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# Antero Resources Announces 16% Increase in Estimated Proved Reserves to 15.4 Tcfe

DENVER, Feb. 1, 2017 /PRNewswire/ -**Antero Resources** (NYSE: AR) ("Antero" or the "Company") today announced estimated reserves as of December 31, 2016.



## Highlights:

- Proved reserves increased by 16% to 15.4 Tcfe at year-end 2016 (39% liquids)
- Pre-tax PV-10 of proved reserves at year-end 2016 was \$9.8 billion at 12/31/2016 strip pricing, including hedges
- Proved developed reserves increased by 18% to 6.9 Tcfe at year-end 2016
- \$0.39 per Mcfe drill bit only finding and development cost for 2016
- \$0.52 per Mcfe all-in finding and development cost for proved reserve additions from all sources for 2016
- \$0.45 per Mcfe future development cost for year-end 2016 proved undeveloped reserves
- 3P reserves increased by 25% to 46.4 Tcfe at year-end 2016 (29% liquids)
- Pre-tax PV-10 of 3P reserves at year-end 2016 was \$16.7 billion at 12/31/2016 strip pricing, including hedges

Antero's estimated proved reserves at December 31, 2016 were 15.4 Tcfe, a 16% increase compared to estimated proved reserves at December 31, 2015. Proved, probable and possible ("3P") reserves at year-end 2016 totaled 46.4 Tcfe, which represents a 25% increase compared to the previous year. Both proved and 3P reserves as of December 31, 2016 account for 115 million barrels and 912 million barrels of ethane, respectively, as natural gas rather than liquids since this ethane is expected to remain in the natural gas stream until such time as pricing supports full ethane recovery.

Drill bit only finding and development cost, including price and performance revisions, was \$0.39 per Mcfe for 2016. All-in finding and development cost for estimated proved reserve additions was \$0.52 per Mcfe for 2016. The expected reserve life of the Company's estimated proved reserves is approximately 23 years.

## Estimated Proved Reserves

As of December 31, 2016, the Company's 15.4 Tcfe of estimated proved reserves were comprised of 61% natural gas, 37% NGLs and 2% oil. The Marcellus Shale accounted for 87% of estimated proved reserves and the Ohio Utica Shale accounted for 13%. For 2016, Antero added 2.6 Tcfe of estimated proved reserves through the drill bit, which is reflective of longer laterals, operational efficiencies and the utilization of advanced completion techniques. Included in the 2016 audited reserves are 61 producing wells and 81 proved undeveloped locations, or 21% of the total proved undeveloped locations in the Marcellus, booked at a 2.0 Bcf/1,000' type curve. The remaining Marcellus proved undeveloped locations are booked at a 1.7 Bcf/1,000' type curve. The primary driver behind the increased type curve on certain locations was improved performance from nearby wells following the implementation of advanced completions.

At year-end 2016, estimated proved reserves included 553 million barrels or 2.4 Tcfe of ethane reserves, net of shrink, in the Marcellus Shale, an increase of 1.4 Tcfe from year-end 2015 reserves. The increase in expected ethane recoveries is primarily driven by Antero's ethane sales contract associated with the Shell ethane cracker in Pennsylvania which is expected to be placed in service in 2021. The remaining Marcellus ethane reserves, as well as the Ohio Utica ethane reserves, continue to be carried as natural gas reserves as it is assumed that these ethane reserves will be sold on an energy equivalent basis in the natural gas stream until prices support full ethane recovery.

Approximately 29% of Antero's combined 616,000 net acre leasehold position was classified as proved at December 31, 2016. Based on Antero's successful drilling results to date, as well as those of other operators in the vicinity of Antero's leasehold, the Company believes that a substantial portion of its Marcellus and Ohio Utica Shale undeveloped acreage will be classified as proved over time as more wells are drilled. No West Virginia Utica dry gas locations were classified as 3P reserves at year-end 2016, with the exception of one proved developed producing location, due to the early stage of drilling and production in the play.

Estimated proved developed reserves increased by 18% from year-end 2015 to 6.9 Tcfe at December 31, 2016. The Company added 94 Marcellus and 30 Ohio Utica wells to estimated proved developed reserves in 2016. The percentage of estimated proved reserves classified as proved developed increased to 45% at December 31, 2016. Estimated proved undeveloped reserves increased by 15% primarily as a result of continued development in the Marcellus and Utica Shale plays and an increase in ethane expected to be recovered and sold as a liquid. The average heating content of the Marcellus and Utica proved undeveloped locations is 1250 BTU and 1200 BTU, respectively, and the average lateral lengths for each are 9,000 feet.

Under the Securities and Exchange Commission ("SEC") reporting rules, proved undeveloped reserves are limited to reserves that are planned to be developed within five years of initial booking. The Company reclassified 2.5 Tcfe of proved undeveloped reserves to the probable category in 2016 to comply with the SEC five-year development rule. The reclassified proved undeveloped locations were displaced by locations that are more liquids-rich with better economics. Antero's 8.5 Tcfe of estimated proved undeveloped reserves will require an estimated \$3.8 billion of future development capital over the next five years, resulting in an estimated average future development cost for proved undeveloped reserves of \$0.45 per Mcfe. The future development capital is based on current contracted rates

combined with spot market rates based on today's market pricing.

Antero incurred estimated 2016 capital costs of approximately \$2.1 billion, including drilling and completion costs of \$1.3 billion, unproved leasehold acquisition costs of \$459 million, proved property acquisitions of \$134 million and leasehold additions of \$153 million. Assuming the \$2.1 billion estimate of capital costs, preliminary 2016 all-in finding and development cost for proved reserve additions from all sources, including performance and price revisions, was \$0.52 per Mcfe. The 2016 capital costs are unaudited and preliminary. Final capital costs will be provided in Antero's Annual Report on Form 10-K for the year ended December 31, 2016.

**Summary of Changes in Estimated Proved Reserves (in Tcfe)**

|                                                                 |                    |
|-----------------------------------------------------------------|--------------------|
| <b>Balance at December 31, 2015</b>                             | <b>13.2</b>        |
| Extensions, discoveries and additions                           | 2.6                |
| Purchases of estimated proved reserves                          | 0.6                |
| Performance and price revisions                                 | 0.7                |
| Partial ethane recovery                                         | 1.4                |
| Reclassification to probable due to SEC 5-year development rule | (2.5)              |
| Production                                                      | (0.7)              |
| <b>Balance at December 31, 2016</b>                             | <b><u>15.4</u></b> |

**Costs Incurred (\$ MM)**

Leasehold Acquisitions:

|                                  |                       |
|----------------------------------|-----------------------|
| Proved.....                      | \$134                 |
| Unproved.....                    | 459                   |
| Leasehold additions.....         | 153                   |
| Drilling and Completion.....     | 1,328                 |
| <b>Total costs incurred.....</b> | <b><u>\$2,074</u></b> |

**Finding and Development Costs (\$/ Mcfe)**

|                                                                   |               |
|-------------------------------------------------------------------|---------------|
| All-in F&D cost for proved reserve additions <sup>(1)</sup> ..... | <u>\$0.52</u> |
| Drill bit only F&D cost <sup>(2)</sup> .....                      | <u>\$0.39</u> |

- 1) Total costs incurred divided by the summation of 2,637 Bcfe for extensions, discoveries and additions, 624 Bcfe for purchases of estimated proved reserves and 736 Bcfe for performance and price revisions.
- 2) Drilling and completion costs divided by the summation of 2,637 Bcfe for extensions, discoveries and additions and 736 Bcfe for performance and price revisions.

The table below summarizes both SEC and strip pricing as of December 31, 2016 and the associated PV-10 for estimated proved reserves and hedge values:

| Benchmark Pricing:                 | 2016 Year-End |                              | Variance | % Variance |
|------------------------------------|---------------|------------------------------|----------|------------|
|                                    | SEC Pricing   | Strip Pricing <sup>(1)</sup> |          |            |
| WTI Oil Price (\$/Bbl)             | \$42.68       | \$57.29                      | \$14.61  | 34%        |
| Nymex Natural Gas Price (\$/MMBtu) | \$2.46        | \$3.13                       | \$0.67   | 27%        |

C2+ Natural Gas Liquids (\$/Bbl)<sup>(2)</sup>

\$13.58      \$19.42      \$5.84      43%

**PV-10 Values (\$ Billions):**

|                                      |       |       |       |       |
|--------------------------------------|-------|-------|-------|-------|
| Estimated proved reserves PV-10..... | \$3.7 | \$8.5 | \$4.8 | 130%  |
| Hedge PV-10 <sup>(3)</sup> .....     | 3.0   | 1.3   | (1.7) | (57)% |
| Total PV-10.....                     | \$6.7 | \$9.8 | \$3.1 | 46%   |

- 1) Strip pricing as of December 31, 2016 for each of the first ten years and flat thereafter.
- 2) Represents realized NGL price including regional market differentials. C3+ NGL SEC and Strip prices were \$21.33/Bbl and \$31.09/Bbl, respectively.
- 3) Hedge PV-10 at strip pricing differs from year-end 2016 mark-to-market value of \$1.6 billion due to the application of a higher discount rate.

SEC prices for estimated proved reserves, calculated as of December 31, 2016 on a weighted average Appalachian index basis related to company-specific sales points, were \$32.63 per barrel for oil and \$2.31 per MMBtu for natural gas. Assuming SEC prices, which are not necessarily predictive of forward strip prices, the pre-tax present value discounted at 10% ("pre-tax PV-10") of the December 31, 2016 estimated proved reserves was \$3.7 billion, a 1% increase from year-end 2015. Including Antero's hedges as of December 31, 2016 assuming SEC prices, the pre-tax PV-10 value of estimated proved reserves was \$6.7 billion, which was in line with year-end 2015 PV-10 values. The GAAP standardized measure is based on SEC pricing, after tax, and does not include hedge values. For further discussion on pre-tax PV-10 values, please read "Non-Gap Disclosure."

Assuming future strip benchmark pricing and applying company-specific production weighting for Appalachian index pricing as of December 31, 2016, the pre-tax PV-10 value of the same year-end 2016 estimated proved reserves was \$8.5 billion which represents a 130% increase over the corresponding SEC reserve based pre-tax PV-10, before hedges. Including Antero's hedges, the pre-tax PV-10 value of estimated proved reserves was \$9.8 billion assuming strip pricing, a 20% increase compared to the prior year.

Assuming SEC prices, the pre-tax PV-10 of the December 31, 2016 estimated proved developed reserves was \$2.9 billion.

Assuming future strip benchmark pricing and applying company-specific production weighting for Appalachian index pricing as of December 31, 2016, the pre-tax PV-10 value of the estimated proved developed reserves was \$5.2 billion, an 80% increase over the corresponding SEC reserve based pre-tax PV-10, before hedges.

## Proved, Probable and Possible Reserves

Antero estimates that it had year-end 2016 3P reserves of 46.4 Tcfe, a 25% increase from year-end 2015. The 25% increase in 3P reserves was driven by a combination of 2016 leasehold acquisitions, an increase in ethane volumes and the continued improvement in wellhead recoveries achieved through advanced completions. As of December 31, 2016, the Company's 46.4 Tcfe of 3P reserves were comprised of 71% natural gas, 27% NGLs and 2% oil. The Marcellus and Ohio Utica Shale comprised 39.6 Tcfe and 6.8 Tcfe of the 3P reserves, respectively.

Importantly, 38.0 Tcfe of Antero's 39.6 Tcfe of estimated 3P reserves in the Marcellus, or 96%, were classified as proved and probable reserves ("2P"), reflecting the low risk and statistically repeatable nature of Antero's Marcellus drilling. Further, 6.4 Tcfe of Antero's 6.8 Tcfe of estimated 3P reserves in the Ohio Utica, or 94%, were classified as 2P.

The tables below summarize Antero's estimated 3P reserve volumes as of December 31, 2016 using SEC pricing, categorized by operating area as well as PV-10 values of Antero's 3P reserve volumes using both SEC and Strip pricing:

|                          | Marcellus Shale |                    |                 |                    | Ohio Utica Shale |                    |                 |                    |
|--------------------------|-----------------|--------------------|-----------------|--------------------|------------------|--------------------|-----------------|--------------------|
|                          | Gas<br>(Bcf)    | Liquids<br>(MMBbl) | Total<br>(Bcfe) | Gross<br>Locations | Gas<br>(Bcf)     | Liquids<br>(MMBbl) | Total<br>(Bcfe) | Gross<br>Locations |
| Proved                   | 7,790           | 928                | 13,355          | 933                | 1,624            | 68                 | 2,031           | 278                |
| Probable                 | 18,195          | 1,078              | 24,667          | 2,344              | 3,875            | 89                 | 4,409           | 528                |
| Possible                 | 1,227           | 59                 | 1,579           | 188                | 303              | 7                  | 345             | 57                 |
| <b>Total 3P</b>          | <b>27,212</b>   | <b>2,065</b>       | <b>39,601</b>   | <b>3,465</b>       | <b>5,802</b>     | <b>164</b>         | <b>6,785</b>    | <b>863</b>         |
| % Liquids <sup>(1)</sup> |                 |                    | 31%             |                    |                  |                    | 14%             |                    |

  

|                          | Combined 3P Reserves |                    |                 |                    |
|--------------------------|----------------------|--------------------|-----------------|--------------------|
|                          | Gas<br>(Bcf)         | Liquids<br>(MMBbl) | Total<br>(Bcfe) | Gross<br>Locations |
| Proved <sup>(2)</sup>    | 9,414                | 995                | 15,386          | 1,211              |
| Probable                 | 22,069               | 1,168              | 29,076          | 2,872              |
| Possible                 | 1,531                | 66                 | 1,924           | 245                |
| <b>Total 3P</b>          | <b>33,014</b>        | <b>2,229</b>       | <b>46,386</b>   | <b>4,328</b>       |
| % Liquids <sup>(1)</sup> |                      |                    | 29%             |                    |

- 1) Represents liquids volumes as a percentage of total volumes. Combined liquids comprised of 2,104 million barrels of NGLs and 124 million barrels of oil.
- 2) 513 of the 1,211 proved locations were undeveloped locations.

| 3P PV-10 Values (\$ Billion): | SEC<br>Pricing | Strip<br>Pricing <sup>(1)</sup> | Variance      | %<br>Variance |
|-------------------------------|----------------|---------------------------------|---------------|---------------|
| 3P Reserves PV-10.....        | \$3.7          | \$15.4                          | \$11.7        | 316%          |
| Hedge PV-10<br>(2).....       | 3.0            | 1.3                             | (1.7)         | (57)%         |
| Total PV-10.....              | <u>\$6.7</u>   | <u>\$16.7</u>                   | <u>\$10.0</u> | <u>149%</u>   |

- 1) Strip pricing as of December 31, 2016 for each of the first ten years and flat thereafter.
- 2) Hedge PV-10 at strip pricing differs from year-end 2016 mark-to-market value of \$1.6 billion due to the application of a higher discount rate.

Assuming SEC prices, the pre-tax PV-10 of the December 31, 2016 3P reserves was \$3.7 billion before hedges and \$6.7 billion including hedges. Assuming year-end future strip pricing, with adjustments similar to SEC pricing, the pre-tax PV-10 of the same year-end 2016 3P reserves was \$15.4 billion which represents a 316% increase over the corresponding SEC reserve based pre-tax PV-10, before hedges. Including Antero's hedges, the pre-tax PV-10 value of estimated 3P reserves was \$16.7 billion assuming strip pricing, a 22% increase compared to the prior year. For further discussion on pre-tax PV-10 values, please read "Non-Gap Disclosure."

Antero's estimated proved and 3P reserves at December 31, 2016 were prepared by its internal reserve engineers and audited by DeGolyer and MacNaughton ("D&M"). D&M's

reserve audit covered properties representing 100% of Antero's total 3P reserves at December 31, 2016.

## **Non-GAAP Disclosure**

Certain selected financial information in this release is unaudited. Audited financial results will be provided in Antero's Annual Report on Form 10-K for the year ended December 31, 2016, which the Company intends to file with the SEC on February 28, 2017. In this release, Antero has provided a number of unaudited metrics, which include all-in finding and development cost per unit and drill bit only finding and development cost per unit. These non-GAAP metrics are commonly used in the exploration and production industry by companies, investors and analysts in order to measure a company's ability of adding and developing reserves at a reasonable cost. The finding and development costs per unit are statistical indicators that have limitations, including their predictive and comparative value. In addition, because the finding and development costs per unit do not consider the cost or timing of future production of new reserves, such measures may not be adequate measures of value creation. These reserve metrics may not be comparable to similarly titled measurements used by other companies.

Calculations for all-in and drill bit only finding and development cost per unit are based on estimated and unaudited costs incurred in 2016 and can be found in the footnotes to the table on page three of this release. The calculations for both all-in and drill bit only finding and development cost per unit do not include future development costs required for the development of proved undeveloped reserves.

Year-end pre-tax PV-10 value and pre-tax PV-10 value including hedges are non-GAAP financial measures as defined by the SEC. Antero believes that the presentation of these pre-tax PV-10 values are relevant and useful to its investors because it presents the discounted future net cash flows attributable to reserves and hedges prior to taking into account corporate future income taxes and the Company's current tax structure. The Company further believes investors and creditors use pre-tax PV-10 values as a basis for comparison of the relative size and value of its reserves and hedges as compared with other companies. Antero believes that PV-10 estimates using strip pricing and including hedges can be used within the industry and by creditors and securities analysts to evaluate estimated net cash flows in the current commodity price environment. PV-10 estimates using strip pricing are not adjusted for the likelihood that the pricing scenario will occur, and thus they may not be comparable to PV-10 value using SEC pricing.

The GAAP financial measure most directly comparable to pre-tax PV-10 is the standardized measure of discounted future net cash flows ("Standardized Measure"). Antero is not yet able to provide a reconciliation of pre-tax PV-10 to Standardized Measure because the discounted future income taxes associated with the Company's reserves is not yet calculable. The Company expects to include a full reconciliation of pre-tax PV-10 to Standardized Measure in its Annual Report on Form 10-K for the year ended December 31, 2016.

*Antero Resources is an independent natural gas and oil company engaged in the acquisition, development and production of unconventional liquids-rich natural gas properties located in the Appalachian Basin in West Virginia, Ohio and Pennsylvania. The Company's website is located at [www.anteroresources.com](http://www.anteroresources.com).*

## Cautionary Statements

*This release includes "forward-looking statements". Such forward-looking statements are subject to a number of risks and uncertainties, many of which are beyond Antero's control. All statements, except for statements of historical fact, made in this release regarding activities, events or developments the Company expects, believes or anticipates will or may occur in the future, such as those regarding future development costs, future capital spending plans, expected drilling and development plans, plans with respect to the rejection of ethane and the prices we will receive for future production as well as future production volumes are forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. All forward-looking statements speak only as of the date of this release. Although Antero believes that the plans, intentions and expectations reflected in or suggested by the forward-looking statements are reasonable, there is no assurance that these plans, intentions or expectations will be achieved. Therefore, actual outcomes and results could materially differ from what is expressed, implied or forecast in such statements.*

*Antero cautions you that these forward-looking statements are subject to all of the risks and uncertainties, most of which are difficult to predict and many of which are beyond the Company's control, incident to the exploration for and development, production, gathering and sale of natural gas, NGLs and oil. These risks include, but are not limited to, commodity price volatility, inflation, lack of availability of drilling and production equipment and services, environmental risks, drilling and other operating risks, regulatory changes, the uncertainty inherent in estimating natural gas and oil reserves and in projecting future rates of production, cash flow and access to capital, the timing of development expenditures, and the other risks described under the heading "Item 1A. Risk Factors" in Antero's Annual Report on Form 10-K for the year ended December 31, 2015.*

*The SEC permits oil and gas companies to disclose probable and possible reserves in their filings with the SEC. Antero does not plan to include probable and possible reserve estimates in its filings with the SEC. Antero has provided internally generated estimates that have been audited by its third party reserve engineer in this release. Antero's estimate of proved, probable and possible reserves is provided in this release because management believes it is useful information that is widely used by the investment community in the valuation, comparison and analysis of companies. However, the Company notes that the SEC prohibits companies from aggregating proved, probable and possible reserves in filings with the SEC due to the different levels of certainty associated with each reserve category.*

*This release provides a summary of Antero's reserves as of December 31, 2016, assuming partial ethane "rejection" where sales demand for ethane is not available. Ethane rejection occurs when ethane is left in the wellhead natural gas stream when the natural gas is processed, rather than being separated out and sold as a liquid after fractionation. When ethane is left in the gas stream, the Btu content of the residue natural gas at the outlet of the processing plant is higher. Producers will generally elect to "reject" ethane at the processing plant when the price received for the ethane in the natural gas stream is greater than the price received for the ethane being sold as a liquid after fractionation, net of fractionation costs. When ethane is recovered in the processing plant, the Btu content of the residue natural gas is lower, but a producer is then able to recover the value of the ethane sold as a separate natural gas liquid product. In addition, natural gas processing plants can produce*

*the other NGL products (propane, normal butane, isobutene and natural gasoline) while rejecting ethane.*

To view the original version on PR Newswire, visit <http://www.prnewswire.com/news-releases/antero-resources-announces-16-increase-in-estimated-proved-reserves-to-154-tcfe-300400845.html>

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