MOODY NATIONAL REIT II, INC.
SUPPLEMENT NO. 1 DATED APRIL 21, 2016
TO THE PROSPECTUS DATED APRIL 21, 2016

This document supplements, and should be read in conjunction with, our prospectus dated April 21, 2016 relating to our offering of up to $1,100,000,000 in shares of our common stock. Terms used and not otherwise defined in this Supplement No. 1 shall have the same meanings as set forth in our prospectus. The purpose of this Supplement No. 1 is to disclose:

- the status of our public offering;
- a description of our property;
- a potential property acquisition;
- selected financial data;
- our performance—funds from operations and modified funds from operations;
- our net tangible book value;
- information regarding our indebtedness;
- information regarding our distributions;
- information regarding redemption of our shares;
- compensation paid to our advisor and its affiliates;
- renewal of our advisory agreement;
- changes in directors;
- information on experts; and
- incorporation of certain information by reference.

Status of Our Public Offering

We commenced our initial public offering of up to $1,100,000,000 in shares of our common stock on January 20, 2015. On July 2, 2015, we received subscriptions aggregating $2,000,000 and the subscription proceeds held in escrow were released to us pursuant to the terms of our public offering. As of April 11, 2016, we had received and accepted investors' subscriptions for and issued 1,076,141 shares of our common stock in our public offering, including 5,502 shares issued pursuant to our distribution reinvestment plan, resulting in gross offering proceeds of approximately $26,765,984. As of April 11, 2016, 38,916,861 shares remain to be sold in our initial public offering.

Our Property

On September 25, 2015, Moody National REIT I, Inc. assigned to us all of its rights to and interests in the Agreement of Purchase and Sale for the acquisition of the Residence Inn Austin University Area in Austin, Texas, or the Residence Inn Austin, from an unaffiliated seller. On October 15, 2015, we assigned all of our right, title and interest in and to the Residence Inn Austin to Moody National Lancaster-Austin Holding, LLC, our indirect, wholly owned subsidiary, or Moody Holding.

On October 15, 2015, we, through Moody Holding, acquired fee simple title to the Residence Inn Austin. We paid an aggregate cash purchase price of $25,500,000 for the Residence Inn Austin, which was financed with (1) a portion of the proceeds from our public offering and (2) the proceeds of a mortgage loan secured by the Residence Inn Austin with an aggregate principal amount of $16,575,000, or the property loan, from KeyBank National Association, or the Lender. In connection with the acquisition of the Residence Inn Austin, our advisor earned an acquisition fee of $382,500 and a debt financing fee of $165,750. The Residence Inn Austin is the only property that we currently own.

Description of Property

The Residence Inn Austin is a select-service hotel facility comprised of 112 guest rooms. The Residence Inn Austin opened on January 14, 2014, and benefits from its proximity to the University of Texas campus, Dell Children's Hospital, Seton Medical corporate headquarters and the Texas State Capitol.

We currently have no plans to renovate the Residence Inn Austin, and we believe that the Residence Inn Austin is adequately covered by insurance and is suitable for its intended purposes. For federal income tax purposes, we estimate that the depreciable basis

in the Residence Inn Austin will be approximately $21.2 million. We depreciate buildings based upon an estimated useful life of 39-40 years using the straight-line method. For 2014, the Residence Inn Austin paid real estate taxes of approximately $249,000 at a rate of approximately 2.4%

The Residence Inn Austin faces competition from other hotel properties located in the Austin, Texas market.

Leasing and Management of the Property

Moody Holding leases the Residence Inn Austin to Moody National Lancaster-Austin MT, LLC, an indirect, wholly owned subsidiary of our operating partnership, or the Master Tenant, pursuant to a Hotel Lease Agreement between Moody Holding and Master Tenant, or the Hotel Lease. The Hotel Lease provides for a ten-year lease term, subject to a one-year extension in the event that the property loan is still in effect as of the end of the lease term; provided, however, that Moody Holding may terminate the Hotel Lease upon 45 days prior written notice to the Master Tenant in the event that Moody Holding contracts to sell the Residence Inn Austin to a non-affiliated entity, effective upon the consummation of such a sale of the Residence Inn Austin. Pursuant to the Hotel Lease, the Master Tenant will pay an annual base rent of $2,800,000 per year for the first five years of the term of the Hotel Lease. The annual base rent paid by Master Tenant will be adjusted as set forth in the Hotel Lease beginning in year six of the lease term. In addition, Master Tenant will pay an annual percentage rent, to the extent that such percentage rent is greater than the base rent due for such period, in an amount equal to (1) a fixed percentage of the Residence Inn Austin's gross revenues for the previous year (as set forth in the Hotel Lease), minus (2) the amount of the annual base rent paid for the previous year. The annual percentage rent will be adjusted as set forth in the Hotel Lease beginning in year six of the lease term.

The Master Tenant is party to a Relicensing Franchise Agreement, or the Franchise Agreement, with Marriott International, Inc., or Marriott, pursuant to which Marriott has granted the Master Tenant a limited, non-exclusive license to establish and operate the Residence Inn Austin using certain of Marriott's proprietary marks and systems. The Franchise Agreement expires on January 14, 2034. Pursuant to the Franchise Agreement, the Master Tenant pays Marriott a monthly franchise fee equal to 6.0% of the Residence Inn Austin's gross room revenues (as defined in the Franchise Agreement) and a monthly marketing fund contribution fee equal to 2.5% of the Residence Inn Austin's gross room revenues.

Moody National Hospitality Management, LLC, an affiliate of our advisor, or the Property Manager, manages the Residence Inn Austin pursuant to a Hotel Management Agreement between the Property Manager and the Master Tenant, or the Management Agreement. Pursuant to the Management Agreement, the Master Tenant pays the Property Manager a monthly base management fee in an amount equal to 4.0% of the Residence Inn Austin's gross operating revenues (as defined in the Management Agreement) per fiscal year. Each month during the term of the Management Agreement and for one month following the termination of the Management Agreement, the Property Manager will also receive a $2,500 fee for providing centralized accounting services, which accounting services fee will be subject to annual increases based upon increases in the consumer price index. In addition, the Property Manager will receive a monthly revenue management services fee of $1,200. The Property Manager will also be eligible to receive additional fees for technical, procurement or other services provided by the Property Manager at the request of the Master Tenant. The Management Agreement has an initial ten-year term, and thereafter will automatically renew for four consecutive five-year terms unless Property Manager or Master Tenant provides written notice of termination at least 180 days prior to the end of the then-current term. Master Tenant may terminate the Management Agreement upon certain specified events.

Property Financing

In connection with the acquisition of the Residence Inn Austin, Moody Holding borrowed $16,575,000 from the Lender pursuant to the property loan. The property loan is evidenced by a promissory note issued pursuant to a Loan Agreement.

The entire unpaid principal balance of the property loan and all accrued and unpaid interest thereon and all other amounts due under the property loan are due and payable in full on November 1, 2025. Interest on the outstanding principal balance of the property loan accrues at a fixed per annum rate equal to 4.58%. In the event that, and so long as, any event of default has occurred and is continuing under the property loan, the outstanding principal balance of the property loan and any unpaid interest thereon will bear interest at a per annum rate equal to the lesser of (1) the highest interest rate permitted by applicable law and (2) 9.58%. In addition, in the event that any principal, interest or any other amount due under the property loan is not paid when due, Moody Holding will pay upon demand by the Lender a late charge in an amount equal to the lesser of (1) 5.0% of the amount of the overdue payment and (2) the maximum amount payable pursuant to applicable law. Moody Holding may, upon at least 30 days prior written notice, prepay the outstanding principle balance, plus all accrued interest and other amounts due, in full (but not in part) without payment of any penalty or premium on July 2, 2025 or any business day thereafter.

The performance of the obligations of Moody Holding under the property loan are secured by, among other things, a security interest in the Residence Inn Austin and other collateral granted to Lender pursuant to a Deed of Trust, Assignment of Leases and Rents, Security Agreement and Fixture Filing.

We have agreed to irrevocably and unconditionally guarantee the prompt and unconditional payment to the Lender and its successors and assigns of certain obligations and liabilities of Moody Holding and the Master Tenant for which they may be liable pursuant to the Loan Agreement.

Potential Property Acquisition

On January 28, 2016, Moody National Companies L.P., or Moody LP, assigned to us all of Moody LP's rights to and interests in the Agreement of Purchase and Sale, dated as of October 26, 2015, or the purchase agreement, for the acquisition of a hotel property located in Seattle, Washington commonly known as the Springhill Suites Seattle Downtown, or the Springhill Suites Seattle, for an aggregate purchase price of $74,100,000, excluding acquisition and other costs. We paid $2,000,000 to Moody LP in connection with the assignment of the purchase agreement.

The Springhill Suites Seattle is a select-service hotel consisting of 234 guest rooms. Located on the southeast corner of Stewart Street and Yale Avenue in downtown Seattle, the Springhill Suites Seattle sits in one of the city's major transportation routes with ready access to the corporate headquarters of Amazon, Microsoft, Nordstrom and REI. The Springhill Suites Seattle is also located within close proximity to Puget Sound and is walking distance to the Seattle Space Needle.

Our acquisition of the Springhill Suites Seattle is subject to substantial conditions to closing and there is no assurance that we will close the acquisition.

Selected Financial Data

The following selected financial data should be read in conjunction with our consolidated financial statements and related notes thereto and "Management's Discussion and Analysis of Financial Condition and Results of Operations" contained in our Annual Report on Form 10-K for the year ended December 31, 2015, which is incorporated by reference herein. Our historical results are not necessarily indicative of results for any future period.

	As of December 31, 2015	As of December 31, 2014
Selected Financial Data		
BALANCE SHEET DATA:		
Total assets	$ 29,798,425	$ 198,624
Total liabilities	17,537,214	—
Special limited partnership interests	1,000	1,000
Total equity	12,260,211	197,624

	For the Year Ended December 31, 2015	Period from July 25, 2014 through December 31, 2014
STATEMENT OF OPERATIONS DATA:		
Total revenue	$ 1,077,074	$ —
Total expenses	1,426,966	2,376
Total other income	1,828,589	—
Income tax benefit	6,000	—
Net (income) loss	1,484,697	(2,376)
STATEMENT OF CASH FLOWS DATA:		
Net cash used in operating activities	18,993	2,376
Net cash used in investing activities	25,683,518	—
Net cash provided by financing activities	27,084,854	201,000
OTHER DATA:		
Distributions declared	$ 217,365	$ —

Our Performance—Funds from Operations and Modified Funds from Operations

One of our objectives is to provide cash distributions to our stockholders from cash generated by our operations. Cash generated from operations is not equivalent to net income as determined under GAAP. Due to certain unique operating characteristics of real estate companies, the National Association of Real Estate Investment Trusts, an industry trade group, or NAREIT, has promulgated a standard known as Funds from Operations, or FFO for short, which it believes more accurately reflects the operating performance of a REIT. As defined by NAREIT, FFO means net income computed in accordance with GAAP, excluding gains (or losses) from sales of

property, plus depreciation and amortization, and after adjustments for unconsolidated partnerships and joint ventures in which the REIT holds an interest. We have adopted the NAREIT definition for computing FFO because, in our view, FFO is a meaningful supplemental performance measure in conjunction with net income.

Changes in the accounting and reporting rules under GAAP that have been put into effect since the establishment of NAREIT's definition of FFO have prompted a significant increase in the magnitude of non-cash and non-operating items included in FFO, as defined. As a result, in addition to FFO, we also calculate modified funds from operations, or MFFO, a non-GAAP supplemental financial performance measure that our management uses in evaluating our operating performance. Similar to FFO, MFFO excludes items such as depreciation and amortization. However, MFFO excludes non-cash and non-operating items included in FFO, such as amortization of certain in-place lease intangible assets and liabilities and the amortization of certain tenant incentives. Our calculation of MFFO will exclude these items, as well as the effects of straight-line rent revenue recognition, fair value adjustments to derivative instruments that do not qualify for hedge accounting treatment, non-cash impairment charges and certain other items, when applicable. Our calculation of MFFO will also include, when applicable, items such as master lease rental receipts, which are excluded from net income (loss) and FFO, but which we consider in the evaluation of the operating performance of our real estate investments.

We believe that MFFO reflects the overall impact on the performance of our real estate investments of occupancy rates, rental rates, property operating costs and development activities, as well as general and administrative expenses and interest costs, which is not immediately apparent from net income (loss). As such, we believe MFFO, in addition to net income (loss) as defined by GAAP, is a meaningful supplemental performance measure which is used by our management to evaluate our operating performance and determine our operating, financing and dividend policies.

Please see the limitations listed below associated with the use of MFFO as compared to net income (loss):

- Our calculation of MFFO will exclude any gains (losses) related to changes in estimated values of derivative instruments related to any interest rate swaps which we hold. Although we expect to hold these instruments to maturity, if we were to settle these instruments prior to maturity, it would have an impact on our operations. We do not currently hold any such derivate instruments and thus our calculation of MFFO set forth in the table below does not reflect any such exclusion.

- Our calculation of MFFO will exclude any impairment charges related to long-lived assets that have been written down to current market valuations. Although these losses will be included in the calculation of net income (loss), we will exclude them from MFFO because we believe doing so will more appropriately present the operating performance of our real estate investments on a comparative basis. We have not recognized any such impairment charges and thus our calculation of MFFO set forth in the table below does not reflect any such exclusion.

- Our calculation of MFFO will exclude organizational and offering expenses and acquisition expenses payable to our advisor. Although these amounts reduce net income, we fund such costs with proceeds from our offering and acquisition-related indebtedness and do not consider these expenses in the evaluation of our operating performance and determining MFFO. Our calculation of MFFO set forth in the table below reflects such exclusions.

We believe MFFO is useful to investors in evaluating how our portfolio might perform after our offering and acquisition stage has been completed and, as a result, may provide an indication of the sustainability of our distributions in the future. However, as described in greater detail below, MFFO should not be considered as an alternative to net income (loss) or as an indication of our liquidity. Many of the adjustments to MFFO are similar to adjustments required by SEC rules for the presentation of pro forma business combination disclosures, particularly acquisition expenses, gains or losses recognized in business combinations and other activity not representative of future activities. MFFO is also more comparable in evaluating our performance over time and as compared to other real estate companies, which may not be as involved in acquisition activities or as affected by impairments and other non-operating charges.

MFFO has limitations as a performance measure in an offering such as ours but it is useful in assisting management and investors in assessing the sustainability of operating performance in future operating periods, and in particular, after the offering and acquisition stages are complete and net asset value is disclosed. MFFO is not a useful measure in evaluating net asset value because impairments are taken into account in determining net asset value but not in determining MFFO. Investors are cautioned that due to the fact that impairments are based on estimated future undiscounted cash flows and given the relatively limited term of our operations, it could be difficult to recover any impairment charges.

The calculation of FFO and MFFO may vary from entity to entity because capitalization and expense policies tend to vary from entity to entity. Consequently, our presentation of FFO and MFFO may not be comparable to other similarly titled measures presented by other REITs. In addition, FFO and MFFO should not be considered as an alternative to net income (loss) or to cash flows from operating activities and are not intended to be used as a liquidity measure indicative of cash flow available to fund our cash needs. In particular, as we are currently in the acquisition phase of our life cycle, acquisition costs and other adjustments which are increases to MFFO are, and may continue to be, a significant use of cash. MFFO also excludes impairment charges, rental revenue adjustments and unrealized gains and losses related to certain other fair value adjustments. Accordingly, both FFO and MFFO should be reviewed in connection with other GAAP measurements.

The table below summarizes our calculation of FFO and MFFO for the year ended December 31, 2015 and the period from July 25, 2014 (inception) to December 31, 2014 and a reconciliation of such non-GAAP financial performance measures to our net income (loss).

	Year ended December 31, 2015	Period from July 25, 2014 (inception) to December 31, 2014
Net Income (Loss)	$ 1,484,697	$ (2,376)
Adjustments:		
Depreciation of real estate assets	135,540	—
Gain on acquisition of hotel property	(2,000,000)	—
Funds from Operations	(379,763)	(2,376)
Adjustments:		
Property acquisition expense	496,165	—
Modified Funds from Operations	$ 116,402	$ (2,376)

Our Net Tangible Book Value Per Share

As of December 31, 2015, our net tangible book value per share was $22.64, compared to our current offering price of $25.00 per share. Net tangible book value per share of our common stock is determined by dividing the net tangible book value based on the December 31, 2015 net book value of tangible assets (consisting of total assets less intangible assets, which are comprised of deferred financing and leasing costs and acquired in-place lease value, net of liabilities to be assumed) by the number of shares of our common stock outstanding as of December 31, 2015. Net tangible book value is used generally as a conservative measure of net worth that we do not believe reflects our estimated value per share. It is not intended to reflect the value of our assets upon an orderly liquidation of the company in accordance with our investment objectives. Additionally, investors who purchase shares in this offering will experience dilution in the percentage of their equity investment in us as we sell additional common shares in the future pursuant to this offering, if we sell securities that are convertible into common shares or if we issue shares upon the exercise of options, warrants or other rights.

Information Regarding Our Indebtedness

As of December 31, 2015, we had total outstanding indebtedness of $16,575,000, which was comprised exclusively of the outstanding principal balance on the note secured by the Residence Inn Austin.

Information Regarding Our Distributions

On July 2, 2015, our board of directors authorized and declared the payment of cash distributions to our stockholders. The distribution (1) accrues daily to our stockholders of record as of the close of business on each day commencing on August 1, 2015, (2) is payable in cumulative amounts on or before the 15th day of each calendar month with respect to the prior month and (3) is calculated at a rate of $0.00479 per share of our common stock per day, a rate which, if paid each day over a 365-day period, is equivalent to a 7.0% annualized distribution rate based on a purchase price of $25.00 per share of our common stock.

The following table summarizes distributions paid in cash and pursuant to our distribution reinvestment plan for the year ended December 31, 2015.

Period	Cash Distribution	Distribution Paid Pursuant to DRP[1]	Total Amount of Distribution
Third Quarter 2015	$ 16,959	$ 5,838	$ 22,797
Fourth Quarter 2015	86,452	40,362	126,814
Total	$ 103,411	$ 46,200	$ 149,611

(1) Amount of distributions paid in shares of common stock pursuant to our distribution reinvestment plan.

From July 2, 2015 (the date our board of directors authorized and declared the payment of a distribution) through December 31, 2015, we paid $149,611 in distributions, including $46,200 in shares issued pursuant to our distribution reinvestment plan. We have paid no other distributions since inception. For the twelve months ended December 31, 2015, we had net income of $1,484,697 and our net cash used in operations was $(18,993). As of December 31, 2015, all distributions had been funded from offering proceeds. We intend to fund future distributions from cash generated by operations. However, we may fund distributions from proceeds from our public offering, borrowings, advances from our sponsor or advisor and the deferral of fees and expense reimbursements to our

advisor, in its sole discretion. The payment of distributions from sources other than cash flow from operations or FFO may be dilutive to our per share value because it may reduce the amount of proceeds available for investment and operations or cause us to incur additional interest expense as a result of borrowed funds.

Information Regarding Redemption of Our Shares

We did not receive any requests for redemption of our shares, and we did not redeem any of our shares, for the period from December 1, 2015 through March 31, 2016.

Compensation Paid to Our Advisor and its Affiliates

The following data supplements, and should be read in conjunction with, the section of our prospectus captioned "Management Compensation Table."

The following table summarizes the cumulative compensation, fees and reimbursements we paid to (or incurred with respect to) our advisor, Moody National Advisor II, LLC, and its affiliates, including the dealer manager, during the year ended December 31, 2015.

Type of Fee or Reimbursement	For the Year Ended December 31, 2015
Offering Stage:	
Selling commissions	$ 939,752
Dealer manager fees	229,885
Organization and offering expense reimbursement[1]	633,210
Operational Stage:	
Acquisition fee	382,500
Reimbursement of acquisition expenses to advisor	—
Financing coordination fee	165,750
Asset management fee	42,500
Property management fees	42,723
Property manager incentive fee	—
Operating expense reimbursement	—
Disposition Stage:	
Disposition fee	—

(1) As of December 31, 2015, total offering costs were $1,885,768, comprised of $1,252,558 of offering costs incurred directly by us and $633,210 in offering costs incurred by and reimbursable to our advisor. As of December 31, 2015, we had $299,675 payable to our advisor for reimbursable offering costs.

All amounts described in the foregoing table incurred as of December 31, 2015 had been paid as of December 31, 2015, with the exception of organization and offering expense reimbursement, for which some amounts were incurred with respect to our advisor but not paid, as described in footnote 1 to the foregoing table.

Renewal of Our Advisory Agreement

As described in our prospectus, our advisor performs its duties and responsibilities as our fiduciary under an advisory agreement by and among our operating partnership, our advisor and us. The advisory agreement has a one-year term, subject to renewals by our board of directors for an unlimited number of successive one-year periods. On January 19, 2016, we entered into an amendment to the advisory agreement, whereby the term of the advisory agreement was extended for an additional one-year term, expiring January 20, 2017. The terms of the advisory agreement otherwise remain unchanged.

Changes in Directors

On February 22, 2016, Douglas Y. Bech, one of our independent directors, notified us of his resignation from our board and as a member of our audit committee. On February 23, 2016, the board elected Clifford P. McDaniel to our board as an independent director and appointed Mr. McDaniel to our audit committee. See the "Management" section of our prospectus for information on Mr. McDaniel.

Experts

Our consolidated financial statements appearing in our Annual Report (Form 10-K) for the year ended December 31, 2015 (including schedules appearing therein) have been audited by Frazier & Deeter LLC, an independent registered public accounting

firm, as set forth in their report thereon included therein, and incorporated herein by reference. Such consolidated financial statements are incorporated herein by reference in reliance upon such report given on the authority of such firm as experts in accounting and auditing.

The financial statements of Mueller Hospitality, LP contained in our Current Report on Form 8-K/A filed with the SEC on December 30, 2015 have been audited by Frazier & Deeter, LLC, an independent auditor, as stated in their report included therein. Such financial statements are incorporated herein by reference in reliance upon such report given upon the authority of such firm as experts in accounting and auditing.

Incorporation of Certain Information by Reference

We have elected to "incorporate by reference" certain information into this prospectus. By incorporating by reference, we are disclosing important information to you by referring you to documents we have filed separately with the SEC. The information incorporated by reference is deemed to be part of this prospectus, except for information incorporated by reference that is superseded by information contained in this prospectus. You can access documents that are incorporated by reference into this prospectus at the website we maintain at www.moodynationalreit.com. There is additional information about us and our affiliates at our website, but unless specifically incorporated by reference herein as described in the paragraphs below, the contents of that site are not incorporated by reference in or otherwise a part of this prospectus.

The following documents filed with the SEC are incorporated by reference in this prospectus (Commission File No. 333-198305), except for any document or portion thereof deemed to be "furnished" and not filed in accordance with SEC rules:

- Annual Report on Form 10-K filed with the SEC on March 30, 2016;
- Current Report on Form 8-K filed with the SEC on February 26, 2016;
- Current Report on Form 8-K filed with the SEC on February 3, 2016;
- Current Report on Form 8-K filed with the SEC on January 22, 2016; and
- Current Report on Form 8-K/A filed with the SEC on December 30, 2015.

We will provide to each person, including any beneficial owner of our shares of common stock, to whom this prospectus is delivered, upon request, a copy of any or all of the information that we have incorporated by reference into this prospectus but not delivered with this prospectus. To receive a free copy of any of the documents incorporated by reference in this prospectus, other than exhibits, unless they are specifically incorporated by reference in those documents, call or write us at:

Moody National REIT II, Inc.
6363 Woodway Drive, Suite 110
Houston, Texas 77057
Attention: Investor Relations

The information relating to us contained in this prospectus does not purport to be comprehensive and should be read together with the information contained in the documents incorporated or deemed to be incorporated by reference in this prospectus.