

DWS NET ZERO CARBON PATHWAY

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OPENING STATEMENT

DWS fully acknowledges and supports the scientific consensus around global climate change as summarised by the Intergovernmental Panel on Climate Change (IPCC) of the imperative to limit global warming to 1.5°C above pre-industrial levels.

As announced at our 2020 Annual General Meeting, DWS is committed to becoming climate-neutral in its actions – in line with the Paris Agreement – and well ahead of the timeline officially set out in the Agreement.

Through construction and operation, buildings contribute more than one-third of the world's carbon emissions and, as such, DWS recognises the urgent need for real estate to confront the risks of climate change. In 2019, our real estate business became proud signatories of the Better Building Partnership's Climate Change Commitment and we are pleased to publish our Net Zero Carbon Pathway.

We are committed to being net zero carbon by 2050 and ensuring our portfolio's greenhouse gas emissions are in line with a 1.5°C of warming scenario as dictated by the Paris Climate Agreement of 2016.

We have developed an ambitious and credible pathway for aligning our portfolio with net zero ambitions, focused first on improving energy efficiency, followed by investment and procurement of renewable energy, and finally the purchase of offsets as a last resort.

We recognise that achieving net zero carbon will require a strong governance structure through the entire real estate lifecycle, and we are committed organisation-wide to ensuring the success of the commitment.

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Clemens Schäfer

Head of Real Estate, APAC & EMEA

1 TIMEFRAME OF NET ZERO CARBON GOAL

DWS commits to aligning investment and management strategy to achieve a net zero carbon portfolio by 2050 for its European-managed real estate portfolio. DWS is committed to decarbonising its real estate investment portfolio in a way that is consistent with achieving the goal of global net zero emissions by 2050.

2 INVESTMENT BOUNDARY

DWS' real estate investment business is responsible for €57,8bn¹ AUM globally.

The net zero carbon goal covers European-managed real estate investments totalling €29,5bn¹ AUM or 51% of DWS's real estate investment AUM.

3 CARBON EMISSIONS BOUNDARY

The carbon scope of the goal is summarised in Table 1 and in alignment with the carbon emission boundary required per the Better Building Partnership's Climate Change Commitment.

Table 1: DWS BBP Climate Change Commitment Carbon Scope

Activities	Landlord Responsibility	Occupier Responsibility
1 Energy to operate buildings (electricity, fuels, heat networks)	X	X
2 Water to operate buildings	X	
3 Waste generated during operation	X	
4 Refrigerants	X	
5 M&E and Property Management Services	X	
6 New Development works	X	
7 Refurbishment works	X	X
8 Fit-out works	X	X

¹ As of 30/09/2020

4 DELIVERY STRATEGY

4.1 Governance

DWS has a five-stage strategy for ESG integration encompassing the full lifecycle of both assets and portfolios.

DWS ESG House View



Policy Advocacy & Industry Engagement

For the last six years, DWS has also played a leading role providing its expertise to EU policy-makers to put energy efficiency at the heart of Europe’s energy and finance policies. For example, DWS’ Senior ESG Strategist Murray Birt was a founding member of the Energy Efficiency Financial Institutions Group (EEFIG), an initiative convened by the European Commission and UNEP FI. EEFIG’s first report played a key role in the European Union adopting “Efficiency First” as a key principle of EU energy policy. DWS also published a report in May 2020 with our recommendations, focusing in particular on the theme of green building renovations as an economic stimulus.

The responsibilities and actions of many DWS stakeholders are critical to success of the net zero carbon programme. A strong governance structure is important for monitoring and accountability for delivery of the programme. The following are a few key stakeholder groups and their relevant responsibilities:

1 Senior Management

Providing input and approval of overall DWS net zero carbon strategy; communication of significant updates and responsibilities to stakeholders and engagement with industry groups and policymakers on net zero carbon and ESG-related themes.

2 ESG Team

Development and ongoing update of DWS net zero carbon strategy, coordination with technical consultants and property managers, providing recommendations on efficiency measures and renewable energy opportunities to progress at assets, communicating progress to asset managers, fund managers, and senior management.

3 Fund Managers

Cost approval for energy efficiency projects necessary for achieving net zero goals; communication of capital constraints or portfolio changes that may impact net zero programme.

4 Asset Managers

Provision of guidance on property list for net zero carbon / energy audits and suitability of green building certifications for local market; coordination of cost approval of energy efficiency projects with fund management; communication of expectations with property management.

5 Transactions Team

Evaluation of new acquisitions in the context of carbon transition risk and the net zero carbon goals of the Real Estate platform and individual funds; estimation of capital expenditure requirements for aligning assets with net zero ambitions; ensuring completion of ESG acquisition risk screening and incorporation of findings in the Investment Committee Memo.

6 Property Managers

Engagement with technical consultants; review and incorporate recommended net zero carbon relevant projects.

4.2 Operational Carbon

A net zero carbon building in operation is when the annual carbon emissions associated with the building in use are zero or negative. Therefore, environmental performance should be considered for all standing assets, as well as assets entering the portfolio at acquisition.

To the greatest extent possible, a net zero portfolio should be achieved through efficient equipment and the installation and procurement of renewable energy. These investments into the asset will help futureproof the DWS real estate portfolio against regulatory requirements, reduce operating expenses, and improve tenant satisfaction.

4.2.1 Goal Setting

DWS’ real estate investment business commits to aligning its investment and management strategy to achieving a net zero carbon portfolio by 2050.

Additionally, to create a bias for action, in 2019 DWS announced a carbon reduction goal to be achieved by 2030 for the European office portfolio. The goals include:



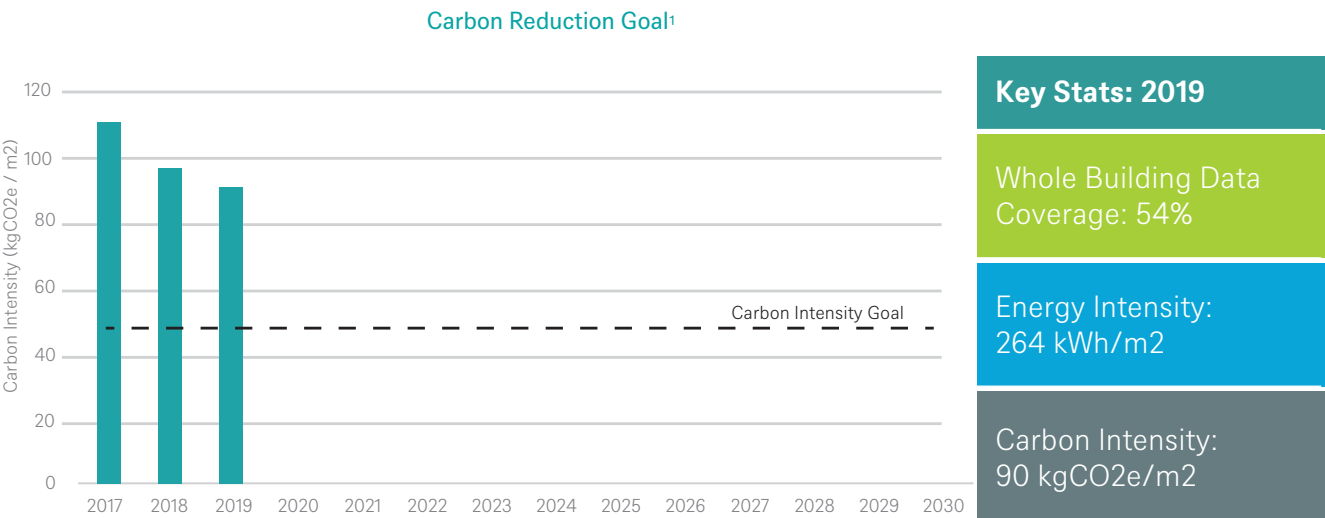
Achieve a 50% reduction in carbon emissions intensity (tCO₂e/m²) by 2030 compared to a baseline of 2017.



Reach 100% whole building data coverage for the portfolio.

The 2030 carbon reduction goal is in alignment with the 1.5°C carbon reduction trajectory prescribed by the Carbon Risk Real Estate Monitor (CRREM) developed by the European Commission and the European Green Deal that aims for the EU to be climate-neutral by 2050. Hence, adherence to DWS’s existing 2030 carbon reduction goal will also align with market expectations borne from the European regulatory environment – and accordingly mitigate stranding risk for the assets.

Strong progress has already been made against this goal, with a 10% reduction in energy intensity and 16% carbon reduction intensity achieved in 2019 relative to the 2017 baseline year.



¹ Carbon and energy intensity refer to the energy consumption and associated CO₂ equivalent emissions per square meter of occupied lettable area in the portfolio.

4.2.2 Acquisition Strategy

At point of acquisition, all assets are screened for their carbon transition risk using publicly available tools such as CRREM as part of technical and environmental due diligence. Where possible, this involves examining carbon and energy intensity of a potential acquisition and the impact of the acquisition on the portfolio's net zero aspirations.

Screening for carbon transition risk at acquisition allows for prioritisation of the most material assets that would benefit from further analysis; such analysis includes conducting energy audits to identify energy efficiency projects. The importance of differentiating carbon transition risk based on region and real estate sector is also recognised.

It is also important during due diligence to estimate the capital expenditure requirements necessary for the asset to align with net zero ambitions. These costs are estimated based on energy consumption data and information gathered from M&E due diligence.

4.2.3 Data Collection Strategy

Data Acquisition

Data is at the root of decision-making around ESG and achieving net zero carbon, so ensuring reliable and accurate data and high coverage for the portfolio is crucial to the success of the entire programme.

DWS has a bespoke ESG data platform used to collect, interrogate, and report on energy and carbon data for assets in the portfolio. Property Managers are trained on ESG data management processes and are required to submit data on a regular basis. To underscore the importance of the data collection programme, a transparent escalation procedure has been developed to ensure data is received in a timely manner.

Energy data quality is formally reviewed once a year via an independent assurance process in accordance with the AA1000AS standard. The intention is to expand this to other utilities in the near future. The assurance process includes a review of relevant processes and procedures in the preparation, validation, and (as required) update of data, as well as the inspection of a sample of primary source data.

Tenant Engagement

An ongoing challenge for the industry is acquiring data from tenant-controlled contracts, be it for their part of a multi-let building or as a triple net lease of a whole asset. To this end, DWS is mitigating this issue through two processes.

Firstly, DWS seeks to include green lease clauses upon the creation of or renewal of a lease, including a requirement that key ESG data be provided on a regular basis. Secondly, DWS is progressing engagement with tenants to collaborate on shared sustainability goals and encouraging tenants to set corporate emission reduction goals consistent with the Paris Agreement. DWS seeks to communicate the message of sustainability regularly to tenants via newsletters and emails highlighting progress and success stories relating to sustainability initiatives.

To create a bias for action on the topic of data collection a sub-target of the European Office Portfolio Carbon Reduction Goal is to reach 100% whole building data coverage for the portfolio by 2030.

4.2.4 Asset & Property Management Strategy

Energy and Carbon Management

To increase the percentage of assets in the standing portfolio aligned to net zero ambitions, DWS will undertake energy audits at target assets to inform asset-level plans with opportunities for energy efficiency retrofits and on-site renewable energy installations.

Energy audits are already a core element of the real estate ESG programme and beyond supporting net zero ambitions, they also support reporting initiatives such as GRESB and are viewed to be a fundamental element of good landlord stewardship. At present, DWS has set a goal of **ensuring audits are conducted on all assets with landlord energy consumption above 2.5 Gigawatt-hours per annum at least every four years**. Implementation of improvement opportunities is monitored via quarterly management reporting and the ESG data platform.

DWS also understands the importance of monitoring and optimising energy performance for its standing portfolio. Accordingly, DWS is in the process of expanding its active energy management programme. Active energy management software allows for the monitoring of energy consumption for individual pieces of equipment in the assets to align energy use with occupancy, and DWS aims to have such a programme in place for all office and retail assets with landlord energy consumption above 2.5 Gigawatt-hours per annum in the near term.

Green Building Certifications

The coverage of green building certifications (e.g. BREEAM, LEED, DGNB, HQE) is a key performance indicator that the industry looks to in classifying a sustainable investment.

DWS aims to obtain green building certifications for all high-performing buildings with approval by ownership. Certified assets under management for the global DWS real estate platform total €16.5bn¹, and further certifications are in the pipeline. This is also a key consideration for assets at point of acquisition. For major refurbishments and redevelopments, DWS's Sustainable Design Brief recommends a green building certification to be targeted for the project, as well as specifying a minimum level of certification based on sector type.



¹ As of 31/12/2019

4.3 Renewable Energy Investment and Procurement

On-site Renewable Energy Installations

DWS recognises that a key to achieving zero carbon at an asset is through the production of renewable energy. This will help improve resilience of the assets by mitigating against fluctuating energy prices.

Through DWS' energy auditing programme, feasibility studies for potential on-site renewable energy installations are completed.

For all on-site renewable energy generation installed at standing assets, DWS will disclose the quantity of renewable energy generated and consumed, and the proportion of renewable energy versus overall energy consumption for the portfolio.

Renewable Energy Procurement

In cases where energy efficiency and on-site renewable energy generation are insufficient to achieve net zero carbon at an asset, the procurement of off-site renewable energy will be considered.

DWS has mandated a partner to streamline and centralise the energy procurement of the European portfolio. Through this partnership, **all landlord energy supplies will be procured from renewable tariffs within the next three years**. Additionally, DWS will also be encouraging tenants to join this programme with the aim for all energy at the building being procured from renewable tariffs.

DWS uses its ESG data platform to monitor and quantify the coverage of meters where green tariffs and contracts are present.

Renewable Energy Investment and Procurement Metrics:

- 1 Percentage of on-site renewable energy relative to total energy consumption (%)
 - 2 Percentage of energy procured through renewable tariffs or renewable power purchase agreements (PPAs) as a percentage of total energy consumption (%)



4.4 Refurbishments and Developments

As an asset moves towards the end of its lifecycle, the carbon transition risk review process may identify the need for a major refurbishment or redevelopment to take place.

All major refurbishment and redevelopment projects involve DWS’ real estate ESG team. This begins with the sharing of the DWS Sustainable Design Brief (‘the Brief’), which includes line items that will aid projects in achieving net zero carbon. Specifically, the Brief focuses on the following six key concepts for sustainable design in real estate:

ESG in Real Estate: Key Concepts for Sustainable Buildings



To address operational carbon, the Brief contains line items such as employing enhanced energy modelling to predict whole-building performance during design, achieving a minimum 30% reduction in energy consumption compared to pre-intervention levels, and achieving an EPC rating of B or better.

To address embodied carbon, the Brief contains line items on completing a full carbon lifecycle assessment for the project, reporting on progress towards circular economy principles, and reporting on percentage of recyclable and reusable materials that are used in the works.

For each development or refurbishment project, implementation of the Brief begins with meetings held between DWS and the broader project team to determine specific performance goals and the production of a bespoke project sustainability memo at the design concept stage. Progress is then monitored throughout the project to ensure the performance goals are being met.

Refurbishments and Developments Metrics:

1

Average modelled energy intensity of new refurbishments and developments, by sector and geography (kWh/m²-yr)

2

Average modelled carbon intensity of new refurbishments and developments, by sector and geography (tCO₂e/m²-yr)

3

Average embodied carbon of new refurbishments and developments, by sector and geography (tCO₂e/m²)

Putting it into practice

KupkA - Paris office redevelopment



Project Summary	Full redevelopment including significant technical and aesthetic upgrade to face current and upcoming letting competition in La Défense.
Sector:	Office
Location:	La Defense (Paris Region)
Tenure:	Freehold
Valuation:	€78 million
Project Budget:	€38.5 million
Current ERV:	c. €420 per sq ft
Lettable Area	c. 17,014 sq m

An efficient space:

- 40% reduction in energy consumption compared to pre-intervention levels.
- Pilot project for the 'Alliance for Deep Renovation in Buildings' (ALDREN) scheme.
- Radiant ceilings and high performance façade creating combining thermal and acoustic comfort with efficiency.
- Monitoring & Optimisation technology on all sources of energy consumption.
- Connection to the highly efficient La Defense district heating and cooling network.
- Ambient LED lighting throughout.
- Reduced embodied carbon impact via limitation of demolition.

A healthy space:

- High ventilation rates, efficient filters, and low-emitting materials contributing to exceptional air quality & efficiency.
- Access to natural daylight as well as LED lighting with a high level of uniformity and colour rendering to enhance visual comfort and fit with the circadian rhythms of occupants
- Acoustic isolation with a high performance façade

Certifiable quality:

- Attaining HQE Excellent and BREEAM Refurb Excellent green building certifications.
- Attaining WELL Shell & Core Gold health and wellbeing certification.
- Attaining WIRED Gold connectivity certification.

4.5 Offsetting

To ensure the credibility of our net zero approach, opportunities for carbon reduction through energy efficiency and renewable energy investment and procurement will be prioritised. However, after exhausting such opportunities, the procurement of offsets shall be explored to address any residual carbon emissions.

DWS will follow best practice with respect to the procurement of reputable offsets, including ensuring that the offset quantity is permanent, measurable, independently verified, and transparent; DWS will develop an offset procurement strategy detailing these requirements: and will report the quantity of offsets purchased for meeting the goal.

In addition, **DWS shall pursue a position of no offset use, and hence a truly zero carbon portfolio, by 2050 and then beyond.** Whilst we acknowledge the practical and technological challenges this will pose, having this stretch ambition is an important bias for action for our team and third party partners to strive for excellence in design and operation.



Summary

DWS has a long track record of integrating ESG strategy into investment practices to drive better risk adjusted returns and fully embraces the commitment to a net zero portfolio by 2050.

We acknowledge this significant challenges this will pose but look forward to collaborating with the BBP and our fellow members to the betterment of our portfolio and our planet.

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