



# Carbon Reduction Plan

PRC-000069

Level 0 – Public

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# Revision History

Version	Date	Reason for Change
1.01	29/09/2021	First issue.
1.02	15/11/2021	Emissions improvement project two completed: employee commuting survey completed; emissions data re-baselined for 2020/21; Improvement project two removed and reference numbers re-set.
2.01	26/01/2023	Addition of document reference number to align with Connect Custom; non-UK emissions added to scope.
3.00	20/09/2023	Inclusion of emissions associated with Purchased Goods and Services and Capital Goods within scope three report; re-calculation of baseline year emissions supported by explanation; additional detail to methodology on calculation of non-UK electricity generation; revised detail for waste-generated methodology to account for use of spend-based data for Leicester site; inclusion of missed waste data for lithographic rollers to scope three; addition of 2022/23 data to report.

# Carbon Reduction Plan

## Commitment to Achieving Net Zero

Our aim is to ensure that our continued growth as leaders in our field is realised through sustainable and environmentally responsible practice. APS Group is, therefore, committed to achieving net zero carbon emissions by 2040. This plan covers locations in the United Kingdom for which APS Group Ltd – through the business’ subsidiary entities Allied Publicity Services (Manchester) Ltd and APS Group (Scotland) Ltd – has operational control<sup>1</sup>, comprising the below locations:

- Bird Hall Lane Head Office and Main Production Site, Cheadle
- Orion Business Park Unit C and Unit D, Cheadle
- Preston Brook Secure Production Site
- Grange Business Park, Leicester
- Baker’s Yard, London
- Tennant Street, Edinburgh
- Jane Street, Edinburgh
- Vincent Street, Glasgow

This plan additionally covers locations in Europe for which the business’ European subsidiary – APS Group B.V. – has operational control, comprising the below locations:

- Belgium, Antwerp
- Paris, France
- Netherlands, Eindhoven
- Netherlands, Amsterdam
- Sweden, Malmo

In accordance with the requirements of Procurement Policy Note 06/21 the emissions associated with non-UK operations are reported but not included within the main emissions footprint as these locations – within the current framework of Scope 3 reporting – do not currently incur emissions within UK territory.

## Baseline Emissions Footprint

Baseline emissions are a record of the greenhouse gases that have been produced in the past and were produced prior to the introduction of any strategies to reduce emissions. Baseline emissions are the reference point against which emissions reduction can be measured.

Baseline Year: 01 February 2020 to 31 January 2021	
Emissions	Total (tCO <sub>2</sub> -e)
UK Emissions – Scope 1	517.69

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<sup>1</sup> As defined in the *Technical Standard for Completion of Carbon Reduction Plans* this means that “The supplier reports on all sources of carbon emissions over which it has operational control. The supplier is deemed to have operational control over a service if it has full authority to introduce and implement its operating policies”.

Baseline Year: 01 February 2020 to 31 January 2021	
Emissions	Total (tCO <sub>2</sub> -e)
UK Emissions – Scope 2: Location Based	1,319.93
UK Emissions – Scope 2: Market Based	0
UK Emissions – Scope 3 <sup>2</sup>	16,806.47
Overseas Direct Emissions	60.87
Total Emissions	18,704.97
<b>Total UK Emissions</b>	<b>18,644.09</b>

## Amendments to the Base Year

The previously reported figure for scope three emissions was 13,602.33 tCO<sub>2</sub>-e; this has been revised to 16,806.47 tCO<sub>2</sub>-e following the incorporation of Purchased Goods and Services and Capital Goods into the scope of the report and the discovery of an omission in the original submission relating to waste generated.

APS Group was able to obtain the necessary data for each year up to and including the baseline year, consequently we have taken the decision to amend the data for the baseline year, rather than change the baseline year itself.

Overseas Direct Emissions were previously calculated using the UK conversion factor for electricity consumption which, together with scope one data, generated a tCO<sub>2</sub>-e figure of 45.28 for non-UK direct emissions. We have since replaced this with conversion factors published by the European Environment Agency, which has calculated a new Overseas Direct Emissions figure of 60.87 tCO<sub>2</sub>-e.

## Emissions Methodology

The below table details how our emissions figures are calculated, including assumptions that have been made where uncertainties exist.

Scope	Sub-Item	Data Sources	Calculation	Notes
1	Natural gas consumption	Kilowatt hour (kWh) usage of heating gas,	kWh x DEFRA conversion factor for	Reported as a single figure for gas usage across the APS estate.

<sup>2</sup> This scope consists of the following sub-scopes: Purchased Goods and Services; Capital Goods; Upstream Transportation and Distribution; Waste Generated in Operations; Business Travel; Employee Commuting; Downstream Transportation and Distribution.

Scope	Sub-Item	Data Sources	Calculation	Notes
		collected by half-hourly metering where possible or through monthly bills.	KgCO <sub>2</sub> -e in the reporting year.	
1	Refrigerant gas leakage	Bi-annual inspections to air conditioning units on the APS estate, specifically where leakage has been identified and the 're-charge' volume required.	Kilograms of gas 'recharged' x DEFRA global warming potential factor for the reporting year.	There are three types of 'F-Gas' used in APS' air conditioning units: HFC R410A, HFC R407C and HCFC R22. F-Gas leakage is reported as a single figure for all three types of gas.
1	Transport fuel consumption	Usage data from fuel cards showing litres of diesel, petrol, and liquefied petroleum gas (LPG) consumed by the transport and facilities teams.	Litres of fuel drawn x DEFRA conversion factor for KgCO <sub>2</sub> -e in the reporting year.	Reported as a single figure for fuel consumption.
2	Purchased electricity	Kilowatt hour (kWh) usage of electricity, collected by half hourly metering where possible or through monthly bills.	UK-emissions are calculated by kWh x DEFRA conversion factor for KgCO <sub>2</sub> -e in the reporting year.  Non-UK emissions are calculated using the European Environment Agency dataset for Greenhouse gas intensity of electricity	APS purchases 100% of electricity from renewable sources supported by REGOs, consequently our market-based figure for Scope 2 emissions within the UK is set at zero.

Scope	Sub-Item	Data Sources	Calculation	Notes
			generation in Europe by gCO <sub>2</sub> e-e/kWh x total kWh consumption in the reporting year.	
3	Purchased Goods and Services / Upstream Transportation and Distribution	<p>Purchase data of all goods and services within the reporting year falling into the Intergraf recommendation on CO<sub>2</sub> emissions calculations in the printing industry:</p> <ul style="list-style-type: none"> <li>▪ Substrate</li> <li>▪ Plates and cylinders</li> <li>▪ Inks and varnishes</li> <li>▪ Packaging materials</li> <li>▪ Production consumables</li> </ul> <p>Obtained from purchase order data.</p>	Net Amount (GBP) x DEFRA Table 13 spend-based factor appropriate to the activity.	The calculation uses the 'Table 13' spend-based tool and therefore represents a 'cradle-to-gate' figure which also encompasses the impact of upstream transportation and distribution.
3	Capital Goods	Total amount of all capital expenditure within the reporting year obtained from purchase order data.	Net Amount (GBP) x DEFRA Table 13 spend-based factor appropriate to the receiving business.	This is reported separately to Purchased Goods and Services/Upstream Transportation and Distribution as all spend marked as Capital Expenditure is clearly marked as such in the purchase order 'Product Code' field.
3	Waste Generated in Operations	Data obtained from waste transfer notes and weight reports	Tonnes of waste collected by type and end-of-life process x	There are five possible end-of-life routes for waste produced by APS: Recycled, Reused, Treated, Refuse-Derived Fuel,

Scope	Sub-Item	Data Sources	Calculation	Notes
		<p>provided by our waste management providers, including the total volume of waste collected and the 'end-of-life' process.</p> <p>This does not apply to the Leicester office, where waste is collected under contract by the Local Authority, who cannot give specific volumes of weight per customer. The 'spend-based' method is used to capture this site.</p>	<p>DEFRA conversion factor for KgCO<sub>2</sub>-e in the reporting year.</p> <p>Where spend-based calculations are required this is based on Net Amount (GBP) x DEFRA Table 13 spend-based factor appropriate to the receiving business.</p>	and Landfill. Waste generated is reported as a single figure.
3	Business Travel	<p>Data obtained from: HR record of business mileage claimed, by vehicle type; KgCO<sub>2</sub>-e data supplied by main travel provider for air, rail, and hotel accommodation; purchase orders raised detailing start/end points of road, taxi, rail, air, and sea travel.</p>	<p>Total miles (or kilometres where required) per mode of transport x DEFRA conversion factor for KgCO<sub>2</sub>-e in the reporting year. In the interests of disclosing the fullest extent of our carbon impact we have chosen to include radiative forcing in our air travel, and account for this</p>	<p>Approximately 45% of the emissions associated with this factor have been estimated based on cost only, as certain purchase orders are raised as a cost and mode of transport only, with no further information. APS accepts that this is an imperfect calculation, and we recognise the need to reduce and preferably avoid any estimations. An objective has been raised to support this (project #1).</p>



Scope	Sub-Item	Data Sources	Calculation	Notes
			<p>via the DEFRA conversion factor.</p> <p>Approximately 45% of the emissions for this sub-scope have been estimated using the DEFRA 'Table 13' spend-based factors (Codes 49.1-2, 49.3-5, 51 and 55) for data where only a purchase order is present.</p>	
3	Employee Commuting	Data obtained from individual employee HR records detailing: how many times per week they travel to work; the mileage for the trip to and from work ('round trip'); and the most common mode of transport.	Total miles (or kilometres where required) per mode of transport x DEFRA conversion factor for KgCO <sub>2</sub> -e in the reporting year.	Reported as a single figure for employee commuting for all APS Group employees, irrespective of which site they are based at. Following the original survey in October 2021 a second survey was undertaken in June 2023 which achieved a 41.33% response rate and has replaced the previous figure used in the 2020/21 and 2021/22 reports. The data continues to be assumed as representative of the business as a whole.
3	Downstream Transportation and Distribution	Job specification details entered onto APS' Operations Manager: including width, height, GSM, pages, and quantity. Where	(Delivery weight (kg) x Delivery to KgCO <sub>2</sub> -e conversion factor) + Delivery base CO <sub>2</sub> -e factor.	The figures used for delivery KgCO <sub>2</sub> -e were determined by tests using a range of representative print specification variations, such as size, paper, colours and quantity and carried out on several different product groups across various delivery

Scope	Sub-Item	Data Sources	Calculation	Notes
		<p>stocking method is set to 'All to stock' or 'Part to stock' then the delivery CO<sub>2</sub>-e is set to zero and calculated on call-off. For all other jobs the CO<sub>2</sub>-e is calculated when job is completed and moved to 'Invoiced' status on Operations Manager. The data is pulled through to APS' Sustainability Dashboard.</p>	<p>Delivery factor: 0.01</p> <p>Base factor: 35</p>	<p>distances ranging from 10km to 150km and various modes of transport from small van to HGV using the DEFRA conversion factors for KgCO<sub>2</sub>-e.</p> <p>The tests revealed common denominators which could be used to generate a delivery carbon impact based on the weight of the item as a 'ready - reckoner', as the estimated KgCO<sub>2</sub> -e fell within a tolerance of +/- 20% of the actual KgCO<sub>2</sub> - e. Consequently, in accordance with the Precautionary Principle of the 'Rio Declaration', we have taken the decision to add 20% to our assessed total for Downstream Transportation, thereby ensuring that we do not under report.</p> <p>We assessed that the calculation begins to fall out of an acceptable range where a delivery exceeds 50 tonnes, estimating a higher KgCO<sub>2</sub> -e than would be calculated manually, however are comfortable with this as it will result in over-reporting of our carbon emissions, thereby introducing an element of 'carbon negative' offsetting. It is for this same reason that we have added an uplift of 20% to the figure for delivery KgCO<sub>2</sub> - e, representing the upper threshold of the tolerated range which ensures that APS will 'over report' as a minimum.</p>

Scope	Sub-Item	Data Sources	Calculation	Notes
				We recognise that calculation of delivery by weight of product is an imperfect method of assessing carbon emissions, and as such are reviewing how best to collect the necessary data to align our calculations fully with the DEFRA conversion factors.

## Current Emissions Reporting

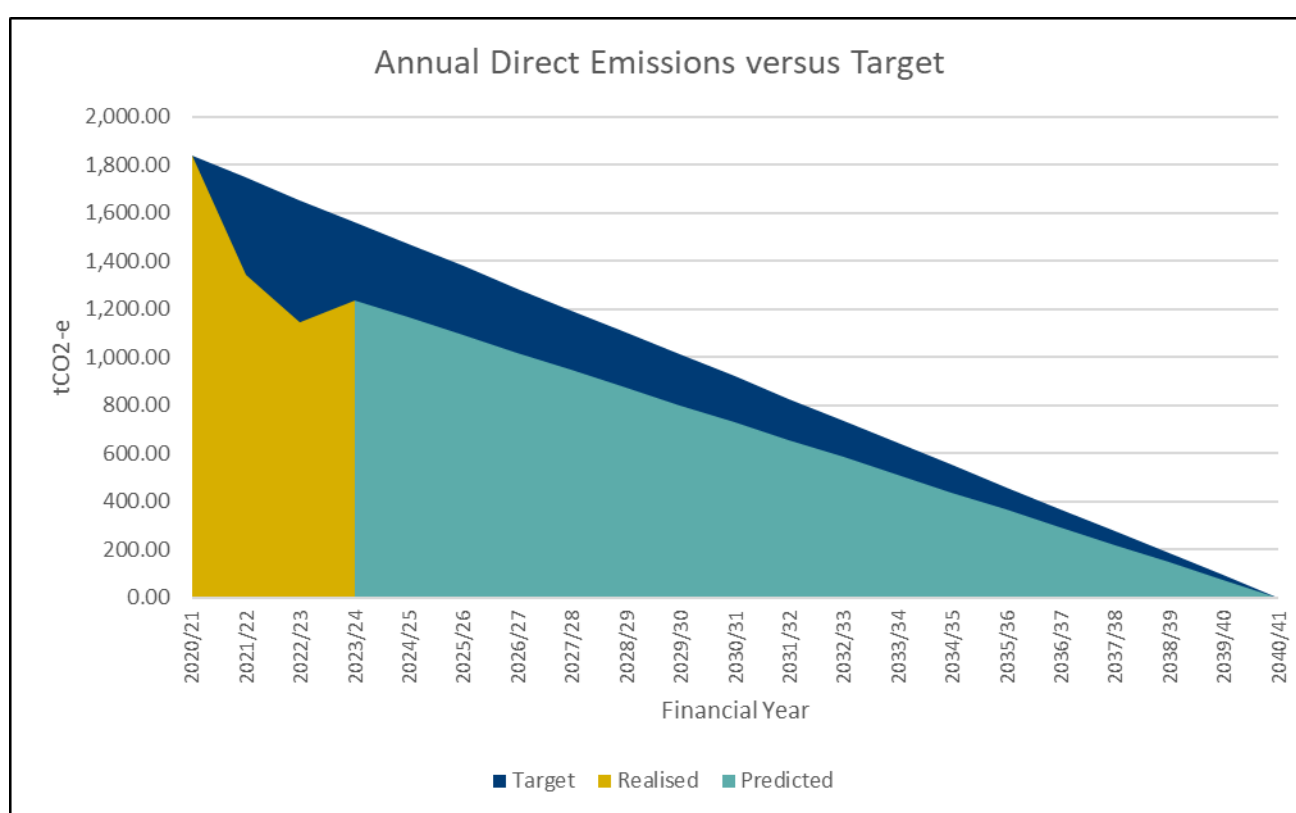
Reporting Year: 01 February 2022 to 31 January 2023	
Emissions	Total (tCO <sub>2</sub> -e)
UK Emissions – Scope 1	413.62
UK Emissions – Scope 2: Location Based	733.50
UK Emissions – Scope 2: Market Based	0.00
UK Emissions – Scope 3 <sup>3</sup>	15,175.50
Overseas Direct Emissions	8.97
Total Emissions	16,331.60
<b>Total UK Emissions</b>	<b>16,322.63</b>

## Emissions Reduction Targets

To continue our progress to achieving net zero we are targeting, as a minimum, a 5% fall in direct UK Scope 1 and 2 carbon emissions year-on-year to take us on a linear path to the financial year 2040/41. The below graph shows our current direct emissions footprint in gold against our 5% target in blue. The mean of the percentage changes is calculated to produce an average annual reduction, which is used to forecast future emissions based on current performance and is represented by the teal field showing forecasted emissions based on the current emissions profile against the original annual targets in blue.

<sup>3</sup> This scope consists of the following sub-scopes: Purchased Goods and Services; Capital Goods; Upstream Transportation and Distribution; Waste Generated in Operations; Business Travel; Employee Commuting; Downstream Transportation and Distribution.

Financial Year	UK Direct Emissions Target (tCO <sub>2</sub> -e)	UK Direct Emissions Realised (tCO <sub>2</sub> -e)	% Change
2020/21	1,837.62	1,837.62	-
2021/22	1,745.74	1,344.29	-27%
2022/23	1,653.86	1,147.12	-15%
Average Annual % Change			-21%



As we continue to refine our data reporting, and as the impacts resulting from the projects described below become known, we will continue to update this chart showing actual performance against the original target. We have not currently set a Scope 3 reduction target however we are planning on developing this over the course of 2023 as part of our engagement with the Science-Based Targets Initiative, which we are planning to include in the 2024 update to our Carbon Reduction Plan.

## Carbon Reduction Projects

### Completed Carbon Reduction Initiatives

The following environmental management measures and projects have been completed or implemented since the 2020/21 baseline. The carbon emission reductions will be in effect when performing the contract, with the carbon reductions achieved by these schemes detailed below:

Improvement		Realised Carbon Saving (tCO <sub>2</sub> -e)
1	Relocation of secure mail production facility from previous Chester site to new Preston Brook site. Through a combination of motioned-sensor CAT2 LED lighting and de-stratification fans over our production equipment to capture and return process heat to the factory, we delivered a 62% reduction in gas and electricity consumption for secure mail production.	401.47

### Planned Carbon Reduction Initiatives

APS Group is committed to a programme of continual environmental performance in support of both our overall ambition of achieving carbon neutrality by 2040, and in accordance with the core principles of our ISO 14001: 2015 accreditation. Recognising these commitments, we are exploring the following improvement strategies:

Improvement		Target Carbon Saving (tCO <sub>2</sub> -e)
1	Roll-out in 2023 of the 'Smarter Buildings' strategy, beginning with our Cheadle head office as a phase one, with eventual roll-out to cover all our UK operational sites. This strategy will see reductions to our gas, electricity, and water consumption, which we will achieve through: upgrading our lighting systems to CAT2 LED as standard; supporting those light systems with PIR motion sensors; linking those same sensors to our air conditioning and water systems; upgrading our boiler systems and linking these to building-controlled thermostats; and commissioning de-stratification fans to recover process heat. In direct consumption we are targeting: reduction in electricity consumption of 1.7 million kWh; reduction in gas consumption of 197,000 kWh; reduction in water consumption of 7,700 litres.	417.08

### Other Carbon Reduction Initiatives

Improvement	
1	APS Group will continue to refine our data capture of scope 3 with the goal of eliminating the need to sample or estimate emissions. We will achieve this through the ongoing project

Improvement	
	to develop our Sustainability Dashboard and seek assistance from third parties where necessary.
2	We recognise that independent verification of our data capture, calculation and reporting methodology will both support Improvement #1 and will provide APS Group with assurances that we are capturing the full terms of our reporting obligation. We are intending that this will be achieved through our joining of the Science-Based Targets Initiative
3	As our carbon emissions strategy continues to evolve, we recognise the need to go further than the requirements introduced by both the Streamlined Energy and Carbon Reporting (SECR) Regulations and PPN 06/21 to achieve true net zero carbon emissions. We therefore propose to introduce carbon monitoring across the remaining ten activities within the scope 3 framework not already covered by this report.
4	In 2022 we introduced an Environmental Awareness e-Learning course as a means of building staff engagement in our overall sustainability agenda, which we have further supported by the creation of a quarterly Social Value Forum, bringing representatives from across the business together to share best practice on environmental and sustainability action and to suggest ideas for consideration at senior management level. In 2023 we will build on this by targeting full completion of the Environmental Awareness course.

Progress against these objectives, and details any new schemes under discussion or planned, will be reported annually in both this Carbon Reduction Plan and the APS Group's Corporate Social Responsibility Report; the Carbon Reduction Plan is and will continue to be publicly available and published on the APS Group's external website.

# Declaration and Sign-Off

This Carbon Reduction Plan has been completed in accordance with PPN 06/21 and associated guidance and reporting standard for Carbon Reduction Plans. Emissions have been reported and recorded in accordance with the published reporting standard for Carbon Reduction Plans and the GHG Reporting Protocol corporate standard<sup>4</sup> and uses the appropriate Government emission conversion factors for greenhouse gas company reporting<sup>5</sup>.

Scope 1 and Scope 2 emissions have been reported in accordance with SECR requirements, and the required subset of Scope 3 emissions have been reported in accordance with the published reporting standard for Carbon Reduction Plans and the Corporate Value Chain (Scope 3) Standard<sup>6</sup>.

This Carbon Reduction Plan has been reviewed and signed off by a member of the Board of Directors on behalf of the Board.

A handwritten signature in black ink, appearing to read 'John Holmes', is written over a horizontal blue line.

John Holmes

Executive Director

20 September 2023

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<sup>4</sup> <https://ghgprotocol.org/corporate-standard>

<sup>5</sup> <https://www.gov.uk/government/collections/government-conversion-factors-for-company-reporting>

<sup>6</sup> <https://ghgprotocol.org/standards/scope-3-standard>