

Greenhouse Gas Emissions Inventory and Annual Streamlined Energy & Carbon Report

Hillside Environmental Services
Year 2020



HILLSIDE



environmental services

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1. Environment

We are committed to reducing our operations' environmental impact by improving our energy efficiency, reducing our natural resources consumption, and managing our waste to progressively decrease our carbon emissions.

In 2007 we planted 7,200 broadleaf trees and converted 3.2 hectares of arable land to natural woodland. This project has continued to thrive, improving biodiversity and establishing a natural habitat for wildlife to flourish and sequestering carbon from the atmosphere to offset our carbon footprint. ([ref Forestry Commission report "Forests, Carbon and Climate Change: the UK Contribution"](#))

During 2020 the technologies installed in 2019 to electrify our building energy requirements and converted our grid supply arrangements to 100% green energy continued to perform well, establishing our energy-related emission at net-zero.

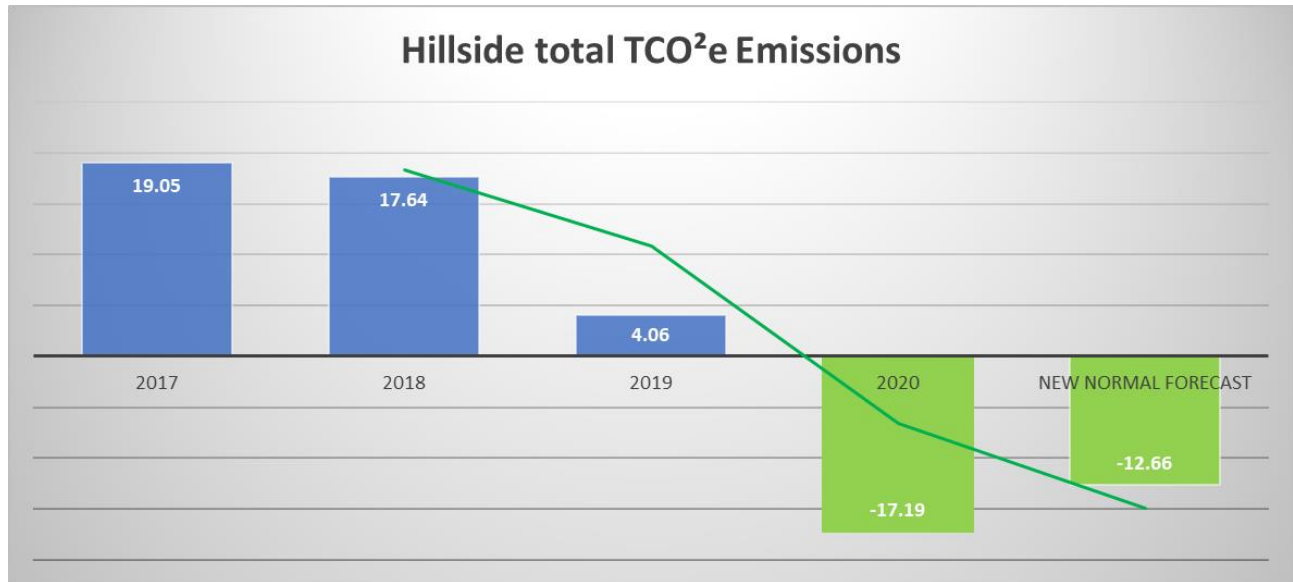
The main channel of operational emissions is now transport-related. As the business moves to a "**new normal**" post lockdown, we will focus on changes to transport habits and methods to reduce our environmental impacts further.



2. Carbon emissions

During 2020 our net emissions of CO₂e were **-17.19 TCO₂e** - a 190% reduction over the 2017 baseline.

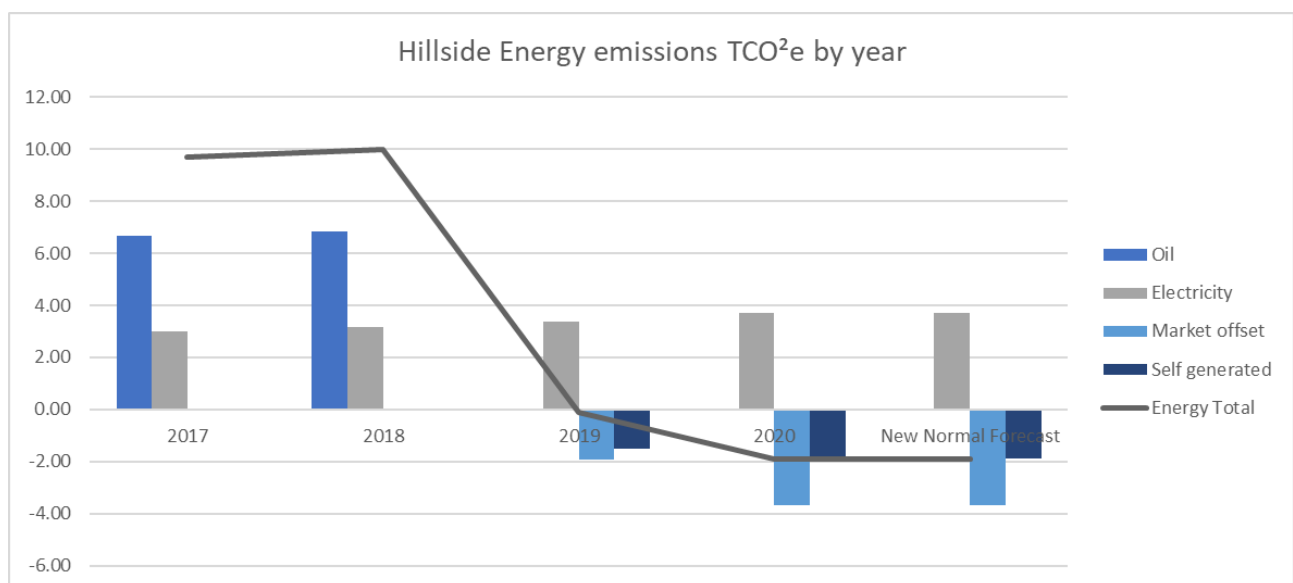
While the pandemic's impacts on transport were a significant factor in achieving this result, the



ongoing improvement in energy efficiency was equally impactful.

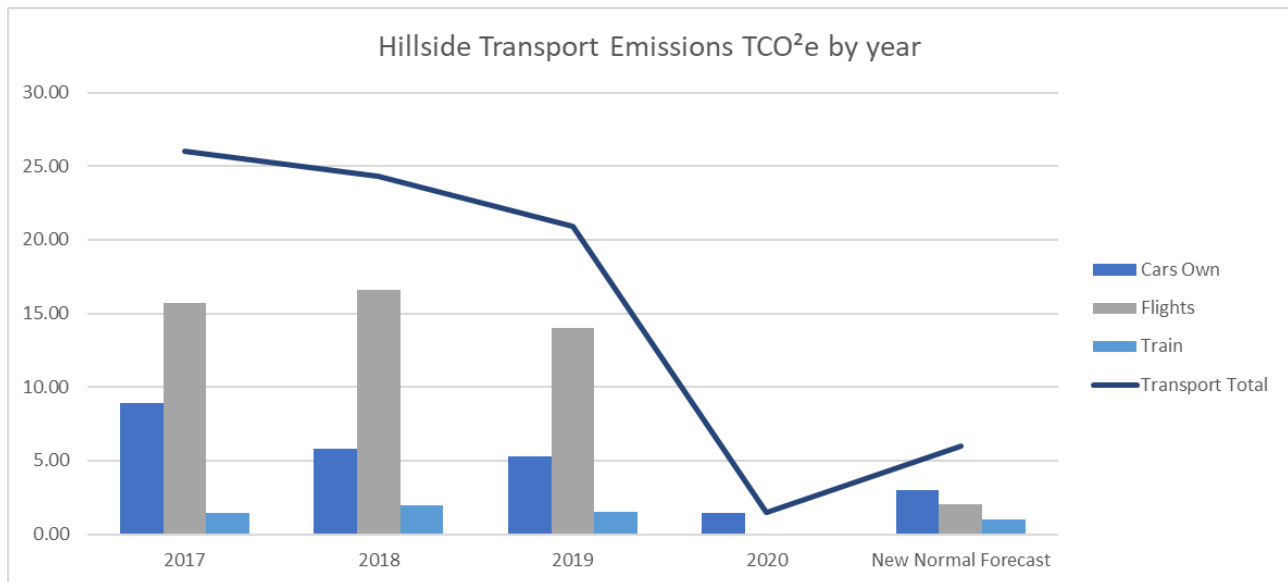
Our expectation of "new normal" will be a net negative of **(-12.6 TCO₂e)** ahead of further investments into transport and on-site energy storage.

Having achieved a negative carbon footprint, we will continue to focus on reducing our overall carbon emissions across all business activities, encouraging supply chain participation in reducing scope 3 emissions impacts on our clients.



3. Energy management

Following the ongoing energy efficiency improvements and installation of renewable energy technology in 2019, the carbon emission associated with our Scope 1 & 2 energy consumption has fallen to **-2 TCO²e** as a result of the surplus zero-carbon energy we generated and exported to the grid.



4. Transport management

Transport remains our most significant greenhouse gas emissions source, covering all scope 1 & 3 emissions in Road, Rail and Air travel.

During 2020 transport emissions were **1.47 TCO²e**, a fall of 92% over 2019 emissions. Although the pandemic lockdown played a significant part in this, the decision to withdraw from North America activities in 2019 permanently removed 10 – 12 TCO²e from our business footprint.

The 2020 pandemic lockdown has embedded remote working and virtual meetings into our day-to-day activity.

We expect these new working practices to continue into the "New Normal" and further reduce our transport emissions. However, these operational shifts will not entirely displace our transport requirements, and we have forecast associated emissions to level out at around 6TCO²e per year if we continue to use fossil fuel-powered vehicles.

Consequently, we have decided that before June 2022, we will change the current fleet to electric vehicles and remove greenhouse gas emissions from our road transport inventory.

5. Waste and resources management

Waste, water, and other emissions associated with our activities created 0.24 tCO₂e in 2020. We will continue to reduce the volume of waste we produce and increase the recycling we do.

In the year we

- Composted all food waste on-site, covering around 4% of the total waste generated.
- Sorted and Recycled 55% of the waste generated &
- Sent 41% to landfill.

Our landfill waste is primarily unrecyclable packaging, where more comprehensive recycling is restricted by limited facilities within our local authority area.

6. Sequestration

In 2007 we created the Hillside woodland project to sequester our surplus carbon emissions and reduce our net greenhouse gas profile. Using the woodland carbon calculator, developed by the [UK Woodland Carbon Code](#), we have sequestered 85 – 100 TCO₂e during that period.

Adopting these standards over the project's life, we will sequester 1,294 TCO₂e (around 12 TCO₂e per year).

The Woodland Carbon Code is the UK government-backed standard for woodland carbon projects and was launched in 2011. As our project pre-dates this framework, it cannot be officially registered under this code, and our declared sequestration is self-assessed.

However, we continue to proactively collaborate with the forestry commission to promote the Woodland Carbon Code's benefits and ensure our project remains aligned to these standards.

7. Carbon report

		2017 (Base year)		2020	
Type of Emission	Activity	TCO ^{2e}	activity	TCO ^{2e}	activity
Scope 1 (direct)	Oil combustion (liters)	6.68	2,100	0.00	0.0
	Vehicle Fleet (miles)	8.88	31,500	1.47	5,235
	Refrigerants (F-Gas's)	0.00	0	0.00	
Scope 2 (direct)	Grid Electricity (location) kWh's	3.00	11,750	3.69	13,150
Scope 3 (Indirect)	Air travel (kilometers)	15.7	86,854	0.00	0.0
	Rail travel (kilometers)	1.44	35,000	0.00	0.0
	Grey fleet	0.00	0.0	0.00	0.0
	Water (cubic meters)	0.11	325	0.21	230
	Waste (tonnes)	0.06	0.96	0.03	0.96
Gross TCO^{2e} pre offset		36.05		5.40	
Offsets	Market-based grid electricity	0.00		(3.69)	
	Self-Generated electricity export	0.00		(1.9)	
	Sequestration – Tree plantation	(17.00)		(17.00)	
	Other	0.00		0.00	
Net TCO^{2e}		19.05		(17.19)	

Intensity ratios

Employees	2	10.025	(8.59)
Building M²	232	0.086	(0.074)

Assessment parameters

Baseline year	2017
Reporting Organisation	Hillside MS Ltd. TA Hillside Environmental Services
Person Responsible	R.Burton - Director
Reporting period covered	Annual full year to 31st Dec 2020
Organisation boundaries	Facilities over which Hillside Environmental has operational control
Methodology used	GHG protocols Corporate standards and SECR Reporting guidelines
Emissions factors used	UK Government conversion factors for Company set
Exclusions	None
Included Scope 3 emissions	Waste, Water & Transport
Scope 2 emissions	Combined Location & market-based emissions factors, with self-generated offset
Sequestration	Woodland Carbon Code - carbon calculator