Ensuring our future

TIAA CLIMATE REPORT | 2022

TIAA

A message from the CEO

TIAA's core purpose is to provide secure retirements through lifetime income for millions of our clients, meaning we have always focused on positive long-term outcomes.[1] We view climate risk as investment risk. Executing our fiduciary duty to protect our clients' capital requires full understanding of the implications of a changing climate, as these dynamics have an impact on the expected financial productivity, growth prospects and value of issuers and assets in which we invest. To do our part, we are prioritizing our work to be prepared for a low carbon future and continue to drive progress through our existing commitments:

- TIAA General Account (the insurance investment account that supports the flagship TIAA Traditional annuity): Net Zero by 2050
- Nuveen Real Estate: Net Zero by 2040
- TIAA corporate operations: Net Zero by 2040

In addition to executing on our net zero commitments, our enterprise risk management functions have begun to build the risk management approaches to enhance our understanding of climate-related risks affecting our capital. By leveraging expertise across our investment, risk management and responsible investing teams, we aim to deliver attractive long-term risk-adjusted relative returns to our clients in the face of climate change.

This work is critical as many of us increasingly feel the impacts of climate change in our own lives. This year we've seen deadly floods from South Africa to Kentucky, heat waves in India, Pakistan and Europe, and drought in eastern African countries such as Ethiopia, Kenya and Somalia. In the U.S., as of September 2022, nearly half of the contiguous country fell into moderate to extreme drought categories based on the Palmer Drought Index.[2] Climate change is happening now and we face the challenge of stewarding our clients' retirement investments through the transition towards a net zero greenhouse gas (GHG) emission economy.

Thasunda Brown Duckett
President and Chief Executive Officer

> We view climate risk as investment risk.

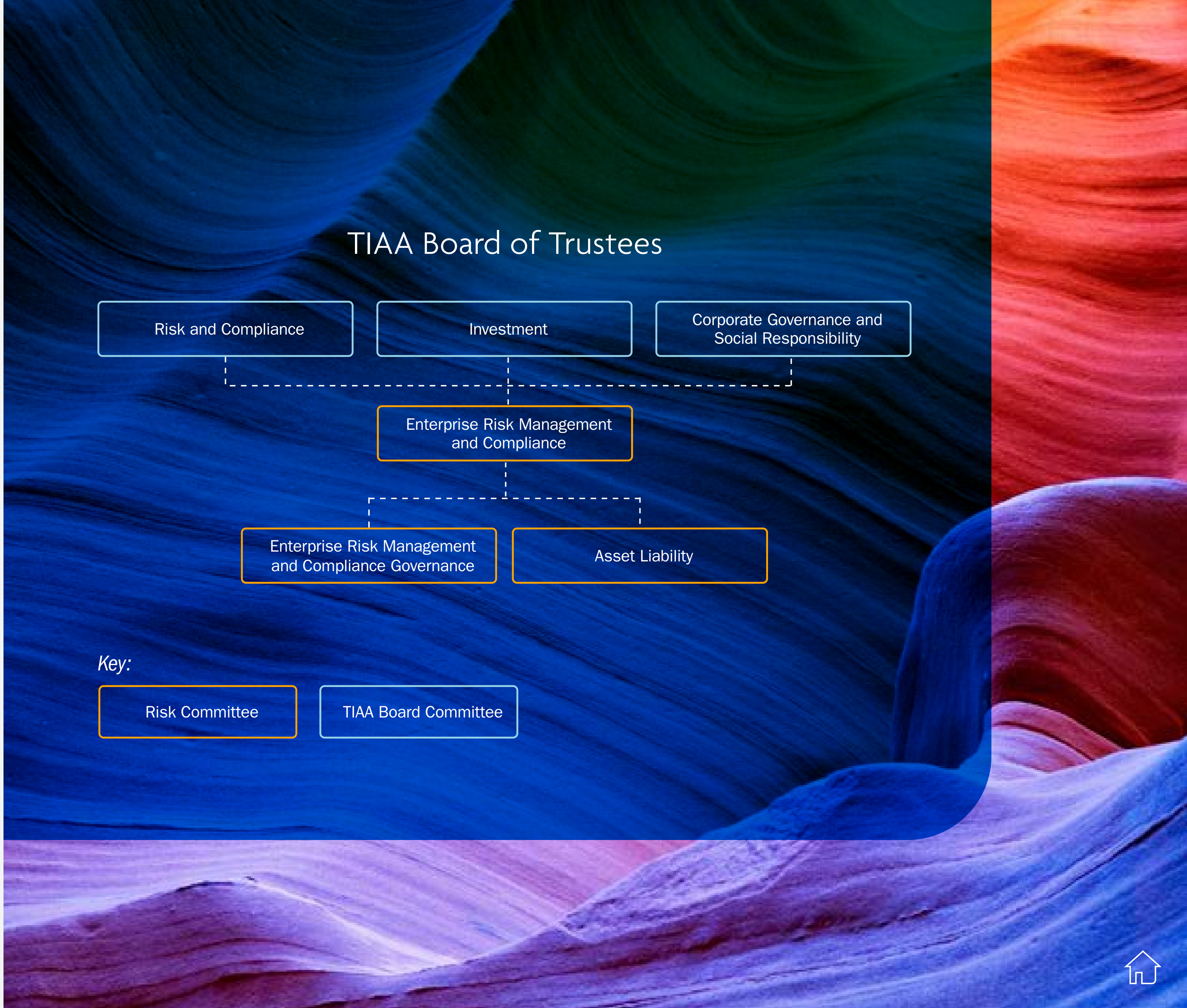
1. Any guarantees under annuities issued by TIAA are subject to TIAA's claims-paying ability.
2. Carbon Brief; World Economic Forum; UN Office for the Coordination of Humanitarian Affairs (OCHA); National Oceanic and Atmospheric Administration: National Centers for Environmental Information

Dedicated from the top down

TIAA's commitment to addressing climate-related risks starts at the top with our Board members and leaders setting strategy and overseeing progress.

Board Oversight

Climate-related risks have the potential to impact many risk areas, including finances, compliance and regulatory, operations, reputation and strategy. Leveraging existing risk management frameworks, we seek to identify and assess climate risks in these categories and present any significant risks to the board and management committees.



Setting direction, driving change

The TIAA Board of Trustees oversees the design and implementation of the TIAA climate risk strategy and delegates oversight of certain climate-risk related issues to its standing committees as set forth in their respective charters.

THE TIAA BOARD OF TRUSTEES		
Board Committees	TIAA Risk and Compliance Committee (RCC)	Oversees the climate risk framework
	Investment Committee (IC)	Oversees investment activity, investment policies and strategies for the company's General Account (GA)
	Corporate Governance and Social Responsibility Committee (CGSR)	Oversees the enterprise sustainability approach
Management Committees	Enterprise Risk Management and Compliance (ERMC) Committee	Oversees the climate risk framework and monitors the company's climate risk profile across the risk universe
	Asset Liability Committee (ALCO)	Provides management oversight of any climate-related investment risk (such as credit and market risks)
	Enterprise Risk Management and Compliance Governance (ERCG) Committee	Oversees implementation of the climate risk framework, reporting of the company's climate risk profile and review of recommendations and status related to governance

A 360° focus on climate

From an operational standpoint, there are clear roles for designated senior leaders with accountability for climate risk initiatives.

Legal, Risk and Compliance	• Approve and maintain policy with board governance requirements • Develop second line of defense oversight and monitoring to identify, measure, monitor and report climate risk • Incorporate ESG and related climate requirements into global marketing and communications review process • Execute compliance testing for portfolio selection criteria and methodology • Coordinate and respond to regulatory inquiries • Provide advice and guidance relating to regulatory requirements and developments • Monitor adherence to climate commitments and related memberships
Financial Risk	• Oversee portfolio return and risk metrics from investment decisions • Oversee and advise on the design and execution of the net zero framework
Risk Data Analytics and Infrastructure	• Develop centralized climate risk data infrastructure supporting analysis and reporting
TIAA General Account	• Set, manage and oversee execution and achievement of interim and net zero by 2050 targets for the GA
Nuveen Responsible Investing/Investment Teams	• Advise, guide and coordinate the full spectrum of efforts to assist the TIAA GA organization with implementation of the TIAA GA's net zero target
Corporate Operations	• Develop carbon reduction pathways and interim targets to attain net zero by 2040 for TIAA's operational carbon emissions

In lockstep for progress

The Climate Risk Task Force (CRTF) coordinates organization-wide strategy on climate risks with the goal of delivering transparency, consistency and accuracy around the firm's activities related to climate risk management, strategy and governance. The task force is led by subject-matter experts on climate risk and includes broader membership from across the enterprise including: the General Account, Corporate and Social Responsibility, Responsible Investing, Strategic Insights, Facilities, Risk Management, and Product Management.

The task force's responsibilities are currently focused on the following topics:

- Evaluating the path towards full coverage of TIAA's carbon footprint, including that associated with the General Account's investments
- Supporting the development of new climate risk policies and procedures
- Physical risk assessment and related data coverage across various investment types
- Implementation of firm-level climate commitments

Walking the talk for greater impact

ESG COUNCIL

The ESG Council is an internal TIAA management committee that focuses on the following:

1. Setting the enterprise ESG strategy, driving alignment on key themes across the firm and being transparent about our performance against those themes
2. Evaluating and managing commitments and partnerships with external organizations to further the strategy
3. Driving brand/marketing strategy with respect to ESG issues

The ESG Council includes senior leaders from the Responsible Investment team, marketing, communications, client relationships, diversity and inclusion, government relations and corporate services. The cross-functional working group meets at least quarterly and acts as a venue for review and approval of certain external initiatives and/or commitments, including ones related to climate change.

RESPONSIBLE INVESTING TEAM

The firm's responsible investing program is administered by the Nuveen Responsible Investing team (RI team), under the leadership of the Global Head of RI, who reports directly to Nuveen's CEO. The RI team works collaboratively with investment management colleagues throughout Nuveen and key stakeholders within TIAA to facilitate knowledge sharing, drive active ownership, develop ESG and impact tools and ensure best practice and consistency in the deployment of our RI policy.

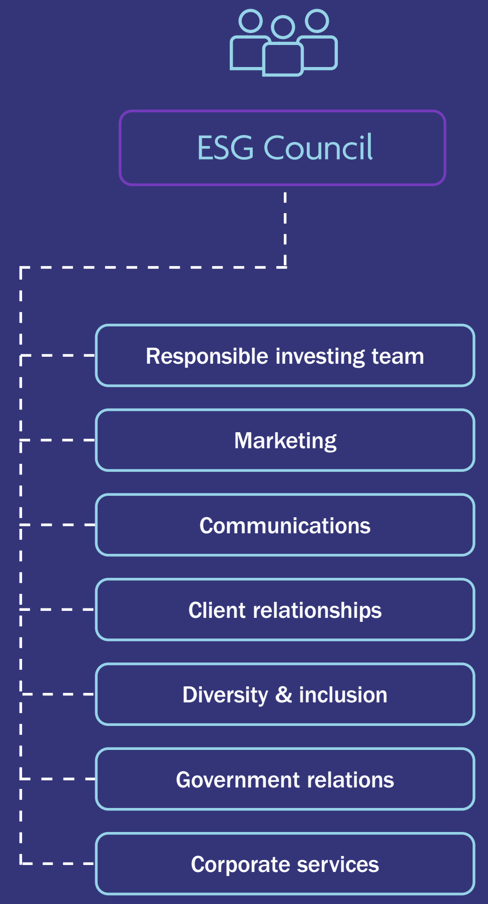
SUSTAINABILITY ACTION TEAM

In 2020, TIAA associates formed the TIAA Sustainability Action team. In 2021 membership increased fourfold and now represents 41 offices across company operations. Coordinated by the Corporate Social Responsibility and Corporate Services teams, this grassroots, firm-wide group of committed colleagues focuses on three areas:

Inform: Educate and motivate associates to support TIAA's sustainability journey and adopt beneficial behaviors.

Inspire: Empower associates to act as owners of the environment in their professional and personal lives.

Impact: Support enterprise efforts to make smart, measurable strides towards net zero.



II. STRATEGY

Digging deeper on climate beliefs that inform strategy

Last year, TIAA established a set of climate beliefs, which helped guide our decision making around climate risk in the General Account. These beliefs are integral to the design and execution of our Net Zero strategy. To that end, we continue to assess the short-, medium-, and long-term risks and opportunities around climate change that will impact our investments. Building upon the four beliefs we previously identified, below we highlight the risks, opportunities and our strategic actions associated with these beliefs:

TIAA GENERAL ACCOUNT

Four beliefs bolster our strategy

- Shifting to a low carbon economy may bring significant transition risks
- Asset pricing will react to that shift
- Acting quickly will provide opportunity to hedge against those risks
- Helping to set regulatory policies to decarbonize the economy and manage risk is critical

Shifting to a low carbon economy may bring significant transition risks

RISKS

- Transitioning to a low-carbon economy is increasingly being seen as necessary by governments and the private sector, and may bring a wide variety of policy, legal, regulatory, technological and market changes.
- Company, sector and country economic outlooks and fundamentals may be significantly influenced by these policy, legal, regulatory, technology and market changes.

OPPORTUNITIES

- Proactively planning for climate risk in business strategy may enable investee companies to adapt to changes like increased energy costs, shifts in consumer demand and greater regulatory requirements, while avoiding stakeholder scrutiny or reputational or brand impairment.
- Businesses and projects across many sectors that actively accelerate the transition may see increased demand for their products/services, support from governmental policies, and/or competitive advantages in attracting intellectual capital.

STRATEGIC ACTIONS

- TIAA, through Nuveen, offers investment strategies across multiple asset classes that are designed with the goal to outperform in a low carbon transition. These strategies generally look to prioritize companies and assets that are relatively more resilient to and will benefit from the low-carbon/net zero transition.
- Nuveen actively engages with portfolio companies to improve disclosure of their climate-related metrics/risks and encourages them to set targets for emissions reduction which align to the 2015 Paris Agreement goals.

Asset pricing will react to that shift, although the timing and the degree is unpredictable

RISKS

- An abrupt or disorderly low carbon transition is expected to increase the transition risk facing public and private investments with exposure concentrated in fossil fuel and energy-intensive sectors. Corporate sectors such as energy, utilities, materials, industrials and transportation face relatively higher transition risks which may manifest in impacts to revenues, expenditures, assets and liabilities or access to capital.
- Government-related issuers with significant reliance on the fossil fuel industry are also relatively more exposed, which may manifest in impacts to tax revenues, GDP and access to capital.

OPPORTUNITIES

- Specific investment characteristics that influence transition risk include carbon intensity, seniority in the capital structure, expected holding period, liquidity, and the strength of the climate policy regime in the country of risk.
- Green sectors may benefit significantly from a low carbon transition, including renewable energy, green buildings, electric vehicles, sustainable forestry and agriculture, water management, battery storage, carbon capture and storage, energy efficiency, and electricity transmission and distribution.
- Sectors and regions with direct physical risk exposure would also benefit from a low carbon transition scenario in the long term due to reduced physical impacts of climate change.

STRATEGIC ACTIONS

- Nuveen offers clients a variety of low carbon and climate-focused products in public and private markets.
- We work with assets, portfolio companies and other stakeholders in carbon intensive industries to help support them in their low carbon transition.

Acting quickly will provide us with an opportunity to hedge against those risks in the TIAA General Account

RISKS

- As a multi-asset class investment vehicle, the General Account is sensitive to regulatory changes over the short, medium and long term.

OPPORTUNITIES

- Anticipating the market's reaction to the transition could lead to new investment opportunities. For example, carbon has recently emerged as an investable asset class.

STRATEGIC ACTIONS

- We're building the data infrastructure, risk and governance frameworks and intellectual capital to facilitate prudent managing of climate-related risks.

Helping to set regulatory policies to decarbonize the economy and manage risk is critical

RISKS

- Despite the increasing urgency surrounding climate change, many issuers do not quantify and disclose emissions. This may lead to understatement of associated financial risks.

OPPORTUNITIES

- Once the difference in reporting dissipates, markets can function more efficiently to price climate risks.

STRATEGIC ACTIONS

- We're working with regulators, such as the SEC, the EU Commission and the UK FCA on climate risk regulation to support the development of disclosure regimes.

Scenario analysis

Exploring how policies may impact progress

TIAA Risk Management has chosen the Network for the Greening of the Financial System (NGFS) scenarios to better understand the ways in which climate risk may filter down into the economy and financial system. The NGFS uses integrated assessment models (IAMs) to determine the complexion of the global energy system under different temperature and emissions trajectories. In the future, we may look to incorporate the analysis from these scenarios into various downstream channels.

EARLY POLICY ACTION

NGFS net zero 2050

- Global policyholders immediately act to curtail carbon emissions
- All countries achieve net zero carbon emissions by 2050
- Achieve global temperature change of 1.5˚ C from preindustrial levels

LATE POLICY ACTION

NGFS delayed transition

- Global policymakers delay action to curtail carbon emissions until 2030
- Only countries with current commitments achieve net zero emissions by 2050
- Global temperature change reaches 1.8˚ C compared to pre-industrial levels

HOTHOUSE WORLD

NGFS current policies

- Policy actions announced before 2021 are assumed to have taken place
- No new policies taken after 2021
- Global temperature exceeds 3˚C and low action to curtail carbon
- Intensifying physical risk (e.g., rising sea levels, changes to agricultural productivity, and human health impacts)

Exploring the latest climate trends

Nuveen's Responsible Investing team provides training for investment and risk teams on climate change. These trainings enhance engagement on emerging climate issues and their financial materiality.

- Physical climate science, including atmospheric CO_2 concentrations, carbon budgets and temperature pathways
- Net zero investing landscape, including how rising commitments to net zero among the financial services sector may influence markets
- Sector decarbonization in a 1.5°C scenario, including a focus on leading frameworks such as Science-Based Targets Initiative
- Carbon pricing developments and the state of the voluntary offset market
- Carbon cost modelling for security valuation
- Opportunities in climate mitigation and avoided emissions

Data driving our decisions

Nuveen relies on different types of climate data to assess climate risks and opportunities in its investments.

RISKS	SOURCES OF DATA	HOW IT'S USED
Carbon emissions	**Public markets:** MSCI, CDP and Refinitiv **Private markets:** Investee disclosures, modeled estimates and internally gathered data	**Public markets:** Data is housed in Nuveen's RI Data Platform for risk assessment. **Private markets:** Data is housed in databases managed by the investment teams and used for risk assessment.
Physical risk	**Real estate and real assets:** The Climate Service, FirstStreet Flood Factor and USDA Verisk Maplecroft climate vulnerability data **Municipal bonds:** RisQ climate risk exposure data	Physical risk signals are incorporated into real estate due diligence and municipal credit evaluation processes. Integration is actively being explored for other asset classes.
Transition risk	**Listed equity and corporate bonds:** Company climate targets and implied temperature rise data **Cross-Asset Class:** Government climate targets and industry/sector net zero pathways	Data is being evaluated for risk assessment and net zero implementation for the TIAA General Account and other clients.

Evolving to meet our clients' goals

TIAA has proudly offered its clients a variety of socially responsible and low carbon products for over three decades. As our clients' perspectives and preferences have shifted, we continue to expand our suite of offerings.

Nuveen's Responsible Investing product platform includes ~$45 billion in AUM as of December 31, 2021. As a subset of this platform, we offer the following strategies and products across a number of asset classes that aim to meet various climate objectives, including:

AVOID exposure to carbon-intensive assets

REDUCE carbon emissions of assets

SCALE climate solutions

These products consider the climate within their methodologies in distinct ways. Some screen out high emitting companies and industries, some plan to decarbonize over time at a rate aligned with the Paris Agreement, while others are actively investing in the technology and tools necessary in combating climate change.

CLIENT OBJECTIVES	PRODUCT FEATURES	NUVEEN PRODUCT AND PLATFORMS
Avoid exposure to carbon-intensive assets in portfolio	• Lower carbon footprint than the benchmark • Limited exposure to fossil fuel reserve	Social Choice Low Carbon Equity Fund Nuveen ESG ETF Suite Low Carbon Value ESG Equity SMA
Reduce carbon emissions of assets	• Decarbonize over time at a Paris-aligned rate • Targeted company engagement program to reduce emissions (scope 1, 2 and 3)	Nuveen Real Estate Net Zero Equity ETF Global Clean Infrastructure Impact Fund (SFDR Article 9)
Scale climate solutions	• Support projects that support climate change mitigation and adaption • Capitalize on opportunities in the low carbon transition • Balance emissions exposures with lower or net negative carbon offerings • Low carbon intensity, with potential to generate verified carbon credits	Green Bond Fund Core Impact Bond Fund Short Duration Impact Bond Fund Global Core Impact Bond Fund (SFDR Article 9) Emerging Markets Impact Bond Fund (SFDR Article 9) Nuveen Global Impact Fund Nuveen Green Capital (C-PACE) Nuveen Natural Capital European Core Renewable Energy Equity Global Renewable Energy Equity U.S. Energy Transition Equity

Key:

- Public Equity
- Real Estate
- Fixed Income
- Private Equity & Private Credit
- Real Assets

Please note that climate solutions investments typically make up less than 50% of the AUM in the Core Impact Bond, Short Duration, Global Core Impact Bond, and Emerging Markets Impact Bond funds. These funds all employ Nuveen's Global Fixed Income impact framework and ESG Leaders investment criteria, of which climate objectives are part of a broader responsible investing mandate.

Stewardship: Elevating climate expectations for companies

We believe the world's climate and energy infrastructure is undergoing a transition, and transition risks create meaningful investment risks that we must address to protect our portfolios and clients.

In response to the global decarbonization transition, Nuveen RI is asking 100 portfolio companies comprising the majority of our public markets financed emissions to disclose more information about:

- Business strategies
- Incentive structures
- Risk management for low-carbon transition

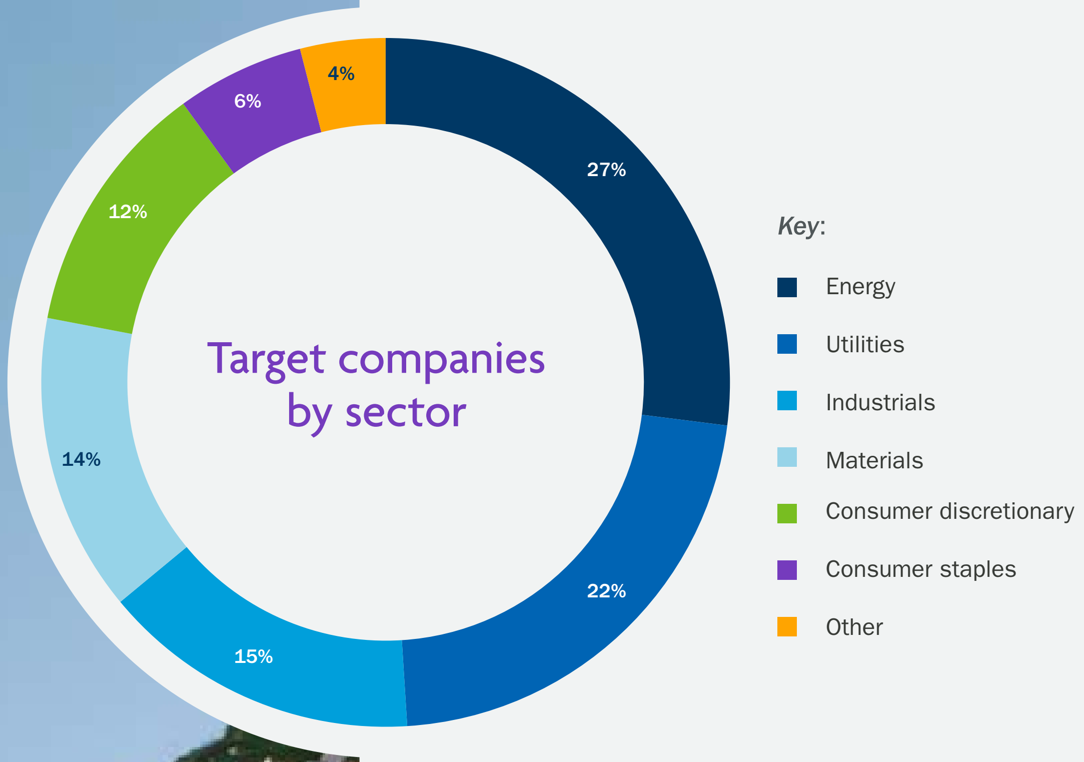
This information will allow us to better manage the investment risks associated with climate change as prudent stewards of our participants' and clients' investments.

We are asking these companies to adhere to the following best practices:

Transparency: Disclosure of climate risks, GHG emissions, policy engagement and other standard items.

Accountability: Establishing science-based targets, board oversight of climate risk, decarbonization strategies and other business strategies that address climate-related risks.

Nuveen RI has identified a range of specific KPIs across these categories that will allow the team to bi-annually evaluate company credibility and progress against our expectations. These KPIs will be utilized to inform stewardship strategy around climate risk, including proxy voting decisions.



Engaging policymakers; advocating climate priorities

As stewards of our clients' investments, we believe it is crucial that we use our voice to advocate for climate priorities before key policymakers. One of our most important objectives is to advocate for enhanced disclosure of consistent, reliable climate-risk data from our portfolio companies.

We need access to comparable, quality climate data from issuers in order to implement our own ESG investment strategies as effectively as possible and make our own climate disclosures to investors in our products. Ideally, any disclosure framework implemented in the U.S. would leverage disclosure standards already in place in international jurisdictions for the sake of consistency and efficiency.

Encouraging policymakers to build such a cohesive framework is an important yet challenging task. That is why we have engaged, and will continue to engage, with regulators and lawmakers in an effort to highlight the importance of climate data broadly to responsible investing goals and the need for a robust disclosure regime that mandates disclosure of that data from issuers.

Our engagement efforts in 2022 have included the following:

- Responding to the U.S. Securities and Exchange Commission's proposed new climate disclosure requirements for public operating companies, proposed extension of the Fund Names Rule to ESG-branded funds, and proposed ESG disclosure requirements for registered investment companies and investment advisers.
- Answering the European Union's consultation on the functioning of the ESG ratings market in the EU.
- Advocating before the U.S. Department of Labor to underscore the risks climate change poses to the retirement savings of American investors and the ways guaranteed lifetime income products can help investors protect their savings from those risks.

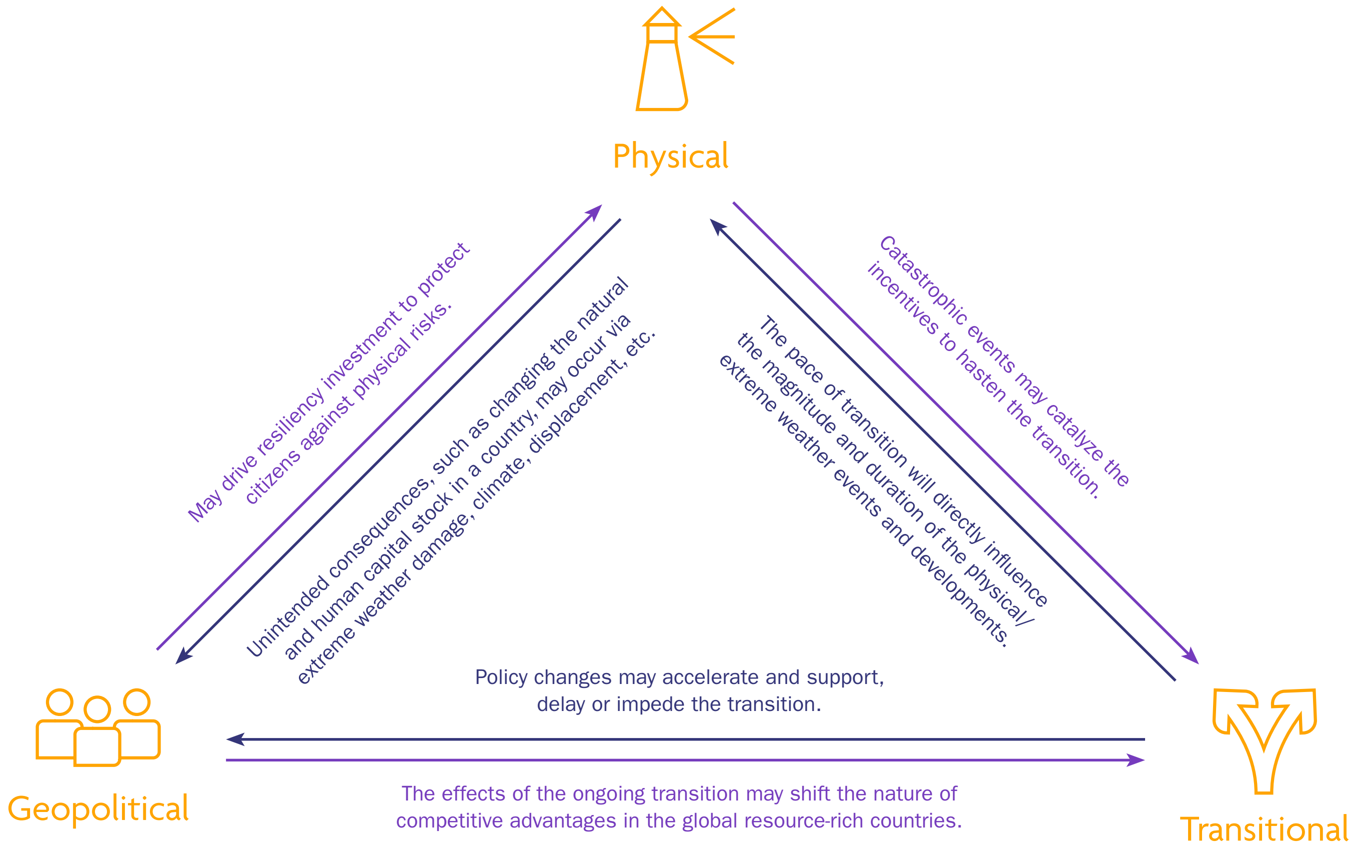
Our efforts to engage with policymakers on the biggest climate priorities will continue as the financial risks of climate change become ever more evident and material to investors.

One of our most important objectives is to advocate for enhanced disclosure of consistent, reliable climate-risk data from our portfolio companies.

Climate risks are complex, interconnected and evolving

For large, global financial institutions like TIAA, climate risks are both multifaceted and interconnected. In addition to often mentioned transition risk and physical risk, there is a third pillar of geopolitical risk to consider—all of which may impact the value, volatility and financial productivity of the assets and investments we own and manage.

Incorporating the impact of climate change on and from geopolitical dynamics is critical in calibrating climate risk. For instance, the effects of the war in Ukraine have highlighted energy security for many countries, further encouraging clean energy development, deployment and policy in the face of heightened fossil-based energy costs.[3]



3. A False Choice: Energy Transition / Energy Security is Not Either / Or. March 9th, 2022. Morgan Stanley Research

IV. METRICS AND TARGETS

TIAA has several initiatives in place aimed at reducing carbon emissions. This includes our own operations, assets managed by Nuveen Real Estate, as well as assets owned and managed in the General Account—with the goal of achieving net zero emissions over the next several decades (2040, 2040 & 2050, respectively). We will continue to share progress on these commitments on an annual basis.

TRACKING PROGRESS

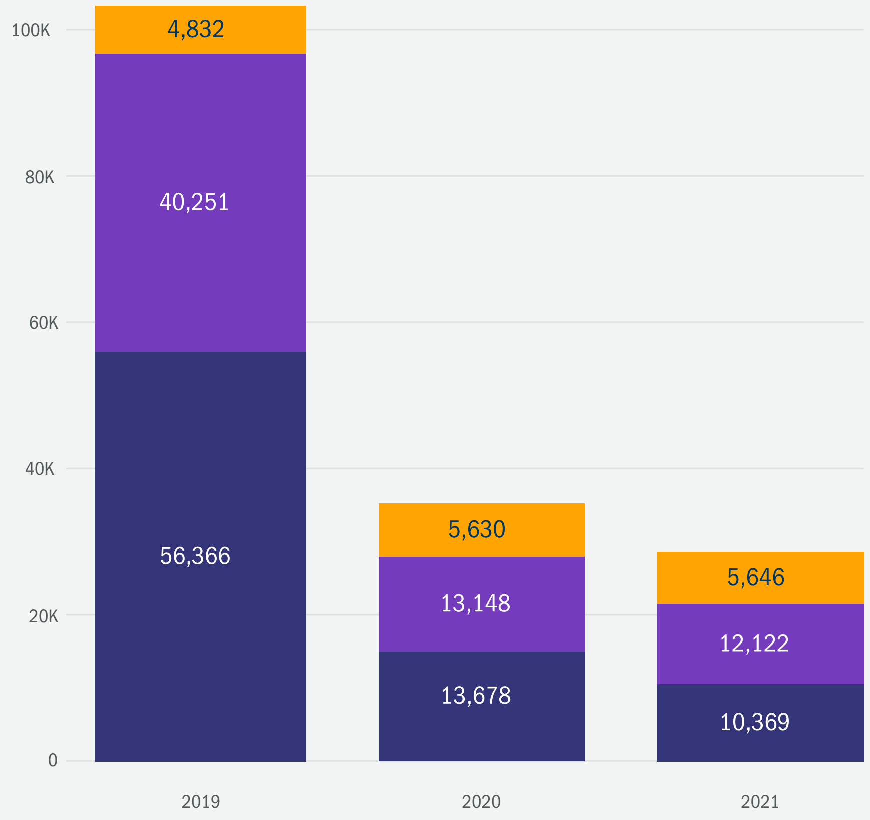
Operational emissions: Net Zero by 2040

TIAA Global Corporate Services recently completed its first carbon emission data collection and analysis of the spaces TIAA and its affiliates occupy, with the help of a third party consulting firm. This data collection and analysis is critical to meeting our commitment to reaching net zero in operational emissions by 2040. TIAA reports on Scope 1, 2 and a portion of Scope 3 GHG emissions that include business travel, employee commuting and waste and water-related emissions.

Based on these measurements, TIAA's operational Scope 1, 2 and 3 emissions in 2021 dropped significantly compared to the 2019 baseline. We have already surpassed our 2030 goal of 46% absolute reduction in emissions compared to 2019, and are working to increase our share of renewable energy to 50% by 2030.

OUR OPERATIONAL EMISSIONS IMPACT

Total GHG emissions (tonnes co_2)



SCOPE 1
Natural gas and propane stationary combustion, generators and fugitive emissions.

SCOPE 2
Electricity and district heating usage.

SCOPE 3
Water usage, fuel- and energy-related activities, waste, business travel and employee commuting

Reducing our corporate impact

This decrease in operational emissions is largely due to the effects of the global pandemic. We invested in virtual capabilities and encourage the use of technology to reduce the need for travel. Our hybrid work policy has served to reduce emissions from commuting and we have taken steps to reduce energy emissions from our buildings when our associates are in the office.

The use of auto tinting, light harvesting and lighting control systems has helped us optimize energy consumption in existing buildings. We track energy building performance and find ways to improve it, using the LEED checklist as a guideline on how to best develop our buildings. Further, we reduce our impact with recycled water irrigation for landscaping and the use of occupancy sensors. In order to diminish waste in our offices, we are working to recycle and compost more of our waste products, going plastic-free in our food halls and adding refillable water stations to the cafeterias.

Other reduction strategies

While we will explore all avenues of reducing operational emissions directly, some residual emissions from heating and other Scope 1 sources cannot be reduced through operational changes due to supply chain or technological delays. When this occurs, we will neutralize the remaining emissions through carbon sequestration by purchasing verified carbon offsets from approved voluntary carbon offset registries. We will continue to evaluate and adopt new emission reduction strategies and technologies as they become available in order to stay ahead of our 2040 deadline.

SPOTLIGHT

Reduce emissions to increase sustainability

Our newly renovated Charlotte campus highlights our commitment to reaching net zero in our operations, as it was created with sustainability foremost in our plans. Some of the measures we have taken to reduce our operational emissions include:

Redesigned to be a walkable campus

Widespread use of ENERGY STAR appliances

Campus-wide recycling and compost programs

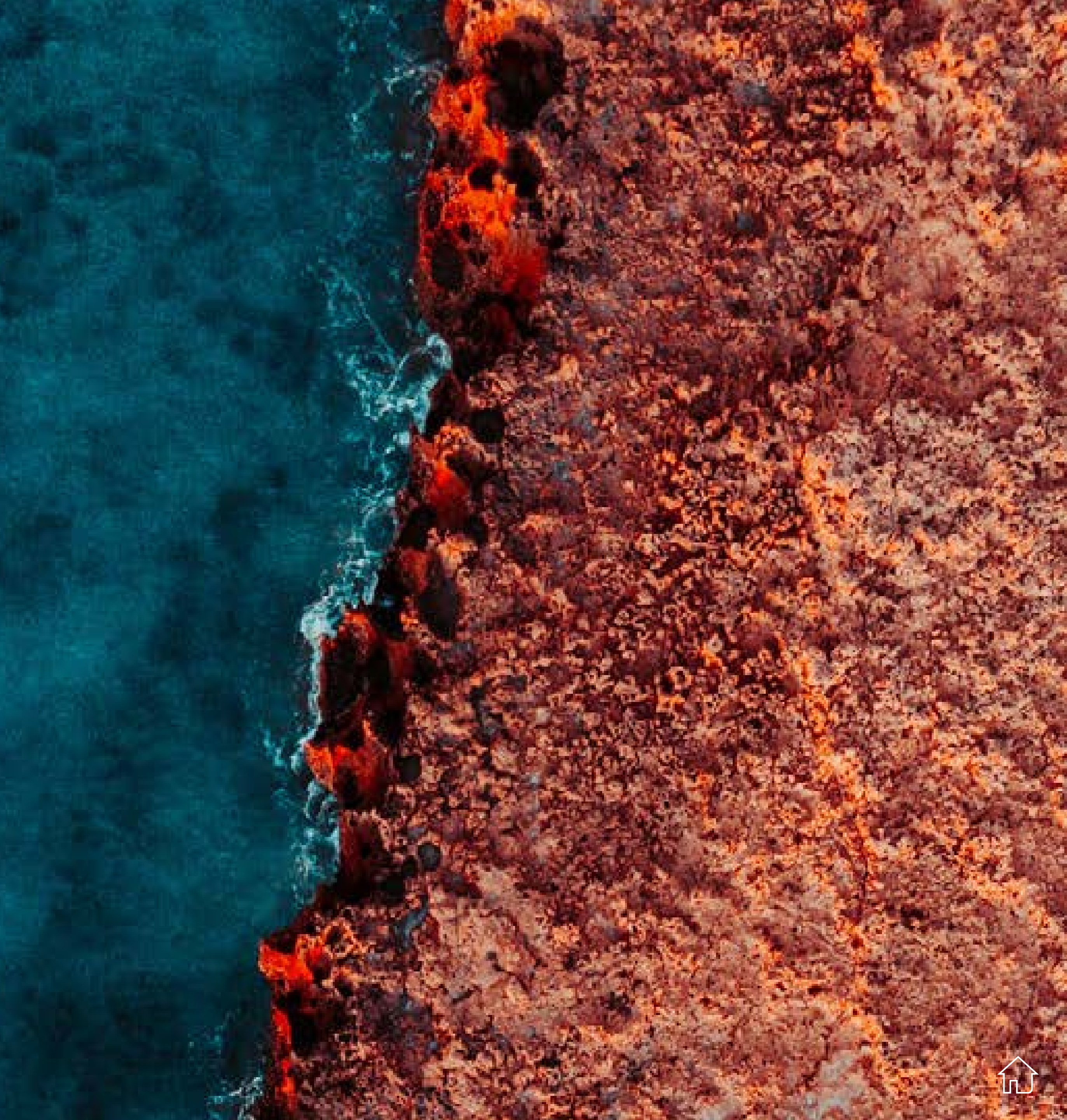
Use of LED and water-saving fixtures

Nuveen Real Estate emissions: Net Zero by 2040

As one of the largest asset managers in real estate with $156 billion in AUM, Nuveen Real Estate is uniquely positioned to align to our clients' views on climate risks, and to manage residential and commercial buildings across the globe to be resilient to climate change and future regulatory trends.

Nuveen's journey to net zero in our real estate holdings began over a decade ago when we committed to improve the energy efficiency in our portfolio with the Better Buildings Challenge. Since then we have been enhancing our climate assessment capabilities and integrating those into individual investments. To support client mandates on climate risk, we aim to align portfolio management strategies with a 1.5°C climate scenario through the following activities:

- 2040 net zero carbon target that focuses on energy first
- A 30% reduction in the intensity of landlord-controlled energy use by 2025
- Providing transparency to our stakeholders through disclosure of carbon emissions
- Assessing all investments for exposure to near-term changes in physical climate due to locked-in global warming
- Implementing resilience solutions to create value and prepare buildings for future climate conditions



Nuveen Real Estate's commitment to sustainability

2007
TIAA, Nuveen Real Estate's parent company, first recognized as ENERGY STAR Partner of the Year in 2007—and recognized with this award every year subsequently, achieving the Sustained Excellence recognition 13 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 recognized 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 an 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.

SPOTLIGHT ON SUSTAINABILITY IN THE OFFICE PORTFOLIO

The Nuveen Real Estate team implements a variety of sustainability measures in its portfolios which adhere to the Paris Agreement goals. In 2021, this smart, sustainable-building blueprint was brought to life in the New York office portfolio.

2021 highlights

61 energy conservation recommendations for an estimated 20% energy usage reduction

Engaged customers through the Nuveen New York app, which provides access to its net zero carbon pathway, building energy use and day-to-day steps employees can take

These measures, paired with similar actions by other teams, have resulted in a substantial reduction in Scope 1, 2 and 3 emissions across Nuveen Real Estate's global real estate portfolios.

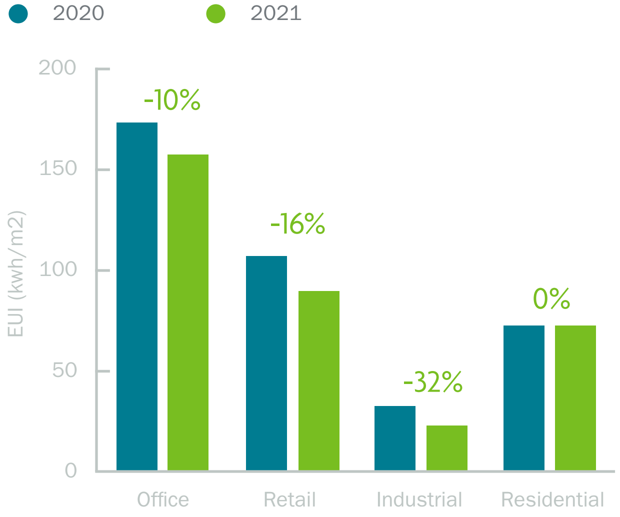
Environmental performance highlights

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

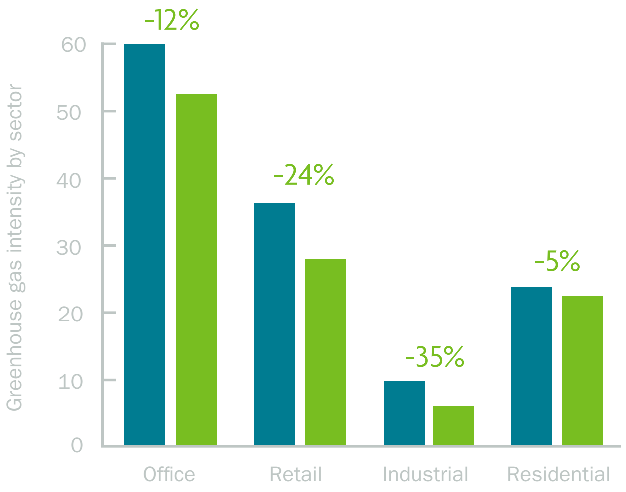
-5%

Reduction in Scope 1 and 2 emissions

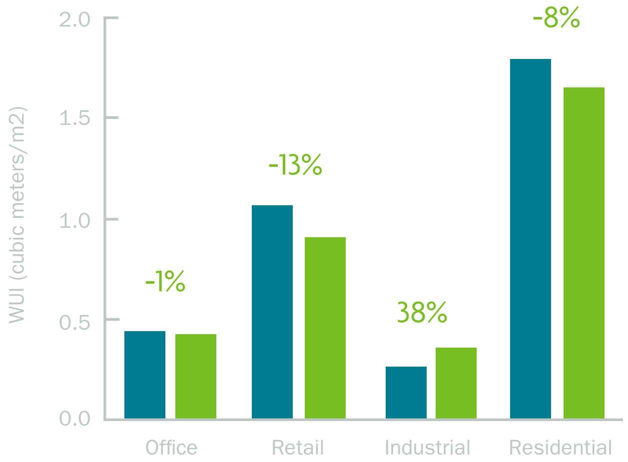
ENERGY USE INTENSITY



GREENHOUSE GAS INTENSITY



WATER USE INTENSITY



4. Source: 2021 Nuveen Real Estate Sustainability Report. 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.

The pathway Nuveen Real Estate published in 2020 sets out milestones through 2040 for business areas and key metrics tied to our net zero carbon definition. Nuveen Real Estate is currently on track to reach its 30% energy intensity target before 2025, largely due to improving the energy efficiency of existing buildings in our portfolio, while also developing and acquiring buildings that are performing ahead of industry benchmarks on energy efficiency.

2015

Set our 30% energy intensity reduction target by 2030

2019

Signed the Better Building Partnership Climate Change Commitment

Key actions

- Published our public pathway in alignment with our real estate peers

2025

Moved our target 30% reduction in energy intensity from 2030 to 2025 due to successful energy efficiency strategies

Key actions

- Develop costed business plans for NZC for all buildings
- Achieve 50% tenant energy data coverage
- Assess NZC potential for debt portfolio

2030

Reduce the portfolio's carbon intensity by 50%

Key actions

- All buildings in Europe meet or exceed local industry standards for the path to net zero carbon
- Renewable energy power purchase agreements in place globally

2040

Operational net zero carbon for all buildings

Key actions

- All buildings tracking below local market zero carbon operational pathways
- Significant reductions in embodied carbon and tenant emissions
- Carbon offsets purchased

>>>> completed

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

Nuveen Real Estate, 2020.

General Account: Net Zero by 2050

In May 2021, TIAA announced its net zero by 2050 commitment for the General Account, driven by the core belief that climate risk is investment risk.

The initial phase of our journey to net zero by 2050 will prioritize investments where data is readily available and reasonably accurate. Therefore, our interim targets are set for the public corporate bond portfolio and directly owned commercial real estate, which together account for roughly 30% of the GA's assets. Inconsistent emissions disclosure and carbon accounting standards prevent the full and accurate measurement of the carbon footprint associated with the remaining 70% of diversified assets and securities held by the General Account. As disclosure improves and carbon accounting best practices expand across asset classes, we will expand our interim targets accordingly.

Setting the course with 2025 interim targets

Our interim target reduction is set against a 2019 baseline year.

ASSET CLASS	CARBON INTENSITY METRIC	2025 TARGET REDUCTION RANGE
Public corporate debt	Tons CO2e/million USD sales	15%-25%
Direct commercial real estate	Tons CO2e/square meter	15%-20%

Public Corporate Debt

The 2025 interim target for the Public Corporate Bond portfolio will be measured against our 2019 baseline carbon intensity (Scope 1 and 2 emissions) expressed in metric tons of CO2e/$M sales. In order to arrive at the 2025 target reduction range, the Responsible Investing, Risk, General Account and Investment teams collaborated to model a variety of potential carbon intensity reduction pathways and their potential investment impact on the public corporate debt portfolio. As we move toward implementation, we anticipate relying on a combination of strategies to achieve the 2025 target:

- Integrating climate-related guidelines in the selection of new investments
- Roll-off of existing investments as bonds mature
- Reductions in issuers' greenhouse gas emissions over time

Direct Real Estate

Direct Commercial Real Estate Equity and Funds will target a reduction of area normalized (per square meter) total-building operating emissions, which includes both landlord controlled energy use (Scopes 1 and 2) and tenant controlled energy use (Scope 3) from a 2019 baseline. The Direct Real Estate operational carbon footprint will include buildings wholly owned by the GA, co-investments with JV partners and assets held in NRE funds where the GA is an investor. The carbon footprint will include a combination of actual property energy use data and estimates for different property types across different regions based on publicly available data. The General Account will target a 15-20% reduction in carbon emissions per square meter by 2025, which is expected to be driven largely by the following factors:

- Allocation shifts across geographic regions (country) and sectors (office, retail, housing, industrial)
- Building energy efficiency (kwh/m2) improvements
- Electric grid carbon intensity (CO2/kwh) improvements

What is PCAF?

Created in 2015, the Partnership for Carbon Accounting Financials (PCAF) is a global partnership of financial institutions that work together to develop and implement a coordinated approach to assessing and disclosing the GHG emissions associated with their loans and investments. PCAF is a global initiative with over 250 signatories. In 2021, PCAF developed the Global GHG Accounting and Reporting Standard (the Standard) for the financial industry in response to demand for a global, harmonized approach to measuring and disclosing financed emissions.

The Standard provides detailed guidance for six asset classes to calculate financed emissions. Measuring financed emissions allows financial institutions to make transparent climate disclosures on their GHG emissions exposure, identify climate-related transition risks and opportunities and set the baseline emissions for target setting in alignment with the Paris Agreement.

We recognize the importance of accounting for all Scope 3 emissions and support the methodology set forward by PCAF. We are committed to improving on the steps we have already taken on our GHG accounting journey in our investment portfolios.

1 In 2021, PCAF developed the Global GHG Accounting and Reporting Standard for the financial industry in response to demand for a global, harmonized approach to measuring and disclosing financed emissions.

2 Measuring financed emissions allows financial institutions to make transparent climate disclosures.

3 TIAA recognizes the importance of accounting for all Scope 3 emissions and supports the methodology set forward by PCAF.

Why climate matters to TIAA, and TIAA to the climate

From inception, we have focused on serving a client base that serves others in the academic, government, medical or other non-profit fields. On their behalf, we are focused on preserving and growing value in terms of capital and income for our participants, while also carefully considering how this value is impacted by our operations and our activities financing the real economy. With respect to climate change, our focus includes understanding physical, transition and geopolitical risks and opportunities, and their potential to impact our investments and asset valuations, with a duty to maximize long-term value for our clients. Beyond our operational carbon footprint, we know that asset allocation and security selection decisions contribute to shaping the real economy.

Currently a lack of reliable, consistent and accurate data inhibits our ability to comprehensively measure our financed emissions. We look to enhance visibility into our full GHG emissions footprint over time. Our commitments—zero financed emissions on a net basis by 2050 for the TIAA General Account and by 2040 for Nuveen Real Estate—will contribute significantly to reducing our carbon footprint, and ultimately toward serving TIAA participants in a changing climate.

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