

nuveen
REAL ESTATE

2021-2022
Annual Environmental,
Social and Governance
Report





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Engaging with investors over the last 12 months, we detected two significant shifts in their expectations of their investment managers. First, to meet their fiduciary duty, investors expect material environmental, social and governance (ESG) factors to be embedded in investment processes and portfolios. And second, they expect managers to share their values on key issues, such as climate change and human rights.

As our latest environmental, social and governance report highlights, Nuveen Real Estate is an industry leader in these areas with a track record of working with investors, property managers, tenants and the community. Our tomorrow's world philosophy sits at the core of our investment process. Focused on the long-term structural trends of sustainability, technology and people, it aims to deliver enduring benefits to both our clients and society.

This philosophy combined with our sector approach creates real estate portfolios that serve our partners' investment, climate and social objectives. Our investment teams have access to forward-thinking market views on economic, social, political and environmental issues prepared by in-house experts in research, sustainability, technology and community engagement. Our teams have access to carefully selected external data sources that enhance analysis and decision-making as well as our proprietary asset and portfolio metrics, which provide a competitive edge for reporting on non-financial performance indicators.

Our 2022 environmental, social and governance report provides transparency into how our governance structures and our approach to sustainability and stakeholder engagement will support achieving these goals.

***To serve our clients and stakeholders,
we are focused on:***

- *Delivering investment performance that generates alpha*
- *Investing in key growth areas*
- *Developing impact investments with a focus on sustainability*



Chris McGibbon
Global Head of Real Estate



Company profile

With over 85 years of real estate investing experience and more than 745 employees* located across over 30 cities throughout the world, our platform offers unparalleled geographic reach, which is married with deep sector expertise and a long history of prioritising responsible investing.

All data as of 31 Mar 2022.

* Includes 355+ real estate investment professionals, supported by a further 385+ Nuveen employees.

USA

\$119B AUM
291 employees

- Atlanta
- Boston
- Charlotte
- Chicago
- Dallas
- Denver
- Hartford
- Miami
- Minneapolis
- Newport Beach
- New York
- North Bergen
- San Francisco
- Washington, D.C.

EUROPE

\$31B AUM
403 employees

- Amsterdam
- Copenhagen
- Edinburgh
- Frankfurt
- Helsinki
- London
- Luxembourg
- Milan
- Madrid
- Paris
- Stockholm
- Vienna

ASIA PACIFIC

\$6B AUM
53 employees

- Hong Kong
- Seoul*
- Shanghai
- Singapore
- Sydney
- Tokyo



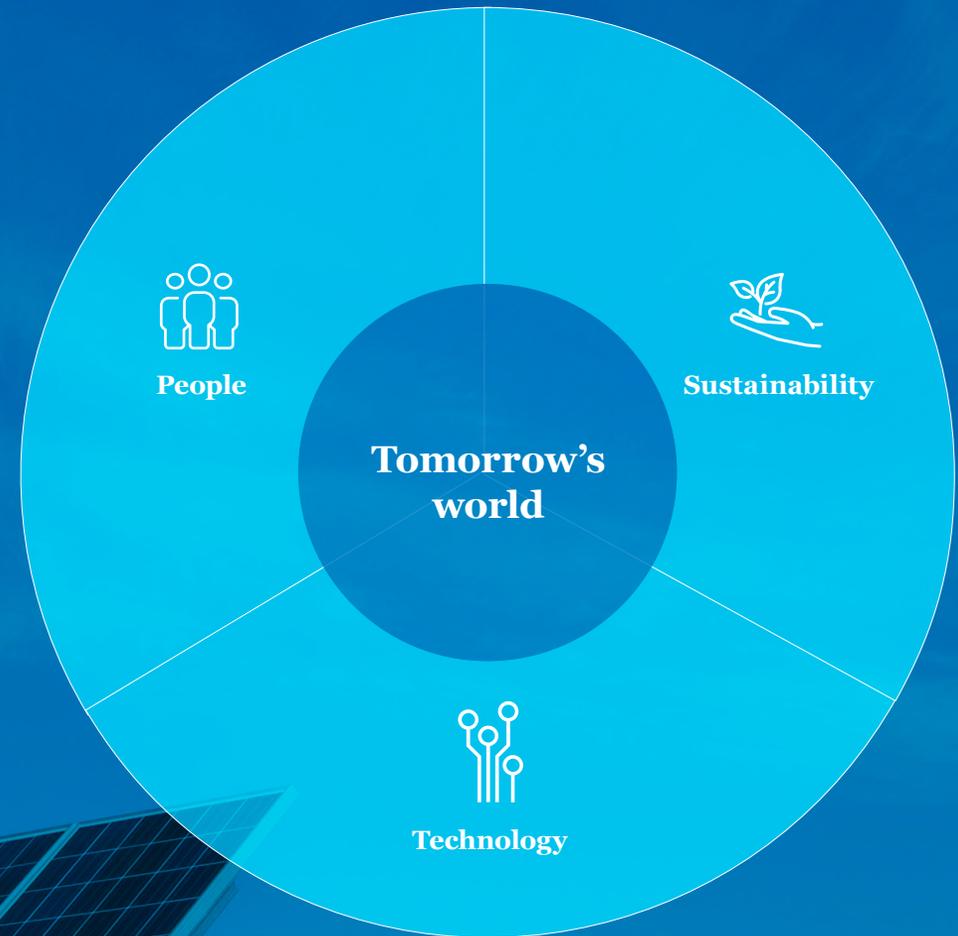
Sustainability strategy



Our tomorrow's world strategy, goals and alignment

Our tomorrow's world approach, a philosophy that sits at the core of our investment process and business operations, informs our long-term view of real estate investments for the enduring benefit of both clients and society. It goes beyond incorporating ESG factors into our analysis. It embraces the structural changes that the real estate industry and society face. The three main disruptors that are shaping the future of real estate are **people, sustainability and technology**.

We believe structural change presents significant opportunities to create value, and the key to capitalising on these is to have a deep understanding of these disruptors and their effects.





NUVEEN REAL ESTATE'S COMMITMENT TO SUSTAINABILITY

2007

TIAA, Nuveen Real Estate's parent company, first recognised as **ENERGY STAR Partner of the Year** in 2007 – and recognised with this award every year subsequently, achieving the Sustained Excellence recognition 14 years in a row.



2010

Nuveen Real Estate commits through the U.S. **Department of Energy Better Buildings Challenge** to improve energy efficiency by 2% per year for 10 years over 20 million sq ft of equity portfolio investments and in 2020 Nuveen Real Estate was recognised as a Goal achiever.



2011

Nuveen Real Estate joins as a **GRESB Member** and participates in each year's annual real estate ESG assessment. In the most recent assessment, 18 funds awarded Green Stars by GRESB in 2021; eight funds awarded 4+ stars (performing in top 40% of funds globally).



2012

UN PRI Signatory since 2012 with a A+ rating in the most recent assessment (2020).



2017

Energy efficiency target introduced to reduce landlord-controlled energy use by 30% by 2025 from a 2015 baseline.

Nuveen Real Estate, a market leader in sustainability, launched its **global resilient series** of real estate strategies, using a proprietary filtering system to identify tomorrow's world cities.



2018

TIAA commits to implementing the **Taskforce for Climate-related Financial Disclosures (TCFD) recommendations**.

Climate-risk working groups across the enterprise continue to focus on climate-risk integration and disclosure of climate-related risks.



2019

Nuveen Real Estate signs **Better Building Partnership (BBP) Climate Change Commitment** and publishes pathway to achieve net zero carbon (NZC) by 2040.



2020–2021

Nuveen Real Estate joins **ULI Greenprint NZC commitment**, joining U.S. real estate companies.

Nuveen Real Estate and TIAA together join **Fitwel Champions** focusing on implementing health and wellness and viral safety in real estate.



Measuring impact: seeking positive, avoiding negative and managing risk

As stewards of our clients' capital, our fundamental goal is to build an investment portfolio that delivers strong risk-adjusted returns. This requires assessing risks holistically, weighing the positive and negative implications of our investments and how they could affect long-term investment value. By intentionally considering the impact of our investment strategies, we can measure the full set of results and more readily pursue the stability, diversification, financial performance and positive real-world benefits that underpin long-term value growth.

“Sustainability sits at the core of our tomorrow’s world strategy. We believe that the transition to a low-carbon economy presents both opportunities and risks which, when effectively managed, can create value for our investors.”



Abigail Dean
*Global Head of Strategic Insights
Nuveen Real Estate*



**Nuveen
Real Estate
sustainability
program
goals**

Align business
strategy and
operations with
**corporate
values**

Develop products
with **ESG
characteristics**
that align with
client expectations
for sustainable
investments

Assess **investment
alignment** with fund
ESG commitments
and exposure to
sustainability
investment risk

Provide **oversight
and allocate
resources** to comply
with requirements
for ESG disclosures,
processes and
performance

Integrate ESG
criteria into
investment selection
process and ongoing
asset management



A focus on climate change

At Nuveen Real Estate, we recognise that there are many environmental and social areas of focus that are important for real estate investors to consider. However, we believe that climate change has the potential to affect real estate values and that the transition to the low carbon economy presents both financial opportunities and risks. The primary area of focus for our sustainability strategy is therefore on the impacts of climate change on our real estate investment portfolio.



We aim to align our portfolio management strategies with the aims of the Paris agreement with the following activities:

- 2040 net zero carbon target that focuses on energy first
- 30% reduction in the energy intensity of landlord-controlled energy use by 2025 from a 2015 baseline
- Utilising a 1.5 degree scenario when assessing investments for transition risk
- Providing transparency to our stakeholders through disclosure of carbon emissions
- Implementing our published pathway to achieve net zero carbon
- Assessing investments for exposure to near-term changes in physical climate hazards due to locked-in global warming
- Implementing resilience solutions to create value and prepare buildings for future climate conditions

A Paris-aligned scenario is a scientifically supported emissions pathway that if achieved can mitigate the worst impacts of climate change and is the scenario around which governments, investors and companies have largely coalesced when committing to net zero goals. However, a portfolio's alignment to such a scenario or any climate scenario does not imply or guarantee the realization of the scenario. A portfolio's scenario alignment speaks to the expected (or target) rate of decarbonization in the portfolio and could be interpreted as a method of optimally mitigating against transition risks should that scenario actually manifest. As the probability of the world achieving a certain climate scenario may shift over time, we will continue to monitor and evaluate the evolving investment risks and opportunities.



Governance



Organisational governance structure

An appropriate governance strategy is fundamental to delivering investments with enduring benefits for our investors and society. Nuveen Real Estate's strategic insights team supports ESG integration at all levels of the organisation. Investment decisions and management strategy are governed by regional investment committees, which are overseen by Nuveen's executive committee and that of our parent TIAA.



Our strategic insights team supports integration of ESG at all levels of Nuveen Real Estate and aligned with ESG strategy across the broader organisation.

TIAA EXECUTIVE COMMITTEE AND BOARD

NUVEEN EXECUTIVE COMMITTEE

NUVEEN ALTERNATIVES REGIONAL REGULATED BOARDS

NUVEEN REAL ESTATE GLOBAL EXECUTIVE LEADERSHIP TEAM

REGIONAL INVESTMENT COMMITTEES

REGIONAL OPERATIONAL COMMITTEES

*Delegated
authorities*

PORTFOLIO MANAGEMENT

INVESTMENT TEAMS

PROPERTY MANAGERS AND OPERATING PARTNERS

Technology

Sustainability

Research

Community

Impact



A firm-wide focus on responsible investing

Across Nuveen, we implement our commitment to responsible investment (RI) through capabilities developed at the enterprise level as well as through asset-class-specific activities based on a set of core principles: (1) ESG integration, (2) stewardship and (3) driving positive impact across our portfolios, focusing on mutually reinforcing principles that are increasingly relevant and applicable across all asset classes.

Nuveen Real Estate has embedded sustainability professionals that implement a tailored approach specific to the real estate industry.

NUVEEN REAL ESTATE ALIGNS WITH THESE CORE PRINCIPALS BY:



Sustainability criteria considered in investment process.

Ongoing asset management includes mitigating sustainability risk and ESG objectives.

Encouraging partners and suppliers to adopt sustainable best practices.

Industry participation and advocacy.

Investments in affordable housing.

Measuring monitoring and improving resource efficiency.



ESG integration in the investment process

For our commitment to sustainability to be meaningful, it is critical that it is fully integrated into our investment process. We achieve this through our top-down tomorrow's world investment strategy (see p. 6) and from the bottom-up through assessment of individual asset investment opportunities. The checks and balances at the different stages of our process support our teams in executing our ESG integration strategy.

SOURCING/ TARGET MARETS	INTEREST/ ALLOCATION	DUE DILIGENCE	INVESTMENT COMMITTEE	ONBOARDING	ANNUAL BUSINESS PLANS
Strategic insights team provides market views for selected locations identified as having increasing exposure to climate-related hazards or local climate legislation.	Investment teams utilise market views, available toolkits and engage with strategic insights team where appropriate in the sourcing of new deals and to assess ESG criteria for financial impact and materiality. Additional discussion and analysis may be required based on risk and strategy.	Information on sustainability performance and features requested from seller or partner. Business plan developed to align with fund strategy and mitigate identified risks. Information on sustainability performance and features requested from seller, partner, or borrower. Business plan and underwriting are aligned with fund strategy and to account for identified risks.	Investment recommendation memo and committee presentation include information on climate risk exposure and sustainability characteristics of investment.	Due diligence assessments and action plan development continues. Utility data onboarded to ESG database. Asset ESG data collected and aggregated into internal database.	Annual asset business plans include sustainability characteristics, such as energy performance data, climate risk exposure and other ESG criteria, where available.



HOW WE SUPPORT INVESTMENT TEAMS TO EXECUTE ON OUR ESG INTEGRATION STRATEGY

Annual Smart, Sustainable Building Blueprint sector workshops

Asset-level sustainability, community and technology data collected and used for planning and assessment of performance and risk

New acquisitions reviewed for ESG risk and opportunity, and asset business plans reviewed annually

Sustainability training for members of the investment team



Megatrends are reshaping tomorrow's world

The Nuveen Real Estate team recognises that every city is unique and the strategy for investing in them must be customised. Our team's proprietary research process identifies the top 2% of cities we believe to be best positioned in light of global megatrends.



**AGING
POPULATION**



**RISING
MIDDLE
CLASSES**



URBANISATION



**THE RISE OF
ECONOMIC
STRENGTH IN
THE EAST**



TECHNOLOGY



SUSTAINABILITY

Source: Nuveen Real Estate

Nuveen may determine to invest in cities other than those included in this total. The Nuveen list of global cities is based on the advisor's current analysis as of the date represented herein and is subject to change over time.

“We are driving long-term value by investing across sectors in the locations where we have high conviction for growth.”



Carly Tripp
*Global Chief Investment Officer
and Head of Investments
Nuveen Real Estate*



Our stakeholders are focused on ESG issues

The Commercial real estate (CRE) industry includes a variety of internal and external stakeholders. Investors buy or finance CRE based on their return targets and risk appetite, often made via real estate funds, each of which has specific strategy and risk/return profiles.

Fund or portfolio managers are responsible for executing the fund business plan and for reporting to investors on investment performance.

Asset and property managers oversee a specific portfolio of properties, managing budgets and capital projects, and oversees the leasing and property management teams at each of their portfolio properties.

We work with vendors and suppliers to operate and improve buildings, and engage with local governments and community organisations on regional priorities and legislative activities.

We seek to understand the sustainability views of each of our internal and external stakeholders and to incorporate, where possible, strategies to promote our shared values and priorities around environmental and social issues.



Investors

Our parent company and largest client, TIAA, publishes an annual [Responsible Business Report](#), which focus on several critical sustainability issues for our enterprise and has committed to TCFD-aligned climate risk disclosures with specific net zero carbon goals across its operational activities and for its General Account investments.

Our global institutional client base expects transparency in our approach to ESG integration; our plans to achieve net zero carbon in alignment with climate science; and our practices that address social risks, such as human rights, diversity and inclusion.



Governments and regulators

We are coordinating with peers, industry groups and financial regulators globally to comply with rules set out to promote consistent disclosure of ESG strategy and performance.

We are monitoring efforts of national and local governments that recognise the need to mitigate risk presented by climate change, who are requiring real estate owners to meet building energy/carbon efficiency standards and implement resilience solutions.



Tenants and customers

Our tenants expect us to provide safe and healthy indoor environments and to efficiently manage the building use of natural resources and operating costs.

We seek to engage with our tenants around areas of shared interest and promoting sustainable practices.





Communities

The communities where we invest depend on property owners to invest in new community services, resilience and health and safety programs.

We have a shared interest in our local communities' efforts to address issues with housing affordability, air quality, transportation and climate change.



Employees

Our employees are passionate and are expected to adhere to the values we share as an organisation.

Issues of inclusion, diversity and equity, health and wellness are themes that are front and center for our employees.



Vendors

We seek to work with suppliers and vendors who share our corporate values around ESG issues, such as sustainability, human rights and ethical practices.

We enforce this through policies, bidding and contracting procedures, and provide support through ongoing engagement and education.



Industry organisations and peers

We participate in industry working groups and provide feedback that supports consistency in the adoption of ESG and climate-related financial disclosures.

We seek to share lessons learned to advance sustainable building practices across the real estate industry.



Environmental strategy



Environmental areas of focus

As we consider the environmental impact of our real estate investment activities and seek to improve sustainability in the built environment, we focus on the following areas:

Physical risk

We recognise that the physical impacts of climate change will affect real estate values. We are furthering our understanding of how, where and when these physical impacts will become financially material to an individual investment's financial performance.

Transition to the low carbon economy

This presents both financial opportunities and risks. Effectively managing building efficiency and carbon intensity throughout this transition is a key factor in creating and protecting value in the assets we manage.

Responsible property investment

Our sustainability strategy encompasses a broad range of environmental, social and governance issues. We aim to demonstrate leadership and measure our impact based on industry-recognised benchmarks, certifications and assessments.



Environmental management system

Our approach encourages the consideration, and where relevant, execution of a broad range of ESG issues and initiatives through engagement with our property manager and operating partners:

- **Energy**
- **Waste and recycling**
- **Water**
- **Biodiversity and ecology**
- **Supply chain and procurement**
- **Transport**
- **Occupier engagement**
- **Community engagement**

We set annual targets and regularly monitor and update performance to enable us to benchmark and report progress against our targets and objectives.

OUR PROCESS

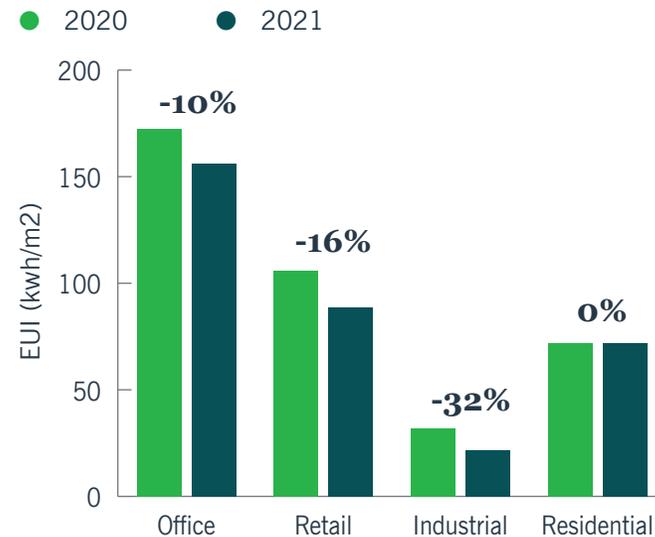


Environmental performance highlights

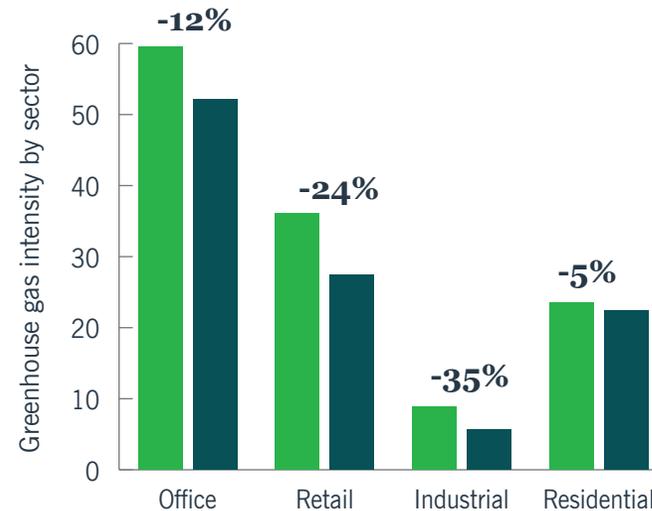
	EMISSIONS ¹	2021	YEAR-OVER-YEAR
DIRECT	Scope 1	32,479	-4%
INDIRECT	Scope 2	288,007	-6%
INDIRECT	Scope 3	39,274	-13%

-5%
REDUCTION
 IN SCOPE 1 AND 2
 EMISSIONS

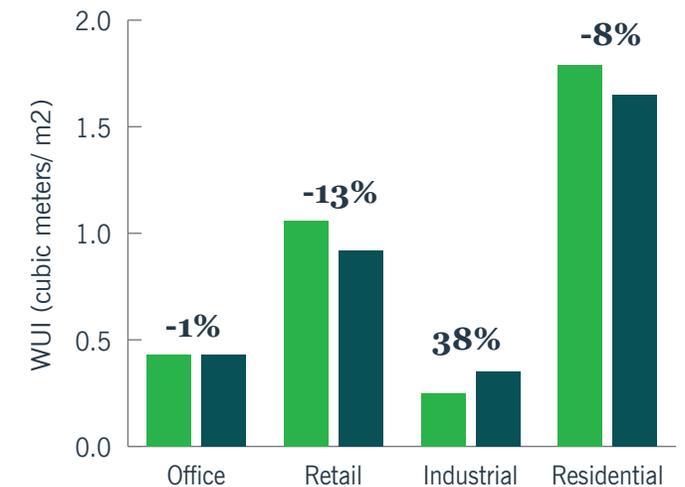
Energy use intensity



Greenhouse gas intensity



Water use intensity



Source: Nuveen Real Estate, Dec 2021. Full data set available in appendix. **Scope 1** covers direct emissions from landlord-controlled sources. **Scope 2** covers indirect emissions from the generation of purchased electricity, steam, heating and cooling controlled by the landlord. **Scope 3** includes all other indirect emissions that occur in a company's value chain, including emissions from energy procured by tenants directly from utility. Past performance is no guarantee of future returns.



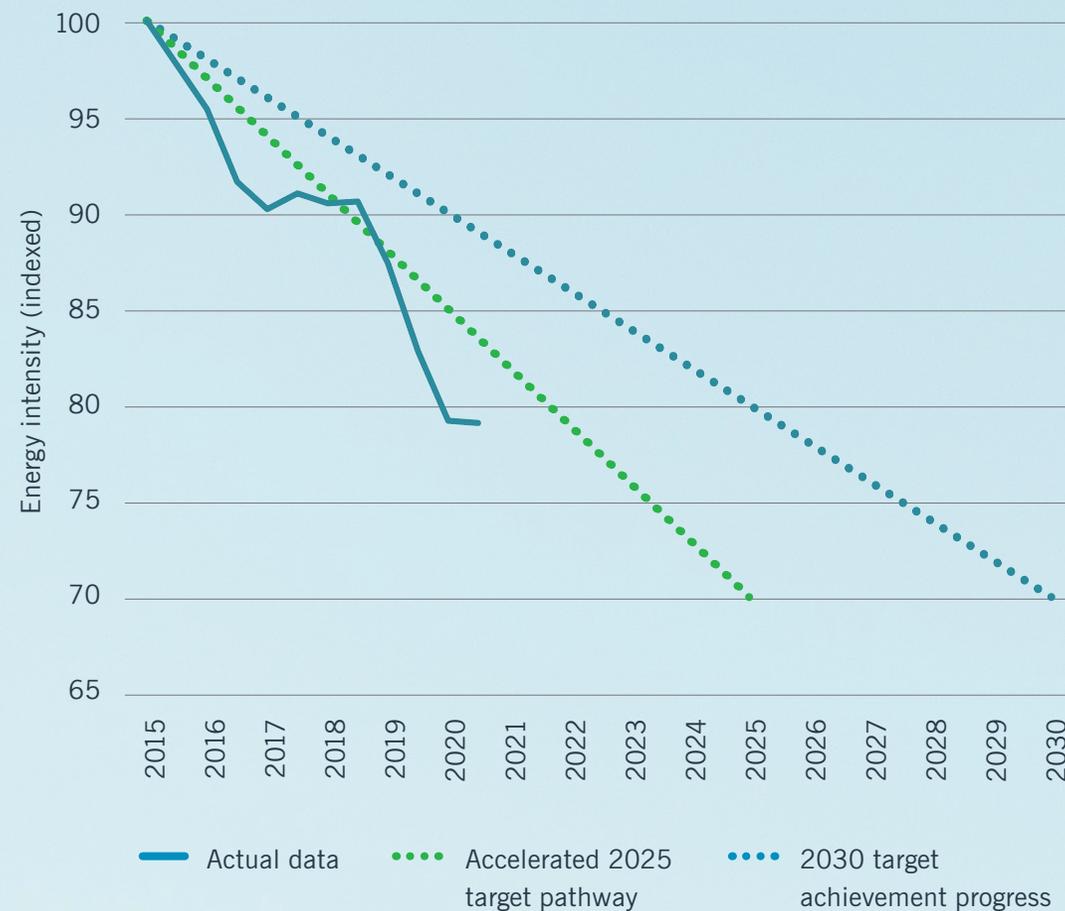
Our target to reduce energy intensity by 30% brought forward to 2025

In 2015, Nuveen Real Estate set a target to reduce the energy intensity of its global real estate equity portfolio by 30% by 2030.¹ As part of our Net zero carbon pathway we have brought this 30% energy efficiency target forward to 2025.

We are tracking well ahead of our 2030 target pathway which can be attributed to improving the efficiency of our existing buildings portfolio, while also developing and acquiring buildings that are performing ahead of industry benchmarks on energy efficiency. We expect to continue to see some normalization in energy use as some of our buildings resume a normal occupancy and operations post-COVID. Meeting this target is our first step toward future-proofing the Nuveen Real Estate portfolio against transition risk and aligning our portfolio with the global movement to limit global warming, as agreed in the Paris Agreement.

¹ This target applies to those assets in our portfolio where Nuveen has asset management control. It excludes assets where our role is purely advisory and also those assets in our Debt portfolios. For office buildings, whole building energy use is included, regardless of whether the cost for this energy is recovered directly from tenants. For retail and industrial properties, only common parts energy use is used. For multifamily properties, whole building energy use is included where we have it. Target progress is calculated using a weighted indexed approach. This means that similar properties are grouped together and are allocated a proportion of the index 'points' available based on the total energy use of that group. Reductions in energy use then reduce the total points. For example, if 10 points were awarded to European Offices and there was a 10% energy reduction in that group, that would result in a 1-point decrease. It is very difficult to put some buildings into a benchmark group as they do not share enough energy use characteristics with other properties. In this instance, these properties enter the index on their own and are compared only against themselves. This enables us to exclude less properties. Other reasons to temporarily exclude properties are if they are undergoing major refurbishments or are less than 60% occupied. Energy use is measured by kWh of "electricity equivalent" (kWh_{ee}) of whole building imported energy use per sq ft. The numerator is calculated by adding kWh of imported electricity to kWh of any imported fuel multiplied by 0.4 and kWh of imported hot or chilled water multiplied by 0.5kWh. The 'kWh_{ee}' energy metric enables direct aggregations of building energy use and comparisons of efficiency across international property portfolios. The denominator represents the gross internal floor area of space to which Nuveen Real Estate supplies energy.

Progress against 2030 target



Source: Nuveen Real Estate as of Dec 2021.



Using smart building technology to achieve energy efficiency

New technologies and smart building solutions have made it possible to use sensors, advanced metering, and software platforms to collect and monitor energy usage and other data points on a real-time basis. We have engaged a smart buildings technology consultant to help us evaluate our current use of operational and energy management technologies in our U.S. office portfolio. We are especially focused on three categories of technologies:

- 1. Energy information systems that use real-time interval data to provide insights on building performance**
- 2. Fault detection and diagnostics that sit on top of existing control systems and provide a more detailed level of analysis on equipment performance**
- 3. Building automation systems that control comfort and operate critical systems, such as HVAC**

We are working with the consultant to develop a decision-tree framework to equip our office asset managers with a guidebook to aid their technology decisions. We believe smart building technologies, like the ones referenced above, will be a critical part of our energy and carbon footprint reduction targets.

42%
OF OFFICE ASSETS
HAVE A REAL-TIME ENERGY
MANAGEMENT SYSTEM



Green building certifications

Green building certifications offer a framework for implementing sustainable best practices at the asset level and provide external verification of strategies in place. By aligning our portfolio with green building standards during the design and construction phase and as part of ongoing operations, we ensure the highest standards for sustainability are met throughout our portfolio.

In addition to green building certifications we utilise energy ratings such as ENERGY STAR, NABERS and EPC, to verify energy performance meets industry standards and seek to achieve superior energy performance across our portfolio.

244
BUILDINGS

HIGH-ENERGY PERFORMANCE
DEMONSTRATED BY ENERGY STAR
OR NABERS CERTIFICATION OR
EPC RATINGS OF A OR B

63%
OFFICE AUM

(EQUITY)
WITH GREEN BUILDING
CERTIFICATIONS



Green building certification case studies

ENERGY PERFORMANCE



801 BRICKELL

Location: Miami, Florida, U.S.

Sector: Office

Certification type: ENERGY STAR certified with a score of 93/100



MITA APARTMENTS

Location: Tokyo, Japan

Sector: Multifamily

Certification type: DBJ 3 Star



THE CUBE

Location: Berlin, Germany

Sector: Office

Certification type: DGNB Platinum

NEW CONSTRUCTION



LOVETT INDUSTRIAL PORTFOLIO

Location: Dallas, Texas, U.S.

Sector: Industrial

Certification type: Targeting LEED Certification



125 WEST END

Location: New York, New York, U.S.

Sector: Life-science

Certification type: LEED Building Design and Construction



PRINSES IRENESTRAAT 59

Location: Amsterdam, The Netherlands

Sector: Office

Certification type: BREEAM Excellent, WiredScore Platinum

OPERATIONAL



RESERVE AT TYSONS CORNER

Location: Vienna, Virginia, U.S.

Sector: Multifamily

Certification type: Green Globes, Existing Buildings: One Green Globe



JCB UNIT

Location: Stoke-on-Trent, U.K.

Sector: Logistics

Certification type: BREEAM 'Outstanding'



183-185 CLARENCE STREET

Location: Sydney, Australia

Sector: Office

Certification type: 6-Star Green Star Design, As Built v1.1, WELL Health and Safety, NABERS 5 Star Energy Rating



Climate change



Climate change strategy

As noted in our environmental strategy, we recognise that the physical impacts of climate change will affect real estate values. It is critical to develop an understanding of how, where and when these physical impacts will become financially material to an individual investment's financial performance. We are also conscious that the transition to the low carbon economy presents both financial opportunities and risks. Effectively managing building efficiency and carbon intensity throughout this transition is a key factor in creating and protecting value in the assets we manage.

While our sustainability strategy encompasses a broad range of ESG issues, we believe climate change related risks warrant particular attention. Physical impacts of climate change can lead to rise in operating costs and introduce tail risks over the long-term. Transition to the low carbon economy is more near term, and can impact asset values.

In 2021 TIAA and Nuveen produced its first enterprise-wide [climate risk report](#).

“The climate crisis is one of the foremost challenges that we face as a society today. We are already seeing the effects on our daily lives, ranging from intensifying wildfires to more frequent flooding along coasts and rivers. These climate events affect us all, including our clients and the communities in which they work and live. And we know that the greatest impact falls on low-income communities and people of color. When I think about the world we will pass along to our young people, including my four children, I feel the urgency to accelerate our work toward a low-carbon future.



Thasunda Brown Duckett
President and CEO
TIAA, Nuveen's parent company





Climate risk in the investment process

Our sustainability risk management framework requires that new investments are screened for climate risk; and where a potentially material increase in a climate-related hazard is identified, discussions between sustainability, investment and portfolio management teams take place. These include the consideration of downside scenarios or stress tests as part of the decision to invest and the ability of the investment to achieve desired financial returns. If it is determined that there is potentially material financial risk, investment teams seek preliminary investment committee guidance intended to set expectations for the mitigation of risk when seeking final investment approval.

As part of portfolio composition review, the investment teams utilise ESG dashboards to visualise and analyse portfolio-wide exposure to climate-related risks, as well as progress against several net zero carbon key performance indicators.

SOURCING	UNDERWRITING	DUE DILLIGENCE	INVESTMENT COMMITTEE	ANNUAL BUSINESS PLANS
Screen for future acute risk, chronic stressors and climate legislation in relevant market over a 30-year period.	Understand how climate risks could impact returns, investment required to mitigate risks and comply with regulations.	Identify opportunities to improve efficiency and resilience.	Include climate risk analysis in investment memo for committee's consideration.	Review climate related impacts and compliance with local regulations.



Climate scenario analysis

We consider various climate scenarios which account for the strength of efforts to reduce emissions, especially those that may directly impact real estate values or operations, and the likelihood that the worst physical impacts of climate change are mitigated. We believe that an orderly transition provides the best outcomes for our clients in the long term. We are aligning our efforts both internally and externally to support the global economy's transition to net zero in an effort to limit the global temperature rise, as agreed in the Paris Climate Agreement.

Strength of response

Based on whether climate targets are met

Met

Not met

**Transition
pathway**



Physical risk



Net zero carbon by 2040

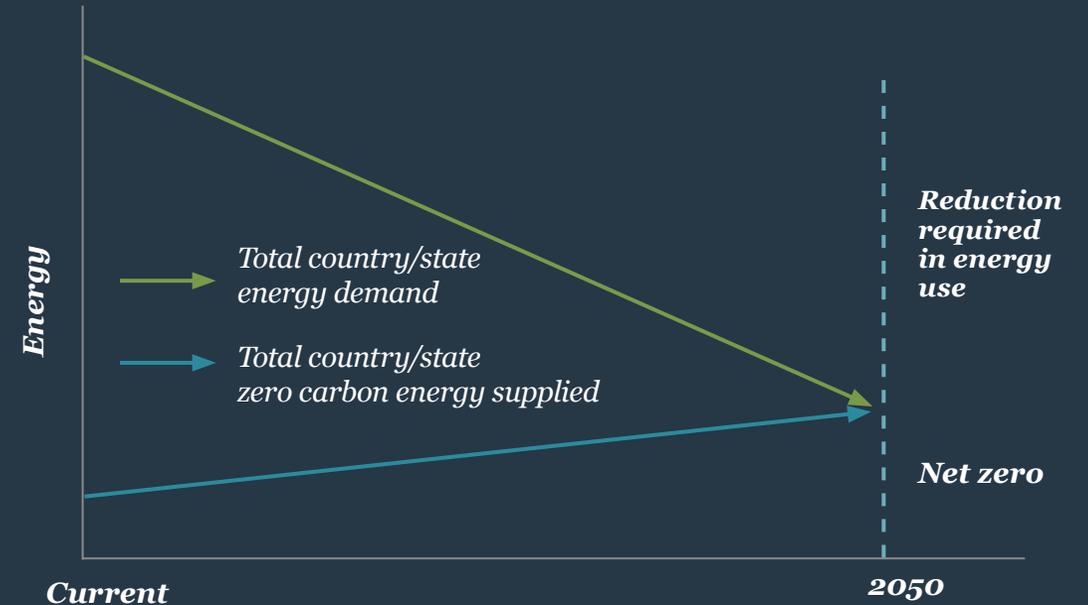
It is widely recognised that to meet the objectives of the Paris Agreement, all buildings will need to be net zero carbon by 2050 at the latest.

At Nuveen Real Estate, however, we are aiming to achieve net zero carbon in our real estate portfolio no later than 2040.

We are monitoring indicators across the globe that show the transition is picking up pace. We will be ready to accelerate our net zero carbon pathway as necessary if specific regions or sectors expect us to do so. A benefit of our global footprint is that we can draw on our knowledge and expertise from locations that are transitioning swiftly to a low carbon economy and apply it in other markets.

What is a zero carbon building?

A greater supply of renewable energy for grid electricity will mean a more generous allowance for building energy use — therefore efficiency requirements will vary from market to market.



Source: UKGBC, 2020.

Meets regionally defined energy use intensity standard at whole building level

Maximises renewable energy from available on- and off-site sources

Embodied carbon in development of refurbishment is minimised and remaining carbon emissions are offset



Our approach is aligned with net zero carbon standards to demonstrate that it is in line with climate mitigation scenarios. But equally important is our alignment with industry peers to ensure that, as an industry, we have a common understanding of the cost to transition a building to net zero and to assess the market value of investments.

By participating in these market frameworks and working groups, we are supporting the industry's future success in navigating the transition to a low-carbon economy, protecting and creating value for our clients for decades to come.



Alignment with global standards and industry commitments

Net zero standards



CRREM/ SBTi

The Science Based Target initiative (SBTi) and Carbon Risk Real Estate Monitor (CRREM) recently joined forces to jointly provide fully aligned 1.5°C decarbonisation pathways for the real estate sector. This partnership combines previous work of both organisations providing clarity and confidence that decarbonisation plans are aligned with climate science.

We are assessing CRREM pathway alignment, where feasible, based on available data and we will consider formal alignment with SBTi in coming years. The CRREM tool evaluates the progress of a portfolio's carbon reduction performance against reduction targets and identifies assets that are at risk of stranding, which is anticipated to occur when the carbon performance of an asset (operational and embodied carbon) exceeds the decarbonisation target.



ILFI ZERO CARBON

The International Living Future's Institute ILFI Zero Carbon Certification is a worldwide zero carbon standard for buildings with high energy efficiency standards that are designed and operated to fully account for their carbon emissions impacts. We are using this framework to conduct initial net zero carbon analysis across our U.S. portfolio.

Projects seeking ILFI ZC certification must meet an energy efficiency target over a 12-month performance period are specified based on building type, size, and location. ILFI ZC states that although existing combustion is allowed, new sources of combustion are not allowed.

The ILFI ZC standard requires that embodied carbon emissions of primary materials of new buildings must be tracked and reduced by 10% compared to a baseline building of equivalent size, function and energy performance (Baseline: 500 kgCO₂e/m²).

Industry partnerships



BPP CLIMATE COMMITMENT

The Better Buildings Partnership (BPP) Climate Commitment acknowledges the transformation that is required across the real estate sector to deliver net zero buildings by 2050. The aim of the commitment is to:

- Leverage collaborative and tangible, strategic action on climate change;
- Increase transparency and accountability enabling the market to operate and compete effectively; and
- Provide clear client demand for net zero assets, driving the industry to respond.

The commitment requires signatories to publish net zero carbon pathways and delivery plans, disclose the energy performance of their assets and develop comprehensive climate resilience strategies. It has an overarching objective of delivering net zero buildings by 2050, incorporating both direct and indirect investments, operational and embodied carbon and Scope 1, 2 and 3 emissions.



ULI GREENPRINT NZC COMMITMENT

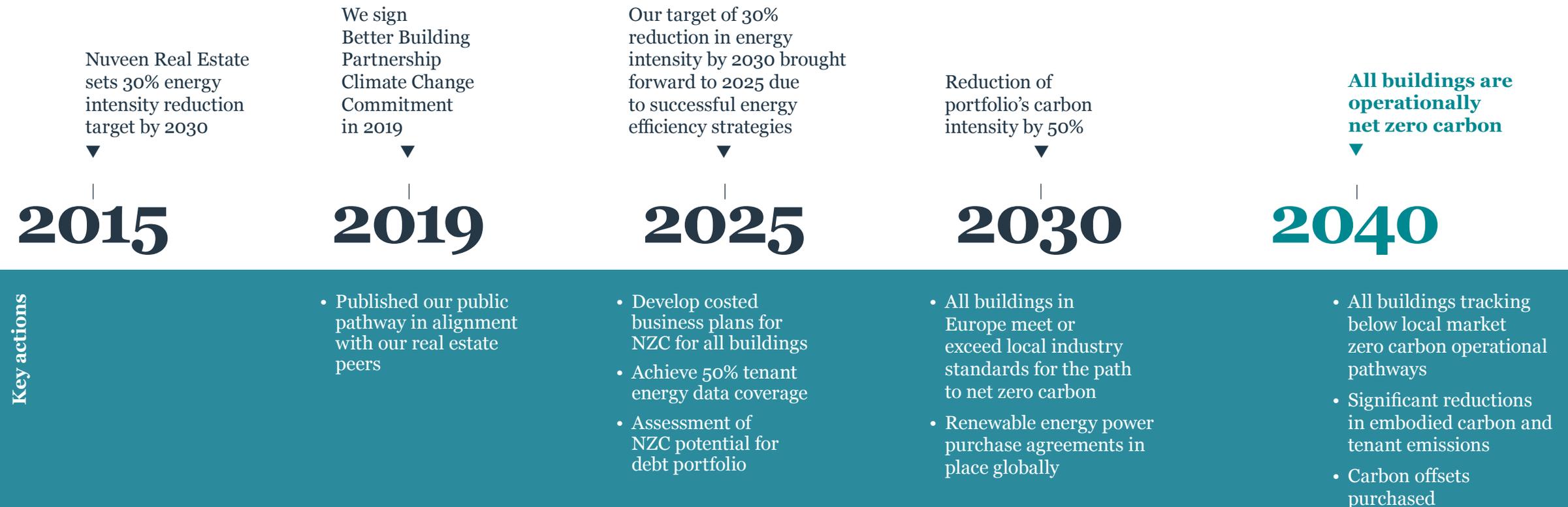
The ULI Greenprint goal is to reduce the operational carbon emissions of its members' collective buildings under operational control to net zero by the year 2050. This net zero carbon operations goal is designed to meaningfully reduce the built environment's impact on climate change beyond existing efforts.

ULI is supporting real estate industry in addressing the net zero challenges facing the real estate sector, where building owners only have so much control over their properties' energy usage and carbon emissions. Greenprint follows the World Green Building Council definition of net zero, which is a building portfolio that is highly efficient and fully powered by on-site and off-site renewable energy sources.



Nuveen Real Estate net zero carbon progress report

Our pathway, which was first published in 2020, sets out milestones through 2040 for business areas and across key metrics tied to our NZC definition. In our first annual progress report we will share implementation and planning toward meeting our 2025 milestones. These near-term targets will provide our investment teams the direction they need to underwrite the net zero carbon transition for all assets which may vary by fund, sector, or region.



Key actions

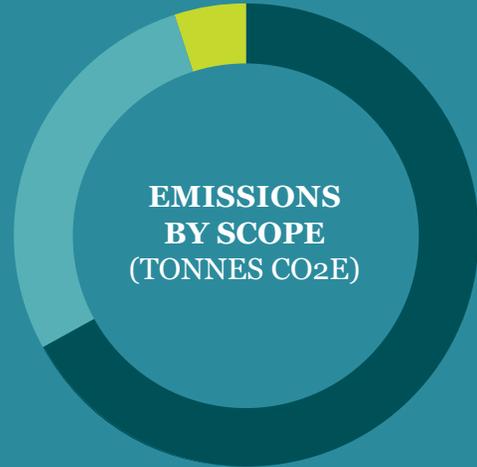
>>>> *completed*

>>>> *Public annual disclosures in line with industry standards*



Our 2019 baseline global carbon footprint

We have estimated the carbon footprint of our full portfolio, which includes information on emissions from both landlord procured and tenant controlled energy use. Wherever possible, actual energy consumption data has been used with regional and asset-class-specific benchmarks utilised to estimate consumption where no data was available. Regional emissions factors were then applied to convert consumption into carbon emissions equivalent (CO₂e).



- 67% Scope 3
- 28% Scope 2
- 5% Scope 1

● 100% Standing asset



- 29% Retail
- 28% Residential
- 23% Industrial
- 19% Office
- 1% Mixed use
- 1% Other

* **SCOPE 1** covers direct emissions from landlord controlled sources. **SCOPE 2** covers indirect emissions from the generation of purchased electricity, steam, heating and cooling controlled by the landlord. **SCOPE 3** includes all other indirect emissions that occur in a company's value chain, including emissions from energy procured by tenants directly from utility. **BEES** Energy consumption benchmarks. **CBECS** Energy consumption benchmarks. **IEA** Emissions factors. **DEFRA** Emissions factors. **EPA** Emissions factors. **Circular Economy** - Embodied Carbon Footprint Database. **Non-US assets/utilities** that were not whole building were estimated using the BEES intensities by fuel. **US assets/utilities** that were not whole building were estimated using the CBECS intensities by fuel. **IEA emissions** factors were used to convert electricity consumption into carbon emissions. **DEFRA emissions** factors were used to convert other energy sources into carbon emissions. **EPA emissions** factors were used to convert US electricity consumption into carbon emissions. **Embodied carbon intensities** were converted into carbon emissions using the floor area of the development.



A focus on energy efficiency

We understand the areas of building operations that will be the focus of asset decarbonisation business plans. Actions fall into the following major categories.

Optimisation and improvement

Retrofit, repurpose and upgrade to improve building fabric and HVAC and add renewables.

Heat decarbonisation

Delivery of heat from zero or low carbon sources such as heat pumps or renewable-fueled district.

Embodied carbon

A calculation of and a strategy to reduce as much as possible, the embodied carbon associated with a building's materials and construction processes.

Leasing

NZC is a key feature of marketing, attracting top tenants. Key feature of lease agreements, with greater landlord control of plant operations and data sharing.

Disposal

Maximising the value increase that we anticipate for green buildings.



Our 2025 milestone execution and planning

Energy efficiency and tenant engagement

Establish NZC energy efficiency standards that align with climate science	On track	<ul style="list-style-type: none"> Consensus on standards is developing in Europe but is still lacking in the U.S. and Asia Pacific. We continue to play an active role in the industry groups that have an input into these standards
Achieve 30% energy intensity reduction	On track	<ul style="list-style-type: none"> Achieved 20% reduction to date – ahead of progress – but with Covid lockdowns driving some reductions. We expect a short-term increase in energy intensity as workers return to buildings that were underoccupied during lockdowns On track to meet 2025 goal with planned disposal of older assets, acquisition of efficient assets, and ongoing roll out of LED upgrades and heating, cooling and ventilation system improvements
Capture whole building data for 50% of AUM	On track	<ul style="list-style-type: none"> We will report on percentage of portfolio tracking whole building data available, as we seek to increase coverage of tenant procured data We are rolling out technology solutions to support acquisition of whole building data and continue to pursue legal authorisations from tenants Capturing full building energy use data is a key area of focus with energy data providers in the United States driving momentum
Establish carbon footprint	Complete	<ul style="list-style-type: none"> Carbon footprint baseline estimation work complete and subject to refinements as the quality of benchmark data improves
Develop costed business plans for NZC for all buildings	On track	<ul style="list-style-type: none"> In Europe and Asia Pacific, over 100 net zero carbon assessments completed. A further 110 scheduled for 2022 Desktop NZC cost tool is being developed to enhance our assessment of the cost of new investments to achieve net zero carbon In the U.S., work is underway to develop a sector NZC roadmaps for the four primary sectors allowing NZC business plans to be adopted at scale over the next 18 to 24 months
NZC potential assessed in buy/hold/sell decisions	On track	<ul style="list-style-type: none"> Net zero carbon assessments will be incorporated into investment committee strategy review for all funds with explicit targets once toolkits are made available

Renewable Energy

Assess potential for on-site solar across portfolio	On track	<ul style="list-style-type: none"> 153 buildings assessed in Europe and APAC with 44 installations completed Nuveen Infrastructure affiliate Glennmont undertaking review of European industrial portfolio Safari Solar established as solar assessment provider in the U.S. with identification of assets in best markets for solar complete and several installations underway Nuveen Green Capital developing financial tools to facilitate the fast-tracking of solar projects through various financing tools available in the U.S. based on market availability
Renewable Power Purchase Agreements (PPA)	On track	<ul style="list-style-type: none"> Power Purchase Agreement in place for a U.K. strategy. Plan to undertake detailed PPA assessment across Pan-European office portfolio U.S. developing strategy for putting virtual PPA in place which includes participation in the Clean Energy Buyers Association (CEBA) LESSON program



Our 2025 milestone execution and planning, *continued*

Commercial real estate debt

Net zero carbon debt framework	On track	<ul style="list-style-type: none">• We are coordinating with industry associations to develop an industry consensus on treatment of carbon emissions for debt investments
Borrower engagement	On track	<ul style="list-style-type: none">• ESG surveys issued to existing and new borrowers to understand approach to monitoring and reporting on carbon data and if there are credible firm-level commitments to net zero carbon• Participation in industry green lending working groups seeking to align our strategy with industry best practices

Development

Net zero development framework	On track	<ul style="list-style-type: none">• Net zero carbon incorporated into sustainable development brief and forms part of negotiations, including whole-life carbon analysis for Europe• U.S. teams will workshop European sustainable development strategy and adapt for U.S. market• Design for performance standards which require projects to meet certain energy targets are incorporated into sustainable development framework across Europe
Benchmark embodied carbon for construction activities	On track	<ul style="list-style-type: none">• Embodied carbon targets are part of sustainable development framework• Detailed embodied carbon assessments undertaken for some projects held in leadership funds

Source: Nuveen Real Estate as of Dec 2021.



Assessing physical climate risk exposure and resilience

Assessing climate risk, and quantifying the link between climate and the value of real estate investments, is incredibly complex. The work goes beyond a single metric or set of metrics, extending into the interwoven nature of building valuations and the resilience of the market. We seek to move beyond the site-specific climate risk analysis, which focuses on direct property impacts, such as increased cooling and repair costs, toward consideration of the adaptations made and being planned by cities, the future desirability and livability of the location, the availability and affordability of insurance, and the liquidity of real estate assets in the market.

Our team uses regional deep dive analysis reports to assess the potential of market-impacts to influence the performance of real estate investments. As climate risk assessment and reporting become mandatory and mainstream, the ability to analyse and understand climate risk accurately and comprehensively will be critical and will confer a significant strategic advantage. We believe that the only way to do this work is by capturing the full picture of market impacts.

Assessing financial impact from climate hazards

BUILDING ADAPTATION

- Raising critical systems above flood levels
- Flood gates/barriers
- Emergency preparedness and communication plan

DIRECT FINANCIAL RISK

- Insure premium/deductible increase
- Repair and maintenance from extreme events
- Increased utility costs

MUNICIPAL ADAPTATION

- Timing effectiveness of proposed strategies
- Funding for adaption measure (private vs. public)
- Providing protection for specific locations

INDIRECT FINANCIAL RISK

- Availability of insurance and/or financing
- Financial strength of municipality
- Migration trends that may reduce demand for real estate



Assessing market resilience to climate change

With the support of a climate risk analytics data and research firm, we are developing market views on how climate hazards will impact real estate investments in at-risk regions globally through in-depth studies that consider the specific risks, opportunities and potential for mitigation.

Exposure to climate change events

Fooding
Landslides
Drought
Temperature rise

Sensitivity to exposure

Economic resource
Infrastructure
Population pressure

Capacity to adapt or take advantage

Economy
Society
Institutions



Our views on climate hazards

Our sustainability team reviews physical climate risk models to better understand the projected change in specific hazards, helping us to assess the vulnerability of an individual asset.

The assessment models multiple climate scenarios under different representative concentration pathways and extends across multiple decades. We use public and private data sources for a more granular assessment of asset exposure, focusing on the real-world impacts over the coming decades.



COASTAL FLOODING

In most coastal areas the probability of flooding events increases under all climate change scenarios. Coastal flooding events bring business interruption, loss of revenue for businesses, repair costs and affect insurability and liquidity. Buildings can be designed or retrofitted to be more resilient to flooding events and municipalities can invest in resilience strategies, such as flood walls and restoring natural barriers. However, market pricing will also reflect perceived future risk to the property, surrounding infrastructure, residential properties and the increasing costs associated with insurance.



WILDFIRE

In many places, as temperatures increase and precipitation patterns change, wildfires have become larger and more intense, with a longer season. Although most assets are in densely populated urban areas less exposed to direct damage, wildfires can affect a broad region through soot and smoke. The impact on surrounding infrastructure and residential properties is also a potential risk to long-term value in regions affected by an increasing risk of wildfire.



DROUGHT

Drought can impact water quality, availability and price, with local jurisdictions placing restrictions on water use during periods of extended drought. Many industrial and commercial processes use water as a solvent or coolant and are therefore sensitive to the cost and quality of the local supply.



TEMPERATURE EXTREMES

Each of the last four decades has been successively warmer than any decade that preceded it since 1850. Heatwaves have increased in intensity and frequency, and this trend is expected to become widespread. Compared to other types of physical climate risk, the impact of extreme temperature is easier to plan for but harder to insure against. For real estate, it brings increased cooling costs, landscaping challenges, equipment and facade degradation, and negative impacts to worker productivity, occupant comfort and overall quality of life in a region.



WATER STRESS

With population growth there is no question that water demand will continue to rise. But as climate change threatens supply and distribution mismanagement places great stress on the availability of water, this underscores the importance of preparing for the downstream impacts. The real estate industry can expect increased water use restrictions and costs, urging owners to enhance resilience through water conservation strategies, like low-flow plumbing, xeriscaping, and rainwater capture and reuse.



Our analysis has identified regions exposed to increasing physical climate risk



Vulnerability analysis and resilience improvements

Our investment teams have access to toolkits that support the evaluation of buildings identified as exposed to specific climate-related hazards.

Using these toolkits, we are able to understand better if the price reflects the risk, potential impacts to operating income or expenses, and opportunities to mitigate risk through resilience adaptations.

HAZARD		FINANCIAL IMPACT	RESILIENCE MEASURES	
ACUTE	Flood	<ul style="list-style-type: none"> • Direct building damage • Business interruption • Migration away from affected areas • Insurance cost increase • Limited access to insurance/financing • Liquidity due to buyer concerns 	<ul style="list-style-type: none"> • Mechanical equipment elevated above project flood risks • Flood proofing • Onsite flood walls 	<ul style="list-style-type: none"> • Flood drainage system • Retention/detention ponds • Municipal adaption strategies
	Wildfire		<ul style="list-style-type: none"> • Class-A roofing • Noncombustable exterior • Defensible space • Dual-pane windows • Ember-resistant vents 	<ul style="list-style-type: none"> • Ignition-resistant construction materials • Compliance with ICC's 2012 • International Wildland-Urban • Interface code (IWUIC) 2013 • NPF 1144 • Municipal adaption strategies
CHRONIC	Water stress	<ul style="list-style-type: none"> • Increased water costs • Water restrictions • Water main breaks • Business interruption 	<ul style="list-style-type: none"> • Water-efficient technologies and conservation measures • Municipal adaption strategies 	
	Drought	<ul style="list-style-type: none"> • Building foundation damage • Increased water costs • Water restrictions • Water main breaks 	<ul style="list-style-type: none"> • Water-efficient technologies and conservation measures • Building foundation inspection 	
	Heat stress	<ul style="list-style-type: none"> • Increased water costs • Reduced HVAC lifespan 	<ul style="list-style-type: none"> • Energy-efficient technologies and conservation measures • Passive cooling strategies 	



Social strategy



Social strategy

At Nuveen Real Estate, we recognise that our business practices and investment activities have an impact on our employees, the occupants of our buildings and the local communities where we invest. We are also aware that ongoing disruptions from a global pandemic and increased awareness of social inequality are our responsibility to manage within our business.

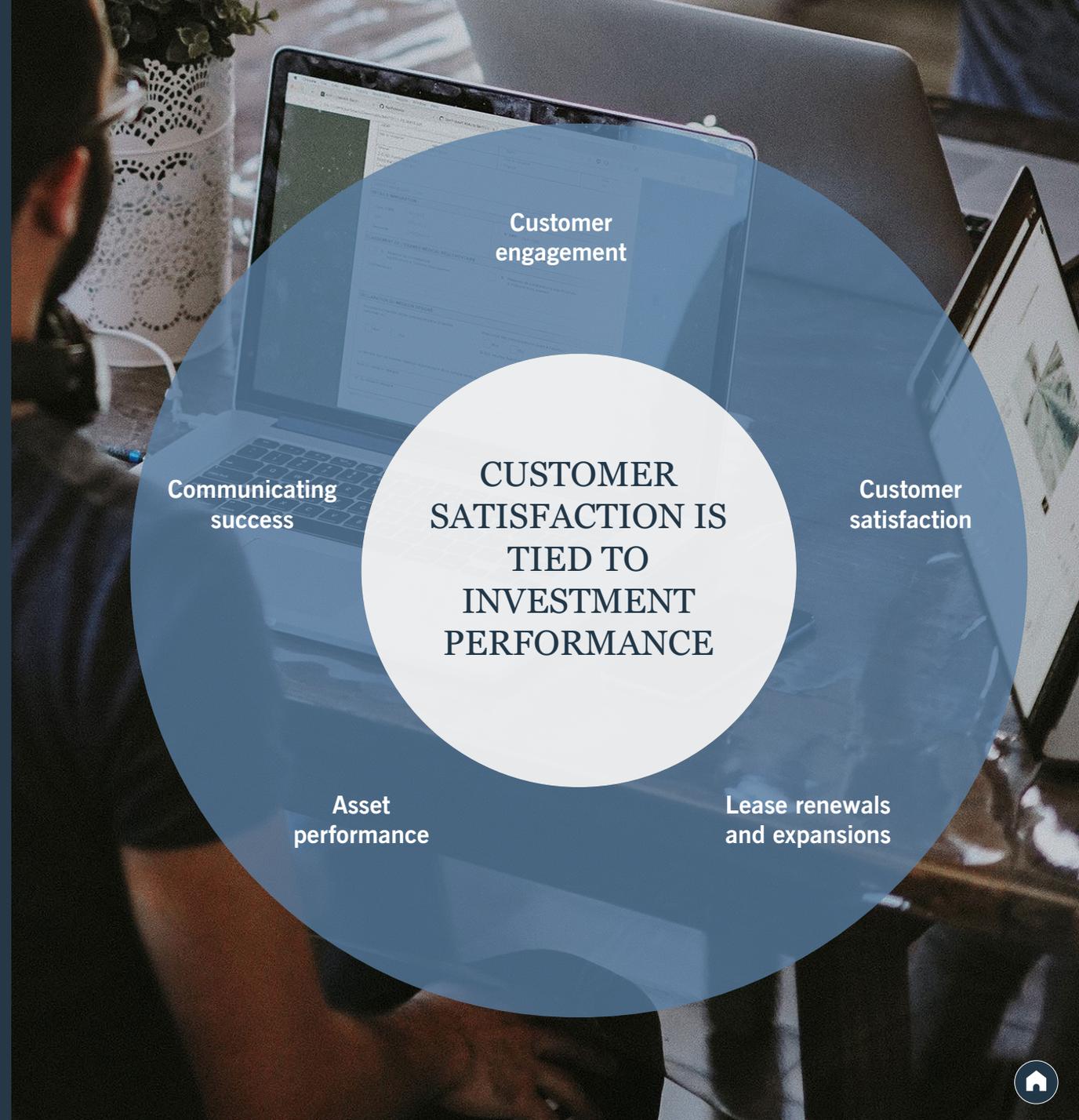
We seek to address impacts to and the needs of all stakeholders, especially those that have the potential to influence financial performance. Through real estate aligned activities we have the ability to affect positive changes in our culture, society and communities, and mitigate the negative impacts where possible.



Stakeholder view on customer engagement

For commercial real estate, our customers are our tenants or occupiers, which includes shoppers in our retail spaces, residents of our housing portfolio, employees of commercial occupiers, as well as their guests. Some occupiers lease an entire building or campus and manage most of the day-to-day operations themselves, while others rent an individual unit and look to the property owner to provide and manage building amenities and services.

We aim to facilitate productive and positive experiences for all our building customers, by uniting stakeholders to build and manage places with purpose. Places that meet the varying needs of our diverse customer base should also provide strong financial returns to our investors.



Customer engagement

Communicating success

CUSTOMER SATISFACTION IS TIED TO INVESTMENT PERFORMANCE

Customer satisfaction

Asset performance

Lease renewals and expansions



Engaging with our customers and community

Engagement strategies depend on the customer, property type and location. We believe in a place-based approach that understands and meets local needs.

CURRENT INITIATIVES

- Standardising (and shortening) customer satisfaction surveys
- Exploring new engagement tools, like building mobile applications
- Increasing the number of ESG touchpoints and resources we make available to our customers
- Employing dedicated site-level community management and tenant engagement professionals

COMMUNITY MANAGER ROLE

There are many hard-working people behind the scenes of the seamless experience we aim to provide our building customers. Janitorial, security, engineering and property management staff are in constant communication with one another to manage vendors, capital projects and budgets, as well as the building operations. With a dedicated community management team, there is an opportunity for building management to collaborate more closely with occupiers foster collaboration, productivity, wellness and community.

Our strategy includes a growing number of on-site team members dedicated to community management and tenant experience. These team members not only respond to ongoing tenant feedback and inquiries but proactively seek ways to maximise customer productivity and satisfaction. This enables our property management team members to focus on building operations and provides our customers with a dedicated property team contact.

“

Really anything that helps make that work-life balance easier and more efficient is going to promote positivity and a sense of community.”

Alesia Sangano, the Tenant Engagement Manager at one of our office properties in D.C., assists occupiers in taking advantage of the amenity centre both through occupier reservations and building-wide events.



TENANT EXPERIENCE AT LINCOLN CENTRE

Our dedicated community management team has held events, such as free professional headshots, massage pop-ups, sports-viewing parties, holiday celebrations, like a “build a wreath” bar, as well as formal, catered events on the terraces for occupiers and their guests. Other building amenities at the property include a fitness center, yoga room, bike storage and food delivery lockers, all of which can be accessed through the building app.

“

We want Lincoln Centre tenants to have access to fitness and wellness programs, healthy food options, on-site car care, dry cleaning, blood drives and our philanthropic programs.”

— Cortney Haney,
Community Manager, Dallas, TX



Prioritising health and wellness of occupants

The buildings in which we live, work and spend our time have an impact on our health and productivity. Nuveen Real Estate has partnered with Fitwel, a leading certification system focused on human health and well-being. Originally created by the U.S. Centers for Disease Control and Prevention and the U.S. General Services Administration (GSA), Fitwel is now used in more than 50 countries through its licensed operator the Center for Active Design. It serves as the world's leading certification system committed to building health for all.

Achieving certification requires documenting existing building conditions, identifying and mitigating waste and risk, and identifying new opportunities to improve health, take action, measure the results and celebrate our sense of purpose and place. Nuveen Real Estate is pursuing more office and multifamily residential properties and is participating in a pilot program to develop a new Fitwel multifamily certification geared towards garden-style apartment complexes.

***Nuveen Real Estate
is a Fitwel Champion
since 2020.***



Fitwel Viral Response Module seeks to support buildings owners that want to mitigate contagious disease transmission and safeguard occupant health and well-being. The Viral Response Certification demonstrates our commitment to creating healthy and resilient environments for all of our occupants, tenants and visitors. By rolling out the Viral Response Certification, we continue to demonstrate our commitment to creating healthy and resilient environments for all of our occupants, tenants and visitors.

“Nuveen and TIAA understand the importance of investing in spaces that provide safe, productive environments for our employees and occupiers. Doing so not only supports our building occupants, but also protects and enhances the value of our investments.”



Chad Phillips
*Global Head of Office,
Nuveen Real Estate*



CASE STUDY

Supporting occupant health and wellness: Foundry Square II

405 Howard Street, also known as Foundry Square II, occupies the intersection of First and Howard Street in the South Financial District of San Francisco, CA.

The 10-story class A+ building contains over 521,000 square feet of office and street level retail space. The building features a double-pane glass curtain wall, secure subterranean parking and a productivity-enhancing work environment through the innovative use of sophisticated design elements and state-of-the-art technologies.

In 2020 and 2021, 405 Howard Street earned the Fitwel Multi-Tenant Base Building and the Fitwel Viral Response certifications.

Property scored well in all 7 Fitwel health impact categories:

- Promoting occupant safety
- Social equality for vulnerable populations
- Increasing physical activity
- Providing healthy food options
- Impacting community health
- Reducing morbidity and absenteeism
- Instilling feelings of well-being

Here are some of the steps taken at 405 Howard Street to support the health and wellness of its tenants:

- Monitoring comfort through surveys and tenant feedback
- Recognising tenant lease anniversary with a gift
- Green cleaning and purchasing policies
- Activate an emergency stairwell for tenants use, to walk directly to their floors
- Bottle-filling stations at the drinking fountain
- Universal workstation in the management office for use by tenants
- All strategies achieved across both transportation and building access categories
- Proximity to outdoor amenities at Salesforce Park
- Become an official smoke-free and tobacco-free site
- Publicly accessible uses on the ground floor and amenities, including trees, seating and public art
- Touchless visitor registration program with QR code readers at turnstiles and in the north bank elevators
- Installed elevator air filtration/sanitisation systems



Measuring and managing tenant satisfaction

Maintaining open and collaborative communication with our building customers is key to understanding and meeting their needs. Nuveen Real Estate works with our operators on annual tenant satisfaction surveys. Property teams are responsible for reviewing and analysing survey responses, summarising key takeaways in a property action plan and presenting that plan for consideration and incorporation into the asset business plan and budget.

These surveys include two types of questions:

- 1) Benchmark metrics, such as net promoter scores that help measure relative performance across portfolios.**
- 2) Tactical questions that help our property teams identify specific actions to take on-site to improve tenant satisfaction.**



Nuveen Real Estate uses benchmark metrics to identify outliers and key drivers of underperformance and/or outperformance. For example, if a property scores below average “tenant satisfaction with the property team’s understanding of tenant needs,” additional team training or better resourcing may be required. In areas in which our properties are trending above average satisfaction, we work to understand, reward and replicate drivers of outperformance.

USING TECHNOLOGY TO IMPROVE OUR UNDERSTANDING OF CUSTOMER SATISFACTION

In a world where information is exchanged at a faster pace than ever before, we continue to explore ways to leverage new technologies to make it easy and timely for customers to provide feedback. We are testing different types of application-based occupier surveys. For example, short-form polls customers can fill out in seconds after attending an event, redeeming a perk, or reserving an amenity via their building mobile application. We are also assessing different QR code solutions given the increased familiarity with, and utilization of, QR codes. Our goal is to meet our customers where they are at and gain real-time insights on ways to improve their experience.



CASE STUDY

Focus on resident satisfaction in our U.S. Cities Multifamily Strategy

Our property management partner Simpson Housing works with an independent third party to send an annual survey to residents for the portfolio of assets they manage on behalf of Nuveen Real Estate. Through this program, they are provided summaries of resident feedback in community action plans that are shared with the property and asset management teams for discussion and execution.

StoneLedge (Grapevine, TX) was 2021's top performer, scoring among the highest in overall and property satisfaction. The top performer in service was **Junction Flats** (Minneapolis, MN). This accomplishment was recognised by awarding Junction Flats' Mark Flakne the 2021 Simpson Service Supervisor of the Year award. The Regional Property Manager describes Mark's dedication saying, "He completes all service within 24 hours (excluding parts and appointments) and has developed an exceptional reputation with the residents and his team."

STONELEDGE AND JUNCTION FLATS RESIDENT FEEDBACK

“

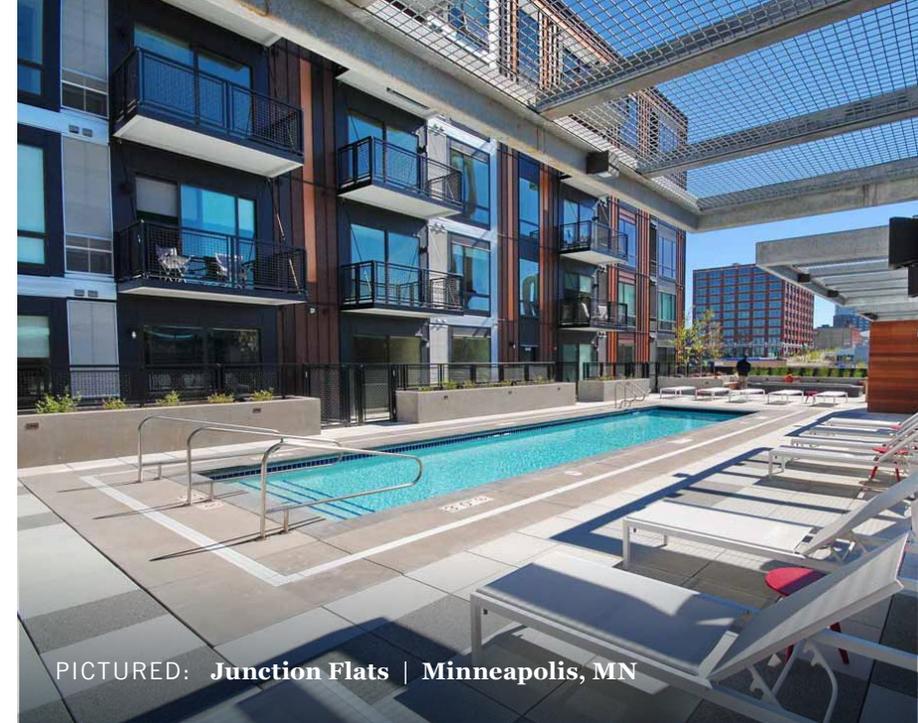
The management is extremely responsive... Everyone is respectful and knowledgeable. I've never felt unsafe in the complex... The areas are well lit and kept clean by residents/landscapers.”

“

Management and maintenance are friendly, professional and responsive. The complex is well laid out and the operation is smooth. Very comfortable.”

“

I've really enjoyed my time here so far. When issues have arisen, they are promptly taken care of. Everyone is extremely kind and helpful. I can see myself and my kids staying long term. Maintenance and management are the best I've experienced yet. Thank you!”



PICTURED: **Junction Flats** | Minneapolis, MN



PICTURED: **Stone Ledge** | Grapevine, TX



Engaging with our employees

To better understand the needs of our employees, Nuveen Real Estate participates in an enterprise-wide engagement survey and also sends interim surveys on specific topics. Each business area has dedicated culture liaisons responsible for helping facilitate, review, and act on employee engagement surveys.

The 2021 engagement survey highlighted top strengths as:

- Managers care about individuals, value individual perspectives and treat team members with dignity and respect
- Managers are having frequent check-ins with individuals
- Employees understand how their work contributes to Nuveen's success

Our 2021 action plans focused on improving work/life balance and continuous improvement of the way work gets done. Steps taken in Europe as a result of the survey included an enhancement of employee wellness benefits and learning and development courses. In the U.S., we focused on ensuring that employees were aware of the benefits and wellness resources available to them, such as our wellness portal, which includes physical, mental, and social health and wellness training, programs and other resources. Employees also have the option to link the portal to other health and wellness apps.

Our culture liaisons will continue their work in 2022, building on the insights gleaned to date, soliciting additional feedback in this year's engagement and pulse surveys, and reporting back to employees on the steps taken in response to their feedback.



Nuveen Real Estate employees have the opportunity to participate in community giving and volunteer efforts in offices around the globe. **Through these efforts, the enterprise has impacted over 3.2 million lives in 2021.** Below are some areas of impact. More detail is available in the firm-wide [Responsible Business Report](#).

- Tackled equity in education
- Acted for the environment
- Prioritised thoughtful philanthropy
- Funded \$50,000 toward TIAA college scholarships with the First Responders Children's Foundation through a "Be Active[HV1]" fitness challenge commemorating the 20th anniversary of 9/11
- Donated nearly 8,000 essential items and toys to nonprofit organisations through our 2021 Virtual Holiday Drive



Engaging with our supply chain

We recognise that social factors are an important consideration in the selection of vendors that we work with in the management of our real estate investments. Our procurement process prioritises working with vendors that reflect our own values and offering the opportunity to support diverse businesses and create more inclusive communities where we invest.

WORKING WITH DIVERSE SUPPLIERS (U.S.)

- Monitoring spend with diverse suppliers. Property managers are required, if feasible, to include diverse and diverse-compliant suppliers and/or responsible contractors to the list of vendors being considered
- Nuveen Real Estate requires the diversity status of all vendors to be recorded in property accounting system in the U.S. seeking to benchmark spend with diverse suppliers and set goals for year-over-year improvement through intentional engagement with diverse suppliers

WORKING WITH RESPONSIBLE CONTRACTORS

Nuveen Real Estate has a deep interest in the condition of workers employed by independent contractors engaged directly or indirectly by our business. We have developed responsible contractor policy that supports and encourages fair compensation, represented by wages and benefits, for workers employed by our independent contractors and subcontractors, subject to fiduciary principles concerning duties of loyalty and prudence, both of which further require competitive, risk-adjusted returns on real estate investments. We believe that an adequately compensated and

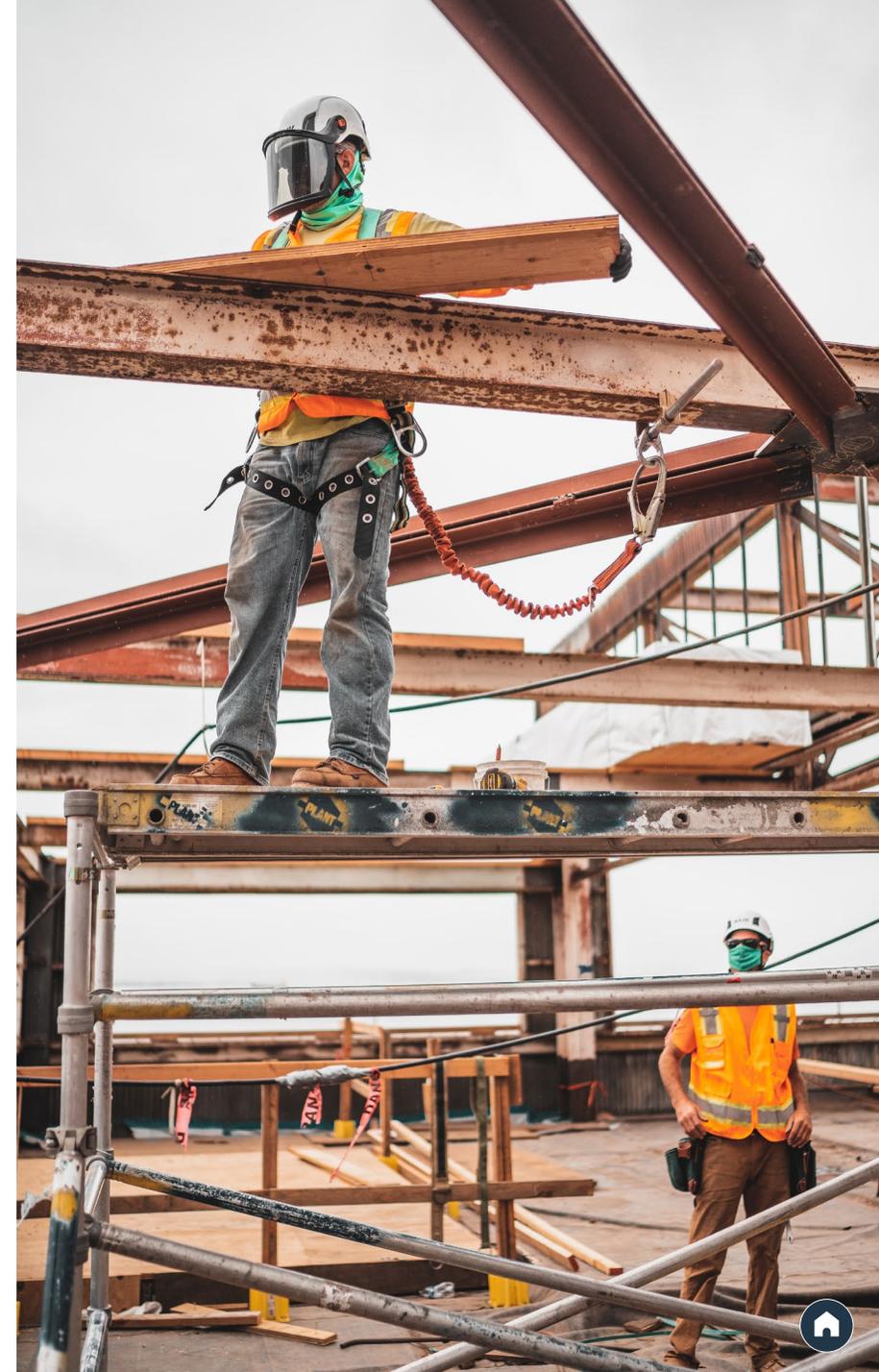
trained worker delivers a higher quality product and service and we attempt to hire responsible contractors whenever possible.

HUMAN RIGHTS AND ETHICAL PRACTICES

We strive to be an engaged, influential and active corporate citizen. We approach this by staying true to our values and by maintaining good governance standards and processes at the corporate, fund and asset level.

Various firm-wide and regional policies are in place across the business to ensure compliance with laws and regulations and to ensure our values on ethical matters are understood by our employees. These include policies on anti-bribery and corruption, whistleblowing, health and safety, engagement of suppliers and employment policies and procedures, in relation to equal opportunities/diversity, recruitment, health and safety and employee behavior.

We continue to review the current policies, procedures and training initiatives for our business to ensure that they fully reflect our commitment in relation to human rights and ethical practices. Within these policies, requirements exist regarding measures taken to avoid or mitigate risk, such as due diligence procedures, supplier education and policies, standard contract language and avoidance of high-risk regions.



Inclusion, diversity & equity (ID&E)

At Nuveen, Inclusion, Diversity and Equity are integral to who we are as a company. We seek to treat everyone we interact with through our real estate investment activities with respect and dignity. Our team of associates provides a strategic advantage by bringing together unique skills, backgrounds and perspectives that allow us to navigate and thrive in complex environments.

We also understand that as investors and owners of real estate, we have an obligation to monitor, manage and support ID&E efforts within our buildings and the communities where we invest.

Focus on ID&E in real estate

At Nuveen Real Estate, we are focusing on how to impact ID&E in our own business and at the properties where we invest. Here is a summary of our areas of focus:



ENTRY-LEVEL HIRING

Partner with local high schools, HBCU (Historically Black Colleges and Universities), and national ID&E organizations to build awareness and create diverse pipelines through training, mentorship and job readiness.



RETENTION AND DEVELOPMENT OF CURRENT DIVERSE STAFF

Provide professional development opportunities, mentorship, training and sponsorship to grow and retaining diverse talent.



EXTERNAL ALLIANCES

Partner with external affinity groups and HR to further support professional development, recruitment, metrics and ID&E best practices.



METRICS AND ACCOUNTABILITY

Establish individual, team and business level goals to align with Nuveen's efforts to measure and assess ID&E progress.



SUPPLY CHAIN DIVERSITY

Ensure our vendors and third-party demographics match our ID&E principals.





Highlights
of our ID&E
efforts in the
U.S. to date

Partnered with
organisations such as
Project Destined, REAP
and REEX on **recruitment
and professional
development**

Participated in an
inaugural real estate
networking event panel
with Morehouse College

Partnering with
Morehouse, Spelman
and Clark Atlanta for Fall
2021 semester to **recruit
new hires & future
internship candidates**

Focus groups with
current diverse talent and
reinforcement of internal
professional development
programs

Sponsored ID&E
talent for REAP external
**training/development
program**

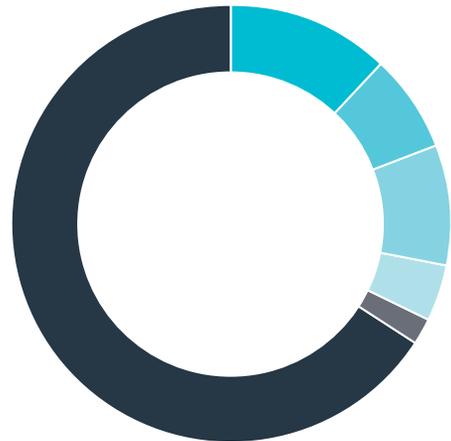
Required **gender-
balanced shortlists**
when hiring

Exploring
opportunities to expand
engagement with
diverse vendors globally
in alignment with
enterprise **supply chain
diversity strategy**



Our global business

	FEMALE	MALE
EMPLOYEES ¹	38%	62%
INVESTMENT PROFESSIONALS	32%	68%



NUVEEN'S ETHNICITY
BREAKDOWN IN THE U.S.

Asian	12%
Black	7%
Hispanic	9%
Unspecified	4%
Two or more	2%
White	65%

DIVERSITY IS JOB ONE

From hiring policies to internal advancement programs, our mission is to create a more equitable workforce. Recruiting from a variety of groups allows us to advance our inclusive culture and benefit from the different backgrounds and experiences they bring to the company. We have enhanced our tracking of the requirement for diverse candidate slates to ensure fair hiring practices for women and underrepresented racial and ethnic groups, those with disabilities, and veterans. We set the bar high, striving for 80% of job requisitions to have at least one female and one underrepresented racial or ethnic minority candidate in the candidate slate. Recruiters are measured in part on their success in meeting this standard. To continue fair hiring practices, we work with the hiring managers to include at least one underrepresented racial or ethnic minority and one female on the interview panel to match our candidate pool and create a welcoming environment for all candidates. In 2022, we're raising the bar, striving for two women and one racial or ethnic minority candidate in every slate of candidates presented to our hiring managers.

¹ Figures apply to Nuveen employees globally.



Housing affordability



Our view on housing affordability and impact

We recognise that a shortage of affordable housing options is an issue in the communities where we invest around the world and this is directly tied to rising economic inequality which is a constraint on economic growth. Vulnerable populations worldwide have suffered disproportionate health and economic setbacks from the pandemic. Persistent social injustices – which are systemic in many cases – create the environment in which these disparities thrive.

Commercial real estate investors' ability to impact housing affordability goes beyond supporting those most in need. We know the middle class is vital to keeping economies going and communities need a strong blue-collar workforce. This is a demographic which typically earns too much to be eligible for public housing programs but too little to thrive in communities with a high cost of living. We believe that by supporting diverse rental housing opportunities across all income levels, we are creating thriving communities that support strong real estate value creation across all sectors.

“We have been intentional about bridging our core competency in real estate with community impact. Our housing impact portfolio is dedicated to creating change by placing environmental and social impact at the heart of our investment strategy, which ultimately drives better outcomes for residents and inclusive communities while aiming to deliver a healthy financial return.”

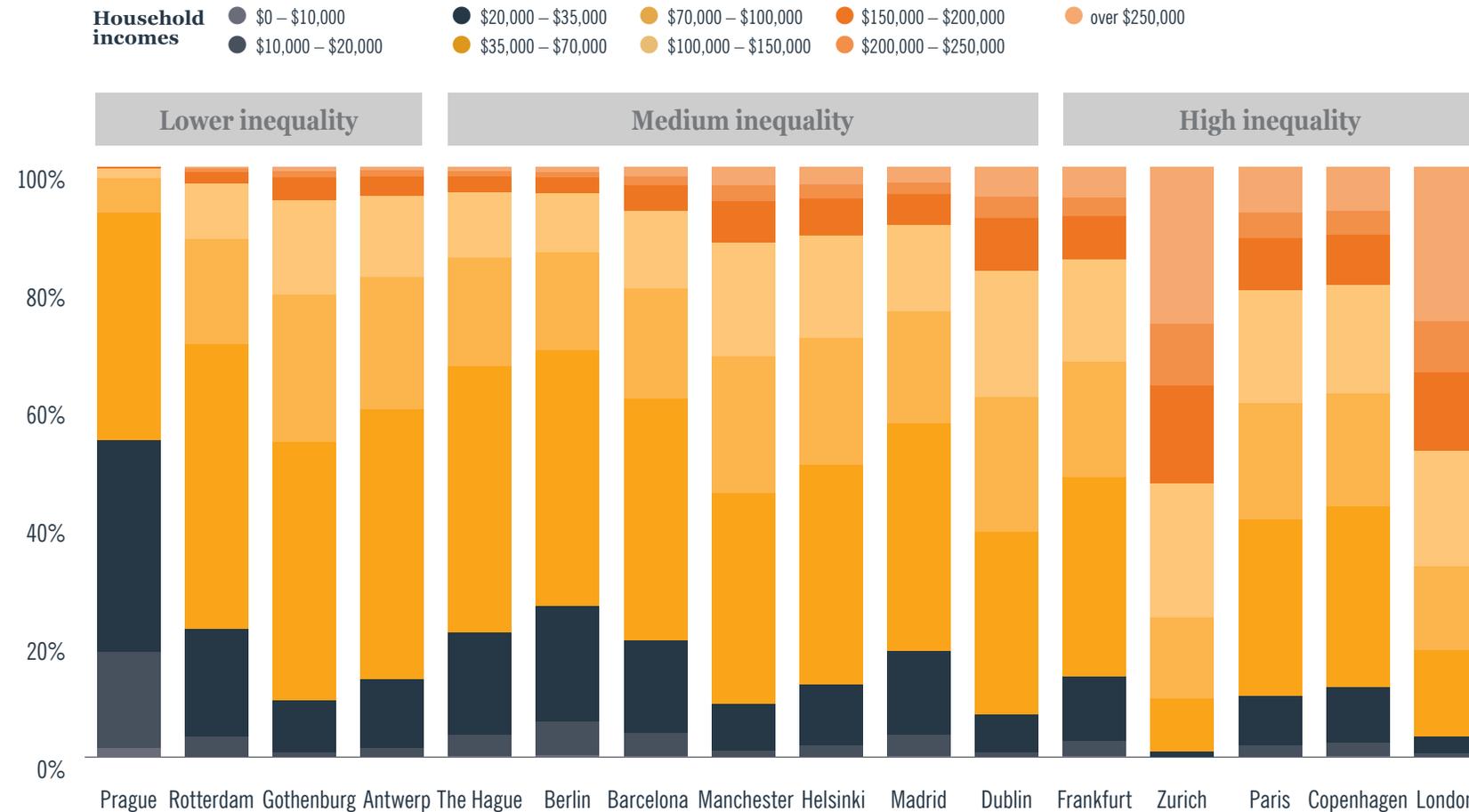


Pamela West
*MD, Portfolio Manager
Impact Housing Strategy*



Housing affordability contributing to rising inequality globally

RISK OF ECONOMIC EXCLUSION HIGHEST IN MOST SUCCESSFUL CITIES IN EUROPE



over 2X
increase in Berlin rents
since 2019

350K
flat shortage in social
housing units but only
250K
units are being built

1.9M
shortage in affordable
flats in large cities in
Europe¹

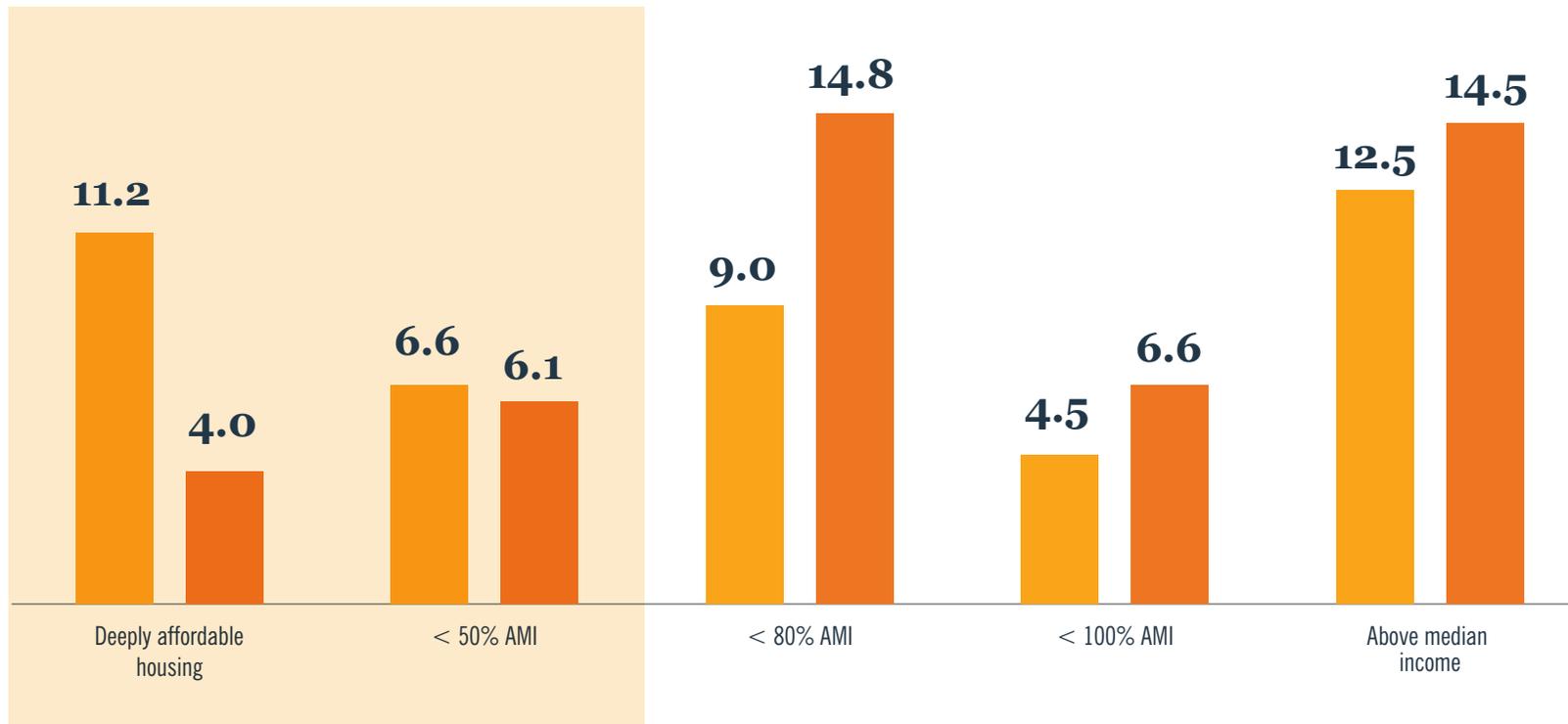
1. Hans-Böckler-Stiftung, study of 77 large cities over 100,000 inhabitants. Source: Oxford Economics, 2019, Nuveen calculations, Q4 2019. https://www.jchs.harvard.edu/sites/default/files/reports/files/Harvard_JCHS_Americas_Rental_Housing_2022.pdf
<https://www.pewtrusts.org/en/research-and-analysis/reports/2018/04/american-families-face-a-growing-rent-burden>



Housing affordability is worsening in the U.S.

RENTER HOUSEHOLDS IN LOWER INCOMES ARE OUTPACING SUPPLY OF AFFORDABLE RENTAL HOMES
(MILLIONS)

● Renters ● Available rentals



Rent is considered affordable if housing costs are <30% of income
Source: Pew Charitable Trusts, 2018.

20.4M

Cost-burdened U.S. renters (spend >30% of income on housing) in 2019, up 5.6M from 2001

10.5M

Households severely cost-burdened (spend > 50% of their income on housing) in 2019

57%

Households severely cost-burdened (spend > 50% of their income on housing) in 2019



Investing across the U.S. affordable housing spectrum

Nuveen is committed to investing to preserve affordability in housing across the globe, with dedicated housing impact investments in the U.S., including properties regulated by federal subsidy programs; e.g., Low-Income Housing Tax Credit (LIHTC) as well as unregulated naturally occurring affordable housing (NOAH). We invest across the spectrum of affordable housing, achieving risk-adjusted returns through efficient management and responsible exits.

Section 8

Resiliency with strong cash flows

- **Federal subsidy:** Residents pay 30% of income towards rent and the remainder of the difference is funded through federal subsidies
- **Highly regulated:** Tenants are sourced through housing agency and owners must comply with rules and regulations of HAP contracts
- **Durable income/resiliency:** Federal subsidy, averaging 70% of rental income, is paid monthly and on time with mark up to market (MUTM) rents throughout hold period

Expiring LIHTC

Long-term preservation with low exit risk

- **Regulated:** Residents must qualify at income levels below 60% AMI; compliance for deed restrictions
- **HUD fair market rents**
- **Limited capital needs:** Typically renovated within the last 15 years and only in need of light upgrades and green retrofits
- **Durable income/resiliency:** Rents are set by HUD against area median income, for affordable housing and families with annual increases

NOAH

Preservation in high-growth corridors

- **No subsidies:** No regulations market-rate class B and C assets in emerging areas traditionally rented to residents earning less than 60% AMI
- **Light renovations:** Units typically require some light renovations between \$3k and \$5k to improve the quality of units and implement green retrofits
- **Durable income/resiliency:** Rents are maintained at affordable levels for residents with little displacement and low turnover



Focus on responsible exit

We focus on a responsible exit, which is carefully considered from pre-acquisition and throughout the life of the investment. Where possible, we will extend or implement regulatory restrictions to maintain affordability after our hold period. Our social services and green retrofits can also extend past our hold period, and care is given to finding affordable housing preservation buyers upon exit.

One way we work to preserve affordability beyond exit is through a segment of our affordable housing strategy that focuses on the LIHTC market.

Understanding LIHTC: The Low-Income Housing Tax Credit (LIHTC) was created in 1986 to give private investors a federal income tax credit as an incentive to make equity investments in affordable rental housing while increasing the new supply of housing for low-income tenants. Syndication is designed to last 15 years. Properties maintain an additional affordability restriction through LURAs (land use restriction agreements) in exchange for the initial tax credits and other soft monies.

The investment opportunity: At the end of each 15-year period, Nuveen can acquire and preserve affordability by resyndicating which starts the cycle over again for another 15 years and beyond.

The impact: By preventing affordable restrictions from expiring and reducing the risk of conversion to market-rate units, tenants can retain housing and local markets retain quality, affordable stock.



Housing impact investment performance and impact results



94% deeply affordable¹

Nuveen's housing impact strategies in the U.S. focus on preserving housing that is affordable for those earning 30% – 60% of their area's median income (AMI). We call this deep affordability. Many properties we invest in are 100% deeply affordable, while others blend deeply affordable units with other units priced for higher-income tenants earning up to 80% AMI. This dual approach enables us to preserve affordable units wherever they exist, and explains the diversification of affordable units in our portfolio over time.



73% properties with green improvements

We also focus on implementing green retrofits, benchmark and analyze utility performance, and identify energy and water savings opportunities across the portfolio. Through these retrofits, the team will look to capture both energy cost savings and lower our carbon footprint.



51% lower effective rent paid by tenants compared to average market rents

Supporting efforts to reduce the 20 million U.S. rental households that spend more than 30% of their income on rent.



20% average participation rate in after-school programs by school-age tenants

To create impact “beyond four walls,” we create community resources, such as playgrounds, computer labs and business centers. By creating community outdoor-seating areas and fitness rooms, we aim to use our affordable housing strategically, as a platform for delivering additional services and promote healthy living.



88% properties offering social services

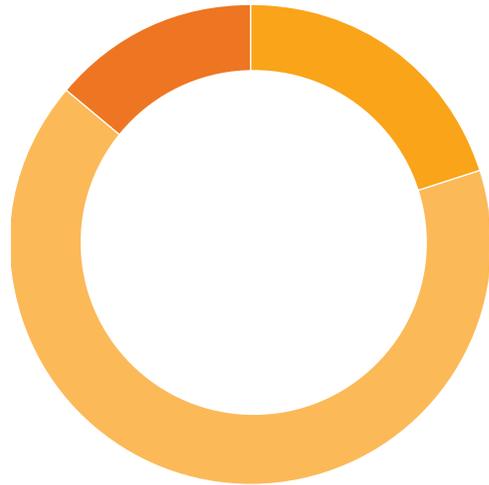
We prioritise enhancing and creating key physical design elements to improve tenants' health and well-being and work directly with third parties to deliver additional services, such as a property in the Bronx where we provide complimentary Wi-Fi capability. We are also expanding our shared electric vehicle services (for rent at affordable rates) to several properties in the Northeast where access to public transportation is limited.

¹ Direct affordable housing units were as of year end 2021.



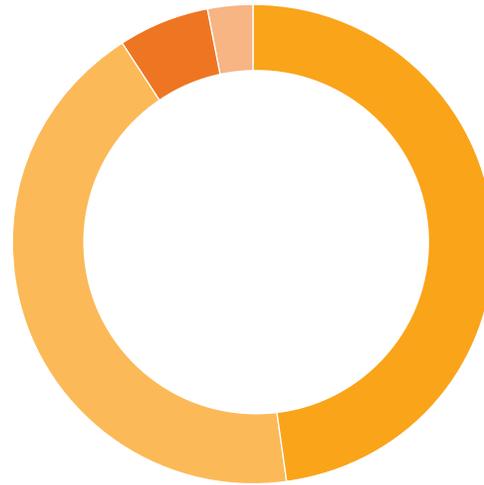
Nuveen offers impact housing diversification

Our impact through portfolio investments in 2021



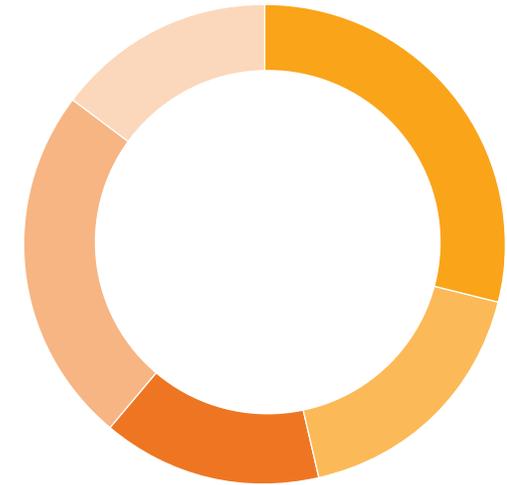
Tenant income by AMI by units

● < 30% AMI	22%
● < 60% AMI	72%
● < 80% AMI	6%



Tenant diversity by property

● Senior	48%
● Family	43%
● Differently abled	6%
● Military/other	3%



Property diversity by unit

● Section 8 senior	30%
● Section 8 family	18%
● LIHTC senior	15%
● LIHTC family	25%
● NOAH family	13%

AMI refers to the Area Median Income. 31 Dec 2021.



Supporting residents in our U.S. impact housing communities through the pandemic

During COVID, our partners have ensured the continuance of activities and services while keeping a safe physical distance. Property managers are being creative in their community building efforts. Nuveen has been working with its property managers and operating partners to provide the most vulnerable tenants — such as children and seniors — with support to weather this health and economic crisis.

WAYS WE SUPPORT RESIDENTS IN OUR IMPACT HOUSING COMMUNITIES:

- Direct funding for a rent-relief program for tenants experiencing loss of income in the mid-Atlantic
- Free tutoring and life skills program facilitated by a local non-profit organisation tailored to children and young adults at a property in a tertiary market
- Partnerships with police departments to deliver school meals to children during the summer and to deliver food pantry items to several properties
- Coordinating delivery service to transport medicine to senior tenants for several assets in the Northeast
- Free WiFi, telehealth and Section 3 hiring of existing residents for construction projects



CASE STUDY

German Living Impact Strategy initial investment

SPERBERWEG 5417 MUEHLACKER (GERMANY)

Our first German Living Impact investment, in partnership with the Hopebearer Foundation, will be built by developer HT Projektentwickler. Rents are being secured 33% below market for 30 years, the maximum commitment provided by the L-Bank program (Baden-Wuerttemberg) which seeks to provide the lower-middle class with access to affordable housing for time periods. The community will target a tenant mix that emphasizes workers in the car manufacturing and technology sectors.

Buildings exceed the requirement Primary Energy demand based on preliminary KfW verification demonstrating very good energy performance.



Resourcing to support residents in our impact portfolio

The resident service coordinator is a crucial role at our impact housing properties as part of Nuveen Real Estate's mission to implement ESG and impact services and programs throughout the impact housing portfolio. These programs include but are not limited to financial educational classes, tutoring assistance, social activities, computer labs and ESL classes. All service coordinators in senior properties complete a training regimen set forth by the American Association of Service Coordinators before seeing their first resident. This training is upwards of 32 hours of online sessions, covering topics ranging from communication to combating compassion fatigue to maintaining professional ethics.

REQUIRED ON GOING TRAINING AREAS

- Online learning tools and documentation basics
- Ethics in service coordination and professional boundaries
- Networking in the community and identifying resources
- Outcomes and program evaluation
- Mental health and aging, healthy aging, medications and older adults
- Communication strategies in working with older adults
- Fair housing and reasonable accommodations

Our community partners

We partner with the firms to provide social and educational services throughout our impact housing portfolio.



Resident services



CASE STUDY

Riverstone Bolingbrook, IL (U.S.)

Acquired in 2021, Riverstone comprises 789 units priced at or below 60% AMI. Business plan strategy aims to preserve existing affordability and improve tenant experience through green retrofits, common area upgrades and services. The local market housing occupancy is 93.5% with average market rents up 8% year over year.

SUSTAINABILITY INITIATIVES

- The partnership engaged Eschelon to conduct water and energy audits for the property
- The partnership is currently in the process of repurposing the underused tennis court into an additional parking lot that will create (100) parking spaces for residents
- Management is in the process of building out a maintenance shed to store items as well as an Amazon locker room for resident lockers
- Management executed a contract with portfolio resident services to implement resident services at the property



Smart sustainable building blueprint



Smart sustainable building blueprint

To bring our tomorrow's world vision to life, Nuveen Real Estate has developed a smart sustainable building blueprint (SSBB) for the different real estate sectors it invests in. Each sector-specific SSBB takes into account the three key drivers of change in tomorrow's world: sustainability, technology and people.

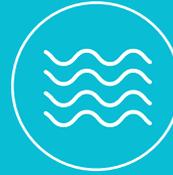
Each blueprint categorises building features or operational best practices based on the area of building performance being addressed, the expertise required to implement cost-effective solutions and the relevant stakeholder set.

Each sector's SSBB framework also classifies features as essential, value add or pilot, which reflects market maturity and Nuveen Real Estate's operating standards. All assets strive to incorporate programmatic approaches to essential features in asset business plans and operating practices, while value add and pilot features are assessed on an asset-by-asset basis. By nature, how features are classified will evolve over time based on consumer sentiment, technological development, capital market demand and local market dynamics.

The SSBB is a tool that helps our investment teams identify and prioritise implementation strategies for assets in a given sector. It is also a framework within which we set and measure progress towards operational goals.



Energy



Water



Waste



Resilience



Tenants and
community



Leasing



Data and
digitalisation



Health and
wellness



- Automated lighting controls
- Building automation system
- ENERGY STAR certification
- Equipment fault detection and diagnostic sensors
- LED lighting
- Real-time building energy use dashboard



- Low-flow water fixtures
- Water filtration/hydration stations
- Xeriscaping



- Recycling program



- Preparedness and resilience programs and improvements



- Common area seating
- Common area WiFi
- DEI and local procurement programs
- EV charging stations
- Local community engagement
- Tenant ESG engagement programs
- Tenant satisfaction surveys



- Green leasing clauses in standard lease template
- Flexible office offering
- Sustainable tenant fit-out guidance
- Virtual tours



- Auditing software for elevator contracts
- Connectivity assessment
- Digital antennae system
- Mobile access/visitor management
- Tenant engagement app



- Health and wellness programs
- Indoor air quality programs
- Touchless fixtures



For illustrative purposes only, listed features are example of SSBB features and are not necessarily representative of the features at pictured building or all buildings.



- 
- Automated lighting controls
 - LED lighting
 - HVAC optimization and smart metering
 - HVAC preventative maintenance
 - Passive lighting
 - Whole building energy data benchmarking

- 
- Irrigation controls/water optimization
 - Low-flow water fixtures
 - Water filtration/hydration stations
 - Xeriscaping

- 
- Composting or alternative waste stream options
 - Recycling program

- 
- Cell phone charging stations
 - Circular economy programs
 - Click and collect
 - Common area seating
 - Common area WiFi
 - DEI and local procurement programs
 - EV charging stations
 - Local community engagement
 - Programs to support local retailers/makers
 - Tenant ESG engagement programs
 - Tenant satisfaction surveys

- 
- Preparedness and resilience programs and improvements

- 
- Green leasing clauses in new leases
 - Sustainable tenant fit-out guidance

- 
- Digital marketing
 - Digital antennae system
 - Hands-free shopping
 - Loyalty program

- 
- Health and wellness programs
 - On-site garden/farm
 - Touchless fixtures
 - Sanitation stations

For illustrative purposes only, listed features are example of SSBB features and are not necessarily representative of the features at pictured building or all buildings.





- Automated lighting controls
- Green maintenance plan
- ENERGY STAR certification
- LED lighting
- Whole building energy data benchmarking



- Preparedness planning
- Resilience programs and improvements



- Dedicated community space
- DEI and local procurement programs
- EV charging stations
- Local community engagement
- Package management
- Partnership with local social service organisations and/or housing authority
- Resident ESG engagement programs
- Resident satisfaction surveys
- Workspace amenity



- Leasing AI/chatbot
- Virtual tours



- Irrigation controls/water optimisation
- Low-flow water fixtures
- Xeriscaping



- Resident engagement app
- Resident payment portal
- Smart units



- Composting or alternative waste stream options
- Recycling program



- Health and wellness programs
- On-site garden/farm

For illustrative purposes only, listed features are example of SSBB features and are not necessarily representative of the features at pictured building or all buildings.





- Automated lighting controls
- HVAC preventative maintenance
- HVAC optimization and smart metering
- LED lighting
- On-site renewable energy
- Passive heating and cooling
- Whole building energy data benchmarking



- Low-flow water fixtures



- Composting or alternative waste stream options
- Recycling program



- Preparedness and resilience programs and improvements



- EV charging stations
- Tenant ESG engagement programs
- Tenant satisfaction surveys
- Social amenities



- Green leasing clauses in standard lease template
- Sustainable tenant fit-out guidance



- Digital antennae system



- Green façade/biophilic design
- Touchless fixtures

For illustrative purposes only, listed features are example of SSBB features and are not necessarily representative of the features at pictured building or all buildings.



Bringing the SSBB to life in our New York City office portfolio

COLLECTIVE ACHIEVEMENTS OF THE TEAM INCLUDE:

Our New York office team offers a great example of how we have brought our smart sustainable building blueprint vision to life.

In 2020, we went to market to identify subject matter experts across operations, tenant experience, sustainability and technology. Together, with the property management, community management and building app providers, we offer a new, integrated building management model that better meets the needs of our office users.



SUSTAINABILITY

- Completed a comprehensive energy audit of each building, resulting in 61 energy conservation measure recommendations with an estimated 20% reduction in energy usage
- Initiated ESG engagement with customers via the Nuveen New York app, which provides access to Nuveen Real Estate's net zero carbon pathway, building energy use and greenhouse gas data, as well as day-to-day actions office users can take to improve energy efficiency



TECHNOLOGY

- Saw more than 1,000 app downloads in the first quarter of this year with 82% of building occupants having downloaded the app and 60% average monthly active usership (as a percentage of occupants)
- Enabled mobile access, visitor management, amenity booking, event RSVPs, and customer perks and benefits via the app



COMMUNITY

- Hired six team members dedicated to tenant experience, responsible for managing and activating amenities, including conference rooms, work lounges, a rooftop terrace and Top Golf simulator
- Have held more than 200 customer events and classes. Events held to date include professional headshots, wine and tea tastings, Food Truck Wednesdays, a Terrarium workshop, massage and nail pop-ups and blood drives. Classes include meditation, yoga, kickboxing, dance and self-defense
- Established an internal process to identify, test and approve hospitality standards, supplier specifications and operational procedures to ensure consistency and efficiency across the portfolio



New York City office portfolio best practices

Our new integrated building management model in New York enables us to meet the growing expectations of clients, customers, and municipalities. We are able to leverage the collective knowledge and purchasing power of our portfolio, and foster community and connectivity across our team and with our customers.

Investing in sustainability and technology are both key parts of preparing our buildings for tomorrow's world. Equally important is investing in the people who humanize commercial real estate and turn our properties into places with purpose.

A key objective of our integrated building management team in New York was to create a network of office buildings that was greater than the sum of its parts. Sharing knowledge, best practices, and lessons learned across the portfolio benefits both our team members and customers.

TRAINING AND COMMUNICATING WITH OUR TEAM

In December 2021, we held a week-long event for our more than 150 team members across security and janitorial services, engineering, property management, community management, and asset management.

The event included a holiday appreciation party, two virtual-speaker panels, and meetings with approximately 100 building customers during various "Food and Feedback" sessions. Communication is maintained via ongoing training, committee meetings, and newsletters which include customer feedback and milestones, upcoming events and trainings, team shout-outs and celebrations, progress to goals, and other team resources.

Graduated training offerings provide context to our teams on Nuveen's values and priorities; specifies the attitudes and actions that unify our team in our shared aim to create places that bring out the best in people; and maps out key customer touchpoints where we can bring those attitudes and actions to life.

SERVICE STEPS

Welcome all

We create a healthy work environment by acknowledging our customers the way they want to be treated and allowing them to be their authentic selves.

I make everyone feel comfortable.

Stay a step ahead

We consistently think outside the box, strive to make ourselves better, and ensure our services are easy to use.

I innovate and improve.

Make an impact

We leave each day having made a positive impact on each other, our neighbourhood, and the world.

I'm here to make a difference.

Connect the dots

We know our customers individually but also in a way that encourages engagement with other people and spaces in our collective network.

I make connections.

We are Nu crew

We know we can achieve more by helping our customers and each other in moments of need because no detail is too small and every ask is important.

I do more with other.

We are one team of more than 150 professionals with the shared aim to create places that bring out the best in people.



ESG program priorities in 2022 and beyond

We continue to focus on the evolving landscape and expectation for ESG integration, disclosure and leadership. Our priority areas of focus include:

Further our understanding of climate risk and adapt guidance on levels of risk that may impact investment values

Operationalize our net zero carbon framework by developing asset level business plans and setting strategy specific targets

Roll out the priority sustainability technology and community engagement features that we have identified in each asset class as part of our Smart Sustainable Building Blueprint

Focus on tenant engagement and tenant data gathering – significantly increase the proportion of whole building energy consumption data tracked

Undertake assessments of the social value of major new developments and undertake a review of vulnerability to modern slavery and wage levels compared to living wage across our supply chain

Further develop our training program to deliver more bespoke and advanced sustainability training across our business, supporting ESG integration in investment decision-making

Develop a route map to fully comply with the Task Force on Climate Related Financial Disclosure (TCFD) framework, supporting compliance with evolving climate-risk disclosure frameworks



BIOGRAPHIES



Abigail Dean
Global Head of Strategic Insights

Abigail Dean is the Global Head of Strategic Insights for Nuveen Real Estate. She is responsible for the organisation’s global research, sustainability and proptech and innovation functions. She oversees Nuveen Real Estate’s Tomorrow’s World Strategy which future proofs the investment strategy in light of global megatrends and integrates ESG across fund and asset management. This strategy ensures that the business delivers on its mission to invest in the urban fabric of Tomorrow’s World for the enduring benefit of our clients and society. Working alongside our Product Development team, Abigail is also responsible for ensuring that new product and the growth of the business are underpinned by solid research and sustainability considerations overseeing the global research team.

Since joining the firm in 2016, Abigail has overseen the organization setting a target to achieve Net Zero Carbon by 2040. Abigail is a member of Nuveen Real Estate’s Investment Committee and has spearheaded the integration of sustainability considerations into the acquisition process. She is also leading the organisation to develop investment guidelines related to physical and transition climate change risk. She previously worked at JLL, where she led on sustainability for the Property and Asset Management’s U.K. team.

Abigail is passionate about driving sustainable change in the property sector and sits on several industry committees, including the GRESB Benchmarking Committee and the INREV ESG committee.



Richard Hamilton-Grey
*Head of Sustainability
Europe & Asia Pacific*

Richard oversees the ESG platform across the European and Asia Pacific regions. Richard develops and coordinates the integration of ESG strategy across the investment management process, and advises fund and asset management teams on managing ESG risks and capitalising on opportunities within their portfolios. Richard is also a member of Nuveen Real Estate’s Investment Committee.

As part of the Strategic Insights team, Richard works alongside the organisation’s global research, proptech and innovation functions. His role includes driving Nuveen Real Estate’s Tomorrow’s World Strategy which helps future proof the investment strategy in light of global megatrends and integrates ESG across fund and asset management. This strategy ensures that the business delivers on its mission to invest in the urban fabric of Tomorrow’s World for the enduring benefit of our clients and society.

Prior to joining Nuveen Real Estate in 2015, Richard was at Land Securities, responsible for energy management across office, retail and leisure portfolios. Prior to that, he was at the Institute for Sustainability where he managed a European-wide Responsible Property Investment programme.



Jessica Long
*Head of Sustainability
Americas*

Jessica is the Head of Sustainability for Nuveen’s U.S. real estate portfolio. She is responsible for the implementation of the firm’s “tomorrow’s world” sustainability platform, focusing on climate risk and meeting carbon reduction targets throughout Nuveen’s U.S. real estate portfolio. She manages a team of internal sustainability professionals as well as external consultants who engage at the asset level to achieve the firm’s sustainability goals.

Prior to joining the firm, Jessica led the sustainability program for JBG SMITH, a real estate investment trust focused on investment and redevelopment of real estate in the Washington, D.C. metro region. In that role, she was responsible for the firm’s ESG strategy development, achieving the firm’s portfolio wide certification goals, and communication of sustainability performance through annual reporting and disclosure. Jessica is an active member of the sustainability community in D.C. and nationally. She served as a co-chair of the host committee for USGBC’s Greenbuild Conference in 2015 and has advocated for the real estate industry as jurisdictions have rolled out climate legislation. In 2016, she was named member of the year for USGBC National Capital Region and in 2018 was named member of the year for the NAIOP DC-MD chapter.

Jessica graduated with a B.A. in Business Administration and Communications, with a minor in Economics from McDaniel College. She holds LEED AP EB:O&M and WELL AP accreditation, as well as the Fundamentals of Sustainability Accounting credential.



BIOGRAPHIES



Jacinda Lofland
Director, Customers & Community

Jacinda leads Nuveen Real Estate's Customers & Community function. She works with Nuveen Real Estate's operating partners to improve customer experience and productivity, engage with customers around ESG initiatives, promote and collaborate with community organizations and local businesses, and to measure, analyze, and act on customer feedback. Jacinda helped develop and roll out Nuveen Real Estate's smart, sustainable building blueprint for various sectors.

Prior to Nuveen Real Estate, Jacinda was a Director on the Real Estate team at Selina and prior to that, she led the Finance team at Remote Year. Jacinda has previous experience in real estate equity and debt investments with TIAA and auditing with PwC.

Jacinda holds a B.A. in Business Economics from UCLA.



Brittany Ryan
Senior Associate, Sustainability Americas

Brittany supports the sustainability platform through ESG integration and strategy development for the US debt and equity real estate portfolios. She provides strategic ESG guidance to portfolio management teams in developing strategies, delivering on investor expectations, enhancing the ability to raise capital, and aligning disclosures with sustainability frameworks. Brittany develops and oversees the process for integrating physical climate and transition risk into the investment lifecycle, including target market views, risk controls, materiality and underwriting assumptions, due diligence requirements, and business plan strategies.

Brittany's experience is rooted in sustainability, focused on energy efficiency in public and commercial buildings, working with federal, municipal, and private real estate investment entities. Prior to joining in 2018, Brittany supported the Principal Real Estate Pillars of Responsible Property Investing program as an account manager driving asset energy performance. She also spent three years strengthening 30+ major U.S. cities' energy management solutions through the U.S. Department of Energy Better Buildings Initiative. She has shaped a number of sustainability programs, including energy, water, and waste management strategies for Building Owners and Managers Association and Owens Corning.

Brittany holds a BA in Environmental Studies from Ramapo College and earned her Master of Public Policy from the University of Maryland, specializing in Environmental Policy. She is a participant of the EcoAction Arlington Energy Masters volunteer program and D.C. EcoWomen professional network. Brittany is a Fitwel Ambassador and a Fundamentals of Sustainability Accounting Level II Candidate.



Amy Craik
*Senior Associate,
Smart Sustainable Building Blueprint
Program Manager*

Amy supports Nuveen Real Estate's United States Smart Sustainable Building Blueprint (SSBB). She works with sector teams, operating partners, and property managers to roll out the priority sustainability, technology, and community building features across the Nuveen Real Estate portfolio.

Prior to joining Nuveen Amy was a Project Manager for Turner Construction in Oakland, CA. She has experience managing large teams of sub-contractors and establishing project objectives and priorities and determining solutions for implementation. Through this role she has developed subject matter expertise in Tenant Improvements, MEP, Design-Build, Biopharma and Tech Offices.

Amy graduated with a B.A. in Sustainable Environmental Design, with a minor in Urbanism in Developing Countries from the University of California, Berkeley. She holds Fitwel Ambassador, LEED Green Associate and WELL AP accreditation.



BIOGRAPHIES

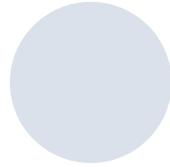


Anna Weingord
*Analyst, Sustainability
Americas*

Anna supports Nuveen Real Estate's Tomorrow's World sustainability platform in the United States. She focuses on supporting asset and property management teams in achieving long-term ESG targets and facilitates collaboration between internal teams and external consultants.

She is an experienced energy and sustainability researcher with particular knowledge in climate policy, real estate and carbon tracking. She began her career at Urban Green Council as a researcher identifying and executing studies that reveal industry trends and influence building design. She performed analysis for two NYC Energy and Water Use Benchmarking Reports and convened focus groups of city, state and private sector building professionals for NYSERDA contracted reports. Anna's previous professional experience also includes projects at the Brooklyn Navy Yard, Building Energy Exchange, and Greenpeace Australia Pacific.

Anna graduated with a B.A. in Economics and Environmental Analysis & Policy from Boston University. She is a LEED AP with a specialty in building design and construction.



Sadaf Salehi
*Analyst, Sustainability
Europe & Asia Pacific*

Sadaf is a Sustainability Analyst for the Strategic Insights team at Nuveen Real Estate. She supports the delivery of Nuveen's ESG program across the Europe and Asia Pacific real estate portfolio, advising investment teams on ESG performance and developing improvement pathways to feed into firm's business planning and fund strategy.

Prior to joining Nuveen in 2021, Sadaf was a sustainability analyst and energy modeller at Scala Colab, where she developed high-performance, energy- and resource-efficient solutions for new developments and retrofit projects. Concurrently, she led the R&D and Impact Analysis teams at Firstplanit — a startup commissioned by Scala Colab, to automate sustainable design consultancy services for renovation projects in the UK. Sadaf began her career at Omrab Canada Inc., in 2018 as a project engineer, where she worked on design and delivery of water and wastewater treatment projects at MENA countries, from concept to completion.

Sadaf graduated with a B.Eng. in Architectural Conservation and Sustainability Engineering from Carleton University in Ottawa, Canada and an M.Sc. in Environmental Design and Engineering from University College London. She holds BREEAM Associate, Fitwel Ambassador and LEED Green Associate accreditations.



Appendix — GRI tables

GRI #	DESCRIPTION
102-2	Activities, brands, products, and services https://www.nuveen.com/en-us/about-us/investment-specialists/nuveen-real-estate
102-3	Location of headquarters <i>New York, NY</i>
102-4	Location of operations <i>Page 4</i>
102-5	Ownership and legal form https://files.adviserinfo.sec.gov/IAPD/Content/Common/crd_iapd_Brochure.aspx?BRCHR_VRSN_ID=762465
102-6	Markets served <i>Page 4</i>
102-7	Scale of the organization <i>Page 4</i>
102-8	Information on employees and other workers <i>Page 4</i>
102-9	Supply chain
102-10	Significant changes to the organization and its supply chain
102-11	Precautionary Principle or approach
102-12	External initiatives <i>Page 7, Page 34</i>
102-13	Membership of associations <i>Page 7</i>
102-14	Statement from senior decision-makers <i>Page 3</i>
102-15	Key impacts, risks, and opportunities <i>Page 6, 10, 11, 17, 31</i>

GRI #	DESCRIPTION
102-16	Values, principles, standards, and norms of behavior https://www.tiaa.org/public/pdf/c/code_of_conduct.pdf
102-17	Mechanisms for advice and concerns about ethics www.tiaaethics.org
102-18	Governance structure <i>Page 14</i>
102-19	Delegating authority <i>Page 14</i>
102-20	Executive-level responsibility for economic, environmental and social topics <i>Page 15</i>
102-22	Composition of the highest governance body and its committees https://www.nuveen.com/global/about-us/our-people/nuveen-leadership
102-23	Chair of the highest governance body <i>James R. Chambers, Chairman of the TIAA Board</i>
102-25	Conflicts of interest https://www.tiaa.org/public/pdf/c/code_of_conduct.pdf
102-26	Role of highest governance body in setting purpose, values and strategy https://www.nuveen.com/global/corporate-governance
102-35	Remuneration policies https://documents.nuveen.com/Documents/Global/Default.aspx?uniqueid=c8afa343-f0cc-45e7-aa89-e3e93768557b
102-40	List of stakeholder groups <i>Page 18-19</i>
102-41	Collective bargaining agreements <i>Page 66</i>
102-43	Approach to stakeholder engagement <i>Pages 20-21, Pages 47-54</i>
102-44	Key topics and concerns raised <i>Page 10-11</i>



Appendix — GRI tables, *continued*

GRI #	DESCRIPTION
102-46	Defining report content and topic boundaries
102-47	List of material topics Page 10-11
102-50	Reporting period Period ending December 31, 2021
102-51	Date of most recent report June 30, 2022
102-52	Reporting cycle Annual
102-53	Contact point for questions regarding the report Abigail.Dean@nuveen.com
102-55	GRI Standards Index
201-2	Financial implications and other risks and opportunities due to climate change Pages 29-44, Pages 85-87
205-2	Communication and training about anti-corruption policies and procedures Page 66, https://www.tiaa.org/public/pdf/c/code_of_conduct.pdf
302-1	Energy consumption within the organization Page 88
302-3	Energy intensity Page 88
302-4	Reduction of energy consumption Page 88
303-5	Water consumption Page 88
305-1	Direct (Scope 1) GHG emissions Page 88

GRI #	DESCRIPTION
305-2	Energy indirect (Scope 2) GHG emissions Page 88
305-3	Other indirect (Scope 3) GHG emissions Page 88
305-5	Reduction of GHG emissions Page 88
401-3	Parental leave https://careers.tiaa.org/global/en/benefits
403-1	Occupational health and safety management system https://careers.tiaa.org/global/en/benefits
403-3	Occupational health services https://careers.tiaa.org/global/en/benefits
403-5	Worker training on occupational health and safety https://careers.tiaa.org/global/en/benefits
403-6	Promotion of worker health https://careers.tiaa.org/global/en/benefits
404-2	Programs for upgrading employee skills and transition assistance programs https://www.tiaa.org/public/pdf/t/tiaa-responsible-business-report-pub2022.pdf
404-3	Percentage of employees receiving regular performance and career development reviews 100%
405-1	Diversity of governance bodies and employees Page 57, https://www.tiaa.org/public/pdf/t/tiaa-responsible-business-report-pub2022.pdf
412-2	Employee training on human rights policies or procedures https://www.tiaa.org/public/pdf/t/tiaa-responsible-business-report-pub2022.pdf
414-1	New suppliers that were screened using social criteria Page 54



Appendix — Taskforce on Climate related Financial Disclosures (TCFD)

PILLAR	TCFD RECOMMENDATIONS	ACTIVITIES	ADDITIONAL REFERENCES
Governance	a) Describe the board's oversight of climate-related risks and opportunities.	<p>Nuveen, its affiliate, Nuveen Real Estate, and its regulated entities have an explicit focus on the integration of sustainability risk across their respective portfolios. This includes approving the Framework and monitoring the NRE management team's approach to providing adequate expertise and resources required for the implementation and oversight of identified ESG-related risk and meeting Product ESG-related objectives.</p> <p>Nuveen Real Estate is an active member of the TIAA/Nuveen Climate Risk Task Force (CRTF) a cross-functional working group established to develop an organization-wide strategy guided by TCFD recommendations.</p> <p>Formal oversight of climate risk at the Enterprise Level includes the following committees.</p> <ul style="list-style-type: none"> • TIAA Corporate Governance and Social Responsibility Committee • TIAA Investment Committee • TIAA Risk and Compliance Committee I • TIAA-CREF Fund Complex Investment Committee • Nuveen Funds Board Oversight 	Additional details can be found in the firm TCFD report: https://www.tiaa.org/public/pdf/2021_climate_report.pdf
	b) Describe the management's role in assessing and managing the climate-related risks and opportunities.	<p>The Global Executive Team sets firm-wide strategy and goals related to ESG performance and resource allocation, reviews business-wide reports on ESG and climate risk exposure, and hosts quarterly Risk and Compliance Committee updates which include updates on approach to climate risk and NZC pathway progress reports.</p> <p>The Operating Committee (U.S.) and Investment Committee(s) play a central role in the oversight of the Sustainability Investment Risk Management Framework and other ESG-related matters.</p> <p>The ultimate decision on whether to invest and how to manage a given investment rests within the Investment Team (or its client), in accordance with the NRE Authorization Policy. This policy typically requires Investment Committee approval and adherence to other relevant company policies and procedures, in which liquidity, time horizon, pricing and anticipated financial returns are considered as part of the overall decision.</p>	Nuveen Real Estate Statement on Responsible Investment
Strategy	(a) Describe the climate-related risks and opportunities the organisation has identified over the short, medium and long terms.	<p>The transition to the low carbon economy will have a transformative impact on many industries over the next few decades. In the short to medium term, it is our view that transition risk and opportunity will have a more significant impact on real estate markets than physical climate change risk.</p> <p>Transition risk and opportunity will be particularly significant in Europe, where cities will not be as exposed to physical impacts as some other global locations and where there is strong engagement from governments, investors and business on this issue — meaning that policy risk, market shifts and technological innovation are all likely to move swiftly. In the U.S., this transition is expected to take place more swiftly in coastal-urban markets where there is a strong demand for climate action among residents and local government.</p> <p>The physical impacts of climate change have significant potential to have direct financial impact on an asset as well as affect the demand for real estate, from tenants and investors, in a particular region or location, which could have a detrimental effect on real estate asset values.</p>	



Appendix — Taskforce on Climate related Financial Disclosures (TCFD), *continued*

PILLAR	TCFD RECOMMENDATIONS	ACTIVITIES	ADDITIONAL REFERENCES
Strategy	(b) Describe the impact of climate-related risks and opportunities on the organisation's businesses, strategy and financial planning.	<p>The direct nature of investment in real estate means that Nuveen has the ability to control the path to net zero carbon of these assets — this is why Nuveen Real Estate has developed a pathway to achieve net zero carbon by 2040. In the real estate industry, and among those that invest in it, there is a widespread acceptance that all buildings must be net zero carbon by 2050 if the goals of the Paris Agreement are to be achieved. At Nuveen we believe this means that buildings that are not able to achieve net zero carbon will start to lose value well before that date and the portfolio target is primarily aiming to protect value for our clients by mitigating transition risk.</p> <p>The impact of physical risks are less certain as we seek to take a proactive approach to working alongside the communities where we invest to build resilience at the building and municipal level. Our strategy includes defining the potential for direct impacts to income, operating costs and capital expenses and indirect impacts to investment value due to market-level changes resulting from increasing frequency and intensity of climate-related hazards.</p>	
	(c) Describe the resilience of the organisation's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	<p>Nuveen Real Estate is using industry frameworks, such as Carbon Risk Real Estate Monitor (CRREM) models, to measure exposure to transition risk. Our approach allows for flexibility to accelerate adoption of net zero carbon where market transition risk warrants. Our approach takes into account both the pace of global and local decarbonisation efforts as well as the acceleration in physical hazards due to global warming. Our strategy targets energy and carbon performance based on a Paris-aligned portfolio. We consider physical climate change through 2040 based on RPC8.5 due to the short-time frame, in climate change terms, where certain levels of warming, and associated hazards, are expected to be locked-in for the near term as efforts to reduce carbon emissions are underway.</p>	
Risk	a) Describe the organisation's processes for identifying and assessing climate-related risks.	<p>Nuveen Real Estate developed and implemented a Sustainable Risk Management Framework (the "Framework"), which outlines the investment risk procedure for considering sustainability risk throughout the investment process. The Framework provides an expectation of how climate risk factors, which have been determined to be material to real estate investment performance in certain regions or sectors, are integrated into the Nuveen Real Estate investment process. This includes consideration of climate risk factors in investment analysis, due diligence, monitoring, and portfolio construction and exit, which can enhance long-term investment value and help manage downside risk. Investment and portfolio management teams are responsible for evaluating the potential financial impact of ESG factors on investment and portfolio performance, while the Operating Committee (US) and Investment Committee(s) oversee compliance with the Frameworks and other ESG related matters.</p>	
	b) Describe the organisation's processes for managing climate-related risks.	<p>Where a potentially-material increase in climate related hazards is identified, discussions between sustainability, investment, and portfolio management teams take place which include the consideration of downside scenarios or "stress test" as part of the decision to invest and the ability of the investment to achieve desired financial returns. If it is determined that there is potentially material financial risk, investment teams are required to seek Preliminary Investment Committee (IC) guidance which is intended to set expectations for the mitigation of risk when seeking final IC approval. Where risk is identified on existing assets, similar analysis is done as part of annual business planning and climate risk is considered as part of hold/sell analysis.</p>	
	b) Describe the organisation's processes for managing climate-related risks.	<p>Management of climate risk requires extensive resources and focus from a cross-functional team across the organization. At a high level, the work of this team, which combines first line of defense and second line of defense responsibilities, is to deliver, among other things, support for recommended pathways, a range of potential economic impacts on portfolio metrics (i.e, yield, quality and diversification) associated with these pathways, setting interim targets, developing relevant investment guidelines and finally tracking, monitoring and reporting on progress.</p>	



Appendix — Taskforce on Climate related Financial Disclosures (TCFD), *continued*

PILLAR	TCFD RECOMMENDATIONS	ACTIVITIES	ADDITIONAL REFERENCES
Risk	<p>(c) Describe how processes for identifying, assessing and managing climate-related risks are integrated into the organisations overall risk management.</p>	<p>Climate Scenario Risk Integration includes adding high-level scenario modelling to the risk frameworks. TIAA and Nuveen Risk management employs the Moody's Scenario Design Studio (MSDS) to generate macroeconomic variable forecasts consistent with each of the climate scenarios. Risk provides climate data results to downstream users for the next steps in the climate risk assessment process. The primary objective of the macroeconomic climate scenario generation process is to articulate a wide variety of potential future states of the world marked by more immediate or more delayed policy and/or market responses to climate risk impacts. Risk is conscious that a broad spectrum of interrelated policy, market and ecological factors will impact actual climate outcomes. This scenario generation process is designed for flexibility to allow TIAA and Nuveen to evolve its scenarios to changing climate and investment environments over time.</p>	
Metrics	<p>a) Disclose the metrics used by the organisation to assess climate-related risks and opportunities in line with its strategy and risk management processes.</p>	<p>Portfolio Dashboards managed by the NRE Sustainability team provide a portfolio view of climate-risk exposure based on key metrics tied to physical and transition risk. Dashboards are accessible to investment and portfolio teams and are used to inform business plans and allocation strategies based on assessment of direct and indirect financial risks.</p> <p>Transition Risk</p> <ul style="list-style-type: none"> • Energy Use Intensity (kwh/m2) metric is used to measure if a building is operating efficiently compared to expectation for NZC and benchmarked against similar buildings in sector and/or region. • Exposure to building regulation is used to measure potential risk associated with fines, large capital requirements and discounts at the time of sale where there may be uncertainty about a buildings ability to comply with future energy/carbon limits. • Carbon intensity measured as CO2e/m2 is used as a metric to measure progress over time in a growing and diverse portfolio. <p>Physical Risk</p> <p>A location is considered exposed to Coastal or Fluvial flooding risk if:</p> <ul style="list-style-type: none"> • Climate data suggests significant increases in annual likelihood of a '100-year flood' AND flood mapping tools reveal location has a significant probability of greater than 12" of flooding in 10 yrs. (per First Street Foundation (US only)) <p>A location is considered exposed to Wildfire risk if:</p> <ul style="list-style-type: none"> • Climate data suggests increasing annual likelihood of historic 90th percentile wildfire conditions AND property is located in a community with high exposure to wildfire risk (per USDA Forestry Service) AND/OR located in a Wildland Urban Interface (WUI). <p>Other risk factors considered include heat stress, water stress, and drought where we focus on a change from a historical baseline probability and absolute exposure to hazards.</p>	
	<p>(b) Disclose Scope 1, Scope 2, and if appropriate Scope 3 greenhouse gas (GHG) emissions and the related risks.</p>	<p>Scope 1 Provided with metrics Scope 2 Scope 3</p>	<p>Data tables page 88-90</p>
	<p>c) Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.</p>	<ul style="list-style-type: none"> • 30% reduction in landlord controlled energy intensity from a 2015 baseline. • Net zero carbon by 2040, supported by 5-year interim targets as disclosed in NZC pathways. 	<p>Net zero carbon progress report page 35-39 Link to NZC pathway</p>



Appendix — Detailed metrics

IMPACT AREA	UNITS OF MEASUREMENT	SUSTAINABILITY PERFORMANCE MEASURES	ABSOLUTE MEASURES			LIKE-FOR-LIKE			
			2020	2021	% CHANGE	2020	2021	% CHANGE	
Energy	MWh	3.1 Electricity	for landlord shared services [GRI 4: EN3]	924,194	744,291	-19%	688,326	689,950	0.24%
			(sub)metered exclusively to tenants [GRI 4: EN4]	29,827	29,569	-1%	16,901	17,776	5%
			Total landlord-obtained electricity [GRI 4: EN3]	954,021	773,860	-19%	705,228	707,725	0.35%
		3.2 District thermals	for landlord shared services [GRI 4: EN3]	58,303	64,816	11%	52,699	59,914	14%
			(sub)metered exclusively to tenants [GRI 4: EN4]	329	195	-41%	329	195	-41%
			Total landlord-obtained district thermals [GRI 4: EN3]	58,632	65,011	11%	53,027	60,109	13%
		3.3 Fuels	for landlord shared services [GRI 4: EN3]	255,571	177,328	-31%	175,445	168,245	-4%
			(sub)metered exclusively to tenants [GRI 4: EN4]	3,739	3,552	-5%	3,739	3,552	-5%
			Total landlord-obtained fuels [GRI 4: EN3]	259,310	180,880	-30%	179,185	171,797	-4%
		No. of applicable properties	Energy and associated GHG disclosure coverage	494	483	-2%	377	N/A	
	%	Proportion of energy and associated GHG estimated	0.8%	1.1%	N/A	0.2%	0.8%	N/A	
Greenhouse gas emissions	tonnes CO2e	3.5 Direct	Scope 1 [GRI 4: EN15]	46,992	32,479	-31%	32,259	30,816	-4%
			3.6 Indirect	Scope 2 [GRI 4: EN16]	378,806	288,007	-24%	284,790	268,900
		Indirect	Scope 3 [GRI 4: EN17]	50,440	39,274	-22%	34,223	29,822	-13%
		Total	Scopes 1 + 2 (only)	425,798	320,486	-25%	317,049	299,716	-5%
Renewable energy	kWh	3.1 Energy	Total on site renewable energy	353,580	383,279	8%	322,656	305,284	-5%
			No. of applicable properties	On site renewable energy	8	9	13%	7	N/A



Appendix — Detailed metrics, *continued*

IMPACT AREA	UNITS OF MEASUREMENT		SUSTAINABILITY PERFORMANCE MEASURES	ABSOLUTE MEASURES			LIKE-FOR-LIKE			
				2020	2021	% CHANGE	2020	2021	% CHANGE	
Water	cubic metres (m3)	3.8	Water	for landlord shared services [GRI 4: EN8 partial]	10,818,552	8,026,155	-26%	6,884,636	7,072,424	3%
				(sub)metered exclusively to tenants	126,906	123,719	-3%	90,409	88,708	-2%
				Total landlord-obtained water [GRI 4: EN8 partial]	10,945,458	8,149,874	-26%	6,975,045	7,161,132	3%
	No. of applicable properties		Water disclosure coverage	392	369	-6%	281		N/A	
	No. of applicable properties		Proportion of water estimated	0%	1%	N/A	0%	1%	N/A	
Waste	metric tonnes	3.10	Waste	3.10	34,048	26,876	-21%	28,001	24,832	-11%
	proportion by weight (%)	3.11		Composting / anaerobic digestion	1%	1%	N/A	1%	1%	N/A
				Recycled	22%	37%	N/A	20%	34%	N/A
				Off-site Materials Recovery Facility	6%	9%	N/A	6%	8%	N/A
				Incineration with energy recovery	7%	13%	N/A	8%	13%	N/A
				Incineration with no energy recovery	0%	0%	N/A	0%	0%	N/A
				Hazardous waste treatment facility	0%	0%	N/A	0%	0%	N/A
				Landfill	2%	4%	N/A	3%	5%	N/A
				Reuse	1%	1%	N/A	1%	1%	N/A
				Other	59%	35%	N/A	60%	38%	N/A
No. of applicable properties		Waste disclosure coverage	86	79	-8%	67		N/A		



Appendix — Detailed metrics, *continued*

IMPACT AREA	Units of measurement	Sustainability Performance Measures		Office			Retail			Industrial			Residential			Other		
				2020	2021	% change	2020	2021	% change	2020	2021	% change	2020	2021	% change	2020	2021	% change
Energy +B49:S56	kWh / m ² / year	Energy	Building energy intensity [GRI 4: CRE1]	172.5	155.9	-10%	106.0	88.6	-16%	31.64	21.45	-32.2%	72.08	71.87	-0.3%	108.33	109.27	0.9%
	kgCO ₂ e / m ² / year	Greenhouse gas emissions	Greenhouse gas intensity [GRI 4: CRE3]	59.54	52.14	-12%	36.06	27.46	-24%	8.84	5.72	-35.3%	23.47	22.35	-4.8%	16.52	14.85	-10.1%
Greenhouse gas emissions	Net Lettable Area (m ²)		Energy and associated GHG disclosure coverage	3,011,214	2,851,249	-5%	3,827,756	3,045,394	-20%	374,071	723,746	93%	3,394,158	3,298,133	-3%	58,347	58,347	0%
	Number of applicable properties		Energy and associated GHG disclosure coverage	130	130	0%	116	104	-10%	21	44	110%	152	172	13%	3	3	0%
Water	m ³ / m ² / year	Water	Water intensity	0.43	0.43	-1%	1.06	0.92	-13%	0.25	0.35	38%	1.79	1.65	-8%	0.81	0.87	7%
	Net Lettable Area (m ²)		Water disclosure coverage	2,606,928	2,457,265	-6%	3,415,817	2,869,761	-16%	166,242	665,889	301%	3,110,797	2,311,114	-26%	45,892	45,892	0%
	Number of applicable properties		Water disclosure coverage	104	103	-1%	83	82	-1%	8	32	300%	140	134	-4%	2	2	0%

2021 target performance and 2022 target

House portfolio had a 2021 energy reduction target of 3.0% of landlord procured energy (electricity equivalent). The portfolio recorded 0.5% decrease in landlord procured energy (electricity equivalent).

House portfolio has a 2022 energy reduction target of 3.0% of landlord procured energy (electricity equivalent).



Appendix — Data qualifying and asset variance notes

Data Qualifying Notes:

This environmental performance summary covers 01/01/2020 - 31/12/2021 and focuses on the house portfolio's directly managed assets. This includes the 'landlord obtained' utility supplies and managed waste.

The calculations in this report have been carried out in accordance with the GHG Protocol and the carbon footprint combines Scope 1, 2 and 3 emissions. Data has been collected from the entity via meter readings and utility bills.

The absolute values represent total energy, carbon, water or waste consumption arising from the activities under the house portfolio's direct control in the buildings the entity directly manage. This includes all directly-managed properties, irrespective of when they were acquired or disposed. Void consumption was also taken into account.

The like-for-like analysis uses a static portfolio approach, which includes only those directly-managed properties that were held in the portfolio for the duration of the reporting period and the comparison year (01/01/2020 - 31/12/2021). It therefore allows direct comparison of the same group of properties year-on-year.

Intensity Values: Energy and carbon intensities have been calculated by using Net Lettable Area to normalise consumption and emissions.

Portfolio churn: Where assets were acquired and disposed during the reporting timeframe, they were included in absolute reporting and excluded from Like-for-Like reporting. Environmental data outside of the hold period of the house portfolio's ownership window have been excluded.

Estimations: Data is collected from a number of sources for the purpose of environmental performance reporting. These include: automatic meters, utility bills and meter reads from property managers. Where data is missing, data has been estimated based on data already received for a property. In this disclosure, estimation refers to where missing data has been estimated, not to whether the underlying data itself is based on estimated source.

Emissions factors: Carbon emission factors from IEA 2020, IEA 2021, DEFRA 2020 and DEFRA 2021 have been used to produce this report.

Asset variance notes:

- All assets have been affected by national lockdowns as a result of the COVID-19 pandemic. Many assets continued operating at reduced capacity throughout 2021 leading to a year on year reduction due to the difference between Q1 2020 before lockdowns were imposed, and Q1 2021. Other assets greatly increased their occupancy in 2021 relative to 2020 leading to significant increases in consumption.
- Water and waste consumption from the US has been included in this report for the first time.
- Renewable energy production increased slightly through the reporting period but like for like renewable generation fell slightly due to a small decrease at Viladecans.
- Data for an additional 77 US assets has been provided for this report compared to the previous report leading to the increase in consumption from what was reported previously.

Verification statement for the House Portfolio

Verco Advisory Services (Verco) hereby confirm that the environmental data consumption reported for the house portfolio has been verified through a trend and variance analysis. There has been extensive correspondence with the data collectors to review the accuracy of the data. The verification has been done in line with the following standards:

- ISO 14064-3
- ISO 50002
- ISO 19011

The verification checks are delivered by Verco (applicable to the non-US portfolio only), a specialist sustainability consultancy, on the sustainability disclosures related to the house portfolio's assets. This provides investors and other stakeholders with confidence in the reported data. Data for the US assets is collected and verified by CodeGreen Solutions.

Mark Challis

Operations Director

Verco Advisory Services



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