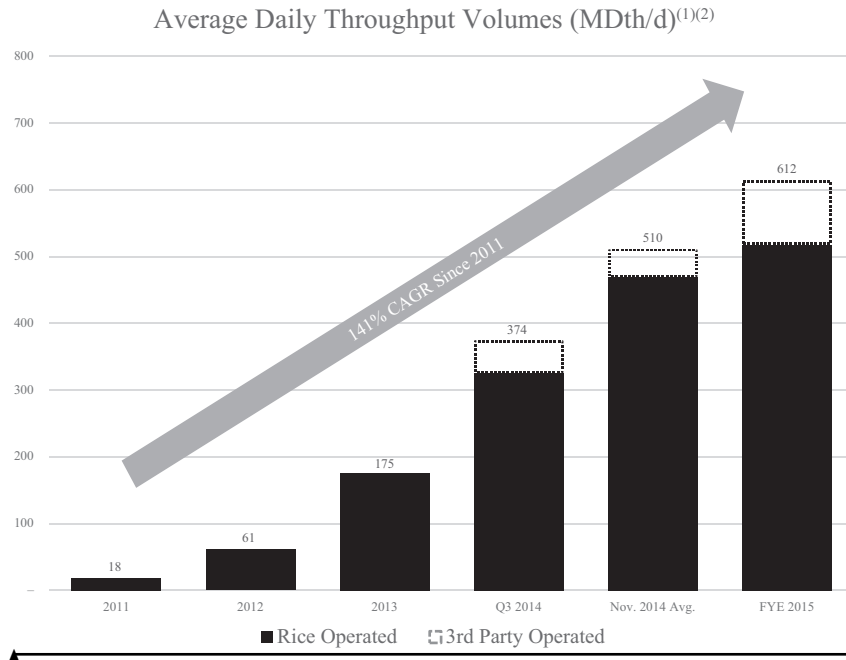


Rice Energy’s rapid production growth has resulted in significant increases in gathering volumes on our systems, and we expect that Rice Energy will rely on us to deliver the midstream infrastructure necessary to support its continued growth in our dedicated areas. The following chart highlights the average daily throughput on our gathering systems for the periods presented.



- (1) Includes 100% of throughput volumes attributable to the Alpha Assets and Momentum Assets for all periods presented. The Momentum Assets commenced operations during 2013 and had no attributable throughput volumes during 2011 or 2012.
- (2) The projections set forth above are subject to numerous assumptions. Please read “Risk Factors.”

Our Initial Assets

In connection with the completion of this offering, Rice Energy will contribute to us all of its natural gas gathering and compression assets in the dry gas core of the Marcellus Shale in southwestern Pennsylvania, as well as the right to develop additional natural gas gathering and compression infrastructure to service the rapidly growing production of Rice Energy and our third-party customers in Washington and Greene Counties, Pennsylvania. Because of our close operational and contractual relationship with Rice Energy and its economic interest in us, we expect to grow significantly as Rice Energy pursues its development plan.

and Greene Counties, Pennsylvania, and Belmont County, Ohio. While we believe that we are well positioned to be the ultimate acquirer of these retained midstream assets from Rice Energy, including those subject to our right of first offer, Rice Energy is under no obligation to contribute these assets to us. Furthermore, our relationship with Rice Energy poses conflicts of interest in connection with any such acquisition. Any decision to exercise our right of first offer will require the approval of the board of directors of our general partner, all of the members of which will be appointed by Rice Energy as the indirect owner of our general partner. Please read “Conflicts of Interest and Fiduciary Duties.”

Ohio Gathering System. Rice Energy is constructing an aggregate of 49.7 miles of high-pressure gas gathering pipeline with capacity of 2.6 MMDth/d in the core of the Utica Shale in Belmont County, Ohio. Average daily throughput on Rice Energy’s Ohio gathering system for November 2014 was 73 MDth/d. Rice Energy expects this system will be substantially completed in 2015 and will service approximately 36,854 and 19,604 net acres of the current positions of Rice Energy and Gulfport Energy Corporation, or Gulfport, respectively, in Belmont County, Ohio. In July 2014, Rice Energy entered into a letter of intent with Gulfport pursuant to which Gulfport is expected to dedicate its production from the aforementioned acreage. Also in July 2014, Rice Energy entered into a letter of intent with MarkWest Energy Partners, LP, or MarkWest, pursuant to which MarkWest will construct gas gathering facilities to gather Rice Energy’s Utica Shale production from certain dedicated areas in Ohio, including portions of Belmont County, which production Rice Energy anticipates will be wet gas and therefore will require processing. Both of these letters of intent are non-binding and the execution of definitive agreements with respect thereto is subject to, among other things, the ability of the applicable parties to reach agreement on commercial and other business terms.

As of September 30, 2014, Rice Energy has approximately 257 gross Utica Shale drilling locations in Belmont County in areas not dedicated to MarkWest. In addition, Rice Energy expects approximately 138 Gulfport gross drilling locations within the Utica Shale in the area anticipated to be dedicated to Rice Energy in Belmont County, Ohio based on its acreage position as of September 30, 2014 and an assumed well spacing of 138 acres. In June 2014, Rice Energy completed its first Utica well in Belmont County, the Bigfoot 9H, which continues to flow 14 MMcf/d under our restricted choke program and has cumulatively produced approximately 2.0 Bcf (100% of which is natural gas). Rice Energy has since turned two additional Utica shale wells into sales in Belmont County.

Fresh Water Distribution Systems. In addition, Rice Energy will retain all of its interest in its fresh water distribution systems in Washington and Greene Counties, Pennsylvania, and Belmont County, Ohio, each of which are under various stages of construction and are expected to be completed in 2015.

- *Pennsylvania Water Systems.* Rice Energy is expanding two independent fresh water distribution systems that, upon completion, will have direct access to 9.2 MMGPD of fresh water from the Monongahela River and several other regional water sources for distribution to Rice Energy’s well completion operations in the Marcellus Shale.
- *Ohio Water System.* Rice Energy is constructing a fresh water distribution system that, upon completion, will have direct access to 16.5 MMGPD of fresh water from the Ohio River and several other regional sources for distribution to Rice Energy’s well completion operations.

These systems consist of a combination of permanent buried pipelines, portable surface pipelines and fresh water impoundments, as well as pumping stations to transport the fresh water throughout the pipeline system. Because hydraulic fracturing requires substantial volumes of fresh water, these fresh water distribution services are utilized in connection with completion activities. Our potential acquisition of the fresh water distribution systems will be conditioned upon our obtaining a ruling or interpretive guidance from the IRS that income from fresh water distribution services is qualifying income for federal income tax purposes.

Business Strategies

Our principal business objective is to increase the quarterly cash distributions that we pay to our unitholders over time while ensuring the ongoing stability of our business. We expect to achieve this objective through the following business strategies:

- ***Providing gathering and compression services to Rice Energy's rapidly growing Marcellus Shale production.*** Rice Energy's initial dedication to us of acreage in the dry gas core of the Marcellus Shale in southwestern Pennsylvania and its economic interest in us provides us with a platform for organic growth. We expect to achieve this growth by meeting Rice Energy's natural gas gathering and compression needs, which we expect to increase as a result of Rice Energy's anticipated drilling activity in our dedicated areas. In the short-term, we anticipate significant growth in demand for our natural gas gathering and compression services driven by Rice Energy's plan to turn approximately 41 horizontal Marcellus wells into sales in 2014 and 32 horizontal Marcellus wells into sales in 2015 in our dedicated areas. Over the long-term, we expect to achieve growth by servicing Rice Energy's approximately 705 gross drilling locations within our dedicated areas as of September 30, 2014. We expect Rice Energy will continue to grow its leasehold position, which we believe will result in additional drilling locations and additional long-term demand for our midstream services.
- ***Pursuing accretive acquisitions from Rice Energy.*** We intend to seek opportunities to expand our existing natural gas gathering and compression systems primarily through accretive acquisitions from Rice Energy. While we will review acquisition opportunities from third parties as they become available, we expect that the majority of our near-term opportunities will be sourced from Rice Energy. Pursuant to our omnibus agreement with Rice Energy, we have a right of first offer on any future divestitures of its gas gathering and fresh water distribution assets in the core of the Utica Shale in Belmont County, Ohio, and of its fresh water distribution systems in the dry gas core of the Marcellus Shale in southwestern Pennsylvania. In addition, as a result of its significant economic interest in us, we believe that we are the natural acquirer of additional midstream assets that Rice Energy may develop in the future.
- ***Attracting additional third-party business.*** We plan to actively market our midstream services to, and pursue strategic relationships with, third-party producers in order to attract additional services and expansion opportunities. We believe that our assets' strategic location, available capacity and access to multiple takeaway pipelines will allow us to capture additional third-party volumes. For the year ending December 31, 2015, we anticipate that production from Rice Energy and our existing third-party customers will represent approximately 15% of the aggregate capacity of our gas gathering systems upon their expected completion in 2015.
- ***Leveraging our relationship with Rice Energy to participate in its acquisitions.*** Rice Energy has a history of pursuing and consummating acquisitions. During the first three quarters of 2014, Rice Energy has invested approximately \$750 million in acquiring exploration and production and midstream assets in the dry gas core of the Marcellus Shale in southwestern Pennsylvania. As a result of the combination of our expected ability to finance midstream development or acquisitions at a relatively low cost of capital and Rice Energy's retained economic interest in us, we believe that we will provide Rice Energy with a competitive advantage in pursuing acquisitions of exploration and production assets in our dedicated areas that are not otherwise dedicated to third-party midstream companies. As Rice Energy acquires these assets, we believe that we will have the ability to develop the associated midstream assets on our own or purchase the associated midstream assets from either a third party or Rice Energy, following Rice Energy's development thereof. As such, we may have the opportunity to work jointly with Rice Energy to pursue certain acquisitions that may not otherwise be attractive acquisition candidates for either Rice Energy or us individually. We believe this arrangement will give us and Rice Energy access to an array of third-party acquisition opportunities that we and they would not otherwise be in a position to pursue.

Emerging Growth Company Status

We are an “emerging growth company” as defined in the Jumpstart Our Business Startups Act, or the JOBS Act. For as long as we are an “emerging growth company,” unlike other public companies, we will not be required to:

- provide an auditor’s attestation report on management’s assessment of the effectiveness of our system of internal control over financial reporting pursuant to Section 404(b) of the Sarbanes-Oxley Act of 2002;
- comply with any new requirements adopted by the Public Company Accounting Oversight Board, or the PCAOB, requiring mandatory audit firm rotation or a supplement to the auditor’s report in which the auditor would be required to provide additional information about the audit and the financial statements of the issuer;
- comply with any new audit rules adopted by the PCAOB after April 5, 2012, unless the Securities and Exchange Commission, or the SEC, determines otherwise;
- provide certain disclosure regarding executive compensation required of larger public companies; or
- obtain unitholder approval of any golden parachute payments not previously approved.

We will cease to be an “emerging growth company” upon the earliest of:

- the last day of the fiscal year in which we have \$1.0 billion or more in annual revenues;
- the date on which we become a large accelerated filer;
- the date on which we issue more than \$1.0 billion of non-convertible debt over a three-year period; or
- the last day of the fiscal year following the fifth anniversary of our initial public offering.

In addition, Section 107 of the JOBS Act provides that an “emerging growth company” can take advantage of the extended transition period provided in Section 7(a)(2)(B) of the Securities Act for complying with new or revised accounting standards, but we are irrevocably opting out of the extended transition period and, as a result, we will adopt new or revised accounting standards on the relevant dates in which adoption of such standards is required for other public companies.

Risk Factors

An investment in our common units involves risks associated with our business, our partnership structure and the tax characteristics of our common units. Due to our relationship with Rice Energy, adverse developments or announcements concerning Rice Energy could materially adversely affect our business. These risks are described under “Risk Factors” and “Cautionary Statement Regarding Forward-Looking Statements.” You should carefully consider these risk factors together with all other information included in this prospectus.

Partnership Information

Our principal executive offices are located at 400 Woodcliff Drive, Canonsburg, Pennsylvania 15317, and our telephone number is (724) 746-6720. Our website is www.ricemidstream.com. We expect to make our periodic reports and other information filed with or furnished to the SEC available free of charge through our website as soon as reasonably practicable after those reports and other information are electronically filed with or furnished to the SEC. Information contained on our website or any other website is not incorporated by reference herein and does not constitute a part of this prospectus.

Consequences—Tax Consequences of Unit Ownership” for the basis of this estimate.

Material federal income tax consequences

For a discussion of the material federal income tax consequences that may be relevant to prospective unitholders who are individual citizens or residents of the United States, please read “Material U.S. Federal Income Tax Consequences.”

Exchange listing

We have been approved to list our common units on the NYSE under the symbol “RMP” subject to official notice of issuance.

our internal controls will be successful, that we will be able to maintain adequate controls over our financial processes and reporting in the future or that we will be able to comply with our obligations under Section 404 of the Sarbanes Oxley Act of 2002. Any failure to develop or maintain effective internal controls, or difficulties encountered in implementing or improving our internal controls, could harm our operating results or cause us to fail to meet our reporting obligations. Ineffective internal controls could also cause investors to lose confidence in our reported financial information, which would likely have a negative effect on the trading price of our units.

For as long as we are an “emerging growth company,” we will not be required to comply with certain disclosure requirements that apply to other public companies.

In April 2012, President Obama signed into law the JOBS Act. We are classified as an “emerging growth company” under the JOBS Act. For as long as we are an “emerging growth company,” which may be up to five full fiscal years, unlike other public companies, we will not be required to, among other things, (1) provide an auditor’s attestation report on management’s assessment of the effectiveness of our system of internal control over financial reporting pursuant to Section 404(b) of the Sarbanes-Oxley Act, (2) comply with any new requirements adopted by the PCAOB requiring mandatory audit firm rotation or a supplement to the auditor’s report in which the auditor would be required to provide additional information about the audit and the financial statements of the issuer, (3) provide certain disclosure regarding executive compensation required of larger public companies or (4) hold nonbinding advisory votes on executive compensation. We will remain an “emerging growth company” for up to five years, although we will lose that status sooner if we have more than \$1.0 billion of revenues in a fiscal year, become a large accelerated filer, or issue more than \$1.0 billion of non-convertible debt over a three-year period.

To the extent that we rely on any of the exemptions available to “emerging growth companies,” you will receive less information about our executive compensation and internal control over financial reporting than issuers that are not “emerging growth companies.” If some investors find our common units to be less attractive as a result, there may be a less active trading market for our common units and our trading price may be more volatile.

The New York Stock Exchange does not require a publicly-traded partnership like us to comply with certain of its corporate governance requirements.

We have been approved to list our common units on the NYSE, subject to official notice of issuance. Because we will be a publicly-traded partnership, the NYSE does not require us to have a majority of independent directors on our general partner’s board of directors or to establish a compensation committee or a nominating and corporate governance committee. Accordingly, unitholders will not have the same protections afforded to certain corporations that are subject to all of the NYSE corporate governance requirements. Please read “Management—Management of Rice Midstream Partners LP.”

We will incur increased costs as a result of being a publicly-traded partnership.

We have no history operating as a publicly-traded partnership. As a publicly-traded partnership, we will incur significant legal, accounting and other expenses that we did not incur prior to this offering. In addition, the Sarbanes-Oxley Act of 2002, as well as rules implemented by the SEC and the NYSE, require publicly-traded entities to adopt various corporate governance practices that will further increase our costs. Before we are able to make distributions to our unitholders, we must first pay or reserve cash for our expenses, including the costs of being a publicly-traded partnership. As a result, the amount of cash we have available for distribution to our unitholders will be affected by the costs associated with being a publicly-traded partnership.

Prior to this offering, we have not filed reports with the SEC. Following this offering, we will become subject to the public reporting requirements of the Exchange Act. We expect these rules and regulations to increase certain of our legal and financial compliance costs and to make activities more time-consuming and

We expect that our new revolving credit facility will also require us to maintain the following financial ratios:

- an interest coverage ratio, which is the ratio of our consolidated EBITDA (as defined within the new revolving credit facility) to our consolidated current interest expense of at least 2.50 to 1.0 at the end of each fiscal quarter;
- a consolidated total leverage ratio, which is the ratio of consolidated debt to consolidated EBITDA, of not more than 4.75 to 1.0, and after electing to issue senior unsecured notes, a consolidated total leverage ratio of not more than 5.25 to 1.0, and, in each case, with certain increases in the permitted total leverage ratio following the completion of a material acquisition; and
- if we elect to issue senior unsecured notes, a consolidated senior secured leverage ratio, which is the ratio of consolidated senior secured debt to consolidated EBITDA, of not more than 3.50 to 1.0.

Contractual Obligations

We have a lease obligation for compression equipment under an existing contract with a third party. Future payments for this item as of September 30, 2014 totaled \$2.6 million (remainder of 2014 - \$0.1 million, 2015 - \$0.3 million, 2016 - \$0.3 million, 2017 - \$0.3 million, 2018 - \$0.3 million, 2019 - \$0.3 million and thereafter - \$1.0 million).

Our Critical Accounting Policies and Estimates

The discussion and analysis of our Predecessor's financial condition and results of operations are based upon our Predecessor's financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States. The preparation of these financial statements requires us to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses and related disclosure of contingent assets and liabilities. Certain accounting policies involve judgments and uncertainties to such an extent that there is reasonable likelihood that materially different amounts could have been reported under different conditions, or if different assumptions had been used. We evaluate these estimates and assumptions on a regular basis. We base our estimates on historical experience and various other assumptions that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates and assumptions used in preparation of these financial statements. Please read *Note 2* of the notes to the audited financial statements of our Predecessor for an expanded discussion of our significant accounting policies and estimates made by management.

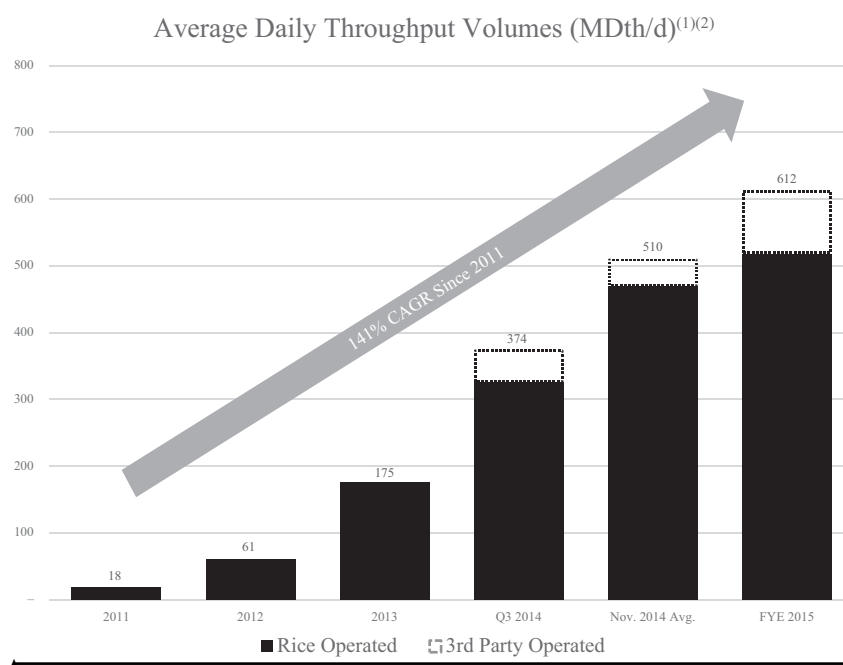
Property and Equipment

Property and equipment primarily consists of gathering pipelines and is stated at the lower of historical cost less accumulated depreciation, or fair value, if impaired. We capitalize construction-related direct labor and material costs. Maintenance and repair costs are expensed as incurred.

Depreciation is computed over the asset's estimated useful life using the straight-line method, based on estimated useful lives and salvage values of assets. Gathering pipelines are depreciated over a 60 year useful life. Uncertainties that may impact these estimates include, among others, changes in laws and regulations relating to environmental matters, including air and water quality, restoration and abandonment requirements, economic conditions and supply and demand in the area. When assets are placed into service, management makes estimates with respect to useful lives and salvage values that management believes are reasonable. However, subsequent events could cause a change in estimates, thereby impacting future depreciation amounts.

through June 30, 2014 as reported by Pennsylvania’s Department of Environmental Protection. Rice Energy expects to turn an additional 22 horizontal Marcellus wells into sales in the fourth quarter of 2014, 17 of which have already been turned into sales, and an additional 32 horizontal Marcellus wells into sales in 2015, in each case within our dedicated areas. As of September 30, 2014, Rice Energy’s drilling inventory consisted of an aggregate of approximately 705 gross drilling locations in the Marcellus Shale and Upper Devonian within our dedicated areas. In addition, operators in the region have announced plans to test the potential for Utica Shale production in and around our dedicated areas.

Rice Energy’s rapid production growth has resulted in significant increases in gathering volumes on our systems, and we expect that Rice Energy will rely on us to deliver the midstream infrastructure necessary to support its continued growth in our dedicated areas. The following chart highlights the average daily throughput on our gathering systems for the periods presented.



- (1) Includes 100% of throughput volumes attributable to the Alpha Assets and Momentum Assets for all periods presented. The Momentum Assets commenced operations during 2013 and had no attributable throughput volumes during 2011 or 2012.
- (2) The projections set forth above are subject to numerous assumptions. Please read “Risk Factors.”

Our Initial Assets

In connection with the completion of this offering, Rice Energy will contribute to us all of its natural gas gathering and compression assets in the dry gas core of the Marcellus Shale in southwestern Pennsylvania, as well as the right to develop additional natural gas gathering and compression infrastructure to service the rapidly growing production of Rice Energy and our third-party customers in Washington and Greene Counties, Pennsylvania. Because of our close operational and contractual relationship with Rice Energy and its economic interest in us, we expect to grow significantly as Rice Energy pursues its development plan.

- ***Attracting additional third-party business.*** We plan to actively market our midstream services to, and pursue strategic relationships with, third-party producers in order to attract additional services and expansion opportunities. We believe that our assets' strategic location, available capacity and access to multiple takeaway pipelines will allow us to capture additional third-party volumes. For the year ending December 31, 2015, we anticipate that production from Rice Energy and our existing third-party customers will represent approximately 15% of the aggregate capacity of our gas gathering systems upon their expected completion in 2015.
- ***Leveraging our relationship with Rice Energy to participate in its acquisitions.*** Rice Energy has a history of pursuing and consummating acquisitions. During the first three quarters of 2014, Rice Energy has invested approximately \$750 million in acquiring exploration and production and midstream assets in the dry gas core of the Marcellus Shale in southwestern Pennsylvania. As a result of the combination of our expected ability to finance midstream development or acquisitions at a relatively low cost of capital and Rice Energy's retained economic interest in us, we believe that we will provide Rice Energy with a competitive advantage in pursuing acquisitions of exploration and production assets in our dedicated areas that are not otherwise dedicated to third-party midstream companies. As Rice Energy acquires these assets, we believe that we will have the ability to develop the associated midstream assets on our own or purchase the associated midstream assets from either a third party or Rice Energy, following Rice Energy's development thereof. As such, we may have the opportunity to work jointly with Rice Energy to pursue certain acquisitions that may not otherwise be attractive acquisition candidates for either Rice Energy or us individually. We believe this arrangement will give us and Rice Energy access to an array of third-party acquisition opportunities that we and they would not otherwise be in a position to pursue.
- ***Focusing on fixed-fee business to avoid direct commodity price exposure.*** The natural gas gathering and compression agreements with Rice Energy and third parties are structured as fixed-fee arrangements, and we intend to continue to pursue additional fixed-fee opportunities with Rice Energy and third parties in order to avoid direct commodity price exposure. We will pursue additional long-term commitments from customers, which may include throughput-based charges, reservation-based charges, volume commitments and/or acreage dedications.

Competitive Strengths

We believe we are well-positioned to successfully execute our business strategies because of the following competitive strengths:

- ***Our newly constructed assets service sizeable, contiguous acreage positions with access to high production growth through limited capital expenditures.*** Our initial assets are located entirely within large, contiguous acreage positions in the dry gas core of the Marcellus Shale in southwestern Pennsylvania with multi-year, low-risk development drilling inventory. Substantially all of Rice Energy's drilling locations within our dedicated areas will be within two miles of our assets upon completion of construction. These drilling locations are located within Rice Energy's core position in the Marcellus Shale where it has achieved top tier production growth, increasing average gross daily production in the Marcellus Shale from 216 MDth/d for the three months ended December 31, 2013 to 327 MDth/d for the three months ended September 30, 2014, a 51% increase. As a result of the close proximity of our gathering and compression systems to substantially all of Rice Energy's dedicated acreage where it has exhibited substantial production growth, we believe that we will have a high ratio of projected volume growth to expansion capital expenditures, resulting in minimal financing requirements for organic growth. In addition, our systems consist of recently constructed, high-quality and well-maintained assets, resulting in lower maintenance cost, higher uptime and longer useful lives.
- ***Our affiliation with Rice Energy.*** One of our principal strengths is our relationship with Rice Energy. In addition to the benefits that we expect to receive as a result of having Rice Energy as our anchor

MANAGEMENT

Management of Rice Midstream Partners LP

We are managed and operated by the board of directors and executive officers of our general partner upon the consummation of this offering. Our general partner is controlled by Rice Energy. All of our officers and certain of our directors are also officers and/or directors of Rice Energy. Neither our general partner nor its board of directors will be elected by our unitholders and neither will be subject to re-election in the future. Rice Midstream Holdings, a wholly owned subsidiary of Rice Energy, is the sole member of our general partner and will have the right to appoint our general partner's entire board of directors, including at least three independent directors meeting the independence standards established by the NYSE. At least two of our independent directors will be appointed prior to the date our common units are listed for trading on the NYSE. Our unitholders will not be entitled to directly or indirectly participate in our management or operations. Our general partner owes certain contractual duties to our unitholders as well as a fiduciary duty to its owners.

Upon the closing of this offering, we expect that our general partner will have five directors. The NYSE does not require a listed publicly traded partnership, such as ours, to have a majority of independent directors on the board of directors of our general partner or to establish a compensation committee or a nominating committee. However, our general partner is required to have an audit committee of at least three members, and all its members are required to meet the independence and experience standards established by the NYSE and the Exchange Act, subject to certain transitional relief during the one-year period following the completion of this offering. Rice Energy, through its ownership of Rice Midstream Holdings, will appoint at least one member of the audit committee to the board of directors of our general partner by the date our common units first trade on the NYSE.

In evaluating director candidates, Rice Energy will assess whether a candidate possesses the integrity, judgment, knowledge, experience, skill and expertise that are likely to enhance the board's ability to manage and direct our affairs and business, including, when applicable, to enhance the ability of committees of the board to fulfill their duties.

All of the executive officers of our general partner listed below will allocate their time between managing our business and affairs and the business and affairs of Rice Energy. The amount of time that our executive officers will devote to our business and the business of Rice Energy will vary in any given year based on a variety of factors. Our executive officers intend, however, to devote as much time to the management of our business and affairs as is necessary for the proper conduct of our business and affairs.

Following the consummation of this offering, Rice Energy shall provide customary management and general administrative services to us pursuant to an omnibus agreement. Our general partner shall reimburse Rice Energy at cost for its direct expenses incurred on behalf of us and a proportionate amount of its indirect expenses incurred on behalf of us, including, but not limited to, compensation expenses. Neither our general partner nor Rice Energy will receive any management fee or other compensation. Our partnership agreement does not set a limit on the amount of expenses for which our general partner and its affiliates may be reimbursed. These expenses include salary, bonus, incentive compensation and other amounts paid to persons who perform services for us or on our behalf and expenses allocated to our general partner by its affiliates. Please read "Certain Relationships and Related Party Transactions—Agreements with Affiliates in Connection with the Transactions."

partner or our general partner is removed. The omnibus agreement may only be assigned by any party with the other parties' consent.

Contribution Agreement

In connection with the closing of this offering, we intend to enter into a contribution agreement with Rice Energy following certain other formation transactions described under "Summary—The Formation Transactions," that will effect the transfer of Rice Poseidon to Rice Midstream OpCo LLC, our wholly owned subsidiary, and the issuance by us to Rice Midstream Holdings of common units, subordinated units, incentive distribution rights and a portion of the net proceeds of this offering. All of the transaction expenses incurred in connection with these transactions will be paid from proceeds of this offering.

Secondment Agreement

Concurrently with the closing of this offering, we and Rice Energy will enter into a secondment agreement pursuant to which we anticipate that specified employees of Rice Energy will be seconded to us to provide operating and other services with respect to our business under the direction, supervision and control of us or our general partner. We will reimburse Rice Energy for the services provided by the seconded employees pursuant to the secondment agreement.

Other Contractual Relationships with Rice Energy

Gas Gathering and Compression Agreement

We will enter into a 15 year, fixed fee gas gathering and compression agreement with Rice Energy under which we will agree to gather natural gas on our Washington County and Greene County gathering systems and provide compression services. Under the agreement, we will charge Rice Energy a gathering fee of \$0.30 per Dth and a compression fee of \$0.07 per Dth per stage of compression, each subject to annual adjustment for inflation based on the Consumer Price Index. This agreement covers approximately 63,000 gross acres of Rice Energy's acreage position in the dry gas core of the Marcellus Shale in southwestern Pennsylvania as of September 30, 2014 and any future acreage it acquires within these counties, other than 22,000 gross acres subject to a pre-existing third-party dedication.

Pursuant to the gas gathering and compression agreement, Rice Energy will from time to time provide us with notice of the date on which it expects to require gas production to be delivered from a particular well pad. Subject to the provisions described in the following paragraph, we will be obligated to build out our gathering systems to such well pad and to install facilities to connect all wells planned for such well pad as soon as reasonably practicable, but in any event within one year of receipt of such notice, subject to extension for force majeure, including inability to obtain or delay in obtaining permits and rights of way.

We will be obligated to connect all of Rice Energy's wells that produce gas from the area dedicated to us under the gas gathering and compression agreement that (i) have been completed as of the closing of this offering, (ii) are included in Rice Energy's initial development plan for drilling activity for the period from the closing of this offering through December 31, 2017, or (iii) are within five miles of our gas gathering system on the date Rice Energy provides us with notice that a new well pad is expected to require gathering services. For wells other than those described in the preceding sentence, we and Rice Energy will negotiate in good faith an appropriate gathering fee. If we cannot reach agreement with Rice Energy on a gathering fee for any such additional well, Rice Energy will have the option to have us connect such well to our gathering systems for a gathering fee of \$0.30 per Dth and bear the incremental cost of constructing the connection to such well in excess of the cost we would have incurred to connect a well located on the five-mile perimeter, or Rice Energy will cause such well to be released from our dedication under the gas gathering and compression agreement.

These stabilizing transactions, syndicate covering transactions and penalty bids may have the effect of raising or maintaining the market price of our common units or preventing or retarding a decline in the market price of the common units. As a result, the price of the common units may be higher than the price that might otherwise exist in the open market. These transactions may be effected on the NYSE or otherwise and, if commenced, may be discontinued at any time.

Neither we nor any of the underwriters make any representation or prediction as to the direction or magnitude of any effect that the transactions described above may have on the price of the common units. In addition, neither we nor any of the underwriters make representation that the representative will engage in these stabilizing transactions or that any transaction, once commenced, will not be discontinued without notice.

Electronic Distribution

A prospectus in electronic format may be made available on the Internet sites or through other online services maintained by one or more of the underwriters and/or selling group members participating in this offering, or by their affiliates. In those cases, prospective investors may view offering terms online and, depending upon the particular underwriter or selling group member, prospective investors may be allowed to place orders online. The underwriters may agree with us to allocate a specific number of common units for sale to online brokerage account holders. Any such allocation for online distributions will be made by the representative on the same basis as other allocations.

Other than the prospectus in electronic format, the information on any underwriter's or selling group member's web site and any information contained in any other web site maintained by an underwriter or selling group member is not part of the prospectus or the registration statement of which this prospectus forms a part, has not been approved and/or endorsed by us or any underwriter or selling group member in its capacity as underwriter or selling group member and should not be relied upon by investors.

New York Stock Exchange

We have been approved to list our common units on the NYSE under the symbol "RMP," subject to official notice of issuance. In connection with that listing, the underwriters will undertake to sell the minimum number of common units to the minimum number of beneficial owners necessary to meet the NYSE listing requirements.

Discretionary Sales

The underwriters have informed us that they do not intend to confirm sales to discretionary accounts that exceed 5% of the total number of common units offered by them.

Stamp Taxes

If you purchase common units offered in this prospectus, you may be required to pay stamp taxes and other charges under the laws and practices of the country of purchase, in addition to the offering price listed on the cover page of this prospectus.

Relationships

The underwriters and certain of their respective affiliates are full service financial institutions engaged in various activities, which may include sales and trading, commercial and investment banking, advisory, investment management, investment research, principal investment, hedging, market making, brokerage and other financial and non-financial activities and services. Certain of the underwriters and their respective affiliates have provided, and may in the future provide, a variety of these services for us and our affiliates, including Rice Energy, and to persons and entities with relationships with us and our affiliates, for which they received or will receive customary fees and expenses.

In the ordinary course of their various business activities, the underwriters and their respective affiliates, officers, directors and employees may purchase, sell or hold a broad array of investments, including serving as counterparties to certain derivative and hedging arrangements, and actively trade securities, derivatives, loans, commodities, currencies, credit default swaps and other financial instruments for their own account and for the accounts of their customers, and such investment and trading activities may involve or relate to our or our affiliates' assets, securities and/or instruments (directly, as collateral securing other obligations or otherwise) and/or persons and entities with relationships with us or our affiliates. The underwriters and their respective affiliates may also communicate independent investment recommendations, market color or trading ideas and/or publish or express independent research views in respect of such assets, securities or instruments and may at any time hold, or recommend to clients that they should acquire, long and/or short positions in such assets, securities and instruments. In addition, affiliates of certain of the underwriters are lenders under Rice Energy's Third Amended and Restated Credit Agreement and/or holders of their notes and are expected to be lenders under our or our affiliates' revolving credit facilities. Certain of the underwriters or their affiliates were also underwriters in connection with Rice Energy's initial public offering in January 2014, were initial purchasers in connection with its offering of 6.25% Senior Notes due 2022 in April 2014 and were underwriters in connection with its follow-on equity offering in August 2014 and received customary fees and reimbursement of expenses. In addition, an affiliate of Barclays Capital Inc. is a limited partner in the general partner of each of Natural Gas Partners IX, L.P. and NGP Natural Resources X, L.P., which are both members of NGP Rice Holdings LLC, a holder of Rice Energy's common stock.

Direct Participation Program Requirements

Because the Financial Industry Regulatory Authority, Inc., or FINRA, views the common units offered hereby as interests in a direct participation program, the offering is being made in compliance with FINRA Rule 2310. Investor suitability with respect to the common units should be judged similarly to the suitability with respect to other securities that are listed for trading on a national securities exchange.

Selling Restrictions

Notice to Prospective Investors in Switzerland

This prospectus is being communicated in Switzerland to a small number of selected investors only. Each copy of this prospectus is addressed to a specifically named recipient and may not be copied, reproduced, distributed or passed on to third parties. Our common units are not being offered to the public in Switzerland, and neither this prospectus nor any other offering materials relating to our common units may be distributed in connection with any such public offering.

We have not been registered with the Swiss Financial Market Supervisory Authority FINMA as a foreign collective investment scheme pursuant to Article 120 of the Collective Investment Schemes Act of June 23, 2006 (CISA). Accordingly, our common units may not be offered to the public in or from Switzerland, and neither this prospectus nor any other offering materials relating to our common units may be made available through a public offering in or from Switzerland. Our common units may only be offered and this prospectus may only be distributed in or from Switzerland by way of private placement exclusively to qualified investors (as this term is defined in the CISA and its implementing ordinance).

Notice to Prospective Investors in Australia

No placement document, prospectus, product disclosure statement or other disclosure document has been lodged with the Australian Securities and Investments Commission, in relation to the offering. This prospectus does not constitute a prospectus, product disclosure statement or other disclosure document under the Corporations Act 2001 (the "Corporations Act"), and does not purport to include the information required for a prospectus, product disclosure statement or other disclosure document under the Corporations Act.



Rice Midstream Partners LP

Common Units Representing Limited Partner Interests

Prospectus
, 2014

Barclays
Citigroup
Goldman, Sachs & Co.
RBC Capital Markets
Wells Fargo Securities

Tudor, Pickering, Holt & Co.
BMO Capital Markets

Capital One Securities
Comerica Securities
Scotia Bank / Howard Weil
SunTrust Robinson Humphrey
U.S. Capital Advisors
Janney Montgomery Scott

Through and including _____, 2015 (25 days after the date of this prospectus), all dealers that buy, sell or trade our common units, whether or not participating in this offering, may be required to deliver a prospectus. This is in addition to the dealers' obligation to deliver a prospectus when acting as underwriters and with respect to their unsold allotments or subscriptions.