

nuveen

A TIAA Company



Investing in *Commercial Property Assessed Clean Energy (C-PACE)*

OPINION PIECE. PLEASE SEE IMPORTANT DISCLOSURES IN THE ENDNOTES.
NOT FDIC INSURED | NO BANK GUARANTEE | MAY LOSE VALUE

What is C-PACE?

C-PACE (Commercial Property Assessed Clean Energy) is a U.S. state policy-enabled financing mechanism which allows financing to be secured by a senior assessment, giving institutional investors access to invest in clean energy and impact opportunities, and delivers value for stakeholders across the lifespan of the loan. C-PACE also allows commercial property owners to obtain low-cost, long-term and fixed-rate financing for energy efficiency, water conservation and renewable energy commercial real estate projects. Most commercial property types qualify for C-PACE financing.

The clean energy upgrades and energy efficient measures financed by C-PACE are classified as a public benefit by the underlying U.S. state. Measures include projects such as LED lighting installation, improved insulation and solar panel installation among others.

Upgrades can be financed with no money down and then repaid over a term that matches the useful life of the building infrastructure, which is typically around 20 to 30 years. The assessment can transfer on the sale of the property and may be passed through to tenants.

In addition to facilitating sustainability efforts, the program reduces property owners' annual costs and provides better-than-market financing for new green construction.

Compared to other asset classes with comparable risk/return profiles, C-PACE offers a unique combination of longer durations, investment grade fixed-rate returns, definable positive impact and diversification which has the potential to benefit institutional investors. These areas are explored further in this piece.

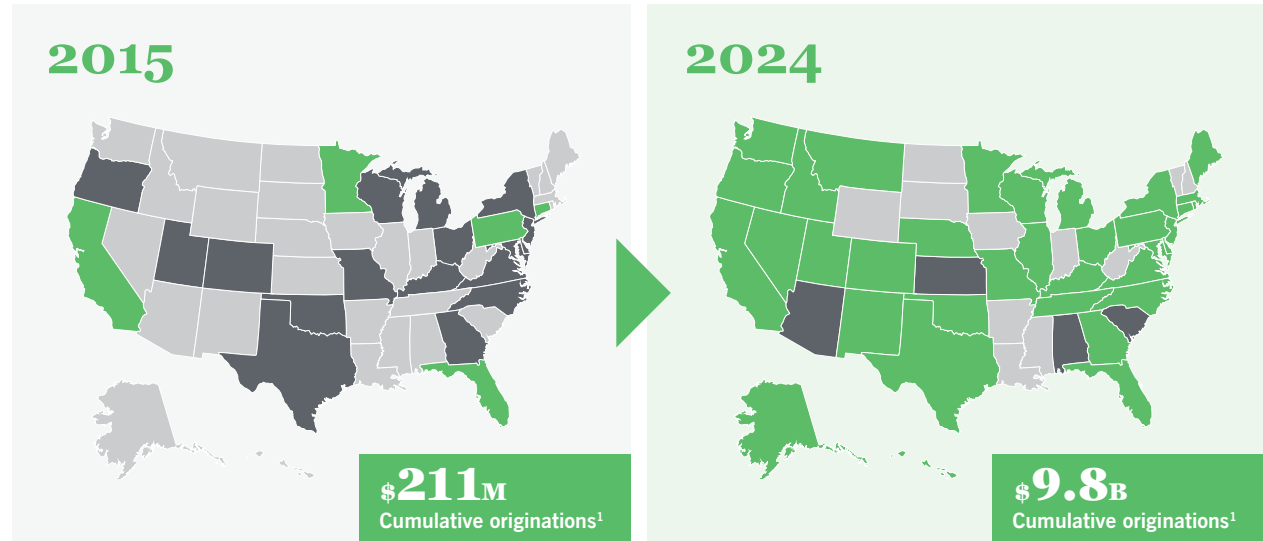
C-PACE market growth

Policy expansion and adoption of C-PACE is driving growth of the addressable market

Originations and available markets over time

■ Established markets

■ Markets in development



PROJECTS C-PACE CAN FINANCE

C-PACE brings private funding to facilitate the decarbonization of commercial real estate which has the potential to benefit property owners in a variety of ways.



New construction & gut rehabs



Renovations & repositioning



Solar & renewables



Bridge & recapitalization



WHY IS IT SO IMPORTANT TO DECARBONIZE THE BUILT ENVIRONMENT?

The built environment is responsible for over

42%

OF ANNUAL GLOBAL CO₂ EMISSIONS²

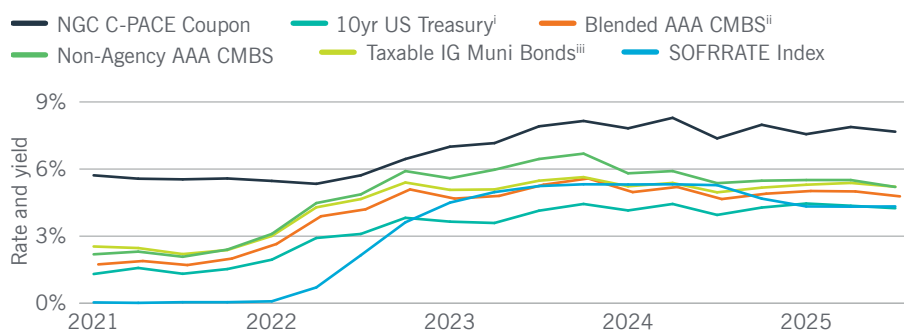
What NGC's C-PACE platform offers institutional investors

1

ATTRACTIVE YIELDS

In recent years, C-PACE has seen higher yields compared with benchmarks and other alternatives with similar capital-adjusted risk/return characteristics. Based on duration, collateral and structure, the two main investment comparisons to C-PACE are CMBS AAA notes and taxable municipal bonds. Figure 1 illustrates this relationship dating back to Q1 2021.

Figure 1: C-PACE coupon compared to alternative investments and benchmark yields



Past performance does not predict or guarantee future results.

Source: Nuveen, as of Sep 2025

ⁱ Bloomberg US 10 Year Treasury

ⁱⁱ Bloomberg 7-10 Year AAA CMBS Index

ⁱⁱⁱ Bloomberg Taxable Municipal Bond Index

2

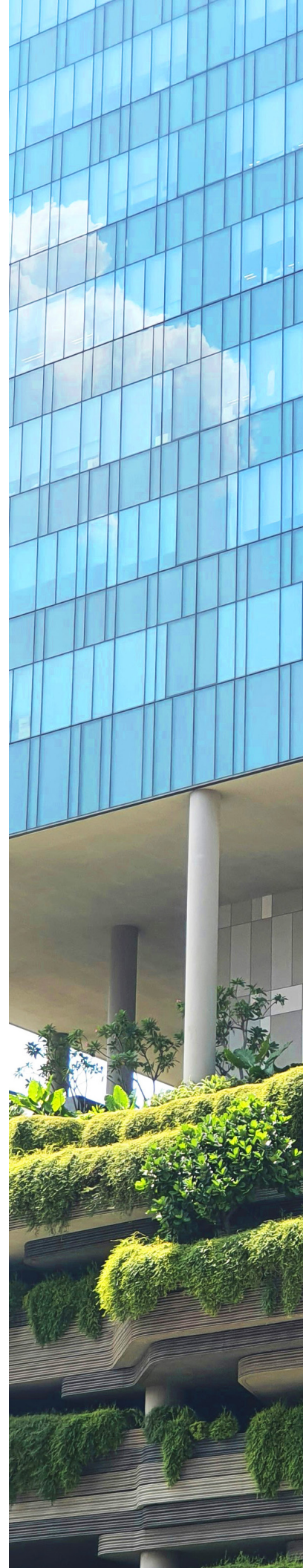
RELATIVE VALUE

C-PACE loans do not extinguish on bankruptcy or foreclosure and the underlying security is positioned ahead of mortgages in the capital stack and other encumbrances in arrears. This lowers risk and makes it possible for C-PACE to achieve investment-grade ratings.

3

DURATION

The weighted average life of a C-PACE asset is eight to 12 years (historically, for pooled securitizations) which is substantially shorter than the stated 20 to 30 year legal maturity at origination. Weighted average life calculations consider how long it would take to pay down the outstanding principal adjusted by an assumed prepayment speed as a proxy for risk assessment.



4

DIVERSIFICATION

NGC expects portfolio geographic diversification to increase and to maintain property type diversification.

Property type diversification is largely spread across standard asset classes with more than half of the portfolio's concentration in hospitality and multifamily assets, offices, industrial, senior living, retail and "other" assets.

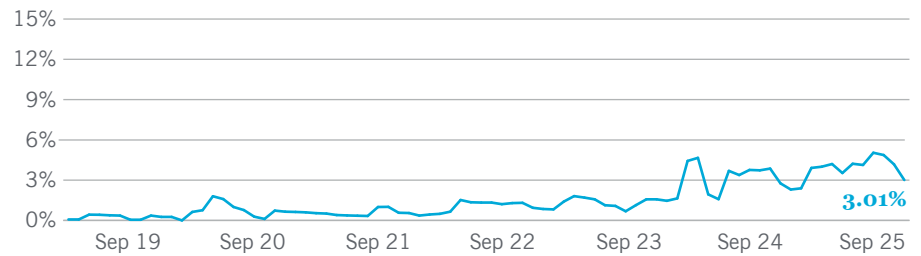
Geographic diversification will be driven by new policy expansion, and the penetration and growth of NGC's integrated originations team.

5

LOW HISTORIC DEFAULTS

C-PACE as an asset class has had low losses and, to date, NGC have never taken a loss on its portfolio, which has a historic delinquency rate of 3.01%.

Figure 2: Historical delinquencies > 60 days



Source: Nuveen, as of 30 Sep 2025.

6

VERTICALLY INTEGRATED PLATFORM

NGC is fully vertically integrated, with in-house originations, credit, legal and asset management teams promoting top-to-bottom alignment of interest. This structure generates a predictable, scaled flow of C-PACE originations. Regionally based origination teams source transactions locally, generating persistent geographic diversification. A dedicated policy team also works to enact C-PACE legislation in new markets. All loans are approved by C-PACE administrators who conduct an engineering review of all funded measures. NGC also partners with a range of third-party engineering consultants to provide an additional review in collaboration with the in-house sustainability team of technical experts.

Why is demand for C-PACE growing?

An increasing number of institutional investors are prioritizing sustainability. In Nuveen's 2025 EQuilibrium survey of global institutional investors, 84% and 82% of insurers, respectively, said they consider or plan to consider environmental impact and climate risk in their investment decisions. A significant number of investors are also actively pursuing investments in clean energy and carbon reduction strategies, even among those without formal net zero goals.

With C-PACE, investors are able to recognize the externalities associated with where their money is going. Given similar investments with identical risk/return profiles, institutional investors would choose the one that has the potential to deliver a positive outcome, especially as the projects that C-PACE finances are recognized as a public benefit by the underlying U.S. state. As C-PACE deals are typically investment-grade and long-duration, these also tend to fit institutional investors' core criteria.

In terms of specific environmental impact, C-PACE has funded building improvements that have led to reduced energy and water consumption, along with a lower level of greenhouse gas emissions.

WHY NUVEEN GREEN CAPITAL (NGC)?

- A subsidiary of Nuveen specializing in C-PACE, that was the first to securitize the asset class and help architect the C-PACE policy framework
- Over \$4.1 billion in capital raised across securitizations, private funds and separately managed accounts³
- Investments conform to ICMA Green and Sustainable Bond Principles
- NGC is the dominant C-PACE player, responsible for ~50% of market originations in 2024⁴



Overview of the C-PACE sustainability framework



NGC's sustainability framework seeks to enable the **transition to a low carbon economy** by facilitating the implementation of **renewable energy systems, energy-efficient technologies, water conservation and climate resiliency improvements** contributing amongst other sustainable measures to the reduction of carbon emissions in the built environment



The sustainability framework leverages the **resource efficiency indicators** defined under C-PACE programs to meet this objective, providing funding for projects that meet one of the following indicators:

- **Energy efficiency**
- **Renewable energy generation**
- **Water conservation**
- **Climate resiliency**



NGC provides reporting along a diverse set of metrics to measure the impact of C-PACE funding, including:

- **Electricity saved**
- **Renewable energy capacity added**
- **Water saved**
- **Construction of affordable housing units**
- **Historic building rehabilitation**
- **Green building certifications**
- **Lifetime total carbon emissions avoided (MTCO₂e)**
- **Total sq ft of space earthquake hardened**



C-PACE aligns and contributes to the following UN Sustainable Development Goals:

- **SDG 6: Clean water and sanitation**
- **SDG 7: Affordable and clean energy**
- **SDG 11: Sustainable cities and communities**



Case studies



Bishop's Lodge Auberge Resort Santa Fe, NM

Lifetime savings (kWh): 13,266,576

Lifetime savings (metric tons CO₂): 7,392

Lifetime water savings (gallons): 122,254,512

- Bishop's Lodge is a luxury Auberge Resorts Collection hotel in northern Santa Fe, located in the foothills of the Sangre de Cristo Mountains
- The 98-key luxury hotel features 6,000 sq ft of indoor meeting and banquet space, multiple restaurants and bars, an art gallery, a full-service spa, pool and outdoor activities such as hiking and horseback riding
- \$76.2 million in C-PACE financing was used to recapitalize energy and water efficiency improvements that were part of the hotel's \$127.2 million renovation and will also be used toward several ongoing improvements, including a wastewater treatment facility
- The strategic use of C-PACE enabled the asset to transition to more favorable financing terms



VivaVerse Solutions Data Center Houston, TX

Lifetime energy savings (\$): 1,969,613

Lifetime savings (kWh): 16,809,614

Lifetime savings (metric tons CO₂): 10,098

Lifetime water savings (gallons): 9,588

- This 774,000 sq ft office/industrial building will be converted to a state-of-the-art data center as part of the broader ViVa Center technology hub
- NGC provided \$40 million (24% LTV) in C-PACE capital to finance the conversion of the former office headquarters to a data center
- The fully pre-leased project will offer 12 MW of power when completed and will cater to hyperscale users (companies that use large data centers of 10,000 sq ft+) in the cloud computing and artificial intelligence sectors
- C-PACE proceeds will be used to install sustainable building components, such as energy-efficient windows, LED lighting, advanced HVAC systems and high-efficiency plumbing



2008 N Broad St Philadelphia, PA

Lifetime energy savings (\$): 986,759

Lifetime savings (kWh): 5,591,302

Lifetime savings (metric tons CO₂): 4,361

Lifetime water savings (gallons): 4,129,035

Total housing units created: 40

- C-PACE financed measures include a high performance building envelope, interior and exterior LED lighting, a high efficiency all-electric HVAC system including VRF (variable refrigerant flow) heat pumps, a high efficiency all electric domestic hot water boiler and low flow plumbing fixtures. The property is also designed to an Energy Star score of 95, placing it in the top 5% of energy efficient dormitories nationally.
- The six-story, 34,801 sq ft all-electric student housing building adjacent to Temple University is projected to realize \$986.8K in lifetime energy savings, 5.6 million kilowatt hours (kWh) of energy, as well as 4.1 million gallons of water over the lifespan of the funded measures
- In addition, the C-PACE funded measures will enable the building to avoid an estimated 4,361 metric tons of carbon emissions, while also providing 40 new housing units for students



Pendry Hotel & Residences Tampa, FL

Lifetime savings (metric tons CO₂): 55,701

Equivalent annual energy use (number of American homes): 7,500

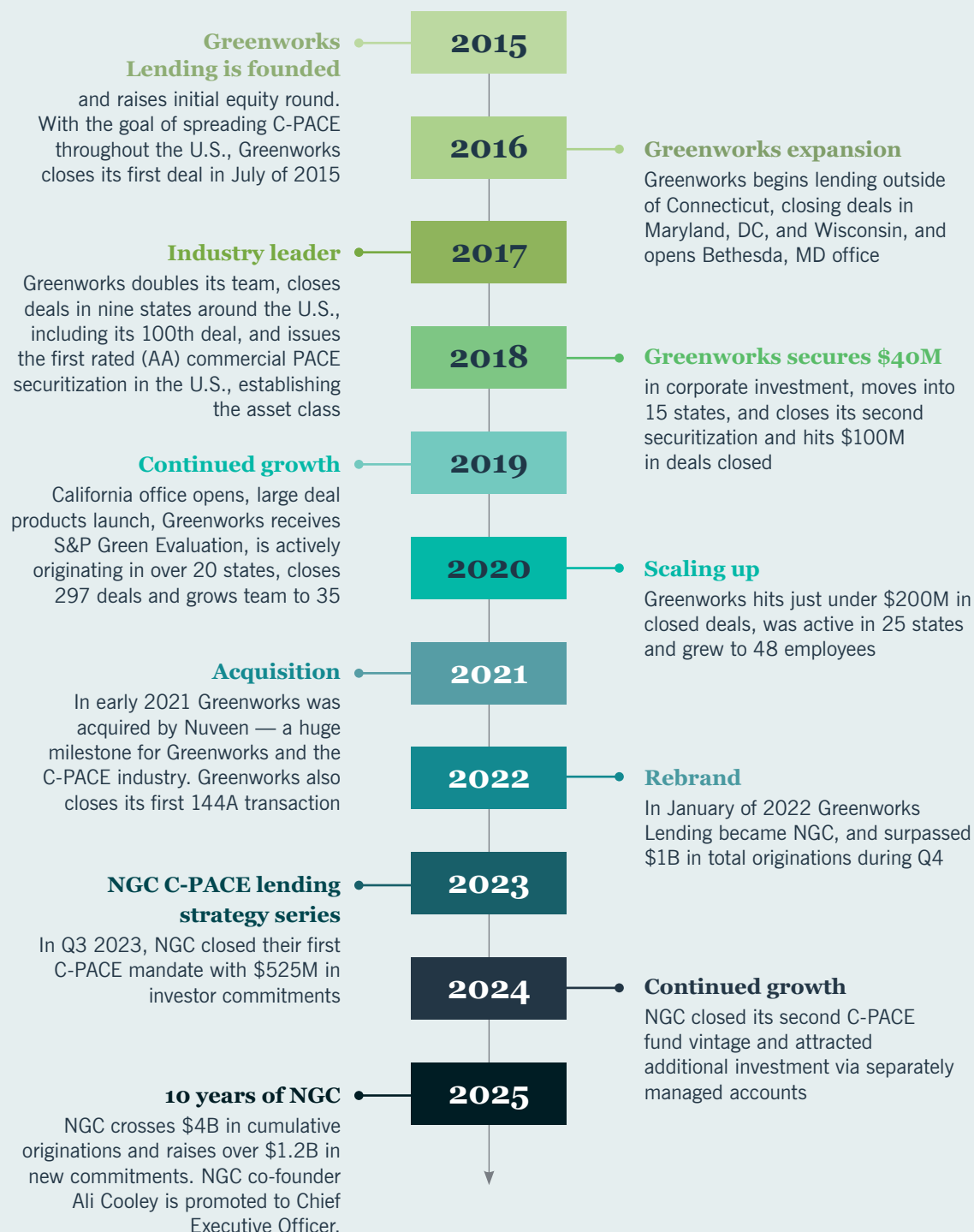
Annual energy and water savings (\$): 524,572

- Pendry Hotel & Residences is a 38-story, mixed-use luxury condominium and hotel tower, which will include 200 residential units above the 220-key Pendry Hotel. The development offers panoramic skyline views and amenities including rooftop pools, spa, fitness center, and 15,000 sq ft of event space.
- NGC provided \$290M in C-PACE capital to the Sponsor, who was able to leverage its flexible repayment structure and ability to finance the project in multiple tranches, resulting in lower total project costs. The capital will fund measures for energy and water efficiency and resiliency, including the building envelope, lighting and HVAC. The project marks the first in Florida where flood panels, a resiliency measure to protect against damaging erosion from high water levels, were eligible to be financed through C-PACE.

ABOUT NUVEEN GREEN CAPITAL

Since its founding in 2015, NGC has become one of the industry's leading providers in the rapidly growing C-PACE market.

NGC offers expertise to borrowers and investors. The firm boasts a national footprint and underwriting model which results in a diversified portfolio with a predominate focus on quality hospitality, multifamily and office sectors, providing investment mainly for new development, renovation and recapitalization projects.



AWARDS & RECOGNITION

2020

- NGC named one of the Top 100 Impact Companies by 2020 Real Leader Impact Awards

2022

- Jessica Bailey and Ali Cooley named on Commercial Observer's list of the 50 Most Important People in Commercial Real Estate
- Ali Cooley received CREFC's 20 Under 40 award, spotlighting the future leaders of the CRE finance industry
- NGC's 2022 securitization won Esoteric Deal of the Year in GlobalCapital's US Securitization Awards
- NGC named 2022 ESG Lender of the Year by Real Estate Capital USA

2023

- An NGC project awarded Redevelopment of the Year in CoStar's Impact Awards
- Better Buildings recognizes NGC as a 2024 Goal Achiever
- GlobeSt names Jessica Bailey and Ali Cooley CRE's Best Bosses for 2023 and recognizes Jessica Bailey with a Woman of Influence Award
- 2023 Insurance Asset Risk Awards North America—Climate investment initiative of the year
- NGC wins ESG Issuer of the Year in GlobalCapital's US Securitization Awards

2024

- 2024 Insurance Asset Risk Awards UK & Europe—Climate mitigation investment initiative of the year
- GlobeSt. named NGC as a 2024 Rainmaker in CRE Debt, Equity & Finance
- REC USA—C-PACE Lender of the Year and Fundraise of the Year (sub \$1bn)
- GlobalCapital US Securitization Awards—ESG Issuer of the Year
- Ali Cooley won Crain's New York Business' "Notable Leaders in Finance" award
- Jessica Bailey was named a Crain's New York "Notable Leader in Sustainability"
- Jessica Bailey and Ali Cooley listed on the Commercial Observer 2024 Power 50 in Finance
- Ali Cooley named as one of Kayo's 24 Leading Women in Real Estate Private Equity
- GlobeSt. listed Ali Cooley in the Women of Influence 2024 (Finance Executive Category)
- Ali Cooley named in the Pensions and Investments Influential Women in Institutional Investing list

2025

- NGC named C-PACE Lender of the Year by PERE Credit
- NGC wins 2025 U.S. Department of Energy Financial Innovation Award by Better Buildings
- GlobalCapital US Securitization Awards—ESG Issuer of the Year
- Ali Cooley listed on the Commercial Observer 2025 Power 50 in Finance
- Ali Cooley wins Connect CRE Women in Real Estate Award

For more information, please visit nuveen.com.

Endnotes

1 Source: Cumulative PACE originations as reported by C-PACE Alliance as of 31 Dec 2024.

2 Source: <https://www.architecture2030.org/why-the-built-environment/>

3 Source: Nuveen Green Capital, as of 30 Sep 2025.

4 Source: Based on historic NGC originations as a percentage of annual PACE originations as reported by C-PACE Alliance, as of 31 Dec 2024.

This material is not intended to be a recommendation or investment advice, does not constitute a solicitation to buy, sell or hold a security or an investment strategy, and is not provided in a fiduciary capacity. The information provided does not take into account the specific objectives or circumstances of any particular investor, or suggest any specific course of action. Investment decisions should be made based on an investor's objectives and circumstances and in consultation with his or her financial professionals.

The selected investment examples, case studies and/or transaction summaries presented or referred to herein may not be representative of all transactions of a given type or of investments generally and are intended to be illustrative of the types of investments that have been made or may be made by the investment strategies and does not constitute investment advice or recommendation of past investments.

The views and opinions expressed are for informational and educational purposes only as of the date of production/writing and may change without notice at any time based on numerous factors, such as market or other conditions, legal and regulatory developments, additional risks and uncertainties and may not come to pass. This material may contain "forward-looking" information that is not purely historical in nature. Such information may include, among other things, projections, forecasts, estimates of market returns, and proposed or expected portfolio composition. Any changes to assumptions that may have been made in preparing this material could have a material impact on the information presented herein by way of example. **Past performance is no guarantee of future results.** Investing involves risk; principal loss is possible. **The data and claims included in the report have not been verified by an independent third party.**

C-PACE assets are subject to various risks, including but not limited to: risks of insufficient cash flow of the subject property due to impaired operations or value; risks of a decline in the real estate market or financial conditions of a major tenant; risks of delinquencies and defaults; failure of the subject properties to complete agreed upon construction, repairs or improvements or achieve projected energy savings; limited operating history of certain subject properties; risk of assessments underlying certain C-PACE assets failing to comply with applicable state or local laws; risks of disputes with subject property owners and mortgage lenders; environmental contamination risks affecting the subject property; lack of industry-wide prepayment information available for commercial C-PACE assessments; and changes in laws and policies impacting C-PACE programmes.

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. ESG integration is the consideration of financially material ESG factors within the investment decision making process.

Financial materiality and applicability of ESG factors varies by asset class and investment strategy. ESG factors may be 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. Select investment strategies do not integrate such ESG factors in the investment decision making process.

All information has been obtained from sources believed to be reliable, but its accuracy is not guaranteed. There is no representation or warranty as to the current accuracy, reliability or completeness of, nor liability for, decisions based on such information and it should not be relied on as such. For term definitions and index descriptions, please access the glossary on nuveen.com. Please note, it is not possible to invest directly in an index.

Nuveen, LLC provides investment solutions through its investment specialists.

Nuveen Green Capital is an indirect subsidiary of Nuveen LLC and Teachers Insurance and Annuity Association of America (TIAA) and a member of the TIAA group of companies.

NOT FDIC INSURED | NO BANK GUARANTEE | MAY LOSE VALUE

OPINION PIECE. PLEASE SEE IMPORTANT DISCLOSURES IN THE ENDNOTES.

nuveen

A TIAA Company