



ThamesWey Group Environmental Report Summary

For the reporting period 1st January to 31st December 2021.

2021 Highlights

GHG Savings

Our low-carbon Combined Heat and Power distribution network saved 2,959 tonnes of greenhouse gas (GHG) emissions.

Sustainable Housing

Added 271 properties to our portfolio, including the first phase of Sheerwater and sustainably designed town centre apartments at The Cornerstone.

Energy Innovation

Brand new combined heat and power centre completed. Flexible design, future-ready for green energy sources, capable of producing 10MW of low-carbon heat, equivalent to up to 3,0000 homes.

Supporting Businesses

First year supplying low carbon energy to the new Victoria Place development in Woking, with new connections joining as the commercial space is filled.

Biodiversity

Installed new green space at the Sheerwater development – the first of many biodiversity features planned. A green roof features at The Cornerstone.

Resource Efficiency

By converting an old office building, rather than demolishing and rebuilding, The Cornerstone is a positive example of resource efficiency and reducing embodied carbon in developments.

Renewable Energy

ThamesWey solar assets produced over 1000 MWh of renewable energy, enough to power 375 homes for a year.

New Head Office

ThamesWey's new energy centre and head office building on track to achieve a BREEAM (building sustainability assessment) rating of 'excellent'.

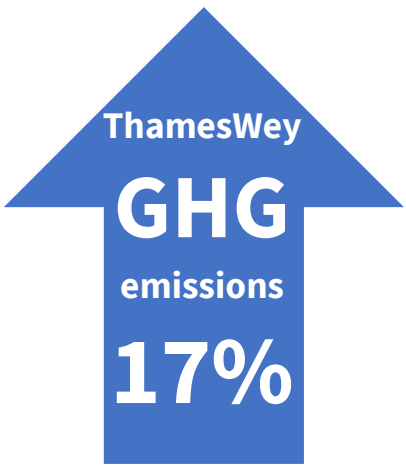
Community Action

Administered funding through 'Green Jump Surrey' (Surrey's largest energy efficiency project) to deliver 699 energy efficiency measures to 557 households in Surrey, saving 753 tCO₂e annually.



Images from top to bottom:
 The distinctive thermal stores at the ThamesWey energy centre
 Green roof at The Cornerstone refurbishment
 An air source heat pump installed for a resident through Green Jump Surrey

2021 v 2020 Performance Overview

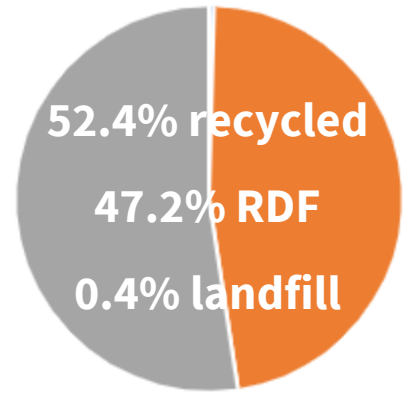


+15%
Scope 1

-17%
Scope 2

+20%
Scope 3

*See page 5 for definitions

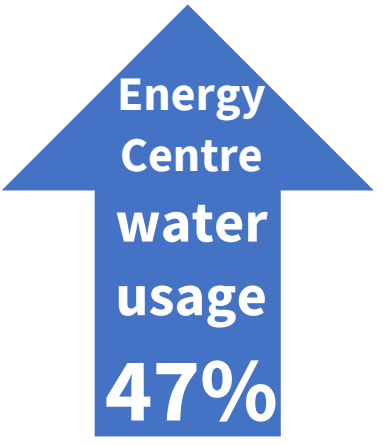
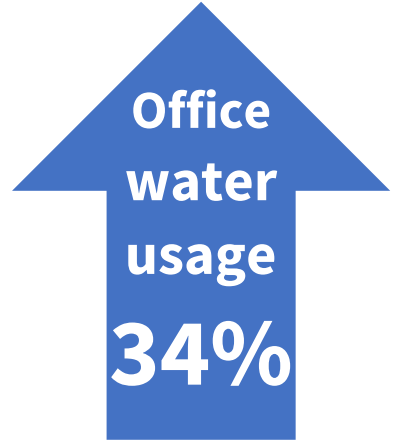
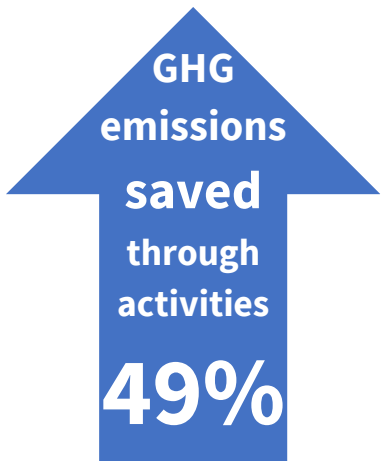


2,959 tCO₂e saved
by supplying low-
carbon heat, cooling
and electricity

311 tCO₂e saved
by producing
renewable solar
electricity

49 tCO₂e saved by
installing energy
efficiency measures
in TW housing stock

753 tCO₂e saved by
projects delivering
local domestic
energy efficiency
installations



tCO₂e = Tonnes of carbon dioxide equivalent emissions

Biodiversity

Housing stock refurbishments

150m² of artificial grass replaced with natural turf

10 bird, bat and insect boxes installed where suitable

Urban Greening

150m² green roof planted at the Cornerstone refurbishment

Communal garden installed at the Sheerwater development

BREEAM

‘Excellent’ green building status for new HQ



Clockwise: insect hotel at The Energy Centre, sedum green roof at Cornerstone, podium garden at Sheerwater, bird boxes in Knaphill

The Energy Centre

2021 saw the completion of the £20m heat and power energy center in Woking town center. The facility will be the control centre for a new, private wire, high-voltage electricity distribution network for the town centre. The heat produced as a result of the power generation is delivered to customers in Woking through a district heat network.

The centre can now provide low-carbon heat and power to the local area, including 429 apartments, retail stores and the new Hilton Hotel. Over 400 meters of district heat pipes were connected in April this year, supplying customers in the Victoria Square development.

In keeping with Woking’s 2050 climate change strategy, the energy centre was designed to be a flexible facility that will be able to accommodate new green energy sources in the future, whilst maintaining resilience to ensure a stable supply of energy for customers. The scalability will enable more properties to connect when needed, with the ultimate capacity designed to be 10MW of heat generation, the equivalent of up to 3,000 homes. The network operates at lower temperatures, in order to be compatible with the heat generated by industrial heat pumps.



The building itself was designed with the environment in mind, with features such as rooftop solar photovoltaics, electric vehicle charging bays and local wildlife habitat boxes. The distinctive orange thermal stores not only store heat efficiently, but also stand out as a contemporary landmark for Woking.



The energy centre has also been developed as the new ThamesWey headquarters. Staff will move into the new efficiently designed office space soon, as it becomes the base of operation for ThamesWey’s engineering and customer support activities.

2021 Progress

Impact area	Environmental Policy Objective	Metric	Progress during 2021
Energy and Carbon	To reduce emissions to achieve carbon neutrality by 2030.	Reduction in GHG emissions	Gross emissions increased 16.6% compared with the previous year. This is largely due to the start of the recovery to 'normal' after the pandemic and growth in customer demand for our energy services. Scope 1 emissions increased 14.8% overall, due to new connections to the energy centres and the commissioning of the new Energy Centre in central Woking. Scope 2 emissions decreased by 16.7% due to low office use. Net emissions from Scope 2 are reduced to 0 after input from ThamesWey solar PV assets. Scope 3 increased by 19.7% overall, primarily due to the increase in fuel required to meet the growth in energy centre demands and the substantial increase in the number of properties owned and leased by ThamesWey.
	To provide low carbon district energy services	CHP Quality Index value over 100	Maintained 'good quality' CHP.
Water	To use water efficiently in the district heating system (eliminate leaks and equipment malfunction)	Water use in operational activities	Water use by increased by 48% compared to the previous year, due primarily to increase in utilisation of cooling towers at Victoria Way energy centre. A minor leak in district heating pipework was also discovered and fixed this year. Leak detection technology has been installed in the new Woking network and is being retrospectively fitted in Milton Keynes where the opportunities arise.
Waste	To reduce the amount of waste produced and ensure waste that is produced is managed responsibly	Operational waste management	Operational waste increased substantially in 2021 compared to the previous year due to the considerable increase in office utilisation following the low occupancy in 2020. However, waste levels were still less than half of 2019 levels when the office was last fully occupied. development activity after the initial uncertainty of the pandemic.
Materials and Resource Efficiency	To improve resource efficiency (reuse, recycle and recover resources)	Raw material use in developments	Consumption of key materials varies depending on the development projects currently being undertaken. TW mission statement is to build sustainable communities, which leads key decision making when it comes

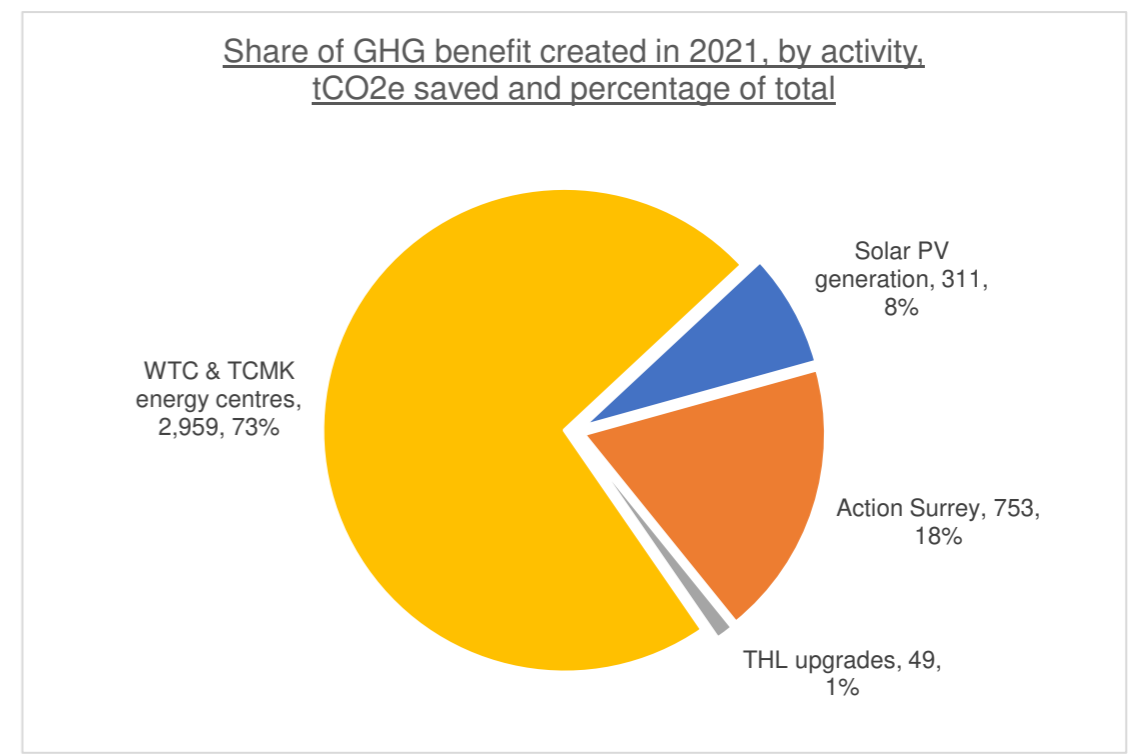
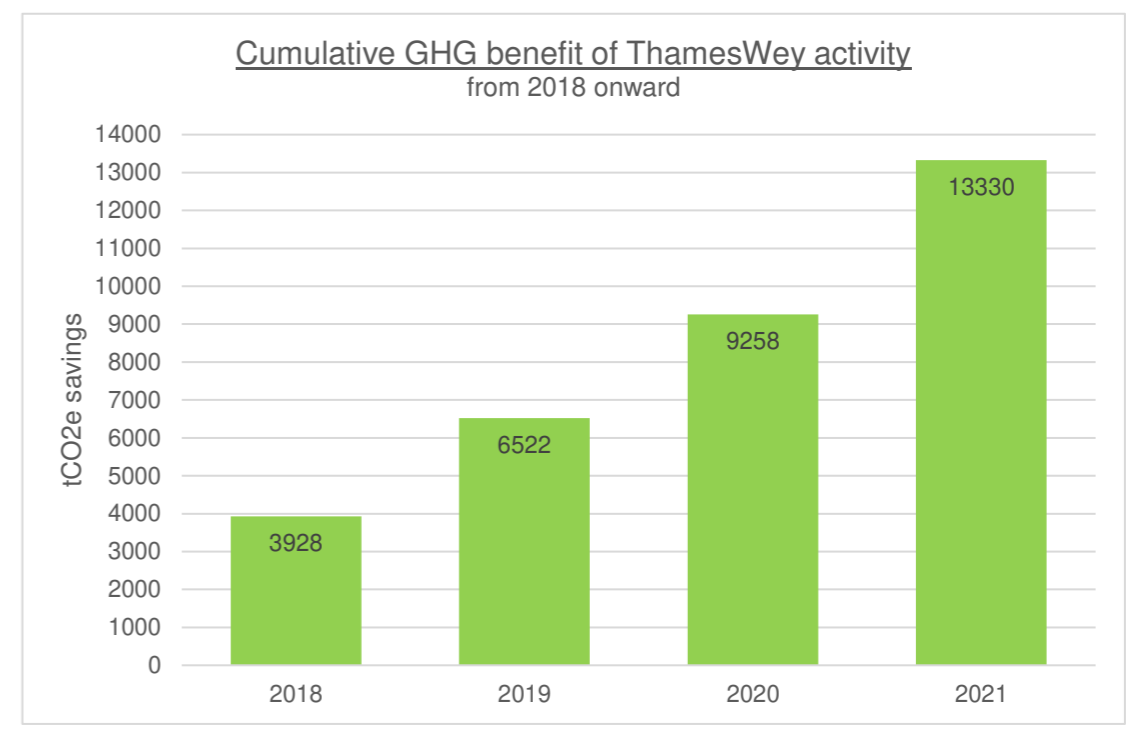
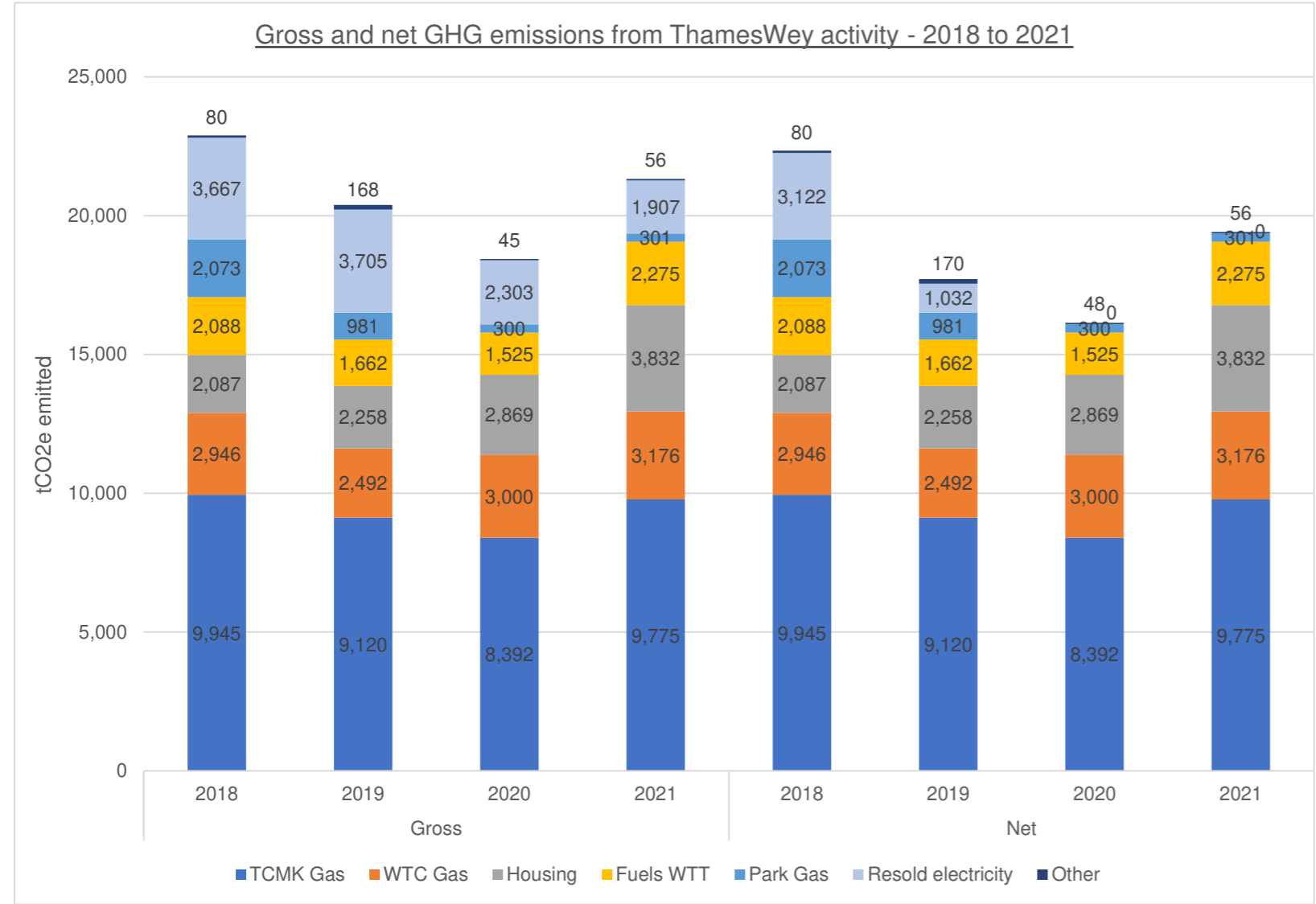
			<p>to development design. Feasibility varies project to project and opportunities are taken where they align with business plans and external constraints.</p> <p>The Cornerstone project stands as an excellent example of ThamesWey’s positive efforts in this impact area, where an aging office building was converted rather than demolished and reconstructed, significantly reducing resource use and embodied GHG emissions.</p> <p>Water and gas consumption/processing are covered under the energy and water impact areas.</p>
Biodiversity and Ecosystem Services	Preserve and enhance the quality of the natural environment within and around our developments	No metric specified	<p>Currently biodiversity enhancement opportunities are taken where identified in property renovations, in new developments and on an ad hoc project basis.</p> <p>These include opportunities to remove artificial turf, create mammal runs and integrate bird/bat boxes in new brickwork, which are always taken where appropriate.</p> <p>Greater priority to support certain species/habitats will be examined with respect to local green infrastructure priorities and strategies.</p>
Emissions to land, air and water	Remain under statutory limits for emissions to air from CHP	Oxides of nitrogen (NO and NO ₂ expressed as NO ₂ mg/m ³)	All statutory air emission limits met.

Scope 1 – Greenhouse Gas (GHG) emissions produced as a direct result of ThamesWey activities, primarily from the Combined Heat and Power engines.

Scope 2 – Indirectly produced GHG emissions from upstream activities, for example from the purchased electricity used to run the energy centres.

Scope 3 – Indirectly produced GHG emissions from downstream activities, for example the use of the electricity sold to ThamesWey customers.

Environmental Performance Dashboard



	Gross GHGs (tCO ₂ e)	PV generation (MWh)	Water (m ³)	Waste (kg)
2018	23,018	1,248	17,884	No data
2019	20,385	1,285	22,045	4,228
2020	18,448	1,411	10,471	409
2021	21,489	1,126	15,442	1,816