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Houston, TX

Presented by:
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November 28, 2012

VANGUARD NATURAL RESOURCES, LLC
NYSE: VNR

Forward-Looking Statements

Statements made by representatives of Vanguard Natural Resources, LLC during the course of this presentation that are not historical facts are forward looking statements, including (but not limited to) statements about the acquisition (including its benefits, results and effects), the related financing plans, whether and when the acquisition will be consummated, the operating results of Encore Energy Partners LP following the acquisition and statements with respect to future distributions. These statements are based on certain assumptions and expectations made by the Company which reflect management's experience, estimates and perception of historical trends, current conditions, anticipated future developments and other factors believed to be appropriate. Such statements are subject to a number of assumptions, risks and uncertainties, many of which are beyond the control of the Company, which may cause actual results to differ materially from those implied or anticipated in the forward looking statements. These include risks relating to the satisfaction of the conditions to closing of the acquisition, uncertainties as to timing, financial performance and results, our indebtedness under our revolving credit facility, availability of sufficient cash to pay our distributions and execute our business plan, prices and demand for oil, natural gas and natural gas liquids, our ability to replace reserves and efficiently develop our reserves, our ability to make acquisitions on economically acceptable terms and other important factors that could cause actual results to differ materially from those anticipated or implied in the forward looking statements. See "Risk Factors" in our most recent annual report on Form 10-K and Item 1A. of Part II "Risk Factors" in our subsequent quarterly reports on Form 10-Q and any other public filings and press releases. Vanguard Natural Resources, LLC undertakes no obligation to publicly update any forward looking statements, whether as a result of new information or future events.

This presentation has been prepared as of November 26, 2012.

Overview of Vanguard Natural Resources

- Upstream oil & gas LLC, headquartered in Houston, Texas
  - Initial Public Offering – "VNR" – October 2007 (Total Enterprise Value of ~$240mm)
  - Seventeen strategic acquisitions totaling ~$2.5bn expanded geographic profile and commodity diversity (including merger with Encore Energy Partners LP, Arkoma Basin acquisition and pending Barrett acquisition)
- Instituted a monthly distribution beginning with the July 2012 distribution
  - Monthly distribution of $0.2025 per unit ($2.43 annualized) yields approximately 8.6% at current price; Increased distributions ~43% since IPO
- Diverse portfolio of mature, long life oil and gas properties, combined with a multi-year hedging program provide stable cash flow and support distribution growth
- No General Partner or incentive distribution rights (IDRs)
  - Reduces cost of capital

Asset Profile*

- ~189 MMBoe total proved reserves
- Includes pending Barrett acquisition: ~50 MMBoe
- Current Daily Production: 24.4 MBoe/d
- 2012E Production: 18.8 MBoe/d
- 2013E Production: 33.9 MBoe/d
- ~72% proved developed
- ~15 year Proved R/P
- ~39% liquids / 61% gas

Market Valuation

($ in millions)

Company Profile	VNR
UNITS OUTSTANDING(1)	**59.08**
EQUITY MARKET CAP(1)	$1,666.1
TOTAL DEBT(2)	921.2
ENTERPRISE VALUE	**$2,587.3**

* Proved reserves as of 9/30/2012 based on internal reserve report.
(1) Market data as of 11/26/2012 includes 420,000 Class B units.
(2) 9/30/12 debt figure as adjusted for $200 million senior notes add-on in October 2012.

VANGUARD NATURAL RESOURCES, LLC

Our Successful Execution of the E&P MLP Strategy

High Quality, Low Risk Asset Portfolio	- Geographically diverse portfolio of long life assets, well positioned in most of the mature US Basins - ~189 MMBoe total proved reserves, 72% proved developed and 15 year Proved R/P - Balanced commodity portfolio – transitioned portfolio from 100% gas at IPO to approximately 46% liquids - Low capital requirements to maintain cash flow going forward - $47 million capital expenditure program for 2012 which is approximately 20% of 2012E Adjusted EBITDA
Disciplined Acquisition Strategy	- 17 strategic acquisitions since the IPO, including the recent acquisition of ENP, the Woodford/Fayetteville acquisition and the pending Barrett acquisition in the Piceance Basin in Colorado and the Powder River and Wind River Basins in Wyoming - Average acquisition price of ~$9.35/Boe and captured margins of ~$44.70/Boe - Acquisitions have supported 43% distribution growth since 2008 while improving overall coverage and credit position - We review between 125-150 and evaluate approximately 50 acquisition candidates each year
Active Hedging Program	- Approximately 90% of expected oil production hedged through 2014 at FLOOR PRICE of $91.32 per barrel - Approximately 80% of expected natural gas production hedged through 1H 2017 at $4.73 per MMBtu - Acquisition strategy incorporates active hedging component to "lock in" anticipated margins
Strong Credit Profile	- Well capitalized balance sheet with sufficient liquidity and spending coverage - VNR is not outspending cash flow like many resource play focused peers - Management commitment to maintaining long-term leverage of less than 3.0x Debt / EBITDA - No General Partner or incentive distribution rights (IDRs)
Proven Management Team with Extensive Experience	- Extensive experience in acquisition integration, development and operation of oil and gas assets – demonstrated at Vanguard and previous companies - Continuing to build team and infrastructure to support VNR's growing company and platform

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Geographically Diversified Reserve Base

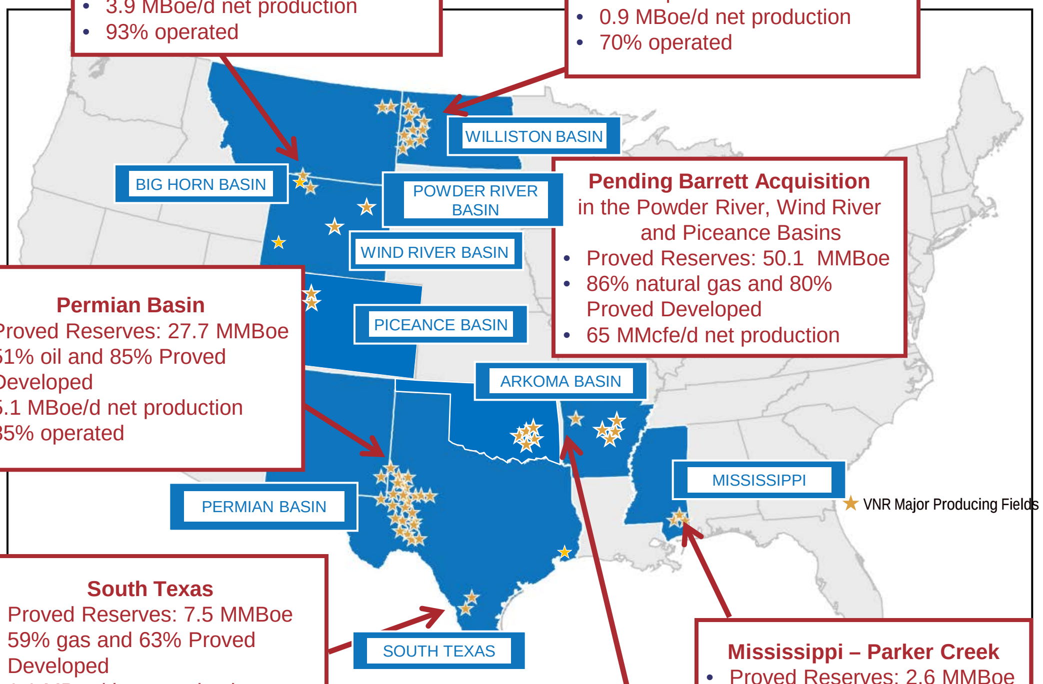
Core Areas

Big Horn Basin
- Proved Reserves: 24.2 MMBoe
- 85% oil and 96% Proved Developed
- 3.9 MBoe/d net production
- 93% operated

Williston Basin
- Proved Reserves: 5.3 MMBoe
- 93% oil and 95% Proved Developed
- 0.9 MBoe/d net production
- 70% operated

Pending Barrett Acquisition in the Powder River, Wind River and Piceance Basins
- Proved Reserves: 50.1 MMBoe
- 86% natural gas and 80% Proved Developed
- 65 MMcfe/d net production

Permian Basin
- Proved Reserves: 27.7 MMBoe
- 51% oil and 85% Proved Developed
- 5.1 MBoe/d net production
- 85% operated



South Texas
Proved Reserves: 7.5 MMBoe
- 59% gas and 63% Proved Developed
- 1.1 MBoe/d net production
- 0% operated

Arkoma Basin
- Proved Reserves: 71.2 MMBoe
- 82% gas and 57% Proved Developed
- 13.0 MBoe/d net production (1)
- 43% operated

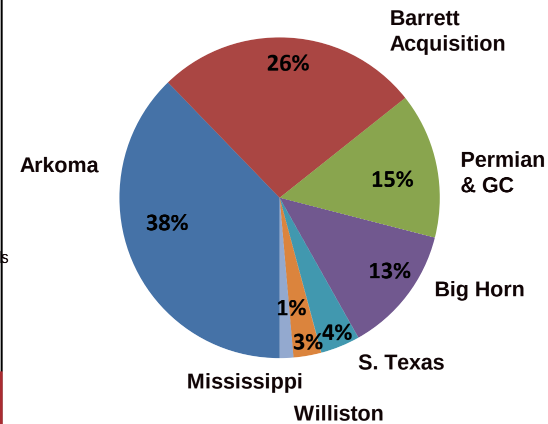
Mississippi – Parker Creek
- Proved Reserves: 2.6 MMBoe
- 95% oil and 76% Proved Developed
- 0.6 MBoe/d net production
- 90% operated

Overview

- ~189 MMBoe proved reserves
- 61% gas and 72% proved developed
- Proved R/P of ~15 years

Proved Reserves by Area

~189 MMBoe



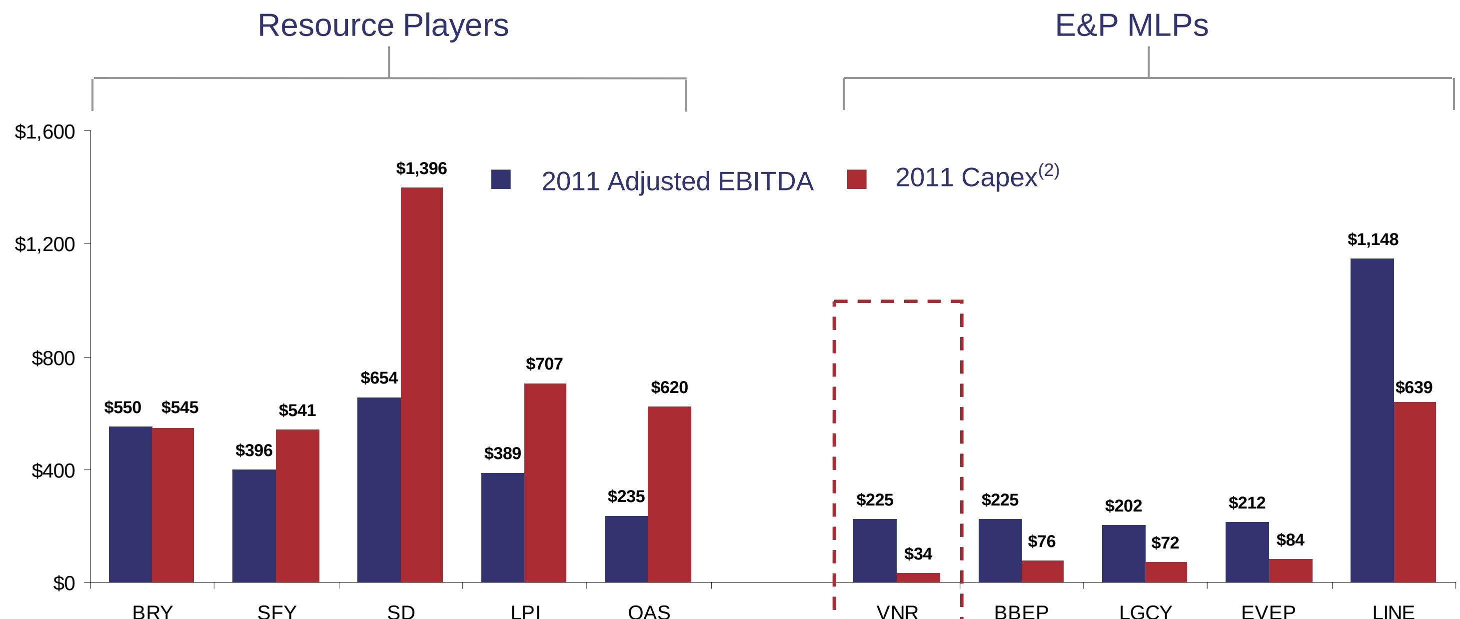
Note: Proved reserves as of 9/30/2012 based on internal reserve report. Production represents 2011 average daily net production. Pro forma for exchange of Appalachian assets, recent Arkoma Basin acquisition and pending recently announced Barrett acquisition in Colorado and Wyoming. Percent operated statistics are computed based on cash flow.
(1) Includes ~12.7 Mboe/d of current production from the Woodford/Fayetteville Shale acquisition.

How We Spend Capital

- Disciplined approach to capital spending – focus on maintaining cash flow from mature, long lived fields
- By contrast, resource players invest in growth to support equity valuation
- The nature of our capital program is inherently less risky due to the lengthy production histories in the fields we operate
  - We grow production primarily through accretive acquisitions of low-risk producing properties, rather than through the drillbit
  - Our capital spending as a percent of 2011A EBITDA is best-in-class
- 2012E capital budget of $47 million – approximately 20% of 2012E Adjusted EBITDA

VNR	**15%**
E&P MLPs(1)	49%
Resource Players	172%

Capital Spending vs. Cash Flow



	BRY	SFY	SD	LPI	OAS	VNR	BBEP	LGCY	EVEP	LINE
EBITDA / Capex	1.0x	0.7x	0.5x	0.6x	0.4x	6.6x	3.0x	2.8x	2.5x	1.8x

Source: Company filings.
Note: VNR adjusted EBITDA includes the non-controlling interest of ENP.
(1) Excludes VNR.
(2) Represents development and exploration expenses, excluding acquisitions.

Our Acquisition Strategy

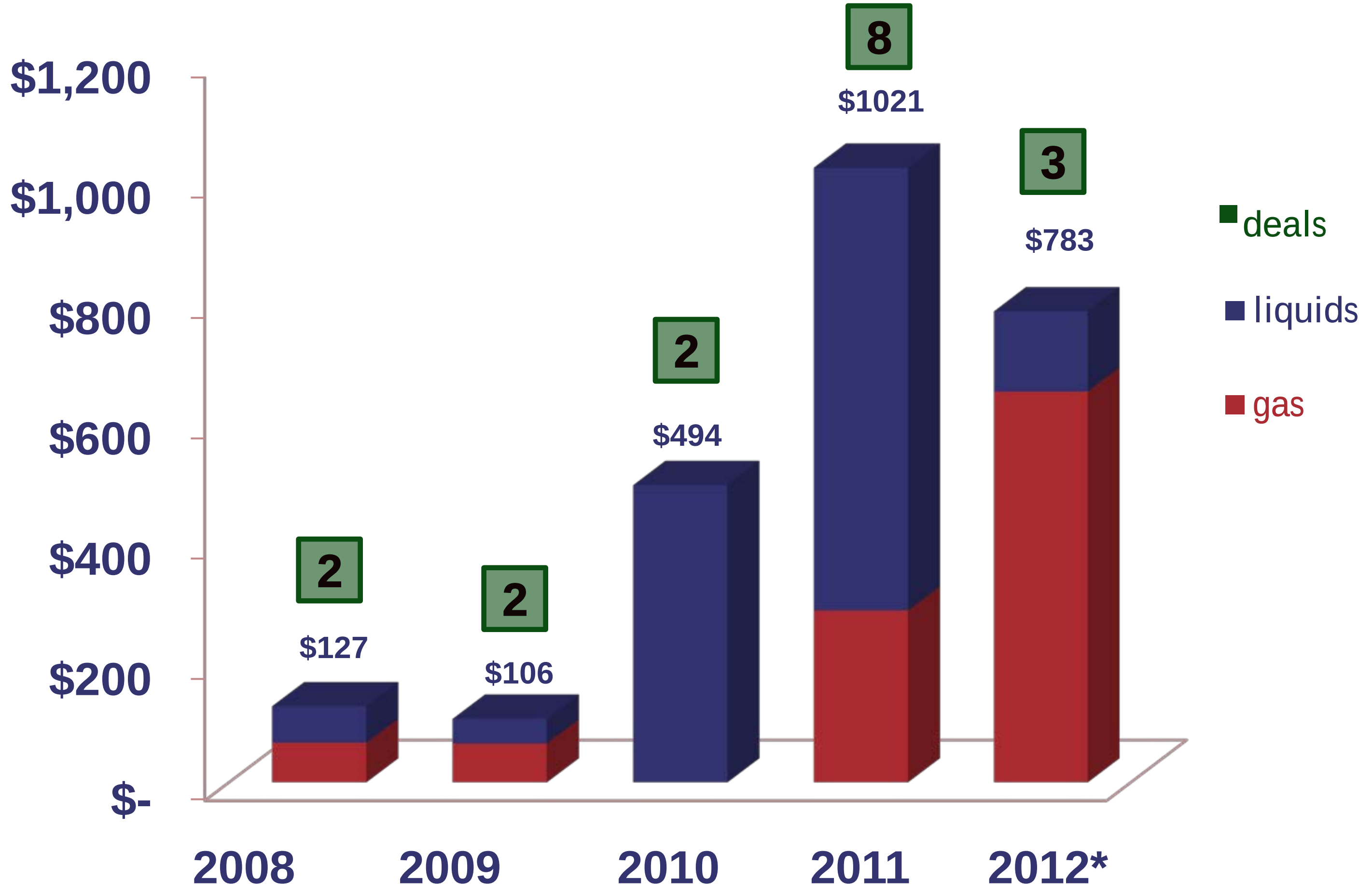
- The U.S. has a large inventory of mature oil and natural gas basins which provide significant opportunity for future growth and consolidation
- Current E&P opportunity set is comprised of an estimated $1.5 trillion of mature properties, which is substantially more than the U.S. midstream sector
- Approximately $40 billion of E&P assets transacted each year since 2007

Vanguard's Acquisition Strategy is to:

- Acquire mature oil and gas properties with the following characteristics:
  - Stable, long life production with a shallow decline
  - High percentage of proved developed producing reserves
  - Long reserve life
  - Step-out development opportunities for additional growth
- Efficiently manage the oil and gas assets with focus on maintaining cash flow levels
- Reduce commodity price and interest rate risk through hedging
- Return cash flow through distribution payments to unitholders

Vanguard's success is attributable to its disciplined acquisition strategy. It's future success will depend on maintaining this disciplined approach.

Our Successful Acquisition Track Record



* 2012 includes the recently announced natural gas and liquids acquisitions in Colorado in Wyoming for $335 million with an anticipated close date on or before December 31, 2012.

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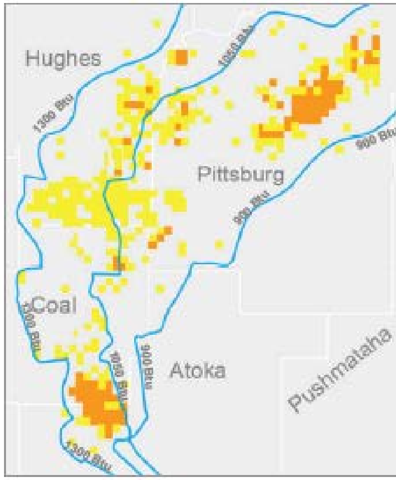
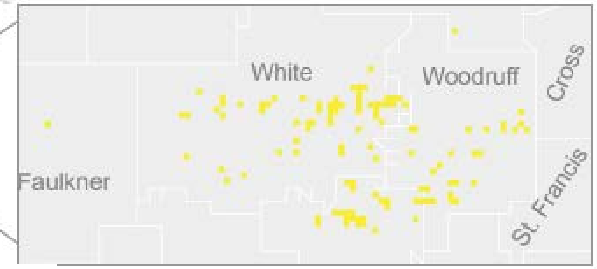
Arkoma Basin Acquisition

Woodford Shale



Fayetteville Shale



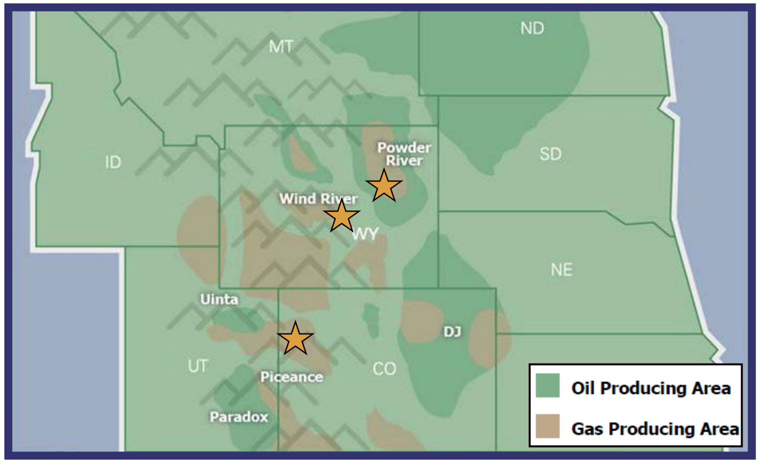
Operated Acreage
Non-operated Acreage

Acquisition Overview

- Assets located in the Woodford Shale and Fayetteville Shale plays
- Total proved reserves of ~402 Bcfe (57% PDP)
- Current net production of ~70 MMcfe/d (includes ~600 Bbl/d of NGLs)
- Reserve to production ratio of 15 years
- ~71,300 net acres (89% held by production)
- ~180 drilling locations with an average 22.5% working interest (modeled with ~$22 million in capex per year)
- Restructured acquired hedges to cover ~100% of expected proved production for the next five years at $5.04/MMBtu beginning in August 2012
- Immediately accretive to cash flow

Barrett Acquisition in Colorado and Wyoming

Wind River & Powder River, WY and Piceance Basin, CO



Acquisition Overview

- Assets located in the Piceance Basin in Colorado and the Powder River and Wind River Basins in Wyoming
- Total proved reserves of ~300 Bcfe (80% PDP)
- Current net production of ~65 MMcfe/d
- Reserve to production ratio of 13 years
- ~184,000 net acres in the Wind River Basin (12% held by production); ~67,000 net acres in the Powder River Basin (93% held by production); and ~15,000 net acres in the Piceance Basin (95% held by production)
- Vanguard significantly hedged the expected natural gas and oil production through 2016 and intends to hedge the expected natural gas liquids production in 2013
- Immediately accretive to cash flow

Experienced Management Team

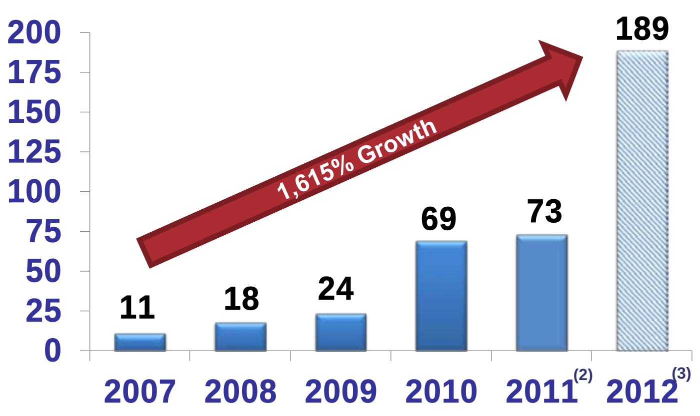
Name	Title	Prior Affiliations	Years of Experience
Scott W. Smith	*President and CEO*	• Ensource Energy • The Wiser Oil Company • San Juan Partners	>32
Richard A. Robert	*EVP and CFO*	• Enbridge USA • Midcoast Energy Resources • Various energy-related entrepreneurial ventures	>20
Britt Pence	*Senior Vice President of Operations*	• Anadarko Petroleum • Greenhill Petroleum • Mobil	>28
Mark Carnes	*Director of Acquisitions*	• Synergy Oil & Gas • Petromark • Torch Energy Advisors	>35
Chris Raper	*Land Manager*	• Synergy Oil & Gas • Amoco Production	>33
Rod Banks	*Marketing Manager*	• Apache Corporation • Mariner Energy • Producers Energy Marketing • Coastal Gas Marketing • ORYX Energy Company	>32



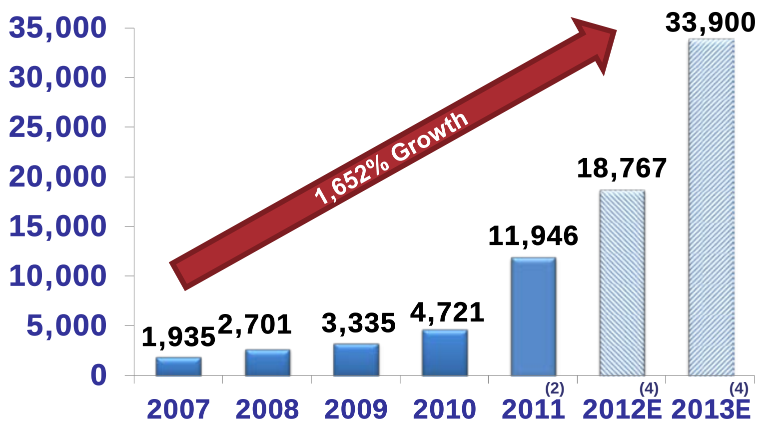
FINANCIAL OVERVIEW

Summary Operating Performance

Proved Reserves (MMBoe)[1]



Average Annual Production (Boe/d)



Distribution Growth ($ / unit)

(1) Proved reserves as of 6/30/2012 based on internal reserve report.
(2) Amounts illustrated reflect ENP and VNR proved reserves and production on a consolidated basis. Pro forma for exchange of Appalachian assets.
(3) Pro forma for the recent Arkoma Basin acquisition and pending Barrett acquisition.
(4) Based on updated 2012E and 2013E guidance announced on 8/2/2012; 2013E includes the recently announced pending Barrett acquisition.
(5) Annualized quarterly distribution.
(6) Annualized at the current monthly distribution of $0.2025 per unit.

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Disciplined Financial Strategy

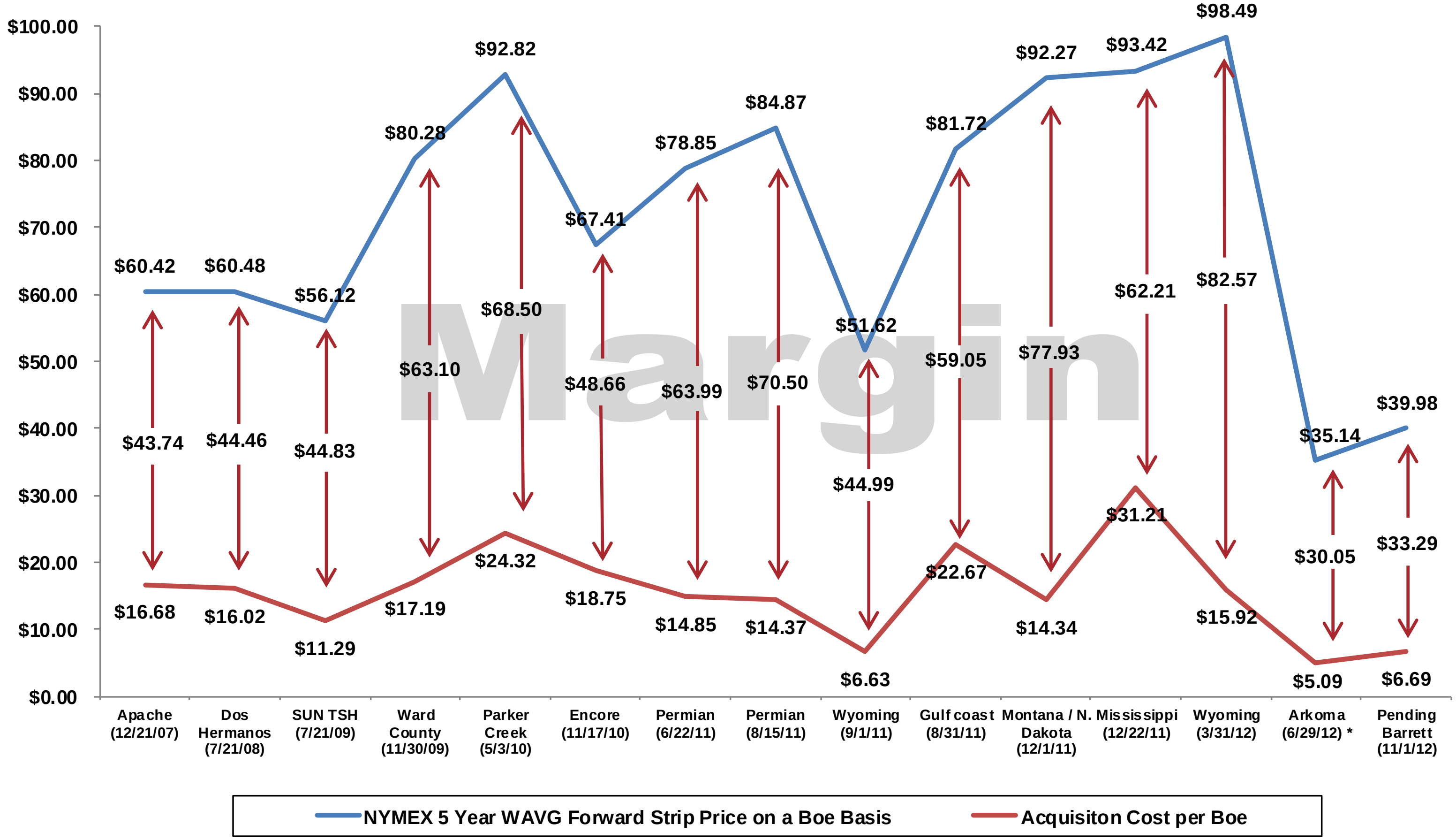
- Maintain conservative capital structure and sufficient liquidity
  - Availability under Revolver as of 11/1/2012 of ~$557 million
  - Target Debt / EBITDA of less than 3.0x
  - Active management of debt levels by periodic access to the equity markets as needed
  - Utilize excess cash flow to reduce revolving debt levels
- Prudent management of commodity price risk through multi-year hedging program
  - Approximately 90% of expected oil production hedged through 2014 at a FLOOR PRICE of $91.32 per Bbl
  - Approximately 80% of expected natural gas production hedged through the 1H 2017 at $4.73 per MMBtu
  - Acquisition strategy incorporates active hedging component to “lock-in” anticipated margins
- Prudently seek acquisitions utilizing our low cost of capital
  - Accretive acquisitions of long life oil and gas assets
- Maintain a prudent coverage ratio to provide distribution stability and “comfortable” growth
- Maintain strong relationships with a diversified bank syndicate
  - Currently have 21 banks in the Revolver

Hedging Philosophy

- Hedge commodity prices on estimated production from acquisitions for three to five years upon signing the Purchase and Sale Agreement to protect rate of return from price fluctuations
- Opportunistic hedging program to extend hedge positions as existing hedges roll off
- Reduce cash flow volatility and protect distribution levels
- Primary use of swaps and costless collars, with the addition of three-way collars to provide more upside
- Interest rate risk also mitigated through hedging

Locking in Margins Provides Stability

- Through the use of hedging, Vanguard is able to lock in significant acquisition margins for the foreseeable future, helping to insure distribution stability

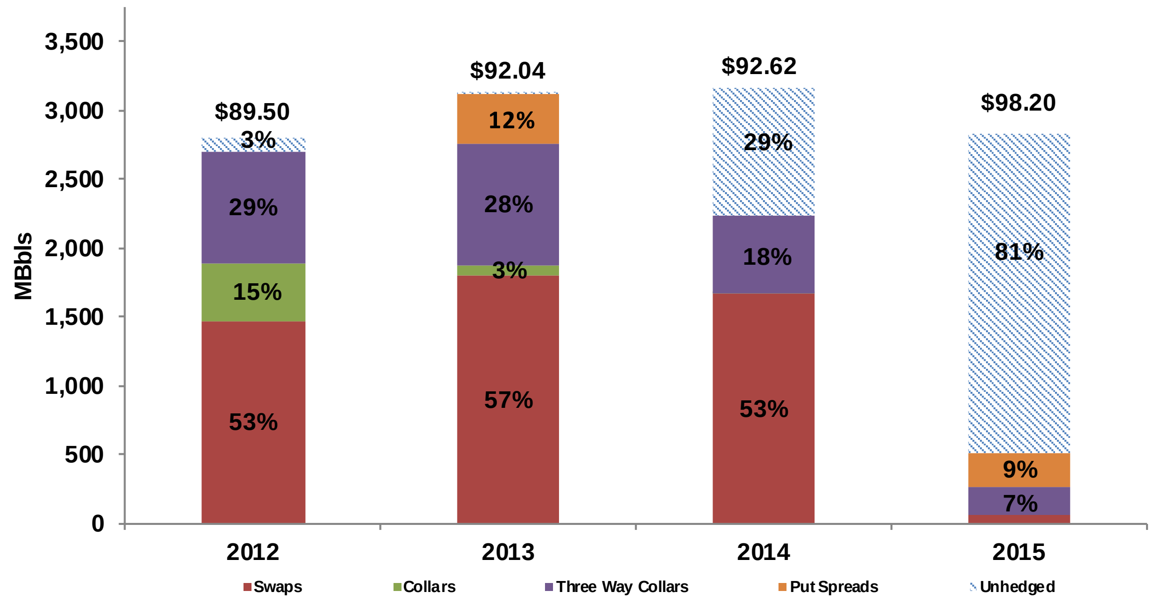


* Arkoma Basin acquisition adjusted for value of the hedges acquired.

Hedges Mitigate Commodity Price Risk

- **Approximately 90% of expected crude oil proved production hedged thru 2014 at a weighted average FLOOR price of $91.32 per barrel**
- **Use a combination of swaps, collars and three-way collars**

Oil Hedges



Note: Hedge prices reflect a weighted average of swap prices, floor prices on collars and puts and long put prices on three way collars. Excludes NGL production. In 2013, Vanguard sold puts on 378,400 Bbls at a weighted average price of $60.47. In addition, Encore sold puts on 250 bbl/d for 2012-2013 at $65.00. Weighted average floor price includes a $3.00 / Bbl premium on a 1,000 Bbl/day in 2013-2014 only if the monthly oil price settles between $70.00 - $110.00.

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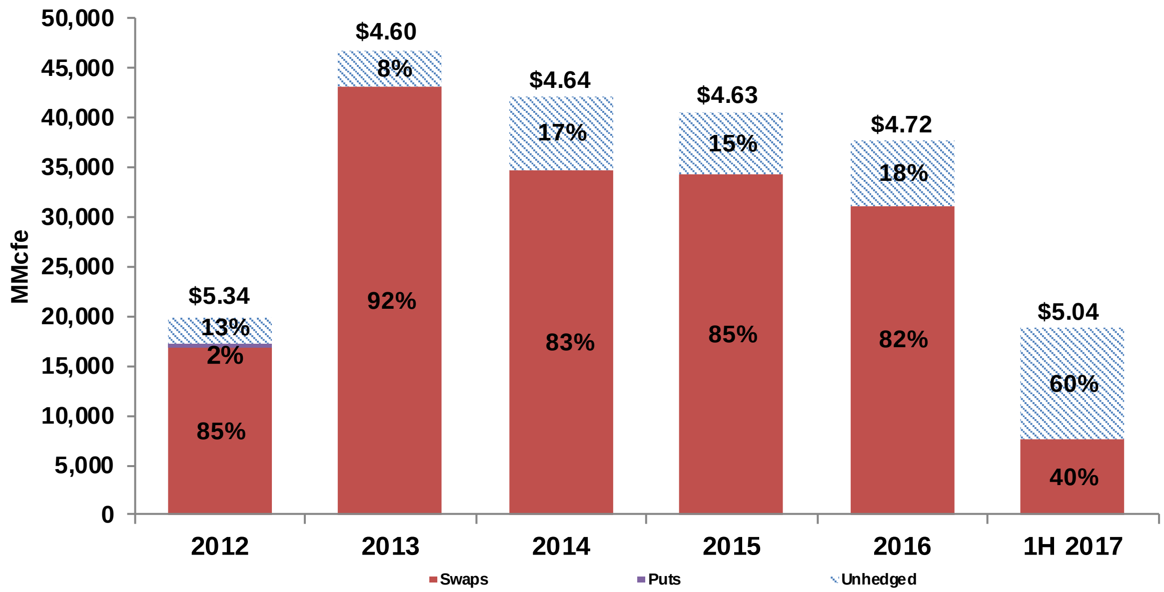
Hedges Mitigate Commodity Price Risk

- Over 80% of expected natural gas proved production hedged thru the first half of 2017 at a weighted average floor price of $4.73 per MMBtu
- Primarily use NYMEX and basis swaps

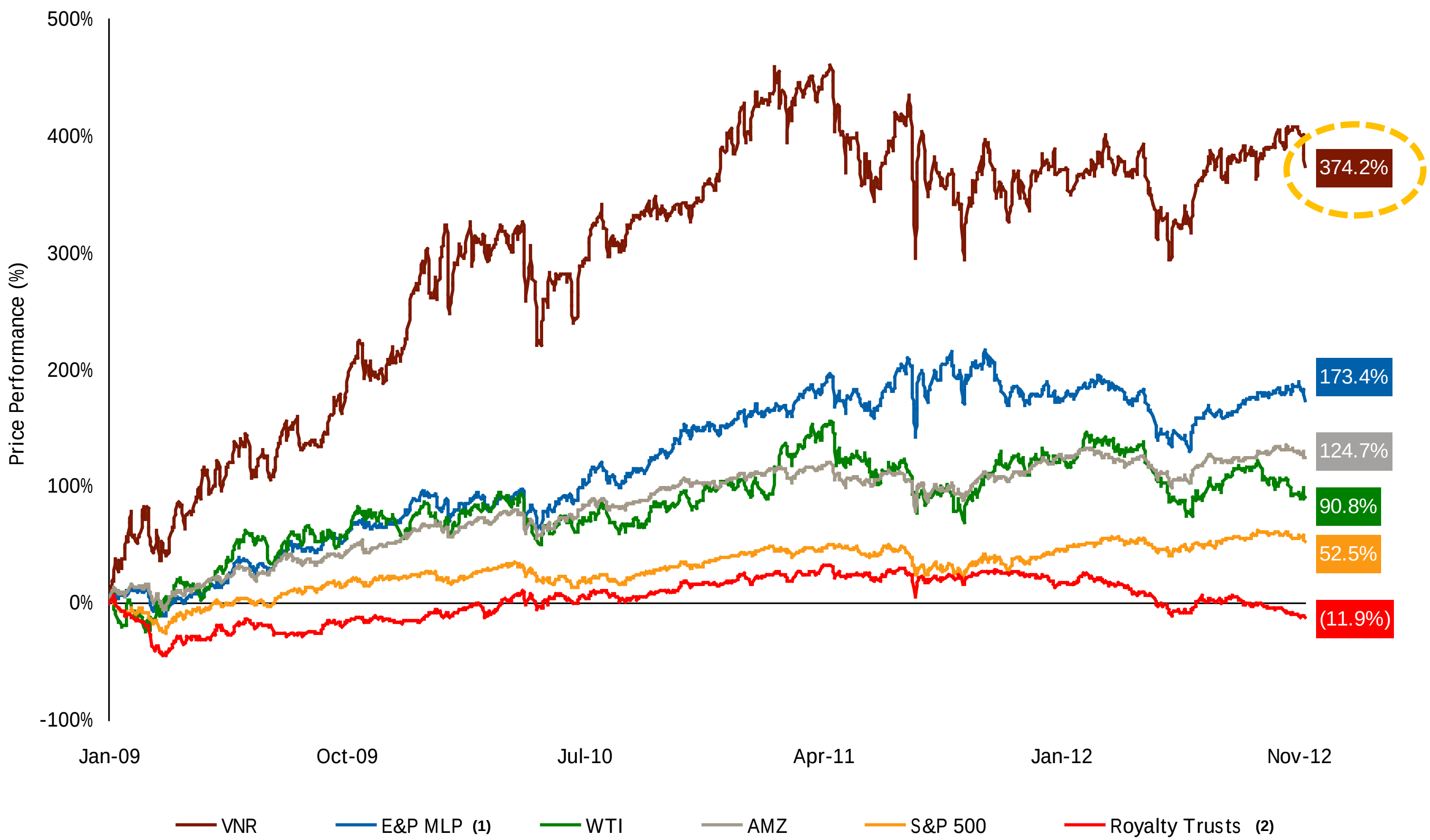
Gas Hedges



Note: Hedge prices reflect a weighted average of swap prices, floor prices on collars and puts and long put prices on three way collars. Excludes production associated with the exchanged Appalachia properties. Excludes NGL production.

Price Performance Since 2009

The results have been great. VNR has outperformed US Royalty Trusts, C-Corps and other E&P MLPs. <u>The strategy works.</u>

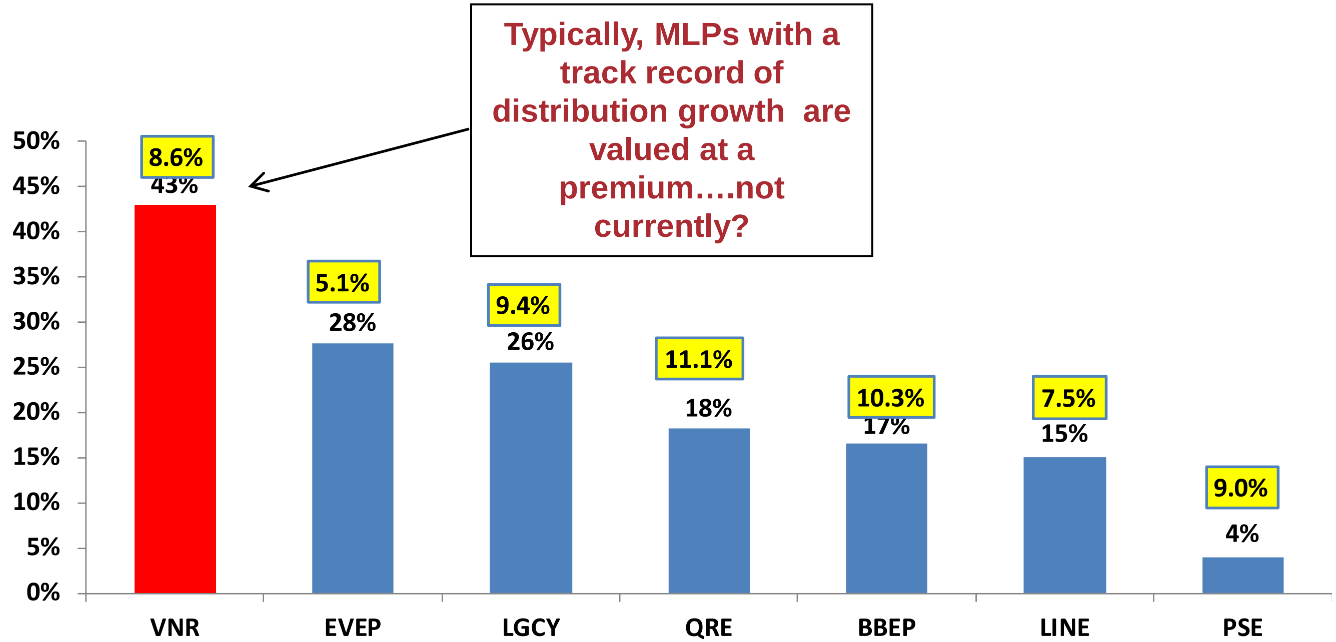


Note: Market data as of 11/08/2012.
(1) E&P MLP Index includes: BBEP, EVEP, LGCY, LINE, PSE, QRE, MCEP, MEMP, PSE, ARP, LRE.
(2) US Royalty Trust Index includes: CRT, HGT, MTR, PBT, SBR and SJT.

Vanguard’s Value Proposition

- Vanguard has the highest distribution growth rate since its IPO in October 2007
- However, Vanguard is still trading at a higher yield than many of its peers

Distribution Growth (Since VNR IPO)



2011 Coverage:(1)	1.4x	1.1x	1.1x	1.2x	1.3x	1.2x	1.4x

Current Yields in Yellow

Note: Does not include recent IPOs of MCEP, LRE and MEMP. Market Data based on November 26, 2012 pricing.
(1) 2011 distribution coverage taken from company press releases and market research.

Key Investment Highlights

- High quality, long-lived reserve base with low production decline rates and low capital reinvestment requirements
- Geographically diverse asset base comprised predominantly of oil properties
- Active hedging program which has locked in attractive margins through 2014 for crude oil and 1H 2017 for natural gas
- Significant inventory of low-risk development opportunities
- Well-capitalized balance sheet with sufficient liquidity and financial flexibility
- Experienced management team with a track record of successful operations, acquisitions, and integrations