UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549

FORM 10-Q

☒ **QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the quarterly period ended September 30, 2023

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 **(State or other jurisdiction of incorporation or organization)**	**46-1347456** **(I.R.S. Employer Identification No.)**
One Park Place Suite 200 **Annapolis, Maryland** **(Address of principal executive offices)**	**21401** **(Zip code)**

(410) 571-9860

(Registrant’s telephone number, including area code)

N/A

(Former name, former address and former fiscal year, if changed since last report)

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

Indicate by check mark 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. Yes ☒ No ☐

Indicate by check mark 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). Yes ☒ No ☐

Indicate by check mark 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. ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

Indicate the number of shares outstanding of each of the issuer's classes of common stock as of the latest practicable date: 111,295,277 shares of common stock, par value $0.01 per share, outstanding as of October 30, 2023 (which includes 127,790 shares of unvested restricted common stock).

FORWARD-LOOKING STATEMENTS

We make forward-looking statements in this Quarterly Report on Form 10-Q ("Form 10-Q") 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. However, the absence of these words or similar expressions does not mean that a statement is not forward-looking. All statements that address operating performance, events or developments that we expect or anticipate will occur in the future are 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. Accordingly, any such statements are qualified in their entirety by reference to, and are accompanied by, important factors included in Part I, Item 1A. Risk Factors contained in our Annual Report on Form 10-K for the year ended December 31, 2022, as amended by Amendment No. 1 to our Annual Report on Form 10-K for the year ended December 31, 2022 (collectively, our "2022 Form 10-K") (in addition to any assumptions and other factors referred to specifically in connection with such forward-looking statements) that could have a significant impact on our operations and financial results, and could cause our actual results to differ materially from those contained or implied in forward-looking statements made by us or on our behalf in this Form 10-Q, in presentations, on our websites, in response to questions or otherwise.

Any forward-looking statement speaks only as of the date on which such statement is made, and we undertake no obligation to update any forward-looking statement to reflect events or circumstances, including, but not limited to, unanticipated events, after the date on which such statement is made, unless otherwise required by law. New factors emerge from time to time and it is not possible for management to predict all of such factors, nor can it assess the impact of each such factor on the business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained or implied in any forward-looking statement.

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PART I. FINANCIAL INFORMATION

Item 1. Financial Statements

HANNON ARMSTRONG SUSTAINABLE INFRASTRUCTURE CAPITAL, INC.

CONDENSED CONSOLIDATED BALANCE SHEETS

(DOLLARS IN THOUSANDS, EXCEPT PER SHARE DATA)

(UNAUDITED)

	September 30, 2023 (unaudited)	December 31, 2022
Assets		
Cash and cash equivalents	$ 155,500	$ 155,714
Equity method investments	2,563,948	1,869,712
Commercial receivables, net of allowance of $51 million and $41 million, respectively	2,705,976	1,887,483
Government receivables	93,364	102,511
Receivables held-for-sale	16,660	85,254
Real estate	111,249	353,000
Investments	9,370	10,200
Securitization assets, net of allowance of $3 million and $0, respectively	182,824	177,032
Other assets	69,253	119,242
Total Assets	**$ 5,908,144**	**$ 4,760,148**
Liabilities and Stockholders' Equity		
Liabilities:		
Accounts payable, accrued expenses and other	$ 150,584	$ 120,114
Credit facilities	486,724	50,698
Commercial paper notes	49,974	192
Term loans payable	567,244	379,742
Non-recourse debt (secured by assets of $245 million and $632 million, respectively)	167,622	432,756
Senior unsecured notes	1,782,197	1,767,647
Convertible notes	603,905	344,253
Total Liabilities	3,808,250	3,095,402
Stockholders' Equity:		
Preferred stock, par value $0.01 per share, 50,000,000 shares authorized, no shares issued and outstanding	—	—
Common stock, par value $0.01 per share, 450,000,000 shares authorized, 111,167,157 and 90,837,008 shares issued and outstanding, respectively	1,112	908
Additional paid-in capital	2,353,453	1,924,200
Accumulated deficit	(348,929)	(285,474)
Accumulated other comprehensive income (loss)	47,264	(10,397)
Non-controlling interest	46,994	35,509
Total Stockholders' Equity	2,099,894	1,664,746
Total Liabilities and Stockholders' Equity	**$ 5,908,144**	**$ 4,760,148**

See accompanying notes.

HANNON ARMSTRONG SUSTAINABLE INFRASTRUCTURE CAPITAL, INC.

CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS

(DOLLARS IN THOUSANDS, EXCEPT PER SHARE DATA)

(UNAUDITED)

	For the Three Months Ended September 30,		For the Nine Months Ended September 30,	
	2023	2022	2023	2022
Revenue				
Interest income	$ 54,295	$ 34,303	$ 145,624	$ 97,904
Rental income	6,039	6,609	19,013	19,716
Gain on sale of assets	22,405	14,490	52,915	51,252
Securitization asset income	5,620	4,403	13,381	9,943
Other income	1,492	345	2,353	2,614
Total revenue	**89,851**	**60,150**	**233,286**	**181,429**
Expenses				
Interest expense	43,295	29,556	120,413	85,035
Provision (benefit) for loss on receivables and securitization assets	9,792	(2,463)	12,481	6,222
Compensation and benefits	16,296	12,933	48,527	50,108
General and administrative	6,708	8,150	24,826	22,696
Total expenses	**76,091**	**48,176**	**206,247**	**164,061**
Income before equity method investments	**13,760**	**11,974**	**27,039**	**17,368**
Income (loss) from equity method investments	2,759	30,552	27,429	58,533
Income (loss) before income taxes	**16,519**	**42,526**	**54,468**	**75,901**
Income tax (expense) benefit	5,128	(7,585)	5,299	(13,794)
Net income (loss)	**$ 21,647**	**$ 34,941**	**$ 59,767**	**$ 62,107**
Net income (loss) attributable to non-controlling interest holders	201	407	692	676
Net income (loss) attributable to controlling stockholders	**$ 21,446**	**$ 34,534**	**$ 59,075**	**$ 61,431**
Basic earnings (loss) per common share	$ 0.20	$ 0.39	$ 0.59	$ 0.70
Diluted earnings (loss) per common share	$ 0.20	$ 0.38	$ 0.59	$ 0.69
Weighted average common shares outstanding—basic	107,715,057	87,721,756	98,665,598	86,784,895
Weighted average common shares outstanding—diluted	109,145,088	90,762,820	101,142,782	89,928,741

See accompanying notes.

HANNON ARMSTRONG SUSTAINABLE INFRASTRUCTURE CAPITAL, INC.

CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

(DOLLARS IN THOUSANDS)

(UNAUDITED)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2023	2022	2023	2022
Net income (loss)	**$ 21,647**	**$ 34,941**	**$ 59,767**	**$ 62,107**
Unrealized gain (loss) on available-for-sale securities and securitization assets, net of tax benefit (provision) of $0.6 million and $0.6 million for the three and nine months ended September 30, 2023 and $0.8 million and $2.3 million for the three and nine months ended September 30, 2022	(20,614)	(12,697)	(17,046)	(56,855)
Unrealized gain (loss) on interest rate swaps, net of tax benefit (provision) of $(26.4) million and $(24.9) million for the three and nine months ended September 30, 2023 and $(6.1) million and $(9.7) million for the three and nine months ended September 30, 2022	76,597	20,109	75,481	31,910
Comprehensive income (loss)	77,630	42,353	118,202	37,162
Less: Comprehensive income (loss) attributable to non-controlling interest holders	917	456	1,465	405
Comprehensive income (loss) attributable to controlling stockholders	**$ 76,713**	**$ 41,897**	**$ 116,737**	**$ 36,757**

See accompanying notes.

HANNON ARMSTRONG SUSTAINABLE INFRASTRUCTURE CAPITAL, INC.

CONDENSED CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

(AMOUNTS IN THOUSANDS)

(UNAUDITED)

	Common Stock		Additional Paid-in Capital	Accumulated Deficit	Accumulated Other Comprehensive Income (Loss)	Non-controlling interests	Total
	Shares	Amount					
Balance at June 30, 2023	**106,769**	**$ 1,068**	**$ 2,283,257**	**$ (326,413)**	**$ (8,002)**	**$ 43,998**	**$ 1,993,908**
Net income (loss)	—	—	—	21,446	—	201	**21,647**
Unrealized gain (loss) on available-for-sale securities and securitization assets	—	—	—	—	(20,363)	(251)	**(20,614)**
Unrealized gain (loss) on interest rate swaps	—	—	—	—	75,629	968	**76,597**
Issued shares of common stock	4,394	44	107,376	—	—	—	**107,420**
Equity-based compensation	—	—	688	—	—	2,811	**3,499**
Conversion of convertible notes	—	—		—	—	—	**—**
Issuance (repurchase) of vested equity-based compensation shares	3	—	(33)	—	—	—	**(33)**
Purchase of capped calls	—	—	(37,835)	—	—	—	**(37,835)**
Dividends and distributions	—	—	—	(43,962)	—	(733)	**(44,695)**
Balance at September 30, 2023	**111,166**	**$ 1,112**	**$ 2,353,453**	**$ (348,929)**	**$ 47,264**	**$ 46,994**	**$ 2,099,894**
Balance at June 30, 2022	**87,490**	**$ 875**	**$ 1,811,889**	**$ (232,590)**	**$ (22,132)**	**$ 33,473**	**$ 1,591,515**
Net income (loss)	—	—	—	34,534	—	407	**34,941**
Unrealized gain (loss) on available-for-sale securities and securitization assets	—	—	—	—	(12,516)	(181)	**(12,697)**
Unrealized gain (loss) on interest rate swaps	—	—	—	—	19,879	230	**20,109**
Issued shares of common stock	1,346	13	49,020	—	—	—	**49,033**
Equity-based compensation	—	—	606	—	—	1,454	**2,060**
Issuance (repurchase) of vested equity-based compensation shares	3	—	(49)	—	—	—	**(49)**
Dividends and distributions	—	—	—	(33,361)	—	(525)	**(33,886)**
Balance at September 30, 2022	**88,839**	**$ 888**	**$ 1,861,466**	**$ (231,417)**	**$ (14,769)**	**$ 34,858**	**$ 1,651,026**

See accompanying notes.

	Common Stock		Additional Paid-in Capital	Accumulated Deficit	Accumulated Other Comprehensive Income (Loss)	Non-controlling interests	Total
	Shares	Amount					
Balance at December 31, 2022	**90,837**	**$ 908**	**$ 1,924,200**	**$ (285,474)**	**$ (10,397)**	**$ 35,509**	**$ 1,664,746**
Net income (loss)	—	—	—	59,075	—	692	**59,767**
Unrealized gain (loss) on available-for-sale securities and securitization assets	—	—	—	—	(16,841)	(205)	**(17,046)**
Unrealized gain (loss) on interest rate swaps	—	—	—	—	74,502	979	**75,481**
Issued shares of common stock	20,261	203	466,190	—	—	—	**466,393**
Equity-based compensation	—	—	2,363	—	—	12,614	**14,977**
Issuance (repurchase) of vested equity-based compensation shares	68	1	(1,467)	—	—	—	**(1,466)**
Conversion of Convertible Notes	—		2	—	—	—	**2**
Purchase of capped calls	—	—	(37,835)	—	—	—	**(37,835)**
Dividends and distributions	—	—	—	(122,530)	—	(2,595)	**(125,125)**
Balance at September 30, 2023	**111,166**	**$ 1,112**	**$ 2,353,453**	**$ (348,929)**	**$ 47,264**	**$ 46,994**	**$ 2,099,894**
Balance at December 31, 2021	**85,327**	**$ 853**	**$ 1,727,667**	**$ (193,706)**	**$ 9,904**	**$ 21,797**	**$ 1,566,515**
Net income (loss)	—	—	—	61,431	—	676	**62,107**
Unrealized gain (loss) on available-for-sale securities and securitization assets	—	—	—	—	(56,236)	(619)	**(56,855)**
Unrealized gain (loss) on interest rate swaps	—	—	—	—	31,563	347	**31,910**
Issued shares of common stock	3,126	31	126,796	—	—	—	**126,827**
Equity-based compensation	—	—	2,545	—	—	15,449	**17,994**
Issuance (repurchase) of vested equity-based compensation shares	103	1	(3,213)	—	—	—	**(3,212)**
Conversion of convertible notes	283	3	7,671	—	—	—	**7,674**
Dividends and distributions	—	—	—	(99,142)	—	(2,792)	**(101,934)**
Balance at September 30, 2022	**88,839**	**$ 888**	**$ 1,861,466**	**$ (231,417)**	**$ (14,769)**	**$ 34,858**	**$ 1,651,026**

See accompanying notes.

HANNON ARMSTRONG SUSTAINABLE INFRASTRUCTURE CAPITAL, INC.

CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS

(DOLLARS IN THOUSANDS)

(UNAUDITED)

	Nine Months Ended September 30,	
	2023	2022
Cash flows from operating activities		
Net income (loss)	$ 59,767	$ 62,107
Adjustments to reconcile net income (loss) to net cash provided by operating activities:		
Provision for loss on receivables	12,481	6,222
Depreciation and amortization	2,746	2,938
Amortization of financing costs	9,347	8,666
Equity-based compensation	14,977	17,994
Equity method investments	(937)	(26,340)
Non-cash gain on securitization	(34,080)	(25,201)
(Gain) loss on sale of receivables and investments	1,305	(218)
Changes in receivables held-for-sale	40,183	5,466
Changes in accounts payable and accrued expenses	8,952	28,154
Change in accrued interest on receivables and investments	(26,087)	(10,077)
Other	3,686	(5,736)
Net cash provided by (used in) operating activities	92,340	63,975
Cash flows from investing activities		
Equity method investments	(583,323)	(143,645)
Equity method investment distributions received	20,259	99,599
Proceeds from sales of equity method investments	—	1,700
Purchases of and investments in receivables	(1,016,467)	(337,517)
Principal collections from receivables	167,406	106,695
Proceeds from sales of receivables	7,634	5,047
Purchases of real estate	—	(4,550)
Purchases of investments and securitization assets	(14,404)	(2,329)
Proceeds from sales of investments and securitization assets	—	7,020
Funding of escrow accounts	—	(228)
Withdrawal from escrow accounts	—	15,156
Other	(285)	(815)
Net cash provided by (used in) investing activities	(1,419,180)	(253,867)
Cash flows from financing activities		
Proceeds from credit facilities	777,000	100,000
Principal payments on credit facilities	(342,000)	(100,000)
Proceeds from issuance of term loan	200,000	—
Principal payments on term loan	(9,575)	—
Proceeds from issuance of commercial paper notes	49,775	50,000
Principal payments on non-recourse debt	(14,714)	(22,127)
Proceeds from issuance of convertible notes	402,500	200,000
Principal payments on convertible notes	(143,748)	—
Purchase of capped calls related to the issuance of convertible notes	(37,835)	—
Net proceeds of common stock issuances	465,015	127,008
Payments of dividends and distributions	(115,087)	(98,310)
Withholdings on employee share vesting	(1,466)	(3,211)
Payment of financing costs	(13,302)	(8,203)
Receipt of hedge collateral	106,330	—
Other	(2,493)	(8,128)
Net cash provided by (used in) financing activities	1,320,400	237,029
Increase (decrease) in cash, cash equivalents, and restricted cash	(6,440)	47,137
Cash, cash equivalents, and restricted cash at beginning of period	175,972	251,073
Cash, cash equivalents, and restricted cash at end of period	**$ 169,532**	**$ 298,210**
Interest paid	$ 91,988	$ 62,594
Supplemental disclosure of non-cash activity		
Residual assets retained from securitization transactions	$ 26,020	$ 25,374
Equity method investments received upon deconsolidation of a special purpose entity	144,603	—
Issuance of common stock from conversion of Convertible Notes	—	7,674
Deconsolidation of non-recourse debt	257,746	—
Deconsolidation of assets pledged for non-recourse debt	374,608	—

See accompanying notes.

HANNON ARMSTRONG SUSTAINABLE INFRASTRUCTURE CAPITAL, INC.

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

(UNAUDITED)

September 30, 2023

1. The Company

Hannon Armstrong Sustainable Infrastructure Capital, Inc. (the "Company") actively partners with clients to deploy real assets that facilitate the energy transition. Our investments take many forms, including equity, joint ventures, land ownership, lending, and other financing transactions. We generate Net Investment Income from our portfolio, and fees through gain-on-sale securitization transactions, asset management and servicing, broker/dealer and other services. We also generate recurring income through our residual ownership in securitization and syndication structures.

The Company and its subsidiaries are hereafter referred to as "we," "us" or "our." We refer to the income producing assets that we hold on our balance sheet as our "Portfolio." Our Portfolio includes:

- equity investments in either preferred or common structures in unconsolidated entities;
- commercial and government receivables;
- real estate; and
- investments in debt securities.

We finance our business through cash on hand, non-recourse debt, recourse debt, convertible securities, or equity and may also decide to finance such transactions through the use of off-balance sheet securitization structures.

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 Investment Company Act of 1940 (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. These financial statements have been prepared in accordance with the instructions to Form 10-Q and should be read in conjunction with the consolidated financial statements and notes thereto included in our annual report on Form 10-K for the year ended December 31, 2022, as filed with the SEC. In the opinion of management, all adjustments necessary to present fairly our financial position, results of operations and cash flows have been included. Our results of operations for the three- and nine-month periods ended September 30, 2023 and 2022, are not necessarily indicative of the results to be expected for the full year or any other future period. Certain information and footnote disclosures normally included in our annual consolidated financial statements have been condensed or omitted. 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 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 on an ongoing basis whether we should consolidate these entities. We have established various special purpose entities or securitization trusts for the purpose of securitizing certain assets that 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 assets 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 typically limited to their recorded values. However, we may provide financial commitments to these VIEs or guarantee certain of their obligations. Certain other entities in which we have equity investments have been assessed to be voting interest entities and as we exert significant influence rather than control through our ownership of voting interests, we do not consolidate them and thus account for them as equity method investments described below.

Equity Method Investments

We have made equity investments, typically in structures where we have a preferred return position. 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 that typically does not correspond with our ownership percentages. Investors, if any, in a preferred return position typically receive a priority distribution of all or a portion of the project's cash flows, and in some cases, tax attributes. Once the preferred return, if applicable, is achieved, the partnership "flips" and common equity investors, often the operator of the project, receive a larger portion of the cash flows, with the previously preferred investors retaining an on-going residual interest.

Our equity investments in climate solutions 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 that 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 reported book value at the beginning and the end of the period, 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"). Our exposure to loss in these investments is limited to the amount of our equity investment, as well as receivables from or guarantees made to the same investee.

Any difference between the amount of our investment and the amount of underlying equity in net assets at the time of our investment is generally amortized over the life of the assets and liabilities to which the difference relates. Cash distributions received from each equity method investment are classified as operating activities to the extent of cumulative earnings for each investment in our consolidated statements of cash flows. Our initial investment and additional cash distributions beyond the amounts that 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 the current carrying value of 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 in the near term. First, we consider both qualitative and quantitative evidence whether there may be indicators of a loss in investment value below carrying value. After considering the weight of available evidence, if it is determined that there is an indication of loss in investment value, we will perform a fair value analysis. If the resulting fair value is less than the carrying value, we will determine if this loss in value is OTTI, and we will recognize any OTTI in the income statement as an impairment. 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.

Commercial and Government Receivables

Commercial and government 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 accordingly we classify them 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, which is assessed on an individual asset basis. 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. Receivables from certain projects are subordinate to preferred investors in a project who are allocated the majority of such project's cash in the early years of the investment. According, such receivables may include the ability to defer scheduled interest payments in exchange for increasing the receivable balance. 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. The change in PIK in any period is included in Change in accrued interest on receivables and investments line in the operating section of our statement of cash flows.

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 to our financial statements in this Form 10-Q 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.

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, which may include 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 climate solutions 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 property and its related lease intangibles, net of accumulated 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, *Leases*, and thus are accounted for as financing transactions similarly to our commercial receivables as described above in Government and Commercial Receivables.

For our 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 that 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 that 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 of 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. When we are unable to conclude that we have been sufficiently isolated from the securitized financial assets, we treat such trusts 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 to 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.

We account for our other retained interests in securitized financial assets, the residual assets, similar to available-for-sale debt securities and carry them at fair value, with changes in fair value recorded in AOCI. Income related to the residual assets is recognized using the effective interest rate method and included in securitization income in our income statement. Our residual assets are evaluated for impairment on a quarterly basis under Topic 326. A residual asset is impaired if its fair value is less than its carrying value. The credit component of impairments, if any, are recognized by recording an allowance against the amortized cost of the asset. For changes in expected cash flows, we 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 our consolidated balance sheets. Refer to Note 3 to our financial statements in this Form 10-Q for disclosure of the balances of restricted cash included in other assets.

Convertible Notes

We have issued convertible and exchangeable senior notes (together, "Convertible 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 or exchangeable debt instruments are generally required to separately account for the conversion or exchange option of the 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 our conversion and exchange options are 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 or exchange options. 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. If converted or exchanged, the carrying value of each Convertible Note is reclassified into stockholders' equity.

Derivative Financial Instruments

We use derivative financial instruments, including interest rate swaps and collars, to manage, or hedge, our interest rate risk exposures associated with new debt issuances and anticipated refinancings of existing debt, to manage our exposure to fluctuations in interest rates on floating-rate debt, and to optimize the mix of our fixed and floating-rate debt. Our objective is to reduce the impact of changes in interest rates on our results of operations and cash flows. The fair values of our interest rate derivatives designated and qualifying as effective cash flow hedges are reflected in our consolidated balance sheets as a component of other assets (if in an unrealized asset position) or accounts payable, accrued expenses and other (if in an unrealized liability position) and in net unrealized gains and losses in AOCI as described below. The cash settlements of our interest rate swaps, if any, are classified as operating activities in our consolidated statements of cash flows.

The interest rate derivatives we use are intended to be designated as cash flow hedges and are considered highly effective in reducing our exposure to the interest rate risk that they are designated to hedge. This effectiveness is required in order to qualify for hedge accounting. Instruments that meet the required hedging criteria are formally designated as hedging instruments at the inception of the derivative contract. Derivatives are recorded at fair value. If a derivative is designated as a cash flow hedge and meets the highly effective threshold, the change in the fair value of the derivative is recorded in AOCI, net of associated deferred income tax effects and is recognized in earnings at the same time as the hedged item. For any derivative instruments not designated as hedging instruments, changes in fair value would be recognized in earnings in the period that the change occurs. We assess, both at the inception of the hedge and on an ongoing basis, whether the derivatives designated as cash flow hedges are highly effective in offsetting the changes in cash flows of the hedged items. We do not hold derivatives for trading purposes. Any collateral posted or received as credit support against derivative positions are netted against those derivatives in our balance sheets.

Interest rate derivative contracts contain a credit risk that counterparties may be unable to fulfill the terms of the agreement. We attempt to minimize that risk by evaluating the creditworthiness of our counterparties, who are limited to major banks and financial institutions, and do not anticipate nonperformance by the counterparties due to their requirement to post collateral.

We have entered into certain capped call transactions to mitigate the economic dilution that may result from the conversion or exchange of certain of our Convertible Notes. These transactions are freestanding equity-linked derivative instruments that qualify for the exemption for contracts indexed to, and settled in, an issuer's own equity found in ASC 815, and accordingly the payment of the option premium was recorded as a reduction of Additional Paid-in-Capital within our Statement of Stockholders' Equity.

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") that are taxed separately, and that 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

We have adopted equity incentive plans which provide 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 under our equity incentive plans as compensation to our senior management team, independent directors, employees, advisors, consultants and other personnel. Certain awards earned under each 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, income or gain must be allocated by our Operating Partnership to certain LTIP Units issued by our Operating Partnership so that the capital accounts of such units are equalized with the capital accounts of other holders of OP units before parity is reached and LTIP Units can be converted to limited partnership units.

We record compensation expense for grants made 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. Forfeitures of unvested awards are recognized as they occur.

We have a retirement policy that provides for full vesting at retirement of any time-based awards that were granted prior to the date of retirement and permits the vesting of performance-based awards that were granted prior to the date of retirement according to the original vesting schedule of the award, subject to the achievement of the applicable performance measures and without the requirement for continued employment. Employees are eligible for the retirement policy upon meeting age and years of service criteria. We record compensation expense for unvested grants through the date in which an employee meets the retirement criteria.

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, if applicable) by the weighted-average number of shares of common stock outstanding during the period excluding the weighted average number of unvested grants, if applicable ("participating securities" as defined in Note 12 to our financial statements in this Form 10-Q). Diluted earnings per share is calculated by dividing net income attributable to controlling stockholders (after consideration of the earnings allocated to unvested grants, 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, which 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 or exchange of the note. No adjustment is made for shares of potential common stock that are anti-dilutive during a period. Our capped call transactions are anti-dilutive and therefore their impact will be excluded from earnings per share.

Segment Reporting

We manage our business as a single portfolio, and accordingly report all of our activities as one business segment.

Recently Issued Accounting Pronouncements

Accounting standards updates issued before November 3, 2023, and effective after September 30, 2023, 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 September 30, 2023 and December 31, 2022, only our residual assets related to our securitization trusts, our derivatives, and our 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 values for our Level 2 and Level 3 measurements are 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 September 30, 2023		
	Fair Value	**Carrying Value**	**Level**
	(in millions)		
Assets			
Commercial receivables	$ 2,398	$ 2,706	Level 3
Government receivables	85	93	Level 3
Receivables held-for-sale	18	17	Level 3
Investments (1)	9	9	Level 3
Securitization residual assets (2)	183	183	Level 3
Derivative assets	100	100	Level 2
Liabilities (3)			
Credit facilities	$ 487	$ 487	Level 3
Commercial paper notes	50	50	Level 3
Term loans payable	573	573	Level 3
Non-recourse debt	158	170	Level 3
Senior unsecured notes	1,589	1,795	Level 2
Convertible Notes:			
2028 Exchangeable Senior Notes	393	405	Level 2
2025 Exchangeable Senior Notes	193	210	Level 2
Total Convertible Notes	586	615	

(1) The amortized cost of our investments as of September 30, 2023, was $ 12 million.

(2) Included in securitization assets on the consolidated balance sheet. The amortized cost of our securitization residual assets net of allowance for credit losses as of September 30, 2023 was $ 247 million.

(3) Fair value and carrying value exclude unamortized financing costs.

	As of December 31, 2022		
	Fair Value	Carrying Value	Level
	(in millions)		
Assets			
Commercial receivables	$ 1,859	$ 1,887	Level 3
Government receivables	96	103	Level 3
Receivables held-for-sale	92	85	Level 3
Investments [(1)]	10	10	Level 3
Securitization residual assets [(2)]	177	177	Level 3
Liabilities [(3)]			
Credit facilities	$ 51	$ 51	Level 3
Commercial paper notes	—	—	Level 3
Term loan facility	384	384	Level 3
Non-recourse debt	402	442	Level 3
Senior unsecured notes	1,546	1,784	Level 2
Convertible Notes:			
2022 Convertible Senior Notes	137	143	Level 2
2023 Convertible Senior Notes	185	206	Level 2
Total Convertible Notes	322	349	

(1) The amortized cost of our investments as of December 31, 2022, was $ 12 million.

(2) Included in securitization assets on the consolidated balance sheet. The amortized cost of our securitization residual assets as of December 31, 2022, was $ 224 million.

(3) Fair value and carrying value exclude unamortized financing costs.

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, with changes in fair value recorded through AOCI:

	For the three months ended September 30,		For the nine months ended September 30,	
	2023	2022	2023	2022
	(in millions)			
Balance, beginning of period	$ 204	$ 178	$ 177	$ 210
Accretion of securitization residual assets	4	4	11	9
Additions to securitization residual assets	1	10	27	25
Collections of securitization residual assets	(3)	(2)	(13)	(10)
Unrealized gains (losses) on securitization residual assets recorded in OCI	(20)	(12)	(16)	(56)
Provision for loss on securitization residual assets	(3)	—	(3)	—
Balance, end of period	$ 183	$ 178	$ 183	$ 178

The following table illustrates our securitization residual assets in an unrealized loss position:

	Estimated Fair Value		Unrealized Losses [(1)]		Count of Securities	
	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	Securities with a loss shorter than 12 months	Securities with a loss longer than 12 months
	(in millions)					
September 30, 2023	$ 30	$ 143	$ 3	$ 66	18	67
December 31, 2022	118	51	27	22	66	12

1) Other than the assets discussed in Note 5, loss position is due to interest rates movements and is not indicative of credit deterioration. We have the intent and ability to hold these investments until a recovery of fair value.

In determining the fair value of our securitization residual assets, we used a market-based risk-free rate and added a range of interest rate spreads of approximately 1% to 6% based upon transactions involving similar assets as of September 30, 2023 and December 31, 2022. The weighted average discount rates used to determine the fair value of our securitization residual assets as of September 30, 2023 and December 31, 2022 were 7.5% and 6.8%, 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, if any, 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

Commercial and government receivables, real estate leases and debt investments consist primarily of receivables from various projects, U.S. federal government-backed receivables, and investment grade state and local government receivables and do not, in our view, represent a significant concentration of credit risk given the large number of diverse offtakers and other obligors of the projects. 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:

	September 30, 2023	December 31, 2022
	(in millions)	
Cash deposits	$ 156	$ 156
Restricted cash deposits (included in other assets)	14	20
Total cash deposits	$ 170	$ 176
Amount of cash deposits in excess of amounts federally insured	$ 158	$ 174

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 not held by us represent approximately 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. No OP units were redeemed by non-controlling interest holders during the nine months ended September 30, 2023 or September 30, 2022.

We have also granted to members of our leadership team and directors LTIP Units pursuant to our equity incentive plans. LTIP Units issued to employees 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 to our financial statements in this Form 10-Q.

5. Securitization of Financial Assets

The following summarizes certain transactions with securitization trusts:

	As of and for the nine months ended September 30,	
	2023	2022
	(in millions)	
Gains on securitizations	$ 53	$ 51
Cost of financial assets securitized	424	454
Proceeds from securitizations	477	505
Residual and servicing assets	183	178
Cash received from residual and servicing assets	15	11

In connection with securitization transactions, we typically retain servicing responsibilities and residual assets. We generally receive annual servicing fees that are typically up to 0.25% of the outstanding balance. We may periodically make servicer advances that are subject to credit risk. Included in securitization assets in our consolidated balance sheets are our servicing assets at amortized cost and our residual assets at fair value. 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 our securitization assets representing these residual interests in the trusts' 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 all-in discount rate ranged from 5% to 10% for the nine months ended September 30, 2023.

As of September 30, 2023 and December 31, 2022, our managed assets totaled $11.5 billion and $9.8 billion, respectively, of which $6.0 billion and $5.5 billion, respectively, were securitized assets held in unconsolidated securitization trusts.

In the third quarter of 2023, we recorded an allowance for losses on securitization residual assets related to prepayable assets secured by real estate. While there is no change in the underlying credit quality of the securitized assets, we have revised our estimates of cash flows due to prepayments on certain of these assets. The following table reconciles our beginning and ending allowance for loss on securitization residual assets:

	Three months ended September 30, 2023		Three months ended September 30, 2022	
	Government	Commercial	Government	Commercial
	(in millions)			
Beginning balance	$ —	$ —	$ —	$ —
Provision for loss on securitization assets	—	3	—	—
Ending balance	$ —	$ 3	$ —	$ —

	Nine months ended September 30, 2023		Nine months ended September 30, 2022	
	Government	Commercial	Government	Commercial
	(in millions)			
Beginning balance	$ —	$ —	$ —	$ —
Provision for loss on securitization assets	—	3	—	—
Ending balance	$ —	$ 3	$ —	$ —

As of September 30, 2023, 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 the source of cash flows of $101 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.

We recognized a gain of approximately $19 million upon deconsolidation of certain land assets and the debt to which those assets were pledged, which is included in gain on sale of receivables, investments, and other assets in our income statement.

6. Our Portfolio

As of September 30, 2023, our Portfolio included approximately $5.5 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 climate solutions projects. 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.

In developing and evaluating performance against our credit criteria, we consider a number of qualitative and quantitative criteria which may include 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, we consider the overall economic environment, the climate solutions 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 September 30, 2023, which is assessed quarterly:

	Portfolio Performance				
	1 (1)		2 (2)	3 (3)	Total
	Government	Commercial	Commercial	Commercial	
Receivable vintage (4)			(dollars in millions)		
2023	$ —	$ 612	$ —	$ —	$ 612
2022	—	942	—	—	942
2021	—	293	—	—	293
2020	—	166	—	—	166
2019	—	392	—	—	392
2018	—	275	—	—	275
Prior to 2018	93	77	—	—	170
Total receivables	93	2,757	—	—	2,850
Less: Allowance for loss on receivables	—	(51)	—	—	(51)
Net receivables (5)	93	2,706	—	—	2,799
Receivables held-for-sale	3	14	—	—	17
Investments	2	7	—	—	9
Real estate	—	111	—	—	111
Equity method investments (6)	—	2,521	43	—	2,564
Total	$ 98	$ 5,359	$ 43	$ —	$ 5,500
Percent of Portfolio	2 %	97 %	1 %	— %	100 %

(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. Loans in this category are placed on non-accrual status. Previously included in this category was $11 million of loans we had made in a new market venture where the performance was not meeting expectations. We collected this loan in full in the second quarter of 2023 and accordingly released the related allowance of $5 million.

(4) Receivable vintage refers to the period in which in which the relevant loan agreement is signed, and a given vintage may contain loan advances made in subsequent periods to the loan agreement.

(5) Total reconciles to the total of the government receivables and commercial receivables lines of the consolidated balance sheets.

(6) 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.

Receivables

As of September 30, 2023, our allowance for losses on receivables was $51 million based on our expectation of credit losses over the lives of the receivables in our portfolio. During the three months ended September 30, 2023, we increased our reserve by approximately $7 million, due to new loans and loan commitments made during the period. During the three months ended September 30, 2023, we entered into a variable rate revolving credit facility with an energy services company secured by projects in development, with a maximum principal amount of $300 million and that matures in 2026. As of September 30, 2023, the principal amount of the facility was $213 million and the facility bore interest at a rate of9.7%.

Below is a summary of the carrying value, loan funding commitments, and allowance by type of receivable or "Portfolio Segment", as defined by Topic 326, as of September 30, 2023 and December 31, 2022:

	September 30, 2023			December 31, 2022		
	Gross Carrying Value	Loan Funding Commitments	Allowance	Gross Carrying Value	Loan Funding Commitments	Allowance
			(in millions)			
Commercial (1)	2,757	464	51	1,928	256	41
Government (2)	$ 93	$ —	$ —	$ 103	$ —	$ —
Total	$ 2,850	$ 464	$ 51	$ 2,031	$ 256	$ 41

(1) As of September 30, 2023, this category of assets includes $ 1.4 billion of mezzanine loans made on a non-recourse basis to special purpose subsidiaries of residential solar companies which hold residential solar assets where we rely on certain limited indemnities, warranties, and other obligations of the residential solar companies or their other subsidiaries.

Risk characteristics of our commercial receivables include a project's operating risks, which include the impact of the overall economic environment, the climate solutions 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 to our financial statements in this Form 10-Q. All of our commercial receivables are included in Performance Rating 1 in the Portfolio Performance table above. For those assets, 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 $51 million allowance on these $ 2.8 billion in assets as a result of lower probability assumptions utilized in our allowance methodology.

(2) As of September 30, 2023, our government receivables include $ 10 million of U.S. federal government transactions and $ 83 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 to our financial statements in this Form 10-Q. Our expectation of credit losses for these receivables is immaterial given the high credit-quality of the obligors.

The following table reconciles our beginning and ending allowance for loss on receivables by Portfolio Segment:

	Three months ended September 30, 2023		Three months ended September 30, 2022	
	Government	Commercial	Government	Commercial
		(in millions)		
Beginning balance	$ —	$ 44	$ —	$ 37
Provision for loss on receivables	—	7	—	(3)
Ending balance	$ —	$ 51	$ —	$ 34

	Nine months ended September 30, 2023		Nine months ended September 30, 2022	
	Government	Commercial	Government	Commercial
		(in millions)		
Beginning balance	$ —	$ 41	$ —	$ 36
Provision for loss on receivables	—	10	—	6
Write-off of allowance	—	—	—	(8)
Ending balance	$ —	$ 51	$ —	$ 34

We have no receivables 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 September 30, 2023:

	Total	Less than 1 year	1-5 years	5-10 years	More than 10 years
			(dollars in millions)		
Maturities by period (excluding allowance)	$ 2,850	$ 6	$ 324	$ 1,309	$ 1,211
Weighted average yield by period	8.4 %	9.4 %	9.0 %	8.5 %	8.0 %

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 2052 under the initial terms and 2047 and 2080 if all renewals are exercised. In the third quarter of 2023, a majority of our land and related intangibles were deconsolidated, and we retain a residual interest in those assets in the form of equity method investments as discussed in Other Equity Method Investments below. The components of our real estate portfolio as of September 30, 2023 and December 31, 2022, were as follows:

	September 30, 2023	December 31, 2022
	(in millions)	
Real estate		
Land	$ 97	$ 269
Lease intangibles	22	104
Accumulated amortization of lease intangibles	(8)	(20)
Real estate	$ 111	$ 353

As of September 30, 2023, the future amortization expense of the intangible assets and the future minimum rental income payments under our land lease agreements are as follows:

	Future Amortization Expense	Minimum Rental Income Payments
	(in millions)	
From October 1, 2023 to December 31, 2023	$ —	$ 6
2024	1	24
2025	1	24
2026	1	24
2027	1	25
2028	1	25
Thereafter	9	673
Total	$ 14	$ 801

Equity Method Investments

We have made non-controlling equity investments in a number of climate solutions projects that we account for as equity method investments.

As of September 30, 2023, we held the following equity method investments:

Investment Date	Investee	Carrying Value
		(in millions)
Various	Jupiter Equity Holdings LLC	$ 535
Various	Lighthouse Partnerships [(1)]	682
Various	Other investees	1,347
	Total equity method investments	$ 2,564

(1) Represents the total of five equity investments in a portfolio of renewable assets.

Jupiter Equity Holdings LLC

We have a preferred equity interest in Jupiter Equity Holdings LLC ("Jupiter") that owns nine operating onshore wind projects and four operating utility-scale solar projects with an aggregate capacity of approximately 2.3 gigawatts. As of September 30, 2023, we have made capital contributions to Jupiter of approximately $562 million related to these projects reflecting final funding true-ups after all projects reached substantial completion. Alongside the project sponsor and under terms outlined in the partnership agreement, we have made $10 million in working capital loans to Jupiter for one-time contract restructuring expenses and payments related to winter storm Uri. Those working capital loans are included in our Related Party Transactions disclosures below. At agreement inception, the projects 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, which 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 on 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, distributions will be allocated approximately 33% to us and approximately 67% to the sponsor. As of July 1, 2023, 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. 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

We have entered into certain agreements relating to the acquisition, ownership and management of preferred cash equity investments in five 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 investments in the preferred cash equity interests of the Lighthouse Partnerships of approximately $692 million through September 30, 2023, and additional investments are expected to be made as the remaining projects become commercially operational. We expect to make additional capital contributions of $192 million, with the final contribution being made in 2024. Alongside the project sponsor and under terms outlined in the partnership agreement, we have made $17 million in working capital loans to the Lighthouse Partnerships primarily for payments related to winter storm Uri. Those working capital loans are included in our Related Party Transactions disclosures below. At agreement inception, 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 of the Lighthouse Partnerships are or will be governed by a limited liability company agreement between us and the sponsor serving as managing member and 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 of our 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 of the Renewables Portfolio 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 our 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.

Other Equity Method Investments

In the third quarter of 2023, we entered into an agreement with an existing securitization partner to amend the contractual terms of certain non-recourse debt agreements, which caused us to deconsolidate the entities holding such debt and its pledged collateral. Our retained interest in those entities are equity method investments, which hold land and associated operating leases as well as financial assets where the ultimate obligors are grid-connected solar projects. The carrying value of these equity method investments is $152 million. Our retained interest is in the form of an equity method investment, instead of a Securitization Asset, due to the nature of the underlying assets being predominantly real property.

Related Party Transactions

Of our commercial receivables, approximately $872 million are loans made to entities in which we also have non-controlling equity investments of approximately $817 million. Typically, these equity method investments are LLCs taxed as partnerships that we have entered into with various renewable energy project sponsors, such as SunPower Corporation. We negotiate the commercial terms of these loans with the other partner, and the assets against which the project sponsors are borrowing are contributed into the LLCs upon the execution of the loans. Our equity investments allow us to participate in the residual economics of those contributed assets alongside the other partner, and our rights under the project operating agreements do not allow us to make any significant unilateral decisions regarding the terms of the arrangement. Because the loans made to these entities are typically subordinate to senior debt and tax equity investors in the projects, these loans, which have maturities of over ten years, may accrue PIK interest in the early years of the project until sufficient cash flow is available for our interest payments. Any change in PIK interest is included in Change in accrued interest on receivables and investments in the operating section of our statement of cash flows. On a quarterly basis, we assess these loans for any impairment inclusive of any PIK interest accrued under CECL as discussed above under Receivables.

The following table provides additional detail on these related party transactions:

	Three Months Ended September 30, 2023	Three Months Ended September 30, 2022	Nine Months Ended September 30, 2023	Nine Months Ended September 30, 2022
		(in millions)		
Interest income from related party loans	$ 18	$ 14	$ 49	$ 45
Investments made in related party loans	95	63	187	113
Principal collected from related party loans	12	7	27	76
Interest collected from related party loans	15	14	45	49

7. Credit facilities and commercial paper notes

Secured credit facilities

We previously had a secured revolving credit facility in the form of an approval-based loan agreement with various lenders with a maximum outstanding principal amount of $200 million. In July of 2023, we extended the maturity of the facility from July 2023 to January 2024. In the third quarter of 2023, we amended the facility to a term loan. See Note 8 to our financial statements for discussion of the current terms of that loan. In the first quarter of 2023, we terminated a previously existing representation-based secured revolving limited-recourse credit facility which had a maximum outstanding principal amount of $100 million.

Unsecured revolving credit facilities

We have an unsecured revolving credit facility pursuant to a revolving credit agreement with a syndicate of lenders which matures in February 2025. In the second quarter of 2023, we increased the maximum outstanding borrowing amount of the facility from $600 million to $840 million. As of September 30, 2023, the outstanding balance on this facility was $487 million, and it currently bears interest at a weighted average rate of 7.25%. We have approximately $3 million of remaining unamortized financing costs associated with the unsecured revolving credit facility 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 unsecured revolving credit facility.

The unsecured revolving credit facility has a commitment fee based on our current credit rating and bears interest at a rate of SOFR or prime rate plus applicable margins based on our current credit rating, which may be adjusted downward up to 0.10% to the extent our Portfolio achieves certain targeted levels of carbon emissions avoidance, as measured by our CarbonCount© metric. As of the inception of the unsecured revolving credit facility, the applicable margins are 1.875% for SOFR-based loans and 0.875% for prime rate-based loans, plus an additional 0.10%. The unsecured revolving credit facility has a commitment fee based on our current credit rating. The unsecured revolving 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 declare. The unsecured revolving credit facility also includes customary events of default and remedies. At our option, upon maturity of the unsecured revolving credit facility, we have the ability to convert amounts borrowed into term loans for a fee equal to 1.875% of the term loan amounts.

CarbonCount Green Commercial Paper Note Program

We have entered into an agreement allowing us to issue commercial paper notes, in amounts up to $100 million outstanding at any time. We obtained an irrevocable direct-pay letter of credit in an amount not to exceed $100 million from Bank of America, N.A, to support these obligations which expires in June 2024. Commercial paper notes will not be redeemable, will not be subject to voluntary prepayment and are not to exceed 397 days. An amount equal to the proceeds of our commercial paper notes are allocated to either the acquisition or refinance of, in whole or in part, eligible green projects, including assets that are neutral to negative on incremental carbon emissions. As of September 30, 2023, we have $50 million of commercial paper notes outstanding under the facility which matures in 2024, which together bear an average total borrowing rate of 6.75%.

Green commercial paper notes will be issued at a discount based on market pricing, subject to broker fees of 0.10%. For issuance of the letter of credit, we will pay 1.40% on any drawn letter of credit amounts to Bank of America, N.A., and 0.40% on any unused letter of credit capacity. Fees paid on the drawn letters of credit may be reduced by up to 0.1% to the extent our Portfolio achieves certain targeted levels of carbon emissions avoidance as measured by our CarbonCount metric. As of September 30, 2023, we have no remaining unamortized financing costs associated with the commercial paper program and associated letter of credit. The associated letter of credit 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 declare. The letter of credit also includes customary events of default and remedies.

8. Long-term Debt

Non-recourse debt

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

	Outstanding Balance as of		Interest Rate	Maturity Date	Anticipated Balance at Maturity	Carrying Value of Assets Pledged as of		Description of Assets Pledged
	September 30, 2023	December 31, 2022				September 30, 2023	December 31, 2022	
				(dollars in millions)				
HASI Sustainable Yield Bond 2015-1A	$ 70	$ 73	4.28%	October 2034	$ —	$ 137	$ 136	Receivables, real estate, real estate intangibles, and restricted cash
HASI SYB Trust 2016-2	55	56	4.35%	April 2037	—	62	63	Receivables and restricted cash
HASI SYB Trust 2017-1	— (1)	141	3.86%	March 2042	—	—	231	Receivables, real estate, real estate intangibles, and restricted cash
Lannie Mae Series 2019-1	— (1)	90	3.68%	January 2047	—	—	120	Receivables, real estate and real estate intangibles
Other non-recourse debt (2)	45	82	3.15% - 7.23%	2024 to 2032	18	46	82	Receivables
Unamortized financing costs	(2)	(9)						
Non-recourse debt(3)	$ 168	$ 433						

(1) In the third quarter of 2023, contractual terms of these non-recourse debt agreements were modified, which caused us to deconsolidate the entities holding such debt and its related pledged collateral.

(2) Other non-recourse debt consists of various debt agreements used to finance certain of our receivables. Scheduled debt service payment requirements are equal to or less than the cash flows received from the underlying receivables.

(3) The total collateral pledged against our non-recourse debt was $ 245 million and $ 632 million as of September 30, 2023 and December 31, 2022, respectively. These amounts include $ 14 million and $ 20 million of restricted cash pledged for debt service payments as of September 30, 2023 and December 31, 2022, 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 were in compliance with all covenants as of September 30, 2023 and December 31, 2022.

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.

The stated minimum maturities of non-recourse debt as of September 30, 2023, were as follows:

	Future minimum maturities
	(in millions)
October 1, 2023 to December 31, 2023	$ 10
2024	18
2025	15
2026	14
2027	21
2028	18
Thereafter	74
Total minimum maturities	$ 170
Unamortized financing costs	(2)
Total non-recourse debt	$ 168

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 serving as collateral for certain of our non-recourse debt facilities, these additional cash flows may be 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 that 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 September 30, 2023 and December 31, 2022. The Senior Unsecured Notes impose certain requirements in the event that we merge with or sell substantially all of our assets to another entity. We allocate an amount equal to the net proceeds of our Senior Unsecured Notes to the acquisition or refinance of, in whole or in part, eligible green projects, including assets that are neutral to negative on incremental carbon emissions.

The following are summarized terms of the Senior Unsecured Notes:

	Outstanding Principal Amount	Maturity Date	Stated Interest Rate	Interest Payment Dates	Redemption Terms Modification Date
	(in millions)				
2025 Notes	$ 400	April 15, 2025	6.00 %	April 15 and October 15th	N/A
2026 Notes	1,000	June 15, 2026	3.38 %	June 15 and December 15	March 15, 2026 (1)
2030 Notes	375 (2)	September 15, 2030	3.75 %	February 15th and August 15th	N/A

(1) Prior to this date, we may redeem, at our option, some or all of the 2026 Notes for the outstanding principal amount plus the applicable "make-whole" premium as defined in the indenture governing the 2026 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 2026 Notes in whole or in part at redemption prices defined in the indenture governing the 2026 Notes, plus accrued and unpaid interest though the redemption date.

(2) 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%.

We may redeem the 2025 Notes in whole or in part at redemption prices defined in the indenture governing the 2025 Notes plus accrued and unpaid interest though the 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:

	September 30, 2023	December 31, 2022
	(in millions)	
Principal	$ 1,775	$ 1,775
Accrued interest	23	12
Unamortized premium (discount)	(3)	(3)
Less: Unamortized financing costs	(13)	(16)
Carrying value of Senior Unsecured Notes	$ 1,782	$ 1,768

We recorded approximately $19 million and $57 million in interest expense related to the Senior Unsecured Notes in the three and nine months ended September 30, 2023, respectively, compared to approximately $19 million and $58 million in the three and nine months ended September 30, 2022, respectively.

Convertible Notes

We have outstanding exchangeable senior notes, and have previously issued convertible senior notes, together "Convertible Notes". Holders may convert or exchange any of their Convertible Notes into shares of our common stock at the applicable conversion or exchange 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 Notes as of September 30, 2023:

	Outstanding Principal Amount	Maturity Date	Stated Interest Rate	Interest Payment Dates	Conversion/Exchange Ratio	Conversion/Exchange Price	Issuable Shares	Dividend Threshold Amount [1]
	(in millions)						(in millions)	
2023 Convertible Senior Notes	— [2]	August 15, 2023	0.000 %	N/A	20.8643	$47.93	—	$0.340
2025 Exchangeable Senior Notes	200 [3]	May 1, 2025	0.000 %	N/A	17.7144	$56.45	3.5	$0.375
2028 Exchangeable Senior Notes	403	August 15, 2028	3.750 %	February 15 and August 15	36.8494	$27.14	14.8	$0.395

(1) The conversion or exchange 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.

(2) These Notes were settled in the third quarter of 2023 using proceeds from the 2028 Exchangeable Senior Notes.

(3) The 2025 Exchangeable Senior Notes accrete to a premium at maturity equal to 3.25% per annum. The current balance including accreted premium is $ 210 million.

For the exchangeable senior notes, following the occurrence of a make-whole fundamental change, we will, in certain circumstances, increase the exchange rate for a holder that converts its exchangeable notes in connection with such make-whole fundamental change. There are no cash settlement provisions for the 2025 Exchangeable Senior Notes and the exchange option can only be settled through physical delivery of our common stock. Upon exchange of the 2028 Exchangeable Senior Notes, exchange may be settled through cash, shares of our common stock or a combination of cash and shares of our common stock, at our election (as described in the indenture related to the 2028 Exchangeable Senior Notes). Additionally, upon the occurrence of certain fundamental changes involving us, holders of the exchangeable senior notes may require us to redeem all or a portion of their notes for cash at a price of 100% of the principal amount outstanding, plus accrued and unpaid interest. We may redeem the 2025 Exchangeable Senior Notes at any time only if such a redemption is deemed reasonably necessary to preserve our qualification as a REIT. We may redeem the 2028 Exchangeable Senior Notes at any time only if such a redemption is deemed reasonably necessary to preserve our qualification as a REIT or, in whole or in part, at our option, on or after August 20, 2026 and prior to the 62nd scheduled trading day immediately preceding the maturity date for such notes, if certain conditions are met, as set forth in the indenture relating to the 2028 Exchangeable Senior Notes. Any shares of our common stock issuable upon exchange of the exchangeable senior notes will have certain registration rights.

Certain of our TRS have jointly issued $200 million of 0.00% Exchangeable Senior Notes due 2025 which are guaranteed by us and certain of our subsidiaries and may, under certain conditions, be exchangeable for our common stock. The notes accrete to a premium at maturity at an effective rate of 3.25% annually.

Upon any exchange of these Notes, holders will receive a number of shares of our common stock equal to the product of (i) the aggregate initial principal amount of the notes to be exchanged, divided by $1,000 and (ii) the applicable exchange rate, plus cash in lieu of fractional shares. We have allocated or intend to allocate an amount equal to the net proceeds of this offering to the acquisition or refinancing of, in whole or in part, new and/or existing eligible green projects, which include assets that are neutral to negative on incremental carbon emissions.

The following table presents a summary of the components of our Convertible Notes:

	September 30, 2023		December 31, 2022	
	(in millions)			
Principal	$	603	$	344
Accrued interest		2		—
Premium		10		5
Less: Unamortized financing costs		(11)		(5)
Carrying value of Convertible Notes	$	604	$	344

We recorded approximately $5 million and $9 million in interest expense related to our Convertible Notes in the three and nine months ended September 30, 2023, respectively, compared to $2 million and $5 million for the three and nine months ended September 30, 2022, respectively.

In order to mitigate the potential dilution to our common stock upon exchange of the 2028 Exchangeable Senior Notes, we entered into privately-negotiated capped call transactions ("Capped Calls") with certain counterparties. The Capped Calls are separate transactions and are not part of the terms of the 2028 Exchangeable Senior Notes. The total premium for the Capped Calls was recorded as a reduction of additional paid-in capital. The Company used a portion of the proceeds from the 2028 Exchangeable Senior Notes to pay for the cost of the Capped Call premium. The material terms of the Capped Calls are as follows:

	(in millions except per share data)	
Aggregate cost of capped calls	$	38
Initial strike price per share	$	27.14
Initial cap price per share	$	43.42
Shares of our common stock covered by the capped calls		14.8

CarbonCount Term Loan Facility

We have entered into an unsecured term loan facility with a syndicate of banks which has an outstanding principal amount of $373 million. Principal amounts under the term loan facility will bear interest at a rate of Term SOFR plus applicable margins based on our current credit rating, which may be adjusted downward up to 0.10% to the extent our Portfolio achieves certain targeted levels of carbon emissions avoidance, as measured by our CarbonCount© metric. As of September 30, 2023, the applicable margin is 2.125% plus 0.10%, and the current interest rate is 7.49%. The coupon on any drawn amounts will be reset at monthly, quarterly, or semi-annual intervals at our election. Interest is due and payable quarterly. Payments of 1.25% of the outstanding principal balance are due quarterly. The term loan facility has a maturity date of October 31, 2025, and loans under the facility can be prepaid without penalty. We intend to allocate an amount equal to the net proceeds of this offering to the acquisition or refinancing of, in whole or in part, new and/or existing eligible green projects, which include assets that are neutral to negative on incremental carbon emissions.

Principal payments which were due under the term loan facility as of September 30, 2023 are as follows:

	Future maturities *(in millions)*
October 1, 2023 to December 31, 2023	$ 5
2024	18
2025	350
Total	373
Less: Unamortized Financing Costs	(3)
Carrying Value	$ 370

The term loan 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 declare. The term loan facility also includes customary events of default and remedies. Subsequent to September 30, 2023, we increased our borrowing under this facility by $165 million, bringing the total outstanding principal amount to $538 million.

Secured Term Loan

In the third quarter of 2023, we amended our approval-based credit facility to become a term loan ("Secured Term Loan") with a maturity date of January 2028. Principal amounts under the term loan will bear interest at a rate of Daily Term SOFR plus a credit spread of 2.25%, plus 0.10%. We are required to hold interest rate swaps with notional values equal to 85% of the outstanding principal amount of the loan beginning in the fourth quarter of 2023. The facility is subject to mandatory principal amortization of 5% per annum, with principal and interest payments due quarterly. The secured term loan 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 declare. The secured term loan also includes customary events of default and remedies.

As of September 30, 2023, the outstanding principal balance is $200 million, the interest rate is 7.55%, and we have financing receivables pledged with a carrying value of $449 million. We have $3 million of remaining unamortized financing costs associated with the Secured Term Loan that have been netted against the loan on our balance sheet and are being amortized on a straight-line basis over the term of the Secured Term Loan Facility. Principal payments which were due under the Secured Term Loan Facility as of September 30, 2023 are as follows:

	Future maturities
	(in millions)
July 1, 2023 to December 31, 2023	$ —
2024	2
2025	11
2026	13
2027	12
2028	162
Total	200
Less: Unamortized Financing Costs	(3)
Carrying Value	$ 197

Interest rate swaps

In connection with several of our long-term borrowings, including floating-rate loans from our Term Loan Facility and unsecured revolving credit facility and the anticipated refinancings of certain of our Senior Unsecured Notes we have entered into the following derivative transactions that are designated as cash flow hedges as of September 30, 2023:

Instrument type	Index	Hedged Rate	Notional Value	Fair Value as of September 30, 2023	Term
			$ in millions		
Interest rate swap	1 month SOFR	3.79 %	$ 400	$ 12	March 2023 to March 2033
Interest rate swap	Overnight SOFR	2.98 %	400	23	June 2026 to June 2033
Interest rate swap	Overnight SOFR	3.09 %	600	30	June 2026 to June 2033
Interest rate swap	Overnight SOFR	3.08 %	400	30	April 2025 to April 2035
Interest rate collar	1 month SOFR	3.70% - 4.00% (1)	250	5	May 2023 to May 2026
			$ 2,050	$ 100	

(1) Interest rate collar consists of a purchased interest rate cap of 4.00% and a written interest rate floor of 3.70%.

The fair values of our interest rate derivatives designated and qualifying as effective cash flow hedges are reflected in our consolidated balance sheets as a component of other assets (if in an unrealized gain position) or accounts payable, accrued expenses and other (if in an unrealized loss position) and in net unrealized gains and losses in AOCI. As of September 30, 2023, all of our derivatives were designated as hedging instruments which were deemed to be effective. As of September 30, 2023, we hold $106 million of collateral related to our interest rate derivatives. We have netted $100 million of the liability associated with that collateral against the derivative asset in other assets on our balance sheet, with the remaining $6 million included in accounts payable, accrued expenses and other. A benefit of $2 million and $4 million was included in interest expense as a result of our hedging activities for the three and nine months ended September 30, 2023, respectively.

Subsequent to September 30, 2023, we entered into interest rate swaps to hedge the interest expense associated with the Secured Term Loan. The swaps have a total notional of $70 million, SOFR rate of 4.4%, and a termination date in 2033. Certain of the projects in which we have equity method investments also have interest rate swaps which are designated as cash flow hedges, and we recognize the portion of the gain or loss allocated to us related to those instruments through other comprehensive income.

9. Commitments and Contingencies

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 and other commitments

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 September 30, 2023, there have been no such actions resulting in claims against the Company.

We have made a guarantee related to the financing of four of our joint venture entities that owns debt securities of energy efficiency projects. We received $73 million of the proceeds of this financing arrangement, and in turn 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 2024. As of September 30, 2023, our maximum obligation under this guarantee is approximately $87 million. We believe the likelihood of having to perform under the guarantee is remote, have recorded no liability associated with this guarantee, and presently have not been required to post collateral as the assets of the joint venture entities are enough to support the financing obligation. We have executed a separate agreement with our joint venture partner pursuant to which it is liable for 15% of this obligation repayable to us.

10. Income Tax

We recorded an income tax (expense) benefit of approximately $5 million and $5 million for the three and nine months ended September 30, 2023, respectively, compared to a $(8) million and $(14) million income tax (expense) benefit in the three and nine months ended September 30, 2022, respectively. For the three and nine months ended September 30, 2023 and 2022, our income tax (expense) benefit was determined using the federal tax rate of 21%, and combined state tax rates, net of federal benefit, of approximately 3% for 2023 and 2022.

11. Equity

Dividends and Distributions

Our board of directors declared the following dividends in 2022 and 2023:

Announced Date	Record Date	Pay Date	Amount per share
2/17/2022	4/4/2022	4/11/2022	$ 0.375
5/3/2022	7/5/2022	7/12/2022	$ 0.375
8/4/2022	10/4/2022	10/11/2022	$ 0.375
11/3/2022	12/28/2022 (1)	01/6/2023	$ 0.375
2/16/2023	04/3/2023	04/10/2023	$ 0.395
5/4/2023	7/5/2023	7/12/2023	$ 0.395
8/3/2023	10/4/2023	10/11/2023	$ 0.395
11/2/2023	12/29/2023	01/12/2024	$ 0.395

(1) This dividend is treated as a distribution in the year following the record date 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 to or through a market maker or into an existing trading market on an exchange or otherwise. In January 2023, we established a dividend reinvestment and stock purchase plan, allowing stockholders and holders of OP Units (including LTIP Units) to purchase shares of our common stock by reinvesting cash dividends or distributions received. We completed the following public offerings (including ATM issuances) of our common stock during 2023 and 2022:

Date/Period	Common Stock Offerings	Shares Issued [(2)]	Price Per Share		Net Proceeds [(1)]
		(amounts in millions, except per share amounts)			
Q1 2022	ATM	1.050	$ 48.14	(3)	$ 50
Q2 2022	ATM	0.731	38.91	(3)	28
Q3 2022	ATM	1.346	36.85	(3)	49
Q4 2022	ATM	1.996	31.41	(3)	62
Q1 2023	ATM	0.763	31.31	(3)	24
5/30/2023	Public Offering	15.000	22.23	(4)	333
Q2 2023	ATM	0.053	26.07	(3)	1
Q3 2023	ATM	4.394	24.71	(3)	107

(1) Net proceeds from the offerings are shown after deducting underwriting discounts and commissions.

(2) Includes shares issued in connection with the exercise of the underwriters' option to purchase additional shares.

(3) Represents the average price per share at which investors in our ATM offerings purchased our shares.

(4) Represents the price per share at which the underwriters in our public offering purchased our shares.

Equity-based Compensation Awards

We have issued equity awards that vest from 2023 to 2027 subject to service, performance and market conditions. During the nine months ended September 30, 2023, our board of directors awarded employees and directors 755,639 shares of restricted stock, restricted stock units and LTIP Units that vest from 2024 to 2026. Refer to Note 4 to our financial statements in this Form 10-Q for background on the LTIP Units.

For the three and nine months ended September 30, 2023 we recorded $3 million and $15 million of stock based compensation, respectively, compared to $2 million and $18 million during the three and nine months ended September 30, 2022, respectively. We have a retirement policy which provides for full vesting at retirement of any time-based awards that were granted prior to the date of retirement and permits the vesting of performance-based awards that were granted prior to the date of retirement according to the original vesting schedule of the award, subject to the achievement of the applicable performance measures. Employees are eligible for the retirement policy upon meeting age and years of service criteria. The total unrecognized compensation expense related to awards of shares of restricted stock and restricted stock units was approximately $23 million as of September 30, 2023. We expect to recognize compensation expense related to our equity 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, 2021	193,548	$ 38.66	$ 7.5
Granted	71,911	37.32	2.7
Vested	(93,646)	46.46	(4.3)
Forfeited	(3,361)	46.83	(0.2)
Ending Balance — December 31, 2022	168,452	$ 33.59	$ 5.7
Granted	67,810	31.15	2.1
Vested	(96,117)	29.23	(2.8)
Forfeited	(7,840)	48.57	(0.4)
Ending Balance — September 30, 2023	132,305	$ 34.61	$ 4.6

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, 2021	78,366	$ 35.32	$ 2.8
Granted	24,790	58.77	1.5
Incremental performance shares granted	39,730	25.12	1.0
Vested	(79,460)	25.12	(2.1)
Forfeited	(5,022)	49.00	(0.2)
Ending Balance — December 31, 2022	58,404	$ 51.03	$ 3.0
Granted	63,446	39.29	2.4
Incremental performance shares granted	7,305	34.63	0.3
Vested	(18,041)	35.17	(0.6)
Forfeited	(13,224)	26.03	(0.4)
Ending Balance — September 30, 2023	97,890	$ 48.50	$ 4.7

(1) As discussed in Note 2 to our financial statements in this Form 10-Q, 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 awards at the achieved performance 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, 2021	384,046	$ 43.15	$ 16.6
Granted	174,340	44.08	7.7
Vested	(279,123)	44.64	(12.5)
Forfeited	(2,497)	46.08	(0.1)
Ending Balance — December 31, 2022	276,766	$ 42.21	$ 11.7
Granted	342,349	30.08	10.3
Vested	(138,048)	39.59	(5.4)
Forfeited	—	—	—
Ending Balance — September 30, 2023	481,067	$ 34.32	$ 16.6

(1) See Note 4 to our financial statements in this Form 10-Q 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, 2021	347,478	$ 31.61	$ 11.0
Granted	125,550	54.77	6.9
Incremental performance shares granted	149,000	26.70	4.0
Vested	(298,000)	26.70	(8.0)
Forfeited	—	—	—
Ending Balance — December 31, 2022	324,028	$ 42.84	$ 13.9
Granted	282,034	39.29	11.1
Incremental performance shares granted	40,394	19.94	0.8
Vested	(96,496)	19.94	(1.9)
Forfeited	(56,102)	4.56	(0.3)
Ending Balance — September 30, 2023	493,858	$ 47.76	$ 23.6

(1) See Note 4 to our financial statements in this Form 10-Q 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. The incremental performance shares granted relate to the vesting of awards at the achieved performance level.

NOL Shareholder Rights Plan

In the fourth quarter of 2023, we entered into a Tax Benefits Preservation Plan ("the Plan"), which is designed to protect our tax benefits in connection with any "ownership change" within the meaning of Section 382 of the Internal Revenue Code of 1986. Under the Plan, we declared a dividend distribution of one right (a "Right") for each share of common stock, par value $0.01 per share outstanding, to be paid to all record holders of Common Stock at the close of business on November 21, 2023. The Plan is intended to reduce the risk that our ability to use net operating losses ("NOLs") and certain other Tax Benefits will become substantially limited as the result of an "ownership change". As of December 31, 2022, we had approximately $465 million of NOLs and $21 million of tax credits available that may be used to offset future taxable income.

Pursuant to the Plan, if a stockholder (or group) becomes a 5% stockholder without meeting certain exceptions, the Rights become exercisable upon board approval and entitle stockholders (other than the 5% stockholder or group causing the rights to become exercisable) to purchase additional of our common shares at a significant discount, resulting in significant dilution in the economic interest and voting power of the 5% stockholder or group causing the Rights to become exercisable. Stockholders owning 5% or more of our outstanding shares at the time the Plan was adopted were grandfathered and will only cause the Rights to distribute and become exercisable if they acquire any additional HASI shares. Under the Plan, the Board has the ability to determine in its sole discretion that any person shall not be deemed an acquiring person and therefore that the Rights shall not become exercisable if such person becomes a 5% stockholder. The adoption of the Plan and the dividend distribution will not have an impact on our consolidated financial statements.

12. Earnings per Share of Common Stock

The net income or loss attributable to the non-controlling 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 our financial statements in this Form 10-Q. 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 or exchange of the note in the denominator in calculating dilutive EPS as described in Note 2 to our financial statements in this Form 10-Q.

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

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2023	2022	2023	2022
Numerator:	*(in millions, except share and per share data)*			
Net income (loss) attributable to controlling stockholders and participating securities	$ 21.4	$ 34.5	$ 59.1	$ 61.4
Less: Dividends and distributions on participating securities	(0.2)	(0.1)	(0.8)	(0.5)
Less: Undistributed earnings attributable to participating securities	—	—	—	—
Net income (loss) attributable to controlling stockholders — basic	21.2	34.4	58.3	60.9
Add: Interest expense related to Convertible Notes under the if-converted method	0.2	0.3	0.9	1.0
Add: Undistributed earnings attributable to participating securities	—	—	—	—
Net income (loss) attributable to controlling stockholders — dilutive	$ 21.4	$ 34.7	$ 59.2	$ 61.9
Denominator:				
Weighted-average number of common shares — basic	107,715,057	87,721,756	98,665,598	86,784,895
Weighted-average number of common shares — diluted	109,145,088	90,762,820	101,142,782	89,928,741
Basic earnings per common share	$ 0.20	$ 0.39	$ 0.59	$ 0.70
Diluted earnings per common share	$ 0.20	$ 0.38	$ 0.59	$ 0.69
Securities being allocated a portion of earnings:				
Weighted-average number of OP units	1,365,040	1,136,809	1,294,511	955,574
	As of September 30, 2023	**As of September 30, 2022**		
Participating securities:				
Unvested restricted common stock and unvested LTIP Units with time-based vesting conditions outstanding at period end	613,373	392,602		

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2023	2022	2023	2022
Potentially dilutive securities as of period end that were not dilutive for the presented periods:				
Unvested restricted common stock and unvested LTIP Units with time-based vesting conditions	613,373	392,602	613,373	392,602
Restricted stock units	97,890	39,438	97,890	39,438
LTIP Units with market-based vesting conditions	493,858	211,824	493,858	211,824
Potential shares of common stock related to Convertible Notes	18,374,760	3,537,460	18,374,760	3,537,460

13. Equity Method Investments

We recognized income (loss) from our equity method investments of approximately $3 million and $27 million during the three and nine months ended September 30, 2023, respectively, compared to $31 million and $59 million during the three and nine months ended September 30, 2022, respectively. We describe our accounting for non-controlling equity investments in Note 2.

The following is a summary of the consolidated balance sheets and income statements of the entities in which we have a significant equity method investment. These amounts are presented on the underlying investees' accounting basis. In certain instances, adjustment to these equity values may be necessary in order to reflect our basis in these investments. As described in Note 2, any difference between the amount of our investment and the amount of our share of underlying equity is generally amortized over the life of the assets and liabilities to which the differences relate. Certain of our equity method investments have the unrealized mark-to-market losses on energy hedges at the project level that do not qualify for hedge accounting. These unrealized mark-to-market losses, which resulted from rising energy prices, are recorded in the revenue line of the projects' statements of operations. As these swaps are settled, the projects will sell power at the higher market price, offsetting the loss recognized on the energy hedges.

	Jupiter Equity Holdings LLC	Other Investments [1]	Total
		(in millions)	
Balance Sheet			
As of June 30, 2023			
Current assets	$ 61	$ 760	$ 821
Total assets	3,020	12,802	15,822
Current liabilities	130	818	948
Total liabilities	685	6,841	7,526
Members' equity	2,335	5,961	8,296
As of December 31, 2022			
Current assets	106	586	692
Total assets	3,114	11,588	14,702
Current liabilities	139	684	823
Total liabilities	751	6,085	6,836
Members' equity	2,363	5,503	7,866
Income Statement			
For the six months ended June 30, 2023			
Revenue	59	412	471
Income (loss) from continuing operations	(27)	(64)	(91)
Net income (loss)	(27)	(64)	(91)
For the six months ended June 30, 2022			
Revenue	(135)	239	104
Income (loss) from continuing operations	(231)	(110)	(341)
Net income (loss)	(231)	(110)	(341)

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

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

In this Form 10-Q, unless specifically stated otherwise or the context otherwise indicates, references to "we," "our," "us," and the "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-Q 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.

The following discussion is a supplement to and should be read in conjunction with the accompanying Condensed Consolidated Financial Statements and related notes and with our Annual Report on Form 10-K for the year ended December 31, 2022, as amended by our Amendment No. 1 to our Annual Report on Form 10-K for the year ended December 31, 2022 (collectively, our "2022 Form 10-K"), that was filed with the SEC.

Our Business

We are a climate positive investment firm that actively partners with clients to deploy real assets that facilitate the energy transition. With more than $11 billion in managed assets, our vision is that every investment improves our climate future. Our investments take many forms, including equity, joint ventures, real estate, commercial and government receivables or securities, and other financing transactions. In addition to Net Investment Income from our portfolio, we also generate ongoing fees through gain-on-sale securitization transactions, asset management, and other services.

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 that provide recurring, programmatic investment and fee-generating opportunities.

Our investments are focused on three markets:

- *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")*: renewable energy projects that deploy cleaner energy sources, such as solar, solar-plus-storage, stand-alone storage, and wind, to generate power production where the off-taker or counterparty may be part of the wholesale electric power markets; and
- *Fuels, Transport, and Nature ("FTN")*: renewable natural gas (RNG) plants, transportation fleet enhancements, and ecological restoration projects, among others, that increase resiliency or more efficiently use natural resources.

We prefer investments in which the assets use proven technology and have a long-term, creditworthy off-taker or counterparties. For BTM assets, the off-taker or counterparty may be the building owner or occupant, and our investment may be secured by the installed improvements or other real estate rights. For GC assets, the off-takers or counterparties may be utility or electric users who have entered into contractual commitments, such as power purchase agreements ("PPAs"), to purchase power produced by a renewable energy project at a specified price with potential price escalators for a portion of the project's estimated life.

We completed approximately $973 million and $1.8 billion of transactions during the three and nine months ended September 30, 2023, respectively, compared to approximately $273 million and $944 million during the same periods in 2022, respectively. As of September 30, 2023, pursuant to our strategy of holding transactions on our balance sheet, we held approximately $5.5 billion of transactions on our balance sheet, which we refer to as our "Portfolio." As of September 30, 2023, our Portfolio consisted of over 460 assets 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. 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/or residual interests in the assets and in some cases, ongoing fees. As of September 30, 2023, we managed approximately $6.0 billion in assets in these securitization trusts or vehicles that are not consolidated on our balance sheet. When combined with our Portfolio, as of September 30, 2023, we manage approximately $11.5 billion of assets which we refer to as our "Managed Assets".

Our equity investments 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 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. 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. We also own, both directly and through equity investments, land which is leased under long-term agreements to renewable energy projects, where our investment returns are typically senior to most project costs, debt, and equity.

We often make investments where we hold a preferred or mezzanine position in a project company where we are subordinated to project debt and/or preferred forms of equity. Investing greater than 10% of our assets in any individual investment 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.

We believe we have available a broad range of financing sources as part of our strategy to fund our investments. We may finance our investments through the use of cash on hand, non-recourse debt, recourse debt, convertible or exchangeable securities, or equity and may also decide to finance such transactions through the use of off-balance sheet securitization structures. When issuing debt, we generally provide the estimated carbon emission savings using CarbonCount. In addition, certain of our debt issuances meet 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 that do not qualify under these principles.

We have a large and active pipeline of potential new opportunities that are in various stages of our underwriting process. We believe the Inflation Reduction Act signed into law on August 16, 2022, incentivizes the construction of and investment in climate solutions and will result in additional investment opportunities in the markets in which we invest over the next several years, which may result in increases in our pipeline in the future. 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 September 30, 2023, our pipeline consisted of more than $5.0 billion in new equity, debt and real estate opportunities. Of our pipeline, approximately 49% is related to BTM assets and 36% is related to GC assets, with the remainder related to FTN. There can, however, 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.

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 carbon dioxide equivalent basis representing the locational marginal emissions associated with a projects location to an estimate of a project's energy production or savings to compute an estimate of metric tons of carbon emissions avoided. Refer to "MD&A — Environmental Metrics" below for a discussion of the carbon emissions avoided as a result of our investments. In addition to carbon emission avoidance, we also consider other environmental attributes, such as water use reduction, stormwater remediation benefits and stream restoration benefits.

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, and operate our business in a manner that will permit us to continue to maintain our exemption from registration as an investment company under the 1940 Act. The Company's management has studied the impact of the Company's REIT status, together with the Company's tax and legal advisors, and has made a determination that it would be advisable and in the best interests of the Company to revoke the Company's REIT status, effective for the tax year 2024, subject to approval by the Company's board of directors. Management believes that an alternative tax structure can achieve tax efficiency similar to a REIT, considering the Company's ability to invest in projects with tax attributes (inclusive of credits and depreciation deductions) as well as the Company's existing accumulated net operating losses (NOLs).

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 and transaction mix of 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. We provide a summary of the factors impacting our operating results in our 2022 Form 10-K under MD&A – Factors Impacting our Operating Results.

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. Understanding our accounting policies and the extent to which we make judgments and estimates in applying these policies is integral to understanding our financial statements. We believe the estimates and assumptions used in preparing our financial statements and related footnotes are reasonable and supportable based on the best information available to us as of September 30, 2023. Various uncertainties may materially impact the accuracy of the estimates and assumptions used in the financial statements and related footnotes and, as a result, actual results may vary significantly from estimates.

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. These critical accounting policies govern Consolidation, Equity Method Investments, Impairment or the establishment of an allowance under Topic 326 for our Portfolio and Securitization of Financial Assets. We evaluate our critical accounting estimates and judgments on an ongoing basis and update them, as necessary, based on changing conditions. We provide additional information on our critical accounting policies and use of estimates under Item 7. MD&A—Critical Accounting Policies and Use of Estimates in our 2022 Form 10-K and under Note 2 to our financial statements in this Form 10-Q.

Financial Condition and Results of Operations

Our Portfolio

Our Portfolio totaled approximately $5.5 billion as of September 30, 2023 and included approximately $2.7 billion of BTM assets and approximately $2.0 billion of GC assets, and approximately $0.8 billion of FTN assets. Approximately 44% of our Portfolio consisted of unconsolidated equity investments in renewable energy related projects. Approximately 47% consisted of fixed-rate commercial and government receivables and debt securities, which are classified as investments on our balance sheet, approximately 4% consisted of floating-rate commercial receivables, and 5% of our Portfolio was real estate leased to renewable energy projects under lease agreements. Our Portfolio consisted of over 460 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 September 30, 2023.

The table below provides details on the interest rate and maturity of our receivables and debt securities as of September 30, 2023:

	Balance	Maturity
	(in millions)	
Floating rate receivable, interest rate of 9.66% per annum	$ 213	2026 to 2026
Fixed-rate receivables, interest rates less than 5.00% per annum	105	2025 to 2047
Fixed-rate receivables, interest rates from 5.00% to 6.50% per annum	405	2024 to 2061
Fixed-rate receivables, interest rates from 6.50% to 8.00% per annum	705	2025 to 2069
Fixed-rate receivables, interest rates from 8.00% to 9.50% per annum	967	2024 to 2039
Fixed-rate receivables, interest rates greater than 9.50% per annum	455	2024 to 2047
Receivables	2,850 (1)	
Allowance for loss on receivables	(51)	
Receivables, net of allowance	2,799	
Fixed-rate investments, interest rates less than 5.00% per annum	4	2035 to 2047
Fixed-rate investments, interest rates from 5.00% to 6.50% per annum	5	2047 to 2051
Total receivables and investments	$ 2,808	

(1) Excludes receivables held for sale of $17 million.

The table below presents, for the debt investments and real estate related holdings of our Portfolio and our interest-bearing liabilities inclusive of our short-term commercial paper issuances and revolving 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.

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2023	2022	2023	2022
	(dollars in millions)			
Portfolio, excluding equity method investments				
Interest income, receivables	$ 53	$ 34	$ 141	$ 97
Average balance of receivables	$ 2,431	$ 1,665	$ 2,231	$ 1,602
Average interest rate of receivables	8.7 %	8.1 %	8.4 %	8.1 %
Interest income, investments	$ —	$ —	$ —	$ —
Average balance of investments	$ 12	$ 12	$ 12	$ 14
Average interest rate of investments	4.4 %	4.4 %	4.6 %	4.3 %
Rental income	$ 6	$ 7	$ 19	$ 20
Average balance of real estate	$ 330	$ 359	$ 345	$ 358
Average yield on real estate	7.3 %	7.4 %	7.4 %	7.3 %
Average balance of receivables, investments, and real estate	$ 2,773	$ 2,036	$ 2,588	$ 1,974
Average yield from receivables, investments, and real estate	8.5 %	7.9 %	8.3 %	7.9 %
Debt				
Interest expense [(1)]	$ 43	$ 30	$ 120	$ 85
Average balance of debt	$ 3,527	$ 2,777	$ 3,320	$ 2,667
Average cost of debt	4.9 %	4.3 %	4.8 %	4.3 %

(1) Excludes any loss on debt modification or extinguishment included in interest expense in our income statement.

The following table provides a summary of our anticipated principal repayments for our receivables and investments as of September 30, 2023:

	Payment due by Period				
	Total	Less than 1 year	1-5 years	5-10 years	More than 10 years
	(in millions)				
Receivables (excluding allowance)	$ 2,850	$ 68	$ 638	$ 1,255	$ 889
Investments	9	—	—	1	8

See Note 6 to our financial statements in this Form 10-Q for information on:

- the anticipated maturity dates of our receivables and investments and the weighted average yield for each range of maturities as of September 30, 2023,
- the term of our leases and a schedule of our future minimum rental income under our land lease agreements as of September 30, 2023,
- the Performance Ratings of our Portfolio, and
- the receivables on non-accrual status.

For information on our securitization assets relating to our securitization trusts, see Note 5 to our financial statements in this Form 10-Q. The securitization assets do not have a contractual maturity date and the underlying securitized assets have contractual maturity dates until 2059.

Results of Operations

Comparison of the Three Months Ended September 30, 2023 vs. Three Months Ended September 30, 2022

	Three months ended September 30, 2023	Three months ended September 30, 2022	$ Change	% Change
	(dollars in thousands)			
Revenue				
Interest income	$ 54,295	$ 34,303	$ 19,992	58 %
Rental income	6,039	6,609	(570)	(9)%
Gain on sale of assets	22,405	14,490	7,915	55 %
Securitization asset income	5,620	4,403	1,217	28 %
Other Income	1,492	345	1,147	332 %
Total Revenue	89,851	60,150	29,701	49 %
Expenses				
Interest expense	43,295	29,556	13,739	46 %
Provision for loss on receivables and securitization assets	9,792	(2,463)	12,255	(498)%
Compensation and benefits	16,296	12,933	3,363	26 %
General and administrative	6,708	8,150	(1,442)	(18)%
Total expenses	76,091	48,176	27,915	58 %
Income (loss) before equity method investments	13,760	11,974	1,786	15 %
Income (loss) from equity method investments	2,759	30,552	(27,793)	(91)%
Income (loss) before income taxes	16,519	42,526	(26,007)	(61)%
Income tax (expense) benefit	5,128	(7,585)	12,713	(168)%
Net income (loss)	$ 21,647	$ 34,941	$ (13,294)	(38)%

- Net income decreased by $13 million due to a decrease in equity method investments income of $28 million and an increase in total expenses of $28 million, offset by a $30 million increase in total revenue, and a $13 million increase in income tax benefit (expense).
- Total revenue increased by $30 million due to a $21 million increase in interest income and securitization asset income, driven by a higher average Portfolio balance and by higher Managed Assets. Gain on sale and other income increased by $9 million, driven by a change in the mix and volume of assets being securitized, which included the balance sheet rotation of certain land assets.
- Interest expense increased by $14 million primarily due to a larger average outstanding debt balance and a higher average interest rate. We recorded a $10 million provision for loss on receivables and securitization assets, driven primarily by loans and loan commitments made during the quarter along with a provision on our securitization assets based on changes in our estimated cash flows due to prepayments on certain of the assets that have been securitized.
- Compensation and benefits and general and administrative expenses increased by $2 million primarily due to growth of the company.
- Income (loss) from equity method investments using HLBV allocations decreased by $28 million primarily due to fewer tax attributes recognized by tax equity investors in our projects than in the prior year, which decreased our allocation of HLBV income.
- Income tax benefit (expensed) increased by $13 million primarily due to future tax benefits generated by our taxable REIT subsidiaries.

Comparison of the Nine Months Ended September 30, 2023 vs. Nine Months Ended September 30, 2022

	Nine Months Ended September 30, 2023	Nine Months Ended September 30, 2022	$ Change	% Change
	(dollars in thousands)			
Revenue				
Interest income	$ 145,624	$ 97,904	$ 47,720	49 %
Rental income	19,013	19,716	(703)	(4)%
Gain on sale of assets	52,915	51,252	1,663	3 %
Securitization asset income	13,381	9,943	3,438	35 %
Other Income	2,353	2,614	(261)	(10)%
Total Revenue	233,286	181,429	51,857	29 %
Expenses				
Interest expense	120,413	85,035	35,378	42 %
Provision for loss on receivables	12,481	6,222	6,259	101 %
Compensation and benefits	48,527	50,108	(1,581)	(3)%
General and administrative	24,826	22,696	2,130	9 %
Total expenses	206,247	164,061	42,186	26 %
Income (loss) before equity method investments	27,039	17,368	9,671	56 %
Income (loss) from equity method investments	27,429	58,533	(31,104)	(53)%
Income (loss) before income taxes	54,468	75,901	(21,433)	(28)%
Income tax (expense) benefit	5,299	(13,794)	19,093	(138)%
Net income (loss)	$ 59,767	$ 62,107	$ (2,340)	(4)%

- Net income decreased by $2 million due to a decrease in income from equity method investments of $31 million and an increase in total expenses of $42 million, offset by an increase in total revenue of $52 million and an increase in income tax benefit (expense) of $19 million.
- Total revenue increased by $52 million due to a $51 million increase in interest income and securitization income driven by a higher average Portfolio balance and by higher Managed Assets.
- Interest expense increased by $35 million primarily due to a larger average outstanding debt balance and a higher average interest rate. We recorded a provision for loss on receivables of $12 million primarily as a result of loans and loan commitments offset partially by the release of allowance on loans which we collected in full.
- Compensation and benefits and general and administrative expense decreased by $1 million primarily due to higher share-based compensation recognized in the prior year for certain awards to employees eligible for retirement, offset partially by a one-time transaction related payment.
- Income from equity method investments decreased by $31 million primarily due fewer tax attributes recognized by tax equity investors in our projects than in the prior year, which decreased our allocation of HLBV income.
- Income tax benefit increased by $19 million due to future tax benefits generated by our taxable REIT subsidiaries.

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) distributable net investment income, and (3) managed assets. 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 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, losses or (gains) from modification or extinguishment of debt facilities, 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. We will use judgment in determining when we will reflect the losses on receivables in our distributable earnings, and 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 adjustments 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 in any one period 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, which 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 underwritten project cash flows discounted back to the net present value, based on a target investment rate, with the 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. The investment tax credit available for election in solar projects is a one-time credit realized in the quarter when the project is considered operational for tax purposes and is fully allocated under HLBV in that quarter (subject to an impairment test), while the production tax credit required for wind projects and electable for solar projects is a ten year credit and thus is allocated under HLBV over a ten year period. 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 in a given period. We also consider the impact of any OTTI in determining our income from equity method investments.

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 in any one period. 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 underwritten investment rate), 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 in any one period.

We have acquired equity investments in portfolios of projects which have the majority of the distributions payable to more senior investors in the first few years of the project. The following table provides results related to our equity method investments for the three and nine months ended September 30, 2023 and 2022.

	Three months ended September 30,				Nine months ended September 30,			
	2023		2022		2023		2022	
	(in millions)							
Income (loss) under GAAP	$	3	$	31	$	27	$	59
Collections of Distributable earnings	$	12	$	20	$	30	$	41
Return of Capital		12		60		17		91
Cash collected	$	24	$	80	$	47	$	132

(1) Cash collected includes $9 million during the three and nine months ended September 30, 2023 and $64 million during the three and nine months ended September 30, 2022 related to the issuance of debt by three of our equity method investees, the repayment of which we have guaranteed.

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.

The table below provides a reconciliation of our GAAP net income (loss) to distributable earnings for the three and nine months ended September 30, 2023 and 2022.

	Three Months Ended September 30,				Nine Months Ended September 30,			
	2023		2022		2023		2022	
	$	Per Share	$	Per Share	$	Per Share	$	Per Share
	(dollars in thousands, except per share amounts)							
Net income (loss) attributable to controlling stockholders [1]	$ 21,446	$ 0.20	$ 34,534	$ 0.38	$ 59,075	$ 0.59	$ 61,431	$ 0.69
Distributable earnings adjustments:								
Reverse GAAP (income) loss from equity method investments	(2,759)		(30,552)		(27,429)		(58,533)	
Equity method investments earnings adjustment	41,034		31,315		113,453		98,960	
Equity-based expenses	3,499		2,060		16,372		17,993	
Provision for loss on receivables [2]	9,792		(2,463)		12,481		6,222	
Amortization of intangibles	716		760		2,260		2,360	
Non-cash provision (benefit) for income taxes	(5,128)		7,585		(5,299)		13,794	
Current year earnings attributable to non-controlling interest	201		407		692		676	
Distributable earnings [3]	$ 68,801	$ 0.62	$ 43,646	$ 0.49	$ 171,605	$ 1.70	$ 142,903	$ 1.61

(1) The per share data reflects the GAAP diluted earnings per share and is the most comparable GAAP measure to our distributable earnings per share.

(2) In addition to these provisions, in the second quarter of 2022 we wrote-off two commercial receivables with a combined total carrying value of approximately $8 million which represented assignments of land lease payments from two wind projects that we had originated in 2014 as a part of an acquisition of a large land portfolio. In 2017, the operator of the projects terminated the lease, at which time we filed a legal claim and placed these assets on non-accrual status. In 2019, we received a court decision indicating that the owners of the projects were within their rights under the contract terms to terminate the lease which impacts the land lease assignments to us, at which time we reserved the receivables for their full carrying amount. In the second quarter of 2022, we received a court decision indicating that our appeal was not successful, and accordingly wrote off the full amount of the receivable. We have excluded the write off from Distributable earnings due to the infrequent occurrence of credit losses as well as the unique nature of the receivables, as the assignment of land lease payments from wind projects represent a small portion of our total portfolio.

(3) Distributable earnings per share are based on 110,290,640 and 101,046,485 shares for the three and nine months ended September 30, 2023, respectively, and 89,635,572 and 88,612,178 shares for the three and nine months ended September 30, 2022, 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 issuances related to share based compensation units in the amount we believe is reasonably certain to vest. As it relates to Convertible Notes, we will assess the market characteristics around the instrument to determine if it is more akin to debt or equity based on the value of the underlying shares compared to the conversion price. If the instrument is more debt-like then we will include any related interest expense and exclude the underlying shares issuable upon conversion of the

instrument. If the instrument is more equity-like and is more dilutive when treated as equity then we will exclude any related interest expense and include the weighted average shares underlying the instrument. We will consider the impact of any capped calls in assessing whether an instrument is equity-like or debt like.

Distributable Net Investment Income

We have a portfolio of investments, which we finance using a combination of debt and equity. We calculate distributable net investment income as shown in the table below by adjusting GAAP-based net investment income for those distributable earnings adjustments that are applicable to distributable 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. For further information on the adjustments between GAAP-based net investment income and distributable net investment income, see the discussion above related to Distributable Earnings.

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

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2023	2022	2023	2022
	(in thousands)			
Interest income	$ 54,295	$ 34,303	$ 145,624	$ 97,904
Rental income	6,039	6,609	19,013	19,716
GAAP-based investment revenue	60,334	40,912	164,637	117,620
Interest expense	43,295	29,556	120,413	85,035
GAAP-based net investment income	17,039	11,356	44,224	32,585
Equity method earnings adjustment	41,034	31,315	113,453	98,960
Amortization of real estate intangibles	716	760	2,260	2,292
Distributable net investment income	$ 58,789	$ 43,431	$ 159,937	$ 133,837

Managed Assets

As we both consolidate assets on our balance sheet and securitize assets off-balance sheet, 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 Assets" 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 off-balance sheet securitized receivables. Our management also uses Managed Assets in this way. 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-based Portfolio to our Managed Assets:

	As of	
	September 30, 2023	December 31, 2022
	(in millions)	
Equity method investments	$ 2,564	$ 1,870
Commercial receivables, net of allowance	2,706	1,887
Government receivables	93	103
Receivables held-for sale	17	85
Real estate	111	353
Investments	9	10
GAAP-based Portfolio	5,500	4,308
Assets held in securitization trusts	5,978	5,486
Managed Assets	$ 11,478	$ 9,794

Other Metrics

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 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 $5.5 billion as of September 30, 2023. Unlevered portfolio yield was 7.9% as of September 30, 2023 and 7.5% as of December 31, 2022. See Note 6 to our financial statements and MD&A - Our Business in this Form 10-Q for additional discussion of the characteristics of our portfolio as of September 30, 2023.

Environmental Metrics

As a part of our investment process, we calculate the estimated metric tons of carbon emissions avoided by our investments by applying emissions factor data representing the locational marginal emissions associated with a projects location to an estimate of a project's energy production or savings to compute an estimate of metric tons of carbon emissions avoided. We then determine the metric tons of carbon emissions avoided per thousand dollars of investments, in a calculation we refer to as CarbonCount, which enables us to measure the impact our investments have on avoiding carbon emissions. We estimate that our investments originated during the quarter ended September 30, 2023, will avoid annual carbon emissions by approximately 127,000 metric tons, equating to a CarbonCount® of 0.14. We estimate that our investments made since 2013 have cumulatively avoided annual carbon emissions by over 23 million metric tons.

Liquidity and Capital Resources

Liquidity is a measure of our ability to meet potential short term (within one year) and long term cash requirements. We carefully manage and forecast our liquidity sources and uses on a frequent basis. Our sources of liquidity typically include collections from our Portfolio, cash proceeds from asset sales and securitizations, fee revenue, proceeds from debt transactions, and proceeds from equity transactions. Our uses of liquidity typically include operating expenses (including cash compensation), interest and principal payments on our debt, shareholder dividends and limited partner distributions, and funding investments. We maintain sufficiently available liquidity in the form of unrestricted cash and immediately available capacity on our credit facilities to manage our net cash flow.

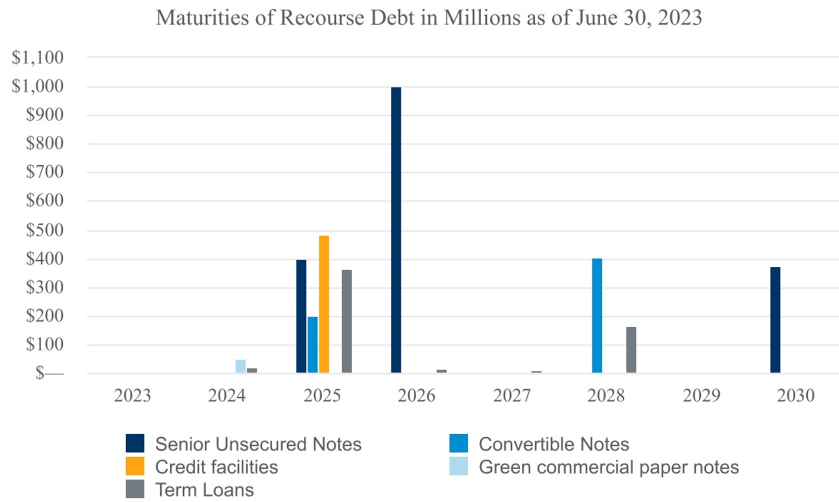
We typically pay our operating expenses, our debt service, and dividends from collections on our Portfolio and proceeds from sales of Portfolio investments. We use borrowings as part of our financing strategy to increase potential returns to our stockholders and have available to us a broad range of financing sources. We finance our investments primarily with non-recourse or recourse debt, equity and off-balance sheet securitization structures.

We have adequate liquidity as of September 30, 2023, with unrestricted cash balances of $156 million, an unsecured revolving credit facility with an unused capacity of $355 million, and $50 million of available capacity in our green commercial paper program. During 2023, we have issued $465 million in equity. During the quarter ended September 30, 2023, we issued our 2028 Exchangeable Notes with a principal amount of $403 million, with the proceeds in part used to payoff the 2023 Convertible Notes at maturity. As of September 30, 2023, we had $170 million of non-recourse borrowings, $1.8 billion of senior unsecured notes, $573 million in term loans, and $603 million of Convertible Notes outstanding. For further information, see Note 8 to our financial statements of this Form 10-Q.

We also use off-balance sheet securitization transactions with large institutional investors such as life insurance companies, where we transfer the assets we originate to securitization trusts or other bankruptcy remote special purpose funding vehicles that are not consolidated on our balance sheet. As of September 30, 2023, the outstanding balance of our assets financed through the use of these off-balance sheet transactions was approximately $6.0 billion.

In addition to general operational obligations, which are typically paid as incurred, and dividends and distributions, which are declared by our board of directors quarterly, we have future cash needs related to the payments due at maturity on our Senior Unsecured Notes, and loans under our term loan facility and the balances of our short-term commercial paper issuances and revolving credit facilities. We also have maturities related to our non-recourse debt and Convertible Notes. However, as it relates to the non-recourse debt, 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. As it relates to the Convertible Notes, those obligations may be settled at maturity with the issuance of shares or with cash. For further information on our long-term debt, see Note 8 to our financial statements of this Form 10-Q.

The maturity profile of our recourse debt obligations are as follows:



We may raise additional equity capital and will continue to use fixed and floating rate borrowings, which may be in the form of short-term commercial paper issuances, revolving credit facilities, recourse or non-recourse debt, convertible or exchangeable securities, 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 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, and the interest rate environment. As shown in the table below, our debt to equity ratio was approximately 1.7 to 1 as of September 30, 2023, below our current board-approved leverage limit of up to 2.5 to 1. Our percentage of fixed rate debt was approximately 88% as of September 30, 2023, which is within our targeted fixed rate debt percentage range of 75% to 100%. Our targeted fixed rate debt range allows for percentages as low as 70% on a short term basis if we intend to repay or swap floating rate borrowings in the near term.

The calculation of our fixed-rate debt and financial leverage is shown in the chart below:

		September 30, 2023	% of Total			December 31, 2022	% of Total	
		(dollars in millions)				*(dollars in millions)*		
Floating-rate borrowings [1]	$	454	12	%	$	431	14	%
Fixed-rate debt [2]		3,204	88	%		2,545	86	%
Total debt	$	3,658	100	%	$	2,976	100	%
Equity	$	2,100			$	1,665		
Leverage		1.7 to 1				1.8 to 1		

(1) Floating-rate borrowings include borrowings under our floating-rate credit facilities and commercial paper issuances with less than six months original maturity, to the extent such borrowings are not hedged using interest rate swaps.

(2) Fixed-rate debt includes the impact of our interest rate swaps and collars on debt that is otherwise floating. 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 our identified sources of liquidity 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 increase the need to replenish capital for growth and our operations.

Sources and Uses of Cash

We had approximately $170 million and $176 million of unrestricted cash, cash equivalents, and restricted cash as of September 30, 2023 and December 31, 2022, respectively.

Cash flows relating to operating activities

Net cash provided by operating activities was approximately $92 million for the nine months ended September 30, 2023, driven primarily by net income of $60 million and adjustments for non-cash and other items of $32 million. The non-cash and other adjustments consisted of increases of $15 million related to equity-based compensation, $12 million of depreciation and amortization, $12 million related to provision for loss on receivables, $40 million in changes in receivables held-for-sale, and $14 million related to changes in accounts payable and accrued expenses and other items. These were partially offset by decreases of $1 million related to equity method investments, $34 million related to gains on securitizations, and $26 million related to portfolio accrued interest.

Net cash provided by operating activities was approximately $64 million for the nine months ended September 30, 2022, driven primarily by net income of $62 million plus adjustments for non-cash and other items of $2 million. The non-cash and other adjustments consisted of increases of $18 million related to equity-based compensation, $12 million of depreciation and amortization, $28 million related to changes in accounts payable and accrued expenses, $6 million related to provision for loss on receivables, and $5 million in changes in receivables held-for-sale. These were partially offset by decreases of $26 million related to equity method investments, $25 million related to gains on securitizations, $10 million related to portfolio accrued interest, and $6 million related to other items.

Cash flows relating to investing activities

Net cash used in investing activities was approximately $1.4 billion for the nine months ended September 30, 2023. We made $1.0 billion of investments in receivables and fixed rate debt-securities, made collateral deposits of $14 million, and made $583 million of equity method investments. We collected $167 million of principal payments from receivables and fixed rate debt-securities, $20 million from equity method investments in excess of income recognized to date under GAAP, and $8 million from the sale of receivables and investments.

Net cash used in investing activities was approximately $254 million for the nine months ended September 30, 2022. We made $340 million of investments in receivables and fixed rate debt-securities, made $144 million of equity method investments and purchased $5 million of real estate. We collected $107 million of principal payments from receivables and fixed rate debt-securities, $101 million from equity method investments in excess of income recognized to date under GAAP, and $12 million from the sale of receivables and investments, and withdrew $15 million from escrow accounts.

Cash flows relating to financing activities

Net cash provided by financing activities was approximately $1.3 billion for the nine months ended September 30, 2023. We received $777 million from our credit facilities, $465 million of net proceeds from issuances of common stock, $403 million from the issuance of convertible notes, $200 million from the issuance of a term loan, $50 million of net proceeds from the issuance of green commercial paper notes, and collected $106 million of hedge collateral, which were offset by $342 million of payments on credit facilities, $144 million of principal payments on convertible notes, $15 million of principal prepayments on non-recourse debt, $10 million in principal payments on our term loan, $1 million for withholding requirements resulting from the vesting of employee shares, $38 million for premiums on capped calls related to the issuance of convertible notes, $13 million for payment of financing costs, and payments of $118 million of dividends, distributions and other items.

Net cash provided by financing activities was approximately $237 million for the nine months ended September 30, 2022. We received $200 million from the issuance of Convertible Notes, $100 million from our credit facilities, $127 million of net proceeds from issuances of common stock and $50 million of net proceeds from the issuance of green commercial paper notes, which were offset by $100 million of payments on credit facilities, $22 million of principal prepayments on non-recourse debt, $8 million for financing costs, $3 million for withholding requirements resulting from the vesting of employee shares and payments of $107 million of dividends, distributions and other items.

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 $190 million as of September 30, 2023, 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 financial statements in this Form 10-Q, 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 to our financial statements in this Form 10-Q.

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 to our financial statements in our Form 10-K regarding the amount of our distributions that are treated as ordinary taxable 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 assets, 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 2022 and 2023 are described in Note 11 to our financial statements in this Form 10-Q.

Book Value Considerations

As of September 30, 2023, we carried only our investments, residual assets in securitized financial assets, and derivatives 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 September 30, 2023, 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, adjusted for income or loss recognized on such assets. Other than the allowance for current expected credit losses applied to our commercial and governmental 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 fair market value.

Item 3. 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.

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. Through our investments in various 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. We have invested in mezzanine loans and, as a result, we are exposed to additional credit risk. 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 use 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-Q.

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 floating-rate borrowings, 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 revolving 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, or that of the projects in which we invest if applicable, is at fixed rates or may at times be fixed using interest rate hedges that convert most of the floating rate debt to fixed rate debt. 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, if any, on floating rate debt to increase. See Note 3 to our financial statements in this Form 10-Q 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.

We have $454 million of debt with variable interest rates outstanding as of September 30, 2023, including the unhedged portion of loans under our term loan facility, revolving credit facilities and borrowings under our commercial paper program. Future increases in interest rates would result in higher interest expense while future 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 benchmark interest rates would increase the quarterly interest expense related to the $454 million in floating-rate borrowings by $568 thousand. Such hypothetical impact of interest rates on our floating-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 to our financial statements in this Form 10-Q.

Liquidity and Concentration Risk

The assets that comprise our 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 and Environmental Attribute 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 GC utility scale projects that sell power on a wholesale basis 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. Projects in which we invest, or in which we may plan to invest, may also be exposed to volatility in the prices of environmental attributes, such as renewable energy credits or other similar credits which the project may produce.

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 projects have shorter term contracts (which may have the potential of producing higher current returns) or sell their power or environmental attributes in the open market on a merchant basis. The cash flows of certain projects, and thus the repayment of, or the returns available for, our assets, are subject to risk if energy or environmental attribute 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 natural gas price volatility continues or PPAs expire, the cash flows from certain 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. We often invest in utility scale solar projects by 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. Certain of the projects in which we invest may also be obligated to physically deliver energy under PPAs or related agreements, and to the extent they are unable to do so may be negatively impacted. Certain PPAs or related agreements may also price power at a different location than the location where power is delivered to the grid, and the projects may be negatively impacted to the extent to which these prices differ.

We believe high prices in natural gas may increase the demand for other projects such as renewable energy that may be a substitute for natural gas, and that low prices in natural gas may increase demand for some types of projects, such as combined heat and power. 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 our Form 10-K 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. 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 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, refinancing, and cybersecurity 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. Weather related risks are at times managed in cooperation with our clients where they buy offsetting power positions to mitigate power market disruptions or operational impacts. 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 our Form 10-K, Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations - Impact of climate change on our future operations.

Item 4. Controls and Procedures

The Company's Chief Executive Officer and Chief Financial Officer, based on their evaluation of the Company's disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act) required by paragraph (b) of Rule 13a-15 or Rule 15d-15, have concluded that as of September 30, 2023, the Company's disclosure controls and procedures were effective to give reasonable assurances to the timely collection, evaluation and disclosure of information relating to the Company that would potentially be subject to disclosure under the Exchange Act and the rules and regulations promulgated thereunder.

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 the Company to disclose material information otherwise required to be set forth in our periodic reports.

Changes in Internal Controls over Financial Reporting

There have been no changes in the Company's "internal control over financial reporting" (as defined in Rule 13a-15(f) of the Exchange Act) that occurred during the three-month period ended September 30, 2023, that have materially affected, or were reasonably likely to materially affect, the Company's internal control over financial reporting.

PART II. OTHER INFORMATION

Item 1. Legal Proceedings

From time to time, we may be involved in various claims and legal actions in the ordinary course of business. As of September 30, 2023, 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 1A. Risk Factors

For a discussion of our potential risks and uncertainties, see the information in Item 1A. "Risk Factors" of our 2022 Form 10-K, filed with the SEC, which is accessible on the SEC's website at www.sec.gov.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds

Purchases of Equity Securities by the Issuer and Affiliated Purchasers

During the nine months ended September 30, 2023, certain of our employees surrendered common stock owned by them to satisfy their federal and state tax obligations associated with the vesting of their restricted stock awards.

The table below summarizes our repurchases of common stock during 2023. These repurchases are related to the surrender of common stock by certain of our employees to satisfy their tax and other compensation related withholdings associated with the vesting of restricted stock. The price paid per share is based on the closing price of our common stock as of the date of the withholding.

Period	Total number of shares purchased	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
January 1 - January 31, 2023	6,468	$ 34.43	N/A	N/A
March 1 - March 31, 2023	35,104	31.18	N/A	N/A
May 1 - May 31, 2023	4,452	26.10	N/A	N/A
July 1 - July 31, 2023	351	26.11	N/A	N/A
August 1 - August 31, 2023	989	23.56	N/A	N/A

There were no OP units held by our non-controlling interest holders exchanged for shares of our common stock during the nine months ended September 30, 2023.

Item 3. Defaults Upon Senior Securities

None.

Item 4. Mine Safety Disclosures

Not applicable.

Item 5. Other Information

None.

Item 6. Exhibits [add NOL plan]

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	Amended and restated bylaws of Hannon Armstrong Sustainable Infrastructure Capital, Inc. (incorporated by reference to Exhibit 3.1 to the Registrant's Form 8-K (No. 001-35877), filed on August 1, 2023)
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 the Registrant's Form S-11 (No. 333-186711), filed on April 12, 2013)
4.2	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)
4.3	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.)
4.4	Indenture, dated as of June 28, 2021, 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 3.375% Senior Notes due 2026) (incorporated by reference to Exhibit 4.1 on the Registrant's Form 8-K (No. 011-35877), filed on June 28, 2021.)
4.5	Indenture, dated as of April 13, 2022 by and among 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 Trust Company, National Association, as trustee. (incorporated by reference to Exhibit 4.1 on the Registrant's Form 8-K (No. 011-35877) filed on April 15, 2022.)
4.6	First Supplemental Indenture, dated as of April 13, 2022 by and among 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 Trust Company, National Association, as trustee (including the form of HAT Holdings I LLC's and HAT Holdings II LLC's 0.00% Green Exchangeable Senior Note due 2025).(incorporated by reference to Exhibit 4.2 on the Registrant's Form 8-K (No. 011-35877) filed on April 15, 2022)
4.7	Indenture, dated as of August 11, 2023 by and among 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 Trust Company, National Association, as trustee. (incorporated by reference to Exhibit 4.1 on the Registrant's Form 8-K (No. 011-35877) filed on August 11, 2023)
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.INS*	XBRL Instance Document
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 herewith.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, as amended, 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: November 3, 2023	/s/ Jeffrey A. Lipson Jeffrey A. Lipson Chief Executive Officer and President
Date: November 3, 2023	/s/ Marc T. Pangburn Marc T. Pangburn Chief Financial Officer and Executive Vice President
Date: November 3, 2023	/s/ Charles W. Melko Charles W. Melko Chief Accounting Officer, Treasurer and Senior Vice President

EXHIBIT 31.1
CERTIFICATIONS

I, Jeffrey A. Lipson, certify that:

I have reviewed this Quarterly Report on Form 10-Q of Hannon Armstrong Sustainable Infrastructure Capital, Inc. (the “registrant”);

1. 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;
2. 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;
3. 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
4. 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: November 3, 2023	By:	/s/ Jeffrey A. Lipson
	Name:	Jeffrey A. Lipson
	Title:	Chief Executive Officer and President

EXHIBIT 31.2

CERTIFICATIONS

I, Marc T. Pangburn, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q 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:	November 3, 2023	By:	/s/ Marc T. Pangburn
		Name:	Marc T. Pangburn
		Title	Chief Financial Officer and Executive Vice President

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 Quarterly Report on Form 10-Q of Hannon Armstrong Sustainable Infrastructure Capital, Inc. (the "Company") for the period ended September 30, 2023, to be filed with the Securities and Exchange Commission on or about the date hereof (the "report"), I, Jeffrey A. Lipson, 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: November 3, 2023	By:	/s/ Jeffrey A. Lipson
	Name:	Jeffrey A. Lipson
	Title:	Chief Executive Officer and President

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 Quarterly Report on Form 10-Q of Hannon Armstrong Sustainable Infrastructure Capital, Inc. (the "Company") for the period ended September 30, 2023, to be filed with the Securities and Exchange Commission on or about the date hereof (the "report"), I, Marc T. Pangburn, Chief Financial 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: November 3, 2023	By:	/s/ Marc T. Pangburn
	Name:	Marc T. Pangburn
	Title:	Chief Financial Officer and Executive Vice President