

Carbon Action Plan for Portsmouth City Council

Financial Year 2020-2021

Abbreviations & acronyms

Abbreviation or Acronym	Definition
BaU	Business as Usual
CAP	Carbon Action Plan (this document)
CO ₂ e	Carbon Dioxide Equivalent
GHG	Greenhouse Gas
LED	Light-emitting Diodes
PCC	Portsmouth City Council
t	Tonnes

Introduction

This Carbon Action Plan (CAP) is the first annual report detailing Portsmouth City Councils (PCC) carbon emissions from our activities. This CAP describes the methods used, historical and current emissions, actions PCC are taking, and a projection of future emissions. It is supported by the overarching Climate Change Strategy which details PCCs guiding principles and strategic priority areas.

Throughout this CAP, the term “carbon” is used but it is an umbrella term that refers to many greenhouse gasses (GHGs). These GHGs are converted to one measure, called “carbon dioxide equivalent” or “CO₂e”.

This CAP provides the GHG inventory for the financial year 2020/2021 and the corresponding carbon reduction actions refer to those that have been implemented during this financial year or are planned to be implemented by PCC. Actions included within this CAP are correct up to December 2022. New actions after this time will be included in future iterations of this CAP.

Methodology

The first half of this CAP describes current and historical carbon emissions. This has been guided through the GHG Protocol^{1,2}, and publications from Defra³ and the Committee on Climate Change⁴.

The second half of this CAP describes future projections of carbon emissions which are based upon a baseline projection called “business-as-usual” (BaU) which we use to test the impact of new carbon reduction actions.

Completeness of Data

Carbon emissions generated by operations of organisations are sorted into three different “scopes”. In this context, assets means buildings, equipment and vehicles used to undertake our operations.

¹ WRI & WBCSD (2015) The GHG Protocol. A Corporate Accounting and Reporting Standard. Revised Edition 3.51. Available at: <https://ghgprotocol.org/sites/default/files/standards/ghg-protocol-revised.pdf>

² WRI & WBCSD (2013) The GHG Protocol. Corporate Value Chain (Scope 3) Accounting and Reporting Standard, Version 5.89. Available at: https://ghgprotocol.org/sites/default/files/standards/Corporate-Value-Chain-Accounting-Reporting-Standard_041613_2.pdf

³ Defra (2009) Guidance on How to Measure and Report Your Greenhouse Gas Emissions. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/69282/pb13309-ghg-guidance-0909011.pdf

⁴ Committee on Climate Change (2012) How Local Authorities Can Reduce Emissions and Manage Climate Risk. May 2012.

Scope 1

Scope 1 emissions (direct emissions emitted on-site), from assets financially controlled by PCC are detailed in Table 1, together with types of GHG data included in this inventory. As all these sources are controlled by PCC, they will be included in the inventory. In this year's CAP, there are a few data gaps in this scope but are considered minor.

Table 1 PCC Scope 1 Emission Sources

Emissions Type	Sources of Carbon Emissions at PCC	Completeness of Data
On-site energy use from owned stationary assets	Boilers	Data gaps from some small buildings
On-site energy use from owned mobile assets	Owned vehicles, back-up generators, power tools	Data gaps from some sites with generators, and some operations with power tools
Fugitive gasses	Air conditioning units	Unavailable data of volume of F-gasses emitted
Land Use	Changes in land use on Council-owned land	No gaps

Scope 2

Scope 2 emissions (indirect emissions from energy purchases) from assets financially controlled by PCC are detailed in Table 2, together with types of GHG data included in this inventory. As all these sources are controlled by PCC, they will be included in the inventory. In this year's CAP, there are a few data gaps in this scope but are considered minor.

Table 2 PCC Scope 2 Emission Sources

Emissions Type	Sources of Carbon Emissions at PCC	Completeness of Data
Purchased Electricity	Grid electricity supplied to buildings and infrastructure	Data gaps from some sites.
Purchased Steam	None	No gaps
Purchased Heating		
Purchased Cooling		

Scope 3

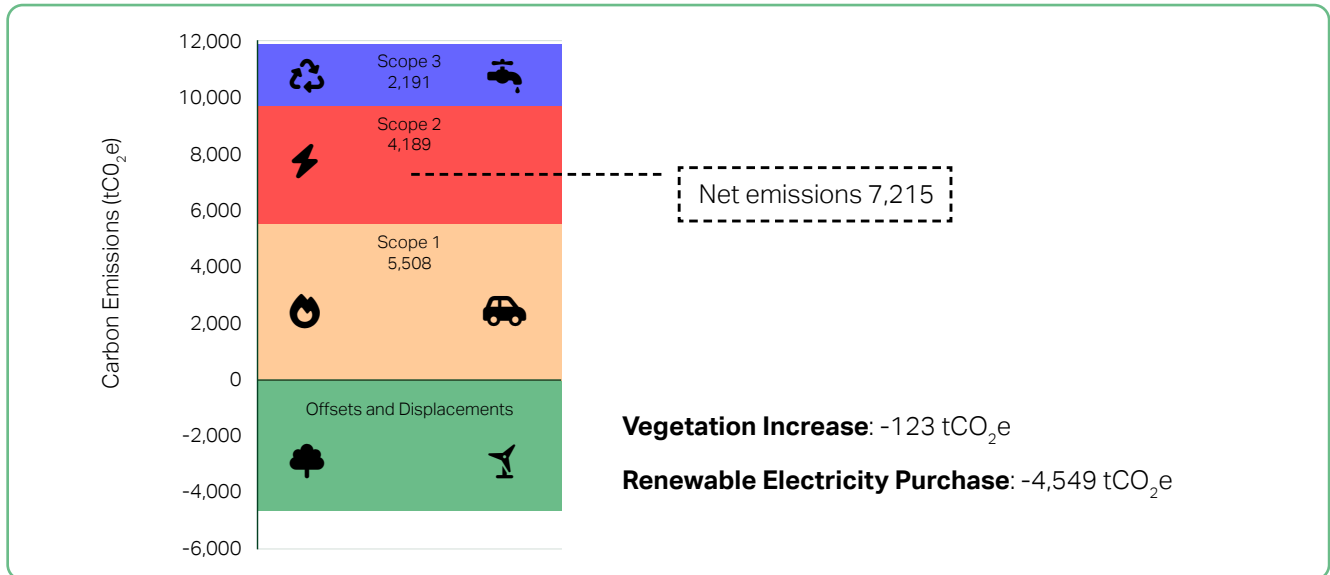
Scope 3 emissions (other indirect emissions), that support the operations that are financially controlled by PCC are detailed in Table 3, together with types of GHG data included in this inventory.

Table 3 PCC Scope 3 Emission Sources

Emissions Type	Sources of Carbon Emissions at PCC	Completeness of Data
Purchased Goods and Services	Purchased goods and services to support PCC operations, including transportation	Data gaps of purchased goods and services except potable water at some sites.
Fuel and Energy-Related Activities Not Included in Scope 1 or 2	Emissions with fuel/energy generation; transport of fuels to PCC sites; electricity associated with staff working from home; energy use in rented or leased equipment	Data gaps from some small buildings and leased sites
Waste Generated in Operations	Solid and liquid wastes	Data gaps of grey water volumes at some sites, and solid waste volumes at many sites
Travel, transport, and commuting	Travel with business or normal travel to workplace; transport of our products	Data gaps from majority of business travel, no data on commuting, no transportation data

Portsmouth City Council GHG Emissions Inventory 2020/2021

Current Carbon Emissions from 2020/2021

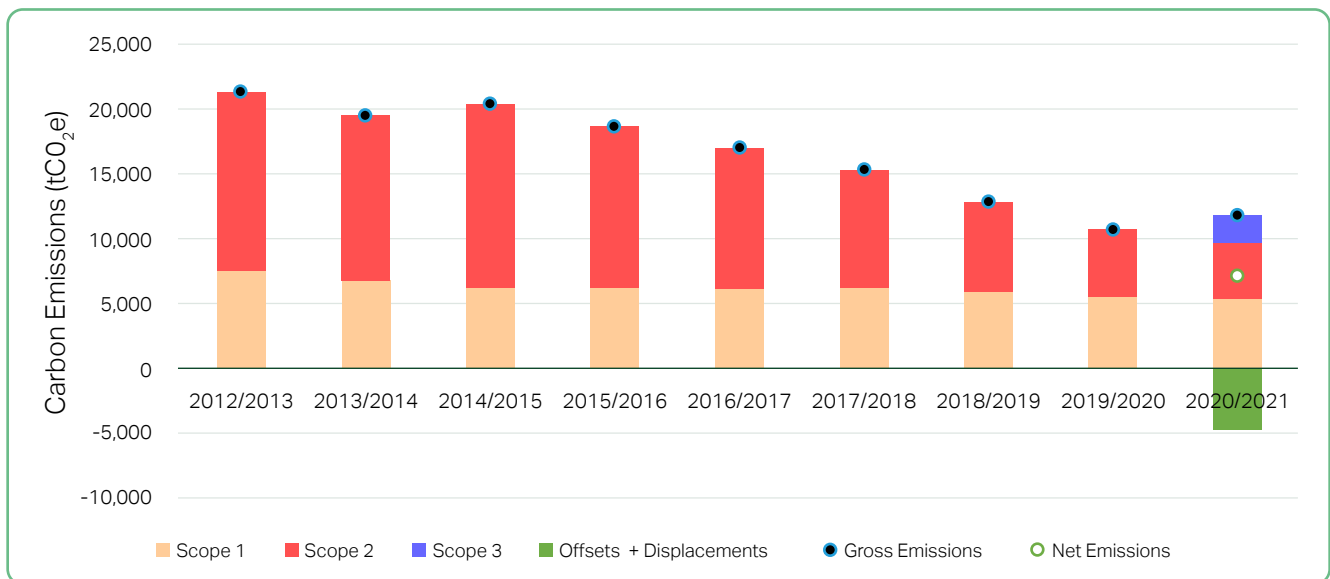


Our net emissions for 2020/2021 were 7,215 tCO₂e

Most of our emissions are from heating our buildings and our vehicles

We displaced 4,672 tCO₂e by planting on our lands and buying renewable energy

Historical Carbon Emissions from 2012-2021



Scope 1 and 2 emissions have reduced by 11,658 tCO₂e - a 55% decrease from 2012/2013









2020/2021 is the first year we've quantified emissions from Scope 3 and offsets/displacements. The graph looks like our emissions have increased but we've added more data. Future reporting will include these categories.

Carbon Reduction Actions Undertaken in 2020/2021

- Upgrading the heating system and replacing standard halogen strip lights for low energy LED lights at the **City Museum**.
- Provision of bicycles for staff to travel between sites instead of using fleet vehicles, and replacing diesel/petrol-powered hand tools for electric hand tools within our **Parks Service**.
- 1,834 new trees were planted on our estate.
- Installation of 50 kWp of new solar panels installed at **housing offices, libraries, and Estate Service Depots** meaning more low carbon energy can be used in our operations.
- Installation of 21 batteries at **Estate Service Depots, housing offices, libraries, community centres, and social housing** to collect any excess energy produced by solar panels.



Stocktake of Carbon Reductions Actions Planned from 2020 to 2030

Buildings: Electricity Purchase Reduction					Average Yearly Impact
Replacing halogen bulbs with LEDs	Installing solar panels and batteries	Upgrading electric heating systems	Upgrading water heating systems		- 87 tCO ₂ e
Buildings: Fuel Use Reduction					Average Yearly Impact
Insulating buildings to save gas heating		Replacing gas stoves with electric induction in our free school meal kitchens and adult care centres			- 20 tCO ₂ e
Vehicles and Equipment: Energy Reduction					Average Yearly Impact
Supply of pool bicycles to commute between PCC sites	Replacing fuel-powered hand tools with electric tools	Replacing our owned and leased vehicle fleet with electric vehicles	Pre-filtering fuels to increase fuel efficiency	Swapping diesel for lower carbon fuels	- 141 tCO ₂ e
Waste Reduction					Average Yearly Impact
Eliminating single use plastics from our operations		Replacing pool cleaning equipment with lower packaging alternatives			- Unknown tCO ₂ e
Travel and Transport					Average Yearly Impact
Installation of EV charge points for our staff and operational		Last mile logistical planning for our purchased goods			- Unknown tCO ₂ e
Purchases					Average Yearly Impact
Replacing paper flyers for QR codes to reduce paper and printing	Replace single-use cleaning supplies for re-usable supplies	Using lower carbon plant-based cleaning chemicals			- Unknown tCO ₂ e
Internal Capacity Building and Engagement					Average Yearly Impact
Strategy for environment and sustainability developed by our Estate Services team		In-house architects became Passivhaus certified designers, accreditation for low-carbon building			- Unknown tCO ₂ e
Land Use and Greening					Average Yearly Impact
During 2020/2021, an additional 1,834 trees were planted. Annually, at least 360 more trees will be planted in our parks and 120 more in streets.					- 33 tCO ₂ e

This year's Council CAP is a stocktake of where we are now and where we will be with what we have committed to. Future CAPs will endeavour to improve the quality and completeness of data, and design and implementation new carbon reduction actions.