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 March 31, 2021

OR

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

For the transition period from __________ to __________

Commission file number 001-35877

HANNON ARMSTRONG SUSTAINABLE INFRASTRUCTURE CAPITAL, INC.

(Exact name of registrant as specified in its charter)

Maryland	**46-1347456**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**
1906 Towne Centre Blvd Suite 370 **Annapolis, Maryland**	**21401**
(Address of principal executive offices)	**(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: 78,669,875 shares of common stock, par value $0.01 per share, outstanding as of May 3, 2021 (which includes 343,802 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.

Forward-looking statements are subject to significant risks and uncertainties. Investors are cautioned against placing undue reliance on such statements. Actual results may differ materially from those set forth in the forward-looking statements. Factors that could cause actual results to differ materially from those described in the forward-looking statements are contained in our Annual Report on Form 10-K for the year ended December 31, 2020, as amended by our Amendment No. 1 to our Annual Report on Form 10-K for the year ended December 31, 2020 (collectively, our “2020 Form 10-K”) that was filed with the U.S. Securities and Exchange Commission (the “SEC”), and this Form 10-Q and other periodic reports that we file with the SEC.

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

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

- negative impacts from a continued spread of COVID-19, including on the U.S. or global economy or on our business, financial position or results of operations;
- our expected returns and performance of our investments;
- the state of government legislation, regulation and policies that support or enhance the economic feasibility of projects that reduce carbon emissions or increase resilience to climate change, which we refer to as climate solutions, including energy efficiency and renewable energy projects and the general market demands for such projects;
- market trends in our industry, energy markets, commodity prices, interest rates, the debt and lending markets or the general economy;
- our business and investment strategy;
- availability of opportunities to invest in climate solutions including energy efficiency and renewable energy projects and our ability to complete potential new opportunities in our pipeline;
- our relationships with originators, investors, market intermediaries and professional advisers;
- competition from other providers of capital;
- our or any other company’s projected operating results;
- actions and initiatives of the federal, state and local governments and changes to federal, state and local government policies, regulations, tax laws and rates and the execution and impact of these actions, initiatives and policies;
- the state of the U.S. economy generally or in specific geographic regions, states or municipalities, and economic trends;
- our ability to obtain and maintain financing arrangements on favorable terms, including securitizations;
- general volatility of the securities markets in which we participate;
- the credit quality of our assets;

- changes in the value of our assets, our portfolio of assets and our investment and underwriting process;
- the impact of weather conditions, natural disasters, accidents or equipment failures or other events that disrupt the operation of our investments or negatively impact the value of our assets;
- rates of default or decreased recovery rates on our assets;
- interest rate and maturity mismatches between our assets and any borrowings used to fund such assets;
- changes in interest rates and the market value of our assets and target assets;
- changes in commodity prices, including continued low natural gas prices;
- effects of hedging instruments on our assets or liabilities;
- the degree to which our hedging strategies may or may not protect us from risks, such as interest rate volatility;
- impact of and changes in accounting guidance;
- our ability to maintain our qualification as a real estate investment trust ("REIT") for U.S. federal income tax purposes;
- our ability to maintain our exemption from registration under the Investment Company Act of 1940, as amended (the "1940 Act");
- availability of and our ability to attract and retain qualified personnel;
- estimates relating to our ability to generate sufficient cash in the future to operate our business and to make distributions to our stockholders; and
- our understanding of our competition.

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

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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)

	March 31, 2021 (unaudited)	December 31, 2020
Assets		
Cash and cash equivalents	$ 232,329	$ 286,250
Equity method investments	1,386,252	1,279,651
Government receivables	135,054	248,455
Commercial receivables, net of allowance of $36 million and $36 million, respectively	987,682	965,452
Receivables held-for-sale	23,612	—
Real estate	358,405	359,176
Investments	26,147	55,377
Securitization assets	164,955	164,342
Other assets	117,054	100,364
Total Assets	**$ 3,431,490**	**$ 3,459,067**
Liabilities and Stockholders' Equity		
Liabilities:		
Accounts payable, accrued expenses and other	$ 68,276	$ 59,944
Credit facilities	19,509	22,591
Non-recourse debt (secured by assets of $584 million and $723 million, respectively)	462,523	592,547
Senior unsecured notes	1,280,281	1,283,335
Convertible notes	289,580	290,501
Total Liabilities	2,120,169	2,248,918
Stockholders' Equity:		
Preferred stock, par value $0.01 per share, 50,000,000 shares authorized, no shares issued and outstanding	—	—
Common stock, par value $0.01 per share, 450,000,000 shares authorized, 78,319,134 and 76,457,415 shares issued and outstanding, respectively	783	765
Additional paid in capital	1,489,168	1,394,009
Accumulated deficit	(181,992)	(204,112)
Accumulated other comprehensive income (loss)	(5,359)	12,634
Non-controlling interest	8,721	6,853
Total Stockholders' Equity	1,311,321	1,210,149
Total Liabilities and Stockholders' Equity	**$ 3,431,490**	**$ 3,459,067**

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 March 31,	
	2021	**2020**
Revenue		
Interest income	$ 25,100	$ 23,889
Rental income	6,469	6,470
Gain on sale of receivables and investments	17,490	4,905
Fee income	2,636	5,570
Total revenue	**51,695**	**40,834**
Expenses		
Interest expense	27,582	18,135
Provision for loss on receivables	505	648
Compensation and benefits	15,210	8,897
General and administrative	4,884	3,409
Total expenses	**48,181**	**31,089**
Income before equity method investments	**3,514**	**9,745**
Income (loss) from equity method investments	54,481	16,588
Income (loss) before income taxes	**57,995**	**26,333**
Income tax (expense) benefit	(6,779)	(1,923)
Net income (loss)	**$ 51,216**	**$ 24,410**
Net income (loss) attributable to non-controlling interest holders	192	102
Net income (loss) attributable to controlling stockholders	**$ 51,024**	**$ 24,308**
Basic earnings (loss) per common share	$ 0.65	$ 0.36
Diluted earnings (loss) per common share	$ 0.61	$ 0.35
Weighted average common shares outstanding—basic	77,493,021	67,172,104
Weighted average common shares outstanding—diluted	86,866,581	73,140,922

See accompanying notes.

HANNON ARMSTRONG SUSTAINABLE INFRASTRUCTURE CAPITAL, INC.

CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

(DOLLARS IN THOUSANDS)

(UNAUDITED)

	Three Months Ended March 31, 2021	Three Months Ended March 31, 2020
Net income (loss)	**$ 51,216**	**$ 24,410**
Unrealized gain (loss) on available-for-sale securities, net of tax benefit (provision) of $0.8 million in 2021 and $(0.5) million in 2020	(19,310)	7,454
Unrealized gain (loss) on interest rate swaps, net of tax benefit (provision) of $(0.4) million in 2021 and $(0.1) million in 2020	1,240	358
Comprehensive income (loss)	33,146	32,222
Less: Comprehensive income (loss) attributable to non-controlling interest holders	115	137
Comprehensive income (loss) attributable to controlling stockholders	**$ 33,031**	**$ 32,085**

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 December 31, 2020	**76,457**	**$ 765**	**$ 1,394,009**	**$ (204,112)**	**$ 12,634**	**$ 6,853**	**$ 1,210,149**
Net income (loss)	—	—	—	51,024	—	192	51,216
Unrealized gain (loss) on available-for-sale securities	—	—	—	—	(19,225)	(85)	(19,310)
Unrealized gain (loss) on interest rate swaps	—	—	—	—	1,232	8	1,240
Issued shares of common stock	1,639	16	102,910	—	—	—	102,926
Equity-based compensation	—	—	2,639	—	—	2,039	4,678
Issuance (repurchase) of vested equity-based compensation shares	223	2	(10,390)	—	—	—	(10,388)
Dividends and distributions	—	—	—	(28,904)	—	(286)	(29,190)
Balance at March 31, 2021	**78,319**	**$ 783**	**$ 1,489,168**	**$ (181,992)**	**$ (5,359)**	**$ 8,721**	**$ 1,311,321**
Balance at December 31, 2019	**66,338**	**$ 663**	**$ 1,102,303**	**$ (169,786)**	**$ 3,300**	**$ 3,432**	**$ 939,912**
Net income (loss)	—	—	—	24,308	—	102	**24,410**
Adoption of ASU 2016-13, net of tax effect	—	—	—	(14,031)	—	(74)	**(14,105)**
Unrealized gain (loss) on available-for-sale securities	—	—	—	—	7,420	34	**7,454**
Unrealized gain (loss) on interest rate swaps	—	—	—	—	356	2	**358**
Issued shares of common stock	4,506	45	115,314	—	—	—	**115,359**
Equity-based compensation	—	—	4,581	—	—	939	**5,520**
Issuance (repurchase) of vested equity-based compensation shares	481	5	(15,973)	—	—	—	**(15,968)**
Dividends and distributions	—	—	—	(26,280)	—	(105)	**(26,385)**
Balance at March 31, 2020	**71,325**	**$ 713**	**$ 1,206,225**	**$ (185,789)**	**$ 11,076**	**$ 4,330**	**$ 1,036,555**

See accompanying notes.

HANNON ARMSTRONG SUSTAINABLE INFRASTRUCTURE CAPITAL, INC.

CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS

(DOLLARS IN THOUSANDS)

(UNAUDITED)

	Three Months Ended March 31,	
	2021	**2020**
Cash flows from operating activities		
Net income (loss)	$ 51,216	$ 24,410
Adjustments to reconcile net income (loss) to net cash provided by operating activities:		
Provision for loss on receivables	505	648
Depreciation and amortization	894	895
Amortization of financing costs	3,354	2,096
Equity-based compensation	5,499	3,548
Equity method investments	(43,231)	8,914
Non-cash gain on securitization	(6,751)	(14,302)
Gain on sale of receivables and investments	(1,227)	9,397
Changes in receivables held-for-sale	(23,574)	—
Changes in accounts payable and accrued expenses	1,145	(11,291)
Change in accrued interest on receivables and investments	(718)	(7,399)
Other	(5,291)	(5,261)
Net cash provided by (used in) operating activities	(18,179)	11,655
Cash flows from investing activities		
Equity method investments	(52,862)	(140,877)
Equity method investment distributions received	—	50,143
Proceeds from sales of equity method investments	—	—
Purchases of and investments in receivables	(96,389)	(29,671)
Principal collections from receivables	25,998	38,276
Proceeds from sales of receivables	36,370	8,035
Purchases of investments	(4,830)	(15,937)
Principal collections from investments	143	1,048
Proceeds from sales of investments and securitization assets	7,335	42,920
Funding of escrow accounts	(11,851)	(712)
Withdrawal from escrow accounts	1,126	1,273
Other	(45)	35
Net cash provided by (used in) investing activities	(95,005)	(45,467)
Cash flows from financing activities		
Proceeds from credit facilities	—	126,000
Principal payments on credit facilities	(3,041)	(4,347)
Proceeds from issuance of non-recourse debt	—	15,938
Principal payments on non-recourse debt	(4,830)	(83,488)
Net proceeds of common stock issuances	102,867	114,760
Payments of dividends and distributions	(27,690)	(24,363)
Withholdings on employee share vesting	(10,388)	(15,968)
Other	(1,027)	(990)
Net cash provided by (used in) financing activities	55,891	127,542
Increase (decrease) in cash, cash equivalents, and restricted cash	(57,293)	93,730
Cash, cash equivalents, and restricted cash at beginning of period	310,331	106,586
Cash, cash equivalents, and restricted cash at end of period	**$ 253,038**	**$ 200,316**
Interest paid	$ 30,018	$ 25,436
Non-cash changes in deferred funding obligations and non-recourse debt (financing activity)	(126,139)	—
Non-cash changes in receivables and investments (investing activity)	127,614	—
Non-cash changes in residual assets (investing activity)	(14,816)	(14,302)
Non-cash changes in escrow accounts (investing activity)	2,899	—

See accompanying notes.

HANNON ARMSTRONG SUSTAINABLE INFRASTRUCTURE CAPITAL, INC.

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

(UNAUDITED)

March 31, 2021

1. The Company

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

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

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

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

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

2. Summary of Significant Accounting Policies

Basis of Presentation

The preparation of financial statements in accordance with U.S. generally accepted accounting principles ("GAAP") requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from these estimates and such differences could be material. 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, 2020, 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-month periods ended March 31, 2021 and 2020, 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 whether we should consolidate these entities on an ongoing basis. We have established various special purpose entities or securitization trusts for the purpose of securitizing certain assets which are not consolidated in our financial statements as described below in Securitization of Financial Assets.

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

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

Equity Method Investments

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

Our equity investments in renewable energy or energy efficiency projects are accounted for under the equity method of accounting. Under the equity method of accounting, the carrying value of these equity method investments is determined based on amounts we invested, adjusted for the equity in earnings or losses of the investee allocated based on the LLC agreement, less distributions received. For the LLC agreements which contain preferences with regard to cash flows from operations, capital events and liquidation, we reflect our share of profits and losses by determining the difference between our claim on the investee's book value at the beginning and the end of the period, which is adjusted for distributions received and contributions made. This claim is calculated as the amount we would receive if the investee were to liquidate all of its assets at the recorded amounts determined in accordance with GAAP and distribute the resulting cash to creditors and investors in accordance with their respective priorities. This method is referred to as the hypothetical liquidation at book value method ("HLBV").

Any difference between the amount of our investment and the amount of underlying equity in net assets is generally amortized over the life of the assets and liabilities to which the difference relates. Cash distributions received from 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 that which are classified as operating activities are classified as investing activities in our consolidated statements of cash flows. We typically recognize earnings one quarter in arrears for certain of these investments to allow for the receipt of financial information.

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

Government and Commercial Receivables

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

We evaluate our receivables for an allowance as determined under ASC Topic 326*Financial Instruments- Credit Losses* ("Topic 326") and for our internally derived asset performance categories included in Note 6 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, including a project's operating results, loan-to-value ratio, any cash reserves, the ability of expected cash from operations to cover the cash flow requirements currently and into the future, key terms of the transaction, the ability of the borrower to refinance the transaction, other credit support from the sponsor or guarantor and the project's collateral value. In addition, we consider the overall economic environment, the sustainable infrastructure sector, the effect of local, industry, and broader economic factors such as unemployment rates and power prices, the impact of any variation in weather and the historical and anticipated trends in interest rates, defaults and loss severities for similar transactions. For those assets where we record our allowance using a discounted cash flow method, we have elected to record the change in allowance due solely to the passage of time through the provision for loss on receivables in our income statement. For assets where the obligor is a publicly rated entity, we consider the published historical performance of entities with similar ratings in developing our estimate of an allowance, making adjustments determined by management to be appropriate during the reasonable and supportable forecast period. We have made certain loan commitments that are within the scope of Topic 326. When estimating an allowance for these loan commitments we consider the probability of certain amounts to be funded and apply either a discounted cash flow or PD/LGD methodology as described above. We charge off receivables against the allowance, if any, when we determine the unpaid principal balance is uncollectible, net of recovered amounts. Any provision we record for an allowance is a non-cash reconciling item to cash from operating activities in our consolidated statements of cash flows.

Real Estate

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

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

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

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

The capitalized off-market lease values are amortized as an adjustment 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.

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

Cash and Cash Equivalents

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

Restricted Cash

Restricted cash includes cash and cash equivalents set aside with certain lenders primarily to support obligations outstanding as of the balance sheet dates. Restricted cash is reported as part of other assets in the consolidated balance sheets. Refer to Note 3 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 senior notes that are accounted for in accordance with ASC 470-20, *Debt with Conversion and Other Options*, and ASC 815, *Derivatives and Hedging* ("ASC 815"). Under ASC 815, issuers of certain convertible debt instruments are generally required to separately account for the conversion option of the convertible debt instrument as either a derivative or equity, unless it meets the scope exemption for contracts indexed to, and settled in, an issuer's own equity. Since this conversion option is both indexed to our equity and can only be settled in our common stock, we have met the scope exemption, and therefore, we are not separately accounting for the embedded conversion option. The initial issuance and any principal repayments are classified as financing activities and interest payments are classified as operating activities in our consolidated statements of cash flows.

Income Taxes

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

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

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

Equity-Based Compensation

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

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

Earnings Per Share

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

Segment Reporting

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

Recently Issued Accounting Pronouncements

Accounting standards updates issued before May 7, 2021, and effective after March 31, 2021, 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 March 31, 2021 and December 31, 2020, only our residual assets related to our securitization trusts and investments were carried at fair value on the consolidated balance sheets on a recurring basis. The three levels of the fair value hierarchy are described below:

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

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

	As of March 31, 2021		
	Fair Value	Carrying Value	Level
	(in millions)		
Assets			
Government receivables	$ 145	$ 135	Level 3
Commercial receivables	1,031	988	Level 3
Receivables held-for-sale	35	24	Level 3
Investments [(1)]	26	26	Level 3
Securitization residual assets [(2)]	160	160	Level 3
Liabilities [(3)]			
Credit facilities	$ 20	$ 20	Level 3
Non-recourse debt	502	474	Level 3
Senior unsecured notes	1,324	1,295	Level 2
Convertible notes	475	295	Level 2

(1) The amortized cost of our investments as of March 31, 2021, was $ 26 million.

(2) Included in securitization assets on the consolidated balance sheet. This amount excludes securitization servicing assets, which are carried at amortized cost.

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

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

(1) The amortized cost of our investments as of December 31, 2020, was $ 51 million.

(2) Included in securitization assets on the consolidated balance sheet. This amount excludes securitization servicing assets, which are carried at amortized cost.

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

Investments

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

	For the three months ended March 31,	
	2021	2020
	(in millions)	
Balance, beginning of period	$ 55	$ 75
Purchases of investments	5	16
Principal payments on investments	—	(1)
Sale of investments	(29)	(33)
Realized gains on investments recorded in gain on sale of receivables and investments	—	3
Unrealized gains (losses) on investments recorded in OCI	(5)	3
Balance, end of period	$ 26	$ 63

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

	Estimated Fair Value		Unrealized Losses [1]	
	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)			
March 31, 2021	$ 12	$ —	$ 0.7	$ —
December 31, 2020	—	6	—	0.3

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

In determining the fair value of our investments we used a market-based risk-free rate and a range of interest rate spreads of approximately1% to 4% based upon transactions involving similar assets as of March 31, 2021 and December 31, 2020. The weighted average discount rate used to determine the fair value of our investments as of March 31, 2021 and December 31, 2020 were 4.6% and 3.2%, respectively.

Securitization residual assets

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

	For the three months ended March 31, 2021	For the three months ended March 31, 2020
	(in millions)	
Balance, beginning of period	$ 159	$ 122
Accretion of securitization residual assets	2	1
Additions to securitization residual assets	15	12
Collections of securitization residual assets	(1)	(1)
Sales of securitization residual assets	—	(21)
Unrealized gains (losses) on securitization residual assets recorded in OCI	(15)	5
Balance, end of period	$ 160	$ 118

In determining the fair value of our securitization residual assets, we used a market-based risk-free rate and a range of interest rate spreads of approximately1% to 5% based upon transactions involving similar assets as of March 31, 2021 and December 31, 2020. The weighted average discount rate used to determine the fair value of our securitization residual assets as of March 31, 2021 and December 31, 2020 were 4.7% and 3.8%, 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 are recorded at their fair value. We may use third-party valuation firms to assist us with developing our estimates of fair value.

Concentration of Credit Risk

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

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

	March 31, 2021	December 31, 2020
	(in millions)	
Cash deposits	$ 232	$ 286
Restricted cash deposits (included in other assets)	21	24
Total cash deposits	$ 253	$ 310
Amount of cash deposits in excess of amounts federally insured	$ 252	$ 309

4. Non-Controlling Interest

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

The outstanding OP units held by outside limited partners represent less than 1% of our outstanding OP units and are redeemable by the limited partners for cash, or at our option, for a like number of shares of our common stock. No OP units were exchanged by non-controlling interest holders during the three months ended March 31, 2021 and March 31, 2020.

We have also granted to members of our management team and directors LTIP Units pursuant to the 2013 Plan. These LTIP Units are held by HASI Management HoldCo LLC. The LTIP Units are designed to qualify as profits interests in the Operating Partnership and initially will have a capital account balance of zero and, therefore, will not have full parity with OP units with respect to liquidating distributions or other rights. However, the amended and restated agreement of limited partnership of the Operating Partnership (the "OP Agreement") provides that "book gains," or economic appreciation, in the Operating Partnership will be allocated first to the LTIP Units until the capital account per LTIP Units is equal to the capital account per-unit of the OP units. Under the terms of the OP Agreement, the Operating Partnership will revalue its assets upon the occurrence of certain specified events, and any increase in valuation from the time of grant until such event will be allocated first to the holders of LTIP Units to equalize the capital accounts of such holders with the capital accounts of OP unit holders. Once this has occurred, the LTIP Units will achieve full parity with the OP units for all purposes, including with respect to liquidating distributions and redemption rights. In addition to these attributes, there are vesting and settlement conditions similar to our other equity-based awards as discussed in Notes 2 and 11 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 three months ended March 31,	
	2021	2020
	(in millions)	
Gains on securitizations	$ 18	$ 5
Cost of financial assets securitized	120	48
Proceeds from securitizations	138	53
Residual and servicing assets	165	122
Cash received from residual and servicing assets	1	1

In connection with securitization transactions, we typically retain servicing responsibilities and residual assets. We generally receive annual servicing fees typically up to 0.20% of the outstanding balance. We may periodically make servicer advances, which are subject to credit risk. Included in securitization assets in our consolidated balance sheets are our servicing assets at amortized cost, our residual assets at fair value, and our servicing advances at cost, if any. Our residual assets are subordinate to investors' interests, and their values are subject to credit, prepayment and interest rate risks on the transferred financial assets. Other than our securitization assets representing our residual interests in the trusts' collateral, the investors and the securitization trusts have no recourse to our assets for failure of debtors to pay when due. In computing gains and losses on securitizations, we use discount rates based on a review of comparable market transactions including Level 3 unobservable inputs which consist of base interest rates and spreads over these base rates. Depending on the nature of the transaction risks, the discount rate ranged from 2% to 9%.

As of March 31, 2021 and December 31, 2020, our managed assets totaled $7.4 billion and $7.2 billion respectively, of which $4.5 billion and $4.3 billion were securitized assets held in unconsolidated securitization trusts. There were no securitization credit losses in the three months ended March 31, 2021 or March 31, 2020. As of March 31, 2021, 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 $98 million of our securitization residual assets. These technologies are installed in facilities owned by, or operated for or by, federal, state or local government entities where the ultimate obligor for the receivable is a governmental entity. The contracts may have guarantees of energy savings from third-party service providers, which typically are entities rated investment grade by an independent rating agency. The remainder of our securitization residual assets are related to contracts where the underlying cash flows are secured by an interest in real estate which are typically senior in terms of repayment to other financings.

6. Our Portfolio

As of March 31, 2021, our Portfolio included approximately $2.9 billion of equity method investments, receivables, real estate and investments on our balance sheet. The equity method investments represent our non-controlling equity investments in renewable energy and energy efficiency projects and land. The receivables and investments are typically collateralized by contractually committed debt obligations of government entities or private high credit quality obligors and are often supported by additional forms of credit enhancement, including security interests and supplier guarantees. 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 including a project's operating results, loan-to-value ratio, any cash reserves, the ability of expected cash from operations to cover the cash flow requirements currently and into the future, key terms of the transaction, the ability of the borrower to refinance the transaction, the financial and operating capability of the borrower, its sponsors or the obligor as well as any guarantors and the project's collateral value. In addition, we consider the overall economic environment, the sustainable infrastructure sector, the effect of local, industry, and broader economic factors, the impact of any variation in weather and the historical and anticipated trends in interest rates, defaults and loss severities for similar transactions.

The following is an analysis of the Performance Ratings of our Portfolio as of March 31, 2021, which is assessed quarterly:

	Portfolio Performance				
	1 (1)		2 (2)	3 (3)	Total
	Government	Commercial	Commercial	Commercial	
Receivable vintage			(dollars in millions)		
2021	$ —	$ 13	$ —	$ —	$ 13
2020	—	186	—	—	186
2019	—	437	11	—	448
2018	—	254	—	—	254
2017	32	1	8	—	41
2016	15	59	—	—	74
Prior to 2016	88	47	—	8	143
Total receivables	135	997	19	8	1,159
Less: Allowance for loss on receivables	—	(22)	(6)	(8)	(36)
Net receivables (4)	135	975	13	—	1,123
Receivables held-for-sale	—	24	—	—	24
Investments	10	16	—	—	26
Real estate	—	358	—	—	358
Equity method investments (5)	—	1,360	26	—	1,386
Total	$ 145	$ 2,733	$ 39	$ —	$ 2,917
Percent of Portfolio	5 %	94 %	1 %	— %	100 %
Average remaining balance (6)	$ 6	$ 14	$ 11	$ 4	$ 13

(1) This category includes our assets where based on our credit criteria and performance to date we believe that our risk of not receiving our invested capital remains low.

(2) This category includes our assets where based on our credit criteria and performance to date we believe there is a moderate level of risk to not receiving some or all of our invested capital.

(3) This category includes our assets where based on our credit criteria and performance to date, we believe there is substantial doubt regarding our ability to recover some or all of our invested capital. Included in this category are two commercial receivables with a combined total carrying value of approximately $ 8 million as of March 31, 2021 which we have held on non-accrual status since 2017. We expect to continue to pursue our legal claims with regards to these assets. In addition, there is an equity method investment in a wind project with no book value where we had previously disclosed in 2019 our allocation of impairment losses recorded by the project sponsor. We moved this investment from Category 2 to Category 3 due to continued underperformance.

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

(5) Some of the individual projects included in portfolios that make up our equity method investments have government off-takers. As they are part of large portfolios, they are not classified separately.

(6) Average remaining balance is calculated gross of allowance for loss on receivables and excludes approximately 149 transactions each with outstanding balances that are less than $ 1 million and that in the aggregate total $59 million.

Receivables

As of December 31, 2020, our allowance for loan losses was $36 million based on our expectation of credit losses over the lives of the receivables in our portfolio. Quarterly, we update that expected loss to reflect both the expected loss on newly originated receivables and any changes in the expected loss on existing receivables. During the three months ended March 31, 2021, we held our allowance for loan losses constant at $36 million, as improving macroeconomic factors were offset by certain loan specific reserves.

Below is a summary of the carrying value, expected loan funding commitments, and allowance by type of receivable or "Portfolio Segment", as defined by Topic 326, as of March 31, 2021 and December 31, 2020:

	March 31, 2021			December 31, 2020		
	Gross Carrying Value	Loan Funding Commitments	Allowance	Gross Carrying Value	Loan Funding Commitments	Allowance
	(in millions)					
Government [(1)]	$ 135	$ —	$ —	$ 248	$ —	$ —
Commercial [(2)]	1,024	315	36	1,002	282	36
Total	$ 1,159	$ 315	$ 36	$ 1,250	$ 282	$ 36

(1) As of March 31, 2021, our government receivables include $ 32 million of U.S. federal government transactions and $ 103 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.

(2) As of March 31, 2021, this category of assets includes $ 536 million of mezzanine loans made on a non-recourse basis to special purpose subsidiaries of residential solar companies which are secured by residential solar assets where we rely on certain limited indemnities, warranties, and other obligations of the residential solar companies or their other subsidiaries. Approximately $511 million of our commercial receivables are loans made to entities in which we also have non-controlling equity investments of approximately $29 million. This total also includes $ 48 million of lease agreements where we hold legal title to the underlying real estate which are treated under GAAP as receivables since they were deemed to be failed sale/leaseback transactions as described in Note 2 to our financial statements in this Form 10-Q.

Risk characteristics of our commercial receivables include a project’s operating risks, which include the impact of the overall economic environment, the sustainable infrastructure sector, the effect of local, industry, and broader economic factors, the impact of any variation in weather and trends in interest rates. We use assumptions related to these risks to estimate an allowance using a discounted cash flow analysis or the PD/LGD method as discussed in Note 2 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, except for $19 million of receivables included in Performance Category 2 and the $ 8 million of receivables we have placed on non-accrual status which are included in Performance Rating 3. For those assets in Performance Rating 1, the credit worthiness of the obligor combined with the various structural protections of our assets cause us to believe we have a low risk we will not receive our invested capital, however we recorded a $22 million allowance on these $ 997 million in assets as a result of lower probability assumptions utilized in our allowance methodology.

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

	Three months ended March 31, 2021		Three months ended March 31, 2020	
	Government	Commercial	Government	Commercial
	(in millions)			
Beginning balance [(1)]	$ —	$ 36	$ —	$ 25
Provision for loss on receivables	—	—	—	1
Ending balance	$ —	$ 36	$ —	$ 26

(1) For the three months ended March 31, 2020, the beginning balance represents January 1, 2020, the adoption date of Topic 326. The beginning balance includes the pre-tax allowance for loss on receivables of $17 million recorded upon adoption which reflects our estimated loss as of that date under the new standard as well as the $ 8 million of receivables which were previously on non-accrual status and fully reserved.

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

The following table provides a summary of our anticipated maturity dates of our receivables and the weighted average yield for each range of maturities as of March 31, 2021:

	Total	Less than 1 year	1-5 years	5-10 years	More than 10 years
	(dollars in millions)				
Maturities by period (excluding allowance)	$ 1,159	$ 19	$ 128	$ 302	$ 710
Weighted average yield by period	8.2 %	8.7 %	6.8 %	9.2 %	8.1 %

Investments

The following table provides a summary of our anticipated maturity dates of our investments and the weighted average yield for each range of maturities as of March 31, 2021:

	Total	Less than 1 year	1-5 years	5-10 years	More than 10 years
			(dollars in millions)		
Maturities by period	$ 26	$ —	$ —	$ —	$ 26
Weighted average yield by period	4.6 %	— %	— %	— %	4.6 %

We had no investments that were impaired or on non-accrual status as of March 31, 2021 or December 31, 2020, and no allowances associated with our investments.

Real Estate

Our real estate is leased to renewable energy projects, typically under long-term triple net leases with expiration dates that range between the years 2033 and 2057 under the initial terms and 2047 and 2080 if all renewals are exercised. The components of our real estate portfolio as of March 31, 2021 and December 31, 2020, were as follows:

	March 31, 2021	December 31, 2020
	(in millions)	
Real estate		
Land	$ 269	$ 269
Lease intangibles	104	104
Accumulated amortization of lease intangibles	(15)	(14)
Real estate	$ 358	$ 359

As of March 31, 2021, 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 April 1, 2021 to December 31, 2021	$ 2	$ 17
2022	3	22
2023	3	23
2024	3	24
2025	3	24
2026	3	24
Thereafter	72	717
Total	$ 89	$ 851

Equity Method Investments

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

As of March 31, 2021, we held the following equity method investments:

Investment Date	Investee	Carrying Value
		(in millions)
Various	Jupiter Equity Holdings, LLC	$ 490
Various	Lighthouse Partnerships [(1)]	246
March 2020	University of Iowa Energy Collaborative Holdings LLC	119
Various	Phase V Class A LLC	75
Various	Other investees	456
	Total equity method investments	$ 1,386

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

Jupiter Equity Holdings LLC

On July 1, 2020, we acquired a preferred equity interest in Jupiter Equity Holdings, LLC ("Jupiter") that is expected to own an approximately 2.3 gigawatt portfolio of renewable energy projects. We have agreed to guarantee certain of the obligations of the subsidiary in connection with these agreements. As of March 31, 2021, we have made capital contributions to Jupiter of approximately $465 million related to eight operating wind projects and two operating solar projects with an aggregate capacity of approximately 2.1 gigawatts. We expect to ultimately invest approximately $540 million in Jupiter by making additional periodic capital contributions related to three more projects anticipated to be commercially operational on or prior to December, 2021, at which time the additional projects relating to a specific funding will be transferred into Jupiter. Assuming all of the projects are acquired by Jupiter, the renewables portfolio will consist of 13 projects (nine onshore wind projects and four utility-scale solar projects) and will feature cash flows from fixed-price power purchase agreements and financial hedges with a weighted average contract life of 13 years, contracted with highly creditworthy off-takers and counterparties.

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

Lighthouse Renewables Portfolio

In December 2020, we entered into certain agreements relating to the acquisition, ownership and management of approximately $663 million in preferred cash equity investments in three partnerships (the “Lighthouse Partnerships”) that expect to own cash equity interests in an approximately 1.6 gigawatt portfolio of onshore wind, utility-scale solar and solar-plus-storage projects (the “Renewables Portfolio”) developed and managed by the project sponsor. We have made initial investments in the preferred cash equity interests of the Lighthouse Partnerships of approximately $219 million through March 31, 2021, and additional investments are expected to be made in 2021 and 2022 as the projects become commercially operational. The Renewables Portfolio currently has contracted cash flows with a combined weighted average contract life of greater than 14 years with a diversified group of predominately investment grade corporate, utility, university, and municipal offtakers. In the first quarter of 2021, we made approximately $15 million in equity contributions and made $10 million in member loans to one of the Lighthouse Partnerships for the settlement of hedging activity under one of the project's power hedge agreements as a result of the February 2021 winter storms in Texas.

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 Company representatives and two sponsor representatives. Through each Lighthouse Partnership, commencing on a certain date following the effective date of the applicable limited liability company agreement, we will be entitled to preferred distributions until certain return targets are achieved. Subject to customary exceptions, no member of a Lighthouse Partnership can transfer any of its equity ownership in any Lighthouse Partnership to a third party without approval of the review committee of that Lighthouse Partnership. We use the equity method of accounting to account for 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.

Based on an evaluation of our equity method investments, we determined that no OTTI had occurred as of March 31, 2021 or December 31, 2020.

7. Credit facilities

Secured credit facilities

We have two secured revolving credit facilities (our "Secured Credit Facilities"), a representation-based loan agreement (the "Rep-Based Facility") and an approval-based loan agreement (the "Approval-Based Facility") with various lenders, which mature in July 2023. The Rep-Based Facility is a secured revolving limited-recourse credit facility, which we modified in March 2021 to have a maximum outstanding principal amount of $100 million, lowered from a previous amount of $250 million. This modification resulted in a $1.5 million loss due to the acceleration of a portion of the related unamortized financing costs. The Approval-Based Facility is a secured revolving recourse credit facility with a maximum outstanding principal amount of $200 million.

The following table provides additional detail on our Secured Credit Facilities as of March 31, 2021:

	Rep-Based Facility	Approval-Based Facility
	(dollars in millions)	
Outstanding balance	$ —	$ 20
Value of collateral pledged to credit facility	24	142
Weighted average short-term borrowing rate	N/A	1.6 %

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

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

The amount eligible to be drawn under the Secured Credit Facilities is based on a discount to the value of each included investment based upon the type of collateral or an applicable valuation percentage. The sum of included financings after taking into account the applicable valuation percentages and any changes in the valuation of the financings in accordance with the Secured Credit Facilities determines the borrowing capacity, subject to the overall facility limits described above. Under the Rep-Based Facility, the applicable valuation percentage is 85% in the case of a land-lease obligor or a U.S. Federal Government obligor, 80% in the case of an institutional obligor or state and local obligor, and with respect to other obligors or in certain circumstances, such other percentage as the administrative agent may prescribe. Under the Approval-Based Facility, the applicable valuation percentage is 85% in the case of certain approved financings and 67% or such other percentage as the administrative agent may prescribe, including in the case of one asset, an agreed-upon amortization schedule. The stated minimum maturities to be paid under the amortization schedule to meet the required target loan balances as of March 31, 2021 are as follows:

	Future minimum maturities
	(in millions)
April 1, 2021 to December 31, 2021	$ —
2022	5
2023	15
Total	$ 20

We have approximately $3 million of remaining unamortized financing costs associated with the Secured Credit Facilities that have been capitalized and included in other assets on our balance sheet and are being amortized on a straight-line basis over the term of the Secured Credit Facilities. Administrative fees are payable annually to the administrative agent under each of the Secured Credit Facilities and letter agreements with the administrative agent. Under the Rep-Based Facility, we pay to the administrative agent on each monthly payment date, for the benefit of the lenders, certain availability fees for the Rep-Based Facility equal to 0.60%, divided by 365 or 366, as applicable, multiplied by the excess of the available total commitments under the Rep-Based Facility over the actual amount borrowed under the Rep-Based Facility.

The Secured Credit Facilities contain terms, conditions, covenants, and representations and warranties that are customary and typical for a transaction of this nature, including various affirmative and negative covenants, and limitations on the incurrence of liens and indebtedness, investments, fundamental organizational changes, dispositions, changes in the nature of business, transactions with affiliates, use of proceeds and stock repurchases. We were in compliance with our covenants as of March 31, 2021.

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

Unsecured credit facility

In February 2021, we entered into an unsecured revolving credit facility with a maximum outstanding principal amount of $50 million which matures in February 2022. As of March 31, 2021, we have not drawn on this facility. We have approximately $1 million of remaining unamortized financing costs associated with the unsecured 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 credit facility. In April 2021, we entered into a new $400 million, 364-day unsecured revolving credit facility pursuant to a revolving credit agreement with a syndicate of lenders, replacing the existing $50 million unsecured revolving credit facility entered into in February 2021.

The unsecured revolving credit facility has a commitment fee based on our current credit rating and bears interest at a rate of the LIBOR or prime rate plus applicable margins based on our current credit rating, which may be adjusted downward up to 0.05% to the extent our Portfolio achieves certain targeted levels of carbon emissions reductions. As of the inception of the unsecured revolving credit facility, the applicable margins are 2.25% for LIBOR-based loans and 1.25% for prime rate-based loans. 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 credit facility, we have the ability to convert amounts borrowed into term loans for a fee equal to 2.25% of the term loan amounts.

8. Long-term Debt

Non-recourse debt

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

	Outstanding Balance as of					Carrying Value of Assets Pledged as of		
	March 31, 2021	December 31, 2020	Interest Rate (1)	Maturity Date	Anticipated Balance at Maturity	March 31, 2021	December 31, 2020	Description of Assets Pledged
				(dollars in millions)				
HASI Sustainable Yield Bond 2015-1A	$ 80	$ 81	4.28%	October 2034	$ —	$ 133	$ 134	Receivables, real estate and real estate intangibles
HASI Sustainable Yield Bond 2015-1B Note (2)	13	13	5.41%	October 2034	—	133	134	Class B Bond of HASI Sustainable Yield Bond 2015-1
HASI SYB Trust 2016-2	68	67	4.35%	April 2037	—	70	71	Receivables
HASI ECON 101 Trust (3)	—	126	3.57%	May 2041	—	—	133	Receivables and investments
HASI SYB Trust 2017-1	150	150	3.86%	March 2042	—	204	205	Receivables, real estate and real estate intangibles
Lannie Mae Series 2019-01	94	95	3.68%	January 2047	—	108	107	Receivables, real estate and real estate intangibles
Other non-recourse debt (4)	69	73	3.15% - 7.45%	2022 to 2032	18	69	73	Receivables
Unamortized financing costs	(11)	(12)						
Non-recourse debt(5)	$ 463	$ 593						

(1) Represents interest rate as of March 31, 2021.

(2) The Company repurchased this note in April of 2021.

(3) In March 2021, we prepaid this loan using proceeds from the sale of the assets which served as collateral. We recognized a loss on the sale of the assets of approximately $ 3 million which is included in gain on sale of receivables and investments in our income statement.

(4) 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.

(5) The total collateral pledged against our non-recourse debt was $ 584 million and $ 723 million as of March 31, 2021 and December 31, 2020, respectively. In addition, $ 20 million and $ 23 million of our restricted cash balance was pledged as collateral to various non-recourse loans as of March 31, 2021 and December 31, 2020, respectively.

We have pledged the financed assets, and typically our interests in one or more parents or subsidiaries of the borrower that are legally separate bankruptcy remote special purpose entities as security for the non-recourse debt. There is no recourse for repayment of these obligations other than to the applicable borrower and any collateral pledged as security for the obligations. Generally, the assets and credit of these entities are not available to satisfy any of our other debts and obligations. The creditors can only look to the borrower, the cash flows of the pledged assets and any other collateral pledged, to satisfy the debt and we are not otherwise liable for nonpayment of such cash flows. The debt agreements contain terms, conditions, covenants, and representations and warranties that are customary and typical for transactions of this nature, including limitations on the incurrence of liens and indebtedness, investments, fundamental organizational changes, dispositions, changes in the nature of business, transactions with affiliates, use of proceeds and stock repurchases. The agreements also include customary events of default, the occurrence of which may result in termination of the agreements, acceleration of amounts due, and accrual of default interest. We typically act as servicer for the debt transactions. We are in compliance with all covenants as of March 31, 2021 and December 31, 2020.

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

The stated minimum maturities of non-recourse debt as of March 31, 2021, were as follows:

		Future minimum maturities
		(in millions)
April 1, 2021 to December 31, 2021	$	21
2022		23
2023		27
2024		30
2025		27
2026		26
Thereafter		320
Total minimum maturities	$	474
Unamortized financing costs		(11)
Total non-recourse debt	$	463

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

Senior Unsecured Notes

We have outstanding senior unsecured notes issued jointly by certain of our TRS and are guaranteed by the Company and certain other subsidiaries (the "Senior Unsecured Notes"). The Senior Unsecured Notes are subject to covenants which limit our ability to incur additional indebtedness and require us to maintain unencumbered assets of not less than 120% of our unsecured debt. These covenants will terminate on any date at which the Senior Unsecured Notes have been rated investment grade by two of the three major credit rating agencies and no event of default has occurred. We are in compliance with all of our covenants as of March 31, 2021 and December 31, 2020. The Senior Unsecured Notes impose certain requirements in the event that we merge with or sell substantially all of our assets to another entity. The proceeds of our Senior Unsecured Notes are used to acquire or refinance, in whole or in part, eligible green projects, including assets which are neutral to negative on incremental carbon emissions.

The following are summarized terms of the Senior Unsecured Notes:

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

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

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

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

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

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

	March 31, 2021	December 31, 2020
	(in millions)	
Principal	$ 1,275	$ 1,275
Accrued interest	18	22
Unamortized premium	2	2
Less: Unamortized financing costs	(15)	(16)
Carrying value of Senior Unsecured Notes	$ 1,280	$ 1,283

We recorded approximately $17 million in interest expense related to the Senior Unsecured Notes in the three months ended March 31, 2021 compared to approximately $7 million in the three months ended March 31, 2020.

Convertible Senior Notes

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

The following are summarized terms of the Convertible Senior Notes as of March 31, 2021:

	Outstanding Principal Amount	Maturity Date	Stated Interest Rate	Interest Payment Dates	Conversion Ratio	Conversion Price	Issuable Shares	Dividend Threshold Amount (1)
	(in millions)						(in millions)	
2022 Convertible Senior Notes	$ 150	September 1, 2022	4.125 %	March 1 and September 1	36.7825	$27.19	5.5	$0.33
2023 Convertible Senior Notes	144	August 15, 2023	0.000 %	N/A	20.6779	$48.36	3.0	$0.34

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

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

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

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

	March 31, 2021	December 31, 2020
	(in millions)	
Principal	$ 294	$ 294
Accrued interest	1	2
Less: Unamortized financing costs	(5)	(5)
Carrying value of Convertible Senior Notes	$ 290	$ 291

We recorded approximately $2 million in interest expense related to the Convertible Senior Notes in the each of three months ended March 31, 2021 and 2020, respectively.

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

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 March 31, 2021, there have been no such actions resulting in claims against the Company.

We have made a guarantee related to the financing of one of our joint venture entities that owns debt securities of energy efficiency projects. The entity entered into a financing arrangement where we have guaranteed the obligations of the entity related to this financing, which includes collateral posting requirements as well as repayment of the financing at maturity in December 2021. As of March 31, 2021, our maximum obligation under this guarantee is approximately $60 million. 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.

COVID-19

The COVID-19 global pandemic has brought forth uncertainty and disruption to the global economy. As of March 31, 2021, we have not recorded any contingencies on our balance sheet related to COVID-19 with the exception of any allowances related to our receivables described in Note 6 to our financial statements in this Form 10-Q. To the extent COVID-19 continues to cause dislocations in the global economy, our financial condition, results of operations, and cash flows may be adversely impacted.

10. Income Tax

We recorded an income tax benefit (expense) of approximately $(7) million for the three months ended March 31, 2021 compared to a $(2) million income tax benefit (expense) in the three months ended March 31, 2020. For the three months ended March 31, 2021 and 2020, our income tax benefit/expense was determined using the federal tax rate of 21%, and combined state tax rates, net of federal benefit, of approximately 3% for 2021 and 4% for 2020.

11. Equity

Dividends and Distributions

Our board of directors declared the following dividends in 2020 and 2021:

Announced Date	Record Date	Pay Date	Amount per share
2/20/2020	4/2/2020	4/10/2020	$ 0.34
6/5/2020	7/2/2020	7/9/2020	0.34
8/6/2020	10/2/2020	10/9/2020	0.34
11/5/2020	12/28/2020 (1)	01/8/2021	0.34
2/18/2021	04/5/2021	04/12/2021	0.35

(1) This dividend was treated as a distribution in 2021 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. We completed the following public offerings (including ATM issuances) of our common stock during 2021 and 2020:

Date/Period	Common Stock Offerings	Shares Issued	Price Per Share	Net Proceeds [1]
		(amounts in millions, except per share amounts)		
Q1 2020	ATM	4.500	$ 25.84 [2]	$ 115
Q2 2020	ATM	1.938	23.10 [2]	44
Q3 2020	ATM	0.875	33.81 [2]	29
Q4 2020	ATM	2.204	50.35 [2]	110
Q1 2021	ATM	1.639	63.55 [2]	103

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

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

Equity-based Compensation Awards under our 2013 Plan

We have issued equity awards that vest from 2022 to 2024 subject to service, performance and market conditions. During the three months ended March 31, 2021, our board of directors awarded employees and directors 69,823 shares of restricted stock, restricted stock units and LTIP Units that vest from 2022 to 2024. As of March 31, 2021, we have concluded that it is probable that the performance conditions will be met for previously issued restricted stock awards with performance conditions. Refer to Note 4 to our financial statements in this Form 10-Q for background on the LTIP Units.

For the three months ended March 31, 2021 we recorded $5 million compared to $4 million during the same period in 2020. Of the current period expense, $2 million is related to the acceleration of compensation expense related to an employee with a change in employment status. The total unrecognized compensation expense related to awards of shares of restricted stock and restricted stock units was approximately $11 million as of March 31, 2021. 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, 2019	750,242	$ 20.08	$ 15.1
Granted	194,077	32.93	6.4
Vested	(576,880)	19.50	(11.3)
Forfeited	(262)	28.59	—
Ending Balance — December 31, 2020	367,177	$ 27.77	$ 10.2
Granted	52,397	61.58	3.2
Vested	(75,876)	20.47	(1.5)
Forfeited	—	—	—
Ending Balance — March 31, 2021	343,698	$ 34.54	$ 11.9

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, 2019	435,578	$ 20.12	$ 8.8
Granted	23,342	27.18	0.6
Incremental performance shares granted	216,932	18.99	4.1
Vested	(439,986)	19.04	(8.4)
Forfeited	(266)	25.90	—
Ending Balance — December 31, 2020	235,600	$ 21.78	$ 5.1
Granted	17,426	71.23	1.2
Incremental performance shares granted	171,180	20.24	3.5
Vested	(342,360)	20.24	(6.9)
Forfeited	—	—	—
Ending Balance — March 31, 2021	81,846	$ 35.52	$ 2.9

(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 an award at the 200% level.

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

	LTIP Units (1)	Weighted Average Grant Date Fair Value	Value
		(per share)	*(in millions)*
Ending Balance — December 31, 2019	201,310	$ 25.84	$ 5.2
Granted	165,346	18.56	3.1
Vested	(80,974)	25.87	(2.1)
Forfeited	—	—	—
Ending Balance — December 31, 2020	285,682	$ 21.62	$ 6.2
Granted	—	—	—
Vested	(60,167)	25.82	(1.6)
Forfeited	—	—	—
Ending Balance — March 31, 2021	225,515	$ 20.50	$ 4.6

(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, 2019	180,500	$ 26.70	$ 4.8
Granted	132,204	12.25	1.6
Vested	—	—	—
Forfeited	—	—	—
Ending Balance — December 31, 2020	312,704	$ 20.59	$ 6.4
Granted	—	—	—
Vested	—	—	—
Forfeited	—	—	—
Ending Balance — March 31, 2021	312,704	$ 20.59	$ 6.4

(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.

12. Earnings per Share of Common Stock

Both the net income or loss attributable to the non-controlling OP units and the non-controlling limited partners' outstanding OP units have been excluded from the basic earnings per share and the diluted earnings per share calculations attributable to common stockholders. Unvested share-based payment awards that contain non-forfeitable rights to dividends or dividend equivalents (whether paid or unpaid) are participating securities and are excluded from net income available to common shareholders in the computation of earnings per share pursuant to the two-class method. Certain share-based awards are included in the diluted share count to the extent they are dilutive as discussed in Note 2 to our financial statements in this Form 10-Q. To the extent our Senior Convertible Notes are dilutive under the if-converted method, we add back the interest expense to the numerator and include the weighted average shares of potential common stock over the period issuable upon conversion of the note in the denominator in calculating dilutive EPS as described in Note 2 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 March 31, 2021	Three Months Ended March 31, 2020
Numerator:	*(in millions, except share and per share data)*	
Net income (loss) attributable to controlling stockholders and participating securities	$ 51.0	$ 24.3
Less: Dividends and distributions on participating securities	(0.3)	(0.3)
Less: Undistributed earnings attributable to participating securities	(0.1)	—
Net income (loss) attributable to controlling stockholders — basic	50.6	24.0
Add: Interest expense related to convertible notes under the if-converted method	2.1	1.8
Add: Undistributed earnings attributable to participating securities	0.1	—
Net income (loss) attributable to controlling stockholders — dilutive	$ 52.8	$ 25.8
Denominator:		
Weighted-average number of common shares — basic	77,493,021	67,172,104
Weighted-average number of common shares — diluted	86,866,581	73,140,922
Basic earnings per common share	$ 0.65	$ 0.36
Diluted earnings per common share	$ 0.61	$ 0.35
Securities being allocated a portion of earnings:		
Weighted-average number of OP units	323,527	281,903

	As of March 31, 2021	As of March 31, 2020
Participating securities:		
Unvested restricted common stock and unvested LTIP Units with time-based vesting conditions outstanding at period end	569,213	660,880
Potentially dilutive securities as of period end:		
Unvested restricted common stock and unvested LTIP Units with time-based vesting conditions	569,213	660,880
Restricted stock units	81,846	241,988
LTIP Units with market-based vesting conditions	312,704	180,500
Potential shares of common stock related to convertible notes	8,487,800	5,510,499

13. Equity Method Investments

We have non-controlling unconsolidated equity investments in renewable energy and energy efficiency projects as well as in a joint venture that owns land with long-term triple net lease agreements to several solar projects. We recognized income (loss) from our equity method investments of approximately $54 million and $17 million during the three months ended March 31, 2021 and March 31, 2020, respectively.

We describe our accounting for non-controlling equity investments in Note 2 to our financial statements in this Form 10-Q. The following is a summary of the consolidated financial position and results of operations of the significant entities accounted for using the equity method.

	SunStrong Capital Holdings LLC	Rosie Target Co, LLC (1)	Jupiter Equity Holdings LLC	Vivint Solar Asset 3 Holdco Parent LLC	Other Investments (2)	Total
			(in millions)			
Balance Sheet						
As of December 31, 2020						
Current assets	$ 92	$ 25	$ 284	$ 86	$ 241	$ 728
Total assets	1,532	298	3,136	303	4,969	10,238
Current liabilities	48	19	263	3	335	668
Total liabilities	1,217	118	504	139	2,123	4,101
Members' equity	315	180	2,632	164	2,846	6,137
As of December 31, 2019						
Current assets	99	—	43	—	254	396
Total assets	1,335	87	456	—	3,186	5,064
Current liabilities	54	42	29	—	143	268
Total liabilities	1,010	82	55	—	896	2,043
Members' equity	325	5	401	—	2,290	3,021
Income Statement						
For the twelve months ended December 31, 2020						
Revenue	127	1	(14)	2	254	370
Income (loss) from continuing operations	(8)	(5)	(72)	(2)	(152)	(239)
Net income (loss)	(8)	(5)	(72)	(2)	(152)	(239)
For the twelve months ended December 31, 2019						
Revenue	102	—	15	—	156	273
Income (loss) from continuing operations	(16)	—	(10)	—	(71)	(97)
Net income (loss)	(16)	—	(10)	—	(71)	(97)

(1) Component of the Lighthouse Partnerships described in Note 6 to our financial statements in this Form 10-Q.

(2) 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, 2020, as amended by our Amendment No. 1 to our Annual Report on Form 10-K for the year ended December 31, 2020, (collectively, our "2020 Form 10-K") that was filed with the SEC.

Our Business

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

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

Our investments are focused on three areas:

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

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 we may be secured by the installed improvements or other real estate rights. For GC assets, the off-taker or counterparty may be a utility or electric user who has entered into a contractual commitment, such as a power purchase agreement ("PPA"), to purchase power produced by a renewable energy project at a minimum price with potential price escalators for a portion of the project's estimated life.

We completed approximately $188 million of transactions during the three months ended March 31, 2021, compared to approximately $186 million during the same period in 2020. As of March 31, 2021, pursuant to our strategy of holding transactions on our balance sheet, we held approximately $2.9 billion of transactions on our balance sheet, which we refer to as our "Portfolio." As of March 31, 2021, our Portfolio consisted of over 220 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 March 31, 2021, we managed approximately $4.5 billion in assets in these securitization trusts or vehicles that are not consolidated on our balance sheet. When combined with our Portfolio, as of March 31, 2021, we manage approximately $7.4 billion of assets which we refer to as our "Managed Assets".

We make our investments utilizing a variety of structures including:

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

Our equity investments in renewable energy and energy efficiency projects are operated by various renewable energy companies or by joint ventures in which we participate. These transactions allow us to participate in the cash flows associated with these projects, typically on a priority basis. Our energy efficiency debt investments are usually assigned the payment stream from the project savings and other contractual rights, often using our pre-existing master purchase agreements with the ESCOs. Our debt investments in various renewable energy or other sustainable infrastructure projects or portfolios of projects are generally secured by the installed improvements or other real estate rights. We also own, directly or through equity investments, or manage over 31,000 acres of land that are leased under long-term agreements to over 60 renewable energy projects, where our investment returns are typically senior to most project costs, debt, and equity.

We often make investments where we hold preferred or mezzanine position in a project which is subordinated to project debt and/or preferred forms of equity. Investing greater than 15% of our assets in any individual project requires the approval of a majority of our independent directors. We may adjust the mix and duration of our assets over time in order to allow us to manage various aspects of our portfolio, including expected risk-adjusted returns, macroeconomic conditions, liquidity, availability of adequate financing for our assets, and the maintenance of our REIT qualification and our exemption from registration as an investment company under the 1940 Act.

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

We have a large and active pipeline of potential new opportunities that are in various stages of our underwriting process. We refer to potential opportunities as being part of our pipeline if we have determined that the project fits within our investment strategy and exhibits the appropriate risk and reward characteristics through an initial credit analysis, including a quantitative and qualitative assessment of the opportunity, as well as research on the 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 March 31, 2021, our pipeline consisted of more than $3.0 billion in new equity, debt and real estate opportunities. Of our pipeline, 48% is related to BTM assets and 42% is related to GC assets, with the remainder related to other sustainable infrastructure. 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 CO2 equivalent basis, from the U.S. Government or the International Energy Administration to an estimate of a project's energy production or savings to compute an estimate of metric tons of carbon emissions avoided. Refer to Environmental Metrics below for a discussion of the carbon emissions avoided as a result of our investments. In addition to carbon, 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.

Factors Impacting our Operating Results

We expect that our results of operations will be affected by a number of factors and will primarily depend on the size of our Portfolio, including the mix of transactions which we hold in our Portfolio, the income we receive from securitizations, syndications and other services, our Portfolio's credit risk profile, changes in market interest rates, commodity prices, federal, state and/or municipal governmental policies, general market conditions in local, regional and national economies, our ability to qualify as a REIT and maintain our exemption from registration as an investment company under the 1940 Act, the impacts of climate change, and the impact of the novel coronavirus (COVID-19). We provide a summary of the factors impacting our operating results in our 2020 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 March 31, 2021. The uncertainty surrounding COVID-19 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 Variable Interest Entity 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 2020 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 $2.9 billion as of March 31, 2021 and included approximately $1.4 billion of BTM assets and approximately $1.5 billion of GC assets. Approximately 40% consisted of fixed-rate government and commercial receivables and debt securities, which are classified as investments, on our balance sheet. Approximately 47% of our Portfolio consisted of unconsolidated equity investments in renewable energy related projects and approximately 13% of our Portfolio was real estate leased to renewable energy projects under lease agreements. Our Portfolio consisted of over 220 transactions with an average size of $13 million and the weighted average remaining life of our Portfolio (excluding match-funded transactions) of approximately 18 years as of March 31, 2021.

Our Portfolio included the following as of March 31, 2021:

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

The table below provides details on the interest rate and maturity of our receivables and debt securities as of March 31, 2021:

	Balance	Maturity
	(in millions)	
Fixed-rate receivables, interest rates less than 5.00% per annum	$ 128	2021 to 2048
Fixed-rate receivables, interest rates from 5.00% to 6.50% per annum (1)	97	2022 to 2058
Fixed-rate receivables, interest rates greater than 6.50% per annum (2)	934	2021 to 2069
Receivables	1,159	
Allowance for loss on receivables	(36)	
Receivables, net of allowance	1,123	
Fixed-rate investments, interest rates less than 5.00% per annum	15	2035 to 2046
Fixed-rate investments, interest rates from 5.00% to 6.50% per annum	11	2030 to 2051
Total receivables and investments	$ 1,149	

(1) Excludes receivables held-for-sale of $6 million

(2) Excludes receivables held-for-sale of $18 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 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 March 31, 2021	Three Months Ended March 31, 2020
	(dollars in millions)	
Portfolio, excluding equity method investments		
Interest income, receivables	$ 25	$ 23
Average balance of receivables	$ 1,235	$ 1,150
Average interest rate of receivables	8.0 %	7.9 %
Interest income, investments	$ 1	$ 1
Average balance of investments	$ 46	$ 73
Average interest rate of investments	3.9 %	4.4 %
Rental income	$ 6	$ 6
Average balance of real estate	$ 359	$ 362
Average yield on real estate	7.2 %	7.2 %
Average balance of receivables, investments, and real estate	$ 1,639	$ 1,585
Average yield from receivables, investments, and real estate	7.7 %	7.6 %
Debt		
Interest expense	$ 28	$ 18
Average balance of debt	$ 2,190	$ 1,399
Average cost of debt	5.0 %	5.2 %

The following table provides a summary of our anticipated principal repayments for our receivables and investments as of March 31, 2021:

	Payment due by Period				
	Total	Less than 1 year	1-5 years	5-10 years	More than 10 years
			(in millions)		
Receivables (excluding allowance) (1)	$ 1,159	$ 131	$ 132	$ 387	$ 509
Investments	26	—	2	5	19

(1) Excludes receivables held-for-sale of $24 million.

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 March 31, 2021,
- the term of our leases and a schedule of our future minimum rental income under our land lease agreements as of March 31, 2021,
- the Performance Ratings of our Portfolio, and
- the receivables on non-accrual status.

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

Results of Operations

Comparison of the Three Months Ended March 31, 2021 vs. Three Months Ended March 31, 2020

	Three months ended March 31,			
	2021	2020	$ Change	% Change
		(dollars in millions)		
Revenue				
Interest income	$ 25	$ 24	$ 1	4 %
Rental income	6	6	—	— %
Gain on sale of receivables and investments	18	5	13	260 %
Fee income	3	6	(3)	(50)%
Total Revenue	52	41	11	27 %
Expenses				
Interest expense	28	18	10	56 %
Provision for loss on receivables	1	1	—	— %
Compensation and benefits	15	9	6	67 %
General and administrative	4	3	1	33 %
Total expenses	48	31	17	55 %
Income before equity method investments	4	10	(6)	(60)%
Income (loss) from equity method investments	54	16	38	238 %
Income (loss) before income taxes	58	26	32	123 %
Income tax (expense) benefit	(7)	(2)	(5)	250 %
Net income (loss)	$ 51	$ 24	$ 27	113 %

- Net income increased by $27 million due to an increase of $11 million in total revenue and an increase in equity method investments income of $38 million, offset by a $17 million increase in total expenses and a $5 million increase in income tax expense. These results do not reflect the non-GAAP distributable earnings adjustment applied to our equity method investments, which is discussed in the non-GAAP financial measures section below.
- Total revenue increased by $11 million due to a $1 million increase in interest income resulting from a higher average balance of the Portfolio. There was a $10 million increase in gain on sale and fee income primarily from a change in mix of assets being securitized, partially offset by lower fee generating activities.
- Interest expense increased by $10 million due primarily to higher average outstanding borrowings.
- Compensation and benefit expense increased by $6 million as a result of an increase in our employee headcount, compensation and one-time employee-related costs.
- Income from equity method investments increased by $38 million, primarily due to a larger portfolio of equity method investments and tax attributes recognized by our co-investors which increases our HLBV allocation of earnings.
- Income tax expense increased by $5 million primarily due to the increased HLBV income described above.

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, gains or (losses) 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. Judgment will be utilized in determining when we will reflect the losses on receivables in our distributable earnings. In making this determination, we will consider certain circumstances such as, the time period in default, sufficiency of collateral as well as the outcomes of any related litigation. In the future, distributable earnings may also exclude one-time events pursuant to changes in GAAP and certain other 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 and is useful to our investors as well as management in evaluating our performance as it relates to expected dividend payments over time. As a REIT, we are required to distribute substantially all of our taxable income to investors in the form of dividends and is a principal focus of our investors. Additionally, we believe that our investors also use distributable earnings, or a comparable supplemental performance measure, to evaluate and compare our performance to that of our peers, and as such, we believe that the disclosure of distributable earnings is useful to our investors.

Certain of our equity method investments in renewable energy and energy efficiency projects are structured using typical partnership “flip” structures where the investors with cash distribution preferences receive a pre-negotiated return consisting of priority distributions from the project cash flows, in many cases, along with tax attributes. Once this preferred return is achieved, the partnership “flips” and the common equity investor, often the operator or sponsor of the project, receives more of the cash flows through its equity interests while the previously preferred investors retain an ongoing residual interest. We have made investments in both the preferred and common equity of these structures. Regardless of the nature of our equity interest, we typically negotiate the purchase prices of our equity investments, which have a finite expected life, based on our assessment of the expected cash flows we will receive from these projects discounted back to the net present value, based on a target investment rate, with the expected cash flows to be received in the future reflecting both a return on the capital (at the investment rate) and a return of the capital we have committed to the project. We use a similar approach in the underwriting of our receivables.

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

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

The following table provides results related to our equity method investments for the three months ended March 31, 2021 and 2020.

	Three months ended March 31, 2021	Three months ended March 31, 2020
	(in millions)	
Income (loss) under GAAP	$ 54	$ 17
Distributable earnings	$ 24	$ 16
Return of capital/(deferred cash collections)	(13)	60
Cash collected	$ 11	$ 76

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 months ended March 31, 2021 and 2020.

	Three Months Ended March 31, 2021		2020	
	$	Per Share	$	Per Share
	(dollars in thousands, except per share amounts)			
Net income (loss) attributable to controlling stockholders [1]	$ 51,024	$ 0.61	$ 24,308	$ 0.35
Distributable earnings adjustments:				
Reverse GAAP (income) loss from equity method investments	(54,481)		(16,588)	
Add back equity method investments earnings	23,837		16,085	
Equity-based compensation charges	5,499		3,548	
Provision for loss on receivables	505		648	
Gain/loss on debt modification or extinguishment	1,499		—	
Amortization of intangibles	823		822	
Non-cash provision (benefit) for income taxes	6,779		1,923	
Current year earnings attributable to non-controlling interest	192		102	
Distributable earnings [2]	$ 35,677	$ 0.43	$ 30,848	$ 0.44

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

(2) Distributable earnings per share are based on 82,561,956 shares and for the three months ended March 31, 2021 and 69,597,038 shares for the three months ended March 31, 2020 which represents the weighted average number of fully-diluted shares outstanding including our restricted stock awards, restricted stock units, long-term incentive plan units, and the non-controlling interest in our Operating Partnership. We include any potential common stock issuance in this calculation related to our convertible notes using the treasury stock method and any potential common stock issuances related to share based compensation units in the amount we believe is reasonably certain to vest. We believe the use of the treasury stock method is an appropriate representation of the potential dilution when considering the economic behaviors of the holders of the instrument.

Distributable Net Investment Income

We have a portfolio of investments in climate solutions which we finance using a combination of debt and equity. We calculate distributable net investment income by adjusting GAAP-based net investment income for those distributable earnings adjustments described above which impact 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.

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

	Three Months Ended March 31,	
	2021	2020
	(in thousands)	
Interest income	$ 25,100	$ 23,889
Rental income	6,469	6,470
GAAP-based investment revenue	31,569	30,359
Interest expense	27,582	18,135
GAAP-based net investment income	3,987	12,224
Equity method earnings adjustment	23,837	16,085
(Gain) loss on debt modification or extinguishment[1]	1,499	—
Amortization of real estate intangibles	772	772
Distributable net investment income	$ 30,095	$ 29,081

(1) Adds back non-cash write-off of debt issuance costs related to the modification of non-recourse debt included in interest expense in our income statement.

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	
	March 31, 2021	December 31, 2020
	(dollars in millions)	
Equity method investments	$ 1,386	$ 1,280
Government receivables	135	248
Commercial receivables, net of allowance	988	965
Receivables held-for sale	24	—
Real estate	358	359
Investments	26	55
GAAP-based Portfolio	2,917	2,907
Assets held in securitization trusts	4,500	4,308
Managed Assets	$ 7,417	$ 7,215

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 $2.9 billion as of March 31, 2021. Unlevered portfolio yield was 7.7% and 7.6% as of March 31, 2021 and December 31, 2020, respectively. 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 March 31, 2021.

Environmental Metrics

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 understand the impact our investments are having on climate change. In this calculation, which we refer to as CarbonCount®, we apply emissions factor data from the U.S. Government or the International Energy Administration to an estimate of a project's energy production or savings to compute an estimate of metric tons of carbon emissions avoided. We estimate that our investments originated during the quarter ended March 31, 2021, will avoid annual carbon emissions by approximately 87,000 metric tons, equating to a CarbonCount® of 0.46. We estimate that our investments made since 2013 have cumulatively avoided annual carbon emissions by over 17 million metric tons.

Liquidity and Capital Resources

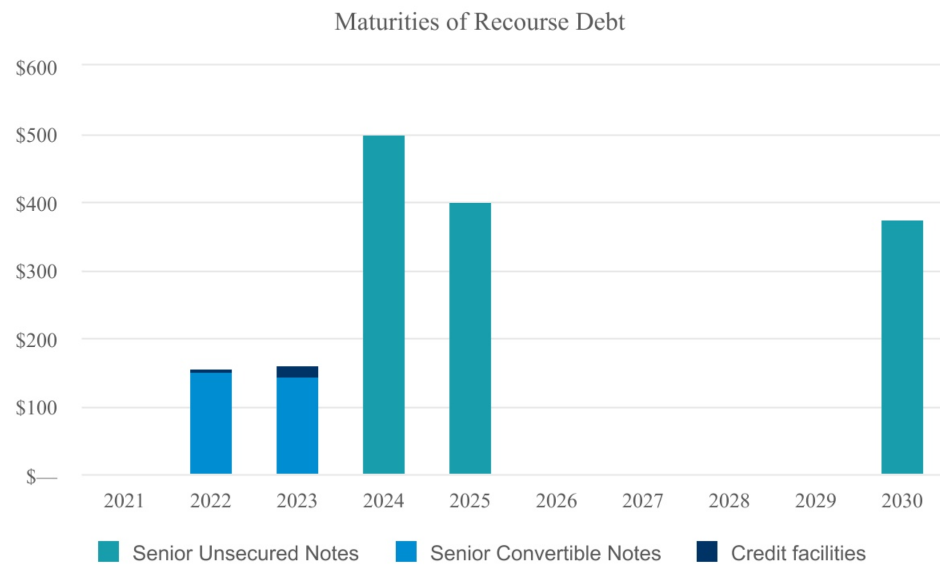
Liquidity is a measure of our ability to meet potential short term (within one year) and long term cash requirements, including ongoing commitments to repay borrowings, fund and maintain our current and future assets, make distributions to our stockholders and other general business needs. We will use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

We believe we have substantial liquidity as of March 31, 2021, with unrestricted cash balances of $232 million. During 2021, we have issued $103 million in equity and entered into an unsecured revolving credit facility for an initial commitment of $50 million, which in April 2021 was replaced with a similar facility with additional lenders for a maximum capacity of $400 million. Our only material maturities of non-amortizing recourse debt before 2024 are our Senior Convertible Notes, which may not require a cash outlay as they can be settled through the issuance of common stock.

In addition to the unsecured revolving credit facility, we have two secured revolving credit facilities ("Rep-Based Facility" and "Approval-Based Facility") with several lenders with a combined maximum commitment of $300 million. For additional information on our credit facilities, see Note 7 to our financial statements in this Form 10-Q. As of March 31, 2021, we had $474 million of non-recourse borrowings. We have $1.3 billion of senior unsecured notes and $294 million of convertible notes outstanding. We also continue to utilize off-balance sheet securitization transactions, where we transfer the loans or other assets we originate to securitization trusts or other bankruptcy remote special purpose funding vehicles that are not consolidated on our balance sheet. We have continued to complete gain on sale securitization transactions with large institutional investors such as life insurance companies. As of March 31, 2021, the outstanding principal balance of our assets financed through the use of these off-balance sheet transactions was approximately $4.5 billion.

In addition to general operational obligations, which are typically paid as incurred, and dividends, which are declared by our board of directors quarterly, we will have future cash needs related to the maturity of the non-amortizing balances of our senior unsecured debt and the balances of our credit facilities. We also have maturities related to our non-recourse debt and Senior 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 Senior Convertible Notes, we believe it is possible those obligations will be settled with the issuance of shares. For further information on non-recourse debt and our Senior Convertible Notes, see Note 8 to our financial statements of this Form 10-Q.

The maturity profile of these obligations are as follows (excluding non-recourse debt):



The above cash maturities do not include our non-recourse debt, given that to the extent there are not sufficient cash flows received from those investments pledged as collateral, the investor has no recourse against other corporate assets to recover any shortfalls and corporate cash contributions would not be required. The above also does not include convertible debt maturities, as it is possible those obligations will be settled with the issuance of shares. For further information on non-recourse debt and our convertible notes, see Note 8 to our financial statements of this Form 10-Q.

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

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

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

The amount of financial leverage we may deploy for particular assets will depend upon the availability of particular types of financing and our assessment of the credit, liquidity, price volatility and other risks of those assets, the interest rate environment and the credit quality of our financing counterparties. As shown in the table below, our debt to equity ratio was approximately 1.6 to 1 as of March 31, 2021, below our current board-approved leverage limit of 2.5 to 1. Our percentage of fixed rate debt was approximately 99% as of March 31, 2021, which is within our targeted fixed rate debt percentage range of 75% to 100%.

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

	March 31, 2021	% of Total	December 31, 2020	% of Total
	(dollars in millions)		*(dollars in millions)*	
Floating-rate borrowings	$ 20	1 %	$ 23	1 %
Fixed-rate debt	2,032	99 %	2,166	99 %
Total debt (1)	$ 2,052	100 %	$ 2,189	100 %
Equity	$ 1,311		$ 1,210	
Leverage	1.6 to 1		1.8 to 1	

(1) Floating-rate borrowings include borrowings under our floating-rate credit facilities. Debt excludes securitizations that are not consolidated on our balance sheet.

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

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

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

Sources and Uses of Cash

We had approximately $253 million and $310 million of unrestricted cash, cash equivalents, and restricted cash as of March 31, 2021 and December 31, 2020, respectively.

Cash flows relating to operating activities

Net cash used in operating activities was approximately $18 million for the three months ended March 31, 2021, driven primarily by net income of $51 million offset by adjustments for non-cash and other items of $69 million. The non-cash and other adjustments consisted of decreases of $43 million related to equity method investments, $24 million related to purchases of receivables held-for-sale to be sold in the second quarter, $8 million related to gains on securitizations, and $6 million related to other items. These decreases were partially offset by of increases of $2 million related to accounts payable and accrued expenses, $5 million related to equity-based compensation, $4 million of depreciation and amortization, and $1 million related to provision for loss on receivables,

Net cash provided by operating activities was approximately $12 million for the three months ended March 31, 2020, driven primarily by net income of $24 million, offset by adjustments for non-cash and other items of $12 million. The non-cash and other adjustments consisted of increases of $1 million related to provision for loss on receivables, $9 million related to equity method investments, $1 million of depreciation and amortization, $2 million of amortization of deferred financing costs, and $4 million related to equity-based compensation. These were offset by $5 million related to gains on securitizations and $24 million related to changes in accounts payable and accrued expenses and other items.

Cash flows relating to investing activities

Net cash used in investing activities was approximately $95 million for the three months ended March 31, 2021. We made $101 million of investments in receivables and fixed rate debt-securities, funded escrow accounts for $12 million and made $53 million of equity method investments. We collected $26 million of principal payments from receivables and fixed rate debt-securities, $44 million from the sales of financial assets, and received $1 million from escrow accounts and other items.

Net cash used in investing activities was approximately $45 million for the three months ended March 31, 2020. We made $45 million of investments in receivables and fixed rate debt-securities, funded escrow accounts for $1 million, and made $141 million of equity method investments. We collected $50 million from equity method investments representing the return of capital determined under GAAP, $39 million from receivables and fixed rate debt-securities, $51 million from the sales of financial assets, and received $2 million from escrow accounts and other items.

Cash flows relating to financing activities

Net cash provided by financing activities was approximately $56 million for the three months ended March 31, 2021. We received $103 million of net proceeds from issuances of common stock, which was offset by $5 million of principal payments on non-recourse debt, $3 million of principal payments on credit facilities, $10 million for withholding requirements as a result of the vesting of employee shares and paid $29 million of dividends, distributions and other items.

Net cash provided by financing activities was approximately $128 million for the three months ended March 31, 2020. We borrowed $126 million from our credit facilities, had non-recourse debt borrowings of $16 million, and received $115 million of net proceeds from issuances of common stock. We made $83 million of principal payments on non-recourse debt, $4 million of principal payments on credit facilities, paid $16 million for withholding requirements as a result of the vesting of employee shares and paid $26 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 $168 million as of March 31, 2021, 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 have been taxed as ordinary income to our stockholders.

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

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

The dividends declared in 2020 and 2021 are described in Note 11 to our financial statements in this Form 10-Q.

Book Value Considerations

As of March 31, 2021, we carried only our investments and residual assets in securitized financial assets at fair value on our balance sheet. As a result, in reviewing our book value, there are a number of important factors and limitations to consider. Other than our investments and the residual assets in securitized financial assets that are carried on our balance sheet at fair value as of March 31, 2021, the carrying value of our remaining assets and liabilities are calculated as of a particular point in time, which is largely determined at the time such assets and liabilities were added to our balance sheet using a cost basis in accordance with GAAP. Other than the allowance for current expected credit losses applied to our government and commercial receivables, our remaining assets and liabilities do not incorporate other factors that may have a significant impact on their value, most notably any impact of business activities, changes in estimates, or changes in general economic conditions, interest rates or commodity prices since the dates the assets or liabilities were initially recorded. Accordingly, our book value does not necessarily represent an estimate of our net realizable value, liquidation value or our market value.

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. Many of these risks have been magnified due to the continuing economic disruptions caused by the COVID-19 pandemic; however, while we continue to monitor the pandemic its impact on such risks remains uncertain and difficult to predict

Credit Risks

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

We utilize a risk rating system to evaluate projects that we target. We first evaluate the credit rating of the obligors involved in the project using an average of the external credit ratings for an obligor, if available, or an estimated internal rating based on a third-party credit scoring system. We then estimate the probability of default and estimated recovery rate based on the obligors' credit ratings and the terms of the contract. We also review the performance of each investment, including through, as appropriate, a review of project performance, monthly payment activity and active compliance monitoring, regular communications with project management and, as applicable, its obligors, sponsors and owners, monitoring the financial performance of the collateral, periodic property visits and monitoring cash management and reserve accounts. The results of our reviews are used to update the project's risk rating as necessary. Additional detail of the credit risks surrounding our Portfolio can be found in Note 6 to our financial statements in this Form 10-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 borrowings, including our credit facilities, and in the future, any new floating rate assets, credit facilities or other borrowings. Because short-term borrowings are generally short-term commitments of capital, lenders may respond to market conditions, making it more difficult for us to secure continued financing. If we are not able to renew our then existing borrowings or arrange for new financing on terms acceptable to us, or if we default on our covenants or are otherwise unable to access funds under any of these borrowings, we may have to curtail our origination of new assets and/or dispose of assets. We face particular risk in this regard given that we expect many of our borrowings will have a shorter duration than the assets they finance. Increasing interest rates may reduce the demand for our investments while declining interest rates may increase the demand. Both our current and future credit facilities and other borrowings may be of limited duration and are periodically refinanced at then current market rates. We attempt to reduce interest rate risks and to minimize exposure to interest rate fluctuations through the use of fixed rate financing structures, when appropriate, whereby we seek to (1) match the maturities of our debt obligations with the maturities of our assets, (2) borrow at fixed rates for a period of time, or (3) match the interest rates on our assets with like-kind debt (i.e., we may finance floating rate assets with floating rate debt and fixed-rate assets with fixed-rate debt), directly or through the use of interest rate swap agreements, interest rate cap agreements or other financial instruments, or through a combination of these strategies. We expect these instruments will allow us to minimize, but not eliminate, the risk that we must refinance our liabilities before the maturities of our assets and to reduce the impact of changing interest rates on our earnings. In addition to the use of traditional derivative instruments, we also seek to mitigate interest rate risk by using securitizations, syndications and other techniques to construct a portfolio with a staggered maturity profile. We monitor the impact of interest rate changes on the market for new originations and often have the flexibility to negotiate the term of our investments to offset interest rate increases.

Typically, our long-term debt is at fixed rates or we have used interest rate hedges that convert most of the floating rate debt to fixed rate. If interest rates rise, and our fixed rate debt balance remains constant, we expect the fair value of our fixed rate debt to decrease and the value of our hedges on floating rate debt to increase. See Note 3 to our financial statements in this Form 10-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.

Our credit facilities are variable rate lines of credit with approximately $20 million outstanding as of March 31, 2021. Increases in interest rates would result in higher interest expense while decreases in interest rates would result in lower interest expense. As described above, we may use various financing techniques including interest rate swap agreements, interest rate cap agreements or other financial instruments, or a combination of these strategies to mitigate the variable interest nature of these facilities. A 50 basis point increase in LIBOR would increase the quarterly interest expense related to the $20 million in variable rate borrowings by $25 thousand. Such hypothetical impact of interest rates on our variable rate borrowings does not consider the effect of any change in overall economic activity that could occur in a rising interest rate environment. Further, in the event of such a change in interest rates, we may take actions to further mitigate our exposure to such a change. However, due to the uncertainty of the specific actions that would be taken and their possible effects, the analysis assumes no changes in our financial structure.

We record certain of our assets at fair value in our financial statements and any changes in the discount rate would impact the value of these assets. See Note 3 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 Price Risk

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

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

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

Environmental Risks

Our business is impacted by the effects of climate change, including extreme weather events, 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. While we have either written off or specifically identified only two transactions amounting to approximately $19 million (net of recoveries) on the approximately $7 billion of loans and real estate transactions we originated since 2012, which represents an aggregate loss of approximately 0.3% on cumulative such transactions originated over this time period, there can be no assurance that we will continue to be as successful, particularly as we invest in more credit sensitive assets or more equity investments and engage in increasing numbers of transactions with obligors other than U.S. federal government agencies. We seek to manage credit risk using thorough due diligence and underwriting processes, strong structural protections in our loan agreements with customers and continual, active asset management and portfolio monitoring. Additionally, we have established a Finance and Risk Committee of our board of directors which discusses and reviews policies and guidelines with respect to our risk assessment and risk management for various risks, including, but not limited to, our interest rate, counter party, credit, capital availability, and refinancing risks. As it relates to environmental risks, when we underwrite and structure our investments the environmental risks and opportunities are an integral consideration to our investment parameters. While we cannot fully protect our investments, we seek to mitigate these risks by using third-party experts to conduct engineering and weather analysis and insurance reviews as appropriate. Once a transaction has closed we continue to monitor the environmental risks to the portfolio. We further discuss our strategy to managing these risks in 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 March 31, 2021, 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 March 31, 2021, that have materially affected, or was 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 March 31, 2021, 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 2020 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 three months ended March 31, 2021, 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 2021. 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
March 1 - March 31, 2021	195,700	$ 53.08	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 three months ended March 31, 2021.

Item 3. Defaults Upon Senior Securities

None.

Item 4. Mine Safety Disclosures

Not applicable.

Item 5. Other Information

None.

Item 6. Exhibits

Exhibit number	Exhibit description
3.1	Articles of Amendment and Restatement of Hannon Armstrong Sustainable Infrastructure Capital, Inc. (incorporated by reference to Exhibit 3.1 to the Registrant's Form 10-Q for the quarter ended June 30, 2013 (No. 001-35877), filed on August 9, 2013)
3.2	Bylaws of Hannon Armstrong Sustainable Infrastructure Capital, Inc. (incorporated by reference to Exhibit 3.2 to the Registrant's Form 10-Q for the quarter ended June 30, 2013 (No. 001-35877), filed on August 9, 2013)
3.3	Amended and Restated Agreement of Limited Partnership of Hannon Armstrong Sustainable Infrastructure, L.P. (incorporated by reference to Exhibit 3.3 to the Registrant's Form 10-Q for the quarter ended June 30, 2013 (No. 001-35877), filed on August 9, 2013)
4.1	Specimen Common Stock Certificate of Hannon Armstrong Sustainable Infrastructure Capital, Inc. (incorporated by reference to Exhibit 4.1 to the Registrant's Form S-11 (No. 333-186711), filed on April 12, 2013)
4.2	Indenture, dated as of August 22, 2017, between Hannon Armstrong Sustainable Infrastructure Capital, Inc. and U.S. Bank National Association, as Trustee (incorporated by reference to Exhibit 4.1 to the Registrant's Form 8-K (No. 001-35877), filed on August 22, 2017)
4.3	First Supplemental Indenture, dated as of August 22, 2017, between Hannon Armstrong Sustainable Infrastructure Capital, Inc. and U.S. Bank National Association, as Trustee (including the form of 4.125% Convertible Senior Note due 2022) (incorporated by reference to Exhibit 4.2 to the Registrant's Form 8-K (No. 001-35877), filed on August 22, 2017)
4.4	Second Supplemental Indenture, dated as of August 21, 2020, between Hannon Armstrong Sustainable Infrastructure Capital, Inc. and U.S. Bank National Association, as Trustee (including the form of 0% Convertible Senior Note due 2023) (incorporated by reference to Exhibit 4.1 to the Registrant's Form 8-K (No. 001-35877), filed on August 21, 2020).
4.5	Indenture, dated as of July 2, 2019, between HAT Holdings I LLC and HAT Holdings II LLC, as issuers, and Hannon Armstrong Sustainable Infrastructure Capital, Inc., Hannon Armstrong Sustainable Infrastructure, 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 5.25% Senior Notes due 2024). (incorporated by reference to Exhibit 4.1 to the Registrant's Form 8-K (No. 001-35877), filed on July 2, 2019)
4.6	Indenture, dated as of April 21, 2020, between HAT Holdings I LLC and HAT Holdings II LLC, as issuers, and Hannon Armstrong Sustainable Infrastructure Capital, Inc., Hannon Armstrong Sustainable Infrastructure, L.P., and Hannon Armstrong Capital, LLC, as guarantors, and U.S. Bank National Association, as trustee (including the form of HAT Holdings I LLC and HAT Holdings II LLC's 6.00% Senior Notes due 2025). (incorporated by reference to Exhibit 4.1 on the Registrant's Form 8-K (No. 001-35877), filed on April 21, 2020)
4.7	Indenture, dated as of August 25, 2020, between HAT Holdings I LLC and HAT Holdings II LLC, as issuers, and Hannon Armstrong Sustainable Infrastructure Capital, Inc., Hannon Armstrong Sustainable Infrastructure, L.P., and Hannon Armstrong Capital, LLC, as guarantors, and U.S. Bank National Association, as trustee (including the form of HAT Holdings I LLC and HAT Holdings II LLC's 3.750% Senior Notes due 2030) (incorporated by reference to Exhibit 4.1 on the Registrant's Form 8-K (No. 011-35877), filed on August 25, 2020).
10.1*	Letter Agreement, dated as of January 6, 2021, between J. Brendan Herron, Hannon Armstrong Sustainable Infrastructure Capital, Inc. and Hannon Armstrong Capital Inc.
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: May 7, 2021	/s/ Jeffrey W. Eckel
	Jeffrey W. Eckel Chairman, Chief Executive Officer and President
Date: May 7, 2021	/s/ Jeffrey A. Lipson
	Jeffrey A. Lipson Chief Financial Officer, Chief Operating Officer and Executive Vice President
Date: May 7, 2021	/s/ Charles W. Melko
	Charles W. Melko Chief Accounting Officer, Treasurer and Senior Vice President

HANNON
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January 6, 2021

J. Brendan Herron, Jr.
4819 Ft. Sumner Drive
Bethesda, MD 20816

Re: Strategic Advisor Consulting Services

Dear Brendan,

This letter agreement ("Letter Agreement") sets forth the agreement between you ("you" or "Consultant") and Hannon Armstrong Sustainable Infrastructure Capital, Inc. and Hannon Armstrong Capital, LLC (together, the "Company") (jointly, the "Parties") relating to your transition from an Executive Vice President and Company employee to a Strategic Advisor under a non-employee consulting agreement as provided in Section 2 below, which transition will be effective on April 18, 2021 ("the Transition Date") on the terms set forth herein.

1. Last Day of Employment, Final Compensation and Waiver of Claims under the Employment Agreement.

1.1. Last Day of Employment. The Parties agree that your employment with the Company pursuant to your Employment Agreement dated April 17, 2013 ("Employment Agreement") will end effective on the Transition Date.

1.2 Final Compensation under the Employment Agreement and Waiver of Claims.

1.2.1 The Company will continue to pay Consultant pursuant to the terms of Sections 3.1 through 3.4 the Employment Agreement through the Transition Date, in accordance with its normal payroll practices, and that these payments shall include his 2020 bonus in the amount of $880,000 with 50% paid in cash and 50% paid in stock using the same calculations as the other senior executives. The Consultant agrees that this payment represents all amounts he is entitled to as compensation for his employment through Transition Date.

1.2.2. The Company shall act to remove all restrictions from any unvested restricted stock, operating partnership units ("OP Units) and Holdco Units awarded under the Equity Incentive Plan, (as defined in Section 3.5 of the Employment Agreement or, as set forth in the respective award agreements and identified in Exhibits D and E) upon the Waiver Effective Date (defined below). The restricted stock units ("RSUs"), OP Units and HoldCo Units will be converted into unrestricted stock or OP Units, as applicable, at the maximum level contemplated in the applicable grant agreements irrespective of any performance requirements. All shares received under this paragraph 1.2.2 will be subject to any applicable and customary withholding of taxes at a minimum, equal to the level required by law. In exchange for the Company's removal of all restrictions as provided in this paragraph 1.2.2, the Consultant waives his rights (if any) to further equity incentive compensation under Section 3.5 of the Employment Agreement.

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1.2.3. The Consultant represents that his unpaid expenses already and to be incurred during the Term of his Employment Agreement will not exceed $25,000 and agrees to provide documentation of those expenses within 10 business days after the Transition Date, at which point the Company shall reimburse him for those expenses provided that the Consultant will not be reimbursed for expenses not yet filed which were incurred prior to January 1, 2020. In exchange for the Company's payment of his unpaid expenses as provided in this paragraph 1.2.3, the Consultant waives his rights (if any) to further expense reimbursements under Section 3.6 of the Employment Agreement.

1.2.4. In exchange for the Fees provided for in paragraph 3.1 of this Letter Agreement, Executive waives his rights (if any) to any further compensation of any kind under Section 4 or 5 of the Employment Agreement.

1.2.5. The Parties agree to execute a Waiver and General Release of All Claims, a copy of which is attached hereto as Exhibit C ("Waiver") on or after the Transition Date. The Waiver shall become effective on the eighth day after the date the Waiver is signed by the Consultant, provided he has not exercised his right to revoke the Waiver (the "Waiver Effective Date"). The Parties agree that if Consultant does not sign the Waiver or exercises his right to revoke the Waiver, this Letter Agreement will become null and void.

2. Services to be Performed by Consultant.

2.1 Scope of Work. Consultant will perform the work and provide the strategic advisor consulting services ("Consulting Services") set forth on Exhibit A to this Letter Agreement, in accordance with the terms and conditions hereof.

2.2 Method of Performing Consulting Services. Consultant will determine the method, details, and means of performing the Consulting Services to be carried out for Company. Company may, however, require Consultant and employees of Consultant, if any, to observe at all times the security and safety policies of Company. In addition, Company will be entitled to exercise a broad general power of supervision over the results of services performed by Consultant for the limited purpose of ensuring satisfactory performance. This power of supervision will include the right to inspect, stop work, make suggestions or recommendations as to the details of the Consulting Services, and request modifications to the scope of such services.

2.3 Place of Work. Consultant will perform all Consulting Services for Company off-site, unless as mutually agreed otherwise, in which case Company will provide working space and facilities, and any other services and materials Consultant may reasonably request in order to perform the Consulting Services. The Company shall transfer to the Consultant the computer equipment and monitor used in his employment and shall continue to provide a Company email address.

2.4. Rights of Third Parties. Consultant agrees that (a) to the best of Consultant's knowledge, the work product generated by Consultant pursuant to this Letter Agreement will not infringe on any copyright, patent, trade secret or other intellectual property right of any third party, (b) Consultant will not knowingly use any equipment, facilities, supplies or other property of any

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third party which could give rise to any claims of ownership of Consultant's services hereunder by such third party, (c) during the period of performance for any project, Consultant will not enter into any agreement or employment relationship with any other third party to perform services of a similar or identical nature to the Consulting Services being performed hereunder, and (d) Consultant will observe and abide by all applicable laws and regulations, including, but not limited to, those of Company relative to conduct on any premises under Company's control.

2.5 Compliance Obligations. (a) Consultant will observe and abide by all applicable laws and regulations, including, but not limited to, (i) any of the foreign assets control regulations of the United States Treasury Department (31 C.F.R., Subtitle B, Chapter V, as amended) or any enabling legislation or executive order relating thereto, (ii) Executive Order No. 13,224, 66 Fed. Reg. 49,079 (2001), issued by the President of the United States (Executive Order Blocking Property and Prohibiting Transactions with Persons Who Commit, Threaten to Commit or Support Terrorism) or (iii) the anti-money laundering provisions of the Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism (USA Patriot Act) Act of 2001, Public Law 107 56 (October 26, 2001) amending the Bank Secrecy Act, 31 U.S.C. Section 5311 et seq., and any other laws relating to terrorism or money laundering.

(b) Consultant hereby confirms that Consultant has been given a copy of the Company's Code of Business Conduct and Ethics and the Statement of Corporate Policy Regarding Equity Transactions and will strictly abide by the terms set forth therein.

3. Compensation.

3.1 Fees. For satisfactory performance of the Consulting Services to be performed by Consultant, Company will pay Consultant the fees set forth on Exhibit B. Such fees will represent Company's entire obligation for services rendered.

3.2 Expenses. Except as otherwise provided in this Letter Agreement or Exhibit B, Consultant will be responsible for all costs and expenses incident to the performance of services for Company, including all costs incurred by Consultant to do business.

4. Term and Termination of Consulting Services.

4.1 Term. Consultant will perform Consulting Services for one year from the Transition Date unless that time period is extended by a written agreement signed by both parties ("Agreement Term").

4.2 Termination. Company may, at its sole option, terminate the Consultant's performance of Consulting Services with or without cause, at any time by giving Consultant written notice of termination, which termination will be effective upon the giving of such notice. If the termination of the Consultant's performance of Consulting Services for any reason other than Cause (as defined in Section 5.1 of the Employment Agreement except that Consultant shall not be required to devote substantially all of his business time and efforts to the Company), (x) Consultant will be paid the compensation on the payment dates set forth in Exhibit B and (y) all outstanding RSUs or OP Units awarded under the Equity Incentive Plan will be converted into unrestricted stock or OP

Units, as applicable, at the maximum level contemplated in the applicable grant agreements irrespective of any performance requirements. If the termination of the Consultant's performance of Consulting Services is by the Company for Cause, Consultant shall not be entitled to any further compensation from the Company. Consultant will advise Company of the extent to which performance has been completed through such date, and collect and deliver to Company whatever work product then exists in the manner requested by Company. Consultant may, at his option, terminate the performance of Consulting Services at any time by giving Company written notice of termination and forfeit any further compensation payment contemplated after the date of such notice of termination.

4.3 Return of Materials. Upon termination of the Consultant's performance of Consulting Services for any reason, upon request, the Consultant will promptly return to Company all copies of any Company data, records, or materials of whatever nature or kind, including, without limitation, writings, designs, documents, records, data, memoranda, tapes and disks containing models, documentation and notes, and all materials incorporating any proprietary information of Company. Consultant will also furnish to Company all work in progress or portions thereof, including all incomplete work.

5. Independent Contractor Status.

5.1 Intention of Parties. It is the intention of the parties that Consultant be an independent contractor and not an employee, agent, or partner of the Company. Nothing in this Letter Agreement will be interpreted or construed as creating or establishing the relationship of employer and employee between Company and either Consultant or any employee or agent of Consultant.

6. Taxes, etc.

6.1 State and Federal Taxes; Benefits. Consultant will pay and report federal and state income tax withholding, social security taxes, and unemployment insurance applicable to himself. Consultant agrees to defend, indemnify, and hold harmless Company, Company's shareholders, directors, officers, employees and agents, from and against any claims, liabilities, or expenses relating to such tax and insurance matters. Without limiting the generality of the foregoing, because Consultant is not an employee of the Company:

- Company will not withhold FICA (Social Security) from Consultant's payments.
- Company will not make state or federal unemployment insurance contributions on behalf of Consultant or its personnel, if any.
- Company will not withhold state and federal income tax from payment to Consultant.
- Company will not make disability insurance contributions on behalf of Consultant.
- Company will not obtain workers' compensation insurance on behalf of Consultant.

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7. Covenants, Work Product, Warranties and Indemnities.

7.1 Covenants. Consultant agrees that he remains bound by the Covenant in Section 6 of the Employment agreement through the Agreement Term. The Parties agree that "Restricted Period" as that term is used in Section 6 of the Employment Agreement is hereby extended to April 18, 2023, provided however, if the Consultant presents a strategic opportunity that the Company chooses not to pursue, the pursuit of such opportunity by the Consultant shall not be considered to violate Section 6. Nothing in this Section or in Section 6 of the Employment Agreement shall be interpreted to limit the Consultant's ability to: (a) serve nonprofit or governmental organizations in any role; (b) serve on the Board of Directors of any Company in a nonmanagement role; or (c) serve as an advisor or consultant (in a nonmanagement role) for customers (or similarly situated companies), venture capital firms or other investors who invest in companies or in the development of projects, provided that without written approval from the Company, Consultant will not serve in a management, advisor or consulting role to an entity who provides debt or equity financing to sustainable infrastructure projects.

7.2 Ownership of Work Product. Subject to Section 7.1, all copyrights, patents, trade secrets, or other intellectual property rights associated with any ideas, concepts, techniques, inventions, processes, or works of authorship developed or created by Consultant or its personnel, if any, during the course of performing Company's work (collectively, the "Work Product") will belong exclusively to Company and will, to the extent possible, be considered a "work made for hire" for Company within the meaning of Title 17 of the United States Code. Consultant automatically assigns, and will cause his employees, if any, automatically to assign, at the time of creation of the Work Product, without any requirement of further consideration, any right, title, or interest he/she or they may have in such Work Product, including any copyrights or other intellectual property rights pertaining thereto. Upon request of Company, Consultant will take such further actions, and will cause his employees, if any, to take such further actions, including execution and delivery of instruments of conveyance, as may be appropriate to give full and proper effect to such assignment.

7.3 Warranties. Consultant represents and warrants that , (a) Consultant's performance of the Consulting Services called for by this Letter Agreement will not violate any applicable law, rule, or regulation; any contracts with third parties; or any third-party rights in any patent, trademark, copyright, trade secret, or similar right, and (b) Consultant is aware of no obligations inconsistent with the terms of this Letter Agreement, or with providing Consulting Services to Company, including but not limited to any obligations which could interfere with Company's ownership rights in any discoveries, improvements or inventions made by Consultant.

7.4 Indemnification. Each party (the "Indemnifying Party") shall protect, indemnify and hold harmless the other Party and its directors, officers, employees, agents, affiliates and representatives (each an "Indemnified Party") against and from third party claims for any and all cost, expense, damage, liability or loss, including costs and attorney's fees, for or on account of injury to, bodily or otherwise, or death of, persons, or for damage to, or destruction of property, resulting from or attributable to the gross negligence or willful misconduct of the Indemnifying Party, its directors, officers, employees, agents affiliates or representative, or resulting from, arising out of, or in any way connected with the performance of, or failure to perform its

obligations under this Letter Agreement, excepting only such cost, expense, damage, liability or loss as may be caused by the gross negligence or willful misconduct of any Indemnified Party.

7.5 Requirements of Indemnity. If any Indemnified Party intends to seek indemnification under paragraph 7.4 from any Indemnifying Party with respect to any action or claim, the Indemnified Party shall give the Indemnifying Party notice of such claim or action upon the receipt of actual knowledge or information by the Indemnified Party of any possible claim or of the commencement of such claim or action, which period shall in no event be later than the lessor (i) fifteen business days prior to the last day of responding to such claim or action or (ii) one half of the period allowed for responding to such claim or action. The Indemnifying Party shall have no liability under this Article for any claim or action for which such notice is not provided, unless the failure to give such notice does not prejudice the Indemnifying Party. The Indemnifying Party shall have the right to assume the defense of any such claim or action, at its sole cost and expense, with counsel designated by the Indemnifying Party and reasonably satisfactory to the Indemnified Party: provided, however, that if the defendants in any such action include both the Indemnified Party and the Indemnifying Party, and the Indemnified Party shall have reasonably concluded that there may be legal defenses available to it which are different from or additional to those available to the Indemnifying Party, the Indemnified Party shall have the right to select separate counsel, at the Indemnified Party's expense, to assert such legal defenses and to otherwise participate in the defense of such action on behalf of such Indemnified Party. Should any Indemnified Party be entitled to indemnification under this paragraph as a result of a claim by a third party, and should the Indemnifying Party fail to assume the defense of such claim or action, the Indemnified Party may, at the expense of the Indemnifying Party, contest (or, with the prior consent of the Indemnifying Party, settle) such claim or action. Except to the extent expressly provided herein, no Indemnified Party shall settle any claim or action with respect to which it has sought or intends to seek indemnification pursuant to this paragraph without the prior written consent of the Indemnifying Party, which consent shall not be unreasonably withheld or delayed.

7.6 Survival of Indemnity Obligations: The duty to indemnify hereunder will continue in full force and effect notwithstanding the expiration or termination of this Letter Agreement, with respect to any loss, liability, damage or other expense based on facts or conditions which occurred prior to such termination.

8. General Provisions

8.1 Notices. Any notices to be given hereunder by either party to the other may be effected either by personal delivery in writing, email or by mail postage prepaid with return receipt requested. Mailed notices shall be addressed to the parties at the addresses appearing in the introductory paragraph of this Letter Agreement, but each party may change such address by written notice in accordance with this paragraph. Notices delivered personally or emailed will be deemed communicated as of actual receipt. Mailed notices will be deemed communicated as of four days after deposited with the United States Postal Service.

8.2 Entire Agreement. This Letter Agreement, the Employment Agreement and the Waiver contain all the covenants and agreements between the Parties related to the provision of Consulting Services contemplated herein. Each party to this Letter Agreement acknowledges that no

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representations, inducements, promises, or agreements, orally or otherwise, have been made by either party, or anyone acting on behalf of either party, that are not embodied in this Letter Agreement, the Employment Agreement and the Waiver. Any modification of this Letter Agreement will be effective only if it is in writing signed by the party to be charged. The Letter Agreement is effective as of the date it is signed by the parties, but as provided in paragraph 1.2.5 it will become null and void if Consultant does not sign the Waiver or exercises his right to revoke the Waiver.

8.3 Severability. If any provision in this Letter Agreement is held by a court of competent jurisdiction to be invalid, void, or unenforceable, the remaining provisions will nevertheless continue in full force without being impaired or invalidated in any way.

8.4 No Third Party Beneficiaries. This Letter Agreement is enforceable only by Consultant and Company. No employee or agent of Consultant, and no beneficiary thereof, will be a third-party beneficiary under or pursuant to the terms of this Letter Agreement. Nothing in this Letter Agreement constitutes a promise made for the benefit of any person or entity not a party to this Letter Agreement.

8.5 Governing Law. This Letter Agreement shall be governed by and construed in accordance with the laws of the State of Maryland.

8.6 Successors. This Letter Agreement shall inure to the benefit of, and be binding upon, Consultant and Company, their respective personal representatives, if any, and successors and assigns; provided that Consultant may not assign any rights or delegate or subcontract any duties under this Letter Agreement, in whole or in part, without the prior written consent of Company. Any such assignment, delegation or subcontracting without Company's prior written consent will be void.

If you agree to the terms of this Letter Agreement, please sign the enclosed duplicate copy and then return a hard copy to me.

Very truly yours,

DocuSigned by:

9D68DF70C2BB478...

Jeffrey W. Eckel
Chairman, President & CEO
Hannon Armstrong Sustainable Infrastructure
Capital, Inc. and Hannon Armstrong Capital, LLC

ACCEPTED AND AGREED:

DocuSigned by:

55476ECF76B94A4...

J. Brendan Herron, Jr.

01/06/2021

Date

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Exhibit A

Scope of Work

Consultant will provide the following Consulting Services to the Company and its affiliates when directed by the CEO:

- Provide continued support and strategic advice regarding the Company's new strategic business opportunities, including the current opportunities presently being pursued;

- Serve on the Energize board of advisors; and

- Other matters from time to time as mutually agreed by CEO and Consultant.

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Exhibit B

Consultant's Fees

Fees for Consulting Services

Company will provide compensation to Consultant, or his company as designated by Consultant, as follows:

A. Within 10 business days after the effective date of this Agreement

- $1,000,000
- 22,254 OP Units to be vested on a time vest of 1 year

B. During and Beyond the Agreement Term

- $41,666.67 per month during the Agreement Term in accordance with its normal payroll practices.
- To the extent a strategic project requires the involvement of the consultant beyond what is contemplated in this agreement, the parties will negotiate in good faith additional consideration which may be in the form of a success fee.
- Reimbursement of the full cost of Consultant's health insurance coverage under COBRA or otherwise for two years after the Transition Date through the Agreement Term within 30 days of his submission of an invoice to the Company on an after-tax basis, unless the Consultant obtains coverage through another employer.

Expenses

Notwithstanding the provisions of paragraph 3.2 of the Letter Agreement, the Company will pay Consultant for the actual amount of out-of-pocket expenses incurred during the course of providing the Consulting Services, including, but not limited to food, travel, lodging, communications, with the prior approval of the Company. Invoices for such expenses must include original receipts, to the extent available, supporting incurred costs and payment will be made within 30 days of submittal. Any expenses in excess of $2,500 in the aggregate shall be approved in advance.

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Exhibit C

WAIVER AND GENERAL RELEASE OF ALL CLAIMS

This Waiver and General Release of all Claims (this "Agreement") is entered into by J. Brendan Herron, Jr. (the "Executive") and Hannon Armstrong Sustainable Infrastructure Capital, Inc., a Maryland corporation (the "Company"), effective as of the eighth day after the date signed by the Executive provided he has not exercised his revocation right in Section 1(b) below (the "Effective Date").

In consideration of the promises set forth in the Employment Agreement between the Executive and the Company, dated April 17, 2013 (the "Employment Agreement"), and the Letter Agreement dated January 6, 2021 (the "Letter Agreement"), the Executive and the Company agree as follows:

1. General Releases and Waivers of Claims.

(a) Executive's Release of Company. In consideration of the payments benefits and vesting of shares provided in the Letter Agreement and after consultation with counsel, the Executive hereby irrevocably and unconditionally releases and forever discharges the Company and its past, present and future parent entities, subsidiaries, divisions, affiliates and related business entities, any of its or their successors and assigns, assets, employee benefit plans or funds, and any of its or their respective past, present and/or future directors, officers, fiduciaries, agents, trustees, administrators, managers, supervisors, stockholders, employees and assigns, whether acting on behalf of the Company or in their individual capacities (collectively, "Company Parties") from any and all claims, actions, causes of action, rights, judgments, obligations, damages, demands, accountings or liabilities of whatever kind or character (collectively, "Claims"), including, without

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limitation, any Claims under any federal, state, local or foreign law, that the Executive may have, or in the future may possess, arising out of the Executive's employment relationship with and service as an employee, officer or director of the Company, and the termination of such relationship or service; provided, however, that the Executive does not release, discharge or waive (A) any rights to payments and benefits provided under the Employment Agreement or the Letter Agreement except as provided in the Letter Agreement, (B) any right the Executive may have to enforce the Letter Agreement, this Agreement, the Award Agreements or the Employment Agreement except as provided in the Letter Agreement, (C) the Executive's rights under the Indemnification Agreement and rights to indemnification and advancement of expenses in accordance with the Company's certificate of incorporation, bylaws or other corporate governance document, or any applicable insurance policy, (D) any claims for benefits under any employee benefit or pension plan of the Company Parties subject to the terms and conditions of such plan and applicable law including, without limitation, any such claims under the Employee Retirement Income Security Act of 1974, or (E) any right or claim that the Executive may have to obtain contributions as permitted by applicable law in an action in which both the Executive on the one hand or any Company Party on the other hand are held jointly liable.

(b) Executive's Specific Release of ADEA Claims. In further consideration of the payments benefits and vesting of shares provided in the Letter Agreement to the Executive, the Executive hereby unconditionally release and forever discharge the Company Parties from any and all Claims that the Executive may have as of the date the Executive signs this Agreement arising under the Federal Age Discrimination in Employment Act of 1967, as amended, and the applicable rules and regulations promulgated thereunder ("ADEA"). By signing this Agreement, the Executive hereby acknowledges and confirms the following: (i) the Executive was advised by the

Company in connection with the Executive's end of employment to consult with an attorney of the Executive's choice prior to signing this Agreement and to have such attorney explain to the Executive the terms of this Agreement, including, without limitation, the terms relating to the Executive's release of claims arising under ADEA, and the Executive has been given the opportunity to do so; (ii) the Executive was given a period of not fewer than 21 days to consider the terms of this Agreement and to consult with an attorney of the Executive's choosing with respect thereto; and (iii) the Executive knowingly and voluntarily accepts the terms of this Agreement. The Executive also understands that the Executive has seven days following the date on which the Executive signs this Agreement within which to revoke the release contained in this paragraph, by providing the Company a written notice of the Executive's revocation of the release and waiver contained in this paragraph.

(c) No Assignment. The Executive represents and warrants that the Executive has not assigned any of the Claims being released under this Agreement.

2. Waiver of Relief. The Executive acknowledges and agrees that by virtue of the foregoing, the Executive has waived any relief available to him (including without limitation, monetary damages and equitable relief, and reinstatement) under any of the Claims waived in paragraph 2. Therefore the Executive agrees that he will not accept any award or settlement from any source or proceeding (including but not limited to any proceeding brought by any other person or by any government agency) with respect to any Claim or right waived in this Agreement. Nothing in this Agreement shall be construed to prevent the Executive from cooperating with or participating in an investigation conducted by, any governmental agency, to the extent required or permitted by law.

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3. Severability Clause. In the event any provision or part of this Agreement is found to be invalid or unenforceable, only that particular provision or part so found, and not the entire Agreement, will be inoperative.

4. Non-admission. Nothing contained in this Agreement will be deemed or construed as an admission of wrongdoing or liability on the part of the Company or any other Company Party or the Executive.

5. Governing Law. All matters affecting this Agreement, including the validity thereof, are to be governed by, and interpreted and construed in accordance with, the laws of the State of Maryland applicable to contracts executed in and to be performed in that State.

6. Arbitration. Any dispute or controversy arising under or in connection with this Agreement shall be resolved in accordance with Section 7.3 of the Employment Agreement.

7. Notices. All notices or communications hereunder shall be made in accordance with Section 7.4 of the Employment Agreement.

THE EXECUTIVE ACKNOWLEDGES THAT THE EXECUTIVE HAS READ THIS AGREEMENT AND THAT HE FULLY KNOWS, UNDERSTANDS AND APPRECIATES ITS CONTENTS, AND THAT HE HEREBY EXECUTES THE SAME AND MAKES THIS AGREEMENT AND THE RELEASE AND AGREEMENTS PROVIDED FOR HEREIN VOLUNTARILY AND OF HIS OWN FREE WILL.

J. BRENDAN HERRON, JR.

____

Date: __________________________

HANNON ARMSTRONG SUSTAINABLE
INFRASTRUCTURE CAPITAL, INC.

By:____________________________

Name:

Name:______________________________

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ARMSTRONG

Title:______________________________

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Exhibit D

Unvested Stock Awards Under the Equity Incentive Plan
from which Restrictions will be Removed Under Paragraph 1.2.2

Total shares	13,423
Total OP Units	133,500

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Exhibit E

Withholding Calculator

Hannon Armstrong Sustainable Infrastructure Capital, Inc.
Award vesting withholding computation

Name:		Brendan Herron
Number of shares vesting from Exhibit D:		
HASI closing share price on vesting date:		(1)
State of Residence (MD/DC/VA/IL/CA):		MD
Over FICA limit of $142,800 (Y/N):		Y
Over Medicare limit of $200,000 (Y/N):		Y
Taxable income:		$(1)
Federal withholding:	(2)%	$(2)
State withholding:	(2)%	$(2)
FICA withholding	(2)%	$(2)
Medicare withholding	(2)%	$(2)
401K withholding	(2)%	$(2)
Total withholdings:		**$(2)**
Payment of withholdings:		To be paid by check or withholding of shares at option of Brendan Herron

(1) Taxable Income = Closing Price at date of vesting multiplied by number of shares vested (per Exhibit D)
(2) Withholding amounts to be taxable income multiplied by percentage rate to be determined by Brendan Herron between minimum required and maximum allowed tax rates. Total withholding is sum of individual withholdings

EXHIBIT 31.1
CERTIFICATIONS

I, Jeffrey W. Eckel, 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: May 7, 2021	By:	/s/ Jeffrey W. Eckel
	Name:	Jeffrey W. Eckel
	Title:	Chairman, Chief Executive Officer and President

EXHIBIT 31.2

CERTIFICATIONS

I, Jeffrey A. Lipson, 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:	May 7, 2021	By:	/s/ Jeffrey A. Lipson
		Name:	Jeffrey A. Lipson
		Title	Chief Financial Officer, Chief Operating 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 March 31, 2021, to be filed with the Securities and Exchange Commission on or about the date hereof (the "report"), I, Jeffrey W. Eckel, Chief Executive Officer and President of the Company, certify, pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, 18 U.S.C. Section 1350, that:

1. The report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
2. The information contained in the report fairly presents, in all material respects, the financial condition and results of operations of the Company.

It is not intended that this statement be deemed to be filed for purposes of the Securities Exchange Act of 1934.

Date: May 7, 2021	By:	/s/ Jeffrey W. Eckel
	Name:	Jeffrey W. Eckel
	Title:	Chairman, 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 March 31, 2021, to be filed with the Securities and Exchange Commission on or about the date hereof (the "report"), I, Jeffrey A. Lipson, Chief Financial Officer, Chief Operating Officer and Executive Vice President of the Company, certify, pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, 18 U.S.C. Section 1350, that:

1. The report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

2. The information contained in the report fairly presents, in all material respects, the financial condition and results of operations of the Company.

It is not intended that this statement be deemed to be filed for purposes of the Securities Exchange Act of 1934.

Date: May 7, 2021	By:	/s/ Jeffrey A. Lipson
	Name:	Jeffrey A. Lipson
	Title:	Chief Financial Officer, Chief Operating Officer and Executive Vice President