HANNON ARMSTRONG

INVESTING IN CLIMATE SOLUTIONS®

HANNON ARMSTRONG | 2020 ANNUAL REPORT

HANNON ARMSTRONG

COMPANY OVERVIEW

Hannon Armstrong is the first U.S. public company solely dedicated to investments in climate solutions, providing capital to leading companies in energy efficiency, renewable energy, and other sustainable infrastructure markets.

Our Vision

Every investment improves our climate future.

Our Purpose

Make climate positive investments with superior risk-adjusted returns.

CONTENTS

Investment in Tinkers Creek Stream Stabilization & Restoration Project located in Prince George's County, Maryland.

LETTER FROM THE CEO

Dear Stakeholders:

2020 was an exceptional year of growth and impact at Hannon Armstrong. Notwithstanding the pandemic, we posted record Distributable Earnings, transaction volumes, and carbon mitigation impact. At the same time, we grew as an organization, in part, by recognizing how the needs of the community intersect with investing in climate solutions.

2020 was also a year of tragedy, as the pandemic took its unspeakable toll on the health and livelihoods of millions while several incidents highlighted the urgent need for social justice. However, it was also the year when climate change went mainstream.

In last year's letter, which was published before the outbreak of COVID-19, I focused on questions owners of capital must ask themselves if we are to seriously address the climate crisis – particularly, how efficiently capital is being deployed to reduce carbon. I believe those questions, paired with my 2018 letter advocating for a carbon fee and dividend plan, form a powerful combination of ideas to accelerate the adoption of climate solutions.

For the last fifty years, many companies have closely adhered to the Friedman Doctrine, named after the Nobel Prize-winning economist, who argued that a company's sole purpose is to generate profits for shareholders. But for today's workforce and an increasing number of investors, this doctrine is not only unambitious and unattractive, it is wholly inadequate. With a mission of investing exclusively in climate solutions since we became a public company, Hannon Armstrong embodies a broader ethos – one that recognizes our role as a responsible corporate citizen while continuing to produce outstanding financial results. Undoubtedly, 2020 also broadened our ambition to find ways to incorporate social justice into our business.

As a pioneer in climate solutions investing, we are proud of the Environmental, Social and Governance ("ESG") reputation we have built. Yet 2020 has shown we can and must do more to expand our leadership role in both our local community and nationwide. As part of our response to the pandemic, we focused on the health and well-being of our team and also made significant corporate donations to local organizations addressing critical issues of homelessness, hunger and domestic violence. As the year progressed, team discussions focused on how we can do more. As a result of these efforts, we created the Hannon Armstrong Foundation to identify the intersection of climate change and social justice and determine how best to engage with our community. This flowed from an organic expression of shared values that fits naturally within our culture of fierce curiosity and rigor about outcomes in climate investing. We have declared an initial "Social Dividend" to the Foundation of $1 million. I look forward to reporting on the Foundation's activities in next year's letter.

The social aspect of ESG has also come front and center in our recruitment, hiring and training efforts. While change takes time, we have used 2020 to develop a human capital management strategy designed to improve data collection, establish reporting metrics, and enhance transparency related to the material aspects of our human capital activities. As a result of these efforts, we expect to benefit from material and ongoing changes in the diversity of our staff. You will also notice enhanced disclosures on human capital in our 2020 Form 10-K. Over time, our goal is to continually provide you the data to hold us accountable for progress on this front.

With the Biden administration, we have continued our political engagement to build support for the enactment of economy-wide carbon pricing, ideally in the form of a fee and dividend. We believe the dividend should be structured to eliminate the cost impacts on lower-income families and to advance environmental justice. This

market-based solution has the potential both to accelerate climate solutions at the pace required and improve economic and social equity so that disadvantaged communities are not left behind in the transition to a cleaner, healthier, and fairer economy.

2020 Review and Outlook for 2021

My father told me there are only three ways to make money: sell more, raise your price or lower your costs. In 2020, we did all three. We closed on a record $1.9 billion in transactions, up from $1.3 billion in 2019, preserved our asset yield despite falling market rates, and significantly reduced our cost of capital. That timeless formula produced record earnings of $1.55 per share which exceeded our previous three-year guidance.

- Much of the increase in transactions was accounted for by two large programmatic partnerships. These large portfolio transactions were preceded by much smaller transactions with these clients, which demonstrated to these firms how our focus on solving client problems was accretive to their businesses. We also continued to enjoy success in the smaller niches in our three core markets: Behind-the-Meter, Grid-Connected, and Sustainable Infrastructure.
- At year-end 2020, our unlevered portfolio yield held steady at 7.6%, despite the 10-year U.S. Treasury falling to almost 0.90%. With a long-duration portfolio substantially comprised of non-prepayable, strong credit profile investments, we have locked in stable and recurring income for more than a decade.
- We significantly lowered both our cost of debt and equity capital. The coupon rate on our corporate green bonds has dropped from 5.25% in 2019 to 3.75% in 2020. Similarly, our share price and forward-looking dividend yield indicate a cost of equity that has never been lower. As a result, we have been able to improve our Distributable ROE to 10.7%, marking the fifth straight year it has exceeded 10%.

We are well-positioned for 2021. We believe we will realize the full year benefit of funding the balance of our 2020 transactions plus additional investments that are funded in 2021. The impact is expected to be reflected in higher Net Investment Income and ultimately higher Distributable Earnings. As such, we have issued new guidance for the 2021 to 2023 period of 7% to 10% compound annual growth in Distributable Earnings, higher than the 7% compound annual growth we achieved in the prior three-year period. This signals the accelerated growth we expect in this robust climate solutions market as our client base of the world's leading energy and infrastructure companies continue their expansion. In fact, our clients' ambition is the principal driver for the growth in our 12-month pipeline to more than $3 billion of investment opportunities.

Conclusion

Our investment thesis is simple: in a world increasingly defined by climate change, we will earn superior risk-adjusted returns making only climate positive investments. We have significantly outperformed virtually all broader market and peer group indices in the last year, the last five years, and indeed since our public debut in 2013. Last year, we achieved not only record financial results, but also the highest carbon reductions since our IPO. Our 2020 investments will reduce five times more carbon than our investments in 2019, and with a CarbonCount® of 1.03, 2020 has turned out to be the most efficient use of capital to reduce carbon in our history as a public company.

While I thank you for investing in Hannon Armstrong, we all should thank the professionals at Hannon Armstrong, including our Board of Directors, who executed in 2020 under the most difficult circumstances and yet had enough passion to help this company grow in its awareness of how it can contribute to social justice in addition to positively affecting climate change. I am inspired and honored to work alongside this team every day, but never more than in 2020.

Respectfully,

Jeffrey W. Eckel
Chairman & CEO
March 2021

RECENT HIGHLIGHTS

Key Performance Indicators

Key Performance Indicators		FY20	FY19
EPS	GAAP	$1.10	$1.24
	Distributable[1]	$1.55	$1.40
NII	GAAP	$29m	$38m
	Distributable[1]	$88m	$82m
Portfolio Yield[1]		7.6%	7.6%
Balance Sheet Portfolio		$2.9b	$2.1b
Managed Assets[1]		$7.2b	$6.2b
Debt to Equity Ratio		1.8x	1.5x
Distributable ROE[2]		10.7%	10.5%
Transactions Closed		$1.9b	$1.3b

carboncount®[3]

FY20	FY19
1.03	0.30

Incremental Annual Reduction in Carbon Emissions

~2.0m MT	~385k MT

watercount℠[4]

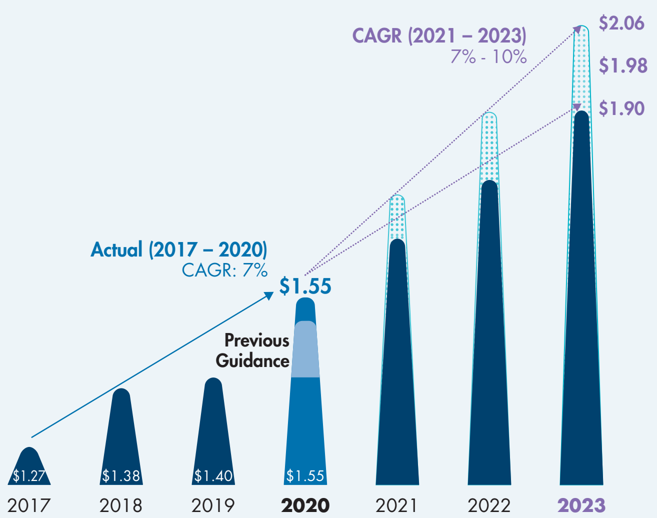
FY20	FY19
303	293

Incremental Annual Water Savings

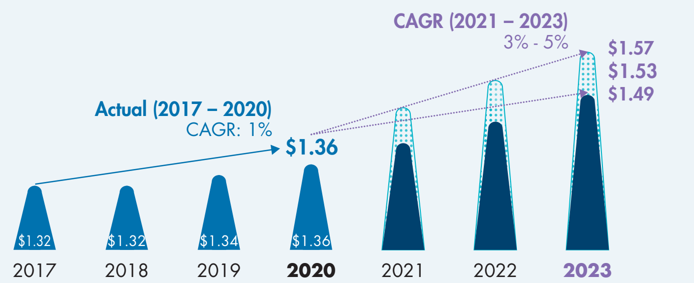
~576 MG	~381 MG

New Guidance[1]

Distributable Earnings per Share



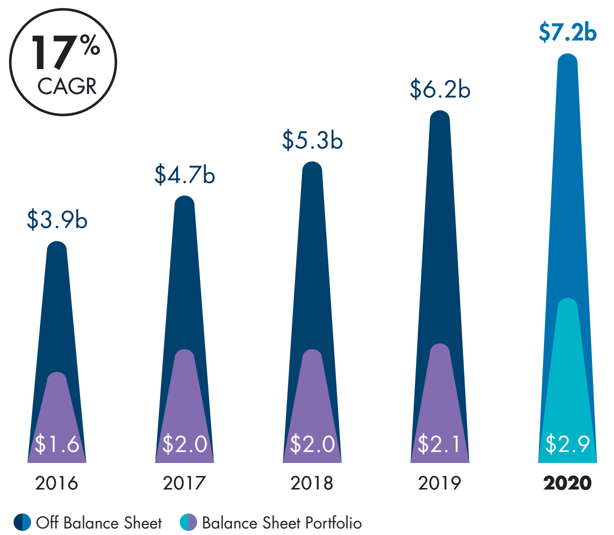
Dividends per Share



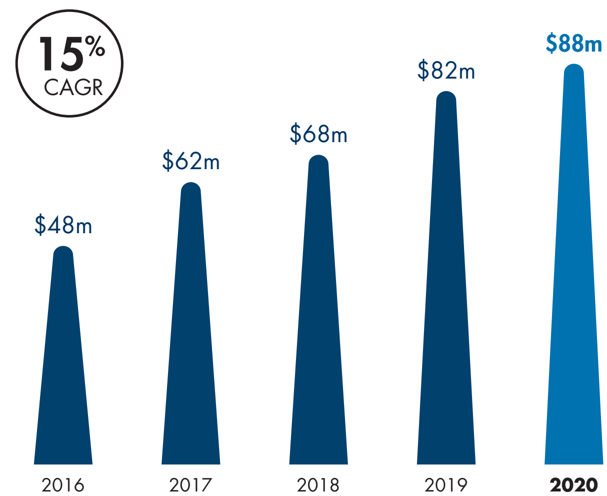
1) See the Non-GAAP Financial Measures section of our 2020 Form 10-K for an explanation of Distributable Earnings, Distributable Net Investment Income, Portfolio Yield, and Managed Assets, including reconciliations to the relevant GAAP measures, where applicable.
2) Distributable ROE is calculated using distributable earnings for the period and the average of the ending quarterly equity balances in 2020 and 2019.
3) CarbonCount® is a scoring tool that evaluates investments in U.S.-based energy efficiency and renewable energy projects to estimate the expected CO_2 emission reduction per $1,000 of investment.
4) WaterCount™ is a scoring tool that evaluates investments in U.S.-based projects to estimate the expected water consumption reduction per $1,000 of investment.

GROWTH HIGHLIGHTS

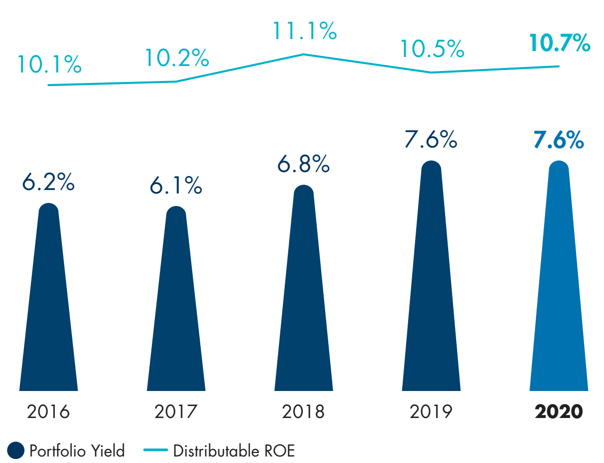
Managed Assets[1]



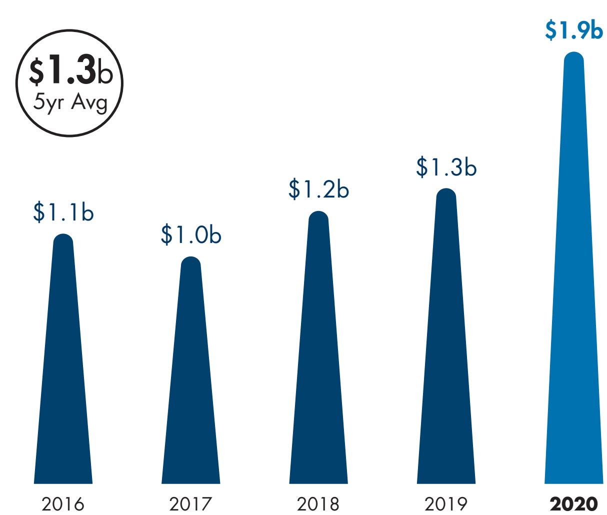
Distributable NII[1]



Portfolio Yield[1] and Distributable ROE[2]



Transaction Volumes



1) See the Non-GAAP Financial Measures section of our 2020 Form 10-K for an explanation of Distributable Net Investment Income, Portfolio Yield, and Managed Assets, including reconciliations to the relevant GAAP measures, where applicable.
2) Distributable ROE is calculated using distributable earnings for the period and the average of the ending quarterly equity balances in 2020 and 2019.

INVESTMENT SPOTLIGHTS

BEHIND-THE-METER

$115m

CARBONCOUNT®: TBD

Preferred equity investment in a Public-Private Partnership (P3) with the University of Iowa to operate, maintain, and upgrade university energy and water utilities in support of low-carbon campus sustainability objectives. Backed by 50 years of contracted cashflows with an investment grade counterparty, the investment represents a further expansion into the sizeable higher education P3 market. As upgrades are implemented, we anticipate the CarbonCount® of this investment to be meaningfully positive.

GRID-CONNECTED

$663m

CARBONCOUNT®: 1.06

Preferred equity investment with Clearway Energy in a 2.0 GW portfolio of contracted, grid-connected wind, solar, and solar-plus storage projects, located across four states, with predominantly investment grade counterparties and a weighted average contract life of 14 years. Our first grid-connected solar-plus-storage investment brings continued programmatic deal flow with a large, ambitious partner focused on the U.S. market.

BEHIND-THE-METER

$93m

CARBONCOUNT®: 0.27

Preferred equity investment with ENGIE in a 78 MW distributed generation portfolio of contracted, community and commercial & industrial (C&I) solar projects, including those with co-located storage, located across multiple states and with a weighted average 24-year fixed price contract life. The unique investment structure leverages tax equity financing to bring efficiency to a forward flow of projects.

AWARDS & RECOGNITION

Recently, we have been honored and recognized by independent organizations around the world for our leadership on sustainable investing and ESG, including the below:

AWARDS

Institutional Investor

All-America Executive Team "Most Honored" small-cap companies list; #1 rankings in Best CEO, CFO, IR Team, and Financially Material ESG Disclosure: Hannon Armstrong

Capital Finance International

Best ESG Sustainable Investment Strategy – USA: Hannon Armstrong

Financial Times

The Americas' Fastest Growing Companies 2020

Real Leaders Top Impact Companies

#21 on the Real Leaders® Top 150 Impact Companies List

Environment + Energy Leader

Top Project of the Year Award: Ameresco and Hannon Armstrong

RANKINGS

SUSTAINALYTICS

Low Risk

Top 6th Percentile in Global Universe

MSCI

ESG CORPORATE RATING

A

Top 10th Percentile in Industry

ISS ESG B

Top 10th Percentile

STATE STREET GLOBAL ADVISORS

R-Factor™

Outperformer

Top 10th-30th Percentile

PARTNERS IN PURPOSE

Global Frameworks

- UN Global Compact
- UN Sustainable Development Goals

Sustainability Reporting Standards

- Task Force on Climate-related Financial Disclosures
- The Partnership for Carbon Accounting Financials
- Principles for Responsible Investment

Climate Action

- America is All In
- Business Ambition for 1.5°C: Our Only Future Campaign
- Climate Action 100+

Diversity & Inclusion

- CEO Action For Diversity and Inclusion
- The Hawthorn Club
- Women of Renewable Industries and Sustainable Energy

SUSTAINABILITY REPORT CARD

The eighth annual edition of our Sustainability Report card discloses the CarbonCount® associated with each investment. CarbonCount® is an award-winning tool that evaluates the efficiency with which capital is employed to reduce greenhouse gases by estimating the carbon dioxide ("CO_2") emissions avoided annually per $1,000 of investment.

HANNON ARMSTRONG | SUSTAINABILITY REPORT CARD 2020

MARKET	REGION	CARBONCOUNT®
BTM	National	2.89
BTM	National	2.87
BTM	National	2.86
BTM	National	2.85
BTM	National	2.85
BTM	National	2.84
GC	National	2.02
BTM	South	1.90
GC	West	1.79
GC	National	1.66
GC	National	1.41
BTM	National	1.35
GC	West	1.25
GC	West	0.85
GC	West	0.74
BTM	Midwest	0.71
GC	West	0.65
GC	West	0.63
GC	West	0.61
BTM	Midwest	0.51
GC	West	0.46
BTM	National	0.40
BTM	National	0.40
BTM	South	0.36
BTM	South	0.31
BTM	Midwest	0.30
BTM	South	0.29

MARKET	REGION	CARBONCOUNT®
BTM	Midwest	0.28
BTM	West	0.28
BTM	West	0.24
BTM	South	0.24
BTM	West	0.23
BTM	National	0.20
BTM	National	0.18
BTM	South	0.17
BTM	Northeast	0.13
BTM	South	0.07
BTM	Midwest	0.05
BTM	Midwest	0.03
BTM	South	0.03
BTM	South	0.03
BTM	National	0.02
BTM	West	0.01
BTM	West	0.01
BTM	West	0.01
BTM	Midwest	0.00
SI	South	0.00
BTM	West	0.00
SI	South	0.00
BTM	National	0.00
BTM	National	0.00
BTM	National	0.00
SI	West	0.00
BTM	National	0.00

TOTAL

2.0m
Metric Tons of CO_2 Avoided

1.03
CarbonCount®

576m
Gallons of Water Saved

BTM = Behind-the-Meter, which includes energy efficiency, distributed solar, and storage investments.

GC= Grid-Connected, which includes solar land and onshore wind investments

SI = Sustainable Infrastructure, which includes clean water, ecological restoration, and other resiliency investments.

* Investments in seismic retrofits provide resiliency in the event of an earthquake. A secondary benefit of such retrofits includes the preservation of carbon embedded in the built environment.

CarbonCount® is a scoring tool that evaluates investments in U.S.-based, energy efficiency and renewable energy projects to determine estimated CO_2 emissions avoided annually per $1,000 of investment.

Estimated carbon savings are calculated using the estimated kilowatt hours ("kWh"), gallons of fuel oil, million British thermal units ("MMBtus") of natural gas and gallons of water saved as appropriate, for each project. The energy savings are converted into an estimate of metric tons of CO_2 equivalent emissions based upon the project's location and the corresponding emissions factor data from the U.S. Government and International Energy Administration. Portfolios of projects are represented on an aggregate basis.

Estimated water savings are calculated as the sum of the direct annual estimated water savings from energy efficiency measures such as low flow water fixtures and the annual indirect water savings associated with the annual kWh generated and saved by our investments. The annual kWh of electricity generated and saved by our investments are multiplied by a the amount of water withdrawn and not returned to local water systems based upon the project's location and the existing grid electricity generating units in that region. Indirect water savings is estimated using data prepared by the U.S. Government's Energy Information Administration and the Union of a Scientists.

BOARD OF DIRECTORS

JEFFREY W. ECKEL
Chairman

TERESA M. BRENNER
Lead Independent Director
Chair, Nominating, Governance and Corporate Responsibility Committee

CLARENCE D. ARMBRISTER

MICHAEL T. ECKHART

NANCY C. FLOYD

SIMONE F. LAGOMARSINO

CHARLES M. O'NEIL
Chair, Finance and Risk Committee

RICHARD J. OSBORNE
Chair, Compensation Committee

STEVEN G. OSGOOD
Chair, Audit Committee

LEADERSHIP TEAM

JEFFREY W. ECKEL
Chairman and Chief Executive Officer

JEFFREY A. LIPSON
Chief Operating Officer and Chief Financial Officer

STEVEN L. CHUSLO
Executive Vice President and Chief Legal Officer

J. BRENDAN HERRON
Executive Vice President

KATHERINE McGREGOR DENT
Senior Vice President and Chief Human Resources Officer

DANIEL K. McMAHON, CFA
Executive Vice President, Portfolio Management

SUSAN D. NICKEY
Executive Vice President and Chief Client Officer

MARC T. PANGBURN
Executive Vice President and Co-Chief Investment Officer

NATHANIEL J. ROSE, CFA
Executive Vice President and Co-Chief Investment Officer

RICHARD R. SANTOROSKI
Executive Vice President and Chief Analytics Officer

ROBERT L. JOHNSON
Senior Vice President

JEFFREY Z. MARTIN
Senior Vice President and Chief Technology Officer

CHARLES W. MELKO, CPA
Senior Vice President, Treasurer and Chief Accounting Officer

CONTACT

Corporate Headquarters
1906 Towne Centre Boulevard,
Suite 370
Annapolis, MD 21401
info@hannonarmstrong.com
Phone: 410-571-9860

Investor Relations Contact
Chad Reed
Investors@hannonarmstrong.com
Phone: 410-571-6189

Stock Listing
Hannon Armstrong Sustainable Infrastructure Capital, Inc.'s common stock is listed on the New York Stock Exchange under the symbol "HASI".

Some of the information contained in this document are forward-looking statements and within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. When used in this document, words such as "believe," "expect," "anticipate," "estimate," "plan," "continue," "intend," "should," "may," "target," or similar expressions, are intended to identify such forward-looking statements. Forward-looking statements are subject to significant risks and uncertainties. Investors are cautioned against placing undue reliance on such statements. Actual results may differ materially from those set forth in the forward-looking statements. Factors that could cause actual results to differ materially from those described in the forward-looking statements include those discussed under the caption "Risk Factors" included in our Annual Report on Form 10-K for our fiscal year ended December 31, 2020, which was filed with the U.S. Securities and Exchange Commission (SEC), as well as in other reports that we file with the SEC. Forward-looking statements are based on beliefs, assumptions and expectations as of December 31, 2020. We disclaim any obligation to publicly release the results of any revisions to these forward-looking statements reflecting new estimates, events or circumstances after December 31, 2020, except as may be required by law.

HANNON ARMSTRONG

2020
FORM 10-K

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM 10-K

☑ ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended December 31, 2020
OR
☐ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the transition period from ____________ to ____________

Commission file number: 001-35877

HANNON ARMSTRONG SUSTAINABLE INFRASTRUCTURE CAPITAL, INC.

(Exact name of registrant as specified in its charter)

MARYLAND	46-1347456
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
Address	21401
1906 Towne Centre Blvd Suite 370 Annapolis MD	
(Address of principal executive offices)	(Zip Code)

(410) 571-9860
(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act:		
Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, $0.01 par value per share	HASI	New York Stock Exchange

Securities registered pursuant to Section 12(g) of the Act:
None

Indicate by check mark	YES	NO
• if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.	☑	☐
• if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Exchange Act.	☐	☑
• whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.	☑	☐
• whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files).	☑	☐
• whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer", "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.		
Large accelerated filer ☑ Accelerated filer ☐ Non-accelerated filer ☐ Smaller reporting company ☐ Emerging growth company ☐		
• If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.		☐
• whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal controls over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report.		☑
• whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).	☐	☑

As of June 30, 2020, the aggregate market value of the registrant's common stock (includes unvested restricted stock) held by non-affiliates of the registrant was $2.0 billion based on the closing sales price of the registrant's common stock on June 30, 2020 as reported on the New York Stock Exchange.

On February 15, 2021, the registrant had a total of 78,153,506 shares of common stock, $0.01 par value, outstanding (which includes 416,908 shares of unvested restricted common stock).

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's proxy statement for the 2021 annual meeting of stockholders are incorporated by reference into Part III of this Annual Report on Form 10-K.

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FORWARD-LOOKING STATEMENTS

We make forward-looking statements in this Annual Report on Form 10-K ("Form 10-K") within the meaning of Section 27A of the Securities Act of 1933, as amended (the "Securities Act"), and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act") that are subject to risks and uncertainties. For these statements, we claim the protections of the safe harbor for forward-looking statements contained in such Sections. These forward-looking statements include information about possible or assumed future results of our business, financial condition, liquidity, results of operations, plans and objectives. When we use the words "believe," "expect," "anticipate," "estimate," "plan," "continue," "intend," "should," "may" or similar expressions, we intend to identify forward-looking statements.

Forward-looking statements are subject to significant risks and uncertainties. Investors are cautioned against placing undue reliance on such statements. Actual results may differ materially from those set forth in the forward-looking statements. Other important factors that we think could cause our actual results to differ materially from expected results are summarized below, including the ongoing impact of the current outbreak of the novel coronavirus ("COVID-19"), on the U.S., regional and global economies, the U.S. sustainable infrastructure market and the broader financial markets. The current outbreak of COVID-19 has also impacted, and is likely to continue to impact, directly or indirectly, many of the other important factors below and the risks described in this Form 10-K and in our subsequent filings under the Exchange Act. Other factors besides those listed could also adversely affect us. In addition, we cannot assess the impact of each factor on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements. In particular, it is difficult to fully assess the impact of COVID-19 at this time due to, among other factors, uncertainty regarding the severity and duration of the outbreak domestically and internationally, uncertainty regarding the effectiveness of federal, state and local governments' efforts to contain the spread of COVID-19 and respond to its direct and indirect impact on the U.S. economy and economic activity, including the timing of the successful distribution of an effective vaccine.

Statements regarding the following subjects, among others, may be forward-looking:

- negative impacts from a continued spread of COVID-19, including on the U.S. or global economy or on our business, financial position, or results of operations;
- our expected returns and performance of our investments;
- the state of government legislation, regulation and policies that support or enhance the economic feasibility of projects that reduce carbon emissions or increase resilience to climate change, which we refer to as climate solutions, including energy efficiency and renewable energy projects and the general market demands for such projects;
- market trends in our industry, energy markets, commodity prices, interest rates, the debt and lending markets or the general economy;
- our business and investment strategy;
- availability of opportunities to invest in climate solutions including energy efficiency and renewable energy projects and our ability to complete potential new opportunities in our pipeline;
- our relationships with originators, investors, market intermediaries and professional advisers;
- competition from other providers of capital;
- our or any other company's projected operating results;
- actions and initiatives of the federal, state and local governments and changes to federal, state and local government policies, regulations, tax laws and rates and the execution and impact of these actions, initiatives and policies;
- the state of the U.S. economy generally or in specific geographic regions, states or municipalities and economic trends;
- our ability to obtain and maintain financing arrangements on favorable terms, including securitizations;
- general volatility of the securities markets in which we participate;
- the credit quality of our assets;
- changes in the value of our assets, our portfolio of assets and our investment and underwriting process;
- the impact of weather conditions, natural disasters, accidents or equipment failures or other events that disrupt the operation of our investments or negatively impact the value of our assets;
- rates of default or decreased recovery rates on our assets;
- interest rate and maturity mismatches between our assets and any borrowings used to fund such assets;
- changes in interest rates and the market value of our assets and target assets;
- changes in commodity prices, including continued low natural gas prices;
- effects of hedging instruments on our assets or liabilities;
- the degree to which our hedging strategies may or may not protect us from risks, such as interest rate volatility;
- impact of and changes in accounting guidance;
- our ability to maintain our qualification as a real estate investment trust ("REIT") for U.S. federal income tax purposes;
- our ability to maintain our exemption from registration under the Investment Company Act of 1940, as amended (the "1940 Act");
- availability of and our ability to attract and retain qualified personnel;
- estimates relating to our ability to generate sufficient cash in the future to operate our business and to make distributions to our stockholders; and
- our understanding of our competition.

Forward-looking statements are based on beliefs, assumptions and expectations as of the date of this Form 10-K. Any forward-looking statement speaks only as of the date on which it is made. New risks and uncertainties arise over time, and it is not possible for us to predict those events or how they may affect us. Except as required by law, we are not obligated to, and do not intend to, update or revise any forward-looking statements after the date of this Form 10-K, whether as a result of new information, future events or otherwise.

The risks included here are not exhaustive. Other sections of this Form 10-K may include additional factors that could adversely affect our business and financial performance. Moreover, we operate in a very competitive and rapidly changing environment. New risk factors emerge from time to time and it is not possible for management to predict all such risk factors, nor can it assess the impact of all such risk factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements. Given these risks and uncertainties, investors should not place undue reliance on forward-looking statements as a prediction of actual results.

RISK FACTOR SUMMARY

An investment in our securities involves a high degree of risk. You should carefully consider the risks summarized in Item 1A, "Risk Factors" included in this report. These risks include, but are not limited to, the following:

Risks Related to Our Business and Our Industry

- Our business depends in part on U.S. federal, state and local government policies and a decline in the level of government support could harm our business.
- A change in the fiscal health, level of appropriations or budgets of U.S. federal, state and local governments could reduce demand for the projects in which we invest and the capital we provide.
- If the cost of energy generated by traditional sources of energy declines or continues to remain low, demand for the projects in which we invest may decline.
- We operate in a competitive market and future competition may impact the terms of the investments we make.

Risks Related to Our Assets and Projects in Which We Invest

- The lack of liquidity of our assets may adversely affect our business, including our ability to value and sell our assets.
- Our investments are subject to delinquency, foreclosure and loss, any or all of which could result in losses to us.
- Our mezzanine or subordinated loans are riskier, less protected against loss than, and generally less liquid than other forms of senior debt.
- Our equity investments, many of which are illiquid with no readily available market, involve a substantial degree of risk.
- We generally do not control the projects in which we invest, which may result in the project owner making certain business decisions or taking risks with which we disagree.
- Portions of the electricity our assets generate is sold on the open market at spot-market prices. A prolonged environment of low prices for natural gas, or other conventional fuel sources such as we are experiencing may, and could continue to, have a material adverse effect on our long-term business prospects, financial condition and results of operations.
- Some of the projects in which we invest may require substantial operating or capital expenditures in the future.
- We invest in projects which rely on third parties to manufacture quality products or provide reliable services in a timely manner and the failure of these third parties could cause project performance to be adversely affected.
- Our insurance and contractual protections may not always cover lost revenue, increased expenses or liquidated damages payments.
- Energy efficiency, renewable energy and other sustainable infrastructure projects are subject to performance risks, including risks due to extreme weather events, that could impact the repayment of and the return on our assets.

Risks Related to Our Company

- We may change our operational policies (including our investment guidelines, strategies and policies) with the approval of our board of directors but without stockholder consent at any time, which may adversely affect the market value of our common stock and our ability to make distributions to our stockholders.
- An increase in our borrowing costs relative to the interest we receive on our leveraged assets may adversely affect our profitability and our cash available for distribution to our stockholders. Our borrowings may have a shorter duration than our assets.
- We do not have a formal policy limiting the amount of debt we may incur. Our board of directors may change our financial leverage guidelines without stockholder consent.

Risks Related to Our Common Stock

- We cannot assure you of our ability to make distributions in the future. Although we currently do not intend to do so, if our portfolio of assets does not generate sufficient income and cash flow, we could be required to sell assets, borrow funds or make a portion of our distributions in the form of a taxable stock distribution or distribution of debt securities in order to maintain our qualification as a REIT.

Risks Related to Our Organization and Structure

- Our qualification as a REIT depends on interpretations of highly technical and complex legal provisions, and our failure to qualify or remain qualified as a REIT would subject us to taxes that would negatively impact the results of our operations and reduce the amount of cash available for distribution to our stockholders.

Risks Related to Our Taxation as a REIT

- Complying with REIT requirements may force us to liquidate assets or forego otherwise attractive investments.

Risks Related to COVID-19

- The current outbreak and spread of the COVID-19 outbreak has disrupted, and is likely to further cause severe disruptions in, the U.S. and global economies and financial markets and create widespread business continuity and viability issues.

PART I

In this Form 10-K, unless specifically stated otherwise or the context otherwise indicates, references to "we," "our," "us," "HASI," and "our company" refer to Hannon Armstrong Sustainable Infrastructure Capital, Inc., a Maryland corporation, Hannon Armstrong Sustainable Infrastructure, L.P. and any of our other subsidiaries. Hannon Armstrong Sustainable Infrastructure, L.P. is a Delaware limited partnership of which we are the sole general partner and to which we refer in this Form 10-K as our "Operating Partnership." Our business is focused on reducing the impact of greenhouse gases that have been scientifically linked to climate change. We refer to these gases, which are often for consistency expressed as carbon dioxide equivalents, as carbon emissions.

ITEM 1. BUSINESS

General

We invest in climate solutions developed by the leading companies in the energy efficiency, renewable energy and other sustainable infrastructure markets. We believe that we are one of the first U.S. public companies solely dedicated to climate solution investments. Our goal is to generate attractive returns from a diversified portfolio of projects with long-term, predictable cash flows from proven technologies that reduce carbon emissions or increase resilience to climate change.

We are internally managed, and our management team has extensive relevant industry knowledge and experience. We have long-standing relationships with the leading energy service companies ("ESCOs"), manufacturers, project developers, utilities, owners and operators. Our origination strategy is to use these relationships to generate recurring, programmatic investment and fee-generating opportunities. Additionally, we have relationships with leading commercial and investment banks and institutional investors from which we are referred additional investment and fee-generating opportunities.

We completed approximately $1.9 billion of transactions during 2020, compared to approximately $1.3 billion during 2019. As of December 31, 2020, we held approximately $2.9 billion of transactions on our balance sheet, which we refer to as our "Portfolio." For those transactions that we choose not to hold on our balance sheet, we transfer all or a portion of the economics of the transaction, typically using securitization trusts, to institutional investors in exchange for cash and, in certain cases, residual interests in the trusts and ongoing fees. As of December 31, 2020, we managed approximately $4.3 billion in these trusts or vehicles that are not consolidated on our balance sheet. When combined with our Portfolio, as of December 31, 2020, we manage approximately $7.2 billion of assets, which we refer to as our "Managed Assets."

Our investments take many forms, including equity, joint ventures, land ownership, loans, and other financing transactions. We also generate ongoing fees via off-balance sheet securitization transactions, services, and asset management. We use borrowings as part of our strategy to increase potential returns to our stockholders and have available a broad range of financing sources including non-recourse or recourse debt, equity, and off-balance sheet securitization structures. A further description of our financing activities can be found herein.

We have a large and active pipeline of potential new opportunities that are in various stages of our underwriting process. We refer to potential opportunities as being part of our pipeline if we have determined that the project fits within our investment strategy and exhibits the appropriate risk and reward characteristics through an initial credit analysis, including a quantitative and qualitative assessment of the opportunity, as well as research on the relevant market and sponsor. Our pipeline of transactions that could potentially close in the next 12 months consists of opportunities in which we will be the lead originator as well as opportunities in which we may participate with other institutional investors. As of December 31, 2020, our pipeline consisted of more than $3.0 billion in new equity, debt and real estate opportunities. However, there can be no assurance with regard to any specific terms of such pipeline transactions or that any or all of the transactions in our pipeline will be completed.

We are committed to leadership in transparent disclosure on environmental, social, and governance ("ESG") matters. Beginning in 2013, we became one of the first capital providers to evaluate the carbon efficiency of our investment portfolio by utilizing CarbonCount©, a proprietary tool which measures the efficiency with which our investments reduce carbon emissions. In 2017, we believe we were the first U.S-based public company to commit to the Climate Disclosure Standards Board led initiative on implementing the recommendations of the Financial Stability Board's Task Force for Climate-related Financial Disclosures ("TCFD") and have since endeavored to provide the recommended disclosures in our Form 10-K. In 2020, we joined the Partnership for Carbon Accounting Financials ("PCAF"), a global financial industry-led partnership to implement a consistent and transparent disclosure framework to report carbon emissions resulting from financed assets. We anticipate that our reporting in accordance with PCAF will be implemented by 2023. For further information on our ESG disclosures, see the discussion in the sections titled "Investment Strategy" and "Environmental and Social Responsibility and Corporate Governance" herein. In addition, we are committed to providing transparent disclosures on our human capital management and have enhanced the discussion herein in the section titled "Human Capital and Social Strategy."

We elected to be taxed as a REIT for U.S. federal income tax purposes, commencing with our taxable year ended December 31, 2013 and operate our business in a manner that permits us to maintain our exemption from registration as an investment company under the 1940 Act.

Investment strategy

With scientific consensus that global-warming trends are linked to human activities and resulting in various extreme weather events, we believe our firm is well-positioned to generate attractive risk-adjusted returns by investing in, and managing a portfolio of, assets that address climate-changing greenhouse gas emissions. Further, with increasing weather-related events, we see similar investment opportunities in infrastructure assets that mitigate the impact of, and increase the resiliency to, these weather events and other adverse impacts of climate change.

Our vision is that every investment improves our climate future and thus the carbon impact of an investment is at the core of our business model. We believe that climate positive investments will produce attractive risk adjusted returns and require investments to be neutral to negative on incremental carbon emissions or have some other tangible environmental benefit such as reducing water consumption.

Our climate-positive investment thesis is based on the following theories:

- More efficient technologies are more productive and thus should lead to higher economic returns;
- Lower portfolio risk is inherent in a portfolio of smaller investments, generated by trends of increasing decentralization and digitalization of energy assets, compared to larger, centralized utility-scale investments;
- Investing in assets aligned with scientific consensus and broadly held societal values will reduce potential regulatory and social costs through better internalization of externalities; and
- Assets that reduce carbon emissions may represent an embedded option that may increase in value if regulatory authorities were to set a price on carbon emissions.

We believe combining this investment thesis with our multi-decade experience in investing in our markets through multiple interest rate and business cycles, intermittent governmental support for reducing carbon emissions and several cycles of business expansions in renewable and other sustainable infrastructure markets, allows us to earn attractive risk-adjusted returns on the assets in which we invest. We also believe there is a very large potential market opportunity as the legacy technologies for generating and using energy and the systems that produce carbon emissions are converted to low-to-no carbon emission systems while mitigation and resiliency investments continue to grow to address severe weather events and other climate change impacts.

Our investments are focused on three areas:

- *Behind-the-Meter ("BTM"):* distributed building or facility projects, which reduce energy usage or cost through the use of solar generation and energy storage or energy efficiency improvements including heating, ventilation and air conditioning systems ("HVAC"), lighting, energy controls, roofs, windows, building shells, and/or combined heat and power systems;
- *Grid-Connected ("GC"):* projects that deploy cleaner energy sources, such as solar and wind to generate power where the off-taker or counterparty is part of the wholesale electric power grid; and
- *Sustainable Infrastructure:* upgraded transmission and distribution systems, water and storm water infrastructure, and other projects that improve water or energy efficiency, increase resiliency, positively impact the environment or more efficiently use natural resources.

Of our pipeline, 58% is related to BTM assets and 33% is related to GC assets, with the remainder related to other sustainable infrastructure. We prefer investments in which the assets have a long-term, investment-grade rated off-taker or counterparties. For BTM assets, the off-taker or counterparty may be the building owner or occupant, and we may be secured by the installed improvements or other real estate rights. For GC assets, the off-taker or counterparty may be a utility or electric user who has entered into a contractual commitment, such as a power purchase agreement ("PPA"), to purchase power produced by a renewable energy project at a minimum price with potential price escalators for a portion of the project's estimated life.

We make our investments utilizing a variety of structures, including:

- Equity investments in either preferred or common structures in unconsolidated entities;
- Government and commercial receivables or securities, such as loans for renewable energy and energy efficiency projects; and
- Real estate, such as land or other assets leased for use by GC projects typically under long term leases.

Our equity investments in renewable energy and energy efficiency projects are operated by various renewable energy companies or by joint ventures in which we participate. These transactions allow us to participate in the cash flows associated with these projects, typically on a priority basis. Our energy efficiency debt investments are usually assigned the payment stream from the project savings and other contractual rights, often using our pre-existing master purchase agreements with the ESCOs. Our debt investments in various renewable energy or other sustainable infrastructure projects or portfolios of projects are generally secured by the installed improvements or other real estate rights. We also own, directly or through equity investments, or manage over 39,000 acres of land that are leased under long-term agreements to over 60 renewable energy projects, where our investment returns are typically senior to most project costs, debt, and equity.

We focus on projects that use proven technology and that often have contractually committed agreements with an investment grade rated off-taker or counterparties. We often make investments where we hold preferred or mezzanine position in a project where we are subordinated to project debt and/or preferred forms of equity. Investing greater than 15% of our assets in any individual project requires the approval of a majority of our independent directors. We may adjust the mix and duration of our assets over time in order to allow us to manage various aspects of our portfolio, including expected risk-adjusted returns, macroeconomic conditions, liquidity, availability of adequate financing for our assets, and the maintenance of our REIT qualification and our exemption from registration as an investment company under the 1940 Act.

As of December 31, 2020, our Portfolio consisted of over 230 investments and we seek to manage the diversity of our Portfolio by, among other factors, project type, project operator, type of investment, type of technology, transaction size, geography, obligor and maturity. The mix of our Portfolio is expected to vary over time and approximately 48% of our Portfolio was invested in BTM assets and approximately 52% was invested in GC assets, which includes our land holdings.

As part of our investment process, we calculate the ratio of the estimated first year of metric tons of carbon emissions avoided by our investments divided by the capital invested to quantify the carbon impact of our investments. In this calculation, which we refer to as CarbonCount®, we use emissions factor data, expressed on a CO^2 equivalent basis, from the U.S. Government or the International Energy Administration to an estimate of a project's energy production or savings to compute an estimate of metric tons of carbon emissions avoided. We estimate that our investments originated in 2020 will reduce annual carbon emissions by approximately 2.0 million metric tons, equating to a CarbonCount® of 1.03. In addition to carbon, we also consider other environmental attributes, such as water use reduction, stormwater remediation benefits and stream restoration benefits.

We believe that our long history of sustainable infrastructure investing, the experience, expertise and relationships of our management team, the anticipated credit strength of the obligors or investees involved in our investments and the size and growth potential of our market, position us well to capitalize on our strategy.

Refer to Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations—Results of Operations, for additional discussion on the performance of our investment portfolio.

Financing strategy

We believe we have available a broad range of financing sources as part of our strategy that are designed to increase potential returns to our stockholders. We may finance our investments through the use of non-recourse debt, recourse debt, or equity and may also decide to finance such transactions through the use of off-balance sheet securitization structures. We often provide, and our sources of financing are increasingly interested in, the estimated carbon emission savings or environmental ratings associated with our financings. We believe that certain debt that we have issued meets the environmental eligibility criteria for green bonds as defined by the International Capital Markets Association's Green Bond Principles, which we believe makes our debt more attractive for many investors compared to such offerings which do not qualify under these principles.

We plan to raise additional equity capital and continue to use other fixed and floating rate borrowings which may be in the form of additional bank credit facilities, including term loans and revolving facilities, warehouse facilities, repurchase agreements and public and private equity and debt issuances. We may also consider the use of separately financed special purpose entities or funds to allow us to expand our investments or manage Portfolio diversity.

The decision on how we finance specific assets or groups of assets is largely driven by risk and portfolio management considerations, as well as the overall interest rate environment, prevailing credit spreads and the terms of available financing and market conditions. Over time, as market conditions change, we may use other forms of leverage in addition to these financing arrangements. Although we are not restricted by any regulatory requirements as to the type or amount of financial leverage we may utilize, we do seek to, but are not required to, operate within certain metrics, including maintaining a financial leverage ratio, defined as the ratio of debt to equity, at or below 2.5 to 1. In addition, our board of directors has established a current target range for our percentage of fixed rate debt to total debt of between 75% and 100%. See additional discussion in Item 7. Management's Discussion and Analysis of Financial Conditions and Results of Operations—Liquidity and Capital Resources regarding our ongoing evaluation of our leverage limits and fixed-rate debt targets.

For those transactions that we choose not to hold on our balance sheet, we transfer all or a portion of the economics of the transaction, typically using securitization trusts, to institutional investors in exchange for cash and in certain cases, residual assets and ongoing fees. The market for the assets we finance has remained active throughout various market cycles due to investor demand for high credit quality, long-term investments. We may arrange such securitizations of loans or other assets prior to originating the transaction and thus avoid exposure to credit spread, interest rate and funding risks. We also typically manage and service these assets in exchange for fees. We may also use other funds or structures where institutional investors purchase all or a portion of the economics of the transaction and where we may receive upfront or ongoing fees for managing the assets. We periodically provide other services, including arranging financings that are held on the balance sheet of other investors and advising various companies with respect to structuring investments.

Refer to Item 7. Management's Discussion and Analysis of Financial Conditions and Results of Operations—Liquidity and Capital Resources, for additional discussion on our financings and our ratios and Item 8. Financial Statements and Supplementary Data, Notes 5, 7 and 8 to our financial statements for further information on the types and amounts of our financing activities.

Human capital and social strategy

Our culture is focused on hiring and retaining highly talented employees with diverse backgrounds and empowering them to create value for our stockholders, and our success is dependent on employee understanding of and investment in their role in that value creation. Our chief executive officer periodically leads employee meetings intended to reinforce the importance of sustainability and regularly meets with small groups of employees to receive their feedback on our business. Our employees are responsible for upholding our purpose, values, strategy, and talent leadership expectations.

It is important to us that our employees are engaged in our mission of sustainability. We also want them to be engaged to drive our business forward, to recruit from their networks, and envision a long tenure with us. We meet no less than quarterly as a Company to provide information to employees on our mission, strategic planning and financial results. We continuously evaluate our employees' level of engagement by walking the floors (or, when the team is working remotely, scheduling one-on-one check-in calls) and asking open-ended questions. We also evaluate our employees' engagement via formal surveys or similar tools on a periodic basis. We care about our employees' employment experience and care about them as individuals who are motivated in different ways.

We adhere to a blended learning approach with the understanding that our people learn from experiences (on the job and in life), from other people (mentors or supportive managers), and formal learning and training programs. We acknowledge that learning is highly individualized and needs to be offered in a way that is most conducive to a specific learner's needs. We run a periodic education series which includes internal and external speakers presenting topics of interest that are relevant to our employees. We provide multiple learning solutions which cover a wide range of areas such as diversity and inclusion training, leadership skills, financial knowledge, technology training, and presentation skills. We also support the pursuit of advanced certifications and degrees in areas including business, science and engineering, and liberal and fine arts and employ formal and informal coaching arrangements.

Managers hold performance conversations with their employees on a periodic basis (targeting a minimum of twice a year) to ensure they receive the performance feedback they deserve, and to allow managers to obtain insight into how to support the development of their staff, and to ensure that performance expectations are clear and aligned with the overarching objectives of the Company. We also provide continuous dialogue in between these formal touchpoints.

We provide attractive benefits that promote the health of our employees and their families and design compelling job opportunities, aligned with our mission, in an energizing work environment. We also encourage our employees to continue to develop in their careers, including by obtaining advanced degrees or professional certifications. We compensate our employees according to our fair remuneration policies and believe in paying for performance. Therefore, employees generally receive a portion of their compensation in the form of equity grants tied to performance. We encourage our employees to contribute their time to support various community and charitable activities and sponsor several local community organizations with a primary focus on environmental organizations. In addition to competitive base salaries, cash bonuses, and equity participation for the majority of employees, we are committed to continuously evaluating and ensuring the competitiveness of our benefits offerings so that we meet the various needs of our employees and their families. Despite a healthcare environment that is facing rising costs, we continue to pay the vast majority of the cost of our employees' healthcare insurance.

Our total rewards include:

- Medical/Prescription Drug
- Dental
- Vision
- Group Life/AD&D Insurance
- Long-Term Disability (LTD)
- 401k Retirement Plan with match and immediate vesting of one's own contributions
- Vacation
- Tuition reimbursement
- Reimbursement for gym memberships and equipment
- Employee assistance program – encompasses wellness, legal, and financial tools and resources
- Flu shot clinics on-site
- Leave policies include 11 paid holidays, maternity and paternity plans, and paid time off including sick leave.

At Hannon Armstrong, we take a values-driven, broad view of diversity and inclusion. We believe that fostering an internal climate that is supportive and allows people of all backgrounds to flourish lends itself to the highest levels of company performance and facilitates the attraction and retention of best-in-class talent. We also believe it is inherently the right way to conduct business. We support an innovative, creative culture where people can bring their best and most authentic selves to work. Employees who hold divergent opinions are encouraged to voice their views. We track and report internally on key talent metrics including workforce demographics, critical role pipeline data, diversity data, and engagement and inclusion indices.

Decisions regarding staffing, selection, and promotions are made on the basis of individual qualifications related to the requirements of the position. We are committed to identifying and developing the talents of our next generation of leaders. We endeavor to select qualified individuals from a diverse pool of candidates derived from broad outreach efforts when we are recruiting. We are committed to the sourcing and/or promotion of highly-qualified women, people of color and other under-represented groups for management and Board positions. We are also challenging ourselves to better support our female and underrepresented employees in their onboarding, training, development and progression within the Company.

Our policy is "equal pay for equal work" in compliance with applicable state law. Compensation for our employees is based upon experience, seniority, educational-attainment, and individual contribution and company performance against goals.

Refer to Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations - Results of Operations – Human Capital Metrics for discussion of metrics related to our Human Capital and Social strategy.

Environmental and social responsibility and corporate governance

We own and invest in a diversified portfolio of sustainable infrastructure projects focused on reducing or mitigating the impacts of climate change through the allocation of our capital across the energy efficiency, renewable energy and other sustainable infrastructure markets. Under the direction of our chief executive officer and the board of directors, we are focused on achieving a high level of environmental and social responsibility and strong corporate governance. The Nominating, Governance and Corporate Responsibility Committee of our board of directors is responsible for our ESG oversight, including related policies and communications. Additionally, we have a committee comprised of employees from across our organization that is focused on implementing ESG strategies and policies and reports directly to our chief executive officer. Annually we publish a report that illustrates our progress on these matters.

Our business and business strategy are focused on addressing climate change, in part through the reduction of carbon emissions that have been scientifically linked to climate change. As described in the previous Investment Strategy section , we quantify the carbon impact of each of our investments. In addition, we operate our business in a manner intended to reduce our own environmental impact, including by purchasing carbon credits for 100% of the electricity used by our office, encouraging recycling and composting, and offering clean transportation employee incentives for electric and hybrid vehicles. We have also adopted policies focused on minimizing the environmental impact of our operations.

We are a signatory to the United Nations Global Compact, an initiative focused on responsible business practices related to human rights, labor, the environment and anti-corruption. We participate in a number of initiatives and coalitions that share our commitment to climate action, corporate sustainability, climate-risk disclosure and reporting, and the expansion of clean energy including the United Nations-supported Principles for Responsible Investment, the United Nations Global Compact campaign entitled Business Ambition for 1.5°- Only Our Future, Climate Action 100+, and the reporting framework established by an international consortium of business and environmental NGOs referred to as the Climate Disclosure Standards Board.

Our corporate governance philosophy is based on maintaining a close alignment of our interests with those of our stakeholders. Notable features of our corporate governance structure include the following:

- our board of directors is not staggered, with each of our directors subject to re-election annually;
- six of our seven directors have been determined to be independent for purposes of the New York Stock Exchange ("NYSE") corporate governance listing standards and Rule 10A-3 under the Exchange Act;
- the lead independent director of the board of directors convenes and chairs executive sessions of the independent directors to discuss certain matters without management present;
- three of our directors qualify as an "audit committee financial expert" as defined by the Securities and Exchange Commission (the "SEC");
- two of our directors (including our lead independent director are women) constituting 29% of the board in furtherance of our board diversity policy;
- our directors provide input on the agenda of which topics are discussed during board meetings;
- our Corporate Governance Guidelines provide for a majority vote policy for the election of directors pursuant to which any nominee who receives a greater number of votes "withheld" from his or her election than votes "for" such election shall promptly tender his or her resignation to our board of directors for their consideration to accept or reject such resignation;
- a target retirement age of 75 has been established for our directors;
- we have an active stockholder outreach program, including providing stockholders the right to vote on an advisory basis on the fairness of the remuneration of executives;
- our board members and named executive offers are required to maintain certain levels of stock ownership in our company ranging between three and six times their base salary or retainer, depending on position;
- our Statement of Corporate Policy Regarding Equity Transaction prohibits our directors and officers from hedging our equity securities, holding such securities in a margin account or pledging such securities as collateral for a loan;
- a Clawback Policy was adopted whereby it is possible to recoup performance or incentive-based compensation in the event of an accounting restatement due to material noncompliance with any financial reporting requirements under the securities laws (other than due to a change in applicable accounting methods, rules or interpretations);
- we have opted out of the control share acquisition statute in the Maryland General Corporations Law (the "MGCL") and have exempted, from the business combinations statute in the MGCL, transactions that are approved by our board of directors;
- we do not have a stockholder rights plan; and
- our Nominating, Governance and Corporate Responsibility Committee oversees and directs our ESG strategies, activities, policies and communications.

In order to foster the highest standards of ethics and conduct in all business relationships, we have adopted a Code of Business Conduct and Ethics policy (the "Code of Conduct"). This policy covers a wide range of business practices and procedures and applies to our officers, directors, employees, agents, representatives, and consultants. In addition, we have implemented whistleblowing procedures designed to facilitate the report of accounting and auditing matters as well as Code of Conduct matters (the "Whistleblower Policy") that sets forth procedures by which any Covered Persons (as defined in the Whistleblower Policy) may report, on a confidential basis, concerns regarding, among other things, any questionable or unethical accounting, internal accounting controls or auditing matters with our Audit Committee as well as any potential Code of Conduct or ethics violations with our Nominating, Governance and Corporate Responsibility Committee or our General Counsel.

We have adopted a Statement of Corporate Policy Regarding Equity Transactions that governs the process to be followed in the purchase or sale of our securities by any of our directors, officers, employees and consultants and prohibits any such persons from buying or selling our securities on the basis of material nonpublic information, and also prohibits our directors and officers from hedging equity securities of the Company, holding such securities in a margin account or pledging such securities as collateral for a loan. We review all of these policies on a periodic basis with our employees.

Our business is managed by our senior management team, subject to the supervision and oversight of our board of directors. Our directors stay informed about our business by attending meetings of our board of directors and its committees and through supplemental reports and communications.

Our focus on transparent ESG reporting

We believe in transparent reporting relating to ESG matters because we believe such reporting improves the understanding of our financial results. An emphasis on a durable social fabric, including diverse, engaged, and fairly compensated staff, is a material factor in our financial success. Similarly, our focus on achieving best-in-class corporate governance practices helps to ensure that our team will operate in a manner consistent with our organizational mission and deliver superior risk-adjusted investment returns. As discussed in the "Investment Strategy" section above, we quantify the environmental impact of every transaction we execute through the application of CarbonCount®. Our 2020 CarbonCount® and avoided emissions for investments originated in 2020 can be found in Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations - Results of Operations - Environmental Metrics.

We continue to implement the recommendations of the TCFD and are located in this filing as follows:

- Governance - Included in this section "Environmental and Social Responsibility and Corporate Governance";
- Strategy - Item 1. Business - Investment Strategy;
- Risk Management - Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations - Factors Impacting our Operating Results - Impact of climate of climate change on our future operations (Scenario Analysis). Also Item 7A. Quantitative and Qualitative Disclosures About Market Risk - Risk Management; and
- Metrics and Targets - Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations - Results of Operations - Environmental Metrics.

In addition to the above environmental reporting initiatives, in 2020, we joined PCAF, a global financial industry-led partnership to implement a consistent and transparent disclosure framework to report carbon emissions resulting from financed assets. We expect to implement our reporting in accordance with PCAF by 2023. We have also begun to disclose metrics related to our Human Capital and Social strategy. Refer to Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations - Results of Operations – Human Capital Metrics.

Competition

We compete against a number of parties, including banks, private equity, hedge or infrastructure investment funds, insurance companies, mutual funds, institutional investors, investment banking firms, financial institutions, specialty finance companies, utilities, independent power producers, project developers, pension funds, governmental bodies, public entities established to own infrastructure assets and other entities.

We compete primarily on the basis of service, price, structure and flexibility as well as the breadth and depth of our expertise. We may at times compete and at other times partner or work as a participant with alternative financing sources. The continued low yields in alternative investment opportunities and increasing investor acceptance of the climate solutions market has increased the level of competition we experience. The increase in the number and/or the size of our competitors in this market has resulted and could continue to result in less attractive terms on our investments or the need to accept a higher level of risks associated with our investments.

We also encounter competition in the form of potential customers or our origination partners electing to use their own capital rather than engaging us as an outside capital provider. In addition, we may also face competition based on technological developments that reduce demand for electricity, increase power supplies through existing infrastructure or that otherwise compete with our sustainable infrastructure projects.

We believe that a significant part of our competitive advantage is our management team's experience and industry expertise. However, we may not be able to achieve our business goals or expectations due to the competitive risks that we face, including increasing competition as a result of the increasing interest by various investors in our assets classes, including renewable energy, to enhance their investment returns. This, or other increases, in competition among competing providers of capital could adversely affect the returns we generate on our investments, and thereby adversely affect the market price of our common stock. For additional information concerning these competitive risks, see Item 1A. Risk Factors—We operate in a competitive market and future competition may impact the terms of our investments.

Employees; staffing

As of December 31, 2020, we employed 73 people. We intend to hire additional business professionals as needed to assist in the implementation of our business strategy. See above for discussion of our Human Capital and Social Strategy.

Information about our executive officers and other leadership team personnel

Our executive officers and other leadership team personnel and their biographies are as follows:

Jeffrey W. Eckel, 62, has served as our president, chief executive officer, and chairman of our board of directors since 2013 and was with the predecessor of our company as president and chief executive officer since 2000 and prior to that from 1985 to 1989 as a senior vice president. Mr. Eckel is a member of the board of directors of the Alliance To Save Energy and on the Board of Trustees of The Nature Conservancy of Maryland and DC. Mr. Eckel was appointed by the governor of Maryland to the board of the Maryland Clean Energy Center in 2011 where Mr. Eckel served until 2016 while also serving as its chairman from 2012 to 2014. Mr. Eckel has over 35 years of experience in financing, owning and operating infrastructure and energy assets. Mr. Eckel received a Bachelor of Arts degree from Miami University in 1980 and a Master of Public Administration degree from Syracuse University, Maxwell School of Citizenship and Public Affairs, in 1981. He holds Series 24, 63 and 79 securities licenses.

Jeffrey A. Lipson, 53, has served as an executive vice president and our chief operating officer since 2021 and as our chief financial officer since 2019. Previously, Mr. Lipson was president and chief executive officer and director of Congressional Bancshares and its subsidiary Congressional Bank from 2013 to 2018. Mr. Lipson continues to serve on the board of directors of Congressional Bank. Mr. Lipson has also been a senior vice president and the treasurer of CapitalSource Inc. and its subsidiary CapitalSource Bank and a senior vice president, Corporate Treasury, at Bank of America and its predecessor FleetBoston Financial. Mr. Lipson received a Bachelor of Science degree in Economics from Pennsylvania State University in 1989 and a Masters in Business Administration in Finance from New York University's Leonard N. Stern School of Business in 1993. Mr. Lipson serves on the Board of Directors of the Jewish Council for the Aging of Greater Washington.

Susan D. Nickey, 60, has served as an executive vice president and our chief client officer since January 2021 and is responsible for leading business development and managing client relationships. Ms. Nickey previously served as a managing director from 2014 to 2021. Ms. Nickey currently serves as interim treasurer on the board of directors of the American Clean Power Association and also serves on the board of directors of the American Council of Renewable Energy. Additionally, Ms. Nickey is a member of the President's Council at Ceres, a non-profit sustainability advocacy organization. Previously, she founded and served as CEO of Threshold Power. Ms. Nickey received a Bachelor in Business Administration from the University of Notre Dame in 1983 and a Master's of Science in Foreign Service from Georgetown University in 1986.

Steven L. Chuslo, 63, has served as an executive vice president and our general counsel and secretary since 2013 and the chief legal officer since January 2021. Previously, Mr. Chuslo has served with the predecessor of our company as general counsel and secretary since 2008. Mr. Chuslo is responsible for governance support to the board of directors and management and oversees the company's legal resources in the investment and portfolio management activities. Mr. Chuslo has more than 30 years of experience in the fields of securities, commercial and project finance, energy project development, and U.S. federal regulation. Mr. Chuslo received a Bachelor of Arts degree in History from the University of Massachusetts/Amherst and a Juris Doctorate from the Georgetown University Law Center.

Nathaniel J. Rose, CFA, 43, has served as executive vice president since 2015 and a co-chief investment officer beginning in 2021. Previously, Mr. Rose served as our chief operating officer from 2015 to 2017, our chief investment officer from 2013 to 2015 and 2017 to 2020 and has been with the Company and its predecessor since 2000. Mr. Rose has been involved with a vast majority of our transactions since 2000. Mr. Rose earned a joint Bachelor of Science and Bachelor of Arts degree from the University of Richmond in 2000, a Master of Business Administration degree from the Darden School of Business Administration at the University of Virginia in 2009, is a CFA charter holder and has passed the CPA examination. He holds a Series 63 and 79 securities licenses.

Daniel K. McMahon, CFA, 49, has served us as an executive vice president since 2015 and is the head of our portfolio management group. He has been with the Company and its predecessor since 2000 in a variety of roles, including as a senior vice president from 2007 to 2015. He has played a role in analyzing, negotiating, structuring, and managing several billion dollars of transactions. Mr. McMahon received his Bachelor of Arts degree from the University of California, San Diego in 1993, and is a CFA charter holder. He holds Series 24, 63 and 79 securities licenses.

Marc T. Pangburn, CFA, 35, has served as an executive vice president and a co-chief investment officer since January 2021. Mr. Pangburn joined the Company in 2013 and previously served as a managing director until 2021, and is jointly responsible for the Company's investing activities. Previously, Mr. Pangburn worked at MP2 Capital, a solar development and financing company, where he was responsible for structuring the firm's transactions, and worked in the private capital group at New York Life Investments, focusing on utilities, energy and infrastructure debt and equity investments. Mr. Pangburn received his Bachelor of Arts degree in economics from Drew University and is a CFA charter holder.

J. Brendan Herron, 60, has served as an executive vice president since 2013 and served in a variety of roles at the predecessor of our company and its affiliates from 1994 to 2005, and from 2011 to 2013. Mr. Herron served as our chief financial officer from 2013 to 2019. Mr. Herron will transition to an advisory consultant role in April 2021. Mr. Herron has over 25 years of experience in structuring, executing and operating infrastructure and technology investments. He formerly served on the U.S. Commerce Secretary's Renewable Energy and Energy Efficiency Advisory Committee and is presently a member of the Board of Trustees of Calvert Hall College High School (Baltimore, MD). Mr. Herron received a Bachelor of Science degree in accounting and computer science from Loyola University Maryland in 1982 and a Master of Business Administration degree from Loyola University Maryland in 1987 and has passed the CPA and CMA examinations.

Richard R. Santoroski, 56, has served as executive vice president and chief analytics officer since January 2021 after joining the company in 2020 as a managing director. Mr. Santoroski is responsible for leading the company's analytic strategy intended to inform investment, portfolio, and risk-related decisions. Previously, Mr. Santorski served as co-founder and managing partner of Wye Holdings from 2017 to 2020. From 2012 to 2016, he served as co-founder and managing director of American Capital Energy and Infrastructure (ACEI)., an emerging markets investor in power generation projects across Africa, Asia, Latin America, and the Middle East. Prior to ACEI, Mr. Santoroski served as executive vice president, chief risk officer, and head of corporate mergers, acquisitions & development of The AES Corporation. Prior to joining AES, he worked for several years at New York State Electric and Gas as an engineer and energy trader. Mr. Santoroski holds a Bachelor of Science degree in electrical engineering from Pennsylvania State University as well as a Master of Science degree in electrical engineering and a Master of Business Administration degree from Syracuse University.

Katherine McGregor Dent, 48, has served as our senior vice president and chief human resources officer since April 2020, focusing on culture, strategy, and organizational development. Previously, Ms. Dent served as vice president, deputy general counsel, and assistant secretary from 2003 to 2020, where she played a key role in structuring, developing, negotiating, and closing several billions of dollars of transactions. Ms. Dent received a Bachelor of Arts in English from Niagara University in 1993 and a Juris Doctor from the University at Buffalo School of Law in 1996. Ms. Dent serves as the Chair of the Board of Trustees for St. Anne's School of Annapolis.

Charles W. Melko, CPA, 40, has served as a senior vice president and our chief accounting officer since 2017 and as our treasurer since January 2021. He joined the Company in 2016 as a senior vice president and controller and has since been responsible for leading the company's accounting and financial reporting function. In his treasurer role, he is involved in the company's cash management and related capital markets activities. He is also responsible for leading the company's ESG programs and continually driving best-practices in ESG disclosures. Previously, he served in a number of roles at PricewaterhouseCoopers LLP since 2005, including as a Senior Manager in the National Professional Services Group where he focused on complex financial instruments accounting issues for energy clients. Mr. Melko received a Bachelor of Science degree in Accountancy in 2002, a Master of Business Administration degree in 2005 and a Master of Science degree in Accountancy from Wheeling Jesuit University in 2005. He holds a CPA license in West Virginia and Maryland.

Available information

We maintain a website at www.hannonarmstrong.com. Information on our website is not incorporated by reference in this Form 10-K. We will make available, free of charge, on our website (a) our Form 10-K, quarterly reports on Form 10-Q and current reports on Form 8-K (including any amendments thereto), proxy statements and other information (collectively, "Company Documents") filed with, or furnished to, the SEC, as soon as reasonably practicable after such documents are so filed or furnished, (b) Corporate Governance Guidelines, (c) Director Independence Standards, (d) Code of Business Conduct and Ethics policy and (e) written charters of the Audit Committee, Compensation Committee, Nominating, Governance and Corporate Responsibility Committee and Finance and Risk Committee of our board of directors. Company Documents filed with, or furnished to, the SEC are also available for review by the public at the SEC's website at www.sec.gov. We provide copies of our Corporate Governance Guidelines and Code of Business Conduct and Ethics policy, free of charge, to stockholders who request such documents. Requests should be directed to Investor Relations, 1906 Towne Centre Blvd, Suite 370, Annapolis, Maryland 21401, (410) 571-9860.

ITEM 1A. RISK FACTORS

Our business and operations are subject to a number of risks and uncertainties, the occurrence of which could adversely affect our business, financial condition, consolidated results of operations and ability to make distributions to stockholders and could cause the value of our capital stock to decline. We may refer to the energy efficiency, renewable energy and the other sustainable infrastructure projects or market collectively as sustainable infrastructure projects or the industry. Please also refer to the sections entitled "Forward-Looking Statements" and "Risk Factor Summary".

Risks related to our business and our industry

Our business depends in part on U.S. federal, state and local government policies and a decline in the level of government support could harm our business.

The projects in which we invest typically depend in part on various U.S. federal, state or local governmental policies and incentives that support or enhance project economic feasibility. Such policies may include governmental initiatives, laws and regulations designed to reduce energy usage and impact the use of renewable energy or the investment in and the use of sustainable infrastructure.

Policies and incentives provided by the U.S. federal government may include tax credits (with some of these tax credits that are related to renewable energy being recently reduced and scheduled to be eliminated or phased out in the future), tax deductions, bonus depreciation, federal grants and loan guarantees and energy market regulations. The value of tax credits, deductions and incentives may be impacted by changes in tax laws, rates or regulations.

Incentives provided by state and local governments may include renewable portfolio standards ("RPS"), which specify the portion of the power utilized by local utilities that must be derived from renewable energy sources such as renewable energy as well as the state or local government sponsored programs where the financing of energy efficiency or renewable energy projects is repaid through a special tax assessment against commercial property in accordance with various state and local government programs known as C-PACE. Additionally, certain states have implemented feed-in tariffs, pursuant to which electricity generated from renewable energy sources is purchased at a higher rate than prevailing wholesale rates. Other incentives include tariffs, tax incentives and other cash and non-cash payments.

Governmental agencies, commercial entities and developers of sustainable infrastructure projects frequently depend on these policies and incentives to help defray the costs associated with, and to finance, various projects. Government regulations also impact the terms of third-party financing provided to support these projects. If any of these government policies, incentives or regulations are adversely amended, delayed, eliminated, reduced, retroactively changed or not extended beyond their current expiration dates, or there is a negative impact from the recent federal law changes or proposals, the operating results of the projects we finance and the demand for, and the returns available from, the investments we make may decline, which could harm our business.

U.S. federal, state and local government entities are major participants in the sustainable infrastructure industry and their actions could be adverse to our projects or our company.

The projects we invest in are subject to substantial regulation by U.S. federal, state and local governmental agencies. For example, many projects require government permits, licenses, concessions, leases or contracts. Government entities, due to the wide-ranging scope of their authority, have significant leverage in setting their contractual and regulatory relationships with third parties. In addition, government permits, licenses, concessions, leases and contracts are generally very complex, which may result in periods of non-compliance, or disputes over interpretation or enforceability. If the projects in which we invest fail to obtain or comply with applicable regulations, permits, or contractual obligations, they could be prevented from being constructed or subjected to monetary penalties or loss of operational rights, which could negatively impact project operating results and the returns on our assets.

Contracts with government counterparties that support the projects in which we invest may be more favorable to the government counterparties compared to commercial contracts with private parties. For example, a lease, concession or general service contract may enable the government to modify or terminate the contract without requiring the payment of adequate compensation. Typically, our contracts with government counterparties contain termination provisions including prepayment amounts. In most cases, the prepayment amounts provide us with amounts sufficient to repay the financing we have provided but may be less than amounts that would be payable under "make whole" provisions customarily found in commercial lending arrangements.

In addition, government counterparties also may have the discretion to change or increase regulation of project operations, or implement laws or regulations affecting project operations, separate from any contractual rights they may have. These actions could adversely impact the efficient and profitable operation of the projects in which we invest.

Government entities may also suspend or debar contractors from doing business with the government or pursue various criminal or civil remedies under various government contract regulations. They may also issue new government contracts or fail to extend existing government contracts. Our ability to originate new assets could be adversely affected if one or more of the ESCOs or other origination sources with whom we have relationships are suspended or debarred or fail to win new, or renew existing, contracts.

Changes in the terms of energy savings performance contracts could have a material and adverse impact on our business.

We derive a portion of our income from the assignment to us of payment streams under energy savings performance contracts with property owners, including government customers, in which the scope and cost of improvements and services are specified. While U.S. federal, state and local government rules governing such contracts vary, such rules may, for example, permit the funding of such contracts through long-term financing arrangements, permit long-term payback periods from the savings realized through such contracts, allow units of government to exclude debt related to such contracts from the calculation of their statutory debt limitation, allow for award of contracts on a "best value" instead of "lowest cost" basis and allow for the use of sole source providers. To the extent these rules become more restrictive in the future, our ability to provide financing to support these projects could be adversely impacted, which could harm our business. Changes in these rules, including retroactive changes, could also negatively impact the operating results of the projects we finance and the returns on our assets.

A change in the fiscal health, level of appropriations or budgets of U.S. federal, state and local governments could reduce demand for our investments.

Although our energy efficiency investments do not normally require additional governmental appropriations to cover repayment due to the energy and operating savings derived from the newly installed equipment and systems, a significant decline in the fiscal health, level of appropriations or budgets of government customers may make it difficult for them to remain current on existing payment obligations or undesirable to enter into new energy efficiency improvement projects. Alternatively, some government entities may choose to provide appropriations or other credit support for sustainable infrastructure projects, which would negatively impact the use of private capital such as ours. This could have a material and adverse effect on the return of and return on our investments for existing projects and on our ability to originate new assets. Moreover, other changes in resources available to governments may also impact their willingness to undertake energy efficiency projects. For example, an increase in money set aside for government expenditures for energy efficiency projects may reduce demand for our investments.

In addition, to the extent we make investments that involve direct appropriations, we will depend on approval of the necessary spending for the projects. The repayment of the investment, or the return on our asset, could be adversely affected if appropriations for any such projects are delayed or terminated.

Because our business depends to a significant extent upon relationships with key industry players, our inability to maintain or develop these relationships, or the failure of these relationships to generate business opportunities, could adversely affect our business.

We rely, to a significant extent, on our relationships with key industry players in the markets we target. We originate transactions through programmatic finance relationships with various parties, including global ESCOs. We also originate transactions with renewable energy manufacturers, developers and operators who own and operate renewable energy projects, including several U.S. utility companies. In addition to the net proceeds from past and future debt and equity offerings, we have also financed our business by accessing the securitization, syndication, or other debt markets, primarily utilizing our relationships with insurance companies and commercial banks. We also rely on relationships with a variety of key financial participants, including institutional investors, senior lenders, and investment and commercial banks, as well as leading intermediaries, to complement our origination and financing activities. Our inability to maintain or develop these relationships, or the failure of these relationships to generate business opportunities, could adversely affect our business. In addition, individuals and entities with whom we have relationships are not obligated to provide us with business opportunities, and, therefore, there is no assurance that such relationships will generate business opportunities for us.

If the cost of energy generated by traditional sources of energy continues to stay or further declines from present levels, demand for the projects in which we invest may decline.

Many traditional sources of energy such as coal, petroleum based fuels and natural gas can be influenced by the price of underlying or substitute commodities. While we believe the potential for rising or increasingly volatile commodity prices and inflation will spur investment in our industry, there have been, and may continue to be, decreases in such prices, which may reduce the demand for energy efficiency projects or other projects, including renewable energy facilities, that do not rely on fossil fuel energy sources. For example, we believe low natural gas prices may reduce the demand for projects like renewable energy that can substitute for natural gas. Additionally, low natural gas prices can adversely affect both the price available to renewable energy projects under future power sale agreements and the price of the electricity the projects sell on either a forward or a spot-market basis. Technological progress in electricity generation, storage or in the production of traditional fuels or the discovery of large new deposits of traditional fuels could reduce the cost of energy generated from those sources and consequently reduce the demand for the types of projects in which we invest, which could harm our new business origination prospects as well as the value of our existing portfolio. In addition, volatility in commodity prices, including energy prices, may cause building owners and other parties to be reluctant to commit to projects for which repayment is based upon a fixed monetary value for energy savings that would not decline if the price of energy declines. Any resulting decline in demand for our investments or the price that industry participants receive for the sale of fossil fuel could adversely impact our operating results.

If the market for various types of sustainable infrastructure projects or the investment techniques related to such projects do not develop as we anticipate, new business generation in this target area may be adversely impacted.

The market for various types of sustainable infrastructure projects such as renewable energy projects, commercial office building energy efficiency projects, electricity storage, and storm water and various other sustainable infrastructure projects is emerging and rapidly evolving, leaving their future success uncertain. Similarly, various investing techniques, such as leasing land for renewable energy projects, purchasing interests in existing renewable energy projects, the use of C-PACE financing and the use of taxable debt for state and local energy efficiency or sustainable infrastructure financings are emerging and the future success of these investing techniques is also uncertain. If some or all market segments or investing techniques prove unsuitable for widespread commercial deployment or if demand for such projects or techniques fail to grow sufficiently, the demand for our capital may decline or develop more slowly than we anticipate. Many factors will influence the widespread adoption and demand for such projects and investing techniques, including general and local economic conditions, commodity prices of fossil fuel energy sources, the cost and availability of energy storage, the cost-effectiveness of various projects and techniques, performance and reliability of such technologies compared to conventional power sources and technologies, and the extent of government subsidies and regulatory developments. Any changes in the markets, products, technologies, financing techniques, or the regulatory environment could adversely impact the demand or financial performance for such projects and our investments.

In addition, renewable energy projects rely on electric and other types of transmission lines and facilities owned and operated by third parties to receive and distribute their energy. Any substantial access barriers to these lines and facilities could make projects that depend on them more expensive, which could adversely impact the demand or financial performance for such projects and our investments.

Existing electric utility industry regulations, and changes to regulations, may present technical, regulatory and economic barriers to the purchase and use of renewable energy and energy efficiency systems that may significantly reduce demand for systems in which we can invest.

Federal, state and local government regulations and policies concerning the electric utility industry, and internal policies and regulations promulgated by electric utilities, heavily influence the market for electricity products and services. These regulations and policies often relate to electricity pricing and the interconnection of customer-owned electricity generation. In the United States, governments and utilities continuously modify these regulations and policies. These regulations and policies could deter customers from purchasing energy efficiency and renewable energy systems. For example, Federal Energy Regulatory Commission ("FERC") recently conducted its own review of grid resiliency and the functioning of electricity markets and has made, and could continue to make, changes to policies and regulations related to the function of the electricity markets and grid resiliency which may negatively impact the use of renewable energy or encourage the use of fossil fuel energy over renewable energy. This could result in a significant reduction in the potential demand for such systems. Utilities commonly charge fees to larger, industrial customers for disconnecting from the electric grid or for having the capacity to use power from the electric grid for back-up purposes. In addition, there is an increasing trend towards initiating or increasing fixed fees for users to have electricity service from a utility. These fees could increase our customers' cost to use energy efficiency and renewable energy systems not supplied by the utility and make them less desirable, thereby harming our business, prospects, financial condition and results of operations. In addition, any changes to government or internal utility regulations and policies that favor electric utilities could reduce competitiveness and cause a significant reduction in demand for systems in which we invest.

Some projects in which we invest rely on net metering and related policies to improve project economics which if reduced could impact repayment of our investments or the return on our assets.

There has been a nationwide increase in distributed generation which has prompted discussions among policy makers and regulators regarding ways to both better integrate distributed energy resources into the electric grid and how to compensate distributed generators. Many states have a regulatory policy known as net energy metering, or net metering. Net metering typically allows some project customers to interconnect their on-site solar or other renewable energy systems to the utility grid and offset their utility electricity purchases by receiving a bill credit at the utility's retail rate for the amount of energy in excess of their electric usage that is generated by their renewable energy system and is exported to the grid. At the end of the billing period, the customer simply pays for the net energy used or receives a credit at the retail rate if more energy is produced than consumed. Net metering policies are under review or have been limited or amended in a number of states. The ability and willingness of customers to pay for renewable energy systems which benefit from net metering rules may be reduced if net metering rules are eliminated or their benefits reduced, which may also impact our returns on such systems.

Sustainable infrastructure projects that involve the generation, transmission or sale of electricity such as renewable energy projects may be subject to regulation by the Federal Energy Regulatory Commission under the Federal Power Act or other regulations that regulate the sale of electricity, which may adversely affect the profitability of such projects.

Sustainable infrastructure projects that involve the generation, transmission or sale of electricity such as renewable energy projects may be "qualifying facilities" that are exempt from regulation as public utilities by the "FERC under the Federal Power Act, (the "FPA") while certain other such projects may be subject to rate regulation by the FERC under the FPA. FERC regulations under the FPA confer upon these qualifying facilities key rights to interconnection with local utilities and can entitle such facilities to enter into PPAs with local utilities, from which the qualifying facilities benefit. Changes to these U.S. federal laws and regulations could increase the regulatory burdens and costs and could reduce the revenue of the project. In addition, modifications to the pricing policies of utilities could require sustainable infrastructure projects to achieve lower prices in order to compete with the price of electricity from the electric grid and may reduce the economic attractiveness of certain energy efficiency measures. To the extent that the projects in which we invest are subject to rate regulation, the project owners will be required to obtain FERC acceptance of their rate schedules for wholesale sales of energy, capacity and ancillary services. Any changes in the rates project owners are permitted to charge could impact the repayment of our investments, or the return on our assets.

In addition, the operation of, and electrical interconnection for, our sustainable infrastructure projects may be subject to U.S. federal, state or local interconnection and federal reliability standards, some of which are set forth in utility tariffs. These standards and tariffs specify rules, business practices and economic terms to which the projects where we invest are subject and which may impact a project's ability to deliver the electricity it produces or transports to its end customer. The tariffs are drafted by the utilities and approved by the utilities' state and U.S. federal regulatory commissions. These standards and tariffs change frequently and it is possible that future changes will increase our administrative burden or adversely affect the terms and conditions under which the projects render services to their customers.

In addition, under certain circumstances, we may also be subject to the reliability standards of the North American Electric Reliability Corporation. If project owners fail to comply with the mandatory reliability standards, they could be subject to sanctions, including substantial monetary penalties, which could also raise credit risks for, or lower the returns available from, the projects in which we invest.

These various regulations may also limit the transferability or sale of renewable energy projects and any such limits could negatively impact our returns from such projects.

Unfavorable publicity or public perception of the industries in which we operate could adversely impact our operating results and our reputation.

The sustainable infrastructure industry, including various forms of renewable energy and C-PACE financings receives significant media coverage that, whether or not directly related to our business or our projects, can adversely impact our reputation and the demand for our investments. Similarly, negative publicity or public perception of the renewable energy industry or the broader energy industries in which we operate or of climate change in general could reduce demand for our investments and our projects' services. Any reduction in demand for sustainable infrastructure projects or for our investments could damage our reputation or could have a material adverse effect on our results of operations and business prospects.

We operate in a competitive market and future competition may impact the terms of our investments.

We compete against a number of parties who may provide alternatives to our investments including specialty finance companies, savings and loan associations, banks, private equity, hedge or infrastructure investment funds, insurance companies, mutual funds, institutional investors, investment banking firms, financial institutions, utilities, independent power producers, project developers, pension funds, government entities, public entities established to own infrastructure assets and other entities. The continued low interest rate environment and increasing investor acceptance of the sustainable infrastructure market have increased the level of competition we experience. We also encounter competition in the form of potential customers or our origination partners electing to use their own capital rather than engaging an outside provider such as us. In addition, we may also face competition based on technological developments that reduce demand for electricity, increase power supplies through existing infrastructure or that otherwise compete with our sustainable infrastructure projects. Some of our competitors are significantly larger than we are, have access to greater capital and other resources than we do and may have other advantages over us. In addition, some of our competitors may have higher risk tolerances or different risk assessments, which could allow them to consider a wider variety of investments and establish more relationships than we can. In addition, many of our competitors are not subject to the operating constraints associated with REIT tax compliance or maintenance of an exemption from the 1940 Act. These characteristics could allow our competitors to consider a wider variety of opportunities, establish more relationships and offer better pricing and more flexible structuring than we can offer. We may lose business opportunities if we do not match our competitors' pricing, terms and structure. If we match our competitors' pricing, terms and structure, we may not be able to achieve acceptable risk-adjusted returns on our assets or we may be forced to bear greater risks of loss. The increase in the number and/or the size of our competitors in this market has resulted, and could continue to result, in less attractive terms on our investments or the need to accept a higher level of risks associated with our investments. As a result, competitive pressures we face could have a material adverse effect on our business, financial condition and results of operations.

Our business is affected by seasonal trends and construction cycles, and these trends and cycles could have an adverse effect on our operating results.

The volume and timing of our originations are subject to seasonal fluctuations and construction cycles, particularly in climates that experience colder weather during the winter months, such as the northern United States, or at educational institutions, where large projects are typically carried out during summer months when their facilities are unoccupied. In addition, government customers, many of which have fiscal years that do not coincide with ours, typically follow annual procurement cycles. Further, government contracting cycles can be affected by the timing of, and delays in, the legislative process related to government programs, funding, or incentives that help drive demand for sustainable infrastructure projects. As a result of such fluctuations, we may occasionally experience fluctuations in the timing of new asset opportunities or declines in revenue or earnings as compared to the immediately preceding quarter, and comparisons of our operating results on a period-to-period basis may not be meaningful.

Risks related to our assets and projects in which we invest

Changes in interest rates could adversely affect the value of our assets and negatively affect our profitability.

Interest rates are highly sensitive to many factors, including governmental monetary and tax policies, domestic and international economic and political considerations and other factors beyond our control. Many of our assets pay a fixed rate of interest or provide a fixed preferential return.

With respect to our business operations, increases in interest rates, in general, may over time cause: (1) project owners to be less interested in borrowing or raising equity and thus reduce the demand for our investments; (2) the interest expense associated with our borrowings to increase; (3) the market value of our fixed rate or fixed return assets to decline; and (4) the market value of our interest rate swap agreements to increase. Conversely, decreases in interest rates, in general, may over time cause: (1) project owners to be more interested in borrowing or raising equity and thus increase the demand for our assets; (2) prepayments on our assets, to the extent allowed, to increase; (3) the interest expense associated with our borrowings to decrease; (4) the market value of our fixed rate or fixed return assets to increase; and (5) the market value of our interest rate swap agreements to decrease. Adverse developments resulting from changes in interest rates could have a material adverse effect on our business, financial condition and results of operations.

The lack of liquidity of our assets may adversely affect our business, including our ability to value and sell our assets.

Volatile market conditions could significantly and negatively impact the liquidity of our assets. Illiquid assets typically experience greater price volatility, as a ready market does not exist, and can be more difficult to value. In addition, validating third-party pricing for illiquid assets may be more subjective than more liquid assets. The illiquidity of our assets may make it difficult for us to sell such assets if the need or desire arises. In addition, if we are required to liquidate all or a portion of our Portfolio quickly, we may realize significantly less than the value at which we have previously recorded our assets. To the extent that we utilize leverage to finance our investments that are or become illiquid, the negative impact on us related to trying to sell assets in a short period of time for cash could be greatly exacerbated. As a result, our ability to vary our portfolio in response to changes in economic and other conditions may be relatively limited, which could adversely affect our results of operations and financial condition.

Provisions for loan losses are difficult to estimate.

Our provision for loan losses is evaluated on a quarterly basis. The determination of our provision for loan losses requires us to make certain estimates and judgments, which may be difficult to determine. Our estimates and judgments are based on a number of factors, including a project's operating results, loan-to-value ratio, any cash reserve, the ability of expected cash from operations to cover the cash flow requirements currently and into the future, key terms of the transaction, the ability of the borrower to refinance the transaction, other credit support from the sponsor or guarantor and the project's collateral value. In addition, we consider the overall economic environment, the sustainable infrastructure sector, the effect of local, industry, and broader economic factors, the impact of any variation in weather and the historical and anticipated trends in interest rates, defaults and loss severities for similar transactions.

Our estimates and judgments may not be correct and, therefore, our results of operations and financial condition could be severely impacted.

In June 2016, the FASB issued ASU No. 2016-13, *Financial Instruments-Credit Losses-Measurement of Credit Losses on Financial Instruments* (Topic 326), which is effective for accounting periods beginning after December 15, 2019 and replaces the current "incurred loss" model for recognizing credit losses with an "expected loss" model referred to as the Current Expected Credit Loss ("CECL") model. Under the CECL model, we are required to present certain financial assets carried at amortized cost, such as loans held for investment, at the net amount expected to be collected. The measurement of expected credit losses is to be based on information about past events, including historical experience, current conditions, and reasonable and supportable forecasts that affect the collectability of the reported amount. This measurement will take place at the time the financial asset is first added to the balance sheet and updated quarterly thereafter. This differs significantly from the "incurred loss" model required under current accounting principles generally accepted in the United States ("GAAP"), which delays recognition until it is probable a loss has been incurred.

Accordingly, the adoption of the CECL model has affected how we determine our allowance for loan losses and is requiring us to increase our allowance and recognize provisions for loan losses earlier in the lending cycle. Moreover, the CECL model may create more volatility in the level of our allowance for loan losses. If our required level of allowance for loan losses is material for any reason, such increase could adversely affect our business, financial condition and results of operations.

We may experience a decline in the fair value of our assets.

A decline in the fair market value of available-for-sale securities, any receivables we hold for sale, our interest rate hedges, if any, or any other assets which we may carry at fair value in the future, may require us to reduce the value of such assets under GAAP. In addition, our other financial assets are subject to an impairment assessment that could result in adjustments to their carrying values. Upon the subsequent disposition or sale of such assets, we could incur future losses or gains based on the difference between the sale price received and adjusted value of such assets as reflected on our balance sheet at the time of sale.

Some of the assets in our portfolio may be recorded at fair value and, as a result, there could be uncertainty as to the value of these assets.

Our investments are not publicly traded. The fair value of assets that are not publicly traded may not be readily determinable. In accordance with GAAP, we record certain of our assets at fair value, which may include unobservable inputs. Because such valuations are subjective, the fair value of these assets may fluctuate over short periods of time and our determinations of fair value may differ materially from the values that would have been used if a ready market for these assets existed. The value of our common stock could be adversely affected if our determinations regarding the fair value of these assets were materially higher than the values that we ultimately realize upon their disposal. Additionally, our results of operations for a given period could be adversely affected if our determinations regarding the fair value of these assets were materially higher than the values that we ultimately realize upon their disposal. The valuation process can be particularly challenging during periods when market events make valuations of certain assets more difficult, unpredictable and volatile.

We may not realize income or gains from our assets, which could cause the value of our common stock to decline.

We seek to provide attractive risk-adjusted returns to our stockholders. However, our assets may not appreciate in value and, in fact, may decline in value, and the assets we originate or acquire may default or not perform in accordance with our expectations. Accordingly, we may not be able to realize gains or income from our assets. Any gains that we do realize may not be sufficient to offset any other losses we experience. Any income that we realize may not be sufficient to offset our expenses.

The majority of our investments are not rated by a rating agency, which may result in an amount of risk, volatility or potential loss of principal that is greater than that of alternative asset opportunities.

The majority of our investments are not rated by any rating agency and we expect that most of the assets we originate and acquire in the future will not be rated by any rating agency. Although we focus on sustainable infrastructure projects with high credit quality obligors, we believe that some of the projects or obligors in which we invest, if rated, would be rated below investment grade, due to speculative characteristics of the project or the obligor's capacity to pay interest and repay principal or pay dividends. Some of our assets may result in an amount of risk, volatility or potential loss of principal that is greater than that of alternative asset opportunities.

Any credit ratings assigned to our assets, debt or obligors are subject to ongoing evaluations and revisions and we cannot assure you that those ratings will not be downgraded.

To the extent our assets, their underlying obligors, or our debt are rated by credit rating agencies or by our internal rating process, such assets, obligors or our debt will be subject to ongoing evaluation by credit rating agencies and our internal rating process, and we cannot assure you that any ratings will not be changed or withdrawn in the future. If rating agencies assign a lower-than-expected rating or if a rating is further reduced or withdrawn by a rating agency or us, or if there are indications of a potential reduction or withdrawal of the ratings of our assets, the underlying obligors or our debt in the future, the value of these assets could significantly decline, the level of borrowings based on such asset could be reduced or we could incur higher borrowing costs or incur losses upon disposition or the failure of obligors to satisfy their obligations to us.

Our investments are subject to delinquency, foreclosure and loss, any or all of which could result in losses to us.

Our investments are subject to risks of delinquency, foreclosure and loss. In many cases, the ability of a borrower to return our invested capital and our expected return is dependent primarily upon the successful development, construction and operation of the underlying project. If the cash flow of the project is reduced, the borrower's ability to return our capital and our expected return may be impaired. We make certain estimates regarding project cash flows or savings during the underwriting of our investment. These estimates may not prove accurate, as actual results may vary from estimates. The cash flows or cost savings of a project can be affected by, among other things: the terms of the power purchase or other use agreements used in such project; the creditworthiness of the off-taker or project user; price of power or services now and in the future; the technology deployed; unanticipated expenses in the development or operation of the project and changes in national, regional, state or local economic conditions, laws and regulations; and acts of God, terrorism, social unrest and civil disturbances.

In the event of any default or shortfall of an investment, we will bear a risk of loss of principal or equity to the extent of any deficiency between the value of the collateral, if any, and the amount of our investment, which could have a material adverse effect on our cash flow from operations and may impact the cash available for distribution to our stockholders. Many of the projects are structured as special purpose limited liability companies which limits our ability to realize any recovery to the collateral or value of the project itself. In the event of the bankruptcy of a project owner, obligor, or other borrower, our investment or the project will be deemed to be subject to the avoidance powers of the bankruptcy trustee or debtor-in-possession and our or the project's contractual rights may be unenforceable under federal bankruptcy or state law. Foreclosure proceedings against a project can be an expensive and lengthy process, which could have a substantial negative effect on our anticipated return on the foreclosed investment.

Our sustainable infrastructure projects may incur liabilities that rank equally with, or senior to, our investments in such projects.

We provide a range of investment structures, including various types of debt and equity securities, senior and subordinated loans, real property leases, mezzanine debt, preferred equity and common equity. Our projects may have, or may be permitted to incur, other liabilities or equity preferences that rank equally with, or senior to, our positions or investments in such projects or businesses, as the case may be, including with respect to grants of collateral. By their terms, such instruments may entitle the holders to receive payment of interest, principal payments or other distributions on or before the dates on which we are entitled to receive payments with respect to the instruments in which we invest. Also, in the event of insolvency, liquidation, dissolution, reorganization or bankruptcy of an entity in which we have invested, holders of instruments ranking senior to our investment in that project or business would typically be entitled to receive payment in full before we receive any distribution. After repaying such senior stakeholders, such project may not have any remaining assets to use for repaying its obligation to us. In the case of securities ranking equally with instruments we hold, we would have to share on an equal basis any distributions with other stakeholders holding such instruments in the event of an insolvency, liquidation, dissolution, reorganization or bankruptcy of the relevant project.

Our mezzanine or subordinated loans are less protected against losses than senior debt.

We make or acquire mezzanine and subordinated loans, which are loans made to project owners for sustainable infrastructure projects that are subordinate to other more senior interest or are secured by pledges of the borrower's ownership interests in the project and/or the project owner. These mezzanine and subordinated loans may be subordinate to senior secured loans on the projects or to the returns required by the investors focused on the tax attributes in a project, known as tax equity investors, but senior to the project owner's equity. In the event a borrower defaults on a loan and lacks sufficient assets to satisfy our mezzanine or subordinated financing, we may suffer a loss of principal or interest. In the event a borrower declares bankruptcy, we may not have full recourse to the assets of the borrower, or the assets of the borrower may not be sufficient to satisfy our mezzanine or subordinated loan. In addition, mezzanine or subordinated loans are by their nature structurally subordinated to more senior project level investments, and in some cases, to tax equity investors. If a borrower defaults on our mezzanine or subordinated loan, on its obligations to the tax equity investor or on debt or other obligations senior to our loan, or if a borrower declares bankruptcy, our mezzanine or subordinated loan will be satisfied only after the project level debt or other obligations or tax equity and other senior debt is paid in full. Significant losses related to our mezzanine or subordinated loans would result in operating losses for us and may limit our ability to make distributions to our stockholders.

Our subordinated and mezzanine debt and equity investments, many of which are illiquid with no readily available market, involve a substantial degree of risk.

We make subordinated and mezzanine debt and equity investments which may fail to be repaid or appreciate and may decline in value or become worthless and our ability to recover our investment will depend on the success of the project in which we make such investments. Subordinated and mezzanine debt and equity investments involve a number of significant risks, including:

- such investments could be subject to further dilution as a result of the issuance of additional debt or equity interests and to serious risks because subordinated and mezzanine debt are subordinate to other indebtedness and in some cases, project tax equity, and equity interests are subordinate to all indebtedness (including trade creditors) and any senior securities in the event that the issuer is unable to meet its obligations or becomes subject to a bankruptcy process;
- to the extent that a project in which we invest requires additional capital and is unable to obtain it, we may not recover our investment; and
- in some cases, subordinated and mezzanine debt may not pay current interest or principal or equity investments may not pay current dividends, and our ability to realize a return on our investment, as well as to recover our investment, will be dependent on the success of the project in which we invest. The project may face unanticipated costs or delays or may not generate projected cash flows which could lead to the project generating lower than expected rates of return.

We generally do not control the projects in which we invest.

Although the covenants in our financing or investment documentation generally restrict certain actions that may be taken by project owners, we generally do not control the projects in which we invest. As a result, we are subject to the risk that the project owner may make certain business decisions or take risks with which we disagree or otherwise act in ways that do not serve our interests.

We invest in joint ventures and other similar arrangements that subject us to additional risks.

Some of our projects are structured as joint ventures, partnerships, securitizations, syndications and consortium arrangements. Part of our strategy is to participate with other institutional investors or the project's sponsor on various sustainable infrastructure transactions. These arrangements are driven by the magnitude of capital required to complete acquisitions and the development of sustainable infrastructure projects and other industry-wide trends that we believe will continue. Such arrangements involve risks not present where a third party is not involved, including the possibility that partners or co-venturers might become bankrupt or otherwise fail to fund their share of required capital contributions. Additionally, partners or co-venturers might at any time have economic or other business interests or goals different from ours. These investments generally provide for a reduced level of control over an acquired project because governance rights are shared with others. Accordingly, project decisions relating to the management, operation and the timing and nature of any exit, are often made by a majority vote of the investors or by separate agreements that are reached with respect to individual decisions. In addition, project operations may be subject to the risk that the project owners may make business, financial or management choices with which we do not agree or the management of the project may take risks or otherwise act in a manner that does not serve our interests. Because we may not have the ability to exercise control, we may not be able to realize some or all of the benefits expected from our investment. If any of the foregoing were to occur, our business, financial condition and results of operations could suffer as a result.

In addition, some of our joint ventures, partnerships, and equity investments, subject the sale or transfer of our interests in these projects to rights of first refusal or first offer, tag along or drag along rights and buy-sell, call-put or other restrictions. Such rights may be triggered at a time when we may not want them to be exercised and such rights may inhibit our ability to sell our interest in an entity within our desired time frame or on any other desired terms.

Energy efficiency, renewable energy and other sustainable infrastructure projects are subject to performance risks, including risks due to extreme weather events, that could impact the repayment of and the return on our assets.

Energy efficiency, renewable energy and other sustainable infrastructure projects are subject to various construction and operating delays and risks that may cause them to incur higher than expected costs or generate less than expected amounts of savings or outputs such as electricity in the case of a renewable energy project. These risks include, extreme weather events, construction delays, a failure or degradation of our, our customers' or the utilities' equipment; obsolescence of, or an inability to find suitable, equipment or parts; labor shortages; less than expected supply of a project's source of renewable energy, such as solar insolation and wind; or a faster than expected diminishment of such supply. Further, many projects in which we invest will be subject to competitive risks and to volatility in commodity prices including the price of energy. Any extended interruption in the project's construction or operation, any cost overrun or failure of the project for any reason to generate the expected amount of output or cash flow, could have a material adverse effect on the repayment of and the return on our assets.

Many of our assets depend on revenues from third-party contractual arrangements.

Many of the projects in which we invest rely on revenue or repayment from contractual commitments of end-customers, including federal, state or local governments for energy efficiency projects or utilities or other customers under PPAs. There is a risk that these customers may default under their contracts. In addition, many of these end-customers are large entities with wide ranging activities. An event in a non-related part of the business could have a material adverse impact on the financial strength of such end-customer such as the effect of recent wildfires on the California utilities. Furthermore, the bankruptcy, insolvency or other liquidity constraints of one or more customers may result in a renegotiation or rejection of the third-party contract, delay the receipt of any obligations or reduce the likelihood of collecting defaulted obligations. Some projects rely on one customer for their revenue and thus the project could be materially and adversely affected by any material change in the financial condition of that customer. While there may be alternative customers for such a project, there can be no assurance that a new contract on the same terms will be able to be negotiated for the project.

Certain of our projects with contractually committed revenues or other sources of repayment under long term contracts will be subject to re-contracting risk in the future. We cannot provide assurance that these contracts can be re-negotiated once their terms expire on equally favorable terms or at all. If it is not possible to renegotiate these contracts on favorable terms, our business, financial condition, results of operations and prospects could be materially and adversely affected.

Revenues at some of the projects in which we invest depend on reliable and efficient metering, or other revenue collection systems, which are often specified in the contract. There is a risk that, if one or more of such projects are not able to operate and maintain the metering or other revenue collection systems in the manner expected, if the operation and maintenance costs, are greater than expected, or if the customer disputes the output of the revenue collection system, the ability of the project to repay our investments or provide a return to us on our asset could be materially and adversely affected.

We are exposed to the credit risk of ESCOs, various project sponsors, and others.

We are subject to varying degrees of credit risk related to ESCOs in government energy efficiency projects in which guarantees provided by ESCOs under energy savings performance contracts are required in the event that certain energy savings are not realized by the customer. We are also exposed to credit risk in projects in which we invest that do not depend on funding from governments.

Where we make loans to or own equity interests in special purposes entities such as those which lease solar energy systems to residential customers, those special purpose entities often enter into various contractual arrangements with, or receive performance guarantees from the affiliate project sponsor to ensure satisfactory equipment or other project performance over the term of the lease or power purchase agreement. To the extent those parties are unable to perform on their contractual obligations or performance guarantees we may see diminished equity returns or the special purpose entity may be unable to repay their loan timely or at all.

We seek to mitigate these credit risks by employing a comprehensive review and asset selection process and careful ongoing monitoring of acquired assets. Nevertheless, unanticipated credit losses could occur which could adversely impact our operating results. During periods of economic downturn in the global economy, our exposure to credit risks from obligors increases, and our efforts to monitor and mitigate the associated risks may not be effective in reducing our credit risks. Certain participants in the sustainable energy industry have experienced significant declines in the value of their equity and difficulty in raising or refinancing debt, which increases the credit risk to these companies and there can be no assurance they will be able to fulfill their obligations which could adversely impact our operating results.

Some of the projects in which we invest have sold their output under PPAs which expose the projects to various risks.

Some of our projects enter into PPAs when they contract to sell all or a fixed proportion of the electricity generated by the project, sometimes bundled with renewable energy credits and capacity or other environmental attributes, to a power purchaser, often a utility, or increasingly, a corporation. PPAs are used to stabilize our revenues from that project. We are exposed to the risk that the power purchaser, who we consider an obligor, will fail to perform under a PPA or the PPA will be terminated or expire, which will lead to that project needing to sell its electricity at the then market price, which could be substantially lower than the price provided in the applicable PPA. In most instances, the project also commits to sell minimum levels of generation. If the project generates less than the committed volumes, it may be required to buy the shortfall of electricity on the open market or make payments of liquidated damages or be in default under a PPA, which could result in its termination. In the event that any of these events were to occur, our business, financial condition and results of operations could suffer as a result.

Portions of the electricity our assets generate is sold on the open market at spot-market prices. A prolonged environment of low prices for natural gas, or other conventional fuel sources such as we are experiencing may, and could continue to, have a material adverse effect on our long-term business prospects, financial condition and results of operations.

Historically low prices for traditional fossil fuels, particularly natural gas, could cause demand for renewable energy to decrease and they have, and may continue to, adversely affect both the future sale price of energy under new PPAs and the current sale price of energy sold on a spot-market basis. Low PPA and spot market power prices, if combined with other factors, can have a material adverse effect on our projects and their respective values and our expected returns, results of operations and cash available for distribution.

The ability of our assets to generate revenue from certain projects depends on having interconnection arrangements and services.

The future success of our assets will depend, in part, on their ability to maintain satisfactory interconnection agreements. If the interconnection or transmission agreement of a project is terminated for any reason, they may not be able to replace it with an interconnection and transmission arrangement on terms as favorable as the existing arrangement, or at all, or they may experience significant delays or costs in connection with securing a replacement. If a network to which one or more of the projects is connected experiences equipment or operational problems or other forms of "down time," the affected project may lose revenue and be exposed to non-performance penalties and claims from its customers. These may include claims for damages incurred by customers, such as the additional cost of acquiring alternative electricity supply at then-current spot market rates. The owners of the network will not usually compensate electricity generators for lost income due to down time. In addition, our projects may be exposed to a locational basis risk resulting from a difference between where the power is generated and the contracted delivery point. These factors could materially affect these projects, which could negatively affect our business, results of operations, financial condition and cash flow.

Our projects and their obligors are exposed to an increase in climate change or other change in meteorological conditions which could have an impact on electric generation, revenue, insurance costs or the ability of the projects or their obligors to honor their contract obligations, all of which could adversely affect our business, financial condition and results of operations and cash flows.

The electricity produced and revenues generated by a renewable electric generation facility are highly dependent on suitable weather conditions, which are beyond our control. Components of renewable energy systems, such as turbines, solar panels and inverters, could be damaged by natural disasters or severe weather, including extreme temperatures, wildfires, hurricanes, hailstorms or tornadoes. Furthermore, the potential physical impacts of climate change may impact our projects, including the result of changes in weather patterns (including floods, tsunamis, drought, and rainfall levels), wind speeds, water availability, storm patterns and intensities, and temperature levels. The projects in which we invest will be obligated to bear the expense of repairing the damaged renewable energy systems and replacing spare parts for key components and insurance may not cover the costs or the lost revenue. Natural disasters or unfavorable weather and atmospheric conditions could impair the effectiveness of the renewable energy assets, reduce their output beneath their rated capacity, require shutdown of key equipment or impede operation of the renewable energy assets, which could adversely affect our business, financial condition and results of operations and cash flows. Sustained unfavorable weather could also unexpectedly delay the installation of renewable energy systems, which could result in a delay in our investing in new projects or increase the cost of such projects. The resulting effects of climate change can also have an impact on the cost of, and the ability of a project to obtain, adequate insurance coverage to protect against related losses.

We typically base our investment decisions with respect to each renewable energy facility on the findings of studies conducted on-site prior to construction or based on historical conditions at existing facilities. However, actual climatic conditions at a facility site may not conform to the findings of these studies. Even if an operating project's historical renewable energy resources are consistent with the long-term estimates, the unpredictable nature of weather conditions often results in daily, monthly and yearly material deviations from the average renewable resources anticipated during a particular period. Therefore, renewable energy facilities in which we invest may not meet anticipated production levels or the rated capacity of the generation assets, which could adversely affect our business, financial condition and results of operations and cash flows.

The amount of electricity renewable energy generation assets produce is also dependent in part on the time of year. For example, because shorter daylight hours in winter months results in less solar irradiation, the generation of particular assets will vary depending on the season. Further, time-of-day pricing factors vary seasonally which contributes to variability of revenues. As a result, we expect the revenue and cash flow from certain of our assets to vary based on the time of year.

In addition, many of the project's end-customers are large entities with wide ranging activities. A climate related event in a non-related part of the business could have a material adverse impact on the financial strength of such end-customer and their ability to honor their contractual obligations which could negatively impact on revenue and the cash flow of the project and our business.

Operation of the projects in which we invest involves significant risks and hazards customary to our investees that could have a material adverse effect on our business, financial condition, results of operations and cash flows.

The ongoing operation of the projects in which we invest involves risks that include the breakdown or failure of equipment or processes or performance below expected levels of output or efficiency due to wear and tear, latent defect, design error or operator error or force majeure events, among other things. In addition to natural risks such as earthquake, flood, drought, lightning, wildfire, hurricane, ice, wind, and temperature extremes, other hazards, such as fire, explosion, structural collapse and machinery failure, acts of terrorism or related acts of war, hostile cyber intrusions or other catastrophic events are inherent risks in the operation of a project. These and other hazards can cause significant personal injury or loss of life, severe damage to and destruction of property, plant and equipment and contamination of, or damage to, the environment and suspension of operations. Operation of a project also involves risks that the operator will be unable to transport its product to its customers in an efficient manner due to a lack of transmission capacity. Unplanned outages of projects, including extensions of scheduled outages due to mechanical failures or other problems, occur from time to time and are an inherent risk of the business. Unplanned outages typically increase operation and maintenance expenses and may reduce revenues as a result of selling less electricity or require the project to incur significant costs as a result of obtaining replacement power from third parties in the open market to satisfy forward power sales obligations. The project's inability to operate its assets efficiently, manage capital expenditures and costs and generate earnings and cash flow could have a material adverse effect on our investment and our business, financial condition, results of operations and cash flows. While the projects maintain insurance, obtain warranties from vendors and obligate contractors to meet certain performance levels, the proceeds of such insurance, warranties or performance guarantees may not cover the lost revenues, increased expenses or liquidated damages payments should the project experience any equipment breakdowns, insurance claims or non-performance by contractors or vendors.

Some of the projects in which we invest may require substantial operating or capital expenditures in the future.

Many of the projects in which we invest are capital intensive and require substantial ongoing expenditures for, among other things, additions and improvements, and maintenance and repair of plant and equipment related to project operations. In addition, there may be cash needs to settle certain contractual obligations of the projects, such as settlements or margining requirements related to hedging activities. While we do not typically bear the responsibility for these expenditures, any failure by the equity owner to make necessary operating or capital expenditures could adversely impact project performance. In addition, some of these expenditures may not be recoverable from current or future contractual arrangements.

The use of real property rights that we acquire or are used for our sustainable infrastructure projects may be adversely affected by the rights of lienholders and leaseholders that are superior to those of the grantors of those real property rights to us.

The projects in which we invest often require large areas of land for construction and operation or other easements or access to the underlying land. In addition, we may acquire rights to land or other real property. The rights to own or use the land can be obtained through fee simple title, leases and other rights of use. Although we believe that the real property rights we acquire, or our projects in which we invest, have valid rights to all material easements, licenses and rights of way, not all of such easements, licenses and rights of way are registered against the lands to which they relate and may not bind subsequent owners. Some of our real property rights and projects generally are, and are likely to continue to be, located on land occupied pursuant to long-term easements and leases. The ownership interests in the land subject to these easements and leases may be subject to mortgages securing loans or other liens (such as tax liens) and other easement and lease rights of third parties (such as leases of water, oil or mineral rights) that were created prior to, or are superior to, our or our projects' easements and leases. As a result, our rights may be subject, and subordinate, to the rights of those third parties. We typically obtain representations or perform title searches or obtain title insurance to protect our real property interest and our investments in our projects against these risks. Such measures may, however, be inadequate to protect against all risk of loss of rights to use the land rights we have acquired or the land on which these projects are located, which could have a material and adverse effect on our land rights, our projects and their financial condition and operating results.

We own land or leasehold interests that are used by renewable energy projects. Negative market conditions or adverse events affecting tenants, or the industries in which they operate, could have an adverse impact on our underwritten returns. Moreover, many of our assets are concentrated in similar geographic locations, which subjects us to an increased risk of significant loss if any property declines in value, incurs a natural disaster or if we are unable to lease a property.

We own land or leasehold interests used by renewable energy projects that are concentrated in a limited number of geographic locations. One consequence of this is that the aggregate returns we realize may be substantially adversely affected by the unfavorable performance of a small number of leases, a significant decline in the market value of any single property or a natural disaster in a concentrated area. Our cash flow depends in part on the ability to lease the real estate to projects or other tenants on economically favorable terms. We could be adversely affected by various facts and events over which we have limited or no control, such as:

- lack of demand in areas where our properties are located;
- inability to retain existing tenants and attract new tenants;
- oversupply of space and changes in market rental rates;
- our tenants' creditworthiness and ability to pay rent, which may be affected by their operations, the current economic situation and competition within their industries from other operators;
- defaults by and bankruptcies of tenants, failure of tenants to pay rent on a timely basis, or failure of tenants to comply with their contractual obligations;
- economic or physical decline of the areas where the properties are located; and
- destruction from natural disasters.

At any time, any tenant may experience a downturn in its business, including increased operating costs, termination of a PPA or low spot-market prices of products, that may weaken its operating results or overall financial condition, a tenant may delay lease commencement, fail to make rental payments when due, decline to extend a lease upon its expiration, become insolvent or declare bankruptcy. Any tenant bankruptcy or insolvency, leasing delay or failure to make rental payments when due could result in the termination of the tenant's lease and material losses to us.

If a tenant elects to terminate its lease prior to or upon its expiration or does not renew its lease as it expires, we may not be able to rent or sell the properties or realize our expected value. Furthermore, leases that are renewed and some new leases for properties that are re-leased, may have terms that are less economically favorable than expiring lease terms, or may require us to incur significant costs, such as lease transaction costs. In addition, negative market conditions or adverse events affecting tenants, or the industries in which they operate, may force us to sell vacant properties for less than their carrying value, which could result in impairments. Any of these events could adversely affect the value of our asset, the cash flow from operations and our ability to make distributions to stockholders and service indebtedness. A significant portion of the costs of owning property, such as real estate taxes, insurance and maintenance, are not necessarily reduced when circumstances cause a decrease in rental revenue from the properties. In a weakened financial condition, tenants may not be able to pay these costs of ownership and we may be unable to recover these operating expenses from them.

Further, the occurrence of a tenant bankruptcy or insolvency could diminish the income we receive from the tenant's lease or leases. For instance, a bankruptcy court might authorize the tenant to terminate its leases with us. If that happens, our claim against the bankrupt tenant for unpaid future rent would be subject to statutory limitations that most likely would be substantially less than the remaining rent we are owed under the leases. In addition, any claim we have for unpaid past rent, if any, may not be paid in full. As a result, tenant bankruptcies may have a material adverse effect on our results of operations.

In addition, since renewable energy projects are often concentrated in certain states, we would also be subject to any adverse change in the political or regulatory climate in those states or specific counties where such properties are located that could adversely affect our properties and our ability to lease such properties.

Performance of projects where we invest may be harmed by future labor disruptions and economically unfavorable collective bargaining agreements.

A number of the projects where we invest could have workforces that are unionized or that in the future may become unionized and, as a result, are required to negotiate the wages, benefits and other terms with many of their employees collectively. If these projects were unable to negotiate acceptable contracts with any of their unions as existing agreements expire, they could experience a significant disruption of their operations, higher ongoing labor costs and restrictions on their ability to maximize the efficiency of their operations, which could have a material and adverse effect on our business, financial condition and results of operations. In addition, in some jurisdictions where our projects have operations, labor forces have a legal right to strike which may have a negative impact on our business, financial condition and results of operations, either directly or indirectly, for example if a critical upstream or downstream counterparty was itself subject to a labor disruption which impacted the ability of our projects to operate.

We invest in projects that rely on third parties to manufacture quality products or provide reliable services in a timely manner and the failure of these third parties could cause project performance to be adversely affected.

We invest in projects that typically rely on third parties to select, manage or provide equipment or services. Third parties may be responsible for choosing vendors, including equipment suppliers and subcontractors. Project success often depends on third parties who are capable of installing and managing projects and structuring contracts that provide appropriate protection against construction and operational risks. In many cases, in addition to contractual protections and remedies, project owners may seek guaranties, warranties and construction bonding to provide additional protection.

The warranties provided by the third parties and, in some cases, their subcontractors, typically limit any direct harm that results from relying on their products and services. However, there can be no assurance that a supplier or subcontractor will be willing or able to fulfill its contractual obligations and make necessary repairs or replace equipment. In addition, these warranties generally expire within one to five years or may be of limited scope or provide limited remedies. If projects are unable to avail themselves of warranty protection or receive the expected protection under the terms of the guaranties or bonding, we may need to incur additional costs, including replacement and installation costs, which could adversely impact our investment.

Liability relating to environmental matters may impact the value of properties that we may acquire or the properties underlying our assets.

Under various U.S. federal, state and local laws, an owner or operator of real estate or a project may become liable for the costs of removal of certain hazardous substances released from the project or any underlying real property. These laws often impose liability without regard to whether the owner or operator knew of, or was responsible for, the release of such hazardous substances.

The presence of hazardous substances may adversely affect our, or another owner's, ability to sell a contaminated project or borrow using the project as collateral. To the extent that we, or another project owner, become liable for removal costs, our investment, or the ability of the owner to make payments to us, may be negatively impacted.

We acquire real property rights, make investments in projects that own real property, have collateral consisting of real property and in the course of our business, we may take title to a project or its underlying real estate assets relating to one of our debt financings. In these cases, we could be subject to environmental liabilities with respect to these assets. To the extent that we become liable for the removal costs, our results of operation and financial condition may be adversely affected. The presence of hazardous substances, if any, may adversely affect our ability to sell the affected real property or the project and we may incur substantial remediation costs, thus harming our financial condition.

Our insurance and contractual protections may not always cover lost revenue, increased expenses or liquidated damages payments.

Although our assets or projects generally have insurance, supplier warranties, subcontractors performance assurances such as bonding and other risk mitigation measures, the proceeds of such insurance, warranties, bonding or other measures may not be adequate to cover lost revenue, increased expenses or liquidated damages payments that may be required in the future.

The repayment of certain of our assets is dependent upon collection of payments from residential customers and we may be indirectly subject to consumer protection laws and regulations.

Certain obligors to which we have credit exposure are, or may be, subject to consumer protection laws, such as federal truth-in-lending, consumer leasing, and equal credit opportunity laws and regulations, as well as state and local sales and finance laws and regulations. Claims arising out of actual or alleged violations of law may be asserted against those obligors by individuals or governmental entities and may exposure them to significant damages or other penalties, including fines, or could reduce the likelihood the residential customer may pay their obligation, which could limit their ability to repay borrowings or make equity distributions to us.

Risks related to our company

We may change our operational policies (including our investment guidelines, strategies and policies) with the approval of our board of directors but without stockholder consent at any time, which may adversely affect the market value of our common stock and our ability to make distributions to our stockholders.

Our board of directors determines our operational policies and may amend or revise our policies, including our policies with respect to acquisitions, dispositions, growth, operations, compensation, indebtedness, capitalization and dividends, or approve transactions that deviate from these policies, without a vote of, or notice to, our stockholders at any time. We may change our investment guidelines, underwriting process and our strategy at any time with the approval of our board of directors, but without the consent of our stockholders, which could result in originating assets that are different in type from, and possibly riskier than, the assets initially contemplated. In addition, our charter provides that our board of directors may authorize us to revoke or otherwise terminate our REIT election, without the approval of our stockholders, if it determines that it is no longer in our best interests to qualify as a REIT. These changes could adversely affect our business, financial condition, results of operations and our ability to make distributions to our stockholders.

Our management and employees depend on information systems and system failures could significantly disrupt our business, which may, in turn, negatively affect the market price of our common stock and our ability to make distributions to our stockholders.

Our underwriting process and our asset and financial management and reporting are dependent on our present and future communications and information systems. Any failure or interruption of these systems could cause delays or other problems in our originating, financing, investing, asset and financial management and reporting activities, which could have a material adverse effect on our operating results.

We contract with information technology service providers where, in part, we rely upon their systems and controls for the quality of the data provided. The inappropriate establishment and maintenance of these systems and controls could cause information that we use to operate our business to be unavailable or inaccurate and could negatively impact our financial results.

Our information technology architecture is partially outsourced. These systems and processes may be either internet based or through traditional outsourced functions and certain of these arrangements are new or emerging. When we contract with these service providers we attempt to evaluate the quality of their systems and controls before we execute the arrangement and may rely on third party reviews and audits of these service providers and attempt to implement certain processes to ensure the quality of the data received from these service providers. Because of the nature and maturity of the technology such efforts may be unsuccessful or incomplete and the unavailability of these systems or the inaccurate data provided from these service providers could negatively impact our financial results.

Cybersecurity risks and cyber incidents may adversely affect our business by causing a disruption to our operations, a compromise or corruption of our confidential information, a misappropriation of funds, and/or damage to our business relationships, all of which could negatively impact our financial results.

A cyber incident is considered to be any adverse event that threatens the confidentiality, integrity or availability of our information resources. These incidents may be an intentional attack or an unintentional event and could involve gaining unauthorized access to our information systems for purposes of misappropriating assets, stealing confidential information, corrupting data or causing operational disruption. The risk of a security breach or disruption, particularly through cyber-attacks or cyber intrusions, including by computer hackers, nation-state affiliated actors, and cyber terrorists, has generally increased as the number, intensity and sophistication of attempted attacks and intrusions from around the world have increased. The result of these incidents may include disrupted operations, misstated or unreliable financial data, disrupted market price of our common stock, misappropriation of assets, liability for stolen assets or information, increased cybersecurity protection and insurance cost, regulatory enforcement, litigation and damage to our relationships. These risks require continuous and likely increasing attention and other resources from us to, among other actions, identify and quantify these risks, upgrade and expand our technologies, systems and processes to adequately address them and provide periodic training for our employees to assist them in detecting phishing, malware and other schemes. Such attention diverts time and other resources from other activities and there is no assurance that our efforts will be effective. Potential sources for disruption, damage or failure of our information technology systems include, without limitation, computer viruses, security breaches, human error, cyber- attacks, natural disasters and defects in design. Additionally, due to the size and nature of our company, we rely on third-party service providers for many aspects of our business. We can provide no assurance that the networks and systems that our third-party vendors have established or use will be effective. As our reliance on technology has increased, so have the risks posed to both our information systems and those provided by third-party service providers. Our processes, procedures and internal controls that are designed to mitigate cybersecurity risks and cyber intrusions do not guarantee that a cyber incident will not occur or that our financial results, operations or confidential information will not be negatively impacted by such an incident.

We may seek to expand our business internationally, which will expose us to additional risks that we do not face in the United States, which could have an adverse effect on our business, financial condition and operating results.

We generate substantially all of our revenue from operations in the United States. We may seek to expand our projects outside of the United States in the future. These operations will be subject to a variety of risks that we do not face in the United States, including risk from changes in foreign country regulations, infrastructure, legal systems and markets. Other risks include possible difficulty in repatriating overseas earnings and fluctuations in foreign currencies.

Our overall success in international markets will depend, in part, on our ability to succeed in different legal, regulatory, economic, social and political conditions. We may not be successful in developing and implementing policies and strategies that will be effective in managing these risks in each country where we decide to do business. Our failure to manage these risks successfully could harm our international projects, reduce our international income or increase our costs, thus adversely affecting our business, financial condition and operating results.

We may seek to expand our business in part through future acquisitions or other similar investments.

As we grow our business, we have used, and will continue to use, acquisitions of, or other types of transactions such as equity or convertible debt investments in, companies or assets to invest in new or different projects or markets, expand our project skill-sets and capabilities, expand our geographic markets, add experienced management and increase our product and service offerings. There are a number of risks associated with these transactions and we may not achieve our goals in the transaction. Such transaction could disrupt our business, cause dilution to our stockholders and harm our business, financial condition or operating results. In addition, the time and effort involved to identify candidates and consummate such transactions may divert members of our management from the operations of our company.

Risks relating to regulation

We cannot predict the unintended consequences and market distortions that may stem from far-ranging governmental intervention in the economic and financial system or from regulatory reform of the oversight of financial markets.

The U.S. federal government, the Federal Reserve Board of Governors, the U.S. Treasury, the SEC, U.S. Congress and other governmental and regulatory bodies have taken, are taking or may in the future take, various actions to address the financial crisis or other areas of regulatory concern, such as the Dodd—Frank Wall Street Reform and Consumer Protection Act (the "Dodd-Frank Act"). Such actions could have a dramatic impact on our business, results of operations and financial condition, and the cost of complying with any additional laws and regulations or the elimination or reduction in scope of various existing laws and regulations could have a material adverse effect on our financial condition and results of operations. The far-ranging government intervention in the economic and financial system may carry unintended consequences and cause market distortions. We are unable to predict at this time the extent and nature of such unintended consequences and market distortions, if any. The inability to evaluate the potential impacts could have a material adverse effect on the operations of our business.

Loss of our 1940 Act exemption would adversely affect us, the market price of shares of our common stock and our ability to distribute dividends.

We conduct our operations so that we are not required to register as an investment company under the 1940 Act. Section 3(a)(1)(A) of the 1940 Act defines an investment company as any issuer that is or holds itself out as being engaged primarily in the business of investing, reinvesting or trading in securities. Section 3(a)(1)(C) of the 1940 Act defines an investment company as any issuer that is engaged or proposes to engage in the business of investing, reinvesting, owning, holding or trading in securities and owns or proposes to acquire investment securities having a value exceeding 40% of the value of the issuer's total assets (exclusive of U.S. Government securities and cash items) on a non-consolidated basis, which we refer to as the 40% test. Excluded from the term "investment securities," among other things, are U.S. Government securities and securities issued by majority-owned subsidiaries that are not themselves investment companies and are not relying on the exemption from the definition of investment company set forth in Section 3(c)(1) or Section 3(c)(7) of the 1940 Act.

We conduct our businesses primarily through our subsidiaries and our operations so that we comply with the 40% test. The securities issued by any wholly-owned or majority-owned subsidiaries that we hold or may form in the future that are exempted from the definition of "investment company" based on Section 3(c)(1) or 3(c)(7) of the 1940 Act, together with any other investment securities we may own, may not have a value in excess of 40% of the value of our total assets on a non-consolidated basis. Certain of our subsidiaries rely on or will rely on an exemption from registration as an investment company under the 1940 Act pursuant to Section 3(c)(5)(C) of the 1940 Act, which is available for entities which are not primarily engaged in issuing redeemable securities, face-amount certificates of the installment type or periodic payment plan certificates and which are primarily engaged in the business of purchasing or otherwise acquiring mortgages and other liens on and interests in real estate. This exemption generally requires that at least 55% of such subsidiaries' portfolios must be comprised of qualifying assets and at least 80% of each of their portfolios must be comprised of qualifying assets and real estate-related assets under the 1940 Act. Consistent with guidance published by the SEC staff, we intend to treat as qualifying assets for this purpose loans secured by projects for which the original principal amount of the loan did not exceed 100% of the value of the underlying real property portion of the collateral when the loan was made. We intend to treat as real estate-related assets non-controlling equity interests in joint ventures that own projects whose assets are primarily real property. In general, with regard to our subsidiaries relying on Section 3(c)(5)(C), we rely on other guidance published by the SEC or its staff or on our analyses of guidance published with respect to other types of assets to determine which assets are qualifying real estate assets and real estate-related assets.

In addition, one or more of our subsidiaries qualifies for an exemption from registration as an investment company under the 1940 Act pursuant to either Section 3(c)(5)(A) of the 1940 Act, which is available for entities which are not engaged in the business of issuing redeemable securities, face-amount certificates of the installment type or periodic payment plan certificates, and which are primarily engaged in the business of purchasing or otherwise acquiring notes, drafts, acceptances, open accounts receivable, and other obligations representing part or all of the sales price of merchandise, insurance, and services, or Section 3(c)(5)(B) of the 1940 Act, which is available for entities primarily engaged in the business of making loans to manufacturers, wholesalers, and retailers of, and to prospective purchasers of, specified merchandise, insurance, and services. These exemptions generally require that at least 55% of such subsidiaries' portfolios must be comprised of qualifying assets that meet the requirements of the exemption. We intend to treat energy efficiency loans where the loan proceeds are specifically provided to finance equipment, services and structural improvements to properties and other facilities and renewable energy and other sustainable infrastructure projects or improvements as qualifying assets for purposes of these exemptions. In general, we also expect, with regard to our subsidiaries relying on Section 3(c)(5)(A) or (B), to rely on guidance published by the SEC or its staff, including reliance on a no-action letter obtained in connection with Sections 3(c)(5)(A) and 3(c)(5)(B) of the 1940 Act, or on our analyses of guidance published with respect to other types of assets to determine which assets are qualifying assets under the exemptions.

Although we monitor the portfolios of our subsidiaries relying on the Section 3(c)(5)(A), (B) or (C) exemptions periodically and prior to each acquisition, there can be no assurance that such subsidiaries will be able to maintain their exemptions. Qualification for exemptions from registration under the 1940 Act will limit our ability to make certain investments. For example, these restrictions will limit the ability of these subsidiaries to make loans that are not secured by real property or that do not represent part or all of the sales price of merchandise, insurance, and services.

There can be no assurance that the laws and regulations governing the 1940 Act, including the Division of Investment Management of the SEC providing more specific or different guidance regarding these exemptions, will not change in a manner that adversely affects our operations. For example, on August 31, 2011, the SEC issued a concept release (No. IC-29778; File No. SW7-34-11, Companies Engaged in the Business of Acquiring Mortgages and Mortgage-Related Instruments) pursuant to which it is reviewing the scope of the exemption from registration under Section 3(c)(5)(C) of the 1940 Act. While the SEC has yet to provide additional information on its position relating to these exemptions and timing of any future changes to the exemptions remain unknown, any additional guidance from the SEC or its staff from this process or in other circumstances could provide additional flexibility to us, or it could further inhibit our ability to pursue the strategies we have chosen. If we or our subsidiaries fail to maintain an exemption from the 1940 Act, we could, among other things, be required either to (1) change the manner in which we conduct our operations to avoid being required to register as an investment company, (2) effect sales of our assets in a manner that, or at a time when, we would not otherwise choose to do so or (3) register as an investment company, any of which could negatively affect our business, our ability to make distributions, our financing strategy and the market price for our shares of common stock.

We have not requested the SEC or its staff to approve our treatment of any company as a majority-owned subsidiary and neither the SEC nor its staff has done so. If the SEC or its staff were to disagree with our treatment of one or more companies as majority-owned subsidiaries, we would need to adjust our strategy and our assets in order to continue to pass the 40% test. Any such adjustment in our strategy could have a material adverse effect on us.

Rapid changes in the values of our assets may make it more difficult for us to maintain our qualification as a REIT or our exemption from the 1940 Act.

If the market value or income potential of our assets changes as a result of changes in interest rates, general market conditions, government actions or other factors, we may need to adjust the portfolio mix of our real estate assets and income or liquidate our non-qualifying assets to maintain our REIT qualification or our exemption from the 1940 Act. If changes in asset values or income occur quickly, this may be especially difficult to accomplish. This difficulty may be exacerbated by the illiquid nature of the assets we may own. We may have to make decisions that we otherwise would not make absent the REIT and 1940 Act considerations.

Because we expect to distribute substantially all of our REIT taxable income to our stockholders, we will need additional capital to finance our growth and such capital may not be available on favorable terms or at all.

We will need additional capital to fund our growth. U.S. federal income tax law generally requires that a REIT distribute annually at least 90% of its REIT taxable income, without regard to the deduction for dividends paid and excluding net capital gains, and that it pay tax at regular corporate rates to the extent that it annually distributes greater than 90% but less than 100% of such REIT taxable income. Because we intend to grow our business, this limitation may require us to incur additional debt or raise additional equity at a time when it may be disadvantageous to do so. We cannot make any assurance that debt and equity financing will be available to us on favorable terms, or at all, and debt financings may be restricted by the terms of any of our outstanding borrowings. If additional funds are not available to us, we could be forced to curtail or cease new asset originations and acquisitions, which could have a material adverse effect on our business and financial condition.

The preparation of our financial statements involves use of estimates, judgments and assumptions, and our financial statements may be materially affected if our estimates prove to be inaccurate.

Financial statements prepared in accordance with GAAP require the use of estimates, judgments and assumptions that affect the reported amounts. Different estimates, judgments and assumptions reasonably could be used that would have a material effect on the financial statements, and changes in these estimates, judgments and assumptions are likely to occur from period to period in the future. Significant areas of accounting requiring the application of management's judgment include but are not limited to determining the fair value of our assets.

These estimates, judgments and assumptions are inherently uncertain, and, if they prove to be wrong, then we face the risk that charges to income will be required. Any charges could significantly harm our business, financial condition, results of operations and the price of our securities. See Management's Discussion and Analysis of Financial Condition and Results of Operations—Critical Accounting Policies and Use of Estimates for a discussion of the accounting estimates, judgments and assumptions that we believe are the most critical to an understanding of our business, financial condition and results of operations.

Risks related to borrowings

We use financial leverage in executing our business strategy, which may adversely affect the returns on our assets and may reduce cash available for distribution to our stockholders, as well as increase losses when economic conditions are unfavorable.

We use debt to finance our assets, including credit facilities, recourse and non-recourse debt as well as securitizations and syndications. Changes in the financial markets and the economy generally could adversely affect one or more of our lenders or potential lenders and could cause one or more of our lenders, potential lenders or institutional investors to be unwilling or unable to provide us with financing or participate in securitizations or could increase the costs of that financing or securitization. If we are unable to repay or refinance the remaining balance of this debt, or if the terms of any available refinancing are not favorable, we may be forced to liquidate assets or incur higher costs which may significantly harm our business, financial condition, results of operations, and our ability to make distributions, which could cause the value of our common stock to decline. The return on our assets and cash available for distribution to our stockholders may be reduced to the extent that market conditions prevent us from leveraging our assets or increase the cost of our financing relative to the income that can be derived from the assets acquired. Increases in our financing costs will reduce cash available for distributions to stockholders. We may not be able to meet our financing obligations and, to the extent that we cannot, we risk the loss of some or all of our assets to liquidation or sale to satisfy the obligations.

An increase in our borrowing costs relative to the interest we receive on our assets may adversely affect our profitability and our cash available for distribution to our stockholders. Our borrowings may have a shorter duration than our assets.

As some of our borrowings will have a remaining balance at maturity, we may be required to enter into new borrowings at higher rates or to sell certain of our assets to repay the loan. In addition, any increases in the federal funds rate announced by the Federal Reserve Board of Governors is likely to increase shorter-term interest rates and may lower the difference between shorter-term interest rates and longer-term interest rates which would result in a flattening or inversion of the yield curve. Our credit facilities have rates that adjust on a frequent basis based on prevailing short-term interest rates. An increase in interest rates, or a flattening or inversion of the yield curve, would reduce the spread between the returns on our assets which are typically priced using longer-term interest rates and the cost of any new borrowings or borrowings where the interest rate adjusts to market rates or is based on shorter-term rates. This change in interest rates would adversely affect our earnings and, in turn, cash available for distribution to our stockholders. In addition, as we may use short-term borrowings including repurchase agreements and warehouse facilities that are generally short-term commitments of capital, lenders may respond to market conditions making it more difficult for us to secure continued financing. If we are not able to renew our then existing facilities or arrange for new financing on terms acceptable to us, or if we default on our covenants or are otherwise unable to access funds under any of these facilities, we may have to curtail entering into new transactions and/or dispose of assets. We will face these risks given that a number of our borrowings have a shorter duration than the assets they finance.

We do not have a formal policy limiting the amount of debt we may incur. Our board of directors may change our leverage limits without stockholder approval.

Although we are not restricted by any regulatory requirements to maintain our leverage ratio at or below any particular level, the amount of leverage we may deploy for particular assets will depend upon the availability of particular types of financing and our assessment of the credit, liquidity, price volatility and other risks of those assets and the credit quality of our financing counterparties. We have established leverage limits which are discussed in Item 7, Management's Discussion and Analysis of Financial Conditions and Results of Operations—Liquidity and Capital Resources. However, our charter and bylaws do not limit the amount or type of indebtedness we can incur, and our board of directors has changed, and has the discretion to deviate from or change at any time in the future, our leverage policy, which could result in an investment portfolio with a different risk profile. We utilize non-recourse facilities on certain types of assets that have significantly higher leverage. On these facilities, the lenders' primary recourse is to the pledged assets and if the value of the pledged assets is below the value of the debt or if we default on a facility, the lender would be able to foreclose on all the pledged assets, which would result in losses and reduce our assets and the cash available for distributions to stockholders. We may apply too much leverage to our assets or may employ an inefficient financing strategy to our assets.

The use of securitizations and special purpose entities would expose us to additional risks.

We presently hold, and to the extent that we securitize loans in the future, we anticipate that we will often hold the most junior certificates or the residual value associated with a securitization. We may also establish other funds or special purpose entities, where we would hold only a partial or subordinate interest or a residual value after taking into account our non-recourse debt facilities or a right to participate in the profits of such entity once it achieves a predefined threshold. As a holder of the residual value or other such interests, we are more exposed to losses on the underlying collateral because the interest we retain in the securitization vehicle or other entity would be subordinate to the more senior notes or interests issued to investors and we would, therefore, absorb all of the losses, up to the value of our interests, sustained with respect to the underlying assets before the owners of the notes or other interests experience any losses. In addition, the inability to securitize our portfolio or assets within our portfolio could hurt our performance and our ability to grow our business.

We also use various special purpose entities to own and finance our assets. These subsidiaries incur various types of debt, which can be used to finance one or more of our assets. This debt is typically structured as non-recourse debt, which means it is repayable solely from the revenue from the investment financed by the debt and is secured by the related physical assets, major contracts, cash accounts and in some cases, a pledge of our ownership interests in the subsidiaries involved in the projects. Although this subsidiary debt is typically non-recourse to us, we make certain representations and warranties or enter into certain guaranties of our subsidiary's obligations or covenants to the non-recourse debt holder, the breach of which may require us to make payments to the lender. We may also from time to time determine to provide financial support to the subsidiary in order to maintain rights to the project or otherwise avoid the adverse consequences of a default.

In the event a subsidiary defaults on its indebtedness, its creditors may foreclose on the collateral securing the indebtedness, which may result in us losing our ownership interest in some or all of the subsidiary's assets. The loss of our ownership interest in a subsidiary or some or all of a subsidiary's assets could have a material adverse effect on our business, financial condition and operating results.

Our existing credit facilities and debt contain, and any future financing facilities may contain, covenants that restrict our operations and may inhibit our ability to grow our business and increase revenues.

Our existing credit facilities and debt contain, and any future financing facilities may contain, various affirmative and negative covenants, including maintenance of an interest coverage ratio and limitations on the incurrence of liens and indebtedness, investments, fundamental organizational changes, dispositions, changes in the nature of business, transactions with affiliates, use of proceeds and stock repurchases. In addition, the terms of our non-recourse debt include restrictions and covenants, including limitations on our ability to transfer or incur liens on the assets that secure the debt. For further information see Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources.

The covenants and restrictions included in our existing financings do, and the covenants and restrictions to be included in any future financings may, restrict our ability to, among other things:

- incur or guarantee additional debt;
- make certain investments, originations or acquisitions;
- make distributions on or repurchase or redeem capital stock;
- engage in mergers or consolidations;
- reduce liquidity below certain levels;
- grant liens;
- have a tangible net worth below a defined threshold;
- incur operating losses for more than a specified period; and
- enter into transactions with affiliates.

Our non-recourse debt limits our ability to take action with regard to the assets pledged as security for the debt. These restrictions, as well as any other covenants contained in any future financings, may interfere with our ability to obtain financing, or to engage in other business activities, which may significantly limit or harm our business, financial condition, liquidity and results of operations. Our financing agreements may contain cross-default provisions, so that if a default occurs under any one agreement, the lenders under our other agreements could also declare a default. A default and resulting repayment acceleration could significantly reduce our liquidity, which could require us to sell our assets to repay amounts due and outstanding. This could also significantly harm our business, financial condition, results of operations, and our ability to make distributions, which could cause the value of our common stock to decline and adversely affect our ability to qualify, or remain qualified, as a REIT. A default will also significantly limit our financing alternatives such that we will be unable to pursue our leverage strategy, which could curtail the returns on our assets.

In addition, certain of our financing arrangements contain provisions that provide for a preference in cash flow allocations to the lender from our assets or an acceleration of principal payments owed when certain conditions are present related to the underlying assets that serve as collateral for the financing. These provisions may limit our ability to obtain distributions from the underlying assets and could impact our cash flow and expected returns.

We have issued senior unsecured notes which require us to maintain a certain amount of unencumbered assets as a part of our portfolio, as well as to maintain certain debt coverage service ratios in order to issue additional notes. These provisions may limit our ability to leverage certain assets and limit our overall debt levels.

We will have to pay off the remaining balance or refinance our borrowings when they become due. The failure to be able to pay off the remaining balance or refinance such borrowings or an increase in interest rates of such refinancing could have a material impact on our business.

Some of our borrowings will have a remaining balance when they become due. If our subsidiary is unable to repay or refinance the remaining balance of this debt, or if the terms of any available refinancing are not favorable, we may be forced to liquidate assets or incur higher costs which may significantly harm our business, financial condition, results of operations, and our ability to make distributions, which could cause the value of our common stock to decline.

If a counterparty to repurchase transactions defaults on its obligation to resell the underlying security back to us at the end of the transaction term, or if the value of the underlying security has declined as of the end of that term, or if we default on obligations under the repurchase agreement, we may lose money on repurchase transactions.

In repurchase transactions, we will generally sell certain of our assets to lenders (i.e., repurchase agreement counterparties) and receive cash from the lenders. The lenders will be obligated to resell the same assets back to us at the end of the term of the transaction. Because the cash we will receive from the lender when we initially sell the assets to the lender is less than its value, if the lender defaults on its obligation to resell the same asset back to us we would incur a loss on the transaction equal to the differential in value at which the lender purchased the asset (assuming there was no other change in value). We would also lose money on a repurchase transaction if the value of the underlying asset has declined as of the end of the transaction term, as we would have to repurchase the assets for their initial value but would receive loans worth less than that amount. We may also be forced to sell assets at significantly depressed prices to meet margin calls, post additional collateral and maintain adequate liquidity, which could cause us to incur losses. Moreover, to the extent we are forced to sell assets at such time, given market conditions, we may be selling at the same time as others facing similar pressures, which could exacerbate a difficult market environment and which could result in our incurring significantly greater losses on our sale of such assets. In an extreme case of market duress, a market may not even be present for certain of our assets at any price. Such a situation would likely result in a rapid deterioration of our financial condition and possibly necessitate a filing for protection under the United States Bankruptcy Code (the "Bankruptcy Code"). Further, if we default on one of our obligations under a repurchase transaction, the lender will be able to terminate the transaction and cease entering into any other repurchase transactions with us. Our repurchase agreements may contain cross-default provisions, so that if a default occurs under any one agreement, the lenders under any other of our agreements could also declare a default. If a default occurs under any of our repurchase agreements and the lenders terminate one or more of our repurchase agreements, we may need to enter into replacement repurchase agreements with different lenders. There can be no assurance that we will be successful in entering into such replacement repurchase agreements on the same terms as the repurchase agreements that were terminated or at all. Any losses we incur on our repurchase transactions could adversely affect our earnings and thus our cash available for distribution to our stockholders. In the event of our insolvency or bankruptcy, certain repurchase agreements may qualify for special treatment under the Bankruptcy Code, the effect of which, among other things, would be to allow the lender under the applicable repurchase agreement to avoid the automatic stay provisions of the Bankruptcy Code and to foreclose on the collateral agreement without delay, which could ultimately reduce the amounts we could otherwise recover.

The expected discontinuance of the London interbank offered rate ("LIBOR") and transition to alternative reference rates may adversely impact our borrowings and assets.

In July 2017, the U.K. Financial Conduct Authority, which regulates the LIBOR administrator, ICE Benchmark Administration Limited ("IBA") announced that it would cease to compel banks to participate in setting LIBOR as a benchmark by the end of 2021. Such announcement indicates that market participants cannot rely on LIBOR being published after 2021. On December 4, 2020, the IBA published a consultation on its intention to cease the publication of LIBOR. For the most commonly used tenors (overnight and one, three, six and 12 months) of U.S. dollar LIBOR, the IBA is proposing to cease publication immediately after June 30, 2023, anticipating continued rate submissions from panel banks for these tenors of U.S. dollar LIBOR. The IBA's consultation also proposes to cease publication of all other U.S. dollar LIBOR tenors, and of all non-U.S. dollar LIBOR rates, after December 31, 2021. The FCA and U.S. bank regulators have welcomed the IBA's proposal to continue publishing certain tenors for U.S. dollar LIBOR through June 30, 2023 because it would allow many legacy U.S. dollar LIBOR contracts that lack effective fallback provisions and are difficult to amend to mature before such LIBOR rates experience disruptions. U.S. bank regulators are, however, encouraging banks to cease entering into new financial contracts that use LIBOR as a reference rate as soon as practicable and in any event by December 31, 2021. Given consumer protection, litigation, and reputation risks, U.S. bank regulators believe entering into new financial contracts that use LIBOR as a reference rate after December 31, 2021 would create safety and soundness risks. In addition, they expect new financial contracts to either utilize a reference rate other than LIBOR or have robust fallback language that includes a clearly defined alternative reference rate after LIBOR's discontinuation. Although the foregoing may provide some sense of timing, there is no assurance that LIBOR, of any particular currency and tenor, will continue to be published or be representative of the underlying market until any particular date, and it appears highly likely that LIBOR will be discontinued or modified after December 31, 2021 or June 30, 2023, depending on the currency and tenor.

The Alternative Reference Rates Committee, a group of private-market participants convened by the U.S. Federal Reserve Board and the New York Federal Reserve, has recommended the Secured Overnight Financing Rate ("SOFR") as a more robust reference rate alternative to U.S. dollar LIBOR. The use of SOFR as a substitute for U.S. dollar LIBOR is voluntary and may not be suitable for all market participants. SOFR is calculated based on overnight transactions under repurchase agreements, backed by Treasury securities. SOFR is observed and backward looking, which stands in contrast with LIBOR under the current methodology, which is an estimated forward-looking rate and relies, to some degree, on the expert judgment of submitting panel members. Given that SOFR is a secured rate backed by government securities, it will be a rate that does not take into account bank credit risk (as is the case with LIBOR). SOFR is therefore likely to be lower than U.S. dollar LIBOR and is less likely to correlate with the funding costs of financial institutions. To approximate economic equivalence to LIBOR, SOFR can be compounded over a relevant term and a spread adjustment may be added. Market practices related to SOFR calculation conventions continue to develop and may vary, and inconsistent calculation conventions may develop among financial products.

The debt drawn from our credit facilities is linked to U.S. dollar LIBOR. These facilities mature in July 2023. We expect similar financing arrangements, including new debt and interest rate hedge agreements, will be in place at the time at which the IBA ceases to publish LIBOR. It is not possible to predict all consequences of the IBA's proposals to cease publishing LIBOR, any related regulatory actions and the expected discontinuance of the use of LIBOR as a reference rate for financial contracts. Some of our LIBOR linked financing arrangements may not include robust fallback language that would facilitate replacing LIBOR with a clearly defined alternative reference rate after LIBOR's discontinuation, and we may need to amend these before the IBA ceases to publish LIBOR. If such arrangements mature after LIBOR ceases to be published, our counterparties may disagree with us about how to calculate or replace LIBOR. Even when robust fallback language is included, there can be no assurance that the replacement rate plus any spread adjustment will be economically equivalent to LIBOR, which could result in a change in our interest rate. Modifications to any debt or interest rate hedging transactions or other contracts to replace LIBOR with an alternative reference rate could result in adverse tax consequences. In addition, any resulting differences in interest rate standards among our financing arrangements may result in interest rate mismatches between our assets and the borrowings used to fund such assets. Furthermore, the transition away from LIBOR may adversely impact our ability to manage and hedge exposures to fluctuations in interest rates using derivative instruments. There is no guarantee that a transition from LIBOR to alternative reference rates will not result in financial market disruptions, significant increases in benchmark rates, or borrowing costs to borrowers, any of which could have an adverse effect on our business, results of operations, financial condition, and the market price of our common stock.

We expect LIBOR to be available in substantially its current form until the end of 2021. However, if a significant number of panel banks decline to provide LIBOR submissions to the IBA, it is possible that LIBOR will become unrepresentative of the underlying market and subject to increased volatility prior to such date. Should that occur, the risks associated with the transition to alternative reference rates will be accelerated and magnified.

Risks related to hedging

We, or the projects in which we invest, enter into hedging transactions that could expose us to contingent liabilities or additional credit risk in the future and adversely impact our financial condition.

Subject to maintaining our qualification as a REIT, part of our strategy, or the strategy of the projects in which we invest, involves entering into hedging transactions that could require us to fund cash payments in certain circumstances (e.g., the early termination of the hedging instrument caused by an event of default or other early termination event, or the decision by a counterparty to request margin it is contractually owed under the terms of the hedging instrument). The amount due would be equal to the unrealized loss of the open swap positions with the respective counterparty and could also include other fees and charges. These economic losses will be reflected in our, or the project's, financial statements, and our, or the project's, ability to fund these obligations will depend on the liquidity of our, or the project's, assets and access to capital at the time, and the need to fund these obligations could adversely impact our financial condition.

In addition, over-the-counter hedges entered into to hedge interest rates, credit risk or commodity prices involve risk since they often are not traded on regulated exchanges or cleared through a central counterparty. We would remain exposed to our counterparty's ability to perform on its obligations under each hedge and cannot look to the creditworthiness of a central counterparty for performance. As a result, if a hedging counterparty cannot perform under the terms of the hedge, we would not receive payments due under that hedge, we may lose any unrealized gain associated with the hedge and the hedged liability would cease to be hedged. While we would seek to terminate the relevant hedge transaction and may have a claim against the defaulting counterparty for any losses, including unrealized gains, there is no assurance that we would be able to recover such amounts or to replace the relevant hedge on economically viable terms or at all. In such case, we could be forced to cover our unhedged liabilities at the then current market price. We may also be at risk for any collateral we have pledged to secure our obligations under the hedge if the counterparty becomes insolvent or files for bankruptcy.

Furthermore, our interest rate swaps and other hedge transactions are subject to increasing statutory and other regulatory requirements and, depending on the identity of the counterparty, applicable international requirements. Recently, new regulations have been promulgated by U.S. and foreign regulators to strengthen the oversight of swaps, and any further actions taken by such regulators could constrain our strategy or increase our costs, either of which could materially and adversely impact our results of operations.

In addition, the Dodd-Frank Act requires certain derivatives, including certain interest rate swaps, to be executed on a regulated market and cleared through a central counterparty. Unlike over-the-counter swaps, the counterparty for the cleared swaps is the clearing house, which reduces counterparty risk. However, cleared swaps require us to appoint clearing brokers and to post margin in accordance with the clearing house's rules, which has resulted in increased costs for cleared swaps compared to over-the-counter swaps. Our over-the-counter hedges with swap dealers became subject to margin regulations promulgated by U.S. regulators on March 1, 2017, which regulations increased the required margin, and the cost to us of over-the-counter swaps. The margin requirements for both cleared and uncleared swaps also limit eligible margin to cash and specified types of securities, which may further increase the costs of hedging and induce us to change or reduce the use of hedging transactions. The margin regulations generally do not apply to any over-the-counter swaps that were entered into prior to the effective date of such regulations.

In addition, any mortgage real estate investment trust that trades in swaps may be considered a "commodity pool," which would cause its operator to be regulated as a "commodity pool operator" (a "CPO"). In December 2012, the Commodity Futures Trading Commission ("CFTC"), issued a no-action letter giving relief to operators of mortgage REITs from any applicable CPO registration requirement. In order for us to qualify for the no-action relief, we must, among other non-operation requirements: (1) limit our initial margin and premiums for commodity interests (swaps and exchange-traded derivatives subject to the jurisdiction of the CFTC) to no more than 5% of the fair market value of our total assets; and (2) limit our net income from commodity interests that are not "qualifying hedging transactions" to less than 5% of its gross income. The need to operate within these parameters could limit the use of swaps and other commodity interests by us below the level that we would otherwise consider optimal or may lead to the registration of our company, our management team or our directors as commodity pool operators, which will subject us to additional regulatory oversight, compliance and costs.

In addition, the projects in which we invest, may enter into various forms of hedging including interest rate and power price hedging. To the extent they enter into such hedges, the financial results of the project will be exposed to similar risks as described above which could adversely impact our results of operations.

If we, or our projects, choose not to pursue, or fail to qualify for, hedge accounting treatment, our operating results may be impacted because losses on the derivatives that we enter into may not be offset by a change in the fair value of the related hedged transaction.

We, or our projects, may choose not to pursue, or fail to qualify for, hedge accounting treatment relating to derivative and hedging transactions. We, or our projects, may fail to qualify for hedge accounting treatment for a number of reasons, including if we, or our projects, use instruments that do not meet the Accounting Standards Codification ("ASC") Topic 815 definition of a derivative, we, or our projects, fail to satisfy ASC Topic 815 hedge documentation and hedge effectiveness assessment requirements or the hedge relationship is not highly effective. If we, or our projects, fail to qualify for, or choose not to pursue, hedge accounting treatment, our, or our projects, operating results may be impacted because losses on the derivatives that we, or our projects, enter into may not be offset by a change in the fair value of the related hedged transaction.

Risks related to our common stock

There can be no assurance that an active trading market for our common stock will continue, which could cause our common stock to trade at a discount and make it difficult for holders of our common stock to sell their shares.

Our common stock is listed on the New York Stock Exchange ("NYSE"). However, there can be no assurance that an active trading market for our common stock will continue, which could cause our common stock to trade at a discount to historical prices. Accordingly, no assurance can be given as to the ability of our stockholders to sell their common stock or the price that our stockholders may obtain for their common stock. Some of the factors that could negatively affect the market price of our common stock include:

- our actual or projected operating results, financial condition, cash flows and liquidity or changes in business strategy or prospects;
- changes in the mix of our investment products and services, including the level of securitizations or fee income in any quarter;
- actual or perceived conflicts of interest with individuals, including our executives;
- our ability to arrange financing for projects;
- equity issuances by us, or share resales by our stockholders, or the perception that such issuances or resales may occur;
- seasonality in construction and demand for our investments;
- actual or anticipated accounting problems;
- publication of research reports about us or the sustainable infrastructure industry;
- changes in market valuations of similar companies;
- adverse market reaction to any increased indebtedness we may incur in the future;
- commodity price changes;
- interest rate changes;
- additions to or departures of our key personnel;
- speculation or negative publicity in the press or investment community;
- our failure to meet, or the lowering of, our earnings estimates or those of any securities analysts;
- increases in market interest rates, which may lead investors to demand a higher distribution yield for our common stock, and would result in increased interest expenses on certain of our debt;
- changes in governmental policies, regulations or laws;
- failure to qualify, or maintain our qualification, as a REIT or failure to maintain our exemption from registration as an investment company under the 1940 Act;
- price and volume fluctuations in the stock market generally; and
- general market and economic conditions, including the current state of the credit and capital markets.

Market factors unrelated to our performance could also negatively impact the market price of our common stock. One of the factors that investors may consider in deciding whether to buy or sell our common stock is our distribution rate as a percentage of our stock price relative to market interest rates. If market interest rates increase, prospective investors may demand a higher distribution rate or seek alternative investments paying higher dividends or interest. As a result, interest rate fluctuations and conditions in capital markets can affect the market value of our common stock.

Common stock and preferred stock eligible for future sale may have adverse effects on our share price.

Subject to applicable law, our board of directors, without stockholder approval, may authorize us to issue additional authorized and unissued shares of common stock and preferred stock on the terms and for the consideration it deems appropriate.

We cannot predict the effect, if any, of future sales of our common stock or the availability of shares for future sales, on the market price of our common stock. Sales of substantial amounts of common stock or the perception that such sales could occur may adversely affect the prevailing market price for our common stock.

We cannot assure you of our ability to make distributions in the future. If our portfolio of assets fails to generate sufficient income and cash flow, we could be required to sell assets, borrow funds, raise additional equity or make a portion of our distributions in the form of a taxable stock distribution or distribution of debt securities.

We are generally required to distribute to our stockholders at least 90% of our REIT taxable income (without regard to the deduction for dividends paid and excluding net capital gains) each year for us to qualify, and maintain our qualification, as a REIT under the Internal Revenue Code of 1986, as amended (the "Internal Revenue Code"). Our current policy is to pay quarterly distributions, which on an annual basis is expected to equal or substantially exceed 90% or more of our REIT taxable income. In the event that our board of directors authorizes distributions in excess of the income or cash flow generated from our assets, we may make such distributions from the proceeds of future offerings of equity or debt securities or other forms of debt financing or the sale of assets.

Our ability to make distributions may be adversely affected by a number of factors. Therefore, although we anticipate making quarterly distributions to our stockholders, our board of directors has the sole discretion to determine the timing, form and amount of any distributions to our stockholders. If our portfolio of assets fails to generate sufficient income and cash flow, we could be required to sell assets, borrow funds, raise additional equity or make a portion of our distributions in the form of a taxable stock distribution or distribution of debt securities. To the extent that we are required to sell assets in adverse market conditions or borrow funds at unfavorable rates, our results of operations could be materially and adversely affected. If we raise additional equity, our stock price could be materially and adversely affected. Our board of directors will make determinations regarding distributions based upon various factors, including our earnings, our financial condition, our liquidity, our debt covenants, maintenance of our REIT qualification, applicable provisions of the MGCL and other factors as our board of directors may deem relevant from time to time.

We believe that a change in any one of the following factors could adversely affect our results of operations and impair our ability to make distributions to our stockholders:

- our ability to make profitable investments;
- margin calls or other expenses that reduce our cash flow;
- defaults in our asset portfolio or decreases in the value of our portfolio;
- the cash flow we receive from our assets, including those subject to non-recourse debt; and
- the fact that anticipated operating expense levels may not prove accurate, as actual results may vary from estimates.

As a result, no assurance can be given that we will be able to make distributions to our stockholders at any time in the future or that the level of any distributions we do make to our stockholders will achieve a market yield or increase or even be maintained over time, any of which could materially and adversely affect us.

In addition, all or a portion of the distributions that we make to our stockholders will be taxable as ordinary income, subject to a deduction equal to 20% of the amount of such dividends for taxable years beginning in 2018 and ending in 2025, which generally reduces the effective U.S. federal income tax rate applicable to such dividends. However, a portion of our distributions may be designated by us as long-term capital gains to the extent that they are attributable to capital gain income recognized by us or may constitute a return of capital to the extent that they exceed our earnings and profits as determined for tax purposes. A return of capital is not taxable income but has the effect of reducing the basis of a stockholder's investment in shares of our common stock.

Future offerings of debt or equity securities, which may rank senior to our common stock, may adversely affect the market price of our common stock.

Our present debt ranks, and any future debt would rank, senior to our common stock. Such debt is, and likely will be, governed by a loan agreement, an indenture or other instrument containing covenants restricting our operating flexibility. Additionally, our convertible securities, and any equity securities or convertible or exchangeable securities that we issue in the future may have rights, preferences and privileges more favorable than those of our common stock and may result in dilution to owners of our common stock. We and, indirectly, our stockholders will bear the cost of issuing and servicing such debt or securities. Because our decision to issue debt or equity securities in any future offering will depend on market conditions and other factors beyond our control, we cannot predict or estimate the amount, timing or nature of our future offerings. Thus, holders of our common stock will bear the risk of our future offerings reducing the market price of our common stock and diluting the value of their stock holdings in us.

Risks related to our organization and structure

Our business could be harmed if key personnel terminate their employment with us.

Our success depends, to a significant extent, on the continued services of our senior management team. We have entered into employment agreements with certain members of our senior management team. Notwithstanding these agreements, there can be no assurance that any or all members of our senior management team will remain employed by us. We do not maintain key person life insurance on any of our officers other than two policies we maintain for Mr. Eckel under which we are a beneficiary in the amount of approximately $500 thousand. The loss of services of one or more members of our senior management team could harm our business and our prospects.

Conflicts of interest could arise as a result of our structure.

Conflicts of interest could arise in the future as a result of the relationships between us and our affiliates, on the one hand, and our Operating Partnership or any partner thereof, on the other. Our directors and officers have duties to our company under applicable Maryland law in connection with our management. Our duties, as the general partner, to our Operating Partnership and our partners may come into conflict with the duties of our directors and officers to us.

Under Delaware law, a general partner of a Delaware limited partnership owes its limited partners the duties of good faith and fair dealing. Other duties, including fiduciary duties, may be modified or eliminated in the partnership's partnership agreement, except that conflict of interest transactions may still run afoul of implied contractual standards under Delaware law. The partnership agreement of our Operating Partnership provides that, for so long as we own a controlling interest in our Operating Partnership, any conflict that cannot be resolved in a manner not adverse to either our stockholders or the limited partners will be resolved in favor of our stockholders. We have not obtained an opinion of counsel covering the provisions set forth in the partnership agreement of our Operating Partnership that purport to waive or restrict our fiduciary duties that would be in effect under common law were it not for the partnership agreement of our Operating Partnership.

Additionally, the partnership agreement of our Operating Partnership expressly limits our liability by providing that neither we, as the general partner of the Operating Partnership, nor any of our directors or officers, will be liable or accountable in damages to our Operating Partnership, its limited partners or their assignees for errors in judgment, mistakes of fact or law or for any act or omission if the general partner, director or officer, acted in good faith. In addition, our Operating Partnership is required to indemnify us, our affiliates and each of our and their respective officers, directors, employees and agents to the fullest extent permitted by applicable law against any and all losses, claims, damages, liabilities (whether joint or several), expenses (including, without limitation, attorneys' fees and other legal fees and expenses), judgments, fines, settlements and other amounts arising from any and all claims, demands, actions, suits or proceedings, civil, criminal, administrative or investigative, that relate to the operations of the Operating Partnership, provided that our Operating Partnership will not indemnify any such person for (1) willful misconduct or a knowing violation of the law, (2) any transaction for which such person received an improper personal benefit in violation or breach of any provision of the partnership agreement of our Operating Partnership, or (3) in the case of a criminal proceeding, the person had reasonable cause to believe the act or omission was unlawful.

Certain provisions of Maryland law could inhibit changes in control.

Certain provisions of the MGCL may have the effect of deterring a third party from making a proposal to acquire us or of impeding a change in control under circumstances that otherwise could provide the holders of our common stock with the opportunity to realize a premium over the then-prevailing market price of our common stock. We are subject to the "business combination" provisions of the MGCL that, subject to limitations, prohibit certain business combinations between us and an "interested stockholder" (defined generally as any person who beneficially owns 10% or more of our then outstanding voting stock or an affiliate or associate of ours who, at any time within the two-year period prior to the date in question, was the beneficial owner of 10% or more of our then outstanding voting stock) or an affiliate thereof for five years after the most recent date on which the stockholder becomes an interested stockholder and, thereafter, impose fair price and/or supermajority stockholder voting requirements on these combinations.

The "control share" provisions of the MGCL provide that, subject to certain exemptions, a holder of "control shares" of a Maryland corporation (defined as shares which, when aggregated with all other shares controlled by the stockholder (except solely by virtue of a revocable proxy), entitle the stockholder to exercise one of three increasing ranges of voting power in electing directors) acquired in a "control share acquisition" (defined as the direct or indirect acquisition of ownership or control of issued and outstanding "control shares") has no voting rights with respect to such shares except to the extent approved by our stockholders by the affirmative vote of at least two thirds of all the votes entitled to be cast on the matter, excluding votes entitled to be cast by the acquirer of control shares, our officers and our directors who are also our employees.

The "unsolicited takeover" provisions of Title 3, Subtitle 8 of the MGCL permit our board of directors, without stockholder approval and regardless of what is currently provided in our charter or bylaws, to implement certain takeover defenses, some of which (for example, a classified board) we do not yet have.

As permitted by the MGCL, our board of directors has by resolution exempted from the "business combination" provision of the MGC business combinations (1) between us and any other person, provided, that such business combination is first approved by our board of directors (including a majority of our directors who are not affiliates or associates of such person), (2) the Predecessor and its affiliates and associates as part of our formation transactions and (3) persons acting in concert with any of the foregoing. Our bylaws contain a provision exempting from the control share acquisition statute any and all acquisitions by any person of shares of our stock. There can be no assurance that our board of directors will not amend or revoke the exemption at any time.

Our authorized but unissued shares of common and preferred stock may prevent a change in our control.

Our charter permits our board of directors to authorize us to issue additional shares of our authorized but unissued common or preferred stock. In addition, our board of directors may, without common stockholder approval, amend our charter to increase the aggregate number of our shares of stock or the number of shares of stock of any class or series that we have the authority to issue and classify or reclassify any unissued shares of common or preferred stock and set the terms of the classified or reclassified shares. As a result, our board of directors may establish a series of common or preferred stock that could delay or prevent a transaction or a change in control that might involve a premium price for shares of our common stock or otherwise be in the best interest of our stockholders.

Our rights and the rights of our stockholders to take action against our directors and officers are limited, which could limit stockholder recourse in the event of actions not in our stockholders' best interests.

Our charter eliminates the liability of our present and former directors and officers to us and our stockholders for money damages to the maximum extent permitted under Maryland law.

Our charter authorizes us, and our bylaws and indemnification agreements entered into with each of our directors and executive officers require us, to the maximum extent permitted by Maryland law, to indemnify and, without requiring a preliminary determination of their ultimate entitlement to indemnification, to pay or reimburse defense costs and other expenses of each of our directors and officers in the defense of any proceeding to which he or she is made, or threatened to be made, a party or witness by reason of his or her service to us.

Our charter contains provisions that make removal of our directors difficult, which could make it difficult for our stockholders to effect changes to our management.

Our charter provides that, subject to the rights of holders of any series of preferred stock, a director may be removed with or without cause upon the affirmative vote of holders of at least two thirds of the votes entitled to be cast generally in the election of directors. Vacancies may be filled only by a majority of the remaining directors in office, even if less than a quorum. These requirements make it more difficult to change our management by removing and replacing directors and may prevent a change in control of our company that is in the best interests of our stockholders.

Ownership limitations may restrict change of control or business combination opportunities in which our stockholders might receive a premium for their shares.

In order for us to qualify as a REIT for each taxable year after 2013, no more than 50% in value of our outstanding capital stock may be owned, directly or constructively, by five or fewer individuals during the last half of any calendar year, and at least 100 persons must beneficially own our stock during at least 335 days of a taxable year of 12 months, or during a proportionate portion of a shorter taxable year. "Individuals" for this purpose include natural persons, private foundations, some employee benefit plans and trusts, and some charitable trusts. To assist us in preserving our REIT qualification, among other purposes, our charter generally prohibits any person from directly or indirectly owning more than 9.8% in value or in number of shares, whichever is more restrictive, of the aggregate outstanding shares of our capital stock, the outstanding shares of any class or series of our preferred stock or the outstanding shares of our common stock. These ownership limits could have the effect of discouraging a takeover or other transaction in which holders of our common stock might receive a premium for their shares over the then prevailing market price or which holders might believe to be otherwise in their best interests. Our board of directors has established exemptions from these ownership limits that permit certain institutional investors and their clients to hold shares of our common stock in excess of these ownership limits.

Risks related to our taxation as a REIT

Qualifying as a REIT involves highly technical and complex provisions of the Internal Revenue Code, and our failure to qualify or remain qualified as a REIT would subject us to U.S. federal income tax and applicable state and local tax, which would negatively impact the results of our operations and reduce the amount of cash available for distribution to our stockholders.

We elected and qualified as a REIT for U.S. federal income tax purposes commencing with our taxable year ended December 31, 2013. The U.S. federal income tax laws governing REITs are complex, and judicial and administrative interpretations of the U.S. federal income tax laws governing REIT qualification are limited. To qualify as a REIT and remain so qualified, we must meet, on an ongoing basis through actual operating results, various tests regarding the nature and diversification of our assets and our income, the ownership of our outstanding shares, and the amount of our distributions. Even a technical or inadvertent violation could jeopardize our REIT qualification. Our ability to satisfy the asset tests depends upon our analysis of the characterization and fair market values of our assets, some of which are not susceptible to a precise determination, and for which we will not obtain independent appraisals.

We received a private letter ruling from the Internal Revenue Service ("IRS"), which we refer to as the Ruling, relating to our ability to treat certain of our assets as qualifying REIT assets. We are entitled to rely on this Ruling for those assets which fit within the scope of the Ruling only to the extent that we have the legal and contractual rights described therein, we continue to operate in accordance with the relevant facts described in the ruling request we submitted, that such facts were accurately presented and to the extent such ruling is not inconsistent with the Real Property Regulations (as discussed in more detail below). As a result, no assurance can be given that we will always be able to rely on this Ruling.

In August of 2016, the Treasury Department and the IRS published regulations which we refer to as the Real Property Regulations relating to the definition of "real property" for purposes of the REIT income and asset tests which apply to us with respect to our taxable years beginning after December 31, 2016. Among other things, the Real Property Regulations provide that an obligation secured by a structural component of a building or other inherently permanent structure qualifies as a real estate asset for REIT qualification purposes only if such obligation is also secured by a real property interest in the inherently permanent structure served by such structural component. This aspect of the Real Property Regulations has important implications for our qualification as a REIT since a significant portion of our REIT qualifying assets consists of receivables that are secured by liens on installed structural improvements designed to improve the energy efficiency of buildings and a significant portion of our REIT qualifying gross income is interest income earned with respect to such receivables.

The structural improvements securing our receivables generally qualify as "fixtures" under local real property law, as well as under the Uniform Commercial Code, or the UCC, which governs rights and obligations of parties in secured transactions. Although not controlling for REIT purposes, the general rule in the United States is that once improvements are permanently installed in real properties, such improvements become fixtures and thus take on the character of and are considered to be real property for certain state and local law purposes. In general, in the United States, laws governing fixtures, including the UCC and real property law, afford lenders who have secured their financings with security interests in fixtures with rights that extend not just to the fixtures that secure their financings, but also to the real properties in which such fixtures have been installed. By way of example only, Section 9-604(b) of the UCC, which has been adopted in all but two states in the United States, permits a lender secured by fixtures, upon a default, to enforce its rights under the UCC or under applicable real property laws. Although there is limited authority directly on point, given the nature of, and the extent to which, the structural improvements securing our receivables are integrated into and serve the related buildings, we believe that the better view is that the nature and scope of our rights in such buildings that inure to us as a result of our receivables are sufficient to satisfy the requirements of the Real Property Regulations described above. In addition to the limited authority directly on point, two other important caveats apply in this regard. First, the Real Property Regulations do not define what is required for an obligation secured by a lien on a structural component to also be secured by a real property interest in the building served by such structural component. However, the initial proposed version of the Real Property Regulations, which never became effective, included a requirement that the interest in the real property held by a REIT be "equivalent" to the interest in a structural component held by the REIT in order for the structural component to be treated as a real estate asset. This requirement was ultimately not included in the final Real Property Regulations, in part in response to comments that such requirement may negatively affect investment in energy efficiency and renewable energy assets. We believe the deletion of this requirement implies that under the final Real Property Regulations, our rights in the building need not be equivalent to our rights in the structural components serving the building. Second, real property law is typically relegated to the states and the specific rights available to any lien or mortgage holder, including our rights as a fixture lien holder described above, may vary between jurisdictions as a result of a range of factors, including the specific local real property law requirements and judicial and regulatory interpretations of such laws, and the competing rights of mortgage and other lenders. We have applied the analysis described above in a number of states that have adopted Section 9-604(b) of the UCC. In addition, in states where Section 9-604(b) of the UCC has not been adopted, we apply the analysis described above based on the application of the local real property laws of that state to the extent that we have received advice from counsel in those jurisdictions that local real property law provides us with appropriate rights to the buildings in which the structural improvements securing our receivables have been installed. Furthermore, we have applied the analysis described above to certain receivables secured by liens on structural improvements installed in buildings located in certain U.S. installations outside of the United States, based on our view that such installations are subject to U.S. sovereignty and as a result the UCC applies in such installations. While a number of cases have addressed the rights of fixture lien holders generally, there are limited judicial interpretations in only a few jurisdictions that directly address the rights and remedies available to a fixture lien holder in the real property in which the fixtures have been installed. Such rights have been addressed in some cases which support our position and, in factual circumstances distinguishable from our own, in some cases where the courts have found these rights to be more limited. The resolution of these issues in many jurisdictions therefore remains uncertain. As a result of the foregoing, no assurance can be given that the IRS will not challenge our position that our receivables meet the requirements of the Real Property Regulations or that, if challenged, such position would be sustained.

The preamble to the Real Property Regulations provides that, to the extent a private letter ruling issued prior to the issuance of the Real Property Regulations is inconsistent with the Real Property Regulations, the private letter ruling is revoked prospectively from the applicability date of the Real Property Regulations. We do not believe that the Ruling is inconsistent with the Real Property Regulations because we believe the analysis in the Ruling was based on similar principles as the relevant portions of the Real Property Regulations, and accordingly we do not believe that the Real Property Regulations impact our ability to rely on the Ruling. However, no assurance can be given that the IRS would not successfully assert that we are not permitted to rely on the Ruling because the Ruling has been revoked by the Real Property Regulations.

If the IRS were to assert that a significant portion of our receivables do not qualify as real estate assets and do not generate income treated as interest income from mortgages on real property, we would fail to satisfy both the gross income requirements and asset requirements applicable to REITs. If this were to occur, we would be required to restructure the manner in which we receive such income and we may realize significant income that does not qualify for the REIT 75% gross income test, which could cause us to fail to qualify as a REIT.

In addition, our compliance with the REIT income and quarterly asset requirements also depends upon our ability to successfully manage the composition of our income and assets on an ongoing basis in accordance with existing REIT regulations and rules and interpretations thereof. Moreover, the IRS, new legislation, court decisions or other administrative guidance, in each case possibly with retroactive effect, may make it more difficult or impossible for us to qualify as a REIT. Our ability to satisfy the requirements to qualify as a REIT also depends in part on the actions of third parties over which we have no control or only limited influence, including in cases where we own an equity interest in an entity that is classified as a partnership for U.S. federal income tax purposes. Thus, given the highly complex nature of the rules governing REITs, the ongoing importance of factual determinations, and the possibility of future changes in our circumstances, no assurance can be given that we will so qualify for any particular year.

If we fail to qualify as a REIT in any taxable year, and we do not qualify for certain statutory relief provisions, we would be required to pay U.S. federal income tax on our net taxable income, and distributions to our stockholders would not be deductible by us in determining our taxable income. In such a case, we might need to borrow money or sell assets in order to pay our taxes. Our payment of income tax would negatively impact the results of our operations and decrease the amount of our income available for distribution to our stockholders. Furthermore, if we fail to maintain our qualification as a REIT, we no longer would be required to distribute substantially all of our taxable income to our stockholders, which would leave our board of directors with more discretion over our future distribution levels. In addition, unless we were eligible for certain statutory relief provisions, we could not re-elect to qualify as a REIT for the subsequent four taxable years following the year in which we failed to qualify.

Complying with REIT requirements may force us to liquidate or forego otherwise attractive investments.

To qualify as a REIT, we must ensure that we meet the REIT gross income tests annually and that, at the end of each calendar quarter, at least 75% of the value of our total assets consists of cash, cash items, government securities, shares in REITs and other qualifying real estate assets. The remainder of our investment in securities (other than government securities and REIT qualified real estate assets) generally cannot include more than 10% of the outstanding voting securities of any one issuer or more than 10% of the total value of the outstanding securities of any one issuer. In addition, in general, no more than 5% of the value of our total assets (other than government securities, securities of a taxable REIT subsidiary (a "TRS") and securities that are qualifying real estate assets) can consist of the securities of any one issuer, no more than 20% of the value of our total assets can be represented by securities of one or more TRSs, and no more than 25% of the value of our assets can consist of debt instruments issued by publicly offered REITs that are not otherwise secured by real property. If we fail to comply with these requirements at the end of any calendar quarter, we must correct the failure within 30 days after the end of the calendar quarter or qualify for certain statutory relief provisions to avoid losing our REIT qualification and suffering adverse tax consequences. As a result, we may be required to liquidate from our portfolio, or contribute to a TRS, otherwise attractive investments, and may be unable to pursue investments that would be otherwise advantageous to us in order to satisfy the source of income or asset diversification requirements for qualifying as a REIT. These actions could have the effect of reducing our income and amounts available for distribution to our stockholders.

REIT distribution requirements could adversely affect our ability to execute our business plan and may require us to incur debt or sell assets to make such distributions.

In order to qualify as a REIT, we must distribute to our stockholders, each calendar year, at least 90% of our REIT taxable income (including certain items of non-cash income), determined without regard to the deduction for dividends paid and excluding net capital gain. To the extent that we satisfy the 90% distribution requirement, but distribute less than 100% of our REIT taxable income, we will be subject to U.S. federal corporate income tax on our undistributed income. In addition, we will incur a 4% non-deductible excise tax on the amount, if any, by which our distributions in any calendar year are less than a minimum amount specified under U.S. federal income tax laws. We intend to distribute our taxable income to our stockholders in a manner intended to satisfy the REIT 90% distribution requirement and to avoid the 4% non-deductible excise tax.

In addition, differences in timing between the recognition of taxable income, our GAAP income and the actual receipt of cash may occur. For example, we may be required to accrue interest and discount income on debt securities or interests in debt securities before we receive any payments of interest or principal on such assets, and there may be timing differences in the accrual of such interest and discount income for tax purposes and for GAAP purposes.

As a result of the foregoing, we may generate less cash flow than taxable income in a particular year and find it difficult or impossible to meet the REIT distribution requirements in certain circumstances. In such circumstances, we may be required to: (i) sell assets in adverse market conditions, (ii) raise debt or equity on unfavorable terms, (iii) distribute amounts that would otherwise be invested in future acquisitions, capital expenditures or repayment of debt, (iv) make a taxable distribution of our shares as part of a distribution in which stockholders may elect to receive shares or (subject to a limit measured as a percentage of the total distribution) cash or (v) use cash reserves, in order to comply with the REIT distribution requirements and to avoid U.S. federal corporate income tax and the 4% non-deductible excise tax. Thus, compliance with the REIT distribution requirements may hinder our ability to grow, which could adversely affect the value of our common stock.

Even though we qualify as a REIT, we may face tax liabilities that reduce our cash flow.

Even though we qualify for taxation as a REIT, we may be subject to certain U.S. federal, state and local taxes on our income and assets, including taxes on any undistributed income, tax on income from some activities conducted as a result of a foreclosure, and state or local income, franchise, property and transfer taxes, including mortgage recording taxes. In addition, any TRSs we own will be subject to U.S. federal, state and local corporate income or franchise taxes. In order to meet the REIT qualification requirements, or to avoid the imposition of a 100% tax that applies to certain gains derived by a REIT from sales of inventory or property held primarily for sale to customers in the ordinary course of business, we may hold some of our assets through TRSs. Any taxes paid by such TRSs would decrease the cash available for distribution to our stockholders.

The failure of assets subject to a repurchase agreement to be considered owned by us or mezzanine loans or other assets to qualify as real estate assets may adversely affect our ability to qualify as a REIT.

We may enter into repurchase agreements under which we will nominally sell certain of our assets to a counterparty and simultaneously enter into an agreement to repurchase the sold assets. We believe that we will be treated for U.S. federal income tax purposes as the owner of the assets that are the subject of any such agreements and that the repurchase agreements will be treated as secured lending transactions notwithstanding that such agreements may transfer record ownership of the assets to the counterparty during the term of the agreement. It is possible, however, that the IRS could assert that we did not own the assets during the term of the repurchase agreement, in which case our REIT asset test could be adversely affected.

In addition, we may acquire mezzanine loans, which are loans secured by equity interests in a partnership or limited liability company that directly or indirectly owns real property. In IRS Revenue Procedure 2003-65, the IRS provided a safe harbor pursuant to which a mezzanine loan, if it meets each of the requirements contained in the Revenue Procedure, will be treated by the IRS as a real estate asset for purposes of the REIT asset tests, and interest derived from the mezzanine loan will be treated as qualifying mortgage interest for purposes of the REIT 75% gross income test. Although IRS Revenue Procedure 2003-65 provides a safe harbor on which taxpayers may rely, it does not prescribe rules of substantive tax law. We may acquire mezzanine loans that may not meet all of the requirements for reliance on this safe harbor. In the event we own a mezzanine loan that does not meet the safe harbor, the IRS could challenge such loan's treatment as a real estate asset for purposes of the REIT asset and income tests, and if such a challenge were sustained, we could fail to qualify as a REIT. Further, we invest in assets such as C-PACE bonds and assessments, which we believe are secured by real property for purposes of the REIT income and asset tests but with respect to which no authority is directly on point. If the IRS were to successfully assert that such C-PACE assets are not qualifying assets for purposes of the REIT gross asset tests or do not generate qualifying income for purposes of the 75% gross income test, our REIT qualification could be adversely affected.

We may be required to report taxable income for certain investments in excess of the economic income we ultimately realize from them.

To the extent we acquire debt investments in the secondary market for less than their face amount, the amount of such discount will generally be treated as "market discount" for U.S. federal income tax purposes. Market discount is generally accrued on the basis of a constant yield to maturity of a debt investment. Accrued market discount is reported as income when, and to the extent that, any payment of principal of the debt instrument is made, unless we elect to include accrued market discount in income as it accrues. Principal payments on certain loans are made monthly, and consequently accrued market discount may have to be included in income each month as if the debt investment was assured of ultimately being collected in full. If we collect less on the debt investment than our purchase price plus the market discount we had previously reported as income, we may not be able to benefit from any offsetting loss deductions.

Similarly, some of the debt investments that we acquire may have been issued with an original issue discount. We will generally be required to report such original issue discount based on a constant yield method and will be taxed based on the assumption that all future projected payments due on such debt investments will be made. If such debt investments turn out not to be fully collectible, an offsetting loss deduction will become available only in the later year that uncollectability is provable. In addition, in the event that any debt investments acquired by us are delinquent as to mandatory principal and interest payments, or in the event payments with respect to a particular debt investment are not made when due, we may nonetheless be required to continue to recognize the unpaid interest as taxable income as it accrues, despite doubt as to its ultimate collectability. While we would in general ultimately have an offsetting loss deduction available to us when such interest was determined to be uncollectible, the utility of that deduction could depend on our having taxable income in that later year or thereafter. Although we do not presently intend to, we may, in the future, acquire debt investments that are subsequently modified by agreement with the borrower. If such amendments are "significant modifications" under the applicable Treasury Regulations, we may be required to recognize taxable income as a result of such amendments. Finally, we may be required under the terms of indebtedness that we incur with private lenders to use cash received from interest payments to make principal payments on that indebtedness, with the effect of recognizing income but not having a corresponding amount of cash available for distribution to our stockholders.

Public law no. 115-97, signed into law on December 22, 2017 and commonly referred to as the Tax Cuts and Jobs Act of 2017 ("TCJA") implements various changes to the U.S. federal income tax laws that impacts the taxation of us and our shareholders. Among these changes, the TCJA may accelerate our accrual for U.S. federal income tax purposes of certain items of income to the extent that we would otherwise recognize such items of income for U.S. federal income tax purposes later than we would report such items on our financial statements. This provision of the TCJA could increase our taxable income in certain taxable years, which could impact our ability to satisfy the REIT distribution requirements.

The interest apportionment rules under Treasury Regulation Section 1.856-5(c) provide that, if a loan is secured by both real property and other property, a REIT is required to apportion its annual interest income to the real property securing the loan based on a fraction, the numerator of which is the value of such real property, determined when the REIT commits to acquire the loan, and the denominator of which is the highest "principal amount" of the loan during the year. If a mortgage loan is secured by both real property and personal property and the value of the personal property does not exceed 15% of the aggregate value of the property securing the mortgage loan, the mortgage loan is treated as secured solely by real property for this purpose. IRS Revenue Procedure 2014-51 interprets the "principal amount" of the loan to be the face amount of the loan, despite the Internal Revenue Code requiring taxpayers to treat any market discount, that is the difference between the purchase price of the loan and its face amount, for all purposes (other than certain withholding and information reporting purposes) as interest rather than principal. The interest apportionment regulations apply only if the loan in question is secured by both real property and other property and the value of personal property securing the mortgage exceeds 15% of the aggregate value of the property securing the mortgage.

If the IRS were to assert successfully that our loans were secured by property other than real estate, the interest apportionment rules applied for purposes of our REIT testing, and that the position taken in IRS Revenue Procedure 2014-51 should be applied to certain loans in our portfolio, then depending upon the value of the real property securing our loans and their face amount, and the sources of our gross income generally, we may fail to meet the 75% REIT gross income test. If we do not meet this test, we could potentially lose our REIT qualification or be required to pay a penalty to the IRS.

The "taxable mortgage pool" rules may increase the taxes that we or our stockholders may incur and may limit the way we effect future securitizations.

Securitizations by us or our subsidiaries could result in the creation of taxable mortgage pools for U.S. federal income tax purposes. As a result, we could have "excess inclusion income." Certain categories of stockholders, such as non-U.S. stockholders eligible for treaty or other benefits, U.S. stockholders with net operating losses, and certain U.S. tax-exempt stockholders that are subject to unrelated business income tax, could be subject to increased taxes on a portion of their dividend income from us that is attributable to any such excess inclusion income. In the case of a stockholder that is a REIT, a regulated investment company (a "RIC"), common trust fund or other pass-through entity, our allocable share of our excess inclusion income could be considered excess inclusion income of such entity. In addition, to the extent that our common stock is owned by U.S. tax-exempt "disqualified organizations," such as certain government-related entities and charitable remainder trusts that are not subject to tax on unrelated business income, we may incur a corporate level tax on a portion of any excess inclusion income. Because this tax generally would be imposed on us, all of our stockholders, including stockholders that are not disqualified organizations, generally will bear a portion of the tax cost associated with the classification of us or a portion of our assets as a taxable mortgage pool. A RIC, or other pass-through entity owning our common stock in record name will be subject to tax at the highest U.S. federal corporate income tax rate on any excess inclusion income allocated to their owners that are disqualified organizations. Moreover, we could face limitations in selling equity interests in these securitizations to outside investors, or selling any debt securities issued in connection with these securitizations that might be considered to be equity interests for tax purposes. Finally, if we were to fail to qualify as a REIT, any taxable mortgage pool securitizations would be treated as separate taxable corporations for U.S. federal income tax purposes that could not be included in any consolidated U.S. federal corporate income tax return. These limitations may prevent us from using certain techniques to maximize our returns from securitization transactions.

Although our use of TRSs may be able to partially mitigate the impact of meeting the requirements necessary to maintain our qualification as a REIT, our ownership of and relationship with our TRSs is limited and a failure to comply with the limits would jeopardize our REIT qualification and may result in the application of a 100% excise tax.

A REIT may own up to 100% of the stock of one or more TRSs. Subject to certain exemptions, a TRS may hold assets and earn income that would not be qualifying assets or income if held or earned directly by a REIT. Both the subsidiary and the REIT must jointly elect to treat the subsidiary as a TRS. A corporation of which a TRS directly or indirectly owns more than 35% of the voting power or value of the stock will automatically be treated as a TRS. The TRS rules limit the deductibility of interest paid or accrued by a TRS to its parent REIT to assure that the TRS is subject to an appropriate level of corporate taxation. The rules also impose a 100% excise tax on certain transactions between a TRS and its parent REIT that are not conducted on an arm's-length basis. Our TRSs will pay U.S. federal, state and local income or franchise tax on their taxable income, and their after-tax net income will be available for distribution to us but will not be required to be distributed to us, unless necessary to maintain our REIT qualification.

Overall, no more than 20% of the value of a REIT's total assets may consist of stock or securities of one or more TRSs. In order to satisfy the TRS limitation, we may make loans to our TRSs that meet the requirements to be treated as qualifying investments of new capital, which are generally treated as real estate assets under the Internal Revenue Code. Because such loans are treated as real estate assets for purposes of the REIT requirements, we do not treat these loans as TRS securities for purposes of the TRS asset limitation, which is consistent with private rulings issued by the IRS. However, no assurance can be provided that the IRS may not successfully assert that such loans should be treated as securities of our TRSs, which could adversely impact our qualification as a REIT. In addition, our TRSs have obtained financing in transactions in which we and our other subsidiaries have provided guaranties and similar credit support. Although we believe that these financings are properly treated as financings of our TRSs for U.S. federal income tax purposes, no assurance can be provided that the IRS would not assert that such financings should be treated as issued by other entities in our structure, which could impact our compliance with the TRS limitation and the other REIT requirements. While we will be monitoring the aggregate value of the securities of our TRSs and intend to conduct our affairs so that such securities will represent less than 20% of the value of our total assets, there can be no assurance that we will be able to comply with the TRS limitation in all market conditions.

The tax on prohibited transactions limits our ability to engage in certain types of transactions, including certain methods of securitizing loans, which would be treated as sales for U.S. federal income tax purposes.

A REIT's net income from prohibited transactions is subject to a 100% tax. In general, prohibited transactions are sales or other dispositions of property, other than foreclosure property, but including loans, held as inventory or primarily for sale to customers in the ordinary course of business. We might be subject to this tax if we were to sell or securitize loans in a manner that was treated as a sale of the loans as inventory for U.S. federal income tax purposes. Therefore, in order to avoid the prohibited transactions tax, we may choose not to engage in certain sales of loans, other than through a TRS, and we may be required to limit the structures we use for our securitization transactions, even though such sales or structures might otherwise be beneficial for us.

Complying with REIT requirements may limit our ability to hedge effectively.

The REIT provisions of the Internal Revenue Code may limit our ability to hedge our assets and operations. Under these provisions, any income that we generate from transactions intended to hedge our interest rate exposure will be excluded from gross income for purposes of the REIT 75% and 95% gross income tests if (i) the instrument (A) hedges interest rate risk on liabilities used to carry or acquire real estate assets or certain other specified types of risk, or (B) hedges an instrument described in clause (A) for a period following the extinguishment of the liability or the disposition of the asset that was previously hedged by the hedged instrument, and (ii) such instrument is properly identified under applicable Treasury Regulations. Income from hedging transactions that do not meet these requirements will generally constitute non-qualifying income for purposes of both the REIT 75% and 95% gross income tests. As a result of these rules, we may have to limit our use of hedging techniques that might otherwise be advantageous or implement those hedges through a TRS. This could increase the cost of our hedging activities because our TRS would be subject to tax on gains or the limits on our use of hedging techniques could expose us to greater risks associated with changes in interest rates than we would otherwise want to bear. In addition, losses in our TRS will generally not provide any tax benefit to us, although subject to limitation, such losses may be carried forward to offset future taxable income of the TRS.

Legislative, regulatory or administrative changes could adversely affect us.

The U.S. federal income tax laws and regulations governing REITs and their stockholders, as well as the administrative interpretations of those laws and regulations, are constantly under review and may be changed at any time, possibly with retroactive effect. No assurance can be given as to whether, when, or in what form, the U.S. federal income tax laws applicable to us and our stockholders may be enacted. Changes to the U.S. federal income tax laws and interpretations of U.S. federal tax laws could adversely affect an investment in our common stock.

The TCJA, which was signed into law on December 22, 2017, significantly changes U.S. federal income tax laws applicable to businesses and their owners, including REITs and their stockholders, and may lessen the relative competitive advantage of operating as a REIT rather than as a C corporation.

Liquidation of our assets may jeopardize our REIT qualification.

To qualify as a REIT, we must comply with requirements regarding our assets and our sources of income. If we are compelled to liquidate our assets to repay obligations to our lenders, we may be unable to comply with these requirements, thereby jeopardizing our qualification as a REIT, or we may be subject to a 100% tax on any resultant gain if we sell assets that are treated as inventory or property held primarily for sale to customers in the ordinary course of business.

Your investment has various U.S. federal income tax risks.

We urge you to consult your tax advisor concerning the effects of U.S. federal, state, local and foreign tax laws to you regarding an investment in shares of our common stock.

Risks related to COVID-19

The current outbreak and spread of the COVID-19 outbreak has disrupted, and is likely to further cause severe disruptions in, the U.S. and global economies and financial markets and create widespread business continuity and viability issues.

In recent years the outbreaks of a number of diseases, including Avian Bird Flu, H1N1, and various other "super bugs," have increased the risk of a pandemic. In December 2019, a novel strain of coronavirus (COVID-19) was reported to have surfaced in Wuhan, China. COVID-19 has since spread to over 100 countries, including the United States. COVID-19 has also spread to every state in the United States and in regions where we have our executive offices and principal operations, and in regions where our projects and other investments are located or where they are managed. On March 11, 2020, the World Health Organization declared COVID-19 a pandemic, and on March 13, 2020, the United States declared a national emergency with respect to COVID-19. Since March 13, 2020, there have been a number of federal, state and local government initiatives to manage the spread of the virus and its impact on the economy, financial markets and continuity of businesses of all sizes and industries.

The impact and duration of COVID-19 or another pandemic, is having and could in the future have significant repercussions across regional, national and global economies and financial markets, and could trigger a period of regional, national and global economic slowdown or regional, national or global recessions. The outbreak of COVID-19 in many countries continues to adversely impact regional, national and global economic activity and has contributed to significant volatility and negative pressure in financial markets. The impact of the outbreak has been rapidly evolving and, as cases of the virus have continued to increase around the world, many countries, including the United States, have reacted by instituting, among other things, quarantines and restrictions on travel.

Since March, in an attempt to control COVID-19 the Federal government and most states and/or local governments, including where we have our office (Maryland) and in regions where our projects and other investments are located or where they are managed, have implemented various restrictions, rules, or guidelines including quarantines, restrictions on travel, "shelter in place", "stay at home"", or "safer at home" rules, restrictions on types of business that may continue to operate, and/or restrictions on types of construction projects allowed. While some of these restrictions have been relaxed or phased out, many of these or similar restrictions remain in place, continue to be implemented, or additional restrictions are being considered. Although, in certain cases, exceptions may be available for certain essential operations and businesses which generally include the renewable energy projects in which we invest, there is no assurance that such exceptions will enable us to avoid adverse effects to our results of operations and business. Further, such actions create disruption in energy efficiency, renewable energy, real estate and other sustainable infrastructure markets and adversely impact a number of industries.

We believe that our ability to operate and our level of business activity has been, and will in all likelihood continue to be, impacted by effects of COVID-19 and could in the future be impacted by another pandemic and that such impacts could adversely affect the profitability of our business, as well as the values of, and the cash flows from, the assets we own. For example, the effects of COVID-19 or another pandemic could adversely impact our financial condition and results of operations due to, among other factors:

- interrupted service and availability of personnel, including our executive officers and other employees that are part of our management team and an inability to recruit, attract and retain skilled personnel-to the extent our management or personnel are impacted by the outbreak of pandemic or epidemic disease and are not available or allowed to conduct work, our business and operating results may be negatively impacted;
- difficulty accessing debt and equity capital on attractive terms, or at all, and severe disruption or instability in the global financial markets or deterioration in credit and financing conditions may affect our ability or the ability of our sustainable infrastructure projects and our ultimate off-taker or project users to make regular payments of principal, interest or project revenue (e.g., due to unemployment, underemployment, or reduced income or revenues) or to access savings or capital necessary to fund business operations or replace or renew maturing liabilities on a timely basis, and may adversely affect the valuation of financial assets and liabilities, any of which could result in the inability to make payments under our borrowing facilities or notes, affect our or our projects' ability to meet liquidity, net worth, and leverage covenants under borrowing facilities or have a material adverse effect on the value of investments we hold or on our business, financial condition, results of operations and cash flows;
- temporary or lasting changes involving the status, practices and procedures of our or our projects or our projects' sponsors' operations, including with respect to new originations of investments - to the extent we elect or are required to limit or be more selective in making new originations of investments, we may strain our relationships with business partners, customers and counterparties, breach actual or perceived obligations to them, and be subject to litigation and claims from such partners, customers and counterparties, any of which could have a material adverse effect on our reputation, business, financial condition, results of operations and cash flows; moreover, some of our ultimate off-taker or project users' operations, or our operations, the sustainable infrastructure markets or projects and our ultimate off-taker or project users have not been able to and others may not be able to function effectively because of, among other factors, disruptions in the normal operation of sustainable infrastructure markets or projects, any inability to access short-term or long-term financing, a disruption in the market for securitization transactions, or the inability to access these markets or execute securitization transactions due to negative impacts to our, our projects or our ultimate off-taker or project users financial condition or operating capabilities resulting from the COVID-19 pandemic; any or all of these impacts could result in reduced net investment income and cash flow, as well as an impairment of our investments which reductions and impairments could be material;
- to the extent ultimate off-taker or other project users that have been negatively impacted by the COVID-19 pandemic do not timely remit payments of principal, interest or other payments (whether due to an inability to make such payments, an unwillingness to make such payments, or a waiver of the requirement to make such payments on a timely basis or at all, including under the terms of any applicable forbearance, modification, or maturity extension agreement or program (which forbearance, waiver, or maturity extension may be available as a result of a government-sponsored or -imposed program or under any such agreement or program we or our project sponsors may otherwise offer)), then the value of our investments will likely be impaired, potentially materially; moreover, to the extent any such pandemic impacts local, regional or national economic conditions, the value of a sustainable infrastructure project is likely to decline, which would likely negatively impact the value of our investments, potentially materially;
- some of our sustainable infrastructure projects are being constructed and others are subject to ongoing maintenance; planned construction or maintenance of some of these projects have not been able to proceed on a timely basis or at all and others may be similarly affected as a result of being negatively impacted by the COVID-19 pandemic, including due to operating disruptions or government mandated moratoriums on construction, development or redevelopment or the inability to source the necessary construction personnel, equipment or parts; all of the foregoing factors would likely negatively impact the value of our investments, potentially materially;
- the inability of our project sponsors to operate in affected areas, including the bankruptcy of one or more project sponsors or their suppliers, or inability of our internal resources to effectively manage our investments in certain of their activities or perform certain administration functions;
- the inability of other third-party vendors we rely on to conduct our business to operate effectively and continue to support our business and operations, including vendors that provide IT services, legal and accounting services, or other operational support services;
- the inability of our or our investments' counterparties to make or satisfy the conditions, covenants or representations and warranties in agreements they have entered into with us or our counterparties; and
- our ability to ensure operational continuity in the event our business continuity plan is not effective or ineffectually implemented or deployed during a disruption.

The rapid development and fluidity of the circumstances resulting from this pandemic preclude any prediction as to the ultimate adverse impact of COVID-19. Nevertheless, COVID-19 and the current financial, economic and capital markets environment, and future developments in these and other areas present material uncertainty and risk with respect to our performance, financial condition, volume of business, results of operations and cash flows.

To the extent the COVID-19 pandemic adversely affects our business and financial results, it may also have the effect of heightening many of the other risks described in this ''Risk Factors'' section, as well as the Risk Factors in the Form 10-K, such as those relating to changes in interest rates, declining demand for our projects due to declining costs of traditionally-sourced energy, the lack of liquidity of our assets and investments, changes in the fair value of our assets, negative market conditions, our dependence on third-party contractual arrangements, our dependence on the availability of capital, changes in credit ratings assigned to our assets, counterparties to repurchase transactions' defaulting on their obligations and our investments' subjectivity to delinquency, foreclosure and loss.

Our results could be adversely affected by counterparty credit risk.

The economic impact of COVID-19 and the associated volatility in the financial markets has triggered a period of economic slowdown or recession and could jeopardize the solvency and financial wherewithal of counterparties with whom we do business. In the event a counterparty to us or one of our sustainable infrastructure projects becomes insolvent or unable to make payments, we may fail to recover the full value of our investment or realize the value from the counterparty's contract, thus reducing our earnings and liquidity. In addition, the insolvency of one or more of our, or one of our sustainable infrastructure projects', counterparties could reduce the amount of financing available to us, which would make it more difficult for us to leverage the value of our assets and obtain substitute financing on attractive terms or at all. A material reduction in our financing sources or an adverse change in the terms of our financings could have a material adverse effect on our financial condition and results of operations.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

Our principal executive offices are located at 1906 Towne Centre Blvd, Suite 370, Annapolis, Maryland 21401. Our telephone number is (410) 571-9860.

ITEM 3. LEGAL PROCEEDINGS

From time to time, we may be involved in various claims and legal actions in the ordinary course of business. As of December 31, 2020, we are not currently subject to any legal proceedings that are likely to have a material adverse effect on our financial position, results of operations or cash flows.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

PART II

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Market information

Our common stock is traded on the NYSE under the symbol "HASI."

Holders

As of February 18, 2021, we had 161 registered holders of our common stock. The 161 holders of record do not include the beneficial owners of our common stock whose shares are held by a broker or bank. Such information was obtained from The Depository Trust Company.

Dividends

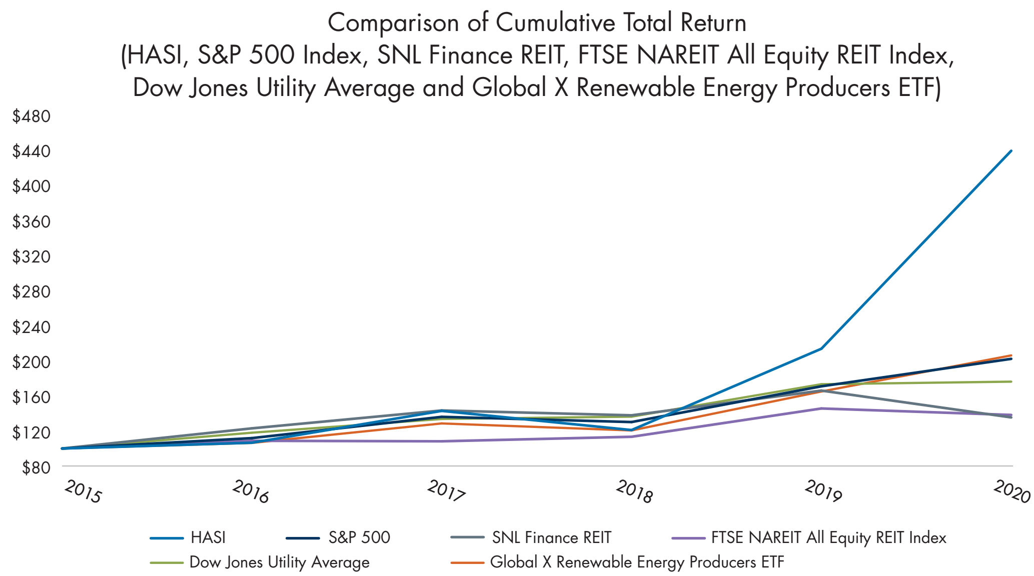
We intend to make regular quarterly distributions to holders of our common stock. Any distributions we make will be at the discretion of our board of directors and will depend upon, among other things, our actual results of operations. These results and our ability to pay distributions will be affected by various factors, including the net interest and other income from our portfolio, our operating expenses and any other expenditures. See Item 1A. Risk Factors, and Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations, of this Form 10-K, for information regarding the sources of funds used for dividends and for a discussion of factors, if any, which may adversely affect our ability to pay dividends. See Note 11 of the audited financial statements in this Form 10-K for details of our dividends declared in 2020 and 2019.

Additionally, as we are subject to the REIT requirements to distribute at least 90% of our REIT taxable income, there is a minimum amount of distributions that we are required to make. The taxable income of the REIT can vary from our GAAP earnings due to a number of different factors, including, the book to tax timing differences of income and expense recognition from our transactions as well as the amount of taxable income of our TRSs distributed to the REIT. See Note 10 regarding the amount of our distributions that are taxed as ordinary income to our stockholders.

Stockholder return performance

The stock performance graph and table below shall not be deemed, under the Securities Act or the Exchange Act, to be (i) "soliciting material" or "filed" or (ii) incorporated by reference by any general statement into any filing made by us with the SEC, except to the extent that we specifically incorporate such stock performance graph and table by reference.

The following graph is a comparison of the cumulative total stockholder return from December 31, 2015 to December 31, 2020 on our shares of common stock, the Standard & Poor's 500 Index (the "S&P 500 Index"), and peer group indices, including the SNL Finance REIT Index, FTSE NAREIT All Equity REIT Index, Dow Jones Utility Average and Global X Renewable Energy Producers ETF. The graph assumes that $100 was invested at closing on December 31, 2015, in our shares of common stock, the S&P 500 Index, and the peer group indices and that all dividends were reinvested without the payment of any commissions. There can be no assurance that the performance of our common stock will continue in line with the same or similar trends depicted in the graph below. In this Form 10-K we have added both the FTSE NAREIT All Equity REIT Index and the Global X Renewable Energy Producers ETF, which beginning with the 2021 Form 10-K will replace the SNL Finance REIT Index and the Dow Jones Utility Average as indices in this graph. As a growing, US-based, well-diversified, mid-cap REIT, we believe these indices are well positioned to serve as peer group indices. The FTSE Nareit All Equity REITs Index is a free-float adjusted, market capitalization-weighted index of US equity REITs. Constituents of the index include all tax-qualified REITs with more than 50 percent of total assets in qualifying real estate assets other than mortgages secured by real property. The Global X Renewable Energy Producers ETF is comprised of companies who generally own or operate assets similar to our investments in renewable energy projects.



Company or Index	12/31/2015	12/31/2016	12/31/2017	12/31/2018	12/31/2019	12/31/2020
Hannon Armstrong Sustainable Infrastructure Capital, Inc.	$ 100.00	$ 106.65	$ 143.24	$ 121.22	$ 214.65	$ 442.07
S&P 500 Index	100.00	111.96	136.40	130.42	171.49	203.04
SNL Finance REIT Index[(1)]	100.00	123.18	143.73	138.16	166.57	135.75
FTSE NAREIT All Equity REIT Index	100.00	108.87	118.31	113.50	146.01	138.60
Dow Jones Utility Average	100.00	118.18	133.95	136.61	173.90	176.83
Global X Renewable Energy Producers ETF	100.00	106.45	128.82	120.77	165.52	206.97

Sources: Bloomberg L.P. and S&P Global Market Intelligence, a division of S&P Global

(1) As of December 31, 2020, the SNL Finance REIT Index comprised of the following companies: AG Mortgage Investment Trust Inc.; AGNC Investment Corp.; American Church Mortgage Company; Annaly Capital Management Inc.; Anworth Mortgage Asset Corporation; Apollo Commercial Real Estate Finance, Inc.; Arbor Realty Trust Inc.; Ares Commercial Real Estate Corporation.; Arlington Asset Investment Corporation.; ARMOUR Residential REIT Inc.; Blackstone Mortgage Trust, Inc.; Broadmark Realty Capital Inc.; Capstead Mortgage Corporation.; Cherry Hill Mortgage Investment Corporation.; Chimera Investment Corporation.; Colony Credit Real Estate; Inc; CV Holdings Inc.; Dynex Capital Inc.; Ellington Financial Inc.; Ellington Residential Mortgage REIT; Exantas Capital Corp.; Granite Point Mortgage Trust; Great Ajax Corp.; Hannon Armstrong Sustainable Infrastructure Capital, Inc.; Hunt Companies Finance Trust; Invesco Mortgage Capital Inc.; KKR Real Estate Finance Trust, Inc.; Ladder Capital Corp.; Manhattan Bridge Capital, Inc.; MFA Financial Inc.; New Residential Investment Corp.; New York Mortgage Trust Inc.; NexPoint Real Estate Finance, Inc.; Orchid Island Capital Inc.; PennyMac Mortgage Investment Trust; Ready Capital Corp.; Redwood Trust Inc.; Sachem Capital Corp.; Starwood Property Trust Inc.; TPG RE Finance Trust Inc; Tremont Mortgage Trust; Two Harbors Investment Corporation.; and Western Asset Mortgage Capital Corporation.

Purchases of equity securities by the issuer and affiliated purchasers

The table below summarizes all of our repurchases of common stock during 2020.

Period	**Total number of shares purchased[(1)]**	**Average price per share**	**Total number of shares purchased as part of publicly announced plans or programs**	**Maximum number of shares that may yet be purchased under the plans or programs**
February 1 – February 29, 2020	165,090	$ 38.13	N/A	N/A
March 1 – March 31, 2020	267,653	36.14	N/A	N/A
May 1 – May 31, 2020	47,516	27.79	N/A	N/A

(1) During the year ended December 31, 2020, certain of our employees surrendered common stock owned by them to satisfy their tax and other compensation related withholdings associated with the vesting of restricted stock and restricted stock units. 57,400 OP units were exchanged for shares of common stock during the year ended December 31, 2020. The price paid per share is based on the closing price of our common stock as of the date of the exchange and withholding.

ITEM 6. SELECTED FINANCIAL DATA

None.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion should be read in conjunction with our financial statements and accompanying notes included in Item 8. Financial Statements and Supplementary Data, of this Form 10-K. Refer to 'Item 7 – Management's Discussion and Analysis of Financial Condition and Results of Operations' on our Form 10-K for the year ended December 31, 2019 for a discussion of our results for the year ended December 31, 2018 and a comparison of our results of operations for the fiscal years ended December 31, 2019 and December 31, 2018.

Overview

We invest in climate solutions developed by the leading companies in the energy efficiency, renewable energy and other sustainable infrastructure markets. We believe we are one of the first U.S. public companies solely dedicated to such climate change investments. Our goal is to generate attractive returns from a diversified portfolio of projects with long-term, predictable cash flows from proven technologies that reduce carbon emissions or increase resilience to climate change.

We are internally managed, and our management team has extensive relevant industry knowledge and experience, dating back more than 30 years. We have long-standing relationships with the leading energy service companies ("ESCOs"), manufacturers, project developers, utilities, owners and operators. Our origination strategy is to use these relationships to generate recurring, programmatic investment and fee-generating opportunities. Additionally, we have relationships with leading banks, investment banks, and institutional investors from which we are referred additional investment and fee generating opportunities.

We completed approximately $1.9 billion of transactions during 2020, compared to approximately $1.3 billion during 2019. As of December 31, 2020, we held approximately $2.9 billion of transactions on our balance sheet, which we refer to as our "Portfolio." For those transactions that we choose not to hold on our balance sheet, we transfer all or a portion of the economics of the transaction, typically using securitization trusts, to institutional investors in exchange for cash and in certain cases, residual interests in the assets and ongoing fees. As of December 31, 2020, we managed approximately $4.3 billion in these trusts or vehicles that are not consolidated on our balance sheet. When combined with our Portfolio, as of December 31, 2020, we manage approximately $7.2 billion of assets, which we refer to as our "Managed Assets".

Our investments have taken many forms, including equity, joint ventures, land ownership, lending, or other financing transactions. We also generate ongoing fees through off-balance sheet securitization transactions, services, and asset management. We use borrowings as part of our strategy to increase potential returns to our stockholders and have available a broad range of financing sources including non-recourse or recourse debt, equity and off-balance sheet securitization structures.

See Item 1. Business for a further discussion of our business, investing strategy, and financing strategy.

Market conditions

As a result of increasing global awareness of and aversion to climate change impacts, we believe the sustainable infrastructure markets in which we invest, and investment in climate solutions more broadly, will continue to grow as the impact of climate change increases. In January 2021, National Oceanic and Atmospheric Administration ("NOAA") reported that 2020 was the second warmest year on record, with all seven of the warmest years on record having occurred since 2014.

Further, communities across the globe are increasingly experiencing the destructive economic impacts of climate change, which are only expected to increase in frequency and severity. According to the U.S. National Oceanic and Atmospheric Administration ("NOAA"), there were 22 natural disaster events in the United States in 2020, with an estimated individual cost of greater than $1 billion and an aggregate cost of approximately $95 billion. NOAA reports, that since 1980, the U.S. has sustained 285 separate billion-dollar weather events and climate disasters with cumulative costs exceeding $1.9 trillion dollars. In its Weather, Climate & Catastrophe Insight: 2020 Annual Report, Aon reports that there were 416 natural catastrophe events globally in 2020, resulting in economic losses of $268 billion representing increased losses of 8% compared to the century average.

BloombergNEF ("BNEF") reported in January 2021, that carbon solutions investment exceeded $500 billion annually with $85 billion being invested in the United States. In its Energy Efficiency 2020 report, the International Energy Agency ("IEA") estimates global spending on energy efficiency at approximately $250 billion. Given that many projects are often self-financed (especially energy efficiency), we believe our total addressable market is likely a subset of these overall industry estimates. However, we believe these estimates are reliable indicators of market trends.

These positive industry trends coupled with the increasing environmental and economic imperative to reduce carbon emissions are expected to further broaden our investable universe. Investments in energy efficiency as a service allow organizations to avoid the upfront costs of efficiency investments by paying for efficiency-enabled cost savings as operating rather than capital expenses. In its Annual Energy Outlook 2021, the U.S. Energy Information Administration ("EIA") estimates that decreasing energy intensity resulting from energy efficiency improvements will keep U.S. energy consumption for residential and commercial buildings growing at a level far below that of the U.S. economy. In addition, Lazard's 2020 Levelized Cost of Energy Analysis shows that renewables continue to outperform traditional generation sources on a new-built cost basis with certain renewable technologies achieving competitiveness with existing conventional generation technologies on a marginal basis, making renewables even more attractive investment targets. Further, in its New Energy Outlook 2020, BNEF expects wind and solar generation to provide 56% of the world's electricity by 2050, with renewables attracting $11 trillion of aggregate investment over this time period.

We expect the federal government to take, and they have taken, certain actions which are supportive of the industry for climate solutions. In December 2020, Congress extended the end date to December 2022 for qualifying property being eligible for the 26% investment tax credit for photovoltaic solar projects. The new presidential administration has taken immediate steps at the federal level which we believe signify support for climate solutions, including, but not limited to, rejoining the Paris Climate Accords and re-establishing a social price on carbon used in cost/benefit analysis for policy making. We expect the new administration, combined with a closely divided Congress, will result in additional regulations supportive of the markets in which we invest.

State governmental agencies are responding to climate change risks through the implementation of renewable portfolio standards ("RPS") as well as energy reduction targets such as energy efficiency resource standards. According to the UCLA Luskin Center of Innovation one in three Americans lives in a city or state that has committed to, or already achieved, 100% clean electricity. Corporates are also responding to climate change risks - in part through renewable energy sourcing commitments. In its 2020 Annual Report, the RE 100, a global corporate leadership initiative bringing together influential businesses committed to 100% renewable electricity, reported that over 260 multinational companies have pledged to achieve 100% renewable energy with an average target date of 2028, with three quarters of those companies planning to reach 100% renewable energy by 2030.

Federal Energy Savings Performance Contracts ("ESPCs") are an example of a public-private partnership that eliminate the need for a federal agency to find appropriated funds to replace, operate, and maintain energy-intensive equipment while also providing multiple ancillary benefits, including saving taxpayer dollars currently spent on energy consumption, improving conditions for federal workers and service men and women, and creating private sector jobs. Support for ESPCs remain bipartisan, and the new presidential administration is expected to continue to support the program. DOE announced that fiscal year 2020 was the most successful year in the history of the ESPC program, with over $842 million invested in qualifying projects, the third consecutive record year in the history of the program.

While we believe that the long-term growth prospects for our business remain positive, volatility in financial markets and commodity prices along with interest rate movements could impact the markets we serve. Further, the current interest rate environment of low yields coupled with increasing investor acceptance of our markets has increased competitive pressure. In 2020, the Federal Reserve Board of Governors lowered the rate at which banks lend to one another (known as the federal funds rate) to a range of 0 to 25 basis points. The Federal Reserve Board of Governors has indicated that their plan is to keep rates at this level for some time, until labor market conditions recover from the COVID-19 pandemic and their inflation target of 2 percent is met. See "Item 7A. Quantitative and Qualitative Disclosures about Market Risk-Interest Rate and Borrowing Risks" for an analysis of the impact of rates on our business.

According to the Department of Energy, average annual Henry Hub natural gas prices decreased by over 50% from 2014 to 2020, and its 2021 outlook forecasts that prices will stay below pre-2010 levels through 2050. As wholesale electricity prices are closely tied to wholesale natural gas prices in many parts of the United States, lower natural gas prices have negatively impacted, and are expected to continue to negatively impact, renewable energy projects that sell wholesale power on a "merchant" basis at spot market prices. For more detail on commodity price impacts, see "Item 7A. Quantitative and Qualitative Disclosures about Market Risk-Commodity Price Risk". We attempt to mitigate our exposure to these low commodity prices and future volatility, as well as any credit risk associated with these prices, by acquiring projects with contracted revenues, negotiating certain structural protections such as preferred returns, and through active asset management and portfolio monitoring. Similarly, we seek to manage credit risk that might arise from commodity price declines through our due diligence and underwriting processes, strong structural protections in our transaction agreements with customers, and active asset management and portfolio monitoring.

Notwithstanding any concerns that current market conditions have raised for our business, we believe significant opportunities exist for us to grow our business. As a long-term participant committed to providing capital for sustainable infrastructure, we plan to continue to fund projects that meet our underwriting standards and look for opportunities to expand our business.

Factors impacting our operating results

We expect that our results of operations will be affected by a number of factors and will primarily depend on the size of our Portfolio, including the mix of transactions which we hold in our Portfolio, the income we receive from securitizations, syndications and other services, our Portfolio's credit risk profile, changes in market interest rates, commodity prices, federal, state and/or municipal governmental policies, general market conditions in local, regional and national economies, our ability to qualify as a REIT and maintain our exemption from registration as an investment company under the 1940 Act and, the impact of climate change, and the impact of the novel coronavirus (COVID-19).

Portfolio Size

The size of our Portfolio will be a key revenue driver. Generally, as the size of our Portfolio on our balance sheet grows the amount of our revenue will increase. Our Portfolio may grow at an uneven pace as opportunities to originate new assets may be irregularly timed, and the timing and extent of our success in such originations cannot be predicted. To the extent the size of our Portfolio changes due to equity method investment activity, the income or loss from such investments will not be included in revenue but are reflected as income (loss) from equity method investments in our income statement and will vary over time. In addition, we may decide for any particular asset that we should securitize or otherwise sell a portion, or all, of the asset, which would result in gain on sale of receivables and investments or fee income as described below. The level of portfolio activity will fluctuate from period to period based upon the market demand for the capital we provide, our view of economic fundamentals including interest rates, the present mix of our Portfolio, our ability to identify new opportunities that meet our investment criteria, the volume of projects that have advanced to stages where we believe a transaction is appropriate, seasonality in our activities and in the various projects where we may provide debt or equity and our ability to consummate the identified opportunities, including as a result of our available capital. The level of our new origination activity, the percentage of the originations that we choose to retain on our balance sheet and the related income, will directly impact our interest and rental revenue and income from equity method investments.

Income from Securitization, Syndication and Other Services

We will also earn gain on sale of financial assets or fee income by securitizing or selling all or a portion of certain transactions. For transactions that we securitize via a non-consolidated trust, we recognize a gain on the securitization. The gain may be comprised of both cash received and a residual interest in securitized assets. We may also recognize additional income from servicing fees from these securitized assets over the life of the asset.

In many cases, we arrange the securitization of the loan or other asset prior to originating the transaction and thus have avoided exposure to credit spread and interest rate risks that are typically associated with traditional capital markets conduit transactions. In these cases, we avoid funding risks for these financings or other assets given that our securitization partners contractually agree to fund such assets before the origination transaction is completed.

We also generate fee income for syndications where we arrange financings that are held by other investors or if we sell existing transactions to other investors. In these transactions, unless we decide to hold a portion of the economic interest of the transaction on our balance sheet, we have no exposure to risks related to ownership of those financings. We may charge advisory, retainer or other fees, including through our broker dealer subsidiary.

The gain on sale income and our other sources of fee income will also vary depending on the level of our new origination activity and the portion of originated assets we decide to transfer to other investors. We view this revenue from such activities as a valuable component of our earnings and an important source of franchise value. The total amount of income from securitizations, syndications, and other services will vary on a quarter to quarter basis depending on various factors, including the level of our originations, the duration, credit quality and types of assets we originate, current and anticipated future interest rates, the impact on our leverage, the potential income from a securitization or syndication, the mix of our Portfolio and our need to tailor our mix of assets in order to allow us to qualify as a REIT for U.S. federal income tax purposes and maintain our exemption from registration under the 1940 Act.

Credit Risks

We source and identify quality opportunities within our broad areas of expertise and apply our rigorous underwriting processes to our transactions, which, we believe, will generally enable us to minimize our credit losses and maintain our current level of financing costs. In the case of various renewable energy and other sustainable infrastructure projects, we will be exposed to the credit risk of the obligor of the project's PPA or other long-term contractual revenue commitments, as well as to the credit risk of certain suppliers and project operators. While we do not anticipate facing significant credit risk in our assets related to government energy efficiency projects, we are subject to varying degrees of credit risk in these projects in relation to payment guarantees provided by ESCOs that are required in the event that certain energy savings are not realized by the customer. We are also exposed to credit risk in our other projects that do not benefit from governments as the obligor such as on balance sheet financing of projects undertaken by universities, schools and hospitals, as well as privately owned commercial projects. We have extended mezzanine loans to various special purpose entities which own residential solar projects, and the ultimate repayment of those loans is dependent on the creditworthiness of the related residential obligors. Our level of credit risk has increased, and is expected to continue to increase, as our strategy contemplates new investments in mezzanine debt and equity. We seek to manage credit risk through thorough due diligence and underwriting processes, strong structural protections in our transaction agreements with customers and continual, active asset management and portfolio monitoring. Nevertheless, unanticipated credit losses could occur and during periods of economic downturn in the global economy, our exposure to credit risks from obligors increases, and our efforts to monitor and mitigate the associated risks may not be effective in reducing our credit losses. See Item 7A. Quantitative and Qualitative Disclosures about Credit Risks for further information on our credit risks and see Note 6 of our audited financial statements in this Form 10-K for additional detail of the credit risks surrounding our Portfolio.

Changes in Market Interest Rates and Liquidity

Interest rate risk is highly sensitive to many factors, including governmental monetary and tax policies, domestic and international economic and political considerations and other factors beyond our control. We are subject to interest rate risk in connection with new asset originations and our borrowings, including our credit facilities, and in the future, any new floating rate assets, credit facilities or other borrowings. See Item 7A. Quantitative and Qualitative Disclosures about Market Risk for further information on interest rates risks and liquidity.

Commodity Prices

When we make investments in a project that act as a substitute for an underlying commodity, we may be exposed to volatility in prices for that commodity. For example, the performance of renewable energy projects that produce electricity can be impacted by volatility in the market prices of various forms of energy, including electricity, coal and natural gas. This is especially true for utility scale projects that sell power on a wholesale basis such as many of our Grid-Connected projects as opposed to Behind-the-Meter projects which compete against the retail or delivered costs of electricity which includes the cost of transmitting and distributing the electricity to the end user. See Item 7A. Quantitative and Qualitative Disclosures about Market Risk for further information on the impact of commodity prices.

Government Policies

We make investments in renewable energy projects that typically depend in part on various federal, state or local governmental policies that support or enhance the project's economic feasibility. Such policies may include governmental initiatives, laws and regulations designed to reduce energy usage and impact the use of renewable energy or the investment in, and the use of, sustainable infrastructure. Policies and incentives provided by the U.S. federal government may include tax credits (with some of these tax credits that are related to renewable energy scheduled to be reduced or eliminated in the future), tax deductions, bonus depreciation, federal grants and loan guarantees, and energy market regulations. The value of tax credits, deductions and incentives may be impacted by changes in tax laws rates or regulations, including as a result of the TCJA.

Incentives provided by state and local governments may include a RPS or similar clean energy standard, which specify the portion of the power utilized by local utilities that must be derived from renewable or clean energy sources as well as the state or local government sponsored programs where the financing of energy efficiency or renewable energy projects is repaid through an assessment in the property tax bill in a program commonly referred to as PACE. Additionally, certain states have implemented feed-in or net metering tariffs, pursuant to which electricity generated from renewable energy sources is purchased at a higher rate than prevailing wholesale rates. Other incentives include tariffs, tax incentives and other cash and non-cash payments.

Governmental agencies, commercial entities and developers of sustainable infrastructure projects frequently depend on these policies and incentives to help defray the costs associated with, and to finance, various projects. Government regulations also impact the terms of third party financing provided to support these projects. If any of these government policies, incentives or regulations are adversely amended, delayed, eliminated, reduced, retroactively changed or not extended beyond their current expiration dates or there is a negative impact from the recent federal law changes or proposals, the operating results of the projects we finance and the demand for, and the returns available from our investments may decline, which could harm our business.

Impacts of climate change on our future operations

As our business is focused on reducing carbon emissions and increasing resiliency to climate change, we are impacted by the effects of climate change and various related regulatory responses. In managing our business, we consider the potential impacts to our operations that may result in certain climate-related scenarios. In 2018, we began to implement the recommendations of the TCFD. The TCFD provides a framework to consider and disclose our processes for managing the risks and opportunities associated with climate change. We have disclosed the components of the TCFD framework throughout this document. The following tables highlight our evaluation of potential impacts to our business in two climate related scenarios as well as our resilience and strategy to handling the potential impacts.

Transition Risks and Opportunities - We believe our investment portfolio will be impacted by the transition risks and opportunities contemplated by the Paris Accords and the achievement of its objectives.

Scenario 1 - Global action is taken to limit the global temperature increase to 1.5 degrees Celsius above pre-industrial levels

Assumption	Qualitative impacts	Quantitative impacts	Considerations of and impact on our management strategy
The price of Renewable Energy Credits ("RECs") or similar structures increase as more aggressive renewable portfolio standards and corporate renewable energy targets are implemented	Increased expected cash flows and financial returns for certain of our investments to the extent the RECs are sold at higher market prices. Increased debt/lease service coverage ratio for the obligors of our renewable energy debt investments and solar real estate leases that sell RECs at higher market pricing. The resulting increase in cash flows may also allow us to apply greater financial leverage to these investments and enhance our profitability. If there was a material increase in value associated with RECs, it is likely that more renewable energy projects would be developed in geographic areas where the RECs were more valuable, leading to more potential investment opportunities for us.	If the overall price level of RECs increased by 5% we would not expect a material impact to the overall cash flows from our existing investments. The is largely due to the lower value of RECs in comparison to power prices in most of the markets where our investments are located.	We may identify more investment opportunities resulting from the increased REC value. In addition, to the extent that our investments become more valuable we would consider whether it would be more economical to our stockholders to either monetize the investment given the increase in value or continue to hold in our Portfolio and maximize our returns from adding additional leverage to our financing.

Assumption	Qualitative impacts	Quantitative impacts	Considerations of and impact on our management strategy
A carbon tax or similar carbon pricing mechanism is implemented by governmental authorities which may cause an increase to (i) power prices, (ii) operating costs for certain entities, and (iii) the competitiveness of renewable energy, energy efficiency and storage projects	Increased cash flows and financial returns from certain investments to the extent power is sold at higher market prices due to the increase in cost imposed on fossil fueled energy projects. Increases in the debt/lease service coverage ratio for the obligors of our renewable energy debt investments and solar real estate leases that sell power at higher market pricing. The resulting increase in cash flows may also allow us to apply greater financial leverage to these investments and enhance our profitability. Increased energy cost savings from energy efficiency solutions. Increased competitiveness of renewable energy projects with fossil fueled power plants, due to an increase in power prices. An increase in the items mentioned above may increase the volume of assets available in which we can invest. However, the implementation of a carbon tax may also have a negative impact on the financial health of utilities and corporate entities who also purchase power from renewable energy projects in which we have invested. The credit ratings of these entities may be downgraded due to additional operating expenses resulting from a carbon tax. A credit rating downgrade may reduce the amount of financial leverage we are able to utilize. If this were to occur, our overall profitability could decline.	A portion of our portfolio is exposed to changes in the market price of power. Whether it is due to sales of energy at the then current market price or through a re-contracting of fixed price power purchase agreements. Under a scenario where a carbon tax drives the price of power up by 10%, our wind equity investments may generate approximately 6% in additional cashflows over their life as compared to the cashflow the investments are expected to generate under the current baseline scenario. We would not expect a material impact to our solar equity, renewable energy debt, solar real estate or energy efficiency investments.	In relation to new business, there is the potential that more competitors enter our markets and put pressure on our asset pricing strategies as renewable energy and energy efficiency projects become more cost competitive with fossil fuel electricity generation assets. We are constantly reviewing our pricing strategies and would continue to do so in this scenario to understand how we can continue to make investments with acceptable risk adjusted returns. In addition, to the extent that our investments become more valuable we would consider whether it would be more economical to our stockholders to either monetize the investment given the increase in value or continue to hold in our portfolio and maximize our returns from adding additional leverage to our financing.
A significant increase in research and re-development investment in renewable energy, energy storage, and energy efficiency technologies by public and private entities	Continued decreases in cost could make renewable energy, energy storage, and energy efficiency technologies more cost competitive. As a result, we may experience an increase in investment opportunities available to us.	Given the nature of our business activities and focus on structuring transactions to meet the capital needs of our clients, it is difficult to reliably quantify the positive impact on our investment opportunities. However, we would expect to achieve accretive economics from this assumption.	In the development of our investment strategies we would consider investment in different technologies that we may not have historically invested based upon the additional development and maturation gained through the prospective increase in research and development. Additionally, the lower cost of projects may influence the amount of investment we would make in each opportunity.
Significant growth in positive public sentiment for sustainable infrastructure investment	Increased demand for investment in sustainable infrastructure increase the volume of transactions in which we may invest, reduce our overall cost of capital and increase our profitability.	Given the nature of our business activities and focus on structuring transactions to meet the capital needs of our clients, it is difficult to reliably quantify the positive impact on our investment opportunities. However, we would expect to achieve accretive economics from this assumption.	An increased demand for sustainable infrastructure may increase competition and influence our pricing strategy. We would continue to review our pricing strategies with these opportunities.

Scenario 2 - Global temperatures increase more than 2 degrees Celsius above pre-industrial levels

Assumption	Qualitative impacts	Quantitative impacts	Considerations of and impact to our management strategy
No meaningful government policy to shift the trajectory of global climate change	Given current trends, even without an increase in government support, we might expect increased demand for climate solutions due to the improving economics and cost competitiveness of these technologies. Such growth in demand may increase the volume of investment opportunities available to us.	Given the nature of our business activities and focus on structuring transactions to meet the capital needs of our clients, it is difficult to reliably quantify the impact on our investment opportunities. However, we would expect to achieve accretive economics from this assumption.	The increased demand in climate solutions may increase competition and influence our pricing strategy.
An increase in demand for climate change resiliency solutions	Flooding and storm surges may become more frequent, resulting in an increase in demand for storm water management assets. Greater instability in the power grid may increase the demand for on-site and distributed power generation systems and battery storage. If the above events occur, we may experience an increase in the volume of investment opportunities available to us.	Given the nature of our business activities and focus on structuring transactions to meet the capital needs of our clients, it is difficult to reliably quantify the positive impact on our investment opportunities. However, we would expect to achieve accretive economics from this assumption.	The increased demand in climate solutions may increase competition and influence our pricing strategy.
Greater variability and instability in the commodity markets	Potential increases in the price of commodities (e.g., natural gas) due to climate change induced supply chain and transport disruptions, such as a major hurricane striking a series of gulf coast pipelines, may drive power prices higher, thus increasing financial returns from certain of our investments to the extent the power is sold at market prices rather than under fixed price contracts. However, climate change-related impacts to the amount of potable water supplies, such as irregular rainfall and salt water intrusion, may drive increases in the price of water. These increases in cost may increase the demand for assets that increase water use efficiency, resulting in an increase in the volume of investment opportunities available to us.	We believe any mentioned impacts that are realized, are short-term in nature and we would not expect a material impact on our investments.	We currently have risk management processes which include a recurring review of our investments through our portfolio management function to assess any increasing operational costs of our investments. For our existing portfolio, we will actively manage the risk to make appropriate adjustments to budget approvals, operational approvals, and other asset management tasks. For any new investments, we make conservative assumptions to protect our investments from such types of pricing volatility and will continue to do so, including new assumptions around commodity volatility as relevant.

Physical Risks and Opportunities - Given the assessments of the United Nation's Intergovernmental Panel on Climate Change and other leading climate research organizations regarding the probability of a 1.5 Celsius increase in global temperature and serious climatic impacts even with the most aggressive emissions reduction initiatives, we believe our portfolio will be impacted by physical risks regardless of the actions taken as discussed above. We assume the types of risks to which our portfolio is exposed are similar under either Scenario 1 or 2 (albeit at varying degrees of severity).

Scenario 1 - Global action is taken to limit the global temperature increase to 1.5 degrees Celsius above pre-industrial levels and Scenario 2 - Global temperatures increase more than 2 degrees Celsius above pre-industrial levels.

Assumption	Qualitative impacts	Quantitative impacts	Considerations of and impact to our management strategy
Increased (i) flooding events due to heavier rainfalls and increased storm surge due to rising sea levels, (ii) the probability and severity of wildfires and (iii) increased frequency and severity of storms and other weather-related events	Our existing investments in low lying areas are exposed to potential flooding events and other storm damage and such events may cause construction delays, operational shutdowns, and more significant site damage.	We would not expect a material risk to the cash flows from our investments as we typically require insurance coverage for these events where the project owner bears this cost. Refer to later discussion on the impacts of the increase in insurance costs.	When underwriting our investments we negotiate structural protections to mitigate any loss we may incur from operations or inability of the projects to operate (this includes project insurance). For any new investment opportunities we would evaluate the exposure to rising sea levels and structure our investment terms such that we protect our invested capital.
	A portion of our investments are located in high wildfire risk regions and are exposed to catastrophic damage from wildfire events.	We would not expect a material risk to the cash flows from our investments as we typically require insurance coverage for these events where the project owner bears this cost. Refer to later discussion on the impacts of the increase in insurance costs.	When underwriting our investments we negotiate structural protections to mitigate any loss we may incur from operations or inability of the projects to operate (this includes project insurance). For any new investment opportunities we would evaluate the exposure to wildfires and structure our investment terms such that we protect our invested capital.
	Solar energy assets that are not in the direct path of wildfires but are within the proximity thereof may have reduced power production due to ash soiling on the panels or reduced solar insolation due to ash clouds. If the events above were to occur, we may experience reduced cash flows and financial returns from these investments, which may cause us to reduce the amount of financial leverage we utilize and cause a decline in our overall profitability.	The potential impact of additional soiling of panels or ash clouds was assessed and is not expected to have a material impact on the cashflows and value of our portfolio.	To the extent this became a material issue we would seek out protections to mitigate any impact of this, such as adding panel washing requirements to contracts.
Operational performance of the projects in which we invest are impacted by the global temperature increase	A decrease in performance and power generation of the solar and wind energy assets related to our investments, as the performance of these assets vary based upon the ambient temperatures (in the case of solar) and air density (in the case of wind). Both conditions may be caused by increases in global temperatures.	Solar portfolio production can be affected by an increase in global temperature depending on the geography. If solar production decreases by 5% we may expect there to be a 11% decrease in expected cash flows from our solar equity investments. High temperatures have a significant efficiency impact on wind turbines as high temperature faults create more wear and tear on equipment. If wind production decreases by 5% the cash flows from our wind equity investments would be expected to decrease by 7%. We would not expect a material impact on our renewable energy debt, solar real estate and energy efficiency investments.	When underwriting our investment opportunities we make conservative assumptions regarding performance and operational expenses that protect our returns from some level of unexpected performance or operation issues in the future. We will continue to adjust our assumptions as additional risks and severity of climate risk are assessed. We actively manage our existing portfolio to preemptively and proactively address any operational or maintenance issues.

Assumption	Qualitative impacts	Quantitative impacts	Considerations of and impact to our management strategy
	Increased wind variability and increased wear on wind turbine components, which may increase operating costs.	An increase in operating expenses would result and if there was 5% higher operating expenses the cash flows from our wind equity investments would be expected to decrease by 1%.	
	Increased operating costs and lower generation from the increase in temperatures may reduce our expected cash flows and financial returns from our investments, which may cause us to reduce the amount of financial leverage we utilize and cause a decline in our overall profitability.	If there were both a decrease in production of 5% and higher operating expenses of 5% our cash flows from our wind equity and solar equity investments would be expected to decline by 8% and 12%, respectively. We would not expect a material impact on our renewable energy debt, solar real estate and energy efficiency investments.	
An increase in water scarcity potentially resulting in an increase in the price of water	Water is used to clean the panels on solar energy assets to maintain their efficiency. An increase in water prices may reduce the cash flows and financial returns from our related investments, which may cause us to reduce the amount of financial leverage we utilize and cause a decline in our overall profitability.	The impact of water scarcity and increased prices to our existing portfolio is not expected to have a material impact on the cash flows of our investments.	To the extent this becomes a material matter we would seek out protections to mitigate any impact of additional water related costs.
	Climate change related impacts to the amount of potable water supplies, such as irregular rainfall and salt water intrusion, may drive increases in the price of water. These increases in cost may increase the demand for assets that increase water use efficiency resulting in an increase in the volume of investment opportunities available to us.		The increased demand in these projects may increase competition and influence our pricing strategy.
An increase in the cost, or a change in the availability of insurance	In anticipation of climate change related physical risks, projects related to our investments in particularly vulnerable regions, such as low-lying coastal areas, may face increases in insurance costs. An increase in insurance costs may reduce the cash flows and financial returns from these investments and may cause us to reduce the amount of financial leverage we utilize and cause a decline in our overall profitability.	Insurance policies are executed on an annual basis and in some regions the price of insurance could increase such that the cashflow and value of our projects in high risk geographic regions are affected. This increase in insurance cost would drive an increase in total operating expenses. We have estimated that an increase in operating expenses of 5% would be expected to reduce our cash flows from wind equity and solar equity projects by 1% and 2%, respectively. We would not expect a material impact on our renewable energy debt, solar real estate and energy efficiency investments.	We require that the projects in which we invest are insured against casualty events that could impact our cash distributions. We continually evaluate whether there are superior asset or portfolio level policies that are available that optimize our insurance coverage and premium costs.

Impact of COVID-19

The current outbreak of the novel coronavirus (COVID-19) is having an ongoing impact on the U.S., regional and global economies, the U.S. sustainable infrastructure market and the broader financial markets.

Since March, in an attempt to control COVID-19 the Federal government and most states and/or local governments, including where we have our office (Maryland) and in regions where our projects and other investments are located or where they are managed, have implemented various restrictions, rules, or guidelines including quarantines, restrictions on travel, "shelter in place", "stay at home", or "safer at home" rules, restrictions on types of business that may continue to operate, and/or restrictions on types of construction projects allowed. While some of these restrictions have been relaxed or phased out, many of these or similar restrictions remain in place, continue to be implemented, or additional restrictions are being considered. Although, in certain cases, exceptions may be available for certain essential operations and businesses which generally include the renewable energy projects in which we invest, there is no assurance that such exceptions will enable us to avoid adverse effects to our results of operations and business. Further, such actions create disruption in energy efficiency, renewable energy, real estate and other sustainable infrastructure markets and adversely impact a number of industries.

We closed our office and moved to a remote workforce in early March to help ensure the safety and productivity of our employees and help prevent the spread of COVID-19 among our workforce and in the community. We took this action early as we recognized the seriousness of the situation and wanted to protect our employees and the members of the communities in which they live and work. We have spent significant time and resources over the last several years to update our IT infrastructure and our use of the cloud to allow us to take this action. Operating as a remote workforce has not materially impacted our ability to carry out day to day operations. We have announced donations totaling $375,000 to several Maryland charities who are providing services during the pandemic as well as to charities addressing racial inequity.

We have taken certain actions to increase liquidity, including issuing approximately $300 million in common stock and issuing over $900 million of senior unsecured and convertible senior notes. We believe these actions give us ample liquidity to continue to operate our business and make investments in green projects as opportunities present themselves. See the Notes 7 and 8 to our financial statements and Liquidity and Capital Resources in this Form 10-K for further discussion of our liquidity.

Our financial results for 2020 have not been adversely impacted by COVID-19 to a material degree. We currently have no material loan delinquencies. We believe that the cost-savings attributes of the projects in which we invest provide incentive to borrowers and other obligors to continue to make their contractual payments.

The rapid development and fluidity of the circumstances resulting from this pandemic preclude any prediction as to the ultimate adverse impact of COVID-19. Nevertheless, COVID-19 and the current financial, economic and capital markets environment, and future developments in these and other areas present material uncertainty and risk with respect to our performance, financial condition, volume of business, results of operations and cash flows. We expect to review and adjust our efforts as the circumstances and impacts of the pandemic develop and respond to the shifting business and financial landscape and heightened volatility in, among other things, financial markets as well as the general economy and the various federal, state and local guidelines on business operations. See the Risk Factors section of this Form 10-K for additional discuss of certain potential risks to our business arising from COVID-19.

Critical Accounting Policies and Use of Estimates

Our financial statements are prepared in accordance with GAAP, which requires the use of estimates and assumptions that involve the exercise of judgment and use of assumptions as to future uncertainties. The following discussion addresses the accounting policies that we use including areas that involve the use of significant estimates. Our most critical accounting policies involve decisions and assessments that could affect our reported assets and liabilities, as well as our reported revenues and expenses. We believe that all of the decisions and assessments upon which our financial statements are based are reasonable at the time made and based upon information available to us at that time. Our critical accounting policies and accounting estimates may be expanded over time. Those material accounting policies and estimates that we expect to be most critical to an investor's understanding of our financial results and condition and require complex management judgment are discussed below. See Note 2 of the audited financial statements in this Form 10-K for further details on our accounting policies.

We evaluate our critical accounting estimates and judgments on an ongoing basis and update them, as necessary, based on changing conditions. Additionally, there were certain newly issued accounting pronouncements that may be relevant to our business. See Note 2 of the audited financial statements in this Form 10-K for further details on these newly issued accounting pronouncements.

We have identified the following accounting policies as critical because they require significant judgments and assumptions about highly complex and inherently uncertain matters and the use of reasonably different estimates and assumptions could have a material impact on our reported results of operations or financial condition.

Consolidation

We account for our investment in entities that are considered voting or variable interest entities under ASC 810, *Consolidation*. We perform an ongoing assessment and make judgments to determine the primary beneficiary of each entity as required by ASC 810, which includes an assessment of the type of control we have over the entity. If we would conclude that certain of these entities should be consolidated, we would include the entities assets, liabilities and related activity in our financial statements. Refer to discussion below relating to consolidation considerations for the securitization of receivables. We further discuss our process for evaluating these judgments in Note 2 of the audited financial statements of this Form 10-K.

Equity Method Investments

For our non-consolidated equity investments, we generally determine our income allocations under the equity method of accounting based on the change in our claim on net assets of the investee entity using a method commonly referred to as the hypothetical liquidation at book value method or ("HLBV"). This method uses a hypothetical liquidation scenario that may require judgment in its application and could have a material impact on our reported financial results. Any changes in this method of application or in certain assumptions could either increase or decrease our net income. We further discuss our process for applying this method of income allocations in Note 2 of the audited financial statements of this Form 10-K.

Impairment of our Portfolio

We evaluate the various assets in our Portfolio on at least a quarterly basis, and more frequently when economic or other conditions warrant such an evaluation, for potential delinquencies or other events that may indicate a potential impairment of the such asset. If an asset is determined to be impaired, any impairment charges would be recorded in the income statement and reduce our net income. We further discuss our process for evaluating these judgments in Note 2 of the audited financial statements in this Form 10-K.

In June 2016, the FASB issued ASU No. 2016-13, *Financial Instruments-Credit Losses-Measurement of Credit Losses on Financial Instruments* ("Topic 326"). Topic 326 significantly changes how entities will recognize and measure credit losses and impairments for most financial assets and certain other instruments that are not measured at fair value through net income. Topic 326 replaces the "incurred loss" approach under existing guidance with an "expected loss" model for instruments measured at amortized cost and require entities to record allowances for expected losses from available-for-sale debt securities rather than reduce the amortized cost, as currently required. The expected loss model inherently requires more judgment than the incurred loss model, as management's expectations of the creditworthiness of our borrowers as well as macroeconomic factors such as power prices and unemployment rates can impact the provision for receivables we record. Topic 326 also simplifies the accounting model for purchased credit-impaired debt securities and loans. Topic 326 is effective for fiscal years beginning after December 15, 2019 and was adopted through a cumulative-effect adjustment to retained earnings as of the beginning of the first reporting period in which the guidance is effective. The Company has adopted the new standard as of January 1, 2020. We further discuss our process for applying this accounting standard in Note 2 of the audited financial statements of this Form 10-K.

Securitization of Financial Assets

We have established various special purpose entities or securitization trusts for the purpose of securitizing certain receivables or other debt investments. We make judgments, based in part, on supporting legal opinions, on whether these entities should be consolidated as a variable interest entity, as defined in ASC 810, *Consolidation*, and whether the transfers to these entities are accounted for as a sale of a financial asset or a secured borrowing under ASC 860, *Transfers and Servicing*. If we would conclude that certain of these special purpose entities or securitization trusts should be consolidated, we would include the assets and liabilities of the entity and their related activity in our financial statements. If sale accounting is not met in these transactions it would be treated as a secured borrowing rather than a sale in our financial statements. We further discuss our process for evaluating these judgments in Note 2 of the audited financial statements of this Form 10-K.

Results of Operations

For a comparison of our results of operations for the fiscal years ended December 31, 2019 and December 31, 2018, see "Part II, Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations" of our annual report on Form 10-K for the fiscal year ended December 31, 2019, filed with the SEC on February 25, 2020.

We make investments in climate solutions by providing capital to the leading companies in the energy efficiency, renewable energy and other sustainable infrastructure markets. We believe that Hannon Armstrong is one of the first U.S. public companies solely dedicated to such climate investments. Our goal is to generate attractive returns for our shareholders by investing in a diversified portfolio of assets and projects that reduce carbon emissions or increase resilience to climate change and generate long-term, recurring and predictable cash flows or cost savings from proven commercial technologies.

We completed approximately $1.9 billion of transactions during 2020, compared to approximately $1.3 billion during 2019. Our strategy includes holding a large portion of these transactions on our balance sheet. We refer to the transactions we hold on our balance sheet as of a given date as our "Portfolio." Our Portfolio was approximately $2.9 billion as of December 31, 2020 and $2.1 billion December 31, 2019.

Portfolio

Our Portfolio totaled approximately $2.9 billion as of December 31, 2020, and included approximately $1.4 billion of BTM assets and approximately $1.5 billion of GC assets. Approximately 44% consisted of fixed-rate government and commercial receivables and debt securities, which are classified as investments, on our balance sheet. Approximately 43% of our Portfolio consisted of unconsolidated equity investments in renewable energy related projects and approximately 13% of our Portfolio was real estate leased to renewable energy projects under lease agreements. Our Portfolio consisted of over 230 transactions with an average size of $12 million and the weighted average remaining life of our Portfolio (excluding match-funded transactions) of approximately 17 years as of December 31, 2020.

Our Portfolio included the following as of December 31, 2020:

- Equity investments in either preferred or common structures in unconsolidated entities;
- Government and commercial receivables, such as loans for renewable energy and energy efficiency projects;
- Real estate, such as land or other assets leased for use by sustainable infrastructure projects typically under long-term leases; and
- Investments in debt securities of renewable energy or energy efficiency projects.

The table below provides details on the interest rate and maturity of our receivables and debt securities as of December 31, 2020:

(in millions)		Balance	Maturity
Fixed-rate receivables, interest rates less than 5.00% per annum	$	240	2021 to 2048
Fixed-rate receivables, interest rates from 5.00% to 6.50% per annum		128	2022 to 2058
Fixed-rate receivables, interest rates greater than 6.50% per annum		882	2021 to 2069
Receivables		1,250	
Less: Allowance for loss on receivables		(36)	
Receivables, net of allowance		1,214	
Fixed-rate investments, interest rates less than 5.00% per annum		43	2035 to 2038
Fixed-rate investments, interest rates from 5.00% to 6.50% per annum		12	2030 to 2051
TOTAL RECEIVABLES AND INVESTMENTS	**$**	**1,269**	

The table below presents, for the debt investments and real estate related holdings of our Portfolio and our interest-bearing liabilities inclusive of our credit facilities, the average outstanding balances, income earned, the interest expense incurred, and average yield or cost. Our earnings from our equity method investments are not included in this table.

	Years Ended December 31,					
(dollars in millions)		2020		2019		2018
Portfolio, excluding equity method investments						
Interest income, receivables	$	92	$	68	$	68
Average balance of receivables		1,165		930		1,001
Average interest rate of receivables		7.9%		7.3%		6.8%
Interest income, investments		2		6		7
Average balance of investments		58		148		163
Average interest rate of investments		4.2%		4.3%		4.1%
Rental income		26		26		25
Average balance of real estate		361		364		350
Average yield on real estate		7.2%		7.1%		7.0%
Average balance of receivables, investments, and real estate		1,584		1,442		1,514
Average yield from receivables, investments, and real estate		7.6%		6.9%		6.5%
Debt						
Interest expense		92		64		77
Average balance of debt		1,797		1,307		1,544
Average cost of debt		5.1%		4.9%		5.0%

The following table provides a summary of our anticipated principal repayments for our receivables and investments as of December 31, 2020:

	Payment due by Period									
(in millions)		Total		Less than 1 year		1-5 years		5-10 years		More than 10 years
Receivables (excluding allowance)	$	1,250	$	106	$	200	$	387	$	557
Investments		55		5		3		14		33

See Note 6 of our audited financial statements in this Form 10-K for information on:

- the anticipated maturity dates of our receivables and investments and the weighted average yield for each range of maturities as of December 31, 2020,
- the term of our leases and a schedule of our future minimum rental income under our land lease agreements as of December 31, 2020,
- the Performance Ratings of our Portfolio, and
- the receivables on non-accrual status.

For information on our residual assets relating to our securitization trusts, see Note 5 of our audited financial statements in this Form 10-K. The residual assets do not have a contractual maturity date and the underlying securitized assets have contractual maturity dates until 2056.

Comparison of the Year Ended December 31, 2020 to the Year Ended December 31, 2019

	Years ended December 31,			
(dollars in millions)	2020	2019	$ Change	% Change
Revenue				
Interest income	$ 96	$ 76	$ 20	26%
Rental income	26	26	—	—%
Gain on sale of receivables and investments	50	24	26	108%
Fee income	15	16	(1)	(6)%
Total revenue	**187**	**142**	**45**	**32%**
Expenses				
Interest expense	92	64	28	44%
Provision for loss on receivables	10	8	2	25%
Compensation and benefits	38	29	9	31%
General and administrative	15	15	—	—%
Total expenses	**155**	**116**	**39**	**34%**
Income before equity method investments	**32**	**26**	**6**	**23%**
Income (loss) from equity method investments	48	64	(16)	(25)%
Income (loss) before income taxes	**80**	**90**	**(10)**	**(11)%**
Income tax benefit (expense)	3	(8)	11	(138)%
NET INCOME (LOSS)	**$ 83**	**$ 82**	**$ 1**	**1%**

- Net income increased by approximately $1 million as a result of a $45 million increase in total revenue, a $39 million increase in total expenses, a $16 million decrease in income from equity method investments, and a $11 million increase in income tax benefit (expense). These results do not include the Non-GAAP earnings adjustment related to equity method investments, which is discussed in the Non-GAAP Financial Measures section.
- Interest and rental income increased by $20 million due to the addition of higher yielding assets to an overall larger portfolio.
- Gain on sale and fee income increased by $25 million primarily due to a change in the mix of assets being securitized.
- Interest expense for the year increased by approximately $28 million primarily as a result of higher outstanding balances of debt during the year.
- Provision for loss on receivables was $10 million primarily as a result of provisions based on new loans and loan commitments made during the year required by the new credit loss standard. The prior period provision of $8 million, recorded under the previous incurred loss model, was due to a 2019 court ruling related to receivables that were previously placed on non-accrual status in 2017.
- Compensation and benefits increased by $9 million as a result of an increase in our employee headcount and incentive compensation.
- Income from equity method investments decreased by $16 million, primarily due to the GAAP gain of $28 million recognized from the sale of a portfolio of wind projects in 2019 which did not recur in the current year, partially offset by additional income resulting from the realization of tax attributes by our co-investors.
- Income tax benefit (expense) increased by $11 million as a result of higher taxable income in 2019 largely due to the gain on the sale of the portfolio of wind projects discussed above which did not recur in the current year.

Non-GAAP Financial Measures

We consider the following Non-GAAP financial measures useful to investors as key supplemental measures of our performance: (1) distributable earnings, (2) managed assets, and (3) distributable net investment income. These non-GAAP financial measures should be considered along with, but not as alternatives to, net income or loss as measures of our operating performance. These Non-GAAP financial measures, as calculated by us, may not be comparable to similarly named financial measures as reported by other companies that do not define such terms exactly as we define such terms.

Distributable Earnings

We are changing the name of our primary Non-GAAP earnings metric from Core (Pre-CECL) earnings to distributable earnings with no change in the historical method of calculation. We will no longer be reporting a Core earnings metric which includes the CECL provision. We calculate distributable earnings as GAAP net income (loss) excluding non-cash equity compensation expense, provisions for loss on receivables, amortization of intangibles, non-cash provision (benefit) for taxes, any one-time acquisition related costs or non-cash tax charges and the earnings attributable to our non-controlling interest of our Operating Partnership. We also make an adjustment to our equity method investments in the renewable energy projects as described below. Judgment will be utilized in determining when we will reflect the losses on receivables in our distributable earnings. In making this determination, we will consider certain circumstances such as, the time period in default, sufficiency of collateral as well as the outcomes of any related litigation. In the future, distributable earnings may also exclude one-time events pursuant to changes in GAAP and certain other non-cash charges as approved by a majority of our independent directors.

We believe a Non-GAAP measure, such as distributable earnings, that adjusts for the items discussed above is and has been a meaningful indicator of our economic performance and is useful to our investors as well as management in evaluating our performance as it relates to expected dividend payments over time. As a REIT, we are required to distribute substantially all of our taxable income to investors in the form of dividends and is a principal focus of our investors. Additionally, we believe that our investors also use distributable earnings, or a comparable supplemental performance measure, to evaluate and compare our performance to that of our peers, and as such, we believe that the disclosure of distributable earnings is useful to our investors.

Certain of our equity method investments in renewable energy and energy efficiency projects are structured using typical partnership "flip" structures where the investors with cash distribution preferences receive a pre-negotiated return consisting of priority distributions from the project cash flows, in many cases, along with tax attributes. Once this preferred return is achieved, the partnership "flips" and the common equity investor, often the operator or sponsor of the project, receives more of the cash flows through its equity interests while the previously preferred investors retain an ongoing residual interest. We have made investments in both the preferred and common equity of these structures.

Regardless of the nature of our equity interest, we typically negotiate the purchase prices of our equity investments, which have a finite expected life, based on our assessment of the expected cash flows we will receive from these projects discounted back to the net present value, based on a target investment rate, with the expected cash flows to be received in the future reflecting both a return on the capital (at the investment rate) and a return of the capital we have committed to the project. We use a similar approach in the underwriting of our receivables.

Under GAAP, we account for these equity method investments utilizing the HLBV method. Under this method, we recognize income or loss based on the change in the amount each partner would receive, typically based on the negotiated profit and loss allocation, if the assets were liquidated at book value, after adjusting for any distributions or contributions made during such quarter. The HLBV allocations of income or loss may be impacted by the receipt of tax attributes, as tax equity investors are allocated losses in proportion to the tax benefits received, while the sponsors of the project are allocated gains of a similar amount. In addition, the agreed upon allocations of the project's cash flows may differ materially from the profit and loss allocation used for the HLBV calculations.

The cash distributions for those equity method investments where we apply HLBV are segregated into a return on and return of capital on our cash flow statement based on the cumulative income (loss) that has been allocated using the HLBV method. However, as a result of the application of the HLBV method, including the impact of tax allocations, the high levels of depreciation and other non-cash expenses that are common to renewable energy projects and the differences between the agreed upon profit and loss and the cash flow allocations, the distributions and thus the economic returns (i.e. return on capital) achieved from the investment are often significantly different from the income or loss that is allocated to us under the HLBV method. Thus, in calculating distributable earnings, for certain of these investments where there are characteristics as described above, we further adjust GAAP net income (loss) to take into account our calculation of the return on capital (based upon the investment rate) from our renewable energy equity method investments, as adjusted to reflect the performance of the project and the cash distributed. We believe this equity method investment adjustment to our GAAP net income (loss) in calculating our distributable earnings measure is an important supplement to the HLBV income allocations determined under GAAP for an investor to understand the economic performance of these investments where HLBV income can differ substantially from the economic returns.

The following table provides results related to our equity method investments for the last three years:

	For the years ended December 31,		
(dollars in millions)	2020	2019	2018
Income under GAAP	$ 48	$ 64	$ 22
Distributable earnings	$ 55	$ 41	$ 41
Return of capital	102	60	74
CASH COLLECTED	**$ 157**	**$ 101**	**$ 115**

Distributable earnings does not represent cash generated from operating activities in accordance with GAAP and should not be considered as an alternative to net income (determined in accordance with GAAP), or an indication of our cash flow from operating activities (determined in accordance with GAAP), or a measure of our liquidity, or an indication of funds available to fund our cash needs, including our ability to make cash distributions. In addition, our methodology for calculating distributable earnings may differ from the methodologies employed by other companies to calculate the same or similar supplemental performance measures, and accordingly, our reported distributable earnings may not be comparable to similar metrics reported by other companies.

We have calculated our distributable earnings for the years ended December 31, 2020, 2019 and 2018. The table below provides a reconciliation of our GAAP net income to distributable earnings:

	For the Years Ended December 31,					
	2020		2019		2018	
(dollars in thousands, except per share amounts)	$	Per Share	$	Per Share	$	Per Share
Net income attributable to controlling stockholders[1]	$ 82,416	$ 1.10	$ 81,564	$ 1.24	$ 41,577	$ 0.75
Distributable earnings adjustments						
Reverse GAAP income from equity method investments	(47,963)		(64,174)		(22,162)	
Add equity method investments earnings adjustment	55,305		41,437		40,923	
Non-cash equity-based compensation charges	16,791		14,160		10,066	
Non-cash provision for loss on receivables	10,096		8,027		—	
Amortization of intangibles	3,291		3,285		3,207	
Non-cash provision (benefit) for taxes	(2,779)		8,091		1,968	
Current year earnings attributable to non-controlling interest	343		356		221	
DISTRIBUTABLE EARNINGS[2]	**$ 117,500**	**$ 1.55**	**$ 92,746**	**$ 1.40**	**$ 75,800**	**$ 1.38**

(1) This is the GAAP diluted earnings per share and is the most comparable GAAP measure to our distributable earnings per share.
(2) Distributable earnings per share are based on 75,588,286 shares, 66,046,401 shares and 54,742,869 shares for the years ended December 31, 2020, 2019 and 2018, respectively, which represents the weighted average number of fully-diluted shares outstanding including our restricted stock awards, restricted stock units, long-term incentive plan units and the non-controlling interest in our Operating Partnership. We include any potential common stock issuance in this calculation related to our convertible notes using the treasury stock method and any potential common stock issuances related to share based compensation units in the amount we believe is reasonably certain to vest. We believe the use of the treasury stock method is an appropriate representation of the potential dilution when considering the economic behaviors of the holders of the instrument.

Managed Assets

As we both consolidate assets on our balance sheet and securitize assets, certain of our receivables and other assets are not reflected on our balance sheet where we may have a residual interest in the performance of the investment, such as servicing rights or a retained interest in cash flows. Thus, we present our investments on a non-GAAP "managed" basis, which assumes that securitized receivables are not sold. We believe that our Managed Asset information is useful to investors because it portrays the amount of both on- and off-balance sheet receivables that we manage, which enables investors to understand and evaluate the credit performance associated with our portfolio of receivables, investments, and residual assets in securitized receivables. Our non-GAAP Managed Assets measure may not be comparable to similarly titled measures used by other companies.

The following is a reconciliation of our GAAP Portfolio to our Managed Assets as of December 31, 2020, 2019, and 2018:

	As of and for the year ended December 31,		
(dollars in millions)	2020	2019	2018
Equity method investments	$ 1,280	$ 499	$ 471
Government receivables	248	263	497
Commercial receivables	965	896	447
Real estate	359	362	365
Investments	55	75	170
Assets held in securitization trusts	4,308	4,101	3,334
MANAGED ASSETS	**$ 7,215**	**$ 6,196**	**$ 5,284**
Credit losses as a percentage of assets under management[1]	0.0%	0.1%	0.0%

(1) Represents those credit losses that are are considered in determining distributable earnings.

Distributable Net Investment Income

We have a portfolio of investments in climate solutions which we finance using a combination of debt and equity. We calculate distributable net investment income by adjusting GAAP-based net investment income for those earnings adjustments related to our distributable earnings which impact net investment income. We believe that this measure is useful to investors as it shows the recurring income generated by our portfolio after the associated interest cost of debt financing. Our management also uses distributable net investment income in this way. Our non-GAAP distributable net investment income measure may not be comparable to similarly titled measures used by other companies. Also refer to discussion above related to Distributable Earnings.

The following is a reconciliation of our GAAP-based net investment income to our distributable net investment income:

	Years Ended December 31,		
(in thousands)	2020	2019	2018
Interest income	$ 95,559	$ 76,200	$ 75,935
Rental income	25,878	25,884	24,606
GAAP-based investment revenue	$ 121,437	$ 102,084	$ 100,541
Interest expense	92,182	64,241	76,874
GAAP-based net investment income	$ 29,255	$ 37,843	$ 23,667
Equity method earnings adjustment	55,305	41,437	40,923
Amortization of real estate intangibles	3,089	3,082	3,003
Distributable net investment income	$ 87,649	$ 82,362	$ 67,593

Other Measures

The following are certain other financial measures for the years ended December 31, 2020, 2019 and 2018:

	Years Ended December 31,		
	2020	2019	2018
Return on assets – GAAP basis	2.8%	3.6%	1.9%
Return on equity – GAAP basis	7.7%	9.4%	5.7%
Average equity to average total assets ratio – GAAP basis	36.8%	38.4%	32.9%

Portfolio Yield

We calculate portfolio yield as the weighted average underwritten yield of the investments in our Portfolio as of the end of the period. Underwritten yield is the rate at which we discount the expected cash flows from the assets in our Portfolio to determine our purchase price. In calculating underwritten yield, we make certain assumptions, including the timing and amounts of cash flows generated by our investments, which may differ from actual results, and we may update this yield to reflect our most current estimates of project performance. We believe that portfolio yield provides an additional metric to understand certain characteristics of our Portfolio as of a point in time. Our management uses portfolio yield this way and we believe that our investors use it in a similar fashion to evaluate certain characteristics of our Portfolio compared to our peers, and as such, we believe that the disclosure of portfolio yield is useful to our investors.

Our Portfolio totaled approximately $2.9 billion as of December 31, 2020. Unlevered portfolio yield was 7.6% as of both December 31, 2020 and 2019. See Note 6 to our financial statements and MD&A - Our Business in this Form 10-K for additional discussion of the characteristics of our portfolio as of December 31, 2020.

Environmental Metrics

As discussed in Item 1. Business, as part of our investment process, we calculate the estimated metric tons of CO2 equivalent emissions, or carbon emissions avoided by our investments. In this calculation which we refer to as CarbonCount®, we apply emissions factor data from the U.S. Government or the International Energy Administration to an estimate of a project's energy production or savings to compute an estimate of metric tons of carbon emissions avoided. We estimate that our investments originated in 2020 will reduce annual carbon emissions by approximately 2.0 million metric tons.

In assessing our performance and results of operations, we also consider the impact of our operations on the environment. We utilize the carbon emissions categorizations established by the World Resources Institute Greenhouse Gas Protocol Corporate Standards ("Standards") to set goals and calculate our estimated emissions. The categorizations are as follows:

- *Scope 1 GHG emissions – Direct emissions* – Emissions from operations that are owned or controlled by the reporting company.
- *Scope 2 GHG emissions – Indirect emissions* – Emissions from the generation of purchased or acquired energy such as electricity, steam, heating or cooling, consumed by the reporting company.
- *Scope 3 GHG emissions – Indirect emissions* – All other indirect emissions that occur in the value chain of the reporting company, including both upstream and downstream emissions.

The table below illustrates our goals and performance for 2020 in metric tons ("MT").

Category	Goal	Performance
Scope 1 GHG emissions	0 MT	0 MT
Scope 2 GHG emissions	0 MT	0 MT[1]
Scope 3 GHG emissions	0 MT[2]	< 200 MT[2]

(1) Performance stated is market-based.
(2) Our stated actual performance for Scope 3 GHG emissions does not include the carbon emissions or the emissions reductions as a result of our investments. The first year carbon emissions reductions as a result of our investments originated in 2020 are 2.0 million MT.

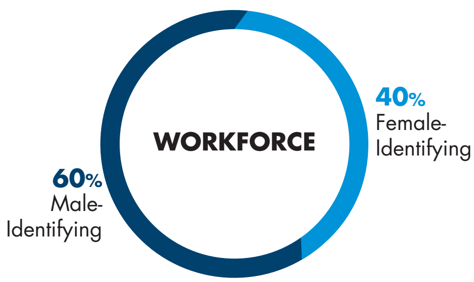
Human Capital Metrics

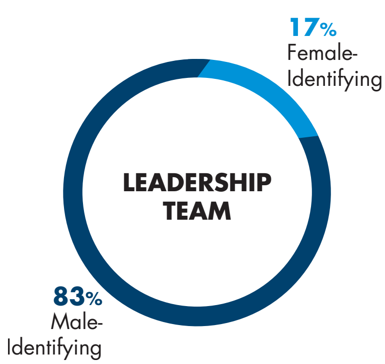
As part of our broader human capital strategy, we monitor and disclose certain metrics which help us understand our workforce and our progress in fostering a diverse and inclusive work environment. As of December 31, 2020, we employed 73 people full-time, one person part-time, and five people as independent contractors. As a growing company, the average tenure of our employees as of December 31, 2020, was approximately 5 years, and more than 47% of our employees had been employed by us for more than 4 years. For the year ending December 31, 2020, we had no retirements or resignations related to ill health.

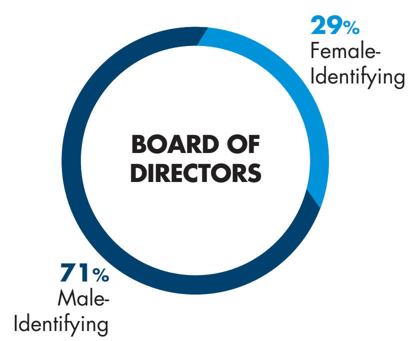
As discussed in Item 1. Business - Human Capital and Social Strategy, we are undertaking studies and are focused on continuing to increase the diversity of our workforce at all levels of our organization and are in the process of developing goals to enhance diversity and inclusion. These metrics are and will continue to be actively managed and will be reported along with the results of the studies to our executive leadership as well as our board of directors.

Metrics surrounding the diversity and inclusion of our workforce are shown below:

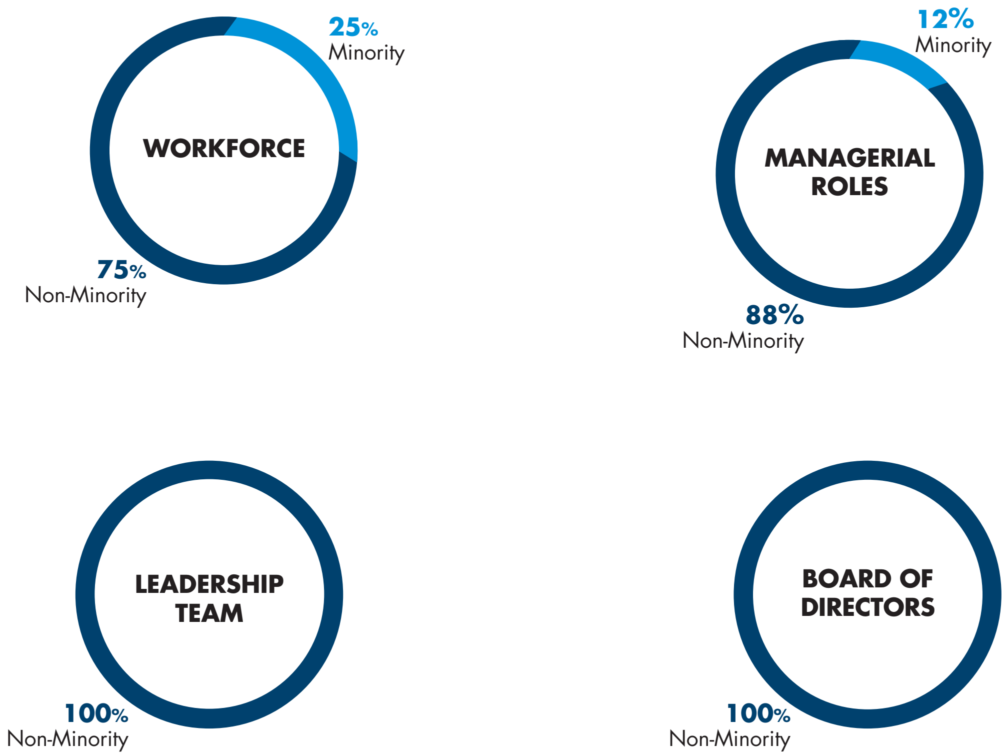
Percentage of various levels of the workforce who identify as male or female







Percentage of various levels of the workforce who identify as racial- or ethnic-minorities



In addition to diversity of gender and ethnic background, we also value diversity of thought, with 58% of our leadership team and 57% of our board of directors possessing degrees outside the fields of business or economics, including in science and engineering, liberal and fine arts, and law.

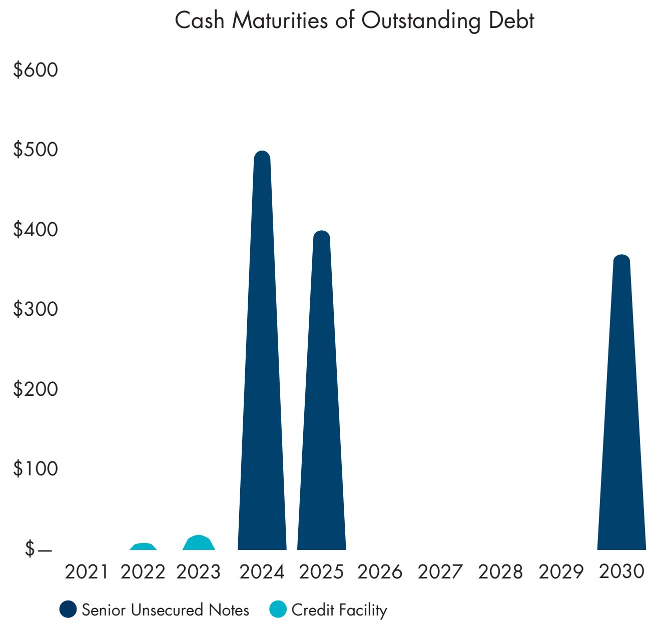
Liquidity and Capital Resources

Liquidity is a measure of our ability to meet potential short term (within one year) and long term cash requirements, including ongoing commitments to repay borrowings, fund and maintain our current and future assets, make distributions to our stockholders and other general business needs. We will use significant cash to make investments in sustainable infrastructure, repay principal and interest on our borrowings, make distributions to our stockholders and fund our operations. We use borrowings as part of our financing strategy to increase potential returns to our stockholders and have available to us a broad range of financing sources. We finance our investments primarily with non-recourse or recourse debt, equity and off-balance sheet securitization structures.

We believe we have substantial liquidity as of December 31, 2020, with unrestricted cash balances of $286 million compared to $6 million as of December 31, 2019. We have been able to successfully access the equity markets, raising approximately $300 million under our "at-the-market" equity distribution program (our "ATM program") during the twelve months ended December 31, 2020. During 2020, we have issued $775 million principal amount of senior unsecured notes and $144 million of convertible notes.

We have two senior secured revolving credit facilities ("Rep-Based Facility" and "Approval-Based Facility") with several lenders with a combined maximum commitment of $450 million. For additional information on our credit facilities, see Note 7 to our audited financial statements on this Form 10-K. As of December 31, 2020, we had approximately $605 million of non-recourse borrowings. We have approximately $1.3 billion of senior unsecured notes and $294 million of convertible notes outstanding. We also continue to utilize off-balance sheet securitization transactions, where we transfer the loans or other assets we originate to securitization trusts or other bankruptcy remote special purpose funding vehicles that are not consolidated on our balance sheet. We have continued to complete off-balance sheet securitization transactions with large institutional investors such as life insurance companies throughout 2020. As of December 31, 2020, the outstanding principal balance of our assets financed through the use of these off-balance sheet transactions was approximately $4.3 billion.

In addition to general operational obligations which are typically paid as incurred and dividends, which are declared by our board of directors quarterly, our future cash needs include the non-amortizing balances of our senior unsecured debt and the balances of our credit facilities. Cash maturities related to these obligations are shown below:



The above cash maturities do not include our non-recourse debt, given that to the extent there are not sufficient cash flows received from those investments pledged as collateral, the investor has no recourse against other corporate assets to recover any shortfalls and corporate cash contributions would not be required. The above also does not include convertible debt maturities, as it is possible those obligations will be settled with the issuance of shares. For further information on non-recourse debt and our convertible notes, see Note 8 to our financial statements.

Large institutional investors have provided the financing for our on and off-balance sheet financings. We have worked to expand our liquidity and access to the debt and bank loan markets. For further information on the credit facilities, senior unsecured notes, asset backed non-recourse debt, convertible notes, and securitizations, see Notes 5, 7 and 8 to our audited financial statements of this Form 10-K.

We plan to raise additional equity capital and continue to use fixed and floating rate borrowings which may be in the form of additional bank credit facilities (including term loans and revolving facilities), warehouse facilities, repurchase agreements, and public and private debt issuances as a means of financing our business. We also expect to use both on-balance sheet and off-balance sheet securitizations. We may also consider the use of separately funded special purpose entities or funds to allow us to expand the investments that we make or to manage the Portfolio diversification.

The decision on how we finance specific assets or groups of assets is largely driven by risk and portfolio and financial management considerations, including the potential for gain on sale or fee income, as well as the overall interest rate environment, prevailing credit spreads and the terms of available financing and market conditions. During periods of market disruptions, certain sources of financing may be more readily accessible than others which may impact our financing decisions. Over time, as market conditions change, we may use other forms of debt and equity in addition to these financing arrangements.

The amount of financial leverage we may deploy for particular assets will depend upon the availability of particular types of financing and our assessment of the credit, liquidity, price volatility and other risks of those assets, the interest rate environment and the credit quality of our financing counterparties. As shown in the table below, our debt to equity ratio was approximately 1.8 to 1 as of December 31, 2020, which is below our current board-approved leverage limit of up to 2.5 to 1. Our percentage of fixed rate debt was approximately 99% as of December 31, 2020, which is within our targeted fixed rate debt percentage range of 75% to 100%.

The calculation of our fixed-rate debt and financial leverage as of December 31, 2020 and 2019 is shown in the chart below:

(dollars in millions)	December 31, 2020	% of Total	December 31, 2019	% of Total
Floating-rate borrowings	$ 23	1%	$ 33	2%
Fixed-rate debt	2,166	99%	1,360	98%
TOTAL DEBT[(1)]	**$ 2,189**	**100%**	**$ 1,393**	**100%**
Equity	$ 1,210		$ 940	
Leverage	1.8 to 1		1.5 to 1	

(1) Floating-rate borrowings include borrowings under our floating-rate credit facilities and approximately $2 million of non-recourse debt with floating rate exposure as of December 31, 2019. Fixed-rate debt also includes the present notional value of non-recourse debt that is hedged using interest rate swaps. Debt excludes securitizations that are not consolidated on our balance sheet.

We intend to use financial leverage for the primary purpose of financing our Portfolio and business activities and not for the purpose of speculating on changes in interest rates. While we may temporarily exceed the leverage limit, if our board of directors approves a material change to this limit, we anticipate advising our stockholders of this change through disclosure in our periodic reports and other filings under the Exchange Act.

While we generally intend to hold our target assets that we do not securitize upon acquisition as long term investments, certain of our investments may be sold in order to manage our interest rate risk and liquidity needs, to meet other operating objectives and to adapt to market conditions. The timing and impact of future sales of receivables and investments, if any, cannot be predicted with any certainty.

We believe these identified sources of liquidity in addition to our cash on hand will be adequate for purposes of meeting our short-term and long-term liquidity needs, which include funding future investments, debt service, operating costs and distributions to our stockholders. To qualify as a REIT, we must distribute annually at least 90% of our REIT's taxable income without regard to the deduction for dividends paid and excluding net capital gains. These dividend requirements limit our ability to retain earnings and thereby replenish or increase capital for growth and our operations.

Sources and Uses of Cash

We had approximately $310 million and $107 million unrestricted cash, cash equivalents, and restricted cash as of December 31, 2020 and 2019, respectively.

Cash Flows Relating to Operating Activities

Net cash provided by operating activities was approximately $73 million for the year ended December 31, 2020, driven primarily by net income of $83 million, less adjustments for non-cash and other items of $10 million. The non-cash and other adjustments consisted of increases of $3 million of depreciation and amortization, $8 million for amortization of finance costs, $17 million related to equity-based compensation, $13 million for equity method investments, $8 million related to accounts payable and accrued expenses, $14 million for gain on sale of receivables and investments, and $10 million for provision for loss on receivables. These increases were offset by $56 million related to non-cash gains on securitizations and $27 million related to other items.

Net cash provided by operating activities was approximately $29 million for the year ended December 31, 2019, driven primarily by net income of $82 million, less adjustments for non-cash and other items of $53 million. The non-cash and other adjustments consisted of increases of $4 million of depreciation and amortization, $6 million for amortization of financing costs, $14 million related to equity-based compensation, $5 million related to accounts payable and accrued expenses, $13 million for gain on sale of receivables and investments, and $8 million for provision for loss on receivables. These increases were offset by $56 million related to non-cash gains on securitizations, $34 million related to equity method investments, and $13 million related to other items.

Cash Flows Relating to Investing Activities

Net cash used in investing activities was approximately $831 million for the year ended December 31, 2020. We made equity method investments of $886 million, investments in receivables and fixed rate debt securities of $296 million, and funded escrow accounts of $23 million. These were offset by collected payments of $135 million from receivables and fixed rate debt securities and the receipt of $128 million from the sale of financial assets. We also collected $99 million from equity method investments which are considered return of capital determined under GAAP, withdrew $8 million from escrow accounts, and had other cash inflows of $3 million.

Net cash used in investing activities was approximately $201 million for the year ended December 31, 2019. We collected payments of $64 million from receivables and fixed rate debt securities and received $274 million from the sale of financial assets. We also collected $71 million from equity method investments which are considered return of capital determined under GAAP, received $81 million from the sale of equity method investments, withdrew $31 million from escrow accounts, and had other cash inflows of $2 million. These were offset by investments in receivables and fixed rate debt securities of $543 million, equity method investments of $152 million, and funding of escrow accounts of $29 million.

Cash Flows Relating to Financing Activities

Net cash provided by financing activities was approximately $962 million for the year ended December 31, 2020. We received proceeds from the issuance of senior unsecured debt of $771 million, net proceeds from common stock issuances of $298 million, proceeds from the issuance of convertible notes of $144 million, proceeds from credit facilities of $126 million, and proceeds from non-recourse debt of $16 million. These were partially offset by principal payments on credit facilities of $134 million, principal payments on non-recourse debt of $126 million, payments of $17 million for withholding requirements as a result of the vesting of employee shares, and payments of dividends, distributions, and other financing activities of $116 million.

Net cash provided by financing activities was approximately $219 million for the year ended December 31, 2019. We received proceeds from credit facilities of $102 million, proceeds from non-recourse debt of $131 million, proceeds from the issuance of senior unsecured debt of $507 million, and net proceeds from common stock issuances of $138 million. These were partially offset by principal payments on credit facilities of $328 million, principal payments on non-recourse debt of $207 million, payments of deferred funding obligations of $19 million, payments of $9 million for withholding requirements as a result of the vesting of employee shares, and payments of dividends, distributions, and other financing activities of $96 million.

Contractual Obligations and Commitments

The following table provides a summary of our contractual obligations as of December 31, 2020:

(in millions)	Total	Payment due by Period: Less than 1 year	1 - 3 Years	3 - 5 Years	More than 5 years
Contractual Obligations					
Credit facilities	$ 23	$ —	$ 23	$ —	$ —
Interest on credit facilities[1]	2	1	1	—	—
Non-recourse debt[2]	605	29	57	65	454
Interest on non-recourse debt[2]	225	24	45	39	117
Senior unsecured notes[3]	1,275	—	—	900	375
Interest on senior unsecured notes	353	64	129	90	70
Convertible notes[4]	294	—	294	—	—
Interest on convertible notes	12	6	6	—	—
Operating lease obligations	4	1	1	1	1
TOTAL	**$ 2,793**	**$ 125**	**$ 556**	**$ 1,095**	**$ 1,017**

(1) Interest is calculated based on the interest rate in effect at December 31, 2020, and includes all interest expense incurred and expected to be incurred in the future based on the current principal balance through the contractual maturity of the credit facilities.
(2) These amounts exclude $12 million of unamortized debt issuance costs. Interest is calculated based on the interest rate in effect at December 31, 2020, including the effect of interest rate hedges as applicable.
(3) Excludes $15 million of unamortized debt issuance costs and $2 million of unamortized issuance premium.
(4) Excludes $5 million of unamortized debt issuance costs.

Off-Balance Sheet Arrangements

We have relationships with non-consolidated entities or financial partnerships, such as entities often referred to as structured investment vehicles, or special purpose or variable interest entities, established to facilitate the sale of securitized assets. Other than our securitization assets (including any outstanding servicer advances) of approximately $164 million as of December 31, 2020, that may be at risk in the event of defaults or prepayments in our securitization trusts and as discussed below, and except as disclosed in Note 9 to our audited financial statements in this Form 10-K, we have not guaranteed any obligations of non-consolidated entities or entered into any commitment or intent to provide additional funding to any such entities. A more detailed description of our relations with non-consolidated entities can be found in Note 2 of our audited financial statements in this Form 10-K.

In connection with some of our transactions, we have provided certain limited guarantees to other transaction participants covering the accuracy of certain limited representations, warranties or covenants and provided an indemnity against certain losses from "bad acts" including fraud, failure to disclose a material fact, theft, misappropriation, voluntary bankruptcy or unauthorized transfers. In some transactions, we have also guaranteed our compliance with certain tax matters, such as negatively impacting the investment tax credit and certain other obligations in the event of a change in ownership or our exercising certain protective rights.

Dividends

U.S. federal income tax law generally requires that a REIT distribute annually at least 90% of its REIT taxable income, without regard to the deduction for dividends paid and excluding net capital gains, and that it pays tax at regular corporate rates to the extent that it annually distributes less than 100% of its REIT taxable income. Our current policy is to pay quarterly distributions, which on an annual basis will equal or exceed substantially all of our REIT taxable income. The taxable income of the REIT can vary from our GAAP earnings due to a number of different factors, including, the book to tax timing differences of income and expense recognition from our transactions as well as the amount of taxable income of our TRS distributed to the REIT. See Note 10 regarding the amount of our distributions that are taxed as ordinary income to our stockholders.

Any distributions we make will be at the discretion of our board of directors and will depend upon, among other things, our actual results of operations. These results and our ability to pay distributions will be affected by various factors, including the net interest and other income from our portfolio, our operating expenses and any other expenditures. In the event that our board of directors determines to make distributions in excess of the income or cash flow generated from our assets, we may make such distributions from the proceeds of future offerings of equity or debt securities or other forms of debt financing or the sale of assets. To the extent that in respect of any calendar year, cash available for distribution is less than our taxable income, or our declared distribution we could be required to sell assets, borrow funds, or raise additional capital to make cash distributions or make a portion of the required distribution in the form of a taxable stock distribution or distribution of debt securities. We will generally not be required to make distributions with respect to activities conducted through our domestic TRS.

To the extent that we generate taxable income, distributions to our stockholders generally will be taxable as ordinary income, although all or a portion of such distributions may be designated by us as a qualified dividend or capital gain. Beginning in 2018 (and through taxable years ending in 2025), a deduction is permitted for certain pass-through business income, including "qualified REIT dividends" (generally, dividends received by a REIT shareholder that are not designated as capital gain dividends or qualified dividend income), which will allow U.S. individuals, trusts, and estates to deduct up to 20% of such amounts, subject to certain limitations, resulting in an effective maximum U.S. federal income tax rate of 29.6% on such qualified REIT dividends. In the event we make distributions to our stockholders in excess of our taxable income, the excess will constitute a return of capital. In addition, a portion of such distributions may be taxable stock dividends payable in our shares. We will furnish annually to each of our stockholders a statement setting forth distributions paid during the preceding year and their characterization as ordinary income, return of capital, qualified dividend income or capital gain.

The dividends declared in 2020 and 2019 are described in Note 11 of the audited financial statements in this Form 10-K.

Book Value Considerations

As of December 31, 2020, we carried only our investments and residual assets in securitized financial assets at fair value on our balance sheet. As a result, in reviewing our book value, there are a number of important factors and limitations to consider. Other than our investments and the residual assets in securitized financial assets that are carried on our balance sheet at fair value as of December 31, 2020, the carrying value of our remaining assets and liabilities are calculated as of a particular point in time, which is largely determined at the time such assets and liabilities were added to our balance sheet using a cost basis in accordance with GAAP. Other than the allowance for current expected credit losses applied to our government and commercial receivables, our remaining assets and liabilities do not incorporate other factors that may have a significant impact on their value, most notably any impact of business activities, changes in estimates, or changes in general economic conditions, interest rates or commodity prices since the dates the assets or liabilities were initially recorded. Accordingly, our book value does not necessarily represent an estimate of our net realizable value, liquidation value or our market value.

Inflation

We do not anticipate that inflation will have a significant effect on our results of operations. However, in the event of a significant increase in inflation, interest rates could rise and our projects and investments may be materially adversely affected.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We anticipate that our primary market risks will be related to, the credit quality of our counterparties and project companies, market interest rates, the liquidity of our assets, commodity prices, and environmental factors. We will seek to manage these risks while, at the same time, seeking to provide an opportunity to stockholders to realize attractive returns through ownership of our common stock. Many of these risks have been magnified due to the continuing economic disruptions caused by the COVID-19 pandemic; however, while we continue to monitor the pandemic its impact on such risks remains uncertain and difficult to predict.

Credit Risks

We source and identify quality opportunities within our broad areas of expertise and apply our rigorous underwriting processes to our transactions, which, we believe, will generally enable us to minimize our credit losses and maintain access to attractive financing. In the case of various renewable energy and other sustainable infrastructure projects, we will be exposed to the credit risk of the obligor of the project's PPA or other long-term contractual revenue commitments, as well as to the credit risk of certain suppliers and project operators. While we do not anticipate facing significant credit risk in our assets related to government energy efficiency projects, we are subject to varying degrees of credit risk in these projects in relation to guarantees provided by ESCOs where payments under energy savings performance contracts are contingent upon achieving pre-determined levels of energy savings. We are exposed to credit risk in our other projects that do not benefit from governments as the obligor such as on balance sheet financing of projects undertaken by universities, schools and hospitals, as well as privately owned commercial projects. Our level of credit risk has increased, and is expected to continue to increase, as our strategy contemplates additional investments in mezzanine debt and equity. We seek to manage credit risk through thorough due diligence and underwriting processes, strong structural protections in our transaction agreements with customers and continual, active asset management and portfolio monitoring. Nevertheless, unanticipated credit losses could occur and during periods of economic downturn in the global economy, our exposure to credit risks from obligors increases, and our efforts to monitor and mitigate the associated risks may not be effective in reducing our credit risks.

We utilize a risk rating system to evaluate projects that we target. We first evaluate the credit rating of the obligors involved in the project using an average of the external credit ratings for an obligor, if available, or an estimated internal rating based on a third-party credit scoring system. We then estimate the probability of default and estimated recovery rate based on the obligors' credit ratings and the terms of the contract. We also review the performance of each investment, including through, as appropriate, a review of project performance, monthly payment activity and active compliance monitoring, regular communications with project management and, as applicable, its obligors, sponsors and owners, monitoring the financial performance of the collateral, periodic property visits and monitoring cash management and reserve accounts. The results of our reviews are used to update the project's risk rating as necessary. Additional detail of the credit risks surrounding our Portfolio can be found in Note 6 to our financial statements in this Form 10-K.

Interest Rate and Borrowing Risks

Interest rate risk is highly sensitive to many factors, including governmental monetary and tax policies, domestic and international economic and political considerations and other factors beyond our control.

We are subject to interest rate risk in connection with new asset originations and our borrowings, including our credit facilities, and in the future, any new floating rate assets, credit facilities or other borrowings. Because short-term borrowings are generally short-term commitments of capital, lenders may respond to market conditions, making it more difficult for us to secure continued financing. If we are not able to renew our then existing borrowings or arrange for new financing on terms acceptable to us, or if we default on our covenants or are otherwise unable to access funds under any of these borrowings, we may have to curtail our origination of new assets and/or dispose of assets. We face particular risk in this regard given that we expect many of our borrowings will have a shorter duration than the assets they finance. Increasing interest rates may reduce the demand for our investments while declining interest rates may increase the demand. Both our current and future credit facilities and other borrowings may be of limited duration and are periodically refinanced at then current market rates. We attempt to reduce interest rate risks and to minimize exposure to interest rate fluctuations through the use of fixed rate financing structures, when appropriate, whereby we seek to (1) match the maturities of our debt obligations with the maturities of our assets, (2) borrow at fixed rates for a period of time, or (3) match the interest rates on our assets with like-kind debt (i.e., we may finance floating rate assets with floating rate debt and fixed-rate assets with fixed-rate debt), directly or through the use of interest rate swap agreements, interest rate cap agreements or other financial instruments, or through a combination of these strategies. We expect these instruments will allow us to minimize, but not eliminate, the risk that we must refinance our liabilities before the maturities of our assets and to reduce the impact of changing interest rates on our earnings. In addition to the use of traditional derivative instruments, we also seek to mitigate interest rate risk by using securitizations, syndications and other techniques to construct a portfolio with a staggered maturity profile. We monitor the impact of interest rate changes on the market for new originations and often have the flexibility to negotiate the term of our investments to offset interest rate increases.

Typically, our long-term debt is at fixed rates or we have used interest rate hedges that convert most of the floating rate debt to fixed rate. If interest rates rise, and our fixed rate debt balance remains constant, we expect the fair value of our fixed rate debt to decrease and the value of our hedges on floating rate debt to increase. See Note 3 to our financial statements in this Form 10-K for the estimated fair value of our fixed rate long-term debt, which is based on having the same debt service requirements that could have been borrowed at the date presented, at prevailing current market interest rates.

Our credit facilities are variable rate lines or credit with approximately $23 million outstanding as of December 31, 2020. Increases in interest rates would result in higher interest expense while decreases in interest rates would result in lower interest expense. As described above, we may use various financing techniques including interest rate swap agreements, interest rate cap agreements or other financial instruments, or a combination of these strategies to mitigate the variable interest nature of these facilities. A 50 basis point increase in LIBOR would increase the quarterly interest expense related to the $23 million in variable rate borrowings by $28 thousand. Such hypothetical impact of interest rates on our variable rate borrowings does not consider the effect of any change in overall economic activity that could occur in a rising interest rate environment. Further, in the event of such a change in interest rates, we may take actions to further mitigate our exposure to such a change. However, due to the uncertainty of the specific actions that would be taken and their possible effects, the analysis assumes no changes in our financial structure.

We record certain of our assets at fair value in our financial statements and any changes in the discount rate would impact the value of these assets. See Note 3 of the audited financial statements in this Form 10-K.

Liquidity and Concentration Risk

The assets that comprise our asset portfolio are not and are not expected to be publicly traded. A portion of these assets may be subject to legal and other restrictions on resale or will otherwise be less liquid than publicly-traded securities. The illiquidity of our assets may make it difficult for us to sell such assets if the need or desire arises, including in response to changes in economic and other conditions. Certain of the projects in which we invest have one obligor and thus we are subject to concentration risk for these investments and could incur significant losses if any of these projects perform poorly or if we are required to write down the value of any of these projects. Many of our assets, or the collateral supporting those assets, are concentrated in certain geographic areas, which may make those assets or the related collateral more susceptible to natural disasters or other regional events. See also "Credit Risks" discussed above.

Commodity Price Risk

When we make equity or debt investments for a renewable energy project that acts as a substitute for an underlying commodity, we may be exposed to volatility in prices for that commodity. The performance of renewable energy projects that produce electricity can be impacted by volatility in the market prices of various forms of energy, including electricity, coal and natural gas. This is especially true for utility scale projects that sell power on a wholesale basis such as many of our GC projects as opposed to BTM projects which compete against the retail or delivered costs of electricity which includes the cost of transmitting and distributing the electricity to the end user.

Although we generally focus on renewable energy projects that have the majority of their operating cash flow supported by long-term PPAs or leases, many of our projects have shorter term contracts (which may have the potential of producing higher current returns) or sell their power in the open market on a merchant basis, the cash flows of such projects, and thus the repayment of, or the returns available for, our assets, are subject to risk if energy prices change. We also attempt to mitigate our exposure through structural protections. These structural protections, which are typically in the form of a preferred return mechanism, are designed to allow recovery of our capital and an acceptable return over time. When structuring and underwriting these transactions, we evaluate these transactions using a variety of scenarios, including natural gas prices remaining low for an extended period of time. Despite these protections, as low natural gas prices continue or PPAs expire, the cash flows from certain of our projects are exposed to these market conditions and we work with the projects sponsors to minimize any impact as part of our on-going active asset management and portfolio monitoring. In the case of utility scale solar projects, we focus on owning the land under the project where our rent is paid out of project operational costs before the debt or equity in the project receives any payments.

We believe the current low prices in natural gas will increase demand for some types of our projects, such as combined heat and power, but may reduce the demand for other projects such as renewable energy that may be a substitute for natural gas. We seek to structure our energy efficiency investments so that we typically avoid exposure to commodity price risk. However, volatility in energy prices may cause building owners and other parties to be reluctant to commit to projects for which repayment is based upon a fixed monetary value for energy savings that would not decline if the price of energy declines.

Environmental Risks

Our business is impacted by the effects of climate change and various related regulatory responses. We discuss the risks and opportunities associated with the impacts of climate change in Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations - Impact of climate change on our future operations. This discussion outlines potential qualitative impacts to our business, quantitative illustrations of sensitivity as well as our strategy and resilience to these risks and opportunities.

Risk Management

Our ongoing active asset management and portfolio monitoring processes provide investment oversight and valuable insight into our origination, underwriting and structuring processes. These processes create value through active monitoring of the state of our markets, enforcement of existing contracts and asset management. As described above, we engage in a variety of interest rate management techniques that seek to mitigate the economic effect of interest rate changes on the values of, and returns on, some of our assets. While we have either written off or specifically identified only two transactions, amounting to approximately $19 million (net of recoveries) on the approximately $8 billion of transactions we originated since 2012, which represents an aggregate loss of approximately 0.2% on cumulative transactions originated over this time period, there can be no assurance that we will continue to be as successful, particularly as we invest in more credit sensitive assets or more equity investments and engage in increasing numbers of transactions with obligors other than U.S. federal government agencies. We seek to manage credit risk using thorough due diligence and underwriting processes, strong structural protections in our loan agreements with customers and continual, active asset management and portfolio monitoring. Additionally, we have established a Finance and Risk Committee of our board of directors which discusses and reviews policies and guidelines with respect to our risk assessment and risk management for various risks, including, but not limited to, our interest rate, counter party, credit, capital availability, and refinancing risks. As it relates to environmental risks, when we underwrite and structure our investments the environmental risks and opportunities are an integral consideration to our investment parameters. While we cannot fully protect our investments, we seek to mitigate these risks by using third party experts to conduct engineering and weather analysis and insurance reviews as appropriate. Once a transaction has closed we continue to monitor the environmental risks to the portfolio. We further discuss our strategy to managing these risks in Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations - Impact of climate change on our future operations.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

Hannon Armstrong
Sustainable Infrastructure Capital, Inc., Consolidated Financial Statements, For the Years Ended December 31, 2020, 2019 and 2018

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and the Board of Directors of
Hannon Armstrong Sustainable Infrastructure Capital, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Hannon Armstrong Sustainable Infrastructure Capital, Inc. (the Company) as of December 31, 2020 and 2019, the related consolidated statements of operations, comprehensive income, stockholders' equity and cash flows for each of the three years in the period ended December 31, 2020, and the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2020, and 2019, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2020, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2020, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework), and our report dated February 22, 2021 expressed an unqualified opinion thereon.

Adoption of ASU 2016-13

As discussed in Note 2 to the consolidated financial statements, the Company changed its method of accounting for credit losses in 2020 due to the adoption of Accounting Standards Update (ASU) No. 2016-13, *Financial Instruments — Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments*, and the related amendments.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matter

The critical audit matter communicated below is a matter arising from the current period audit of the financial statements that was communicated or required to be communicated to the audit committee and that: (1) relates to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective or complex judgments. The communication of the critical audit matter does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the account or disclosure to which it relates.

Accounting for Equity Investments in Renewable Energy and Energy Efficiency Projects

Description of the Matter	As discussed in Note 2 to the consolidated financial statements, the Company makes equity investments in renewable energy and energy efficiency projects that are accounted for under the equity method of accounting. During the year ended December 31, 2020, the Company made new equity investments in renewable energy and energy efficiency projects amounting to $886 million and held $1.3 billion of equity investments in renewable energy and energy efficiency projects as of December 31, 2020. The Company's determination that it does not have the power to direct the significant activities impacting each of the investees' economic performance ("power") is critical to its determination that it is not the primary beneficiary of the investee. Also, as described in Note 2 to the consolidated financial statements, for equity method investments that contain preferences with regard to cash flows from operations, capital events and liquidation in their respective limited liability company agreements ("LLC Agreements"), the Company applies the Hypothetical Liquidation at Book Value ("HLBV") method to record its share of profits and losses on these investments. Auditing the Company's determination of whether it has power was complex and required significant judgment to determine both the activities of the investee that most significantly impact the investee's economics, and the distribution of the power among the members of the investee that ultimately determine the outcome of such activities. In addition, auditing the Company's application of the HLBV method was challenging and inherently complex, because the application is based on its interpretations of the liquidation provisions outlined within investees' LLC Agreements.
How We Addressed the Matter in our Audit	We tested controls that address the risks of material misstatement relating to: i) the determination of whether the Company has the power to direct the significant activities of the investees and ii) the recognition of its share of investees' profits and losses through use of the HLBV method. For example, we tested controls over management's review of the variable interest model and determination of whether the Company has power. We also tested controls over management's review of the HLBV method, including the application of the liquidation provisions. To evaluate whether the Company has power over each investee, our audit procedures included, among others, inspecting LLC Agreements and evaluating management's analysis of the significant activities of the investee and which parties can direct those significant activities. For example, as part of our evaluation, we considered the purpose and design of the investee and the legal rights of each of the involved parties, including the significance of the decisions that each party makes. We also tested the rights of each party included in management's analysis by comparing such rights to the LLC Agreements. We tested the Company's application of the HLBV method for a sample of both new and existing investments. Our audit procedures included, among others, involving tax professionals to assist in evaluating the Company's application of the liquidation provisions within the LLC Agreements. Specifically, we assessed the Company's HLBV calculations by agreeing inputs to the calculations, such as the application of stated preferred returns and allocation of tax attributes, to the terms of the LLC Agreements for each of these investments. We also performed additional procedures on the Company's HLBV calculations that included recalculating the stated preferred returns, allocations of tax attributes, and the Company's share of profits and losses of the investee.

/s/ Ernst & Young LLP

We have served as the Company's auditor since 1983.

Tysons, Virginia

February 22, 2021

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and the Board of Directors of
Hannon Armstrong Sustainable Infrastructure Capital, Inc.

Opinion on Internal Control Over Financial Reporting

We have audited Hannon Armstrong Sustainable Infrastructure Capital, Inc.'s internal control over financial reporting as of December 31, 2020, based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). In our opinion, Hannon Armstrong Sustainable Infrastructure Capital, Inc. (the Company) maintained, in all material respects, effective internal control over financial reporting as of December 31, 2020, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of the Company as of December 31, 2020 and 2019, the related consolidated statements of operations, comprehensive income, stockholders' equity and cash flows for each of the three years in the period ended December 31, 2020, and the related notes and our report dated February 22, 2021 expressed an unqualified opinion thereon.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects.

Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ Ernst & Young LLP

Tysons, Virginia

February 22, 2021

Hannon Armstrong Sustainable Infrastructure Capital, Inc.

CONSOLIDATED BALANCE SHEETS

(Dollars in thousands, except per share data)	December 31, 2020	December 31, 2019
Assets		
Cash and cash equivalents	$ 286,250	$ 6,208
Equity method investments	1,279,651	498,631
Government receivables	248,455	263,175
Commercial receivables, net of allowance of $36 million and $8 million, respectively	965,452	896,432
Real estate	359,176	362,265
Investments	55,377	74,530
Securitization assets	164,342	123,979
Other assets	100,364	162,054
TOTAL ASSETS	**$ 3,459,067**	**$ 2,387,274**
Liabilities and Stockholders' Equity		
Liabilities:		
Accounts payable, accrued expenses and other	$ 59,944	$ 54,351
Credit facilities	22,591	31,199
Non-recourse debt (secured by assets of $723 million and $921 million, respectively)	592,547	700,225
Senior unsecured notes	1,283,335	512,153
Convertible notes	290,501	149,434
Total Liabilities	**2,248,918**	**1,447,362**
Stockholders' Equity:		
Preferred stock, par value $0.01 per share, 50,000,000 shares authorized, no shares issued and outstanding	—	—
Common stock, par value $0.01 per share, 450,000,000 shares authorized, 76,457,415 and 66,338,120 shares issued and outstanding, respectively	765	663
Additional paid in capital	1,394,009	1,102,303
Accumulated deficit	(204,112)	(169,786)
Accumulated other comprehensive income (loss)	12,634	3,300
Non-controlling interest	6,853	3,432
Total Stockholders' Equity	**1,210,149**	**939,912**
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY	**$ 3,459,067**	**$ 2,387,274**

See accompanying notes.

Hannon Armstrong Sustainable Infrastructure Capital, Inc.

CONSOLIDATED STATEMENTS OF OPERATIONS

(Dollars in thousands, except per share data)	Years Ended December 31, 2020	2019	2018
Revenue			
Interest income	$ 95,559	$ 76,200	$ 75,935
Rental income	25,878	25,884	24,606
Gain on sale of receivables and investments	49,887	24,423	32,928
Fee income	15,583	15,074	5,927
TOTAL REVENUE	**186,907**	**141,581**	**139,396**
Expenses			
Interest expense	92,182	64,241	76,874
Provision for loss on receivables	10,096	8,027	—
Compensation and benefits	37,766	28,777	25,651
General and administrative	14,846	14,693	15,091
TOTAL EXPENSES	**154,890**	**115,738**	**117,616**
Income before equity method investments	32,017	25,843	21,780
Income (loss) from equity method investments	47,963	64,174	22,162
Income (loss) before income taxes	79,980	90,017	43,942
Income tax benefit (expense)	2,779	(8,097)	(2,144)
Net income (loss)	82,759	81,920	41,798
Net income (loss) attributable to non-controlling interest holders	343	356	221
Net income (loss) attributable to controlling stockholders	$ 82,416	$ 81,564	$ 41,577
Basic earnings (loss) per common share	$ 1.13	$ 1.25	$ 0.75
Diluted earnings (loss) per common share	$ 1.10	$ 1.24	$ 0.75
Weighted average common shares outstanding—basic	72,387,581	63,916,440	52,780,449
Weighted average common shares outstanding—diluted	74,373,169	64,771,491	52,780,449

See accompanying notes.

Hannon Armstrong Sustainable Infrastructure Capital, Inc.

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

	Years Ended December 31,		
(Dollars in thousands)	2020	2019	2018
Net income (loss)	$ 82,759	$ 81,920	$ 41,798
Unrealized gain (loss) on available-for-sale securities, net of tax (provision) benefit of $(1.1) million, $(0.6) million and $0.1 million in 2020, 2019, and 2018 respectively	12,437	11,249	(1,177)
Unrealized gain (loss) on interest rate swaps, net of tax (provision) benefit of $1.0 million, $1.8 million, and $0.0 million in 2020, 2019, and 2018 respectively	(3,063)	(6,243)	555
Comprehensive income (loss)	92,133	86,926	41,176
Less: Comprehensive income (loss) attributable to non-controlling interest holders	383	378	218
COMPREHENSIVE INCOME (LOSS) ATTRIBUTABLE TO CONTROLLING STOCKHOLDERS	**$ 91,750**	**$ 86,548**	**$ 40,958**

See accompanying notes.

Hannon Armstrong Sustainable Infrastructure Capital, Inc.

CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

(Amounts in thousands)	Common Stock Shares	Common Stock Amount	Additional Paid-in Capital	Accumulated Deficit	Accumulated Other Comprehensive Income (Loss)	Non-controlling Interest	Total
Balance at December 31, 2017	**51,665**	**$ 517**	**$ 770,983**	**$ (131,251)**	**$ (1,065)**	**$ 3,597**	**$ 642,781**
Net income	—	—	—	41,577	—	221	41,798
Unrealized gain (loss) on available-for-sale securities	—	—	—	—	(1,171)	(6)	(1,177)
Unrealized gain (loss) on interest rate swaps	—	—	—	—	552	3	555
Issued shares of common stock	8,611	86	186,808	—	—	—	186,894
Equity-based compensation			10,715	—	—	57	10,772
Issuance (repurchase) of vested equity-based compensation shares	226	2	(3,055)	—	—	—	(3,053)
Other	8	—	(67)	—	—	(79)	(146)
Dividends and distributions	—	—	—	(73,531)	—	(370)	(73,901)
Balance at December 31, 2018	**60,510**	**$ 605**	**$ 965,384**	**$ (163,205)**	**$ (1,684)**	**$ 3,423**	**$ 804,523**
Net income	—	—	—	81,564	—	356	81,920
Unrealized gain (loss) on available-for-sale securities	—	—	—	—	11,200	49	11,249
Unrealized gain (loss) on interest rate swaps	—	—	—	—	(6,216)	(27)	(6,243)
Issued shares of common stock	5,399	54	138,347	—	—	—	138,401
Equity-based compensation	—	—	12,355	—	—	55	12,410
Issuance (repurchase) of vested equity-based compensation shares	425	4	(9,173)	—	—	—	(9,169)
Other	4	—	(61)	—	—	(43)	(104)
Tax basis difference on contributed asset	—	—	(4,549)	—	—	—	(4,549)
Dividends and distributions	—	—	—	(88,145)	—	(381)	(88,526)
Balance at December 31, 2019	**66,338**	**$ 663**	**$ 1,102,303**	**$ (169,786)**	**$ 3,300**	**$ 3,432**	**$ 939,912**
Net income (loss)	—	—	—	82,416	—	343	82,759
Adoption of ASU 2016-13, net of tax effect	—	—	—	(14,031)	—	(74)	(14,105)
Unrealized gain (loss) on available-for-sale securities	—	—	—	—	12,380	57	12,437
Unrealized gain (loss) on interest rate swaps	—	—	—	—	(3,046)	(17)	(3,063)
Issued shares of common stock	9,523	96	298,375	—	—	—	298,471
Equity-based compensation	—	—	9,711	—	—	4,812	14,523
Issuance (repurchase) of vested equity-based compensation shares	537	6	(17,293)	—	—	—	(17,287)
Other	59	—	913	—	—	(859)	54
Dividends and distributions	—	—	—	(102,711)	—	(841)	(103,552)
BALANCE AT DECEMBER 31, 2020	**76,457**	**$ 765**	**$ 1,394,009**	**$ (204,112)**	**$ 12,634**	**$ 6,853**	**$ 1,210,149**

See accompanying notes.

Hannon Armstrong Sustainable Infrastructure Capital, Inc.

CONSOLIDATED STATEMENTS OF CASH FLOWS

	Years Ended December 31,		
(Dollars in thousands)	2020	2019	2018
Cash flows from operating activities			
Net income (loss)	$ 82,759	$ 81,920	$ 41,798
Adjustments to reconcile net income to net cash provided by operating activities:			
Provision for loss on receivables	10,096	8,027	—
Depreciation and amortization	3,580	3,593	4,526
Amortization of financing costs	7,789	6,435	10,727
Equity-based compensation	16,791	14,160	10,066
Equity method investments	13,099	(34,392)	4,312
Non-cash gain on securitization	(55,413)	(56,717)	(25,728)
Gain on sale of receivables and investments	13,811	13,241	—
Changes in receivables held-for-sale	—	—	12,685
Loss on debt extinguishment	—	—	9,245
Changes in accounts payable and accrued expenses	8,023	5,184	6,882
Accrued interest and other	(27,253)	(11,962)	(15,720)
Net cash provided by operating activities	**73,282**	**29,489**	**58,793**
Cash flows from investing activities			
Equity method investments	(885,862)	(152,096)	(76,349)
Equity method investment distributions received	98,571	71,183	88,160
Proceeds from sales of equity method investments	—	81,297	35,849
Purchases of and investments in receivables	(256,323)	(497,866)	(292,834)
Principal collections from receivables	132,958	57,670	345,956
Proceeds from sales of receivables	59,398	134,932	—
Purchases of real estate	—	—	(27,549)
Purchases of investments	(40,185)	(45,830)	(25,308)
Principal collections from investments	2,424	6,626	5,252
Proceeds from sales of investments and securitization assets	68,520	139,230	—
Funding of escrow accounts	(23,178)	(28,953)	(34,980)
Withdrawal from escrow accounts	8,094	30,707	33,108
Other	3,931	1,959	(505)
Net cash provided by (used in) investing activities	**(831,652)**	**(201,141)**	**50,800**

(Dollars in thousands)	Years Ended December 31, 2020	2019	2018
Cash flows from financing activities			
Proceeds from credit facilities	126,000	101,500	171,783
Principal payments on credit facilities	(134,594)	(328,465)	(46,604)
Proceeds from issuance of non-recourse debt	15,938	130,988	69,255
Principal payments on non-recourse debt	(125,969)	(206,705)	(390,537)
Proceeds from issuance of senior unsecured notes	771,250	507,313	—
Proceeds from issuance of convertible notes	143,750	—	—
Payments on deferred funding obligations	(629)	(18,791)	(73,946)
Net proceeds of common stock issuances	298,070	138,383	187,265
Payments of dividends and distributions	(99,867)	(86,406)	(70,989)
Withholdings on employee share vesting	(17,287)	(9,168)	(3,053)
Other	(14,547)	(9,764)	(11,591)
Net cash provided by (used in) financing activities	**962,115**	**218,885**	**(168,417)**
Increase (decrease) in cash, cash equivalents, and restricted cash	203,745	47,233	(58,824)
Cash, cash equivalents, and restricted cash at beginning of period	106,586	59,353	118,177
CASH, CASH EQUIVALENTS, AND RESTRICTED CASH AT END OF PERIOD	**$ 310,331**	**$ 106,586**	**$ 59,353**
Interest paid	$ 75,934	$ 48,056	$ 72,078
Non-cash changes in deferred funding obligations and non-recourse debt (financing activity)	—	(112,027)	(6,973)
Non-cash changes in receivables and investments (investing activity)	—	93,730	(248)
Non-cash changes in residual assets (investing activity)	(56,967)	(61,001)	(25,827)

See accompanying notes.

Hannon Armstrong Sustainable Infrastructure Capital, Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

December 31, 2020

1. The Company

Hannon Armstrong Sustainable Infrastructure Capital, Inc. (the "Company") focuses on making investments in climate solutions by providing capital to the leading companies in the energy efficiency, renewable energy and other sustainable infrastructure markets. Our goal is to generate attractive returns from a diversified portfolio of projects with long-term and predictable cash flows from proven technologies that reduce carbon emissions or increase resilience to climate change.

The Company and its subsidiaries are hereafter referred to as "we," "us," or "our." Our investments take various forms, including equity, joint ventures, lending or other financing transactions, as well as real estate ownership and typically benefit from contractually committed high credit quality obligors. We also generate on-going fees through off-balance sheet securitization transactions, advisory services and asset management. We refer to the income producing assets that we hold on our balance sheet as our "Portfolio." Our Portfolio may include:

- Equity investments in either preferred or common structures in unconsolidated entities;
- Government and commercial receivables, such as loans for renewable energy and energy efficiency projects;
- Real estate, such as land or other assets leased for use by sustainable infrastructure projects typically under long-term leases; and
- Investments in debt securities of renewable energy or energy efficiency projects.

We finance our business through cash on hand, borrowings under credit facilities and debt transactions, asset-backed securitization transactions and equity issuances. We also generate fee income through securitizations and syndications, by providing broker/dealer services and by managing and servicing assets owned by third parties. Some of our subsidiaries are special purpose entities that are formed for specific operations associated with investing in sustainable infrastructure receivables for specific long-term contracts.

Our common stock is listed on the New York Stock Exchange ("NYSE") under the symbol "HASI." We have qualified as a real estate investment trust ("REIT") and also intend to continue to operate our business in a manner that will maintain our exemption from registration as an investment company under the 1940 Act, as amended. We operate our business through, and serve as the sole general partner of, our operating partnership subsidiary, Hannon Armstrong Sustainable Infrastructure, L.P., (the "Operating Partnership"), which was formed to acquire and directly or indirectly own our assets.

2. Summary of Significant Accounting Policies

Basis of Presentation

The preparation of financial statements in accordance with U.S. generally accepted accounting principles ("GAAP") requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from these estimates and such differences could be material. Certain amounts in the prior years have been reclassified to conform to the current year presentation. The consolidated financial statements include our accounts and controlled subsidiaries, including the Operating Partnership. All material intercompany transactions and balances have been eliminated in consolidation.

Following the guidance for non-controlling interests in Financial Accounting Standards Board ("FASB") Accounting Standards Codification ("ASC") 810, *Consolidation* ("ASC 810"), references in this report to our earnings per share and our net income and stockholders' equity attributable to common stockholders do not include amounts attributable to non-controlling interests.

Consolidation

We account for our investments in entities that are considered voting interest entities or variable interest entities ("VIEs") under ASC 810 and assess whether we should consolidate these entities on an ongoing basis. We have established various special purpose entities or securitization trusts for the purpose of securitizing certain assets which are not consolidated in our financial statements as described below in Securitization of Financial Assets.

Since we have assessed that we have power over and receive the benefits from those special purpose entities that are formed for the purpose of holding our government and commercial receivables and investments on our balance sheet, we have concluded we are the primary beneficiary and should consolidate these entities under the provisions of ASC 810. We also have certain subsidiaries we deem to be voting interest entities that we control through our ownership of voting interests and accordingly consolidate.

Certain of our equity method investments were determined to be interests in VIEs in which we are not the primary beneficiary, as we do not direct the significant activities of these entities, and thus we account for those investments as Equity Method Investments as discussed below. Our maximum exposure to loss through these investments is limited to their recorded values. However, we may provide financial commitments to these VIEs or guarantees of certain of their obligations. Certain other equity method investments have been assessed to be voting interest entities as we exert significant influence through our ownership of voting interests, and accordingly we do not consolidate.

Equity Method Investments

We have made equity investments in various renewable energy and energy efficiency projects. These investments are typically owned in holding companies (using limited liability companies ("LLCs") taxed as partnerships) where we partner with either the operator of the project or other institutional investors. We share in the cash flows, income, and tax attributes according to a negotiated schedule (which typically does not correspond with our ownership percentages). Investors, if any, in a preferred return position typically receive a stated preferred return consisting of a priority distribution of all or a portion of the project's cash flows, and in some cases, tax attributes. Once the stated return, if applicable, is achieved, the partnership "flips" and the operator of the project along with any other common equity investors receive a larger portion of the cash flows, with the previously preferred investors retaining an on-going residual interest.

Our equity investments in renewable energy or energy efficiency projects are accounted for under the equity method of accounting. Under the equity method of accounting, the carrying value of these equity method investments is determined based on amounts we invested, adjusted for the equity in earnings or losses of the investee allocated based on the LLC agreement, less distributions received. For the LLC agreements which contain preferences with regard to cash flows from operations, capital events and liquidation, we reflect our share of profits and losses by determining the difference between our claim on the investee's book value at the beginning and the end of the period, which is adjusted for distributions received and contributions made. This claim is calculated as the amount we would receive if the investee were to liquidate all of its assets at the recorded amounts determined in accordance with GAAP and distribute the resulting cash to creditors and investors in accordance with their respective priorities. This method is referred to as the hypothetical liquidation at book value method ("HLBV"). Any difference between the amount of our investment and the amount of underlying equity in net assets is generally amortized over the life of the assets and liabilities to which the difference relates. Cash distributions received from these equity method investments are classified as operating activities to the extent of cumulative HLBV earnings in our consolidated statements of cash flows. Our initial investment and additional cash distributions beyond that which are classified as operating activities are classified as investing activities in our consolidated statements of cash flows. We typically recognize earnings one quarter in arrears for certain of these investments to allow for the receipt of financial information.

We evaluate on a quarterly basis whether our investments accounted for using the equity method have an other than temporary impairment ("OTTI"). An OTTI occurs when the estimated fair value of an investment is below the carrying value and the difference is determined to not be recoverable. This evaluation requires significant judgment regarding, but not limited to, the severity and duration of the impairment; the ability and intent to hold the securities until recovery; financial condition, liquidity, and near-term prospects of the issuer; specific events; and other factors.

Government and Commercial Receivables

Government and commercial receivables ("receivables") include project loans and receivables. These receivables are separately presented in our balance sheet to illustrate the differing nature of the credit risk related to these assets. Unless otherwise noted, we generally have the ability and intent to hold our receivables for the foreseeable future and thus they are classified as held for investment. Our ability and intent to hold certain receivables may change from time to time depending on a number of factors including economic, liquidity and capital market conditions. At inception of the arrangement, the carrying value of receivables held for investment represents the present value of the note, lease or other payments, net of any unearned fee income, which is recognized as income over the term of the note or lease using the effective interest method. Receivables that are held for investment are carried at amortized cost, net of any unamortized acquisition premiums or discounts and include origination and acquisition costs, as applicable. Our initial investment and principal repayments of these receivables are classified as investing activities and the interest collected is classified as operating activities in our consolidated statements of cash flows. Receivables that we intend to sell in the short-term are classified as held-for-sale and are carried at the lower of amortized cost or fair value on our balance sheet. The purchases and proceeds from receivables that we intend to sell at origination are classified as operating activities in our consolidated statements of cash flows. Interest collected is classified as an operating activity in our consolidated statements of cash flows. Certain of our receivables may include the ability to defer required interest payments in exchange for increasing the receivable balance at the borrower's option. We generally accrue this paid-in-kind ("PIK") interest when collection is expected, and cease accruing PIK interest if there is insufficient value to support the accrual or we expect that any portion of the principal or interest due is not collectible.

We evaluate our receivables for an allowance as determined under ASC Topic 326 Financial Instruments- Credit Losses ("Topic 326") and for our internally derived asset performance categories included in Note 6 on at least a quarterly basis and more frequently when economic or other conditions warrant such an evaluation. When a receivable becomes 90 days or more past due, and if we otherwise do not expect the debtor to be able to service all of its debt or other obligations, we will generally consider the receivable delinquent or impaired and place the receivable on non-accrual status and cease recognizing income from that receivable until the borrower has demonstrated the ability and intent to pay contractual amounts due. If a receivable's status significantly improves regarding the debtor's ability to service the debt or other obligations, we will remove it from non-accrual status.

Prior to January 1, 2020, a receivable was also considered impaired as of the date when, based on current information and events, it was determined that it was probable that we would be unable to collect all amounts due in accordance with the original contracted terms. Many of our receivables are secured by energy efficiency and renewable energy infrastructure projects. Accordingly, we evaluated the extent and impact of any credit deterioration associated with the performance and value of the underlying project, as well as the financial and operating capability of the borrower, its sponsors or the obligor as well as any guarantors. If a receivable was impaired, we determined if a specific allowance should be recorded and recorded such allowance if the present value of expected future cash flows discounted at the receivable's contractual effective rate was less than its carrying value. This estimate of cash flows also considered the estimated fair market value of the collateral less estimated selling costs if repayment was expected from the collateral.

Beginning January 1, 2020, we determine our allowance based on the current expectation of credit losses over the contractual life of our receivables as required by Topic 326. We use a variety of methods in developing our allowance including discounted cash flow analysis and probability-of-default/loss given default ("PD/LGD") methods. In developing our estimates, we consider our historical experience with our and similar assets in addition to our view of both current conditions and what we expect to occur within a period of time for which we can develop reasonable and supportable forecasts, typically two years. For periods following the reasonable and supportable forecast period, we revert to historical information when developing assumptions used in our estimates. In developing our forecasts, we consider a number of qualitative and quantitative factors in our assessment, including a project's operating results, loan-to-value ratio, any cash reserves, the ability of expected cash from operations to cover the cash flow requirements currently and into the future, key terms of the transaction, the ability of the borrower to refinance the transaction, other credit support from the sponsor or guarantor and the project's collateral value. In addition, we consider the overall economic environment, the sustainable infrastructure sector, the effect of local, industry, and broader economic factors such as unemployment rates and power prices, the impact of any variation in weather and the historical and anticipated trends in interest rates, defaults and loss severities for similar transactions. For those assets where we record our allowance using a discounted cash flow method, we have elected to record the change in allowance due solely to the passage of time through the provision for loss on receivables in our income statement. For assets where the obligor is a publicly rated entity, we consider the published historical performance of entities with similar ratings in developing our estimate of an allowance, making adjustments determined by management to be appropriate during the reasonable and supportable forecast period. We have made certain loan commitments that are within the scope of Topic 326. When estimating an allowance for these loan commitments we consider the probability of certain amounts to be funded and apply either a discounted cash flow or PD/LGD methodology as described above. We charge off receivables against the allowance, if any, when we determine the unpaid principal balance is uncollectible, net of recovered amounts. Any provision we record for an allowance is a non-cash reconciling item to cash from operating activities in our consolidated statements of cash flows.

Real Estate

Real estate consists of land or other real estate and its related lease intangibles, net of any amortization. Our real estate is generally leased to tenants on a triple net lease basis, whereby the tenant is responsible for all operating expenses relating to the property, generally including property taxes, insurance, maintenance, repairs and capital expenditures. Certain real estate transactions may be characterized as "failed sale-leaseback" transactions as defined under ASC Topic 842 ("Topic 842"), *Leases*, and thus are accounted for similarly to our Commercial Receivables as described above in Government and Commercial Receivables.

For our other real estate lease transactions that are classified as operating leases, the scheduled rental revenue typically varies during the lease term and thus rental income is recognized on a straight-line basis, unless there is considerable risk as to collectability, so as to produce a constant periodic rent over the term of the lease. Accrued rental income is the aggregate difference between the scheduled rents which vary during the lease term and the income recognized on a straight-line basis and is recorded in other assets. Expenses, if any, related to the ongoing operation of leases where we are the lessor are charged to operations as incurred. Our initial investment is classified as investing activities and income collected for rental income is classified as operating activities in our consolidated statements of cash flows.

When our real estate transactions are treated as an asset acquisition with an operating lease, we typically record our real estate purchases at cost, including acquisition and closing costs, which is allocated to each tangible and intangible asset acquired on a relative fair value basis.

The fair value of the tangible assets of an acquired leased property is determined by valuing the property as if it were vacant, and the "as-if-vacant" value is then allocated to land, building and tenant improvements, if any, based on the determination of the fair values of these assets. The as-if-vacant fair value of a property is typically determined by management based on appraisals by a qualified appraiser. In determining the fair value of the identified intangibles of an acquired property, above-market and below-market in-place lease values are valued based on the present value (using an interest rate which reflects the risks associated with the leases acquired) of the difference between (i) the contractual amounts to be paid pursuant to the in-place leases, and (ii) management's estimate of fair market lease rates for the corresponding in-place leases, measured over a period equal to the remaining term of the lease, including renewal periods reasonably certain of being exercised by the lessee.

The capitalized off-market lease values are amortized as an adjustment to rental income over the term used to value the intangible. We also record, as appropriate, an intangible asset for in-place leases. The value of the leases in place at the time of the transaction is equal to the potential income lost if the leases were not in place. The amortization of this intangible occurs over the initial term unless management believes that it is reasonably certain that the tenant would exercise the renewal option, in which case the amortization would extend through the renewal period. If a lease were to be terminated, all unamortized amounts relating to that lease would be written off.

Investments

Investments are debt securities that meet the criteria of ASC 320, *Investments-Debt and Equity Securities*. We have designated our debt securities as available-for-sale and carry these securities at fair value on our balance sheet. Unrealized gains and losses, to the extent not considered to be credit related, on available-for-sale debt securities are recorded as a component of accumulated other comprehensive income ("AOCI") in equity on our balance sheet. When a security is sold, we reclassify the AOCI to earnings based on specific identification. Our initial investment and principal repayments of these investments are classified as investing activities and the interest collected is classified as operating activities in our consolidated statements of cash flows.

We evaluate our investments for impairment on at least a quarterly basis, and more frequently when economic or market conditions warrant such an evaluation. Our impairment assessment is a subjective process requiring the use of judgments and assumptions. Accordingly, we regularly evaluate the extent and impact of any credit deterioration associated with the financial and operating performance and value of the underlying project. We consider several qualitative and quantitative factors in our assessment. The primary factor in our assessment is the current fair value of the security, while other factors include changes in the credit rating, performance of the underlying project, key terms of the transaction, the value of any collateral and any support provided by the sponsor or guarantor.

To the extent that we have identified an impairment for a security, intend to hold the investment to maturity, and do not expect that we will be required to sell the security prior to recovery of the amortized cost basis, we will recognize only the credit component of the unrealized loss in earnings by recording an allowance against the amortized cost of the asset as required by Topic 326. We determine the credit component using the difference between the security's amortized cost basis and the present value of its expected future cash flows, discounted using the effective interest method or its estimated collateral value. Any remaining unrealized loss due to factors other than credit is recorded in AOCI.

To the extent we hold investments with a fair value less than the amortized cost and we have made the decision to sell the security or it is more likely than not that we will be required to sell the security prior to recovery of its amortized cost basis, we recognize the entire portion of the impairment in earnings.

Premiums or discounts on investment securities are amortized or accreted into interest income using the effective interest method.

Securitization of Financial Assets

We have established various special purpose entities or securitization trusts for the purpose of securitizing certain financial assets. We determined that the trusts used in securitizations are VIEs, as defined in ASC 810. When we conclude that we are not the primary beneficiary of certain trusts because we do not have power over those trusts' significant activities, we do not consolidate the trust. We typically serve as primary or master servicer of these trusts; however, as the servicer, we do not have the power to make significant decisions impacting the performance of the trusts.

We account for transfers of financial assets to these securitization trusts as sales pursuant to ASC 860, Transfers and Servicing ("ASC 860"), when we have concluded the transferred assets have been isolated from the transferor (i.e., put presumptively beyond the reach of the transferor and its creditors, even in bankruptcy or other receivership) and we have surrendered control over the transferred assets. We treat those trusts where we are unable to conclude that we have been isolated from the securitized financial assets as secured borrowings, retaining the assets on our balance sheet and recording the amounts due to the trust investor as non-recourse debt.

For transfers treated as sales under ASC 860, we have received true-sale-at-law and non-consolidation legal opinions for all of our securitization trust structures that support our conclusion regarding the transferred financial assets. When we sell financial assets in securitizations, we generally retain interests in the form of servicing rights and residual assets, which we refer to as securitization assets.

Gain or loss on the sale of financial assets is calculated based on the excess of the proceeds received from the securitization (less any transaction costs) plus any retained interests obtained over the cost basis of the assets sold. For retained interests, we generally estimate fair value based on the present value of future expected cash flows using our best estimates of the key assumptions of anticipated losses, prepayment rates, and current market discount rates commensurate with the risks involved. Cash flows related to our securitizations at origination are classified as operating activities in our consolidated statements of cash flows.

We initially account for all separately recognized servicing assets and servicing liabilities at fair value and subsequently measure such servicing assets and liabilities using the amortization method. Servicing assets and liabilities are amortized in proportion to, and over the period of, estimated net servicing income with servicing income recognized as earned. We assess servicing assets for impairment at each reporting date. If the amortized cost of servicing assets is greater than the estimated fair value, we will recognize an impairment in net income.

Our other retained interest in securitized assets, the residual assets, are accounted for similarly to available-for-sale debt securities and carried at fair value. Our residual assets are evaluated for impairment on a quarterly basis. Income related to the residual assets is recognized using the effective interest rate method and included in fee income in the income statement. If there is a change in the expected cash flows related to the residual assets, we will assess whether the asset is impaired and will calculate a new yield based on the current amortized cost of the residual assets and the revised expected cash flows. This yield is used prospectively to recognize our income related to these assets.

Cash and Cash Equivalents

Cash and cash equivalents include short-term government securities, certificates of deposit and money market funds, all of which had an original maturity of three months or less at the date of purchase. These securities are carried at their purchase price, which approximates fair value.

Restricted Cash

Restricted cash includes cash and cash equivalents set aside with certain lenders primarily to support obligations outstanding as of the balance sheet dates. Restricted cash is reported as part of other assets in the consolidated balance sheets. Refer to Note 3 for disclosure of the balances of restricted cash included in other assets.

Convertible Notes

We have issued convertible senior notes that are accounted for in accordance with ASC 470-20, *Debt with Conversion and Other Options*, and ASC 815, *Derivatives and Hedging* ("ASC 815"). Under ASC 815, issuers of certain convertible debt instruments are generally required to separately account for the conversion option of the convertible debt instrument as either a derivative or equity, unless it meets the scope exemption for contracts indexed to, and settled in, an issuer's own equity. Since this conversion option is both indexed to our equity and can only be settled in our common stock, we have met the scope exemption, and therefore, we are not separately accounting for the embedded conversion option. The initial issuance and any principal repayments are classified as financing activities and interest payments are classified as operating activities in our consolidated statements of cash flows.

Income Taxes

We elected and qualified to be taxed as a REIT for U.S. federal income tax purposes, commencing with our taxable year ended December 31, 2013. We also have taxable REIT subsidiaries ("TRS") which are taxed separately, and which will generally be subject to U.S. federal, state, and local income taxes as well as taxes of foreign jurisdictions, if any. To qualify as a REIT, we must meet on an ongoing basis several organizational and operational requirements, including a requirement that we currently distribute at least 90% of our REIT's net taxable income before dividends paid, excluding capital gains, to our stockholders. As a REIT, we are not subject to U.S. federal corporate income tax on that portion of net income that is currently distributed to our owners.

We account for income taxes under ASC 740, *Income Taxes* ("ASC 740") for our TRS using the asset and liability method. Deferred tax assets and liabilities are recognized for the estimated future tax consequences attributable to the differences between the consolidated financial statement carrying amounts of existing assets and liabilities and their respective tax bases. Deferred tax assets and liabilities are measured using enacted tax rates in effect for the year in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities from a change in tax rates is recognized in earnings in the period when the new rate is enacted. We evaluate any deferred tax assets for valuation allowances based on an assessment of available evidence including sources of taxable income, prior years taxable income, any existing taxable temporary differences and our future investment and business plans that may give rise to taxable income. We treat any tax credits we receive from our equity investments in renewable energy projects as reductions of federal income taxes of the year in which the credit arises. Any deferred tax impacts resulting from transfers of assets to or from our TRS are recorded as an adjustment to additional paid-in capital, as it is a transfer amongst entities under common control.

We apply ASC 740 with respect to how uncertain tax positions should be recognized, measured, presented, and disclosed in the financial statements. This guidance requires the accounting and disclosure of tax positions taken or expected to be taken in the course of preparing our tax returns to determine whether the tax positions are "more likely than not" to be sustained by the applicable tax authority. We are required to analyze all open tax years, as defined by the statute of limitations, for all major jurisdictions, which includes U.S. federal and certain states.

Equity-Based Compensation

In 2013, we adopted the 2013 Hannon Armstrong Sustainable Infrastructure Capital, Inc. Equity Incentive Plan (as amended, the "2013 Plan"), which provides for grants of stock options, stock appreciation rights, restricted stock units, shares of restricted common stock, phantom shares, dividend equivalent rights, long-term incentive-plan units ("LTIP units") and other restricted limited partnership units issued by our Operating Partnership and other equity-based awards. From time to time, we may grant equity or equity based awards as compensation to our independent directors, employees, advisors, consultants and other personnel under our 2013 Plan. Certain awards earned under the plan are based on achieving various performance targets, which are generally earned between 0% and 200% of the initial target, depending on the extent to which the performance target is met. In addition to performance targets, certain LTIP units issued by our Operating Partnership also require a certain level of appreciation of partnership interests to occur before parity is reached and LTIP units can be converted to limited partnership units.

We record compensation expense for grants made under the 2013 Plan in accordance with ASC 718, *Compensation—Stock Compensation*. We record compensation expense for unvested grants that vest solely based on service conditions on a straight-line basis over the vesting period of the entire award based upon the fair market value of the grant on the date of grant. Fair market value for restricted common stock is based on our share price on the date of grant. For awards where the vesting is contingent upon achievement of certain performance targets, compensation expense is measured based on the fair market value on the grant date and is recorded over the requisite service period (which includes the performance period). Actual performance results at the end of the performance period determines the number of shares that will ultimately be awarded. We have also issued awards where the vesting is contingent upon service being provided for a defined period and certain market conditions being met. The fair value of these awards, as measured at the grant date, is recognized over the requisite service period, even if the market conditions are not met. The grant date fair value of these awards was developed by an independent appraiser using a Monte Carlo simulation.

Earnings Per Share

We compute earnings per share of common stock in accordance with ASC 260, *Earnings Per Share*. Basic earnings per share is calculated by dividing net income attributable to controlling stockholders (after consideration of the earnings allocated to unvested grants under the 2013 Plan, if applicable) by the weighted-average number of shares of common stock outstanding during the period excluding the weighted average number of unvested grants under the 2013 Plan, if applicable ("participating securities" as defined in Note 12). Diluted earnings per share is calculated by dividing net income attributable to controlling stockholders (after consideration of the earnings allocated to unvested grants under the 2013 Plan, if applicable) by the weighted-average number of shares of common stock outstanding during the period plus other potential common stock instruments if they are dilutive. Other potentially dilutive common stock instruments include our unvested restricted stock, other equity-based awards, and convertible notes. The restricted stock and other equity-based awards are included if they are dilutive using the treasury stock method. The treasury stock method assumes that theoretical proceeds received for future service provided is used to purchase shares of treasury stock at the average market price per share of common stock, which is deducted from the total shares of potential common stock included in the calculation. When unvested grants are dilutive, the earnings allocated to these dilutive unvested grants are not deducted from the net income attributable to controlling stockholders when calculating diluted earnings per share. The convertible notes are included if they are dilutive using the if-converted method. The if-converted method removes interest expense related to the convertible notes from the net income attributable to controlling stockholders and includes the weighted average shares of potential common stock over the period issuable upon conversion of the note. No adjustment is made for shares of potential common stock that are anti-dilutive during a period.

Segment Reporting

We make equity and debt investments in the energy efficiency, renewable energy, and other sustainable infrastructure markets. We manage our business as a single portfolio and report all of our activities as one business segment.

Recently Issued Accounting Pronouncements

Credit Losses

In June 2016, the FASB issued Topic 326 which significantly changes how entities will recognize and measure credit losses for most financial assets and certain other instruments that are not measured at fair value through net income. Topic 326 has replaced the "incurred loss" approach under existing guidance with an "expected loss" model for instruments measured at amortized cost and require entities to record allowances for expected losses from available-for-sale debt securities rather than reduce the amortized cost, as previously required. It also simplified the accounting model for purchased credit-impaired debt securities and loans. Topic 326 is effective for fiscal years beginning after December 15, 2019 and was adopted through a cumulative-effect adjustment to retained earnings as of the beginning of the first reporting period in which the guidance is effective. Topic 326 became effective for us on January 1, 2020. As a result of the adoption of Topic 326, we recorded a cumulative-effect pre-tax adjustment to retained earnings as of January 1, 2020 of approximately $17 million in the process of establishing our allowance for our commercial receivables. The allowance for our government receivables recorded as of the adoption date of Topic 326 is not material. We did not have a material impact to the accounting for our available-for-sale securities portfolio.

Other accounting standards updates issued before February 22, 2021 and effective after December 31, 2020, are not expected to have a material effect on our consolidated financial statements and related disclosures.

3. Fair Value Measurements

Fair value is defined as the price that would be received for an asset or paid to transfer a liability in an orderly transaction between market participants on the measurement date. The fair value accounting guidance provides a three-level hierarchy for classifying financial instruments. The levels of inputs used to determine the fair value of our financial assets and liabilities carried on the balance sheet at fair value and for those which only disclosure of fair value is required are characterized in accordance with the fair value hierarchy established by ASC 820, *Fair Value Measurements*. Where inputs for a financial asset or liability fall in more than one level in the fair value hierarchy, the financial asset or liability is classified in its entirety based on the lowest level input that is significant to the fair value measurement of that financial asset or liability. We use our judgment and consider factors specific to the financial assets and liabilities in determining the significance of an input to the fair value measurements. As of December 31, 2020 and December 31, 2019, only our residual assets related to our securitization trusts and investments were carried at fair value on the consolidated balance sheets on a recurring basis. The three levels of the fair value hierarchy are described below:

- Level 1—Quoted prices (unadjusted) in active markets that are accessible at the measurement date.
- Level 2—Observable prices that are based on inputs not quoted on active markets, but corroborated by market data.
- Level 3—Unobservable inputs are used when little or no market data is available.

The tables below illustrate the estimated fair value of our financial instruments on our balance sheet. Unless otherwise discussed below, fair value for our Level 2 and Level 3 measurements is measured using a discounted cash flow model, contractual terms and inputs which consist of base interest rates and spreads over base rates which are based upon market observation and recent comparable transactions. An increase in these inputs would result in a lower fair value and a decline would result in a higher fair value. Our senior unsecured notes and convertible notes are valued using a market based approach and observable prices. The receivables held-for-sale, if any, are carried at the lower of cost or fair value.

	As of December 31, 2020		
(in millions)	**Fair Value**	**Carrying Value**	**Level**
Assets			
Government receivables	$ 282	$ 248	Level 3
Commercial receivables	1,018	965	Level 3
Investments[1]	55	55	Level 3
Securitization residual assets[2]	159	159	Level 3
Liabilities[3]			
Credit facilities	$ 23	$ 23	Level 3
Non-recourse debt	678	605	Level 3
Senior unsecured notes	1,362	1,299	Level 2
Convertible notes	552	296	Level 2

(1) The amortized cost of our investments as of December 31, 2020, was $51 million.
(2) Included in securitization assets on the consolidated balance sheet. This amount excludes securitization servicing assets, which are carried at amortized cost.
(3) Fair value and carrying value exclude unamortized financing costs.

	As of December 31, 2019		
(in millions)	Fair Value	Carrying Value	Level
Assets			
Government receivables	$ 278	$ 263	Level 3
Commercial receivables	906	896	Level 3
Investments[1]	75	75	Level 3
Securitization residual assets[2]	122	122	Level 3
Liabilities[3]			
Credit facilities	$ 31	$ 31	Level 3
Non-recourse debt	739	716	Level 3
Senior unsecured notes	540	520	Level 2
Convertible notes	185	152	Level 2

(1) The amortized cost of our investments as of December 31, 2019, was $74 million.
(2) Included in securitization assets on the consolidated balance sheet. This amount excludes securitization servicing assets which are carried at amortized cost.
(3) Fair value and carrying value exclude unamortized financing costs.

Investments

The following table reconciles the beginning and ending balances for our Level 3 investments that are carried at fair value on a recurring basis:

	For the year ended December 31,	
(in millions)	2020	2019
Balance, beginning of period	$ 75	$ 170
Purchases of investments	40	46
Principal payments on investments	(3)	(4)
Sale of investments	(67)	(146)
Realized gains on investments recorded in gain on sale of receivables and investments	6	5
Unrealized gains (losses) on investments recorded in OCI	4	4
BALANCE, END OF PERIOD	**$ 55**	**$ 75**

The following table illustrates our investments in an unrealized loss position:

	Estimated Fair Value		Unrealized Losses[1]	
(in millions)	Securities with a loss shorter than 12 months	Securities with a loss longer than 12 months	Securities with a loss shorter than 12 months	Securities with a loss longer than 12 months
December 31, 2020	$ —	$ 6	$ —	$ 0.3
December 31, 2019	25	8	0.4	0.7

(1) Loss position is due to interest rates movements. We have the intent and ability to hold these investments until a recovery of fair value.

In determining the fair value of our investments, we used a market-based risk-free rate and a range of interest rate spreads of approximately 1% to 4% based upon transactions involving similar assets as of December 31, 2020 and 2019. The weighted average discount rates used to determine the fair value of our investments as of December 31, 2020 and 2019 were 3.2% and 4.4%, respectively.

Securitization residual assets

The following table reconciles the beginning and ending balances for our Level 3 securitization residual assets that are carried at fair value on a recurring basis:

	For the year ended December 31,	
(in millions)	2020	2019
Balance, beginning of period	$ 122	$ 71
Accretion of securitization residual assets	6	4
Additions to securitization residual assets	54	59
Collections of securitization residual assets	(11)	(7)
Sales of securitization residual assets	(21)	(13)
Unrealized gains (losses) on securitization residual assets recorded in OCI	9	8
BALANCE, END OF PERIOD	**$ 159**	**$ 122**

In determining the fair value of our securitization residual assets, we used a market-based risk-free rate and a range of interest rate spreads of approximately 1% to 5% based upon transactions involving similar assets as of December 31, 2020 and 2019. The weighted average discount rate used to determine the fair value of our securitization residual assets as of December 31, 2020 and 2019 was 3.8% and 4.4%, respectively.

Non-recurring Fair Value Measurements

Our financial statements may include non-recurring fair value measurements related to acquisitions and non-monetary transactions, if any. Assets acquired in a business combination are recorded at their fair value. We may use third party valuation firms to assist us with developing our estimates of fair value.

Concentration of Credit Risk

Government and commercial receivables, real estate leases, and debt investments consist primarily of U.S. federal government-backed receivables, investment grade state and local government receivables and receivables from various sustainable infrastructure projects and do not, in our view, represent a significant concentration of credit risk. Additionally, certain of our investments are collateralized by projects concentrated in certain geographic regions throughout the United States. These investments typically have structural credit protections to mitigate our risk exposure and, in most cases, the projects are insured for estimated physical loss which helps to mitigate the possible risk from these concentrations.

We had cash deposits that are subject to credit risk as shown below:

	December 31,	
(in millions)	2020	2019
Cash deposits	$ 286	$ 6
Restricted cash deposits (included in other assets)	24	101
TOTAL CASH DEPOSITS	**$ 310**	**$ 107**
Amount of cash deposits in excess of amounts federally insured	$ 309	$ 105

4. Non-Controlling Interest

Units of limited partnership interests in the Operating Partnership ("OP units") that are owned by limited partners other than us are included in non-controlling interest on our consolidated balance sheets. The non-controlling interest holders are generally allocated their pro rata share of income, other comprehensive income and equity transactions.

The outstanding OP units held by outside limited partners represent less than 1% of our outstanding OP units and are redeemable by the limited partners for cash, or at our option, for a like number of shares of our common stock. Non-controlling interest holders exchanged 57,400 OP units for the same number of shares of common stock during the year ended December 31, 2020. OP units of 3,703 were exchanged for the same number of shares of our common stock during the year ended December 31, 2019.

We have also granted to members of our leadership team and directors LTIP Units pursuant to the 2013 plan. These LTIP Units are held by HASI Management HoldCo LLC. The LTIP Units are designed to qualify as profits interests in the Operating Partnership and initially will have a capital account balance of zero and, therefore, will not have full parity with OP units with respect to liquidating distributions or other rights. However, the amended and restated agreement of limited partnership of the Operating Partnership (the "OP Agreement") provides that "book gains," or economic appreciation, in the Operating Partnership will be allocated first to the LTIP Units until the capital account per LTIP Units is equal to the capital account per-unit of the OP units. Under the terms of the OP Agreement, the Operating Partnership will revalue its assets upon the occurrence of certain specified events, and any increase in valuation from the time of grant until such event will be allocated first to the holders of LTIP Units to equalize the capital accounts of such holders with the capital accounts of OP unit holders. Once this has occurred, the LTIP Units will achieve full parity with the OP units for all purposes, including with respect to liquidating distributions and redemption rights. In addition to these attributes, there are vesting and settlement conditions similar to our other equity-based awards as discussed in Notes 2 and 11.

5. Securitization of Financial Assets

The following summarizes certain transactions with securitization trusts:

	As of and for the year ended December 31,		
(in millions)	2020	2019	2018
Gains on securitizations	$ 50	$ 24	$ 33
Cost of financial assets securitized	292	853	688
Proceeds from securitizations	342	877	721
Residual and servicing assets	164	124	72
Cash received from residual and servicing assets	12	7	3

In connection with securitization transactions, we typically retain servicing responsibilities and residual assets. We generally receive annual servicing fees of typically up to 0.20% of the outstanding balance. We may periodically make servicer advances, which are subject to credit risk. Included in securitization assets in our consolidated balance sheets are our servicing assets at amortized cost, our residual assets at fair value, and our servicing advances at cost, if any. Our residual assets are subordinate to investors' interests, and their values are subject to credit, prepayment and interest rate risks on the transferred financial assets. Other than these residual assets, the investors and the securitization trusts have no recourse to our other assets for failure of debtors to pay when due. In computing gains and losses on securitizations, we use discount rates based on a review of comparable market transactions including Level 3 unobservable inputs which consist of base interest rates and spreads over these base rates. Depending on the nature of the transaction risks, the discount rate ranged from 2% to 8%.

As of December 31, 2020 and December 31, 2019, our Managed Assets totaled $7.2 billion and $6.2 billion, respectively, of which $4.3 billion and $4.1 billion, respectively, were securitized assets held in unconsolidated securitization trusts. There were no securitization credit losses in the years ended December 31, 2020, 2019, or 2018. As of December 31, 2020, there were no material payments from debtors to the securitization trusts that were greater than 90 days past due.

Receivables from contracts for the installation of energy efficiency and other technologies are $100 million of our securitization residual assets. These technologies are installed in facilities owned by, or operated for or by, federal, state or local government entities where the ultimate obligor for the receivable is a governmental entity. The contracts may have guarantees of energy savings from third-party service providers, which typically are entities rated investment grade by an independent rating agency. The remainder of our securitization residual assets are related to contracts where the underlying cash flows are secured by an interest in real estate which are typically senior in terms of repayment to other financings.

6. Our Portfolio

As of December 31, 2020, our Portfolio included approximately $2.9 billion of equity method investments, receivables, real estate and investments on our balance sheet. The equity method investments represent our non-controlling equity investments in renewable energy and energy efficiency projects and land. The receivables and investments are typically collateralized by contractually committed debt obligations of government entities or private high credit quality obligors and are often supported by additional forms of credit enhancement, including security interests and supplier guaranties. The real estate is typically land and related lease intangibles for long-term leases to wind and solar projects. Our analysis of our Portfolio has historically been analyzed by type of obligor categorized as either government or commercial obligors and whether those obligors are investment grade or non-investment grade. In conjunction with the adoption of Topic 326, we re-evaluated our reporting for this disclosure and have modified our credit quality disclosure to provide more detail of how the assets in our Portfolio are performing. Additionally, as discussed in Note 2, we have adopted Topic 326 which requires the establishment of an allowance at origination for our receivables expected over the life of the asset rather than at the time it is probable that a loss has been incurred. These allowances are reflected in our disclosures below and are not necessarily an indication that an actual loss has been incurred.

We determine our expectation of credit losses related to our investments by evaluating a number of qualitative and quantitative credit criteria including a project's operating results, loan-to-value ratio, any cash reserves, the ability of expected cash from operations to cover the cash flow requirements currently and into the future, key terms of the transaction, the ability of the borrower to refinance the transaction, the financial and operating capability of the borrower, its sponsors or the obligor as well as any guarantors and the project's collateral value. In addition, when deriving our reasonable and supportable forecasts we consider the overall economic environment, the sustainable infrastructure sector, the effect of local, industry, and broader economic factors, the impact of any variation in weather and the historical and anticipated trends in interest rates, defaults and loss severities for similar transactions.

The following is an analysis of the Performance Ratings of our Portfolio as of December 31, 2020, which is assessed quarterly:

	Portfolio Performance				
	Government	Commercial			
(dollars in millions)	1[(1)]	1[(1)]	2[(2)]	3[(3)]	Total
Receivable vintage					
2020	$ —	$ 184	$ —	$ —	$ 184
2019	—	423	2	—	425
2018	—	269	—	—	269
2017	39	1	8	—	48
2016	68	60	—	—	128
Prior to 2016	141	47	—	8	196
Total receivables	248	984	10	8	1,250
Less: Allowance for loss on receivables	—	(24)	(4)	(8)	(36)
Net receivables[(4)]	248	960	6	—	1,214
Investments	35	20	—	—	55
Real estate	—	359	—	—	359
Equity method investments[(5)]	—	1,255	25	—	1,280
TOTAL	**$ 283**	**$ 2,594**	**$ 31**	**$ —**	**$ 2,908**
Percent of Portfolio	10%	89%	1%	—%	100%
Average remaining balance[(6)]	$ 7	$ 14	$ 12	$ 4	$ 12

(1) This category includes our assets where based on our credit criteria and performance to date we believe that our risk of not receiving our invested capital remains low.
(2) This category includes our assets where based on our credit criteria and performance to date we believe there is a moderate level of risk to not receiving some or all of our invested capital.
(3) This category includes our assets where based on our credit criteria and performance to date, we believe there is substantial doubt regarding our ability to recover some or all of our invested capital. Included in this category are two commercial receivables with a combined total carrying value of approximately $8 million as of December 31, 2020 which we have held on non-accrual status since 2017. We expect to continue to pursue our legal claims with regards to these assets.
(4) Total reconciles to the total of the government receivables and commercial receivables lines of the consolidated balance sheets
(5) Some of the individual projects included in portfolios that make up our equity method investments have government off-takers. As they are part of large portfolios, they are not classified separately.
(6) Average remaining balance is calculated gross of allowance for loss on receivables per transaction and excludes approximately 143 transactions each with outstanding balances that are less than $1 million and that in the aggregate total $56 million.

Receivables

We adopted Topic 326 during the year ended December 31, 2020 which requires us to recognize a provision for loss on receivables expected over the life of the receivable rather than only recording an allowance when it is probable a loss has been incurred. As of December 31, 2019, we had an allowance for loss on receivables on specific assets of $8 million discussed above with a Performance Rating of 3. At adoption on January 1, 2020, we recorded an additional pre-tax allowance for loss on receivables of $17 million which reflects our estimated loss as of that date. Quarterly, we update that expected loss to reflect both the expected loss on newly originated receivables and any changes in the expected loss on existing receivables. During the year ended December 31, 2020, we increased the allowance on our receivables by $10 million primarily as a result of additional loans and loan commitments made during this period. While macroeconomic indicators we consider in our analyses including unemployment rates and power prices degraded over the year ended December 31, 2020, we have not seen these factors translate to material default rates, and the contracted nature of many of our assets protects us from low spot energy prices.

Below is a summary of the carrying value, expected loan funding commitments, and allowance by type of receivable or "Portfolio Segment," as defined by Topic 326, as of December 31, 2020 and January 1, 2020:

(in millions)	December 31, 2020 Gross Carrying Value	December 31, 2020 Loan Funding Commitments	December 31, 2020 Allowance	January 1, 2020 Gross Carrying Value	January 1, 2020 Loan Funding Commitments	January 1, 2020 Allowance
Government[(1)]	$ 248	$ —	$ —	$ 263	$ —	$ —
Commercial[(2)]	1,002	282	36	904	57	26
TOTAL	**$ 1,250**	**282**	**36**	**$ 1,167**	**57**	**26**

(1) As of December 31, 2020, our government receivables include $145 million of U.S. federal government transactions and $104 million of transactions where the ultimate obligors are state or local governments.

Risk characteristics of our government receivables include the energy savings or the power output of the projects and the ability of the government obligor to generate revenue for debt service, via taxation or other means. Transactions may have guarantees of energy savings or other performance support from third-party service providers, which typically are entities, directly or whose ultimate parent entity is, rated investment grade by an independent rating agency. All of our government receivables are included in Performance Rating 1 in the Portfolio Performance table above. Our allowance for government receivables is primarily calculated by using PD/LGD methods as discussed in Note 2. Our expectation of credit losses for these receivables is immaterial given the high credit-quality of the obligors.

(2) As of December 31, 2020, this category of assets includes, gross of allowance, $505 million of mezzanine loans made on a non-recourse basis to special purpose subsidiaries of residential solar companies which are secured by residential solar assets where we rely on certain limited indemnities, warranties, and other obligations of the residential solar companies or their other subsidiaries. Approximately $408 million of our commercial receivables are loans made to entities in which we also have non-controlling equity investments of approximately $23 million. This total also includes $111 million of lease agreements where we hold legal title to the underlying real estate which are treated under GAAP as receivables since they were deemed to be failed sale/leaseback transactions as described in Note 2.

Risk characteristics of our commercial receivables include a project's operating risks, which include the impact of the overall economic environment, the sustainable infrastructure sector, the effect of local, industry, and broader economic factors, the impact of any variation in weather and trends in interest rates. We use assumptions related to these risks to estimate an allowance using a discounted cash flow analysis or the PD/LGD method as discussed in Note 2. All of our commercial receivables are included in Performance Rating 1 in the Portfolio Performance table above, except for $10 million of receivables included in Performance Category 2 and the $8 million of receivables we have placed on non-accrual status which are included in Performance Rating 3. For those assets in Performance Rating 1, the credit worthiness of the obligor combined with the various structural protections of our assets cause us to believe we have a low risk we will not receive our invested capital, however we recorded a $24 million allowance on these $984 million in assets as a result of lower probability assumptions utilized in our allowance methodology.

The following table reconciles our beginning and ending allowance for loss on receivables by Portfolio Segment for the year ended December 31, 2020:

(in millions)	Government	Commercial
Beginning balance—January 1, 2020	$ —	$ 26
Provision for loss on receivables	—	10
Ending balance—December 31, 2020	$ —	$ 36

Other than the $8 million of receivables discussed above with a Performance Rating of 3, we have no receivables which are on non-accrual status.

The following table provides a summary of our anticipated maturity dates of our receivables and the weighted average yield for each range of maturities as of December 31, 2020:

(dollars in millions)	Total	Less than 1 year	1-5 years	5-10 years	More than 10 years
Maturities by period (excluding allowance)	$ 1,250	$ 24	$ 134	$ 301	$ 791
Weighted average yield by period	8.2%	9.9%	6.7%	9.2%	7.6%

Investments

The following table provides a summary of our anticipated maturity dates of our investments and the weighted average yield for each range of maturities as of December 31, 2020:

(dollars in millions)	Total	Less than 1 year	1-5 years	5-10 years	More than 10 years
Maturities by period	$ 55	$ —	$ —	$ —	$ 55
Weighted average yield by period	4.1%	—%	—%	—%	4.1%

We had no investments that were impaired or on non-accrual status as of December 31, 2020 or 2019, and no allowances associated with our investments.

Real Estate

Our real estate is leased to renewable energy projects, typically under long-term triple net leases with expiration dates that range between the years 2033 and 2057 under the initial terms and 2047 and 2080 if all renewals are exercised. The components of our real estate portfolio as of December 31, 2020 and 2019, were as follows:

	December 31,	
(in millions)	2020	2019
Real estate		
Land	$ 269	$ 269
Lease intangibles	104	104
Accumulated amortization of lease intangibles	(14)	(11)
REAL ESTATE	**$ 359**	**$ 362**

As of December 31, 2020, the future amortization expense of the intangible assets and the future minimum rental income payments under our land lease agreements are as follows:

(in millions)	Future Amortization Expense	Minimum Rental Payments
Year Ending December 31,		
2021	$ 3	$ 22
2022	3	22
2023	3	23
2024	3	24
2025	3	24
Thereafter	75	741
TOTAL	**$ 90**	**$ 856**

Equity Method Investments

We have made non-controlling equity investments in a number of renewable energy and energy efficiency projects as well as in a joint venture that owns land with long-term triple net lease agreements to several solar projects that we account for as equity method investments. As of December 31, 2020, we held the following equity method investments:

(in millions) Investment Date	Investee	Carrying Value
Various	Jupiter Equity Holdings, LLC	$ 465
December 2020	Lighthouse Partnerships[1]	201
March 2020	University of Iowa Energy Collaborative Holdings LLC	118
December 2015	Buckeye Wind Energy Class B Holdings, LLC	72
Various	Vivint Solar Asset 2 Class B, LLC	66
Various	Other investees	358
	TOTAL EQUITY METHOD INVESTMENTS	**$ 1,280**

(1) Represents a portfolio of interests in renewable energy projects discussed below.

Jupiter Equity Holdings, LLC

On July 1, 2020, we acquired a preferred equity interest in Jupiter Equity Holdings, LLC ("Jupiter") that is expected to own an approximately 2.3 gigawatt portfolio of renewable energy projects. We have agreed to guarantee certain of the obligations of the subsidiary in connection with these agreements. To date, we have made capital contributions to Jupiter of approximately $467 million related to eight operating wind projects and two operating solar projects with an aggregate capacity of approximately 2.1 gigawatts. We expect to ultimately invest approximately $540 million in Jupiter by making additional periodic capital contributions related to three more projects anticipated to be commercially operational on or prior to June 30, 2021, at which time the additional projects relating to a specific funding will be transferred into Jupiter. Assuming all of the projects are acquired by Jupiter, the renewables portfolio will consist of 13 projects (nine onshore wind projects and four utility-scale solar projects) and will feature cash flows from fixed-price power purchase agreements and financial hedges with a weighted average contract life of 13 years, contracted with highly creditworthy off-takers and counterparties.

Jupiter is governed by an amended and restated limited liability company agreement, dated July 1, 2020, by and among Jupiter, one of our subsidiaries and a subsidiary of the project sponsor who serves as managing member, and contains customary terms and conditions. We own 100% of the Class A Units in Jupiter corresponding to 49% of the distributions from Jupiter subject to the preferences discussed below. Most major decisions that may impact Jupiter, its subsidiaries or its assets, require the majority vote of a four person committee in which we and the project sponsor each have two representatives. Through Jupiter, we will be entitled to preferred distributions until certain return targets are achieved. Once these return targets are achieved, then distributions will be allocated approximately 33% to us and approximately 67% to the sponsor. We and the sponsor each have a right of first offer if the other party desires to transfer any of its equity ownership to a third party on or after July 1, 2023. We use the equity method of accounting to account for our preferred equity interest in Jupiter, and have elected to recognize earnings from this investment one quarter in arrears to allow for the receipt of financial information.

Lighthouse Renewables Portfolio

In December 2020, we entered into certain agreements relating to the acquisition, ownership and management of approximately $663 million in preferred cash equity investments in three partnerships (the "Lighthouse Partnerships") that expect to own cash equity interests in an approximately 1.6 gigawatt portfolio of onshore wind, utility-scale solar and solar-plus-storage projects (the "Renewables Portfolio") developed and managed by the project sponsor. We have made initial investments in the preferred cash equity interests of the Lighthouse Partnerships of approximately $200 million in 2020 and additional investments are expected to be made in 2021 and 2022 as the projects become commercially operational. The Renewables Portfolio currently has contracted cash flows with a combined weighted average contract life of greater than 14 years with a diversified group of predominately investment grade corporate, utility, university, and municipal offtakers.

Each Lighthouse Partnership governed by a limited liability company agreement by and among us and the sponsor serving as managing member that will contain customary terms and conditions. Most major decisions that may impact each of the Lighthouse Partnerships, its subsidiaries or its assets, require a unanimous vote of the representatives present at a meeting of a review committee in which a quorum is present. The review committee is a four person committee, which includes two Company representatives and two sponsor representatives. Through each Lighthouse Partnership, commencing on a certain date following the effective date of the applicable limited liability company agreement, we will be entitled to preferred distributions until certain return targets are achieved. Subject to customary exceptions, no member of a Lighthouse Partnership can transfer any of its equity ownership in any Lighthouse Partnership to a third party without approval of the review committee of that Lighthouse Partnership. We use the equity method of accounting to account for its preferred equity interest in each Lighthouse Partnership, and have elected to recognize earnings from this investment one quarter in arrears to allow for the receipt of financial information.

Based on an evaluation of our equity method investments we determined that no OTTI had occurred as of December 31, 2020, 2019, or 2018.

7. Credit Facilities

Senior Credit Facilities

We have two senior revolving credit facilities (our "Senior Credit Facilities"), a representation-based loan agreement (the "Rep-Based Facility") and an approval-based loan agreement (the "Approval-Based Facility") with various lenders, which mature in July 2023. The Rep-Based Facility is a senior secured revolving limited-recourse credit facility with a maximum outstanding principal amount of $250 million and the Approval-Based Facility is a senior secured revolving recourse credit facility with a maximum outstanding principal amount of $200 million.

The following table provides additional detail on our Senior Credit Facilities as of December 31, 2020:

(dollars in millions)	Rep-Based Facility	Approval-Based Facility
Outstanding balance	$ —	$ 23
Value of collateral pledged to credit facility	25	151
Weighted average short-term borrowing rate	N/A	1.7%

Loans under the Rep-Based Facility bear interest at a rate equal to one-month LIBOR plus 1.40% or 1.85% (depending on the type of collateral) or, in certain circumstances, the Federal Funds Rate plus 0.40% or 0.85% (depending on the type of collateral) and loans under the Approval-Based Facility bear interest at a rate equal to one-month LIBOR plus 1.50% or 2.00% (depending on the type of collateral) or, under certain circumstances, the Federal Funds Rate plus 0.50% or 1.00% (depending on the type of collateral).

Inclusion of any financings of the Company in the borrowing base as collateral under the Rep-Based Facility will be subject to the Company making certain agreed upon representations and warranties. We have provided a limited guarantee covering the accuracy of the representations and warranties, and the repayment by the borrowers of certain amounts relating to any such financing is the exclusive remedy with respect to any breach of such representations and warranties under the Rep-Based Facility. Inclusion of any financings of the Company in the borrowing base as collateral under the Approval-Based Facility will be subject to the approval of a super-majority of the lenders, and we have provided a guarantee of the Approval-Based Facility.

The amount eligible to be drawn under the facilities is based on a discount to the value of each included investment based upon the type of collateral or an applicable valuation percentage. The sum of included financings after taking into account the applicable valuation percentages and any changes in the valuation of the financings in accordance with the Loan Agreements determines the borrowing capacity, subject to the overall facility limits described above. Under the Rep-Based Facility, the applicable valuation percentage is 85% in the case of a land-lease obligor or a U.S. Federal Government obligor, 80% in the case of an institutional obligor or state and local obligor, and with respect to other obligors or in certain circumstances, such other percentage as the administrative agent may prescribe. Under the Approval-Based Facility, the applicable valuation percentage is 85% in the case of certain approved financings and 67% or such other percentage as the administrative agent may prescribe, including in the case of one asset, an agreed-upon amortization schedule. The stated minimum maturities to be paid under the amortization schedule to meet the required target loan balances as of December 31, 2020 are as follows:

(in millions)		Future Minimum Maturities
For the year ended December 31,		
2021	$	—
2022		8
2023		15
TOTAL	**$**	**23**

We have approximately $5 million of remaining unamortized financing costs associated with the credit facilities that have been capitalized and included in other assets on our balance sheet and are being amortized on a straight-line basis over the term of the credit facilities. Administrative fees are payable annually to the administrative agent under each of the Loan Agreements and letter agreements with the administrative agent. Under the Rep-Based Facility, we pay to the administrative agent on each monthly payment date, for the benefit of the lenders, certain availability fees for the Rep-Based Facility equal to 0.60%, divided by 365 or 366, as applicable, multiplied by the excess of the available total commitments under the Rep-Based Loan Agreement over the actual amount borrowed under the Rep-Based Facility.

The credit facilities contain terms, conditions, covenants, and representations and warranties that are customary and typical for a transaction of this nature, including various affirmative and negative covenants, and limitations on the incurrence of liens and indebtedness, investments, fundamental organizational changes, dispositions, changes in the nature of business, transactions with affiliates, use of proceeds and stock repurchases. We were in compliance with our covenants as of December 31, 2020.

The credit facilities also include customary events of default, including the existence of a default in more than 50% of underlying financings. The occurrence of an event of default may result in termination of the credit facilities, acceleration of amounts due under the credit facilities, and accrual of default interest at a rate of LIBOR plus 2.00% in the case of both the Rep-Based Facility and the Approval-Based Facility.

Unsecured Credit Facility

In February 2021, we entered into an unsecured credit facility with a maximum outstanding principal amount of $50 million which matures in February 2022. The unsecured credit facility has a commitment fee based on our current credit rating and bears interest at a rate of the LIBOR or prime rate plus applicable margins based on our current credit rating, which may be adjusted downward up to 0.05% to the extent our Portfolio achieves certain targeted levels of carbon emissions reductions. As of the inception of the unsecured credit facility, the applicable margins are 2.25% for LIBOR-based loans and 1.25% for prime rate-based loans. The unsecured credit facility contains terms, conditions, covenants, and representations and warranties that are customary and typical for a transaction of this nature, including various affirmative and negative covenants, and limitations on the incurrence of liens and indebtedness, investments, fundamental organizational changes, dispositions, changes in the nature of business, transactions with affiliates, use of proceeds, stock repurchases, and dividends we can declare. The unsecured credit facility also includes customer events of default, which may result in the Company having to post cash collateral equal to 102% of any amounts of outstanding letters of credit drawn on the unsecured credit facility. At our option, upon maturity of the facility, we have the ability to convert amounts borrowed into term loans for a fee equal to 2.25% of the term loans.

8. Long-Term Debt

Non-Recourse Debt

We have outstanding the following asset-backed non-recourse debt and bank loans:

(dollars in millions)	Outstanding Balance as of December 31, 2020	Outstanding Balance as of December 31, 2019	Interest Rate[1]	Maturity Date	Anticipated Balance at Maturity	Carrying Value of Assets Pledged as of December 31, 2020	Carrying Value of Assets Pledged as of December 31, 2019	Description of Assets Pledged
HASI Sustainable Yield Bond 2015-1A	$ 81	$ 85	4.28%	October 2034	$ —	$ 134	$ 126	Receivables, real estate and real estate intangibles
HASI Sustainable Yield Bond 2015-1B Note	13	13	5.41%	October 2034	—	134	126	Class B Bond of HASI Sustainable Yield Bond 2015-1
2017 Credit Agreement[2]	—	61	4.12%	January 2023	—	—	120	Equity interests in Strong Upwind Holdings I, II, III, and IV LLC, and Northern Frontier Wind, LLC
HASI SYB Loan Agreement 2015-2[3]	—	28	N/A	December 2023	—	—	73	Equity interest in Buckeye Wind Energy Class B Holdings LLC
HASI SYB Trust 2016-2	67	72	4.35%	April 2037	—	71	76	Receivables
HASI ECON 101 Trust	126	129	3.57%	May 2041	—	133	135	Receivables and investments
HASI SYB Trust 2017-1	150	155	3.86%	March 2042	—	205	206	Receivables, real estate and real estate intangibles
Lannie Mae Series 2019-1	95	96	3.68%	January 2047	—	107	106	Receivables, real estate and real estate intangibles
Other non-recourse debt[4]	73	77	3.15%–7.45%	2022 to 2032	18	73	77	Receivables
Unamortized financing costs	(12)	(16)						
NON-RECOURSE DEBT[5]	**$ 593**	**$ 700**						

(1) Represents the interest rate as of December 31, 2020.
(2) This loan was prepaid in January 2020.
(3) This loan was prepaid in September 2020.
(4) Other non-recourse debt consists of various debt agreements used to finance certain of our receivables for their term. Scheduled debt service payment requirements are equal to or less than the cash flows received from the underlying receivables.
(5) The total collateral pledged against our non-recourse debt was $723 million and $921 million as of December 31, 2020 and December 31, 2019, respectively. In addition, $23 million and $24 million of our restricted cash balance was pledged as collateral to various non-recourse loans as of December 31, 2020 and December 31, 2019, respectively.

We have pledged the financed assets, and typically our interests in one or more parents or subsidiaries of the borrower that are legally separate bankruptcy remote special purpose entities as security for the non-recourse debt. There is no recourse for repayment of these obligations other than to the applicable borrower and any collateral pledged as security for the obligations. Generally, the assets and credit of these entities are not available to satisfy any of our other debts and obligations. The creditors can only look to the borrower, the cash flows of the pledged assets and any other collateral pledged, to satisfy the debt and we are not otherwise liable for nonpayment of such cash flows. The debt agreements contain terms, conditions, covenants, and representations and warranties that are customary and typical for transactions of this nature, including limitations on the incurrence of liens and indebtedness, investments, fundamental organizational changes, dispositions, changes in the nature of business, transactions with affiliates, use of proceeds and stock repurchases. The agreements also include customary events of default, the occurrence of which may result in termination of the agreements, acceleration of amounts due, and accrual of default interest. We typically act as servicer for the debt transactions. We are in compliance with all covenants as of December 31, 2020 and 2019.

We have guaranteed the accuracy of certain of the representations and warranties and other obligations of certain of our subsidiaries under certain of the debt agreements and provided an indemnity against certain losses from "bad acts" of such subsidiaries including fraud, failure to disclose a material fact, theft, misappropriation, voluntary bankruptcy or unauthorized transfers. In the case of the debt secured by certain of our renewable energy equity interests, we have also guaranteed the compliance of our subsidiaries with certain tax matters and certain obligations if our joint venture partners exercise their right to withdraw from our partnerships.

The stated minimum maturities of non-recourse debt as of December 31, 2020, were as follows:

(in millions)	Future minimum maturities
Year Ending December 31,	
2021	$ 29
2022	27
2023	30
2024	34
2025	31
Thereafter	454
Total minimum maturities	605
Unamortized financing costs	(12)
TOTAL NON-RECOURSE DEBT	**$ 593**

The stated minimum maturities of non-recourse debt above include only the mandatory minimum principal payments. To the extent there are additional cash flows received from our investments in renewable energy projects serving as collateral for certain of our non-recourse debt facilities, these additional cash flows are required to be used to make additional principal payments against the respective debt. Any additional principal payments made due to these provisions may impact the anticipated balance at maturity of these financings. To the extent there are not sufficient cash flows received from those investments pledged as collateral, the investor has no recourse against other corporate assets to recover any shortfalls.

Senior Unsecured Notes

We have outstanding senior unsecured notes issued jointly by certain of our TRS and are guaranteed by the Company and certain other subsidiaries (the "Senior Unsecured Notes"). The Senior Unsecured Notes are subject to covenants which limit our ability to incur additional indebtedness and require us to maintain unencumbered assets of not less than 120% of our unsecured debt. These covenants will terminate on any date at which the Senior Unsecured Notes have been rated investment grade by two of the three major credit rating agencies and no event of default has occurred. We are in compliance with all of our covenants as of December 31, 2020 and 2019. The Senior Unsecured Notes impose certain requirements in the event that we merge with or sell substantially all of our assets to another entity. The proceeds of our Senior Unsecured Notes are used to acquire or refinance, in whole or in part, eligible green projects, including assets which are neutral to negative on incremental carbon emissions.

The following are summarized terms of the Senior Unsecured Notes:

(in millions)	Outstanding Principal Amount	Maturity Date	Stated Interest Rate	Interest Payment Dates	Redemption Terms Modification Date
2024 Notes	$ 500(1)	July 15, 2024	5.25%	January 15th and July 15th	July 15, 2021(2)
2025 Notes	400	April 15, 2025	6.00%	April 15th and October 15th	April 15, 2022(2)
2030 Notes	375(3)	September 15, 2030	3.75%	February 15th and August 15th	September 15, 2022(4)

(1) The first $350 million issuance of 2024 Notes was priced at par. We subsequently issued $150 million of the $500 million aggregate principal amount of the 2024 Notes for total proceeds of $157 million ($155 million net of issuance costs) at an effective interest rate of 4.13%.

(2) Prior to this date, we may redeem, at our option, some or all of the 2024 Notes or 2025 Notes for the outstanding principal amount plus the applicable "make-whole" premium as defined in the indenture governing the 2024 Notes or 2025 Notes plus accrued and unpaid interest through the redemption date. In addition, prior to this date, we may redeem up to 40% of the Senior Unsecured Notes using the proceeds of certain equity offerings at a price equal to par plus the coupon percentage of the principal amount thereof, plus accrued but unpaid interest, if any, to, but excluding, the applicable redemption date. On, or subsequent to, this date we may redeem the 2024 or 2025 Notes in whole or in part at redemption prices defined in the indenture governing the 2024 Notes or 2025 Notes, plus accrued and unpaid interest though the redemption date.

(3) We issued the $375 million aggregate principal amount of the 2030 Notes for total proceeds of $371 million ($367 million net of issuance costs) at an effective interest rate of 3.87%.

(4) Prior to this date, we may, at our option on one or more occasions redeem up to 40% of the 2030 Notes using the proceeds of certain equity offerings at a price equal to 103.75% of the principal amount thereof; plus accrued but unpaid interest, if any, to, but excluding the applicable redemption date. At any point prior to maturity, we may redeem, at our option, some or all of the 2030 Notes plus the applicable "make-whole" premium as defined in the indenture governing the 2030 Notes plus accrued and unpaid interest through the redemption date.

The following table presents a summary of the components of the Senior Unsecured Notes:

	As of and for the year ended December 31,	
(in millions)	2020	2019
Principal	$ 1,275	$ 500
Accrued interest	22	13
Unamortized premium	2	7
Less: Unamortized financing costs	(16)	(8)
CARRYING VALUE OF SENIOR UNSECURED NOTES	**$ 1,283**	**$ 512**
Interest expense	$ 49	$ 12

Convertible Senior Notes

We have outstanding $294 million aggregate principal amount of convertible senior notes ("Convertible Senior Notes"), including $144 million of principal amount convertible senior notes due August 15, 2023 issued in August 2020 at a stated interest rate of 0%. Holders may convert any of their convertible notes into shares of our common stock at the applicable conversion ratio at any time prior to the close of business on the second scheduled trading day immediately preceding the maturity date, unless the convertible notes have been previously redeemed or repurchased by us.

The following are summarized terms of the Convertible Senior Notes as of December 31, 2020:

(in millions)	Outstanding Principal Amount	Maturity Date	Stated Interest Rate	Interest Payment Dates	Conversion Ratio	Conversion Price	Issuable Shares	Dividend Threshold Amount[1]
2022 Convertible Notes	$ 150	September 1, 2022	4.125%	March 1 and September 1	36.7680	$ 27.20	5.5	$ 0.33
2023 Convertible Notes	144	August 15, 2023	0.000%	N/A	20.6779	$ 48.36	3.0	$ 0.34

(1) The conversion ratio is subject to adjustment for dividends declared above these amounts per share per quarter and certain other events that may be dilutive to the holder.

For both the 2022 Convertible Notes and the 2023 Convertible Notes, following the occurrence of a make-whole fundamental change, we will, in certain circumstances, increase the conversion rate for a holder that converts its convertible notes in connection with such make-whole fundamental change. There are no cash settlement provisions in the convertible notes and the conversion option can only be settled through physical delivery of our common stock. Additionally, upon the occurrence of certain fundamental changes involving us, holders of the convertible notes may require us to redeem all or a portion of their convertible notes for cash at a price of 100% of the principal amount outstanding, plus accrued and unpaid interest.

We have a redemption option to call the 2022 Convertible Notes prior to maturity (i) on or after March 1, 2022 and (ii) at any time if such a redemption is deemed reasonably necessary to preserve our qualification as a REIT. The redemption price will be equal to the principal of the notes being redeemed, plus accrued and unpaid interest. In the event of redemption after March 1, 2022, there will be an additional make-whole premium paid to the holder of the redeemed notes unless the redemption is deemed reasonably necessary to preserve our qualification as a REIT. We may redeem the 2023 Convertible notes at any time only if such a redemption is deemed reasonably necessary to preserve our qualification as a REIT.

The following table presents a summary of the components of the convertible notes:

	As of and for the year ended December 31,	
(in millions)	2020	2019
Principal	$ 294	$ 150
Accrued interest	2	2
Less:		
Unamortized financing costs	(5)	(3)
Carrying value of convertible notes	$ 291	$ 149
Interest expense	$ 8	$ 7

9. Commitments and Contingencies

Leases

We lease office space at our headquarters in Annapolis, Maryland under an operating lease entered into in 2011 and amended in 2013 and 2017 to add additional space. The lease provides for operating expense reimbursements and annual escalations that are amortized over the respective lease terms on a straight-line basis. Lease payments under this lease commenced in 2012 and incremental payments related to the amendments commenced in 2014 and 2017. The lease expires in 2027.

Rent expense was less than $1 million for each of the years ended December 31, 2020, 2019, and 2018, respectively. Future gross minimum lease payments are less than $1 million per year during the remaining term of the lease.

Litigation

The nature of our operations exposes us to the risk of claims and litigation in the normal course of our business. We are not currently subject to any legal proceedings that are probable of having a material adverse effect on our financial position, results of operations or cash flows.

Guarantees

In connection with some of our transactions, we have provided certain limited representations, warranties, covenants and/or provided an indemnity against certain losses resulting from our own actions, including related to certain investment tax credits. As of December 31, 2020, there have been no such actions resulting in claims against the Company.

We have made a guarantee related to the financing of one of our joint venture entities that owns debt securities of energy efficiency projects. The entity entered into a financing arrangement where we have guaranteed the obligations of the entity related to this financing, which includes collateral posting requirements as well as repayment of the financing at maturity in February 2021. As of December 31, 2020, our maximum obligation under this guarantee is approximately $60 million. We have executed a separate agreement with the other joint venture partner pursuant to which it is liable for 15% of this obligation repayable to us.

COVID-19

The COVID-19 global pandemic has brought forth uncertainty and disruption to the global economy. As of December 31, 2020, we have not recorded any contingencies on our balance sheet related to COVID-19 with the exception of any allowances related to our receivables described in Note 6. To the extent COVID-19 continues to cause dislocations in the global economy, our financial condition, results of operations, and cash flows may be adversely impacted.

10. Income Tax

We recorded an income tax benefit of approximately $3 million for the year ended December 31, 2020, an $8 million tax expense for the year ended December 31, 2019, and a $2 million tax expense for the year for the year ended 2018 related to the activities of our TRS. Of our $3 million benefit for the year ended December 31, 2020, approximately $1 million is related to the remeasurement of deferred tax liabilities as the result of the changes in our estimated state tax rates. The federal income tax expense and benefits recorded were determined using a rate of 21%. Our deferred tax assets and liabilities were measured using a federal rate of 21%. Below is a reconciliation between the federal statutory rates of our TRS entities and our effective tax rates for the years ended December 31:

	2020	2019	2018
Federal statutory income tax rate	21%	21%	21%
Changes in rate resulting from:			
Share-based compensation	(13)%	2%	(1)%
Equity method investments	(12)%	(2)%	(11)%
Other	(4)%	(1)%	2%
Valuation allowance	—%	(15)%	2%
Effective tax rate	(8)%	5%	13%

Our deferred tax liability was $8 million and $14 million as of December 31, 2020 and 2019, respectively, related to the activities of our TRS. Our deferred tax liability is included in accounts payable, accrued expenses and other on our consolidated balance sheet. Deferred income taxes represent the tax effect from continuing operations of the differences between the book and tax basis of assets and liabilities. Deferred tax assets (liabilities) include the following as of December 31:

(in millions)	2020	2019
Net operating loss (NOL) carryforwards	$ 63	$ 31
Tax credit carryforwards	15	13
Share-based compensation	3	3
Other	9	3
Valuation allowance	—	—
Gross deferred tax assets	**90**	**50**
Receivables basis difference	$ (12)	$ (12)
Equity method investments	(86)	(52)
Gross deferred tax liabilities	**(98)**	**(64)**
NET DEFERRED TAX LIABILITIES	**$ (8)**	**$ (14)**

We have unused NOLs of $264 million and tax credits of approximately $15 million. Approximately, $74 million of our NOLs will begin to expire in 2035. If our TRS entities were to experience a change in control as defined in Section 382 of the Internal Revenue Code, the TRS's ability to utilize NOLs in the years after the change in control would be limited. Similar rules and limitation may apply for state tax purposes as well. Of our NOLs, $190 million were added in taxable years after 2018 which are not subject to expiration but are limited to 80% of taxable income. Our tax credits begin to expire in 2034.

We have no examinations in progress, none are expected at this time, and years 2017 through 2020 are open. As of December 2020 and 2019, we had no uncertain tax positions. Our policy is to recognize interest expense and penalties related to income tax matters as a component of general and administrative expense. There were no accrued interest and penalties as of December 31, 2020 and 2019, and no interest and penalties were recognized during the years ended December 31, 2020, 2019, or 2018.

For federal income tax purposes, the cash dividends paid for the years ended December 31, 2020 and 2019 are characterized as follows:

	2020	2019
Common distributions		
Ordinary income	—%	18%
Return of capital	100%	82%
	100%	**100%**

11. Equity

Dividends and Distributions

Our board of directors declared the following dividends in 2019 and 2020:

Announced Date	Record Date	Pay Date	Amount per share
2/21/2019	4/3/2019	4/11/2019	$ 0.335
6/6/2019	7/5/2019	7/12/2019	0.335
9/12/2019	10/3/2019	10/10/2019	0.335
12/13/2019	12/26/2019[(1)]	1/10/2020	0.335
2/20/2020	4/2/2020	4/10/2020	0.340
6/5/2020	7/2/2020	7/9/2020	0.340
8/6/2020	10/2/2020	10/9/2020	0.340
11/5/2020	12/28/2020[(1)]	1/8/2021	0.340

(1) These dividends are treated as distributions in the following year for tax purposes.

Equity Offerings

We have an effective universal shelf registration statement registering the potential offer and sale, from time to time and in one or more offerings, of any combination of our common stock, preferred stock, depositary shares, debt securities, warrants and rights (collectively referred to as the "securities"). We may offer the securities directly, through agents, or to or through underwriters by means of ordinary brokers' transactions on the NYSE or otherwise at market prices prevailing at the time of sale or at negotiated prices and may include "at the market" ("ATM") offerings or sales, to or through a market maker or into an existing trading market on an exchange or otherwise. We completed the following public offerings (including ATM issuances) of our common stock in 2019 and 2020:

Date/Period	Common Stock Offerings	Shares Issued	Price Per Share	Net Proceeds[1]
(amounts in millions, except per share amounts)				
1/3/2019[2]	Public Offering	0.465	$ 21.60[3]	$ 9
Q1 2019	ATM	1.603	23.39[4]	37
Q2 2019	ATM	1.926	26.33[4]	50
Q4 2019	ATM	1.405	30.00[4]	42
Q1 2020	ATM	4.500	25.84[4]	115
Q2 2020	ATM	1.938	23.10[4]	44
Q3 2020	ATM	0.875	33.81[4]	29
Q4 2020	ATM	2.204	50.35[4]	110

(1) Net proceeds from the offerings are shown after deducting underwriting discounts, commissions and other offering costs.
(2) Includes shares issued in connection with the exercise of the underwriters' option to purchase additional shares.
(3) Represents the price per share at which the underwriters in our public offerings purchased our shares.
(4) Represents the average price per share at which investors in our ATM offerings purchased our shares.

Equity-based Compensation Awards Under Our 2013 Plan

We have 6,525,011 awards authorized for issuance under our 2013 Plan. As of December 31, 2020, we have issued awards with service, performance and market conditions and have 2,603,387 awards remaining available for issuance. During the year ended December 31, 2020, our board of directors awarded employees and directors 514,969 shares of restricted stock, restricted stock units, and LTIP Units that vest from 2021 to 2024. As of December 31, 2020, as it relates to previously issued restricted stock awards with performance conditions, we have concluded that it is probable that the performance conditions will be met. Refer to Note 4 for background on the LTIP Units.

A summary of equity-based compensation expense and the fair value of shares and LTIP Units vested on the vesting date for the years ended December 31, 2020, 2019, and 2018 is as follows:

(in millions)	2020	2019	2018
Equity-based compensation expense	$ 17	$ 14	$ 10
Fair value of awards vested on vesting date	39	19	7

The total unrecognized compensation expense related to awards of shares of restricted stock, restricted stock units, and LTIP Units was approximately $11 million as of December 31, 2020. We expect to recognize compensation expense related to these awards over a weighted-average term of approximately 2 years. A summary of the unvested shares of restricted common stock that have been issued is as follows:

	Restricted Shares of Common Stock	Weighted Average Grant Date Fair Value	Value
		(per share)	(in millions)
Ending Balance—December 31, 2018	1,386,756	$ 19.00	$ 26.4
Granted	150,493	23.99	3.6
Vested	(781,218)	18.91	(14.8)
Forfeited	(5,789)	20.62	(0.1)
Ending Balance—December 31, 2019	750,242	20.08	15.1
Granted	194,077	32.93	6.4
Vested	(576,880)	19.50	(11.3)
Forfeited	(262)	28.59	—
ENDING BALANCE—DECEMBER 31, 2020	**367,177**	**$ 27.77**	**$ 10.2**

A summary of the unvested shares of restricted stock units that have market based vesting conditions that have been issued is as follows:

	Restricted Stock Units[(1)]	Weighted Average Grant Date Fair Value	Value
		(per share)	(in millions)
Ending Balance—December 31, 2018	393,148	$ 19.55	$ 7.7
Granted	46,586	25.10	1.2
Vested	(1,380)	21.68	—
Forfeited	(2,776)	22.23	(0.1)
Ending Balance—December 31, 2019	435,578	$ 20.12	$ 8.8
Granted	23,342	27.18	0.6
Incremental performance shares granted	216,932	18.99	4.1
Vested	(439,986)	19.04	(8.4)
Forfeited	(266)	25.90	—
ENDING BALANCE—DECEMBER 31, 2020	**235,600**	**$ 21.78**	**$ 5.1**

(1) As discussed in Note 2, restricted stock units with market-based vesting conditions can vest between 0% and 200% subject to both the absolute performance of the Company's common stock as well as relative performance compared to a group of peers. The incremental performance shares granted relate to the vesting of an award at the 200% level.

A summary of the unvested LTIP Units that have time-based vesting conditions that have been issued is as follows:

	LTIP Units[(1)]	Weighted Average Grant Date Fair Value	Value
		(per share)	(in millions)
Ending Balance—December 31, 2018	—	$ —	$ —
Granted	209,330	25.84	5.4
Vested	(8,020)	25.82	(0.2)
Forfeited	—	—	—
Ending Balance—December 31, 2019	201,310	$ 25.84	$ 5.2
Granted	165,346	18.56	3.1
Vested	(80,974)	25.87	(2.1)
Forfeited	—	—	—
ENDING BALANCE—DECEMBER 31, 2020	**285,682**	**$ 21.62**	**$ 6.2**

(1) See Note 4 for information on the vesting of LTIP Units.

A summary of the unvested LTIP Units that have market-based vesting conditions that have been issued is as follows:

	LTIP Units[(1)]	Weighted Average Grant Date Fair Value	Value
		(per share)	(in millions)
Ending Balance—December 31, 2018	—	$ —	$ —
Granted	180,500	26.70	4.8
Vested	—	—	—
Forfeited	—	—	—
Ending Balance—December 31, 2019	180,500	$ 26.70	$ 4.8
Granted	132,204	12.25	1.6
Vested	—	—	—
Forfeited	—	—	—
ENDING BALANCE—DECEMBER 31, 2020	**312,704**	**$ 20.59**	**$ 6.4**

(1) See Note 4 for information on the vesting of LTIP Units. LTIP Units with market-based vesting conditions can vest between 0% and 200% subject to both the absolute performance of the Company's common stock as well as relative performance compared to a group of peers.

12. Earnings per Share of Common Stock

Both the net income or loss attributable to the non-controlling OP units and the non-controlling limited partners' outstanding OP units have been excluded from the basic earnings per share and the diluted earnings per share calculations attributable to common stockholders. Unvested share-based payment awards that contain non-forfeitable rights to dividends or dividend equivalents (whether paid or unpaid) are participating securities and are excluded from net income available to common shareholders in the computation of earnings per share pursuant to the two-class method. Certain share based awards are included in the diluted share count to the extent they are dilutive as discussed in Note 2. To the extent our convertible notes are dilutive under the if-converted method, we add back the interest expense to the numerator and include the weighted average shares of potential common stock over the period issuable upon conversion of the note in the denominator in calculating dilutive EPS as described in Note 2.

The computation of basic and diluted earnings per common share of common stock is as follows:

	Year ended December 31,		
(dollars in millions, except share and per share data)	2020	2019	2018
Numerator:			
Net income (loss) attributable to controlling stockholders and participating securities	$ 82.4	$ 81.6	$ 41.6
Less: Dividends and distributions to participating securities	(0.9)	(1.4)	(1.8)
Undistributed earnings attributable to participating securities	—	—	—
Net income (loss) attributable to controlling stockholders	**$ 81.5**	**$ 80.2**	**$ 39.8**
Add: Interest expense related to convertible notes under the if-converted method	0.4	—	—
Net income (loss) attributable to controlling stockholders—diluted	**$ 81.9**	**$ 80.2**	**$ 39.8**
Denominator:			
Weighted-average number of common shares—basic	72,387,581	63,916,440	52,780,449
Weighted-average number of common shares—diluted	74,373,169	64,771,491	52,780,449
Basic earnings per common share	$ 1.13	$ 1.25	$ 0.75
Diluted earnings per common share	$ 1.10	$ 1.24	$ 0.75
Securities being allocated a portion of earnings:			
Weighted-average number of OP units	309,465	279,135	281,106
Participating securities:			
Unvested restricted common stock and unvested LTIP Units with time-based vesting conditions outstanding at period end	652,859	951,552	1,386,756
Potentially dilutive securities as of period end:			
Unvested restricted common stock and unvested LTIP Units with time-based vesting conditions	652,859	951,552	1,386,756
Restricted stock units	235,600	435,578	393,148
LTIP Units with market-based vesting conditions	312,704	180,500	—
Potential shares of common stock related to convertible notes	8,487,800	5,510,499	5,506,605

13. Equity Method Investments

We have non-controlling unconsolidated equity investments in renewable energy and energy efficiency projects as well as in a joint venture that owns land with long-term triple net lease agreements to several solar projects. During the years ended December 31, 2020, 2019, and 2018 we recognized income (loss) of $48 million, $64 million, and $22 million respectively, from our equity method investments. We describe our accounting for the non-controlling equity investments in Note 2.

The following is a summary of the consolidated financial position and results of operations of the significant entities accounted for using the equity method.

in millions	SunStrong Capital Holdings, LLC	Jupiter Equity Holdings, LLC	Other Investments[1]	Total
Balance Sheet				
As of September 30, 2020				
Current assets	$ 94	$ 88	$ 233	$ 415
Total assets	1,472	2,689	4,992	9,153
Current liabilities	48	229	647	924
Total liabilities	1,179	340	2,225	3,744
Members' equity	293	2,349	2,767	5,409
As of December 31, 2019				
Current assets	99	289	254	642
Total assets	1,335	1,892	3,270	6,497
Current liabilities	54	209	230	493
Total liabilities	1,010	270	975	2,255
Members' equity	325	1,622	2,295	4,242
Income Statement				
For the nine months ended September 30, 2020				
Revenue	94	19	275	388
Income from continuing operations	(9)	(36)	(84)	(129)
Net income	(9)	(36)	(84)	(129)
For the year ended December 31, 2019				
Revenue	102	—	155	257
Income from continuing operations	(16)	34	(73)	(55)
Net income	(16)	34	(73)	(55)
For the year ended December 31, 2018				
Revenue	—	—	176	176
Income from continuing operations	—	—	(42)	(42)
Net income	—	—	(42)	(42)

(1) Represents aggregated financial statement information for investments not separately presented.

14. Defined Contribution Plan

We administer a 401(k) savings plan, a defined contribution plan covering substantially all of our employees. Employees in the plan may contribute up to the maximum annual IRS limit before taxes via payroll deduction. Under the plan, we provide a dollar for dollar match for the first 4% of the employee's contributions and a $0.50 per dollar match for the next 2% of employee contributions. We contributed less than $1 million under the plan for the years ended December 31, 2020, 2019, and 2018, respectively.

15. Selected Quarterly Financial Data (Unaudited)

The following table summarizes our quarterly financial data which, in the opinion of management, reflects all adjustments, consisting only of normal recurring adjustments, necessary for a fair presentation of our results of operations (Amounts for the individual quarters when aggregated may not agree to the full year due to rounding):

	For the Three-Months Ended			
(in millions, except for per share data)	March 31, 2020	June 30, 2020	Sept. 30, 2020	Dec. 31, 2020
Total revenue	$ 40,834	$ 48,595	$ 48,589	$ 48,889
Total expenses	31,089	37,354	41,474	44,973
Income before equity method investments	9,745	11,241	7,115	3,916
Income (loss) from equity method investments	16,588	(589)	16,507	15,457
Income (loss) before income taxes	26,333	10,652	23,622	19,373
Income tax (expense) benefit	(1,923)	1,407	(2,345)	5,640
NET INCOME (LOSS)	**24,410**	**12,059**	**21,277**	**25,013**
Net income (loss) attributable to controlling stockholders	$ 24,308	$ 12,008	$ 21,175	$ 24,925
Basic earnings (loss) per common share	$ 0.36	$ 0.16	$ 0.28	$ 0.33
Diluted earnings (loss) per common share	0.35	0.16	0.28	0.32

	For the Three-Months Ended			
(in millions, except for per share data)	March 31, 2019	June 30, 2019	Sept. 30, 2019	Dec. 31, 2019
Total revenue	$ 33,143	$ 31,268	$ 38,842	$ 38,328
Total expenses	26,211	25,258	35,518	28,751
Income before equity method investments	6,932	6,010	3,324	9,577
Income (loss) from equity method investments	4,506	7,624	5,984	46,060
Income (loss) before income taxes	11,438	13,634	9,308	55,637
Income tax (expense) benefit	2,270	(839)	(132)	(9,396)
NET INCOME (LOSS)	**13,708**	**12,795**	**9,176**	**46,241**
Net income (loss) attributable to controlling stockholders	$ 13,646	$ 12,740	$ 9,102	$ 46,076
Basic earnings (loss) per common share	$ 0.22	$ 0.20	$ 0.14	$ 0.70
Diluted earnings (loss) per common share	0.21	0.19	0.13	0.66

SCHEDULE II - VALUATION AND QUALIFYING ACCOUNTS
ALLOWANCE FOR CREDIT LOSSES

	For the year ended December 31,		
(in thousands)	2020	2019	2018
Balance at beginning of period	**$ 8,027**	$ —	$ —
Charged to provision	27,730	8,027	—
Loan charge-offs	—	—	—
Balance at end of period	**$ 35,757**	$ 8,027	$ —

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

ITEM 9A. CONTROLS AND PROCEDURES

A review and evaluation was performed by our management, including our chief executive officer and chief financial officer, of the effectiveness of the design and operation of our disclosure controls and procedures (as such term is defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act), as of the end of the period covered by this Form 10-K. Based on that review and evaluation, the chief executive officer and chief financial officer have concluded that our current disclosure controls and procedures, as designed and implemented, were effective. Notwithstanding the foregoing, a control system, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that it will detect or uncover failures within our company to disclose material information otherwise required to be set forth in our periodic reports.

Management's Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting. Internal control over financial reporting is defined in Rules 13a-15(f) and 15d-15(f) promulgated under the Exchange Act as a process designed by, or under the supervision of, our principal executive and principal financial officers and effected by our board of directors, management and other personnel to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with U.S. GAAP and includes those policies and procedures that:

- pertain to the maintenance of records that in reasonable detail accurately and fairly reflect the transactions and dispositions of the assets of our company;
- provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with U.S. GAAP, and that our receipts and expenditures are being made only in accordance with authorizations of our management and directors; and
- provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Projections of any evaluation of effectiveness to future periods are subject to the risks that controls may become inadequate because of changes in conditions or that the degree of compliance with the policies or procedures may deteriorate.

Our management assessed the effectiveness of our internal control over financial reporting as of December 31, 2020. In making this assessment, our management used criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission in Internal Control-Integrated Framework (2013 Framework).

Based on this assessment, our management believes that, as of December 31, 2020, our internal control over financial reporting was effective based on those criteria.

Changes in Internal Control Over Financial Reporting

There have been no changes in our internal control over financial reporting that occurred during the quarter ended December 31, 2020 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Our company's independent registered public accounting firm, Ernst & Young LLP, has issued an attestation report on the effectiveness of our company's internal control over financial reporting. This report appears on page 84 of this annual report on Form 10-K.

ITEM 9B. OTHER INFORMATION

None.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The information regarding our directors, executive officers and certain other matters required by Item 401 of Regulation S-K is incorporated herein by reference to our definitive proxy statement relating to our annual meeting of stockholders (the "Proxy Statement"), to be filed with the SEC within 120 days after December 31, 2020.

The information regarding compliance with Section 16(a) of the Exchange Act required by Item 405 of Regulation S-K is incorporated herein by reference to the Proxy Statement to be filed with the SEC within 120 days after December 31, 2020.

The information regarding our Code of Business Conduct and Ethics required by Item 406 of Regulation S-K is incorporated herein by reference to the Proxy Statement to be filed with the SEC within 120 days after December 31, 2020.

The information regarding certain matters pertaining to our corporate governance required by Item 407(c)(3), (d)(4) and (d)(5) of Regulation S-K is incorporated by reference to the Proxy Statement to be filed with the SEC within 120 days after December 31, 2020.

ITEM 11. EXECUTIVE COMPENSATION

The information regarding executive compensation and other compensation related matters required by Items 402 and 407(e)(4) and (e)(5) of Regulation S-K is incorporated herein by reference to the Proxy Statement to be filed with the SEC within 120 days after December 31, 2020.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The tables on beneficial ownership of our Company required by Item 403 of Regulation S-K are incorporated herein by reference to the Proxy Statement to be filed with the SEC within 120 days after December 31, 2020.

Securities Authorized For Issuance Under Equity Compensation Plans

In 2013, we adopted the 2013 Plan to provide equity based incentive compensation to members of our senior management team, our independent directors, advisers, consultants and other personnel. The 2013 Plan authorizes our compensation committee to grant stock options, shares of restricted common stock, restricted stock units, phantom shares, dividend equivalent rights, LTIP units and other restricted limited partnership units issued by our Operating Partnership and other equity-based awards up to an aggregate of 7.5% of the shares of common stock issued and outstanding from time to time on a fully diluted basis (assuming, if applicable, the exercise of all outstanding options and the conversion of all warrants and convertible securities, including OP units and LTIP units, into shares of common stock).

As of December 31, 2020, we have approximately 1.7 million shares of our restricted common stock, LTIP Units, and restricted common stock units outstanding (assuming that the restricted stock units vest at 200%), which are subject to vesting and, in some cases, performance requirements, to our directors, officers and other employees.

The following table presents certain information about our equity compensation plan as of December 31, 2020:

Award	Number of securities remaining available for future issuance under equity compensation plans[(1)]
Equity compensation plans approved by stockholders	2,603,387
Equity compensation plans not approved by stockholders	—
TOTAL	**2,603,387**

(1) The 2013 Plan provides for grants of equity awards up to, in the aggregate, the equivalent of 7.5% of the issued and outstanding shares of our common stock from time to time (on a fully diluted basis (assuming, if applicable, the exercise of all outstanding options and the conversion of all warrants and convertible securities into shares of common stock and assuming performance based LTIP units vest at 200%)) at the time of the award. As of December 31, 2020, we did not have outstanding under our equity compensation plan, any options, warrants or rights to purchase shares of our common stock.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS AND DIRECTOR INDEPENDENCE

The information regarding transactions with related persons, promoters and certain control persons and director independence required by Items 404 and 407(a) of Regulation S-K is incorporated herein by reference to the Proxy Statement to be filed with the SEC within 120 days after December 31, 2020.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

The information concerning principal accounting fees and services and the Audit Committee's pre-approval policies and procedures required by Item 14 is incorporated herein by reference to the Proxy Statement to be filed with the SEC within 120 days after December 31, 2020.

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

Documents filed as part of the report

The following documents are filed as part of this Form 10-K in Part II, Item 8 and are incorporated by reference:

(a)(1) Financial Statements:

See index in Item 8—"Financial Statements and Supplementary Data," filed herewith for a list of financial statements.

(a)(2) 2. Financial Statement Schedules:

See index in Item 8—"Financial Statements and Supplementary Data," filed herewith for Schedule II – Valuation and Qualifying Accounts filed in response to this Item.

(3) Exhibits Files:

Exhibit number	Exhibit description
3.1	Articles of Amendment and Restatement of Hannon Armstrong Sustainable Infrastructure Capital, Inc. (incorporated by reference to Exhibit 3.1 to the Registrant's Form 10-Q for the quarter ended June 30, 2013 (No. 001-35877), filed on August 9, 2013)
3.2	Bylaws of Hannon Armstrong Sustainable Infrastructure Capital, Inc. (incorporated by reference to Exhibit 3.2 to the Registrant's Form 10-Q for the quarter ended June 30, 2013 (No. 001-35877), filed on August 9, 2013)
3.3	Amended and Restated Agreement of Limited Partnership of Hannon Armstrong Sustainable Infrastructure, L.P. (incorporated by reference to Exhibit 3.3 to the Registrant's Form 10-Q for the quarter ended June 30, 2013 (No. 001-35877), filed on August 9, 2013)
4.1	Specimen Common Stock Certificate of Hannon Armstrong Sustainable Infrastructure Capital, Inc. (incorporated by reference to Exhibit 4.1 to Amendment No. 3 to the Registrant's Form S-11 (No. 333-186711), filed on April 12, 2013)
4.2	Description of Hannon Armstrong Sustainable Infrastructure Capital, Inc.'s Securities Registered Pursuant to Section 12 of the Securities Exchange Act of 1934
4.3	Indenture, dated as of August 22, 2017, between Hannon Armstrong Sustainable Infrastructure Capital, Inc. and U.S. Bank National Association, as Trustee (incorporated by reference to Exhibit 4.1 to the Registrant's Form 8-K (No. 001-35877), filed on August 22, 2017)
4.4	First Supplemental Indenture, dated as of August 22, 2017, between Hannon Armstrong Sustainable Infrastructure Capital, Inc. and U.S. Bank National Association, as Trustee (including the form of 4.125% Convertible Senior Note due 2022) (incorporated by reference to Exhibit 4.2 to the Registrant's Form 8-K (No. 001-35877), filed on August 22, 2017)
4.5	Indenture, dated as of July 2, 2019 between HAT Holdings I LLC and HAT Holdings II LLC, as issuers, and Hannon Armstrong Sustainable Infrastructure capital, Inc., Hannon Armstrong Sustainable Infrastructure, LP., and Hannon Armstrong Capital, LLC, as guarantors, and U.S. Bank National Association, as trustee (including the form of HAT Holdings I LLC and HAT Holdings II LLC's 5.25% Senior Notes due 2024) (incorporated by reference to Exhibit 4.1 to the Registrant's Form 8-K (No. 001-35877), filed on July 2, 2019)
4.6	Indenture, dated as of April 21, 2020, between HAT Holdings I LLC and HAT Holdings II LLC, as issuers, and Hannon Armstrong Sustainable Infrastructure Capital, Inc., Hannon Armstrong Sustainable Infrastructure, L.P., and Hannon Armstrong Capital, LLC, as guarantors, and U.S. Bank National Association, as trustee (including the form of HAT Holdings I LLC and HAT Holdings II LLC's 6.00% Senior Notes due 2025) (incorporated by reference to Exhibit 4.1 on the Registrant's Form 8-K (No. 001-35877), filed on April 21, 2020)
4.7	Second Supplemental Indenture, dated as of August 21, 2020, between Hannon Armstrong Sustainable Infrastructure Capital, Inc. and U.S. Bank National Association, as Trustee (including the form of Hannon Armstrong Sustainable Infrastructure Capital, Inc.'s 0% Convertible Senior Note due 2023) (incorporated by reference to Exhibit 4.1 to the Registrant's Form 8-K (No. 001-35877), filed on August 21, 2020).

Exhibit number	Exhibit description
4.8	Indenture, dated as of August 25, 2020, between HAT Holdings I LLC and HAT Holdings II LLC, as issuers, and Hannon Armstrong Sustainable Infrastructure Capital, Inc., Hannon Armstrong Sustainable Infrastructure, L.P., and Hannon Armstrong Capital, LLC, as guarantors, and U.S. Bank National Association, as trustee (including the form of HAT Holdings I LLC and HAT Holdings II LLC's 3.750% Senior Notes due 2030) (incorporated by reference to Exhibit 4.1 on the Registrant's Form 8-K (No. 011-35877), filed on August 25, 2020).
10.1	Form of Indemnification Agreement (incorporated by reference to Exhibit 10.5 to Amendment No. 3 to the Registrant's Form S-11 (No. 333-186711), filed on April 12, 2013)
10.2	Amended and Restated 2013 Hannon Armstrong Sustainable Infrastructure Capital, Inc. Equity Incentive Plan (incorporated by reference to Exhibit 10.1 to the Registrant's Form 10-Q for the quarter ended March 31, 2017 (No. 001-35877), filed on May 4, 2017)
10.3	Restricted Stock Award Agreement dated April 23, 2013 between Hannon Armstrong Sustainable Infrastructure Capital, Inc. and Jeffrey W. Eckel (incorporated by reference to Exhibit 10.2 to the Registrant's Form 10-Q for the quarter ended June 30, 2013 (No. 001-35877), filed on August 9, 2013)
10.4	Form of Restricted Stock Award Agreement (Executive Officers) (incorporated by reference to Exhibit 10.3 to the Registrant's Form 10-Q for the quarter ended June 30, 2013 (No. 001-35877), filed on August 9, 2013)
10.5	Form of Restricted Stock Award Agreement (Non-employee Directors) (incorporated by reference to Exhibit 10.4 to the Registrant's Form 10-Q for the quarter ended June 30, 2013 (No. 001-35877), filed on August 9, 2013)
10.6	Amended and Restated Form of Restricted Stock Unit Award Agreement (incorporated by reference to Exhibit 10.2 to the Registrant's Form 10-Q for the quarter ended March, 31 2017 (No. 001-35877), filed on May 4, 2017)
10.7	Registration Rights Agreement, dated April 23, 2013, by and among Hannon Armstrong Sustainable Infrastructure Capital, Inc. and the parties listed on Schedule I thereto (incorporated by reference to Exhibit 10.6 to the Registrant's Form 10-Q for the quarter ended June 30, 2013 (No. 001-35877), filed on August 9, 2013)
10.8	Employment Agreement, dated April 17, 2013, by and between Hannon Armstrong Sustainable Infrastructure Capital, Inc. and Jeffrey Eckel (incorporated by reference to Exhibit 10.7 to the Registrant's Form 10-Q for the quarter ended June 30, 2013 (No. 001-35877), filed on August 9, 2013)
10.9	Employment Agreement, dated April 17, 2013, by and between Hannon Armstrong Sustainable Infrastructure Capital, Inc. and J. Brendan Herron, Jr. (incorporated by reference to Exhibit 10.8 to the Registrant's Form 10-Q for the quarter ended June 30, 2013 (No. 001-35877), filed on August 9, 2013)
10.10	Employment Agreement, dated April 17, 2013, by and between Hannon Armstrong Sustainable Infrastructure Capital, Inc. and Steven L. Chuslo (incorporated by reference to Exhibit 10.9 to the Registrant's Form 10-Q for the quarter ended June 30, 2013 (No. 001-35877), filed on August 9, 2013)
10.11	Employment Agreement, dated April 17, 2013, by and between Hannon Armstrong Sustainable Infrastructure Capital, Inc. and Nathaniel J. Rose (incorporated by reference to Exhibit 10.10 to the Registrant's Form 10-Q for the quarter ended June 30, 2013 (No. 001-35877), filed on August 9, 2013)
10.12	Employment Agreement, dated April 17, 2013, by and between Hannon Armstrong Sustainable Infrastructure Capital, Inc. and Daniel McMahon (incorporated by reference to Exhibit 10.3 to the Registrant's Form 10-Q for the quarter ended June 30, 2015 (No. 001-35877), filed on August 7, 2015)
10.13	Indemnity Agreement, dated as of September 30, 2015, by Hannon Armstrong Sustainable Infrastructure Capital, Inc. in favor of the Bank of New York Mellon (incorporated by reference to Exhibit 10.7 to the Registrant's Form 10-Q for the quarter ended September 30, 2015 (No. 001-35877), filed on November 5, 2015)
10.14	Employment Agreement, dated March 15, 2017, by and between Hannon Armstrong Sustainable Infrastructure Capital, Inc. and Charles Melko (incorporated by reference to Exhibit 10.3 to the Registrant's Form 10-Q for the quarter ended March 31, 2017 (No. 001-35877), filed on May 4, 2017)
10.15	Form of Amended and Restated Restricted Stock Unit Agreement (incorporated by reference to Exhibit 10.57 to the Registrant's Form 10-K (No. 001-35877) for the year ended December, 31, 2017, filed on February 23, 2018)
10.16	Loan Agreement (Rep-Based), dated as of December 13, 2018 by and among certain subsidiaries of the Company, Bank of America, N.A., as administrative agent, and each lender from time to time party thereto (incorporated by reference to Exhibit 10.26 on the Registrant's Form 10-K (No. 001-35877) for the year ended December 31, 2018, filed on February 22, 2019)
10.17	Loan Agreement (Approval-Based), data as of December 13, 2018, by and among certain subsidiaries of the Company, Bank of America, N.A., as administrative agent, and each lender from time to time party thereto (incorporated by reference to Exhibit 10.27 on the Registrant's Form 10-K (No. 001-35877) for the year ended December 31, 2018, filed on February 22, 2019)
10.18	Limited Guaranty (Rep-Based), dated as of December 13, 2018, by the Company and Hannon Armstrong Capital, LLC (incorporated by reference to Exhibit 10.28 on the Registrant's Form 10-K (No. 001-35877) for the year ended December 31, 2018, filed on February 22, 2019)

Exhibit number	Exhibit description
10.19	Guaranty (Approval-Based), dated as of December 13, 2018, by the Company and Hannon Armstrong Capital, LLC (incorporated by reference to Exhibit 10.29 on the Registrant's Form 10-K (No. 001-35877) for the year ended December 31, 2018, filed on February 22, 2019)
10.20	Form of LTIP Unit Vesting Agreement under the 2013 Hannon Armstrong Sustainable Infrastructure Capital, Inc. Equity Incentive Plan (incorporated by reference to Exhibit 10.2 to the Registrant's Form 10-Q for the quarter ended March 31, 2019 (No. 001-35877), filed on May 3, 2019)
10.21	Form of Hannon Armstrong Sustainable Infrastructure, L.P. Time-Based LTIP Unit Award Agreement (incorporated by reference to Exhibit 10.3 to the Registrant's Form 10-Q for the quarter ended March 31, 2019 (No. 001-35877), filed on May 3, 2019)
10.22	Form of Hannon Armstrong Sustainable Infrastructure, L.P. Performance-Based LTIP Unit Award Agreement (incorporated by reference to Exhibit 10.4 to the Registrant's Form 10-Q for the quarter ended March 31, 2019 (No. 001-35877), filed on May 3, 2019)
10.23	Amended and Restated Employment Agreement, dated April 13, 2020, by and between Hannon Armstrong Sustainable Infrastructure Capital, Inc. and Jeffrey A. Lipson (incorporated by reference to Exhibit 10.1 to the Registrant's Form 10-Q for the quarter ended March 31, 2020 (No. 001-35877), filed on May 11, 2020)
10.24	At Market Issuance Sales Agreement, dated May 13, 2020, by and between Hannon Armstrong Sustainable Infrastructure Capital, Inc., B. Riley FBR, Inc., Robert W. Baird & Co. Incorporated, BofA Securities, Inc., Loop Capital Markets LLC, SMBC Nikko Securities America, Inc. and Nomura Securities International, Inc. (incorporated by reference to Exhibit 1.1 to the Registrant's Form 8-K (No. 001-35877), filed on May 13, 2020)
21.1*	List of subsidiaries of Hannon Armstrong Sustainable Infrastructure Capital, Inc.
23.1*	Consent of Ernst & Young LLP for Hannon Armstrong Sustainable Infrastructure Capital, Inc.
24.1*	Power of Attorney (included on signature page)
31.1*	Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes—Oxley Act of 2002
31.2*	Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
32.1**	Certification of Chief Executive Officer pursuant to section 18 U.S.C. Section 1350 as adopted pursuant to Section 906 of the Sarbanes—Oxley Act of 2002
32.2**	Certification of Chief Financial Officer pursuant to section 18 U.S.C. Section 1350 as adopted pursuant to Section 906 of the Sarbanes—Oxley Act of 2002
101.SCH*	Inline XBRL Taxonomy Extension Schema
101.CAL*	Inline XBRL Taxonomy Extension Calculation Linkbase
101.DEF*	Inline XBRL Taxonomy Extension Definition Linkbase
101.LAB*	Inline XBRL Taxonomy Extension Label Linkbase
101 PRE*	Inline XBRL Taxonomy Extension Presentation Linkbase
104	Cover Page Interactive Data File Included as Exhibit 101 (embedded within the Inline XBRL document)

* Filed herewith.
** Furnished with this report.

ITEM 16. FORM 10-K SUMMARY

None.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

HANNON ARMSTRONG SUSTAINABLE INFRASTRUCTURE CAPITAL, INC.
(Registrant)

Date: February 22, 2021

/s/ Jeffrey W. Eckel
Jeffrey W. Eckel
Chairman, Chief Executive Officer and President

/s/ Jeffrey A. Lipson
Jeffrey A. Lipson
Chief Financial Officer, Chief Operating Officer, and Executive Vice President

/s/ Charles W. Melko
Charles W. Melko
Chief Accounting Officer, Treasurer and Senior Vice President

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Jeffrey W. Eckel, Jeffrey A. Lipson and Charles W. Melko, and each of them, with full power to act without the other, such person's true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign this Form 10-K and any and all amendments thereto, and to file the same, with exhibits and schedules thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing necessary or desirable to be done in and about the premises, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or any of them, or their or his or her substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, as amended, this report has been signed below by the following persons on behalf of the Registrant and in the capacities and on the dates indicated.

Signatures	Title	
By: /s/ Jeffrey W. Eckel Jeffrey W. Eckel	Chairman of the Board, President and Chief Executive Officer (Principal Executive Officer)	February 22, 2021
By: /s/ Jeffrey A. Lipson Jeffrey A. Lipson	Chief Financial Officer, Chief Operating Officer and Executive Vice President (Principal Financial Officer)	February 22, 2021
By: /s/ Charles W. Melko Charles W. Melko	Chief Accounting Officer, Treasurer and Senior Vice President (Principal Accounting Officer)	February 22, 2021
By: /s/ Teresa M. Brenner Teresa M. Brenner		February 22, 2021
By: /s/ Michael T. Eckhart Michael T. Eckhart		February 22, 2021
By: /s/ Simone F. Lagomarsino Simone F. Lagomarsino		February 22, 2021
By: /s/ Charles M. O'Neil Charles M. O'Neil		February 22, 2021
By: /s/ Richard J. Osborne Richard J. Osborne		February 22, 2021
By: /s/ Steven G. Osgood Steven G. Osgood		February 22, 2021

EXHIBIT 21.1
SUBSIDIARIES OF THE REGISTRANT

Subsidiary	Jurisdiction
Cobalt Upwind Holdings LLC	Delaware
HA AllStrong LLC	Delaware
HA Antelope DSR 3 LLC	Delaware
HA Athena Capital Holdings LLC	Delaware
HA Buckeye Holdings LLC	Delaware
HA Coy Hill Road LLC	Delaware
HA Clover Creek LLC	Delaware
HA CLP Funding LLC	Delaware
HA C-PACE 2019-1 Issuer LLC	Delaware
HA C-PACE SAC LLC	Delaware
HA Daggett Lender LLC	Delaware
HA Daybreak Holdings LLC	Delaware
HA Driving Range A LLC	Delaware
HA Driving Range C LLC	Delaware
HA EECI Lender LLC	Delaware
HA EECI LLC	Delaware
HA EMaaS Lender LLC	Delaware
HA FMAC Holdings LLC	Delaware
HA FMAC K102 LLC	Delaware
HA FMAC KG02 LLC	Delaware
HA FMAC KG03 LLC	Delaware
HA Galileo LLC	Delaware
HA Galileo 2 LLC	Delaware
HA Hawkeye LLC	Delaware
HA Helix LLC	Delaware
HA INV Buckeye LLC	Delaware
HA INV Gunsight LLC	Delaware
HA Juniper LLC	Delaware
HA Juniper II LLC	Maryland
HA Jupiter LLC	Delaware
HA Land Financing Depositor LLC	Delaware
HA Land Financing Issuer LLC	Delaware
HA Land Financing Issuer 2 LLC	Delaware
HA Land Financing Member 2 LLC	Delaware
HA Land Lease I LLC	Delaware
HA Land Lease II LLC	Delaware
HA Land Lease Holdings LLC	Delaware
HA Land Lease Holdings II LLC	Delaware

Subsidiary	Jurisdiction
HA Lighthouse LLC	Delaware
HA MHPI Funding LLC	Delaware
HA P3 Holdings	Maryland
HA PACE Origination LLC	Delaware
HA PACE Warehouse LLC	Delaware
HA PanelCo Lender LLC	Delaware
HA San Pablo Raceway LLC	Delaware
HA Skipjack LLC	Delaware
HA Spencer Road LLC	Delaware
HA SRC Holdings LLC	Delaware
HA SRC Lender LLC	Delaware
HA Sun Streams LLC	Delaware
HA Sunrise LLC	Delaware
HA SunStrong Capital LLC	Delaware
HA Thrive LLC	Delaware
HA Thrive 2 LL	Delaware
HA Virginia Land LLC	Delaware
HA Wetlands LLC	Maryland
HA WG Funding LLC	Maryland
HA Wildcat LLC	Delaware
HA Wind I LLC	Delaware
HA Wind II LLC	Delaware
Hannie Mae Goco LLC	Maryland
Hannie Mae II LLC	Maryland
Hannie Mae IV LLC	Maryland
Hannie Mae V LLC	Maryland
Hannie Mae XI LLC	Maryland
Hannie Mae XII LLC	Maryland
Hannie Mae XIII LLC	Maryland
Hannie Mae XIV LLC	Maryland
Hannie Mae XVII LLC	Maryland
Hannie Mae XVIII LLC	Maryland
Hannie Mae XIX LLC	Maryland
Hannie Mae LLC	Virginia
Hannie Mae SRS Funding LLC	Maryland
Hannon Armstrong Capital, LLC	Maryland
Hannon Armstrong KCS Funding LLC	Maryland
Hannon Armstrong Securities, LLC	Maryland
Hannon Armstrong Sustainable Infrastructure, L.P.	Delaware
HASI ECON 101 LLC	Delaware
HASI OBS OP A LLC	Maryland

Subsidiary	Jurisdiction
HASI SYB I LLC	Maryland
HASI SYB 2017-1 LLC	Delaware
HASI SYB Trust 2016-2 Holdings LLC	Delaware
HAT Holdings I LLC	Maryland
HAT Holdings II LLC	Maryland
HAT OBS OP A LLC	Maryland
HAT OBS OP 5 LLC	Maryland
HAT Scorpio Capital Lender LLC	Delaware
HAT Solar Sail Capital Lender LLC	Maryland
HAT SYB I LLC	Maryland
HAT SYB Trust 2016-2 Holdings LLC	Delaware
HAT Terrier Acquisition LLC	Delaware
HAT Terrier Capital Lender LLC	Maryland
HAT Ultralight Capital Lender LLC	Delaware
HAT Ultralight Capital Lender 2 LLC	Maryland
HAT V3 Capital Member LLC	Delaware
HAT V3 Capital Lender LLC	Delaware
Lannie Mae LLC	Maryland
Lannie Mae Depositor LLC	Maryland
Rhea Borrower (HASI) LLC	Delaware
Rhea Borrower (HAT I) LLC	Delaware
Rhea Borrower (HAT II) LLC	Delaware
Strong Upwind Holdings LLC	Delaware
Strong Upwind Holdings II LLC	Delaware
Strong Upwind Holdings III LLC	Delaware
Strong Upwind Residual LLC	Delaware
SunStrong Capital Lender Holdings LLC	Maryland
SunStrong Capital Lender LLC	Maryland
SunStrong Capital Lender 2 LLC	Maryland
SunStrong Capital Lender 3 LLC	Maryland
SunStrong Capital Lender 6 LLC	Maryland
Titan Borrower (HASI) LLC	Delaware
Titan Borrower (HAT I) LLC	Delaware
Titan-Rhea Holdings (HASI) LLC	Delaware
Titan-Rhea Holdings (HAT I) LLC	Delaware
Titan-Rhea Holdings (HAT II) LLC	Delaware

Exh. 21.1-1

Exhibit 23.1
Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the following Registration Statements:

(1) Registration Statement (Form S-3 No. 333-198158) of Hannon Armstrong Sustainable Infrastructure Capital, Inc.,

(2) Registration Statement (Form S-8 No. 333-230548) pertaining to the 2013 Hannon Armstrong Sustainable Infrastructure Capital, Inc. Equity Incentive Plan, and

(3) Registration Statement (Form S-3ASR No. 333-230546) of Hannon Armstrong Sustainable Infrastructure Capital, Inc.

of our reports dated February 22, 2021, with respect to the consolidated financial statements of Hannon Armstrong Sustainable Infrastructure Capital, Inc. and the effectiveness of internal control over financial reporting of Hannon Armstrong Sustainable Infrastructure Capital, Inc. included in this Annual Report (Form 10-K) of Hannon Armstrong Sustainable Infrastructure Capital, Inc. for the year ended December 31, 2020.

/s/ Ernst & Young LLP

Tysons, Virginia
February 22, 2021

Exh. 23.1-1

EXHIBIT 31.1
CERTIFICATIONS

I, Jeffrey W. Eckel, certify that:

1. I have reviewed this Annual Report on Form 10-K of Hannon Armstrong Sustainable Infrastructure Capital, Inc. (the "registrant");
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a–15(e) and 15d–15(e)) and internal controls over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
   a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
   b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
   c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
   d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an Annual Report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the Audit Committee of the registrant's board of directors (or persons performing the equivalent functions):
   a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
   b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 22, 2021

By: /s/ Jeffrey W. Eckel
Name: Jeffrey W. Eckel
Title: Chief Executive Officer and President

Exh. 31.1-1

EXHIBIT 31.2
CERTIFICATIONS

I, Jeffrey A. Lipson, certify that:

1. I have reviewed this Annual Report on Form 10-K of Hannon Armstrong Sustainable Infrastructure Capital, Inc. (the "registrant");
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a–15(e) and 15d–15(e)) and internal controls over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
    a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
    b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
    c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
    d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an Annual Report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the Audit Committee of the registrant's board of directors (or persons performing the equivalent functions):
    a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
    b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 22, 2021

By: /s/ Jeffrey A. Lipson
Name: Jeffrey A. Lipson
Title: Chief Financial Officer, Chief Operating Officer and Executive Vice President

Exh. 31.2-1

EXHIBIT 32.1
CERTIFICATION PURSUANT TO SECTION 906
OF THE SARBANES-OXLEY ACT OF 2002, 10 U.S.C. SECTION 1350

In connection with the Annual Report on Form 10-K of Hannon Armstrong Sustainable Infrastructure Capital, Inc. (the "Company") for the period ended December 31, 2020 to be filed with the Securities and Exchange Commission on or about the date hereof (the "report"), I, Jeffrey W. Eckel, Chief Executive Officer and President of the Company, certify, pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, 18 U.S.C. Section 1350, that:

1. The report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
2. The information contained in the report fairly presents, in all material respects, the financial condition and results of operations of the Company.

It is not intended that this statement be deemed to be filed for purposes of the Securities Exchange Act of 1934.

Date: February 22, 2021

By: /s/ Jeffrey W. Eckel
Name: Jeffrey W. Eckel
Title: Chief Executive Officer and President

Exh. 32.1-1

EXHIBIT 32.2
CERTIFICATION PURSUANT TO SECTION 906
OF THE SARBANES-OXLEY ACT OF 2002, 10 U.S.C. SECTION 1350

In connection with the Annual Report on Form 10-K of Hannon Armstrong Sustainable Infrastructure Capital, Inc. (the "Company") for the period ended December 31, 2020 to be filed with the Securities and Exchange Commission on or about the date hereof (the "report"), I, Jeffrey A. Lipson, Chief Financial Officer, Chief Operating Officer and Executive Vice President of the Company, certify, pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, 18 U.S.C. Section 1350, that:

1. The report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
2. The information contained in the report fairly presents, in all material respects, the financial condition and results of operations of the Company.

It is not intended that this statement be deemed to be filed for purposes of the Securities Exchange Act of 1934.

Date: February 22, 2021

By: /s/ Jeffrey A. Lipson

Name: Jeffrey A. Lipson

Title: Chief Financial Officer, Chief Operating Officer and Executive Vice President

Exh. 32.2-1

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Designed & published by labrador-company.com

INVESTING IN CLIMATE SOLUTIONS®

HASI
LISTED
NYSE

HANNON ARMSTRONG

1906 Towne Centre Blvd.
Suite 370
Annapolis, MD 21401