TIAA

Facing the climate crisis

TIAA CLIMATE REPORT | 2021

A message from our CEO

The climate crisis is one of the foremost challenges that we face as a society today. We are already seeing the effects on our daily lives, ranging from intensifying wildfires to more frequent flooding along coasts and rivers. These climate events affect us all, including our clients and the communities in which they work and live. And we know that the greatest impact falls on low-income communities and people of color.

When I think about the world we will pass along to our young people, including my four children, I feel the urgency to accelerate our work toward a low-carbon future. TIAA has made bold commitments in the past year to reduce carbon emissions in our investments and operations, starting with three “Net Zero” commitments across our enterprise:

- 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

Our focus on climate change is intrinsic to our commitment to serve our clients. We believe that climate risk is investment risk, so managing climate risk is critical to delivering returns. We expect more evidence to emerge over time that managing climate risk helps support better, more stable investment performance which in turn helps us provide guaranteed lifetime income for our participants throughout their retirement.

To affirm our commitment, we are proud to share our first TIAA Climate Report. We have aligned this important work with the Task Force on Climate-Related Financial Disclosures guidelines, which TIAA formally endorsed and continues to promote among companies in which we invest. Our goal is to help our stakeholders understand how we at TIAA manage climate risk throughout our organization. And because ongoing measurement is the best way to stay accountable, we will use this report as a place to communicate progress on our work toward our net zero targets over time.

Our hope is that by sharing our journey in our own business operations’ work toward net zero, along with the influence we have as professional investors, we will accelerate progress toward a low-carbon future. And we hope that the rest of corporate America, global businesses and governments will join us.

Together, we can pursue better outcomes for people saving for the future — and the future climate.

Thasunda

Thasunda Brown Duckett
President and Chief Executive Officer

Steadfast for the environment

TIAA's mission, unchanged since 1918, is to serve those who serve others. Over a century later, we remain committed to helping our customers reach their financial goals in a changing climate. As scientific consensus points to humans' role in rising global temperatures, and climate experts press for urgent action, TIAA recognizes that sustainability is fundamental to our mission in many ways.

As an operating company, we have an operational carbon footprint — resulting from the energy used to power our buildings, and other emissions associated with our business operations. And like most financial services firms, we also have a set of 'financed emissions' which are the greenhouse gas emissions associated with our investment activity. As a large asset manager and asset owner, our financed emissions are significantly larger than our operational emissions.

We believe that the physical impacts of climate change are likely to impact our clients and our assets, and that a transition to a low carbon economy is inevitable and necessary. As investors and stewards of our clients' retirement assets, we recognize that such a transition will pose risks to the companies in which we invest over the long term. We believe it is part of our duty to manage those risks.

TIAA + nuveen

$43.6B

of AUM within products with specific responsible investing objectives

As of 30 June 2021

646

engagements across 422 companies in 2020-2021

1 of 4

U.S. managers named to the 2020 UN PRI Leaders' Group for excellence in climate reporting

5

decades pioneering responsible investing

2020-2021

Elevating our climate engagement

Nuveen engaged

275

companies on expanding climate disclosure, targets and scenario analysis

Nuveen targeted

147

companies, seeking specific actions to improve climate disclosure and accountability

Nuveen supported

78%

of climate-related shareholder resolutions

Nuveen is among the

TOP 5

holders of green bonds globally

Nuveen has asked companies to produce reporting that aligns with the Task Force on Climate-Related Financial Disclosures (TCFD) standard, and to set science-based climate targets to reduce greenhouse gas emissions over time.

Structured for success

Board oversight

TIAA Corporate Governance and Social Responsibility Committee
Oversight of the enterprise sustainability approach

TIAA Investment Committee
Oversight over the TIAA General Account's portfolio, including TIAA's Net Zero 2050 Target

TIAA Risk and Compliance Committee
Incorporation of climate risk into the company's enterprise wide risk management and compliance frameworks

TIAA-CREF Fund Complex Investment Committee
Oversight over climate risk for the TIAA CREF Mutual Funds

Nuveen Funds Board
Oversight over climate risk for the Nuveen fund family

Management/business unit oversight

TIAA/Nuveen Climate Risk Task Force (CRTF)
Working group established to develop an organization-wide strategy guided by TCFD recommendations

- TIAA General Account
- TIAA Enterprise Risk & Compliance
- TIAA Financial Risk
- Corporate Facilities
- Corporate Social Responsibility
- Sustainability Action Team

- Nuveen Responsible Investing
- Nuveen Investment Risk
- Nuveen Product

Directing our focus. Driving results.

Our commitment to climate starts at the top with our Board members and leaders setting strategy and overseeing progress.

Board oversight

The TIAA, TIAA-CREF Funds and Nuveen Funds Boards, together with committees of those boards, respectively oversee the responsible investing programs of the TIAA-CREF Fund Complex and TIAA General Account, including management's role in developing and implementing core programmatic activities and reviewing and approving the environmental, social and governance (ESG) criteria and vendor used for our ESG mandated funds. These Committees meet at minimum on a quarterly basis. In 2021, climate risk topics have included:

- Overview of climate risk management at TIAA and Nuveen
- Net Zero Target Setting for the TIAA General Account
- Operational sustainability program

In early 2017, TIAA's Executive Committee approved a new Climate Change Statement of Principles, which provided further guidance across the company on this important cross-cutting issue. In 2019, this language was included in the TIAA Policy Statement on Responsible Investing, which identifies ESG risks and opportunities facing companies and TIAA's recommended actions.

Board training

It is crucial that TIAA, TIAA-CREF Funds and Nuveen Funds' board members have access to education on key environmental, social and governance and RI topics and market trends in order to appropriately oversee the direction of our responsible investing strategy. All incoming Corporate Governance and Social Responsibility Committee (CGSRC) members receive formal responsible investing training including topics around climate change. Additionally, all board members across five TIAA and Nuveen boards are invited to attend a biennial RI board retreat where climate risk and opportunity consistently emerge as a key theme.

Full charters can be found on TIAA.org or via these links:

TIAA Corporate Governance and Social Responsibility Committee Charter
TIAA-CREF Fund Complex Investment Committee
TIAA Investment Committee
TIAA Risk & Compliance Committee Charter

Climate risk governance milestones

2017 Climate Change Statement of Principles provides guidance across the organization

2019 TIAA Policy Statement on Responsible Investing amended to include ESG risks facing companies and TIAA's recommended actions

2021 Net Zero target setting for the TIAA General Account

Operational sustainability program

Climate Risk Task Force

We have convened the Climate Risk Task Force (CRTF) to develop an organization-wide strategy guided by TCFD recommendations and oversee the management of risks associated with climate change that may arise across the Enterprise and its investment specialists. This cross-functional team bridges TIAA and Nuveen, asset manager of TIAA, including members from TIAA's General Account, Risk Management, Responsible Investing, Corporate Social Responsibility, Corporate Facilities, and the Sustainability Action Team.

The task force's responsibilities include but are not limited to:

- Coordinate board-level communication on climate change topics. The CRTF frequently briefs TIAA's Corporate Governance and Social Responsibility Committee.
- Recommend new climate risk management processes to monitor the exposure of Nuveen investment portfolios
- Review and recommend potential climate risk controls
- Onboard cutting-edge climate data that incorporates climate scenario analysis for use in top down asset allocation and bottom up investment processes

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. The RI team also chairs the Climate Risk Taskforce (CRTF).

Sustainability Action Team

In addition to addressing climate risk in investment management, in 2020, TIAA associates formed the TIAA Sustainability Action Team (SAT). This is a group of committed colleagues from across the firm, coordinated by the Corporate Social Responsibility and Corporate Services teams, who aspire to inform, inspire, and impact carbon footprint reduction and environmental stewardship by our community and the enterprise.

Our Climate Risk Task Force bridges our enterprise to achieve organization-wide strategy across TIAA and Nuveen, asset manager of TIAA.

II. STRATEGY

Addressing climate risk at all levels

Climate change impacts our business in a variety of ways, and we are engaged in a variety of strategies across the platform to address climate risks.

Leading the charge for our climate

It is core to our values to operate sustainably — ensuring that our processes, buildings and actions reflect our desire to be a good steward of the environment.

Standing watch for our clients

It is our duty to act in line with our clients' interests, and to carefully consider the physical and transition risks associated with our investments for the TIAA General Account (the insurance investment account that supports the flagship TIAA Traditional annuity) and Nuveen clients.

Using our voice to inspire action

We act as an advocate for climate risk disclosure and management by companies, regulators, and other stakeholders.

Reducing the impact of our operations

With more than 200 offices that are occupied by associates and/or technology globally, we recognize the climate-related and environmental impacts of our operations. We will continue to measure, manage and reduce our footprint by setting and tracking of operational goals. Immediate steps to move toward our 2040 net zero operational target include:

1. Analyzing our largest buildings that comprise more than 80% of our operational carbon footprint, and identifying specific actions to reduce our footprint.
2. Updating our travel system to encourage associates to choose more carbon efficient travel options.
3. Examining our flexible work arrangements to identify ways to decrease emissions associated with commuting.
4. Working with the Sustainability Action Team (SAT) to educate associates on key topics and challenge them to adopt sustainable actions, while also coordinating with our Volunteer Council to encourage environmentally-focused volunteerism and philanthropy.

Further outlined in the **'Targets and Metrics'** section of this report on page 17.

1. General Account assets $285.7B. Total assets $338.8 billion. Total TIAA assets include, in addition to the General Account, separately managed accounts such as the Real Estate Account and TIAA Stable Value. As of 9/30/21.

Establishing climate risk beliefs

Through the TIAA General Account, with $285B in assets that support the firm's flagship TIAA Traditional annuity as well as other TIAA annuity products, we are focused on providing retirement security to our clients.[1] Our primary objective is to mitigate investment risks stemming from climate change.

To meet this goal, we developed a set of organizational beliefs that guide our decision-making around climate risk in the General Account. These include:

1. **The inevitable shift to a low carbon economy brings significant associated transition risks.** Physical risks from climate change are also relevant to many of the assets we invest in. There is a possibility that if regulators don't act or transition risks are ignored, those physical risks are likely to become more intense.
2. **Asset pricing will react to that shift, although the timing is unpredictable.** We believe this repricing is already underway — as certain sectors and industries are negatively impacted by changes in policy and consumer sentiment.
3. **Acting quickly will provide us with an opportunity to hedge against those risks in the TIAA General Account.** Because the General Account is a multi-asset class investment vehicle with significant investment in long-dated assets and illiquid alternatives, we must move quickly to stay ahead of these regulatory changes.
4. **Helping to set regulatory policies to decarbonize the economy and manage risk is critical.** Understanding the exposure of our investments to material climate risks will be essential, and regulators can support the development of disclosure regimes that add to our investment process.

Getting our operations to net zero by 2040

Identify improvements for our largest buildings

Update our travel system

Examine flexible work arrangements

Inspire associates to adopt sustainable actions

These investment beliefs have guided the decision to set the TIAA General Account target of achieving net zero emissions by 2050. We plan to achieve this target through five core strategies, which we will deploy across the investment portfolio. Each of these will be key to achieving our long term target of net zero by 2050, as well as our shorter term targets, to be announced in a future TIAA Climate Report.

1. **Encourage corporate action**
   We have long been active owners and have encouraged our portfolio companies to disclose climate risk data in alignment with TCFD. We've also encouraged companies to set their own targets for emissions reduction, which is key to our achieving the TIAA GA's net zero target.
2. **Influence emissions reduction of directly controlled assets**
   Engage with these assets, portfolio companies and other stakeholders (such as tenants) to help decarbonize their operations — particularly in private markets.
3. **Evaluate new investment activity**
   As a large holder of fixed income instruments, our portfolio has a natural roll-off over time. As we reinvest that money, we are focused on companies that are better positioned for the transition to the low carbon economy — and therefore are likely less emissions intensive.
4. **Evaluate the disposition of assets that are not well positioned to transition to the low carbon economy**
   While we do not expect for this to account for the majority of our emissions reduction — we are primarily focused on company engagements to reduce emissions in the real world — this strategy may be necessary as the rate of the low carbon transition starts to crystalize.
5. **Advocate for clear, consistent disclosure requirements for companies**
   Our ability to invest in companies well positioned for low carbon transition relies on those companies' disclosing clear and consistent climate risk data. We have engaged with the US Securities and Exchange Commission and the NY Department of Financial Services to advocate for such disclosure.

With respect to its diversified multi-asset-class investment portfolio, TIAA's climate investment discipline and climate risk management are executed at the asset-class and strategy level by specialized teams, while overall portfolio exposures to the underlying asset classes are managed in a top-down manner through the enterprise risk management framework (see more in Risk Management, page 16).

Each of these strategies will be key to achieving our long term General Account target of net zero by 2050

Standing watch for our clients

Nuveen manages climate risks and opportunities on behalf of our clients through three key areas: investment process, stewardship and investment strategies.

INVESTMENT PROCESS

Climate risk is part of our broader ESG integration efforts, but it also merits special attention as one of the most significant cross-cutting ESG issues that we face. We aim to systematically integrate climate factors into our investment process across asset classes through specialized training, climate data & analytics, internal portfolio reporting, internal ESG ratings, and more recently, launching asset class-level climate working groups.

Training: In December 2020, Nuveen investment teams participated in the firm's inaugural annual training on climate risk, spanning two days. Expert speakers covered the latest climate science and resulting physical risks, as well as the potential drivers and impacts of a low carbon transition. Nuveen clients, including the TIAA General Account, spoke about their climate risk beliefs. The Responsible Investing team delivered specific sessions in public equity, global fixed income, municipal fixed income, real estate, real assets, private infrastructure, and private debt and equity classes. Nuveen's 2021 annual climate risk training is scheduled for December.

ESG integration is the consideration of financially material ESG factors into investment research 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.

Climate data and analytics: 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	Data is housed in Nuveen's RI Data Platform for risk assessment.
Physical risk	**Real estate and agribusiness:** The Climate Service scenario analysis **Location-based asset classes:** Verisk Maplecroft climate vulnerability data **Municipal bonds:** RisQ climate risk exposure data	Physical risk signals are incorporated into due diligence and credit evaluation processes.
Transition risk	**Listed equity and corporate bonds:** Company climate targets and implied temperature rise data	Data is used for net zero implementation for the TIAA General Account and other clients.

Internal portfolio reporting:
Nuveen provides an RI Transparency Report to all public markets portfolio managers, which includes the ESG characteristics, the carbon footprint, and exposure to various business activities of the portfolio compared to its performance benchmark. We believe that this information can help portfolio managers better consider the climate risks and opportunities of their strategies as part of Nuveen's ESG integration commitment.

Internal ESG ratings:
Nuveen research analysts assign internal ESG ratings to all actively covered corporate and sovereign issuers, while municipal bonds receive proprietary ESG scores jointly designed by the RI and municipal credit teams. Internal ESG ratings encompass climate risks and opportunities of the issuer, such as the presence of climate targets, issuance of green bonds and generation of renewable energy.

Net zero working groups:
Nuveen launched net zero implementation working groups in 2021 for the three primary asset classes held within the GA: fixed income, real assets and real estate. Made up of investment, RI and risk professionals, the working groups are focused on filling climate data gaps and modeling a Net Zero pathway aligned with industry best practice.

Our engagement and proxy voting on climate-related issues has ramped up in recent years, as climate risks and opportunities have become prominent for companies across all industries.

STEWARDSHIP

For over five decades, we have engaged with companies to advocate for ESG best practices. Today, the stewardship function for TIAA and Nuveen is housed within the Nuveen RI team. Our engagement and proxy voting on climate-related issues has ramped up in recent years, as climate risks and opportunities have become prominent for companies across all industries. Highlights from these activities include our direct engagement with companies that encompasses a targeted initiative on climate risk, a strong proxy voting record, climate disclosure letter-writing campaigns, participation in Climate Action 100+, and efforts to increase issuance of high quality green bonds.

Company engagement on climate topics:
In 2020-2021, Nuveen engaged directly with 275 companies on climate topics, such as increasing climate disclosure, setting climate targets and using climate scenario analysis.

Voting on climate-related shareholder resolutions:
In 2020-2021, Nuveen supported 78% of climate-related shareholder resolutions. All resolutions are assessed on a case-by-case basis to understand materiality for the specific company, existing disclosure and accountability.

Climate risk management initiative:
Nuveen targeted 77 international companies in 2020 and an additional 70 companies in 2021 to request four specific actions listed below to improve climate disclosure and accountability. We also requested that companies align with the TCFD guidelines and disclose via the CDP platform for standardization purposes. While some recipients have yet to adopt these practices, several have adopted one or more thanks in part to our outreach.

1. Board & management oversight of climate risks
2. Disclose both physical and transition risks
3. Undertake climate scenario analysis (BAU and Paris Agreement–aligned) and disclose the results
4. Adopt a science-based climate target aligned with the Paris Agreement

Climate Action 100+:
In 2020, Nuveen joined Climate Action 100+, an investor-led initiative to ensure the world's largest corporate greenhouse gas emitters take necessary action on climate change. Through this group, we hope to further amplify our influence by joining with like-minded asset owners and asset managers.

Green bond engagement:
In addition to our stewardship focus on public companies, Nuveen also engages deeply with existing and prospective issuers of green bonds. A green bond is a fixed income instrument designed to support specific climate-related or environmental projects. Nuveen is one of the top 5 holders of green bonds globally, and our objective is to encourage new issuance and advocate for best practices in use of proceeds and impact reporting.

Our expectations for public companies

In response to emerging trends, Nuveen's Responsible Investing team continues to evolve its insights on best practices for climate risk disclosure, climate risk performance and the use of carbon offsets. In addition to the TIAA Policy Statement on Responsible Investing, these best practices provide additional guidance for both ourselves, as investors, and for the companies in which we invest.

DISCLOSURE
• Task Force on Climate-Related Financial Disclosures (TCFD) framework • CDP disclosure (for company comparison purposes)

PERFORMANCE	
Governance	• Board & Management oversight • Compensation plans that include quantitative climate metrics
Strategy	• Discussion of both physical & transition risk • Scenario analysis that includes a 1.5 degree-aligned scenario, and utilizes 3rd party (not in-house) scenarios (such as IEA, IPCC, and Inevitable Policy Response) • Discussion of the impact of scenario analysis on business planning (including both risks and opportunities)
Risk management	• Climate risk integrated into Enterprise Risk Management (ERM)
Metrics & targets	• Adopt science-based reduction targets aligned with the Paris Agreement • Commit to Net Zero by 2050 or sooner • Disclose a Pathway to achieve these goals, including short, medium & long-term goals • Disclose Scope 1 & 2 emissions • Disclose Scope 3 for high risk industries, as defined by TCFD • Disclose Green Capex / Green R&D • Disclose percentage of goals met using carbon offsets, and pursue emissions reduction first before offsets

Best practices on corporate use of carbon offsets

Measure carbon footprint
in accordance with international standards (e.g., WRI/WBCSD GHG Protocols and ISO 14064)

Purchase carbon offsets
when emissions are unavoidable or within Scope 3 (e.g., indirect emissions including those of a company's suppliers and customers)

Use credible carbon offsets
that are real, measurable, over a 40-year time commitment, would not have occurred otherwise and not counted or used elsewhere

Use third-party registries
to certify and to retire/remove carbon offsets — Verra VCS (global), Gold Standard (global), American Carbon Registry (ACR) (US)

Prioritize emission reduction opportunities

Develop long-term, industry-specific solutions
for decarbonization in order to minimize the need for carbon offsets

Transition to carbon removal offsets
over time. Carbon removal offsets scrub carbon directly from the atmosphere, ensuring compatibility with the Paris Agreement goals.

Disclose and communicate
carbon emissions associated with the organization, plans to reduce and offset emissions and percentage of emissions reduced through offsets

INVESTMENT STRATEGIES

Nuveen offers a variety of low carbon and climate solution-focused investment strategies, as well as dedicated investment specialists in sectors and asset classes that contribute to the low carbon transition. Together, these capabilities are helping clients achieve their climate objectives.

	CARBON NEGATIVE	LOW CARBON	CLIMATE OFFERINGS
Fixed income		Fixed Income ESG ETFs	Core Impact Bond Fund Short Duration Impact Bond Fund Green Bond Fund
Public equity		Public Equity ESG ETFs Social Choice Low Carbon Equity Fund Social Choice Equity Fund Social Choice International Equity Fund Low Carbon Value ESG Equity SMA Winslow Large Cap Growth ESG Fund	
Private capital capabilities			Global Private Equity Impact Commercial Property-Assessed Clean Energy Lending (C-PACE) Energy transition/green credit strategy
Real estate capabilities			Global Commercial Real Estate strategies Real Estate Account
Real asset capabilities	Reforestation & afforestation strategies		Sustainable forestry & conventional timber strategies Regenerative & sustainable agriculture strategies European Core Renewable Energy Equity Global Renewable Energy Equity US Energy Transition Equity

Using our voice to inspire action

We believe it is in our interest as prudent investors to operate within a regulatory framework that facilitates the clear flow of information from companies to investors about material climate risks. Similarly, we believe that such a framework should place a clear and fair price on carbon. Understanding the likely emission reduction pathways of the countries in which we invest, and the regulatory levers that will drive that pathway will allow us to better engage issuers on their emission reduction strategies and with clients to prepare their portfolios for the transition. Overcoming climate change's greatest challenges calls for global action, cooperation and new partnerships on an unprecedented scale, with acceleration and urgency increasingly vital. In 2021, we have provided feedback directly to regulators in a number of settings, including select engagements highlighted below:

1. Responding to the U.S. Securities and Exchange Commission's call for feedback on a climate disclosure framework.
2. Commenting on proposed climate risk regulation proposed by the UK FCA and advocating for the use of TCFD as a common reporting framework on climate risk.
3. Engaging with a number of policy makers on the importance of setting credible net zero targets, and the ways in which policy makers and investors can work together to achieve those targets.

We expect to continue to engage with regulators on an ongoing basis to push for transparency and emissions reduction at our portfolio companies.

1 Feedback to SEC on climate disclosure framework

2 Comments to UK FCA on proposed climate risk regulation

3 Advocating to policymakers on the need for credible net zero targets

Minimizing climate risk to maximize benefit

Climate consideration across operational and financial teams

TIAA recognizes the importance of effective identification, monitoring and management of climate-related risks and opportunities across its global business. TIAA's stakeholders (regulators, the board and investors) are increasingly focused on how we are managing climate risk. In addition, TIAA and Nuveen Real Estate have made Net Zero Carbon (NZC) commitments by 2050 and 2040, respectively, which we must meet and support. TIAA continues to assess the carbon intensity of the company's financial portfolios and the mechanisms to meet the NZC commitments. TIAA's second line of defense (LOD) risk management function is facilitating assessments of carbon reduction pathways and has incorporated such into financial risk management practices.

These efforts around climate risk are focused on establishing a prudential risk management framework for climate risk. As part of the second LOD-led efforts, risk management is focused on a multi-year initiative that will:

- Frame the governance of climate risk management, including policy
- Augment the risk taxonomy to capture climate risk
- Incorporate climate risk assessment into the existing risk framework
- Articulate data required for use in methodology and reporting
- Ensure repeatable reporting to lines of business, management and the board
- Develop and run scenarios

We are focused on effective identification, monitoring and management of climate-related risks.

IV. METRICS AND TARGETS

TIAA and Nuveen have 3 separate Net Zero targets

There is overlap between the three net zero targets set across the firm, each with a different baseline carbon footprint and intensity

NUVEEN REAL ESTATE

Net Zero by 2040

Representing the emissions of all direct Real Estate investments

TIAA OPERATIONS

Net Zero by 2040

Representing all of TIAA's operational carbon emissions

TIAA GENERAL ACCOUNT

Net Zero by 2050

Representing all of the General Account's financed emissions

Zeroing in on net zero goals

GA net zero target

In 2021, the TIAA General Account announced a goal of achieving net zero emissions across the $285B General Account by 2050.[1] At the time of announcement TIAA was the largest insurance company in the U.S. to set such a target and among the largest insurance companies in the world to have done so. Since then, General Account investment team leadership has worked closely with investment teams at Nuveen to implement the net zero strategy across asset classes. We are in the process of setting interim emission reduction targets, which will be released in 2022. These targets will be set on an emission intensity basis, with emission intensity defined as tons of CO2e/$mm invested. This measure allows us to compare emission intensity across the entire General Account portfolio. While the development of interim emission reduction targets is underway across the entire firm, we have chosen to prioritize setting targets in public corporate fixed income and in private direct real estate. We have chosen these asset classes at the recommendation of external net zero target setting frameworks, such as that set by the Net Zero Asset Owners Alliance and the Institutional Investor Group on Climate Change (IIGCC). We believe that the carbon data we have acquired on those assets is sufficiently accurate for us to develop an informed picture of where the securities are now in terms of carbon intensity, and the likely emission reduction pathway over the next 10 years.

In setting these interim targets, we have chosen a base year of 2019. We believe that this is the most credible date — as it is the most recent year for which we have emissions data that is not disrupted by the shifts in economic activity brought on by COVID-19. All interim targets set will use 2019 as a base year, and we will report 2020 and 2021 data in the 2022 TCFD disclosure.

1. General Account assets $285.7B. Total assets $338.8 billion. Total TIAA assets include, in addition to the General Account, separately managed accounts such as the Real Estate Account and TIAA Stable Value. As of 9/30/21.

GENERAL ACCOUNT

Net zero emissions by

2050

At the time of announcement TIAA was the largest insurance company in the U.S. to set such a target, and among the largest insurance companies in the world to have done so.

Real estate net zero target

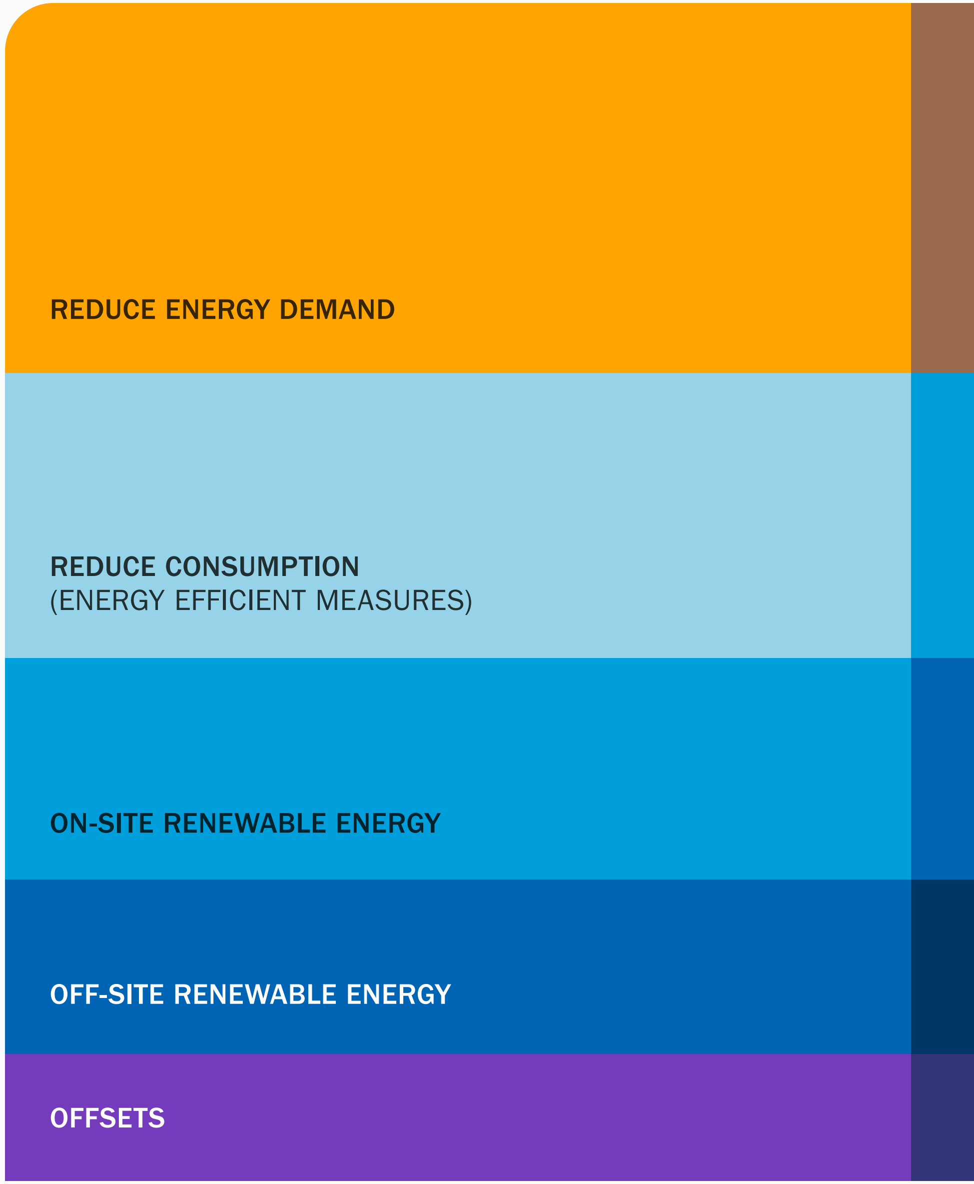
The direct nature of investment in real estate means that Nuveen has the ability to control the path to net zero carbon of these assets — this is why Nuveen Real Estate has developed a pathway to achieve net zero carbon by 2040. In the real estate industry, and among those that invest in it, there is a widespread acceptance that all buildings must be net zero carbon by 2050 if the goals of the Paris Agreement are to be achieved. At Nuveen we believe this means that buildings that are not able to achieve net zero carbon will start to lose value well before that date and the portfolio target is primarily aiming to protect value for our clients by mitigating transition risk.

Our definition of a net zero carbon building:

- Meets regionally defined energy use intensity standard
- Uses 100% renewable energy from on- and off-site sources
- Includes both landlord and tenant-procured energy use
- No on-site fossil fuel use and off-setting of residual emissions
- Embodied carbon in development or refurbishment is minimized and remaining carbon emissions are offset

A key component of Nuveen Real Estate's path to net zero is establishing an energy hierarchy. While carbon neutrality may be achievable through carbon accounting mechanisms like off-setting and renewable energy credits, achieving true net zero carbon must address the amount of energy used at the site level. The energy use standards will vary from market to market based on the supply of renewable energy for grid electricity—a greener grid will mean a more generous allowance for building energy use. By clearly defining the expectation for a net zero carbon building in a sector or region, Nuveen Real Estate investment teams will have the information needed to assess transition risk and opportunity for creating value over the long term in our real estate portfolio.

The figure to the right illustrates the components of our net zero strategy. For further details, please refer to **Nuveen Real Estate Net Zero Carbon Pathway report**.



TIAA operational carbon footprint & net zero target

TIAA optimizes our energy consumption in both our existing buildings and in office construction. First, we strive to acquire LEED certification for our buildings, as well as Energy Star labeling. In 2020, three buildings received LEED certification, with our New York headquarters achieving the LEED Gold Standard. Second, we continuously measure cost-reduction opportunities in major construction and renovation projects, track energy performance and find ways to improve as part of our Energy and Environmental Impact Performance Plan.

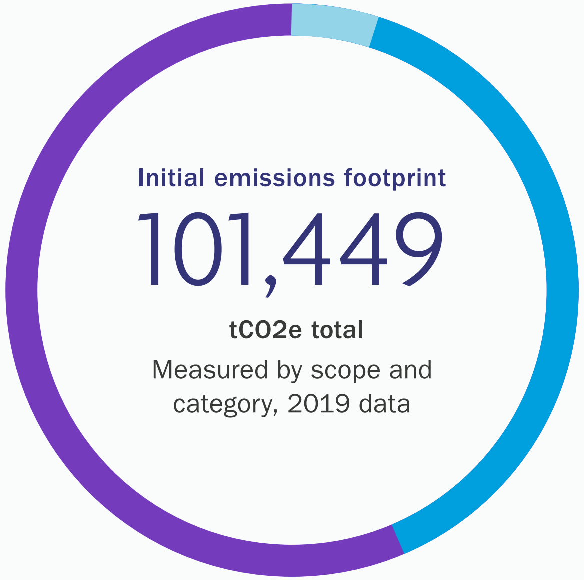
As part of our efforts to address our own climate impact, we recently assessed our 2019 baseline carbon footprint to make better decisions about our energy consumption and emissions. Conducted in partnership with our Sustainability Action Team, this project aimed to measure the energy emissions from our occupied spaces across the company.

Specifically related to operations, TIAA reports on Scope 1, Scope 2, and a portion of Scope 3 GHG emissions. Scope 3 is limited to emissions from business travel, employee commuting and waste and water-related emissions. Based on this measurement, we identified 101,450 tCO2e, calculated in accordance with the GHG Protocol.

For our own operations, we are targeting net zero greenhouse gas emissions for Scope 1 and 2 by 2040. To accomplish this, the medium-term goal is to achieve a 46% absolute reduction in gross emissions (compared to 2019) and 50% renewable energy by 2030. By 2040, we will achieve a 89% absolute reduction in gross emissions (compared to 2019) with 100% renewable electricity.

Residual emissions from heating and other Scope 1 sources, which cannot be reduced through operational changes due to supply chain or technological delays, will be neutralized through carbon sequestration. This will be achieved through the purchase of verified carbon offsets from approved voluntary carbon offset registries. This reduction is compatible with a 1.5-degree trajectory and will put us 10 years ahead of the 2040 deadline.

We will also continue to evaluate the best manner in which to determine our total GHG emissions, and we plan to report on measures that provide more nuanced insight into our alignment with a 1.5-degree trajectory as such measures become more fully developed.



SCOPE

1
Stationary combustion
Generators
Refrigerant leakage
4,832 tC02e

2
Purchased electricity
Purchased steam
40,251 tC02e

3
Business travel
Employee commuting
Waste generated in operations
Water consumption and treatment
56,366 tC02e

Where we are headed

While we have made significant progress addressing climate risk in our business operations and investments, much remains to be done. We know that global commitments to reduce emissions currently fall short of what is needed to limit dangerous changes to the climate, which impacts our participants and their communities. Yet, investors like TIAA are also starting to act in order to prudently manage risk and seek opportunity amid the forthcoming low carbon transition.

In 2022 and beyond, we intend to communicate more about the TIAA General Account's investment carbon footprint, interim net zero targets, and progress against those targets. We also plan to engage more deeply with companies that are critical to helping the General Account stay on track for net zero, while continuing to lower the carbon footprint of our corporate operations and real estate investments. We anticipate that our enterprise climate risk management program will continue to mature across TIAA and Nuveen, alongside a growing focus on this topic by financial sector regulators. Above all, we know that our climate risk journey will continue to evolve, and we plan to share our progress transparently along the way.

This material is for informational or educational purposes only and does not constitute fiduciary investment advice under ERISA, a securities recommendation under all securities laws, or an insurance product recommendation under state insurance laws or regulations. This material does not take into account any specific objectives or circumstances of any particular investor, or suggest any specific course of action. Investment decisions should be made based on the investor's own objectives and circumstances.

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.

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 to www.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.

TIAA-CREF Individual & Institutional Services, LLC, Member FINRA, distributes securities products. Annuity contracts and certificates are issued by Teachers Insurance and Annuity Association of America (TIAA) and College Retirement Equities Fund (CREF), New York, NY. Each is solely responsible for its own financial condition and contractual obligations.

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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