



Live more,
Bank less

OUR PATH TO

NET ZERO

SUPPORTING ASIA'S TRANSITION
TO A LOW-CARBON ECONOMY

REAL
ESTATE

Disclaimer

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List of abbreviations

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Abbreviations (alphabetical order)	
AER	Annual efficiency ratio
AR6	IPCC's Sixth Assessment Report
BF-BOF	Blast furnaces-basic oxygen furnace(s)
CCUS	Carbon capture, utilisation and storage
CIX	Climate Impact X
CO ₂	Carbon dioxide
CRREM	Carbon Risk Real Estate Monitor
DCM	Debt capital markets
DRI-EAF	Direct reduced iron-electric arc furnace(s)
EAF	Electric arc furnaces
EAF-Scrap	Scrap-based electric arc furnace(s)
ECM	Equity capital markets
EU	European Union
EV	Electric vehicle(s)
GDP	Gross domestic product
GHG	Greenhouse gas(es)
IATA	International Air Transport Association
IBG	Institutional Banking Group
ICE	Internal combustion engine
IEA	International Energy Agency
IEA NZE	International Energy Agency's Net Zero Emissions by 2050 Scenario
IMO	International Maritime Organization
IPCC	Intergovernmental Panel on Climate Change
kgCO ₂ /MWh	Kilograms of CO ₂ emissions per megawatt hour of power produced
kgCO ₂ /p-km	Kilograms of CO ₂ emissions per passenger kilometre travelled
kgCO ₂ /vehicle-km	Kilograms of CO ₂ from tailpipe emissions per vehicle kilometre travelled
kgCO _{2e} /kg	Kilogram of CO ₂ equivalent per kilogram of crude steel produced
LLE	Loans and loan equivalent(s)
MPP	Mission Possible Partnership
MtCO _{2e}	Million tons of CO ₂ equivalent
N/A	Not applicable
NGFS	Network for Greening the Financial System
NZBA	Net-Zero Banking Alliance
O&G	Oil & Gas
OEM	Original equipment manufacturer(s)

List of abbreviations

PCAF	Partnership for Carbon Accounting Financials
REIT	Real estate investment trust(s)
SAF	Sustainable aviation fuel
SGX	Singapore Exchange
SPV	Special purpose vehicle(s)
TCFD	Task Force on Climate-Related Financial Disclosures

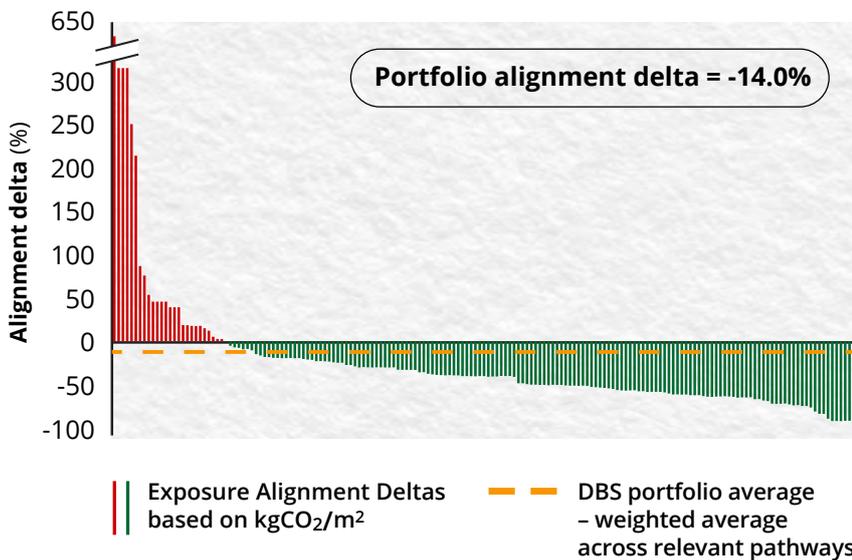
2.8. Real Estate

“ While real estate assets remain largely dependent on the decarbonisation of the power grid to reach net-zero, there are other opportunities at hand to decarbonise. Improving building energy efficiency is increasingly both sustainable and economical, and securing a renewable power supply has become more accessible than ever before. DBS will support our clients as they adopt green technologies and sustainable construction methods to enhance their building efficiencies that serve the needs of the future.



Chew Chong Lim
Group Head of Real Estate

Real Estate Alignment Delta 2020



Year	Alignment Delta (current 2020, and targets)	Implied % Reduction in emissions intensity vs. 2020 (vs. underlying CRREM benchmarks)
2020	-14.0%	-
2030	≤ 0%	42%
2050	≤ 0%	95%



What's included?



Scope 1 and 2 emissions from building operational activity



Real estate developers that invest in and/or manage properties, REITs and individual properties



All major property types and material countries covered



Reference scenario

- Carbon Risk Real Estate Monitor (CRREM) Net Zero benchmarks by country and property type
- Alignment Delta approach taken



How we will achieve our targets

- Supporting our clients in meeting their targets
- Financing more efficient buildings
- Supporting our clients in tapping on renewable energy to power building operations

2.8.1. Net zero in Real Estate

Real estate is a material – albeit indirect – contributor to global GHG emissions. GHG emissions are emitted through the construction process (primarily but indirectly through the use of materials like steel and cement). During the lifetime of constructed buildings, building use generates emissions directly through on-site fuel consumption (e.g. for heating and cooling) and indirectly via electricity consumption. The latter is the most important source of emissions, as buildings are a large consumer of electricity, and through this route, account for about 17.5% of all global emissions^{60,61}.

In developing our targets for the Real Estate sector, we have considered the operational emissions of buildings – that is direct Scope 1 emissions of existing buildings (e.g. through gas-power heating) and indirect Scope 2 emissions from electricity usage. The world in 2050 will undoubtedly continue to require buildings, hence, we measured physical emissions intensity in kgCO₂/m² of gross floor area of our clients. Levels of emissions differ greatly across the regions that we are active in – we reflected this in our target to help us best serve clients, respecting their markets' specifics. This was done by setting an alignment delta target, which compares emissions intensity for each client against a reference scenario that is appropriate for that client's building type and geography, expressing the level of alignment as a percentage. Our target is to keep this alignment below 0% on average for the portfolio.

The route to net zero for commercial real estate has three primary levers:



- **Improving energy efficiency of buildings.** Technologies such as improved insulation, heat pumps, and electricity optimisation technologies help make buildings more energy efficient.
- **Improving the emissions intensity of the energy supply.** This can be achieved either through the decarbonisation of national electricity grids resulting from the Power sector's decarbonisation, or through direct efforts by commercial real estate companies to procure their own clean energy. The latter solution is possible by building installations (e.g. rooftop solar panels) and, in some cases, through specific power purchase agreements.
- **Reducing Scope 1 emissions through electrification** (e.g. of heating and cooling). In the short term, electrifying these typically yield lower carbon emissions than typical methods of burning fossil-fuels on-site, while in the long term, expected uptake of green power will lower emissions to almost zero.

⁶⁰ This "Scope 2" emission is of course the same as the "Scope 1" emission created by the Power sector. We recognise and make no efforts to eliminate this double count.

⁶¹ World Resources Institute (2022). World Greenhouse Gas Emissions in 2019. <https://www.wri.org/data/world-greenhouse-gas-emissions-2019>

02 | Our net zero aligned emissions reduction targets

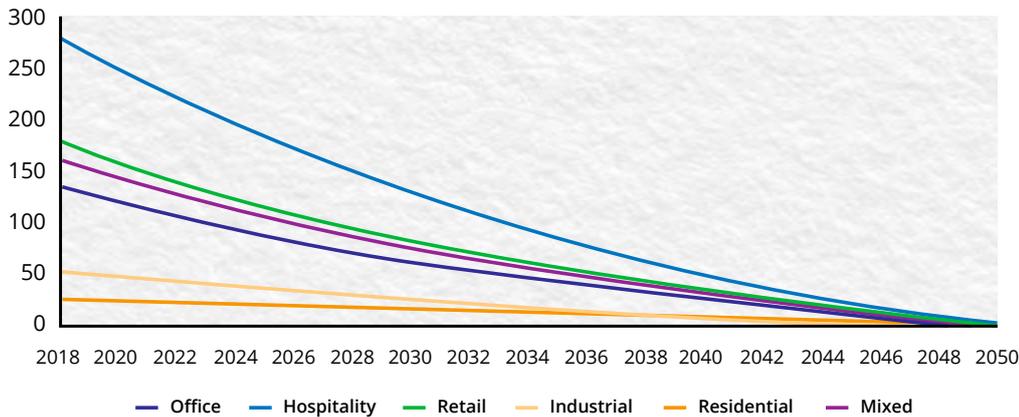
2.8.2. DBS' targets for the Real Estate sector

Commercial Real Estate is an important sector in DBS' IBG portfolio, which includes loans made to finance individual properties and financing to real estate corporates that invest in and manage buildings as well as REITs. All of these are included in the scope of our targets.

Our portfolio is diverse both geographically and in the types of buildings we finance. This creates a challenge when setting net zero targets since both regions and property types have very different emissions intensities. For instance, buildings in northern China will require heating in a way that those in Singapore do not. Similarly, residential buildings will typically consume less energy than hotels. This challenge – together with a general paucity of data – has so far resulted in relatively few banks setting net zero targets for this sector. Those that have done so typically have restricted scope to a narrow range of geographies and property types and have used national plans to set targets. In contrast, our target has a wider scope as we have included all the major geographies in which our corporate clients and REITs operate. We have also incorporated a range of property types, including industrial, office, hotels, retail and residential buildings⁶².

To achieve this, we have relied on pathways provided by CRREM, a public-private collaboration based in the European Union (EU) focusing on supporting the decarbonisation of the real estate sector. CRREM has developed a set of country and property type specific reference pathways, including individual benchmarks for our major property types and countries.

Example: Reference Scenario for Singapore, by asset type
kgCO₂/m²



Similar to the approach taken for Shipping, we have benchmarked each of our borrowers to the corresponding CRREM curves based on country and property type, and calculated an Alignment Delta of individual borrower/transaction. This alignment delta is then weight-averaged to determine whether our commercial real estate portfolio is wholly in line with the path towards net zero. An alignment delta of zero means we are in line; a positive alignment delta means our portfolio has underperformed the target emissions intensity; and a negative alignment delta means we are tracking ahead (outperform).

⁶² Data centres have excluded from this exercise, due to the lack of an appropriate reference benchmark from CRREM.

02 | Our net zero aligned emissions reduction targets

Over the course of baselining and target setting exercise, we recognise that data availability is a challenge for commercial real estate. The data we have used in this target setting exercise is sourced either from publicly disclosed company reports of emissions or from building-level databases with the energy intensities of financed buildings⁶³. Our starting alignment delta is -14.0%, representing an emissions intensity that is better than the industry average. However, many of our clients have not reported emissions and therefore were assigned an alignment delta of zero – which would not affect the baseline. Given this exclusion, the starting alignment delta may not be a full reflection of the true emissions from our real estate portfolio. There may be some positive bias in companies that are reporting (i.e. those with lower emissions are more likely to report them) and when we restate our alignment delta in future reporting with more data, it may well go up. Nonetheless, our commitment to net zero remains unchanged.

Consequently, our plan to achieve our targets includes:



- Working with our clients to help them formulate and achieve net zero plans.
- Supporting our clients in their investments to improve building efficiency through new investments and retrofitting.
- Financing more efficient buildings, focusing on those with better building ratings.
- It is noted that decarbonisation in Real Estate is generally highly dependent on decarbonisation of the power grid, thus our decarbonisation work in the Power sector.

2.8.3. Future development and dependencies

Achieving our targets partly depend on the efforts of real estate companies and largely on the successful decarbonisation of the Power sector. Essentially, without decarbonisation of the power grid, the Real Estate sector would generally not succeed in sufficient decarbonisation to remain on track for net zero. Consequently, DBS would fail to meet its targets. While we are playing our part in decarbonisation of the Power sector through our aggressive targets, we will also need governments, policy makers, and the Power industry to be mobilised as well.

⁶³ This is only applicable in Singapore thus far, where select buildings have reported their energy intensities as part of an annual benchmarking exercise by the Building and Construction Authority (BCA)

“ **C**ommitting to net zero by 2050 and setting our 2030 interim targets mark an important milestone of DBS. Navigating this transition will be a long-term endeavour. Much needs to be done in order to fulfil our commitments set out in this report. It will entail a fundamental change in how we do business – both internally and externally. We will enhance the monitoring and reporting of our targets, review our targets and methodologies at regular intervals, and most importantly, support our clients on their transition to adapt to a net zero world.

“ **A**s we continue on our journey to supporting a just transition, we are working hard to integrate sustainability into everything we do. To achieve this, our employees are our greatest asset and we are enabling them to deliver new solutions to our clients. We will be very focussed on creating a robust ESG data architecture, develop new analytics tools, and above all, invest in our people by offering the relevant learning and development tools so that they can effect a fair and just transition with confidence.

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Yulanda Chung
Head of Sustainability,
Institutional Banking Group



Helge Muenkel
Group Chief Sustainability Officer



The way forward

1 Monitoring and reporting annually our progress against our targets – As an early adopter of the TCFD, we have been reporting under the recommendations since 2018. Now as a signatory to NZBA, we remain committed to being transparent about our efforts and will report annually our progress against both our 2030 interim targets and 2050 net zero targets within our sustainability reports. For the seven sectors of which we have set emissions reduction targets, this will entail updating the annual financed emissions for the sectors and analysing the progress against previous years and the respective targets.

2 Reviewing periodically and, if appropriate, updating our targets and methodologies – We expect the reference scenarios against which we have calibrated our emissions reduction targets to continually evolve. Precedent suggests that organisations that own these reference scenarios typically update them periodically. However, we do not intend to update our interim targets for 2030 each time these reference scenarios are revised or updated. Doing so would potentially create business uncertainty, both internally for our business planning and externally in our client engagements. However, we intend to review and, if necessary, revise our targets at least once every five years hereafter. Building on the foundation of this round of target setting, we look forward to the next round with more confidence of our approach.

04 | The way forward

3 Supporting our clients on their transition journey – Our ability to achieve our net zero ambition relies heavily upon the success of our clients in delivering their own transition plans. Hence, we are committed to engaging with our clients and supporting them to transition their businesses through sustainable and transition finance. In the past few years, we have seen a significant increase in the demand for sustainable

finance solutions, such as sustainability-linked and green loans. To accelerate the transition and meet the vast investment needs in the next few decades, we will proactively partner our customers, providing them with financial advisory and transition finance solutions, as we collectively work towards a low-carbon future.



- **To our clients:** we applaud your efforts to transition to net zero, and we stand shoulder-to-shoulder with you in those journeys.
- **To our investors:** we hear your demand for us to support the transition to net zero and we want to lead the way.
- **And to the wider community:** we are ready to support you in your decarbonisation efforts and realise a fair and just transition by 2050 in a world where no one is left behind.