TIAA

Rising to the challenge

2023 CLIMATE REPORT

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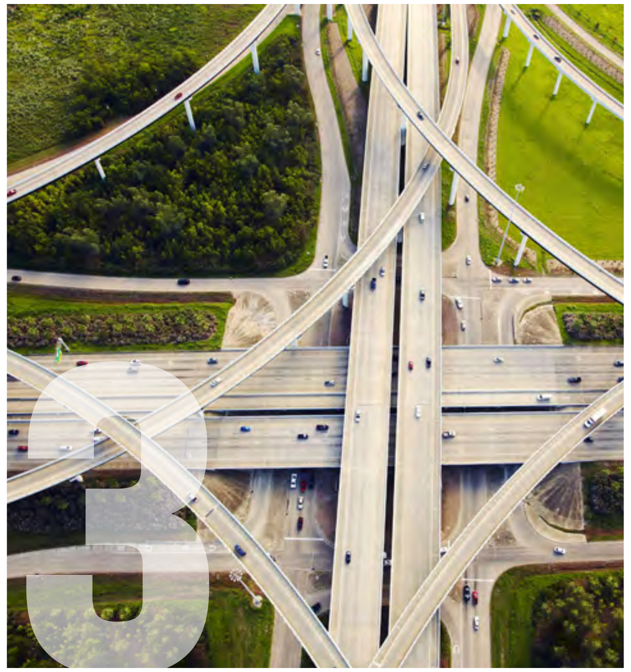


A message from the CEO

TIAA has looked after the financial futures of millions of savers and investors for over a century. We've managed through numerous challenges over those decades—including economic booms and busts—with a steady hand, always with clients at the forefront of our decision-making.

We believe that one of the major challenges of our time is the changing climate. While many have already felt the physical changes in temperatures and weather patterns, flooding, heatwaves, droughts and fires, we also know that the changing climate is transforming industries, complicating supply chains, and driving macroeconomic trends that affect profitability and business models. We recognize that climate change affects our investment portfolios and the methodologies we use to achieve our clients' investment objectives.

As Nuveen, TIAA's asset manager, celebrated its 125th year in 2023, we used the milestone to reflect on our long-term leadership in the communities in which we operate. Now, as in our past, our focus is squarely on leading our operations and steering our investment portfolios to address the challenge of climate change. We measure our leadership on this issue in our progress toward meeting our commitments. In our 2023 climate report, we are pleased to provide updates on three primary goals:

1. TIAA General Account: Net Zero by 2050
2. Nuveen Real Estate: Net Zero by 2040
3. TIAA Corporate Operations: Net Zero by 2040

Executing our fiduciary duty requires a holistic understanding of factors that impact investment value, including impacts from a changing climate. As stewards of our clients' financial futures, we must face the challenge and guide our clients' investments through the transition to a net zero greenhouse gas (GHG) emission economy.

Net zero goals

TIAA General Account: Net Zero by 2050
Nuveen Real Estate: Net Zero by 2040
TIAA Corporate Operations: Net Zero by 2040

TIAA's focus during the low-carbon transition is our own operations and the portfolios that we manage, and we believe that reaching a net zero carbon world is essential to our long-term success. We support the Task Force on Climate-Related Financial Disclosure (TCFD) and its focus on transition plans. We continually review our disclosures for areas where we can provide more information and transparency and will evolve this report over time based on data availability and industry standards.

As such, we have expanded this year's report to reflect what we see as five levers of change:

ESG data and measurement: We ensure that our investment teams have access to environmental, social, and governance (ESG) data, including data related to climate impact, to help inform their decision-making about physical and transition investment risks and opportunities.

Investment capability expansion: We reach beyond traditional asset classes to identify risks and spot investment opportunities. For example, Nuveen in 2021 acquired Glennmont Partners, a European renewable energy fund manager.

Transparency and disclosure: We provide—and expect from our portfolio companies—clear information on key metrics such as carbon emissions and impact data that show the effects of climate change on companies' operations.

Engagement: We advocate with corporate leadership and vote our proxies to maximize risk-adjusted returns by encouraging sound governance and accountability structures designed to maximize our investors' returns, while measuring, managing and minimizing investments' exposure to material climate risk and driving real world impact.

Regulation and industry standardization: We work with local, federal and global regulators to drive harmonization of responsible investing definitions, disclosures and targets for transitioning to a low-carbon economy.

We are proud of our progress so far, and we hope that global businesses and governments will continue to join us in facing this generational challenge head on.

Thasunda

Thasunda Brown Duckett
President and Chief Executive Officer

1

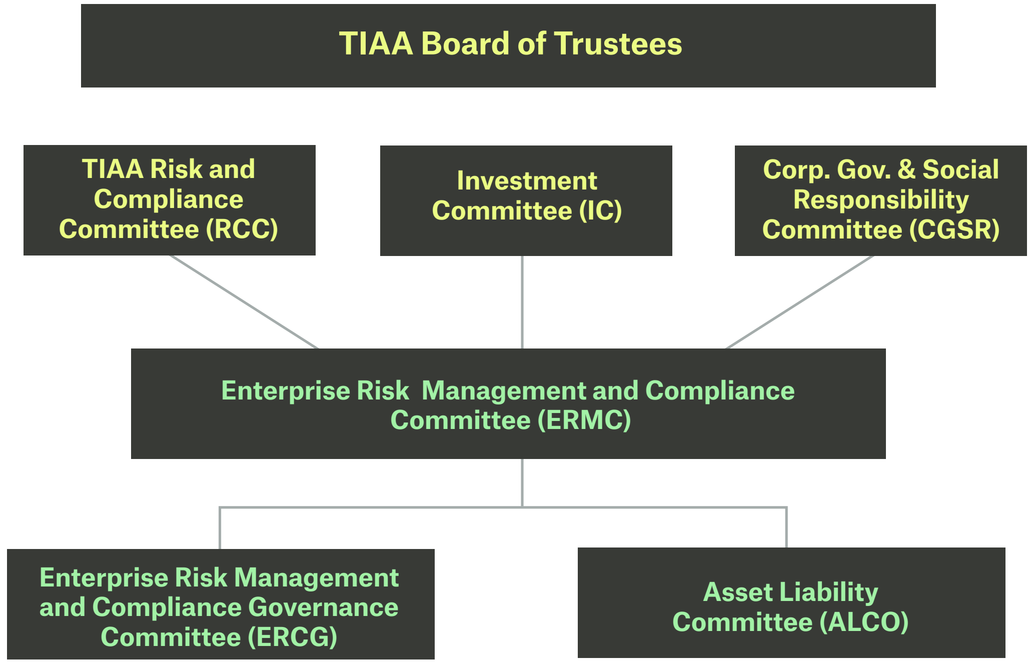
Governance

Dedication—from the top down

Board oversight

TIAA's commitment to addressing climate-related risks starts with Board members and leaders who set strategy and monitor progress.

TIAA seeks to identify and assess climate-related financial, compliance, regulatory, operational, reputational and strategic risks. Significant risks are presented to the Board and management committees.



Board and management committees: Key roles and responsibilities

Board committees	**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
	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 Committee (ERMC)**	Oversees the climate risk framework and monitors the company's climate risk profile across the risk universe
	Enterprise Risk Management and Compliance Governance Committee (ERCG)	Oversees implementation of the climate risk framework, reporting of the company's climate risk profile, and review of recommendations and status related to governance
	Asset Liability Committee (ALCO)	Provides management oversight of any climate-related investment risk (such as credit and market risks)

ORGANIZATIONAL STRUCTURE

A focus on operational efficiency

Senior leaders are accountable for driving climate risk initiatives.

Legal, Risk & Compliance

- Approve and maintain policy with board governance requirements
- Develop second line of defense oversight and monitoring to identify, measure, monitor and report on 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

Risk Management

- Oversee portfolio return and risk metrics from investment decisions
- Oversee and advise on the design and execution of the net zero framework
- 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/ Investing 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 in investment portfolios

Corporate Operations

- Develop carbon-reduction pathways and interim targets to attain net zero by 2040 for TIAA's operational carbon emissions

Responsible Investing team

The Nuveen Responsible Investing (RI) team administers the firm's responsible investing program under the leadership of the Global Head of RI, who reports directly to Nuveen's CEO. The centralized RI team, comprised of more than 30 employees, collaborates across Nuveen and TIAA to share best practices, drive active ownership, develop and deploy ESG and impact tools, and promote consistency in our deployment of responsible investing across the firm.

TIAA ESG Council

The ESG Council includes senior leaders from the RI team, marketing, communications, client relationships, procurement, facilities and operations, diversity and inclusion, and government relations. The cross-functional working group meets regularly to review and approve initiatives and/or commitments, including those related to climate change. The ESG Council focuses on:

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

Net Zero Steering Committee

The Net Zero Steering Committee is a cross-enterprise group of senior leaders from TIAA and Nuveen that help provide guidance and oversight on the implementation of the GA and Nuveen Real Estate's net zero investment targets. Meeting on a quarterly basis, the Net Zero Steering Committee focuses on:

1. Setting overall project objectives and timeline
2. Establishing expected timing of key milestones and impacted sub-asset classes, including interim targets
3. Providing guidance to investment teams and net zero working groups
4. Monitoring progress via updates from net zero working groups
5. Aligning on net zero progress updates to various Board committees

TIAA Sustainability Action team

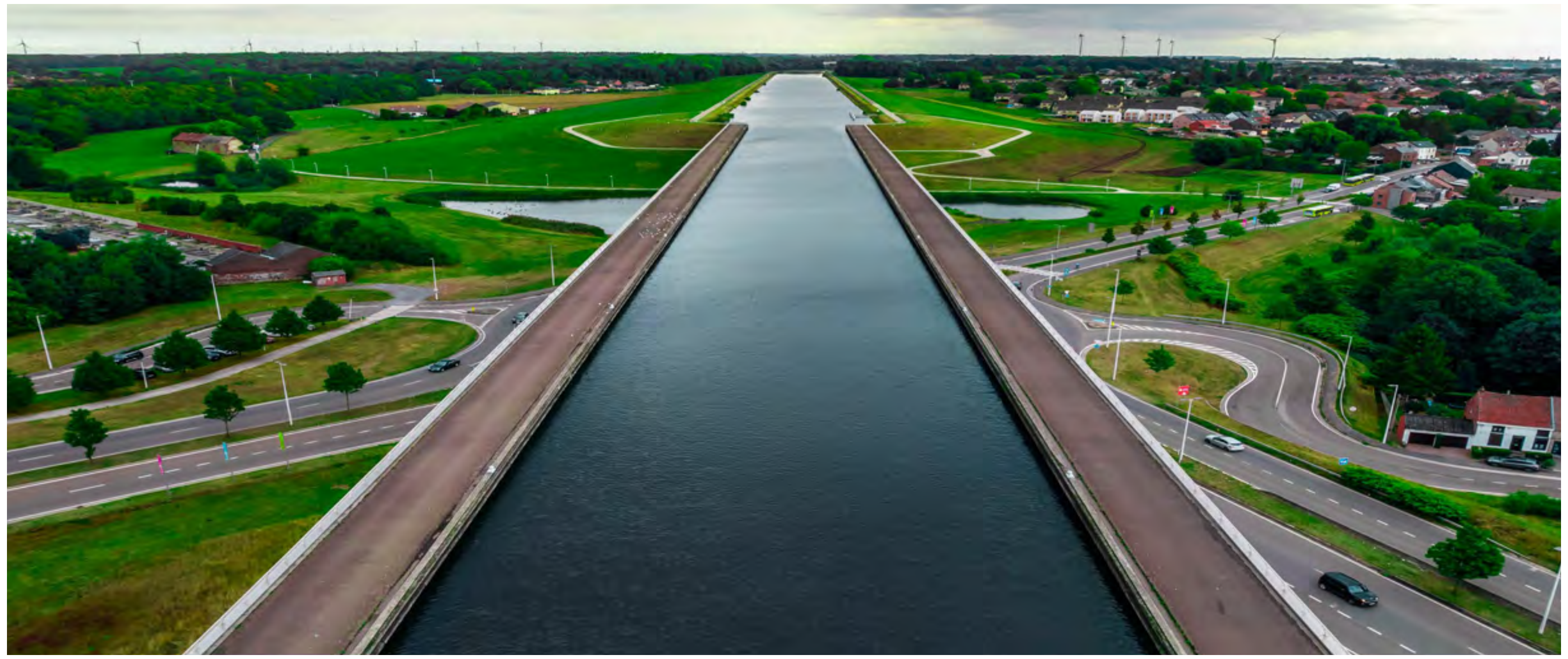
The TIAA Sustainability Action Team (SAT) is a group of more than 950 colleagues globally representing 63 offices. Coordinated by the Corporate Social Responsibility and Corporate Services teams, the SAT focuses on three areas:

1. **Inform:** Educate and motivate associates to support TIAA's sustainability journey and adopt beneficial behavior
2. **Inspire:** Empower associates to act as owners of the environment in their professional and personal lives
3. **Impact:** Support enterprise efforts to make smart, measurable strides toward net zero

Climate training

Nuveen's RI team provides training for our internal investment and risk teams on climate change, with the goal of boosting engagement on emerging climate issues and their financial materiality. In the past year, we conducted training for over 1,100 internal investment and risk team members. Topics included:

- The GA's net zero goal and its progress against intermediate targets
- Nuveen's Climate Risk 2.0 initiative and new Climate Risk Policy
- The state of climate action in 2022 and the alignment of high-emitting industries with a net zero goal
- Key risks and opportunities for companies in high-emitting industries
- The interconnected nature of the physical, transition, and geopolitical risks embedded within climate risk
- Investment opportunities in climate technology for public and private markets
- Policy initiatives, corporate actions, and capital markets developments in hard-to-decarbonize sectors



2 Strategy

Climate risk is investment risk

GENERAL ACCOUNT

Updating our climate beliefs

TIAA's climate strategy is underpinned by our belief that climate risk is investment risk. Taking action to manage climate risks and invest strategically in climate opportunities is aligned with our fiduciary obligations as an asset owner.

Two years ago, TIAA established a set of climate beliefs that helped guide our decision making around climate risk in the GA. These beliefs are integral to the design and execution of our net zero strategy. We have updated these beliefs to reflect our latest thinking about our role as an asset owner and investor in the low-carbon transition, as well as the level of progress toward decarbonization we observe in the real economy.

With global policy developments like the Inflation Reduction Act in the U.S. and the Net Zero Industry Act in the European Union, we anticipate new and enhanced investment opportunities emerging in low-carbon technology and infrastructure. Other policy and geopolitical developments are less supportive of the low carbon transition, introducing complexity and fragmentation. Market developments, such as the continued decline in the cost of renewable energy and the growth in electric vehicle adoption, suggest future opportunities. To that end, we have added climate investment opportunities to our beliefs, supplementing our focus on managing climate risks. The result is a more holistic view that recognizes opportunities in one market may present risks in another, and vice versa.

We also recognize the critical role of government policy to achieve the low-carbon transition, which is separate and distinct from the more limited influence we wield as an investor. While our commitment to engage with investees and policymakers is unchanged, we also recognize that investor engagement alone is unlikely to catalyze the low-carbon transition at the scale and speed necessary to reach net zero by 2050. Therefore, our net zero strategy will increasingly focus on tracking the status of the low-carbon transition in the real economy over time, including as influenced by policy developments, which will in turn inform our investments within the GA.

Four climate beliefs of the General Account

The Intergovernmental Panel on Climate Change (IPCC) has thus far provided the best source of scientific data on climate change. Their 2023 report states that human activities have "unequivocally caused global warming" and that "human-caused climate change is already affecting many weather and climate extremes in every region across the globe." The report states that continued GHG emissions will lead to increasing global warming, and that every increment of global warming will "intensify multiple and concurrent hazards." The IPCC report also states that "deep, rapid, and sustained reductions in GHG emissions would lead to a discernible slowdown in global warming within around two decades."

Our obligation to TIAA retirement plan participants is long term, which means it is our responsibility to consider investment risks, including climate risks, over a similarly long horizon. The scientific findings from the IPCC suggest that physical impact of unmitigated climate change will result in global economic damage over time, with damage increasing as warming increases. Therefore, we believe the transition to a low-carbon economy is an economic imperative. Furthermore, an orderly transition within the 2050 timeframe set out in the Paris Agreement is likely to deliver better economic and investment outcomes than a disorderly or delayed transition.

The following belief statements have been developed and subsequently updated with this scientific and economic context in mind.

BELIEF STATEMENT

The world is transitioning to a low–carbon economy, although the pace is uncertain.

Risks

- Transitioning to a low-carbon economy is seen as necessary by many governments and the private sector, and may bring a wide variety of policy, legal, regulatory, technological, and market changes that influence investment fundamentals.
- The pace of the transition will vary significantly by region and sector (and may contradict), driven by the availability and cost of low-carbon technologies, the geopolitical environment, policy and regulatory actions, and consumer preferences.
- Transitioning to a low-carbon economy reduces long-term physical risks for investors, and an orderly transition creates less volatility than a disorderly transition.

Opportunities

- Proactively planning for climate risk in business strategy may enable issuers and other operating companies to adapt to changes including increased energy costs, shifts in consumer demand and greater regulatory requirements, while avoiding stakeholder scrutiny or reputational or brand impairment.
- Businesses, real assets and projects across many sectors that actively accelerate the transition may experience increased demand for their products and services, support from governmental policies, and/or competitive advantages in attracting intellectual capital (increasing financial productivity).

Strategic actions

- TIAA seeks to develop low-carbon transition "signposts" that monitor the pace and magnitude of the low-carbon transition over time. These signposts will be inputs that help determine our interim net zero targets.
- Nuveen offers its clients a variety of low-carbon and climate-focused products in public and private markets.

II

BELIEF STATEMENT

How markets react to this transition will bring risks and opportunities that influence how the GA invests.

Risks

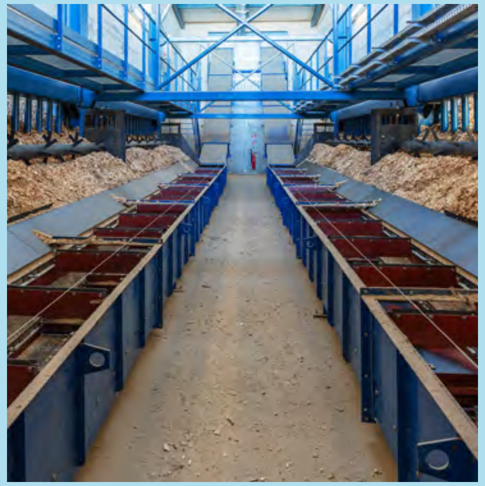
- The low-carbon transition is expected to create transition risk for public and private investments with exposure concentrated in fossil fuel and energy-intensive sectors. We expect that corporate sectors such as energy, utilities, materials, industrials and transportation face relatively higher transition 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, gross domestic product, and access to capital.

Opportunities

- "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

- TIAA continues to expand the implementation of net zero across additional asset classes in the GA to heighten our focus on investment risks and opportunities stemming from the low-carbon transition.
- TIAA also continues to deepen the measurement and monitoring of physical climate risks, with a particular focus on "place-based" asset classes like farmland, timberland, real estate, infrastructure, and municipal bonds.



III

BELIEF STATEMENT

Decarbonizing the GA portfolio will allow us to properly manage transition risks and embrace investment opportunities.

Risks

- Specific investment characteristics that influence transition risk include carbon intensity, expected holding period, liquidity, and the strength of the climate policy regime in the places where we are investing.
- As climate data continue to evolve and mature, carbon emissions data is an imperfect but useful proxy for transition risks, given that it is a more readily available metric to measure and monitor in an investment portfolio.
- Disclosure of carbon emissions data is nonetheless still voluntary in many jurisdictions, leading to lack of data coverage and lack of independent verification of accuracy.

Opportunities

- Adopting a decarbonization objective helps the GA uncover and pursue new investment opportunities, such as renewable energy infrastructure and the U.S. Commercial Property Assessed Clean Energy (C-PACE) program, among others.
- New global sustainability disclosure standards are emerging, such as those put forth by the International Sustainability Standards Board (ISSB), which will improve the disclosure of high quality, comparable carbon emissions data to inform the GA's investment process.

Strategic actions

- TIAA is actively expanding measurement of its financed carbon footprint, alongside further build-out of transition risk assessments.
- We work with assets, portfolio companies and other stakeholders in carbon-intensive industries to encourage greater strategic focus on their low-carbon transition.

IV
BELIEF STATEMENT

The rate of decarbonization the GA can achieve will depend on government policy and regulatory actions across various geographies and sectors.

Risks

- Despite the increasing urgency surrounding climate change, current policies are not sufficient to meet the goals of the Paris Agreement. According to Climate Action Tracker, an independent scientific project that tracks government climate action and measures it against the globally agreed Paris Agreement aim of “holding warming well below 2°C, and pursuing efforts to limit warming to 1.5°C,” current policies will result in global warming of 2.7°C by 2100.
- The real economy may therefore decarbonize more slowly than required by a science-based pathway to achieve the Paris Agreement’s goals. Investment portfolios that significantly diverge from the composition of the real economy could underperform more diversified portfolios.

Opportunities

- Significant policy developments in the past year support the overall trend toward decarbonization. TIAA and its investment teams closely track these developments and the implications they may have on our investment portfolios.
- Investment portfolios that decarbonize proactively can get ahead of the expected market impact of government policies before climate risks and opportunities are fully priced in and investment values impaired.

Strategic actions

- TIAA expects to review its net zero commitment periodically to ensure it remains broadly aligned with the pace and nature of the low-carbon transition, as well as with our goal to achieve long-term positive financial outcomes for our participants.

STEWARDSHIP

Elevating expectations for companies on climate

We believe that the global economy is decarbonizing, a process that will create meaningful investment risks and opportunities for our portfolios and clients. In response to these risks, we launched our Climate Risk 2.0 program last year, in which we explicitly asked 100 portfolio companies that comprise most of our public markets financed emissions to disclose material climate-related information and to establish industry-leading strategies to manage climate risks. As the energy transition matures, so will our assessment of company progress—shifting from standard disclosure to robust planning to implementation.

Progress against a wide range of key performance indicators, summarized to the right, is assessed bi-annually and informs our proxy voting and engagement decisions.

As of Nov. 30, 2023, we have had 201 engagements with the 100 companies included in Climate Risk 2.0. In these engagements and in proxy voting decisions, we have applied a systematic approach to our expectations of companies, focusing primarily on near-term emissions reductions that stem from abatable sources.

As such, we have developed detailed industry-level expectations, produced by sector experts, that recognize the unique risks and opportunities that face each company.

- In the fossil fuel sector, for example, conversations have included management of methane emissions via equipment updates and advanced monitoring technology, as well as emerging opportunities from low-carbon fuels, enhanced geothermal energy, and others.
- In the utilities sector, conversations have focused on new tax credits, financing options, and grid modernization technologies that can simultaneously advance reliability, affordability, and sustainability.
- In the industrial, machinery, and autos sectors, conversations have included topics like product efficiency and electrification, as well as engagement with materials suppliers to support decarbonization of hard-to-abate sectors.

Transparency: basic disclosure items

Climate risk disclosure	GHG emissions disclosure	Policy engagement
TCFD reporting, including scenario analysis that captures significant physical and transition risk.	Verified GHG emissions reporting, including material Scope 3 categories.	Company discloses climate related lobbying activities.

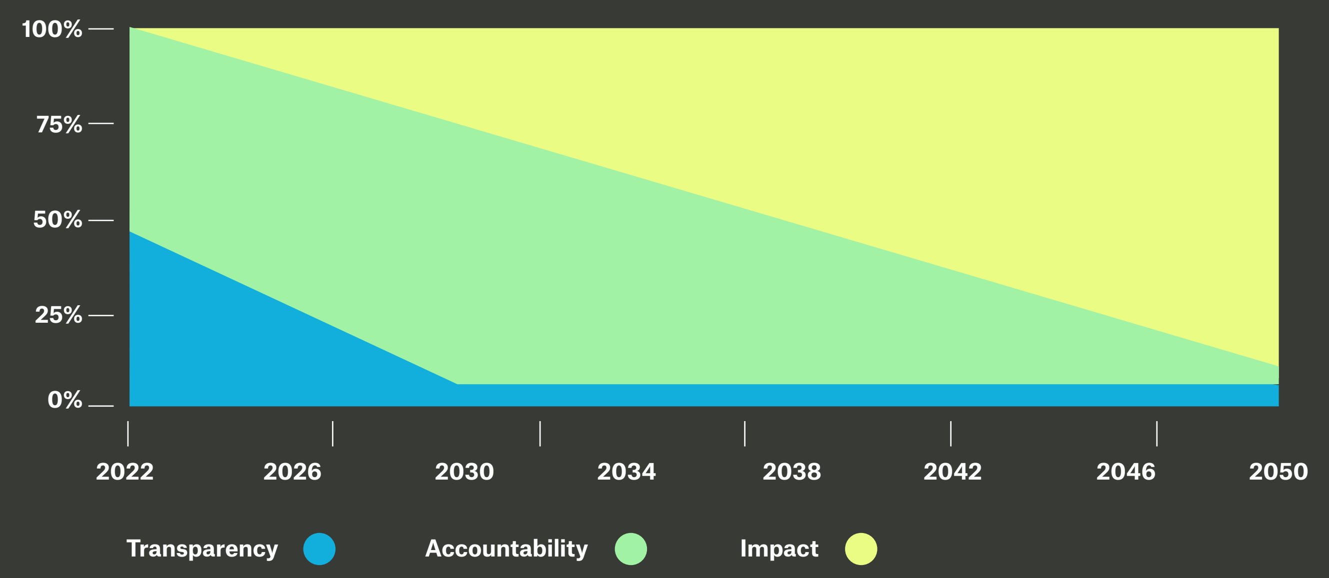
Accountability: strategy/plans for risk management

Risk management	Governance	Policy management	Targets	Strategy
TCFD reporting discloses how business planning has been impacted by scenario analysis and how climate is incorporated into ERM.	Board has evidenced climate competence and a committee with climate oversight. Compensation incentivises achievement of stated targets.	Company reasonably aligns lobbying activities with stated priorities and seeks to address discrepancies.	Company has near and long-term targets for material emissions. Where feasible, targets are third-party verified.	Company strategy aligns with industry-specific standards and capitalizes on emerging opportunities.

Impact: materialization of plans

Realized decarbonization

How TIAA assesses a company's approach to climate risk over time



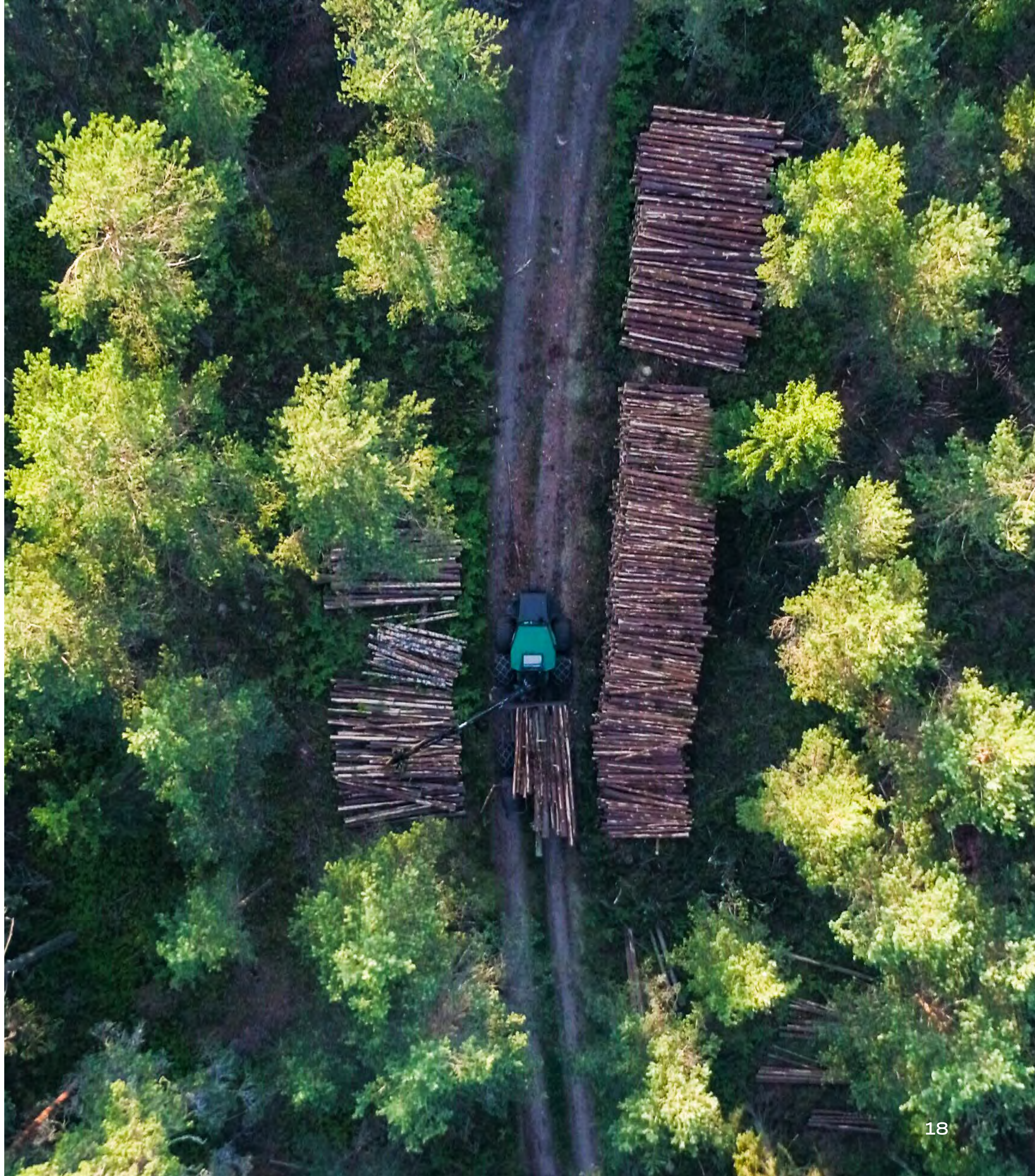
POLICY ENGAGEMENT

Prioritizing climate with policymakers

As stewards of our clients' investments, we advocate for policies that will result in enhanced disclosure of consistent, reliable climate-risk data from our portfolio companies. Access to comparable, quality climate and other ESG data from issuers is important to ensure that these risks and opportunities can be considered by Nuveen investment teams.

A key policy focus is ensuring consistency in disclosure frameworks across international jurisdictions. We have engaged, and will continue to engage, with regulators and lawmakers in an effort to develop a robust but efficient ESG disclosure regime.

In 2022, TIAA submitted five regulatory comment letters related to ESG issues, including the SEC Fund Names Proposal and SEC ESG Disclosure Proposal. We also offered comments to the U.S. Department of Labor's Employee Benefits Security Administration related to questions around retirement savings and climate-related financial risk. In addition to formal policy consultations, TIAA and Nuveen directly engage lawmakers at the federal, state, and international levels to articulate our positions on responsible investing practices.



INVESTMENT PRODUCTS

Meeting clients' evolving needs

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

Nuveen's RI product platform included about $57 billion in assets under management as of Dec. 31, 2022. As a subset of this platform, we offer the following strategies and products across numerous asset classes that aim to meet various climate objectives, including:

- Avoid exposure to carbon-intensive assets
- Reduce carbon emissions of assets
- Scale climate solutions

Each product category considers climate in distinct ways. Some screen out high-emitting companies and industries, some align with planned decarbonization over time at a rate aligned with the Paris Agreement, and others actively invest in the technology and tools necessary to help mitigate climate change.

Our climate investing product offerings

Client objectives	Product features	Products and investment specialists	Asset class
Avoid exposure to carbon-intensive assets in portfolio	• Lower carbon footprint than the benchmark • Limited exposure to fossil fuel reserves	TIAA-CREF Social Choice Low Carbon Equity Fund	Public equity
		Nuveen ESG ETF Suite	Public equity
		Low Carbon Value ESG Equity SMA	Public equity
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[2]	Real estate
		Nuveen Global Net Zero Transition ETF	Public equity
		Nuveen Global Clean Infrastructure Impact Fund	Public equity
		Nuveen Global Real Estate Carbon Reduction Fund	Public equity
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 verfied carbon credits	TIAA-CREF Green Bond Fund	Fixed income
		TIAA-CREF Core Impact Bond Fund[1]	Fixed income
		TIAA-CREF Short Duration Impact Bond Fund[1]	Fixed income
		Nuveen Global Core Impact Bond Fund[1]	Fixed income
		Nuveen Emerging Markets Impact Bond Fund[1]	Fixed income
		Nuveen Global Impact Fund	Private capital
		Nuveen Green Capital[2]	Private capital
		Nuveen Natural Capital[2]	Real assets
		Nuveen European Core Renewable Infrastructure Fund	Real assets
		Glennmont Clean Energy Fund IV	Real assets
		Nuveen Energy Transition Enhanced Credit Fund II	Real assets

1. Please note that climate-related investments make-up less than 50% of the AUM in the Core Impact Bond, Short Duration Impact Bond, 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.
2. Denotes Nuveen investment specialists with overarching sustainability programs that align with the corresponding client climate objectives. Each specialist offers multiple investment strategies; for details, please see **http://www.nuveen.com/about-us/investment-specialists.**

PRODUCT SPOTLIGHT

Nuveen Green Capital CPACE Lending Fund I

The Nuveen Green Capital CPACE Lending Fund I is a closed-ended fund developed specifically for U.S. insurers. The innovative structure provides financing to energy efficiency, climate resiliency, water conservation, and renewable energy projects via special assessments enabled under U.S. public-sector C-PACE programs. Under the C-PACE public-private financing program, U.S. states can classify permanent building improvements that can reduce energy use, water use, and GHG emissions, or increase environmental resiliency as a public benefit. State-level C-PACE policies act as the framework for commercial property owners to obtain low-cost, long-term financing for such projects, and loans are repaid from special assessments alongside property taxes.

The Nuveen CPACE Lending Fund is designed to efficiently aggregate the financing of C-PACE projects—examples of which include energy efficient lighting and HVAC systems, low-flow water fixtures, solar energy installations, and hurricane and earthquake hardening — for the unique requirements of insurance investors, providing a capital-efficient opportunity to access investment grade assets.

CASE STUDY

PORTFOLIO SNAPSHOT:
Reimagining the InterContential Hotel

In the heart of San Antonio, along the famed River Walk, a reimagined InterContinental Hotel will soon become a luxury destination and conference center. Originally an office building, the new 21-story hotel will feature 391 rooms, a restaurant, rooftop bars, an outdoor pool, fitness center and meeting spaces to cater to the city's strong convention and business travel market.

Nuveen Green Capital partnered with the property owner to provide $28 million in C-PACE financing to fund extensive sustainability measures for the hotel, including building envelope, lighting, HVAC and plumbing improvements. Over their lifetime, these improvements are projected to save over 110,000 MWh of electricity, 66,500 metric tons of avoided carbon dioxide, and 28.6 million gallons of water. These improvements are also projected to result in $19 million in energy and water-related operating cost savings for the property.

Estimated lifetime improvement impacts in the portfolio of the Nuveen Green Capital CPACE Lending Fund I

Electricity saved (MWh)	Fuel saved (Mmbtu)	Clean energy produced (kWh)	Clean energy capacity added (kW)	CO2 avoided (mt)	Gallons of water saved
312,541	762,769	56,424	53	245,111	459,931,930

All data shown are projections of estimated reductions in use or avoided consumption over the life of the installed improvement funded with C-PACE. C-PACE programs require a 'baseline' of energy or water consumption to be established and for funded improvements to demonstrate and report on projected reductions in energy or water usage, or reduction in related emissions, over that baseline. Such baseline may be the historic energy and water use of the subject property or a prescribed building energy code. In certain instances, specifically in the construction of new buildings, C-PACE funded improvements are required to achieve a standard of energy and water performance (i.e. a green building certification or model building code) and are not required to separately calculate and report avoided resource use and emissions over a baseline. NGC reports projected avoided energy, fuel, water use, as applicable, solely where C-PACE programs dictate a baseline and projected savings over that baseline are submitted to a C-PACE program administrator, pursuant to the methodology dictated by such C-PACE program, for confirmation of improvement eligibility and funding approval. NGC reported avoided carbon, specifically, utilizes the U.S. EPA AVERT Tool to apply appropriate regional emissions factors for electricity and fuel savings at the level of each C-PACE improvement funded. Figures represent the current NGC C-PACE Fund 1 composition, which is approximately 70% allocated as of October 26, 2023.

PRODUCT SPOTLIGHT

Core Impact Bond

Core Impact Bond is an actively managed intermediate core fixed income strategy designed to provide broad fixed income exposure while giving special consideration to certain ESG criteria and impact opportunities. The strategy uses Nuveen's impact framework, a proprietary classification of securities that are compelling investment opportunities and have a direct and measurable societal and/or environmental outcome.

Impact investments qualify based on a thematic framework developed in 2007 that focuses on each bond's use of proceeds and the issuer's commitment and ability to deliver transparent impact reporting. A bond's use of proceeds must align with one of four themes, two of which are social (affordable housing, community and economic development) and two of which are environmental (renewable energy and climate change, natural resources).

Impact bonds' use of proceeds

Renewable energy and climate change examples (materially aligned with UN Sustainable Development Goals 7 and 8):

- New, expanding, or existing renewable energy projects (including solar, wind, and hydroelectic)
- Smart grid and more efficient power generation and transmission projects
- Energy efficient projects that result in a reduction in greenhouse gas emissions

Natural resources examples (materially aligned with UN Sustainable Development Goals 8, 11, 12, 14, 15):

- Marine conservations efforts
- Remediation and redevelopment of polluted or contaminated sites
- Improvement of clean drinking water supplies and/or sewer systems infrastructure

CASE STUDY

Cleaner drinking water in Vietnam

In February 2023, Nuveen was an anchor order in a first-of-its-kind impact bond offering that provided financing for clean drinking water in schools in Vietnam. Implementation of the program will generate carbon credits that support potential semi-annual payments to bondholders. We believe that establishing, legitimizing, and scaling the carbon market will help catalyze impact investing with both larger deal sizes and broader environmental and climate-aligned outcomes.

Nuveen and a large European pension fund invested in the $50 million, U.S. dollar-denominated deal. Uniquely, instead of scheduled, fixed coupon payments over the five-year tenor of the bond, the deal creates a AAA rated security that allows investors to direct capital to a specific development project. The investment team anticipates an enhanced yield over a conventional World Bank bond given the idiosyncratic project risk.

It is anticipated that 300,000 ceramic water filters will be delivered to 8,000 schools. Presently, these schools are burning sticks and brush to boil water. The new filters will reduce carbon dioxide emissions and teachers and students will be able to spend more time in the classroom, instead of collecting sticks and firewood. Furthermore, ceramic filters deliver water that is purer than drinking water obtained through boiling.

The project generates carbon credits as the water filters are put in use. The bond's underwriter (a large global bank) committed to buying the first 1.8 million carbon credits generated by the program annually, setting a unit price for those purchased credits. If the project produces at least that many Verified Carbon Units (VCUs), those payments will be awarded to bondholders semi-annually based on the VCUs generated over the prior period. The VCUs will be registered/administered by a third party—Verra.

We believe that a viable carbon credit market will enable more project finance deals like these, in which bondholders can elect coupons in cash or credits and industrial and financial companies can serve as off-takers of credits. This project supports a cleaner source of potable water for an estimated 2 million schoolchildren in Vietnam.

3

Risk management

TIAA's climate risk management framework

RISK MANAGEMENT

Climate risks are multi–faceted

Climate risks must be identified and monitored through different lenses across the organization.

TIAA began a phased buildout of our enhanced climate risk management framework in 2022, a map of processes that will help us take a consistent approach to how we invest, adhere to existing and evolving regulations, operate our business efficiently and represent ourselves in the fast-changing world.

Our Climate Risk Management Framework will help us take appropriate actions and develop strategies for mitigating and managing the effects of climate change on behalf of our clients.

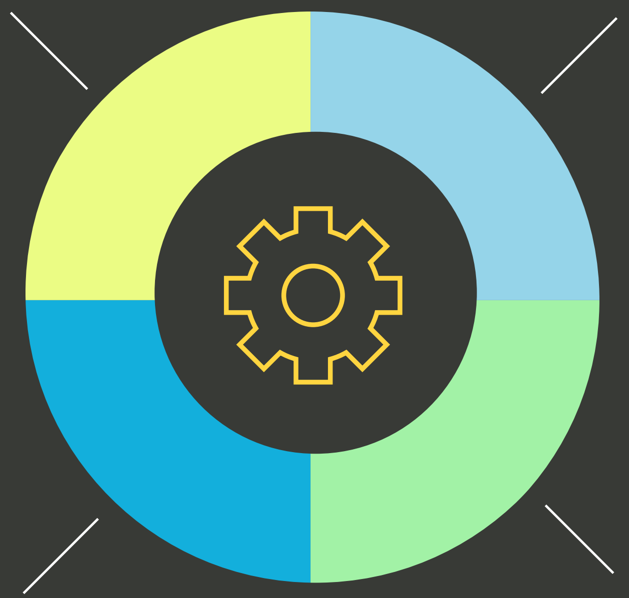
TIAA's climate risk management framework

1. Oversight

The Board, and Boards of our affiliates, are responsible for understanding relevant climate risks and overseeing their management within the overall business strategy and risk appetite.

2. Risk assessment

Development of processes to report material climate risks, their transmission channels and their potential impact on existing risk factors and overall risk appetite.



3. Monitoring

Incorporation of assessments, including time horizons, that allow us to appropriately inform TIAA's business activities and decision-making.

4. Scenario analysis

Use of scenario analysis to understand how climate risks may materialize and measure potential impacts.

CLIMATE DATA IN PRACTICE

Shining light on risks and opportunities

Climate change is creating investment risks and opportunities, but assessing its impact on financial markets is inherently complex. There are many variables, including economic, geopolitical and societal forces, that will affect the speed of decarbonization. What follows are snapshots of ways in which TIAA and Nuveen teams are adopting tools and datasets into their processes.

Scenario analysis is key to integrating climate risks. TIAA Risk Management chose the Network for the Greening of the Financial System (NGFS) scenarios to guide scenario analysis design across TIAA and Nuveen. NGFS uses integrated assessment models (IAMs) to determine the composition of the global energy system under different temperature and emissions trajectories, which include: orderly transition, disorderly transition, and the transition assuming current policies.

Physical risks and opportunities

- Numerous teams have explored Moody's climate-risk adjusted credit risk models to analyze the potential impacts of physical risks to TIAA's investments in debt instruments. The tool simulates probability of defaults and losses in high physical-risk scenarios. Significant progress has been made in integrating the models into commercial mortgage loans, CMBS and corporate debt.
- We have developed a screening tool using VeRisk Maplecroft to assess the concentration of private real asset investments in high-physical-risk locations.
- In private real estate, investment teams leverage climate hazard data from MunichRe to trigger additional due diligence and down-side modelling. In private farmland, the investment team uses climate scenarios from ClimateAi to assess potential impacts to crop yields in high temperature environments. This work can inform the team's assessment of water risk as well as selection of crop varietals.
- The municipal bond team has used RisQ to assess risks and private real assets has used VeRisk Maplecroft.

Transition risk and opportunities

- Our risk teams regularly produce reports that capture and monitor concentrations of carbon intensities by sectors and industries, and have developed methodologies and data architectures to make portfolio-level carbon intensity estimates.
- The GA team integrates carbon intensities into its investment process, seeking to manage long-term and tail risks and find opportunities stemming from the energy transition.
- Nuveen investment teams are managing near-to-medium term transition risks as part of their day-to-day portfolio management responsibilities. Their insights are being reported through the launch of the Climate Research Group comprised of portfolio managers and research analysts from public and private asset classes. The research group has piloted deep-dive assessments into electric utilities, oil and gas, and metals and mining sectors, and has plans to expand into additional energy-intensive sectors.

Summary of climate data and uses

Types of data	Sources	How it is used
Carbon emissions	**Public markets:** MSCI and internal estimates **Private markets:** Persefoni, Watershed, investee disclosures, modeled estimates and internally gathered data	**Enterprise:** Both public and private data is housed in TIAA's enterprise risk data platform for enterprise disclosure reporting. **Nuveen Equities & Fixed Income:** Data is housed in Nuveen's RI data platform for client reporting. **Nuveen Real Assets:** Data is housed in databases managed by the investment teams and used for client reporting and regulatory disclosures.
Physical risk	**Public markets:** RisQ for municipal bonds, Moody's for public corporates **Private markets:** VeRisk Maplecroft, MunichRE, FirstStreet Risk Factor, ClimateAi and The Climate Service	**Enterprise:** Physical risk exposures are used to screen to identify areas that require climate risk controls. Scenario analysis is performed to assess potential financial impacts to TIAA. **Nuveen:** Physical risk exposures and/or scenario analysis are incorporated into investment processes. Integration is actively being explored for other asset classes.
Transition risk	**Public markets:** MSCI Implied Temperature Rise and Climate Value at Risk, SBTI-verified company targets, government climate targets **Private markets:** Investee disclosures, industry/sector net zero pathways, and qualitative risk assessments	Data is being evaluated for risk assessments and net zero implementation for the TIAA General Account and other clients.

CASE STUDY

Spotlight on Nuveen Real Estate risk management

It is clear that the physical impacts of climate change will affect real estate values, and the Nuveen Real Estate team continues to advance its understanding of how, where and when such impacts will become financially material to our investments' financial performance.

The Nuveen Real Estate team developed and implemented its own sustainability risk management framework to better identify factors that could be material to real estate investment performance. Investment teams already factor physical and transition risks into investment decision-making by running downside scenarios and evaluating potential future costs.

Relatedly, the team has a separate environmental management framework that encourages and supports continued responsible management practices. The focus is on improvements to energy, water, and waste management, performance, and reviews of physical climate risks and asset mitigation plans. Portfolio and investment review risk exposure annually as part of hold/sell analyses and identify opportunities for mitigation measures.

4

Metrics and targets

Tracking progress toward our net zero goals

TRACKING PROGRESS

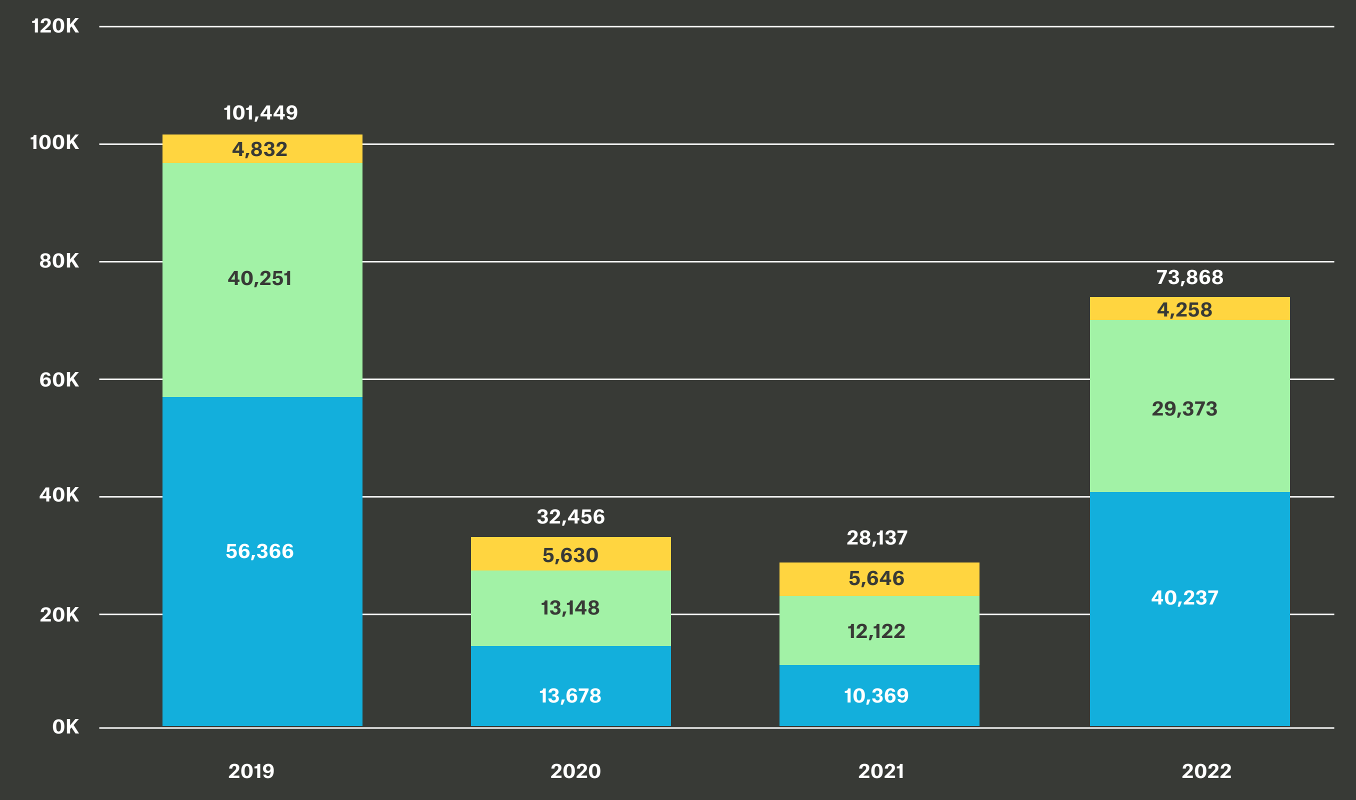
Operational emissions—Net zero by 2040

TIAA Global Corporate Services reports on Scope 1, 2 and a portion of Scope 3 emissions. The Scope 3 categories include business travel, employee commuting, waste and water-related emissions. While our overall operational emissions increased in 2022 from the previous two years, they show a 27% reduction when compared to the 2019 baseline. We see the increase in our 2022 GHG emissions compared with 2020 and 2021 as anomalous due to the temporary reduction of emissions from the global pandemic resulting in reduced business, travel and related activities during those previous two years.

A significant proportion of the 27% reduction in emissions in 2022 relative to the 2019 baseline can be attributed to the consolidation of our site portfolio based on business requirements. We also formalized hybrid work schedules for eligible associates and invested in virtual meeting capabilities, which reduced emissions from commuting and business travel, respectively.

TIAA's operational emissions impact

Total GHG emissions (mt CO2e)



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

Operational emissions reduction measures

While continuing to modernize our lighting, water and HVAC systems to high-efficiency systems, we also solidified our Net Zero 2040 operational roadmap and began to implement strategic steps to reduce our energy use and carbon footprint, including:

Prioritizing sites based on energy intensity and carbon-reduction potential.

Incorporating green leasing terms into our leasing processes.

Strengthening sustainability guidelines in our design, construction, and facility operation policies.

Development of a comprehensive Associate Engagement Program.

Rolling out utility submetering to improve data capture in sites over 2,000 square feet.

Implementing a renewable energy procurement plan to reduce fossil fuel generated electricity.

Switching to all-electric heating and cooling systems to take advantage of renewable energy generated electricity.

SPOTLIGHT ON THE RENOVATED CHARLOTTE CAMPUS

Our newly renovated Charlotte campus highlights our commitment to reaching net zero in our operations. Here are a few of the measures taken to reduce our emissions, both during the renovation project as well as for ongoing operations:

- Invested over $2 million in upgrading our building automation to optimize energy consumption
- Installed LED lighting and Lutron controls that use less than 50% of the lighting power than allowed by code
- All restroom flush valves and faucets meet or exceed LEED and WaterSense
- New furniture was manufactured locally and made from certified sustainable wood
- All new carpeting is carbon neutral and made with recycled content
- The new luxury vinyl tile flooring installed is carbon neutral and contains recycled content
- Donated over 12,000 items of furniture, art, computers and electronics to twelve local non-profit organizations, charities and schools
- Recycled over 1,100 tons (2.2 million pounds) of construction materials, including:
  - » 16 tons of plastic
  - » 7 tons of carpeting
  - » 56 tons of wood

Additional emissions reduction strategies

While TIAA will explore all avenues of reducing its 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, TIAA 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.

Additionally, we achieved Fitwel certification on all five eligible campus buildings. Fitwel is a building certification standard that was created by the U.S. Centers for Disease Control Prevention (CDC) and the General Services Administration (GSA) to focus on strategies that optimize occupant wellness, health, and productivity while promoting sustainability.

Nuveen Real Estate emissions—Net Zero Carbon by 2040

As one of the largest asset managers in real estate, Nuveen is uniquely positioned to align to its clients' views on climate risks and managing residential and commercial buildings across the globe to be resilient to future regulatory trends and market expectations.

Nuveen's journey to decarbonize 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 transition risk assessment capabilities and integrating those into individual investments. To support clients' mandates on climate risk management, Nuveen Real Estate aims to align portfolio management strategies with a 1.5°C climate scenario through the following activities:

- Setting a 2040 net zero target that focuses first on energy efficiency.
- Targeting a 30% reduction in the energy intensity of landlord-controlled energy use by 2025.
- Providing transparency to our stakeholders through disclosure of carbon emissions.
- Keeping abreast of market shifts and preferences for low carbon buildings from occupiers and investors in the coming years.
- Monitoring exposure to and complying with building regulations setting energy and carbon standards or limits.
- Continuing to drive energy efficiency across our assets through technology and operational best practices.

Nuveen real estate 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 14 years in a row.

2010

Nuveen Real Estate commits through the U.S. Department of Energy Better buildings Challenge to improve energy and 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 Gold achiever.

2011

Nuveen Real Estate joins as a GRESB Member and participates in each year's annual estate ESG assessment. In the most recent assessment, 15 funds achieved a 4+ star rating.

2012

UN PRI Signatory since 2012 with an A+ rating in 2020. In December 2018, Nuveen, LLC became a signatory; Nuveen Real Estate now falls under Nuveen's PRI signatory status and reporting

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 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.

2020–2023

Nuveen Real Estate joins ULI Greenprint NZC commitment, along with several U.S. real estate companies.

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

Nuveen Real Estate becomes a sponsor and participant of the CRREM Pathways of North America Working Group— an effort led by CRREM, ULI, and Berkeley Lab.

CASE STUDY

The Nuveen Real Estate team implements a variety of decarbonization measures in its portfolios to stay on track with the goals of the Paris Agreement, under which signatories agreed to limit global warming to well below 2°C above pre-industrial levels, and ideally 1.5°C.

CityPark (Vienna, Austria)

100% heating and cooling self-sufficient

- New development will benefit from a site-wide district heating network via solar PV and geothermal energy, delivering sustainable, renewable energy supply for heating and cooling
- Green roofs improve insulation and enhance water efficiency across the asset
- Using environmentally friendly materials and low emission products
- Lifecycle planning, optimization, climate protection goals and eliminating the use of halogenated hydrocarbon refrigerators
- Promoting clean transportation by installing charging posts for electric vehicles

Awards and certificates

- Phase 1 and Phase 2 of CityPark hold a DGNB Gold certification. Phases 3 to 5 are also en-route to obtain similar certification upon completion.

Attributes

Year acquired: 2020

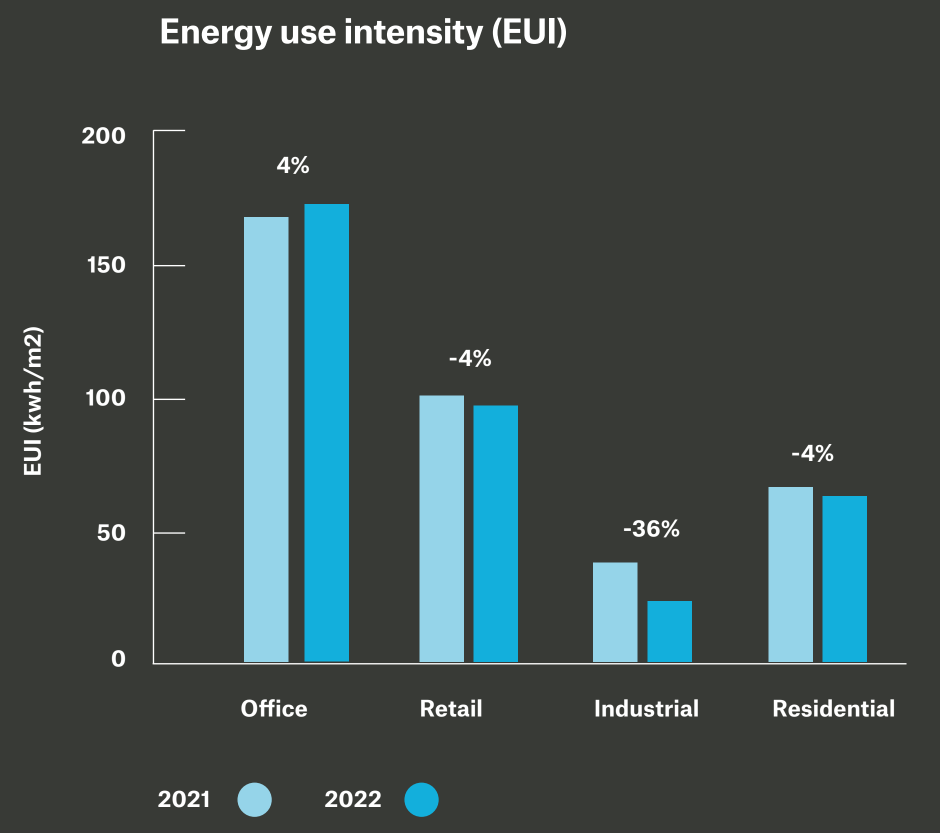
Extension completes: Q1 2024

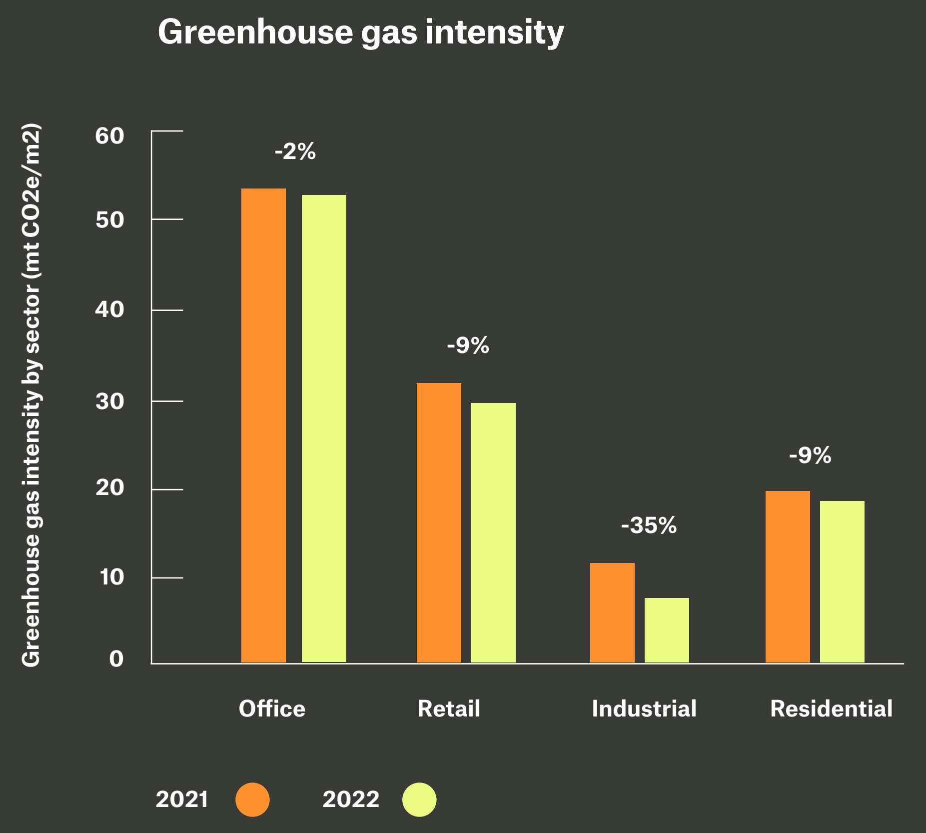
Size: 40,000 square meters (430,000 square feet)

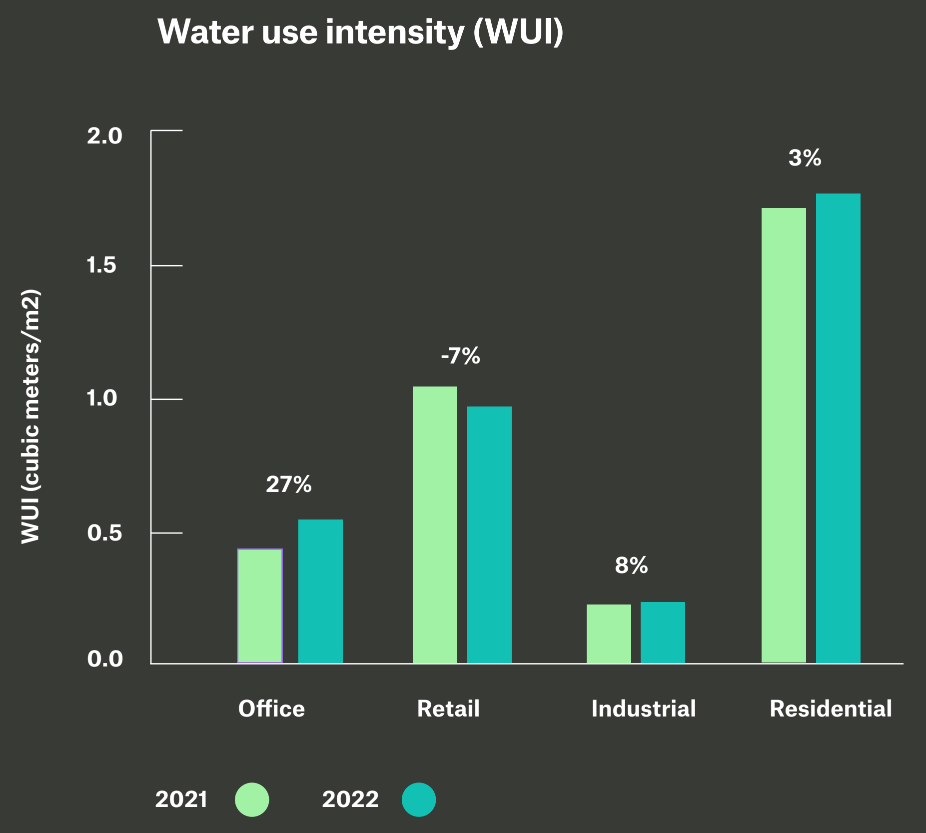
Sector: Light industrial / logistics

Nuveen Real Estate environmental performance highlights

	Emissions	2022 mt CO2e	Year-over-year
Direct	Scope 1	46,699	–11%
Indirect	Scope 2	294,970	–12%
Indirect	Scope 3	83,806	–9%







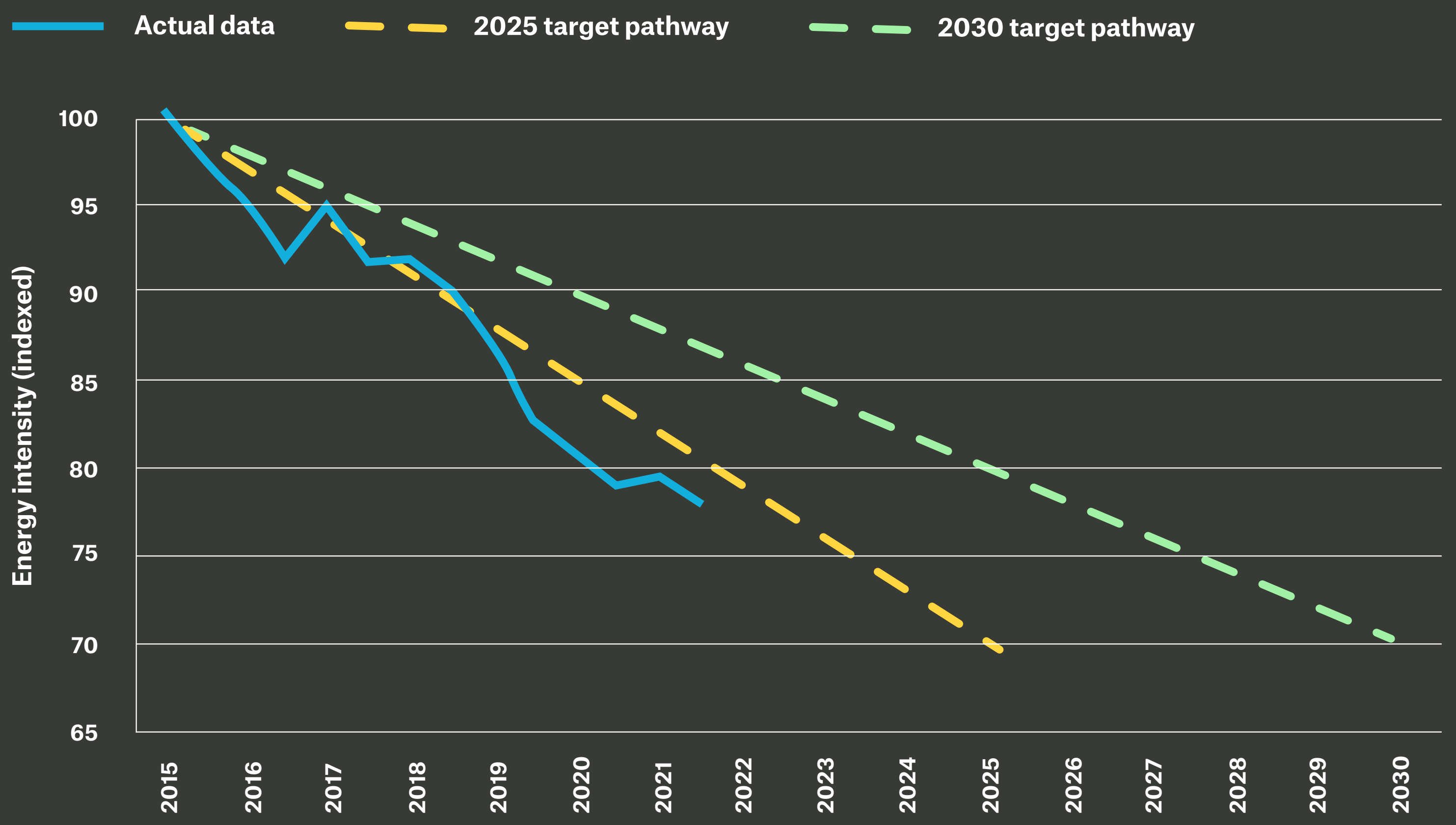
Steps to achieve net zero by 2040

	2015	2020	2025	2030	2040
	Nuveen Real Estate sets 30% energy industry reduction by 2030	We sign Better Building Partnership (BBP) Climate Change Commitment in 2019	Our target of 30% reduction in energy intensity by 2030 brought forward to 2025 due to successful energy efficiency strategies	Reduction of portfolio's carbon intensity by 50%	All buildings are operationally net zero carbon
Key actions	• Commits Nuveen Real Estate to setting a pathway by 2020 and achieving net zero carbon (NZC) by 2050 at the latest		• Develop costed business plans for NZC for all relevant buildings • Achieve 50% whole building energy data coverage • Assessment of NZC potential for debt portfolio	• Portfolio average carbon efficiency in Europe meet or exceed local industry standards for the path to net zero carbon • Mass removal of fuel underway • Renewable energy power purchase agreements (PPAs) in place where feasible	• Global portfolio average carbon performance tracking below local market net zero carbon operational pathways • Significant reductions in embodied carbon and tenant emissions

Improving the energy efficiency of our real estate portfolio

Progress against 2023 target

We have now brought our target achievement date forward to 2025 and made this goal one of the first milestones on our pathway to net zero carbon



Source: Nuveen Real Estate, June 2022

Included in target scope

Workplace/office

Retail & mixed-use

Industry/logistics

Housing

Debt

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.

MAKING HEADWAY

The General Account: Net Zero by 2050

TIAA announced its net zero by 2050 commitment for the GA in 2021, driven by the belief that climate risk is investment risk.

The initial phase of our journey to net zero by 2050 will prioritize assets 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—these 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 GA. As disclosure improves and carbon accounting best practices expand across asset classes, we will expand our interim targets accordingly. More asset classes are being targeted for 2024 and 2025 as the path toward gathering the data needed for measurement and interim target setting becomes clearer.

See the corresponding table for our 2025 interim targets set against a 2019 baseline year.

2025 General Account interim targets, by asset class, set against 2019 baseline year

Asset class	Carbon intensity metric	2025 target reduction range
Public corporate debt	mt CO_2e/million USD sales	15%—25%
Direct commercial real estate	mt CO_2e/square meter	15%—20%

GENERAL ACCOUNT

Public corporate debt

The 2025 interim target for the public corporate bond portfolio is measured against our 2019 baseline weighted average carbon intensity (Scope 1 and 2 emissions) measured in mt CO2e/ million USD sales. To arrive at the 2025 target reduction range, the Responsible Investing, Risk, GA, 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 will rely on a combination of strategies to work toward achieving the 2025 target:

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

As of year-end 2022, the GA is on track to achieve its 2025 target in the public corporate debt portfolio. Reductions from 2019 to 2022 were primarily achieved through selection of new investments with a lower average carbon intensity than the existing public corporate debt portfolio. Investments held throughout the period also decreased in carbon intensity due to a combination of changes in corporate carbon emissions and changes in corporate revenues.

The sector breakdown of the portfolio shifted slightly as it grew, with energy sector positions decreasing while financial sector positions, which have a much lower carbon intensity profile, increased. This organic sector rotation contributed to the decrease in overall carbon intensity, but the same shifts may not be replicable in the future given sector concentration limits and uncertainty around where relative value and new issuance supply will develop in the coming years.

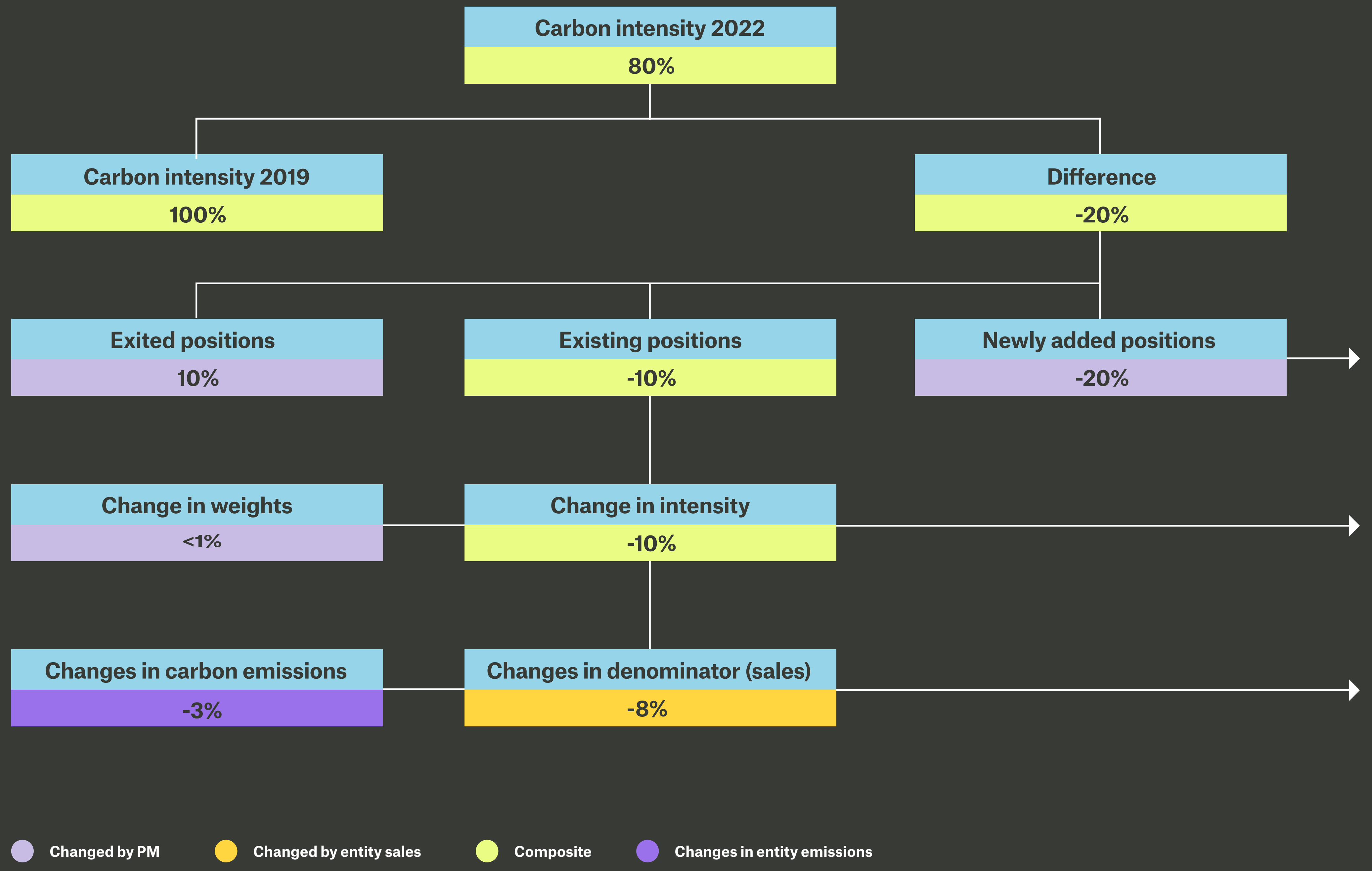
Annual change in public corporate fixed income carbon intensity

	2019	2020	2021	2022	2019–2022
Carbon mt CO2e (mt CO2e/million USD sales)	663	592	553	530	–
Year-on-year % change	–	–11%	–7%	–4%	–20%

Note: Carbon intensity reflected above is measured as carbon emissions per million dollars of sales. Measures were also calculated using carbon emissions per dollar of Enterprise Value Including Cash (EVIC) for informational purposes, although this metric not used as a direct measure of progress in the portfolio. Carbon intensity metrics for each issuer were sourced primarily from MSCI, with any remaining data gaps filled first using any prior year data from MSCI and second using TIAA internally developed estimates. TIAA estimates were formed by mapping an issuer to a peer group by industry, region, and company size, then estimating its carbon intensity as the 60th percentile carbon intensity of that peer group.

Corporate public debt

Carbon intensity attribution analysis of the GA's corporate public debt



Layer 1

The first layer shows the impact of changes in the investment positions held

Layer 2

The second layer shows the impact of changes in portfolio weights or position carbon intensities

Layer 3

The third layer shows the changes in carbon intensity into changes in issuer carbon emissions and issuer sales

Analysis follows the approach outlined by MSCI in "A Framework for Attributing Changes in Portfolio Carbon Footprint", May 2023

GENERAL ACCOUNT

Direct real estate (equity)

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 (Scope 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 GA will target a 15-20% reduction in carbon emissions per square meter by 2025, which is expected to be primarily driven 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

Results from an assessment of the 2021 carbon intensity of the direct real estate portfolio has shown a reduction of 11%, from 0.0605 mt CO_2e/m^2 to 0.054 mt CO_2e/m^2 was achieved between 2019 and 2021.

TIAA general account carbon intensity in 2021 versus baseline per sector

Property type	2019 emissions intensity	2021 emissions intensity	△ 2019-2021 emissions intensity
Industrial	0.0394	0.0384	-2.6%
Residential	0.0982	0.0822	-16.3%
Office	0.0789	0.0524	-33.6%
Retail	0.0741	0.0563	-24.0%
Total	0.0605	0.0540	-10.7%

COMMITTING TO TRANSPARENCY

TIAA's fossil fuel exposure

Fossil fuels currently make up over 80% of the world's primary energy supply and are likely to meet a significant portion of global energy needs for decades to come. TIAA and Nuveen's exposure to fossil fuel-related investments reflects their widespread past and current role in the real economy. Increasingly, the low-carbon transition is likely to bring major shifts in the energy system. We will continue to monitor these shifts, seeking to balance investment risk and return within our clients' investment objectives as they unfold. As a matter of policy, we do not completely divest from major sectors of the economy, including the energy sector. Divestment is a blunt tool that does little to reduce real world GHG emissions and removes our ability to engage with companies and assets over time. We have a long history of stewardship and engagement, with particular focus on the theme of climate change. Our engagement approach is informed by the growing recognition that portfolio-level climate targets are most impactful when they are achieved via real world emissions reductions.

However, this does not mean we will blindly hold an investment without regard for changing market conditions. Our investment process is both dynamic and climate-aware, reflecting our investment teams' careful balance of risk and return as well as climate-related data and training.

Transparency is a key part of our commitment to responsible investing. To that end, we are disclosing our fossil fuel exposure in this report for the first time. See the corresponding table for TIAA, Nuveen, and all affiliates' exposure to fossil fuels (in millions of dollars) as of year-end 2022.

TIAA's fossil fuel exposure

Fossil fuel exposure, year end 2022 (million USD)

$MM	Publics	Private		Total
		Direct	Funds	
GA	6,492	125	341	6,959
3rd party	28,302	–	30	28,331
Total	34,794	496		35,290

Methodology: TIAA's fossil fuel exposure includes our public and private investments in any type of securities issued by 1) fossil fuel reserve owners, 2) companies directly operating in the production of oil, coal, and natural gas, or 3) companies involved in fossil fuel value chain such as exploration, refining, pipelines, and equipment. Some LP positions were excluded as look through analysis on the underlying investments is not always available.

Third party client fossil fuel exposure was calculated using security identifiers from FactSet's security matching algorithm, matched to MSCI ESG data fields within the MSCI Data Manager platform. Unmatched securities were evaluated against other security identifiers on a 'best efforts' basis to generate a match against MSCI ESG data fields. Securities that MSCI was unable to match were not included in the analysis. Third party client exposure was estimate using market value. General Account fossil fuel exposure was calculated utilizing ICB sub-sector filters across all asset classes (including direct/co-investments, indirect energy funds and indirect PE funds). General Account exposure was estimated using statement value.

5 Conclusion

Recognizing climate risks and opportunities

TIAA's long history is rooted in serving those who serve through academic, medical, and other non-profit fields save and retire for the long term. Continuing to serve these clients in future decades requires clear recognition that climate change affects the real economy and therefore our investment portfolios and the methodologies we use to achieve our clients' investment objectives.

We are evolving the climate beliefs that support the TIAA General Account, the investment engine that helps grow and protect the retirement savings of millions of people. We are giving our investment teams access to cutting edge climate-related data to help make informed decisions and extending our reach beyond traditional asset classes to identify climate risks and investment opportunities.

We are engaging with companies to help maximize our investors' returns, while measuring, managing and minimizing investments' exposure to material climate risk and driving real world impact. We are advocating for a regulatory framework that harmonizes definitions, disclosures and targets so that it is possible to track process in the low-carbon transition. And we are bolstering our Climate Risk Management Framework to help us take appropriate actions and develop strategies for mitigating and managing the effects of climate change on behalf of our clients.

Transparency and disclosure will be pivotal to the success of the low-carbon transition, which is why we believe that our commitments—zero financed emissions on a net basis by 2050 for the TIAA GA and by 2040 for Nuveen Real Estate—will contribute not only to reducing our carbon footprint but also to serving TIAA participants in a changing climate. And because we lead by example, we are disclosing our own fossil fuel exposure in this report for the first time.

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The views expressed in this material may change in response to changing economic and market conditions. Past performance is not indicative of future returns.

Responsible investing incorporates Environmental Social Governance (ESG) factors that may affect exposure to issuers, sectors, industries, limiting the type and number of investment opportunities available, which could result in excluding investments that perform well. There is no guarantee that the strategy will be successful, and employing an ESG strategy may not result in favorable investment performance.

ESG integration is the consideration of financially material ESG factors in support of portfolio management for actively managed strategies. Financial materiality of ESG factors varies by asset class and investment strategy. Applicability of ESG factors may differ across investment strategies. ESG factors are among many factors considered in evaluating an investment decision, and unless otherwise stated in the relevant offering memorandum or prospectus, do not alter the investment guidelines, strategy or objectives.

The TIAA General Account is an insurance company account and is not available to investors as an investment. It is solely owned by and supports TIAA's contractual guarantees and business operations; its performance is not directly allocated to any specific contract or obligation.

You should consider the investment objectives, risks, charges and expenses carefully before investing. Please call 877-518-9161 or go towww.TIAA.org/prospectuses for current product and fund prospectuses that contain this and other information. Please read the prospectuses carefully before investing.

Investment, insurance and annuity products are not FDIC insured, are not bank guaranteed, are not deposits, are not insured by any federal government agency, are not a condition to any banking service or activity, and may lose value.

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The Nuveen Family of Funds and the TIAA-CREF Funds are distinct fund families that comprise different investment products, each with its own features, terms and conditions, fee structures and risk factors. Please note, there are no exchange privileges between the two fund families. Nuveen, a wholly owned subsidiary and investment manager for TIAA, provides investment advisory solutions through its investment specialists. Nuveen Securities, LLC, Member FINRA and SIPC.

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