£214,425		78.92t

Table 1



Note that % reductions refer to reduction in tCO₂e emissions associated with the activity.

Reporting is on a financial year basis, so 2022 above covers the period April 2022 until March 2023 etc

Table 2



Note that % reductions refer to reduction in tCO₂e emissions associated with the activity.

Reporting is on a financial year basis, so 2022 above covers the period April 2022 until March 2023 etc

6 Risks

As mentioned above, our plans are dependent on external market factors that are outside of our control. We are aware that success of our plan will require careful monitoring of risks and we have recorded key risks below.

Risk	Impact	tCO2e impact	Mitigation
EV not available to hire	Proposed upgrades do not go ahead / are delayed, as below	As below	Monitor situation and communicate with lease companies well in advance.
Land-based teams' bidding activity unsuccessful / secured contracts insufficient to cover cost of upgrade to EV	Proposed upgrades do not go ahead / are delayed: 2 small vans 2023/24 3 tipper trucks 2024/25 5 tipper trucks 2025/26	Total p/a: 3.5t 19.9t 30.4t	Review upgrade plans, consider reducing scale / upgrading over longer period. Seek grant funding to supplement contract funding. Seek board permission for cost contribution from reserves.
Other teams cannot fund their planned upgrades to EV	Proposed upgrades do not go ahead / are delayed: 1 small van 2024/25 1 small van 2025/26 1 minibus 2028/29	Total p/a: 1.5t 1.2t 1.4t	As above. Consider lease of minibus & one small van when needed instead of long-term hire.
The trust cannot fund the cost of EV charging stations at all offices	Proposed upgrades not viable without on-site charging facilities	See above	Seek grant funding for EV charging stations. Seek board permission for expenditure from reserves on EV charging stations.
Increased commuting arising from delivery model and staff desire to spend more face to face time with colleagues	Planned reduction in commuting is not realised – related emissions may even increase	Impact if reduction not realised: 5.2t 2026/27 2.3t 2027/28 2.2t 2028/29 2.1t 2029/30	Review current delivery model. Review how colleague face to face time is facilitated. Consider use of EV salary sacrifice scheme for staff.
Project delivery expands across bigger geographical area	Planned reduction in fleet fuel use is not realised – related emissions may even increase Planned reduction in employee business mileage reduction is not realised – related emissions may even increase	Impact if reduction not realised: 3t 2026/27 1.2t 2027/28 1.1t 2028/29 Impact if reduction not realised: 2.3t 2026/27 1t 2027/28 1t 2028/29 1.9t 2029/30	Evaluate geographical spread and consider leasing office / depot space or hotdesking with partners etc in other areas if needed. Review current delivery model.

7 Our pathway to 100% reduction by 2050

Our initial focus is on achieving the most important initial 50% reduction in carbon emissions. A full review will take place in 2027 and again in 2030, to ensure that these initial reduction plans are sufficiently robust and if necessary to amend them to keep on track or to reflect new opportunities that might arise for more rapid reduction targets to be adopted.

In 2030 a new plan will need to be put in place to reduce scope 1 and 2 emissions by a further 39%, and at this point further elements of scope 3 might be incorporated, or built into future plans. It is likely that plans at this stage will include installation of solar PV panels at Birchcroft and / or The Ecology Park and installation of a new heating system at The Ecology Park.

By 2035 at the latest another full review will be required, to plan reduction of scope 3 emissions by at least 39% by 2050. During this review we would begin to formally look at the carbon offsetting options available to us. The requirement for net zero is to only offset residual emissions at target date and for no more than 10% of our footprint.