

*ACG Energy Webinar*  
**The Current Natural Gas M&A Landscape**

**Brian Batson, Ph.D.**

Senior Analyst, Quantitative Modeling, Bentek Energy

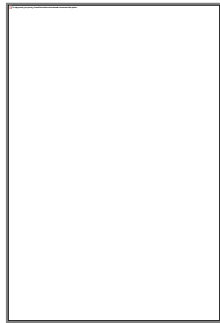
**Richard Peterson**

Senior Director, Global Markets Intelligence, S&P Capital IQ

December 9, 2015

# Today's Speakers

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**Brian Batson, Ph.D.**  
Senior Analyst  
Quantitative Modeling  
Bentek Energy



**Richard Peterson**  
Senior Director  
Global Markets Intelligence  
S&P Capital IQ

# US NATURAL GAS FUNDAMENTALS AND REGIONAL PRICE OUTLOOK

Brian Batson, PhD  
Senior Analyst, Quantitative Modeling  
Bentek Energy



## KEY TAKEAWAYS

### **Recap of US natural gas fundamentals**

- Last few winters and price relationships

### **Despite low prices, oil and gas production continues**

### **Outlooks for natural gas fundamentals and price**

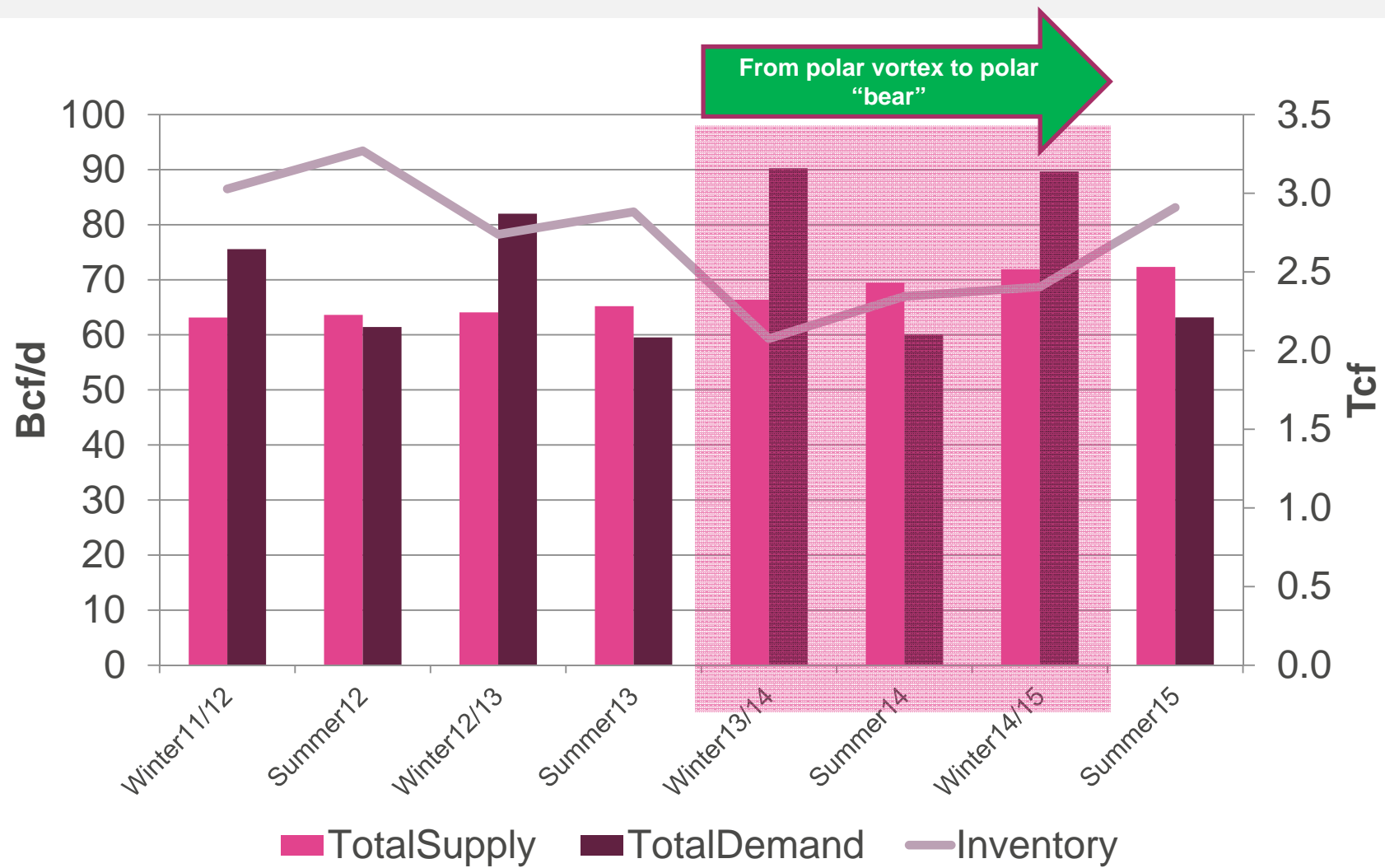
- Continued production yields bearish near-term prices

## SECTION NO. 1

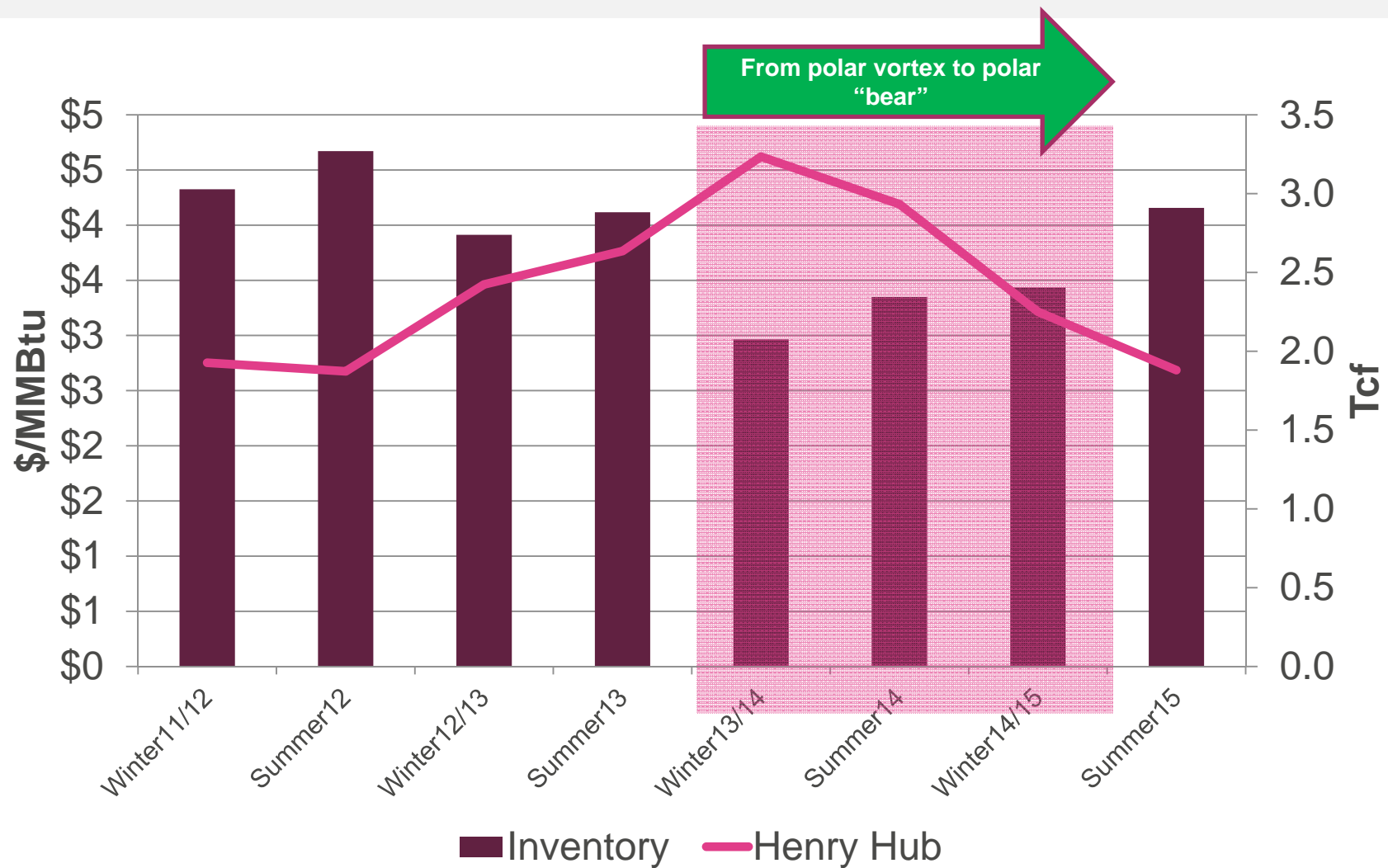
# RECAP OF NATURAL GAS FUNDAMENTALS



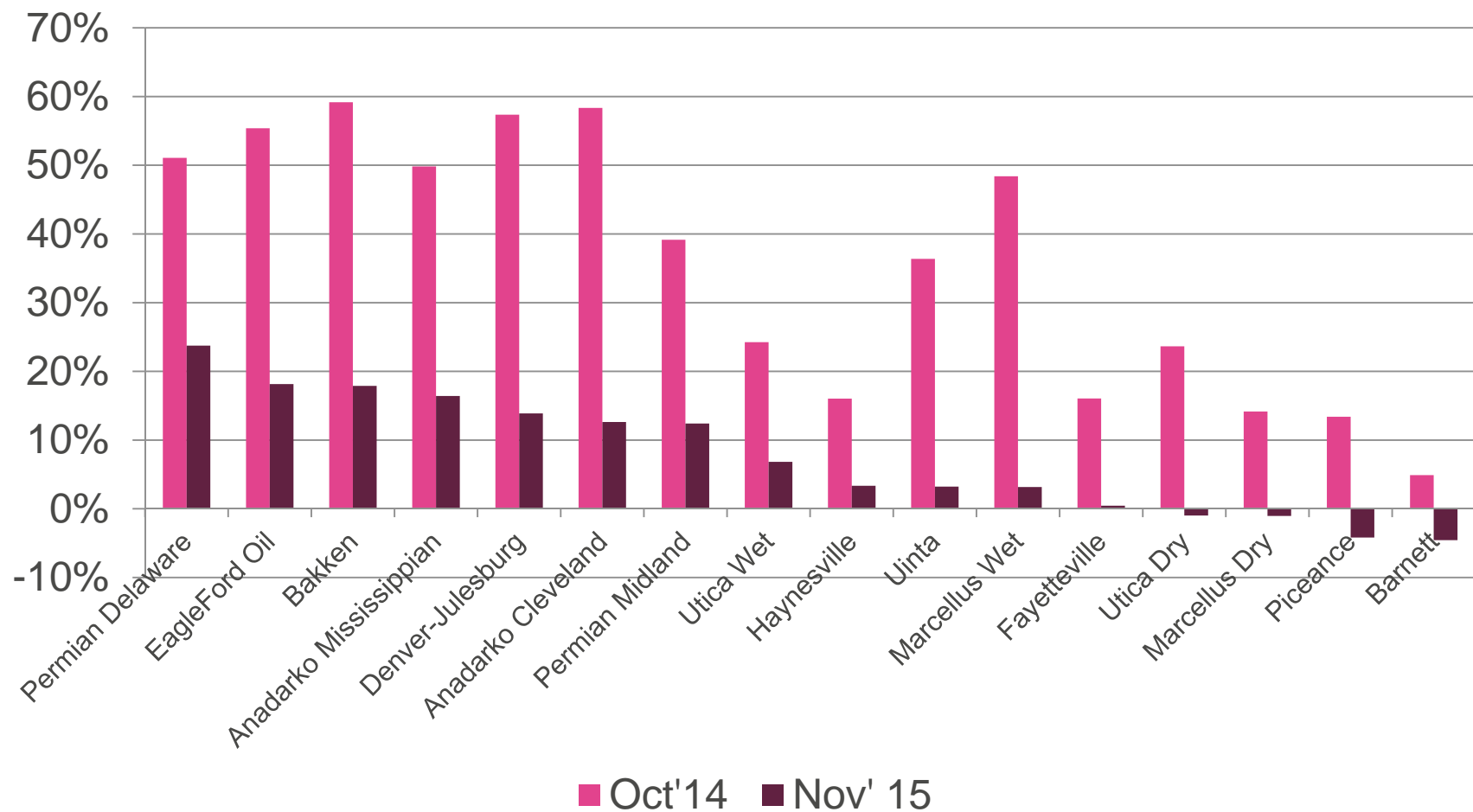
## HISTORICAL SEASONAL FUNDAMENTALS



## HISTORICAL SEASONAL INVENTORY VS. PRICE

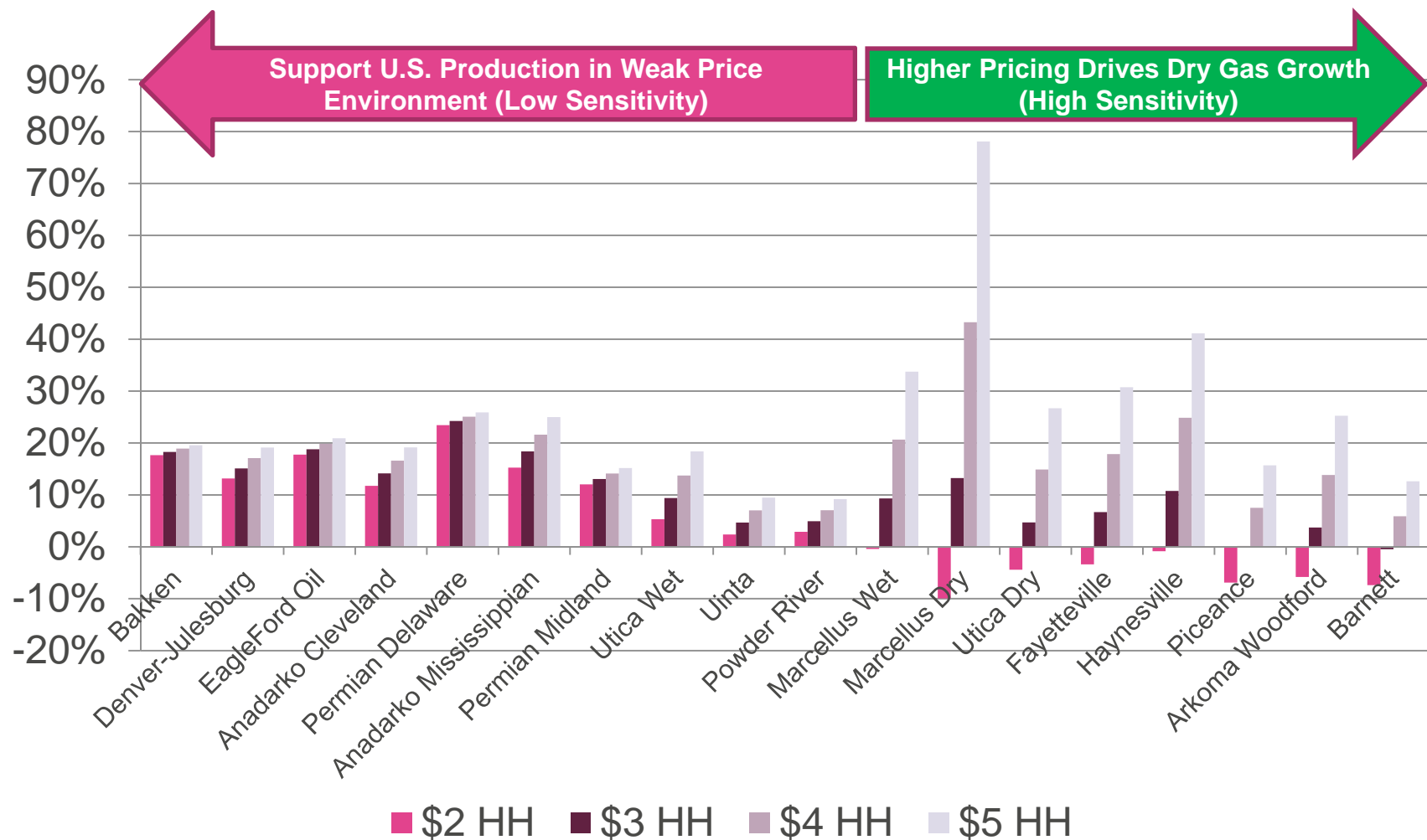


## YEAR OVER YEAR INTERNAL RATES OF RETURN

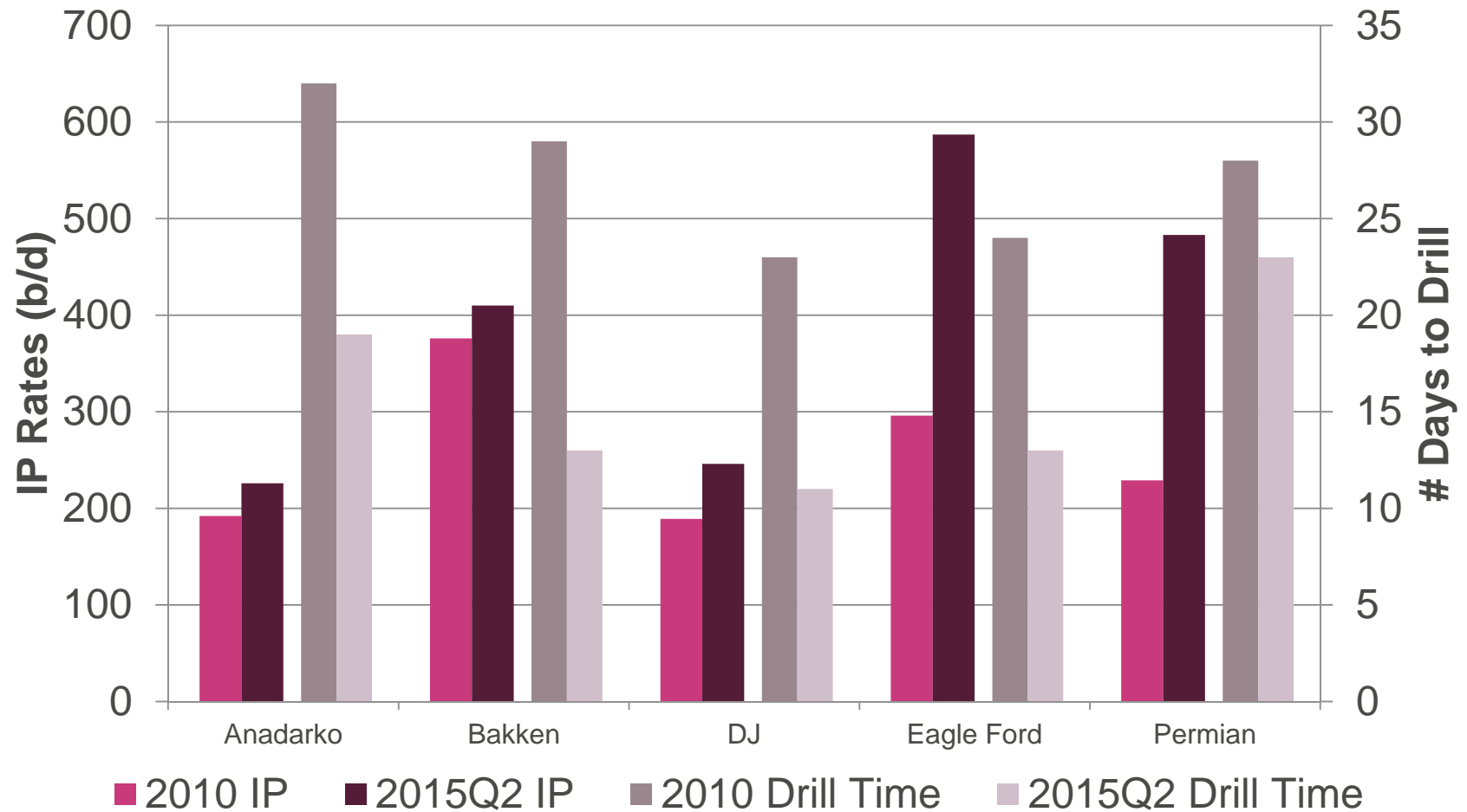




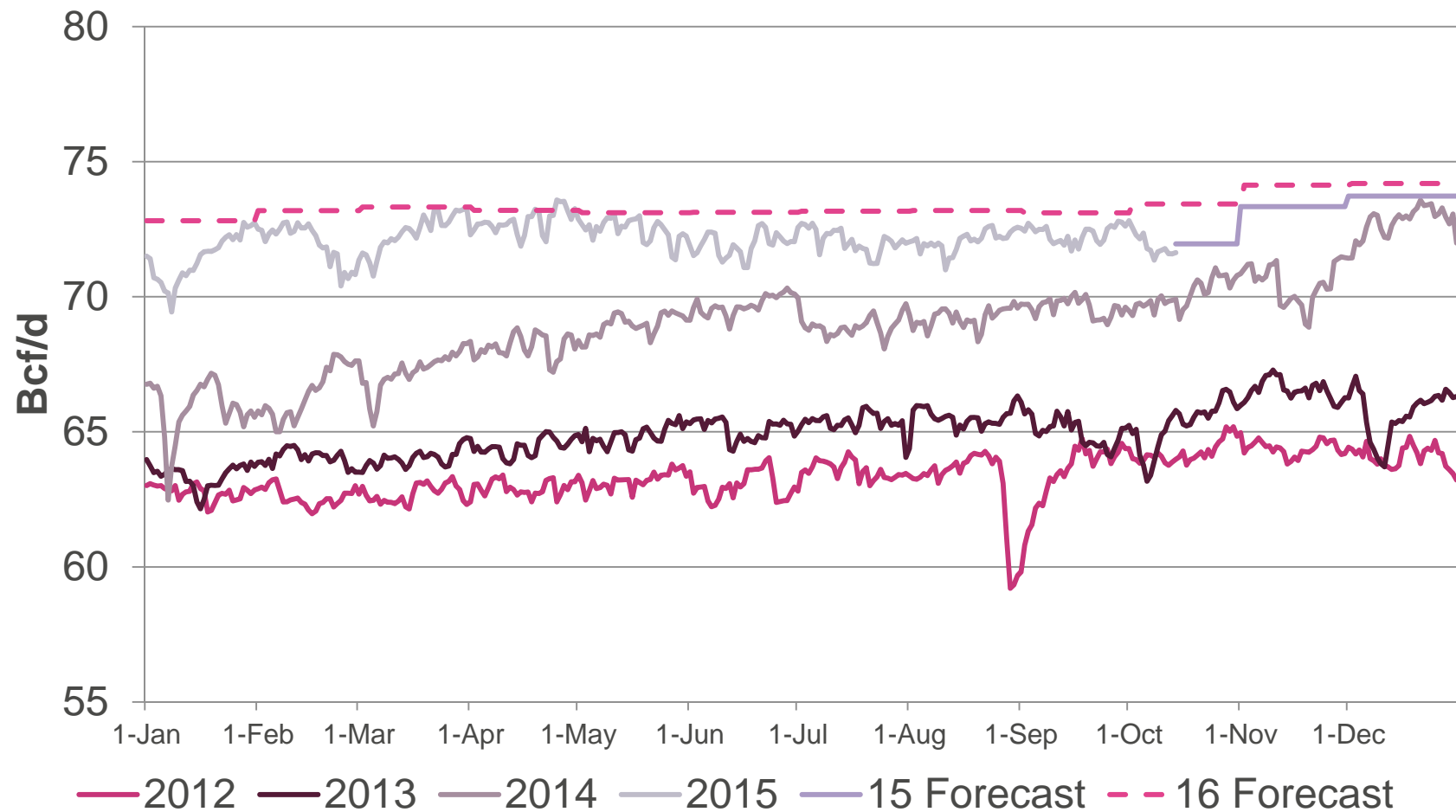
# IRR SENSITIVITY ACROSS VARIOUS NG PRICES



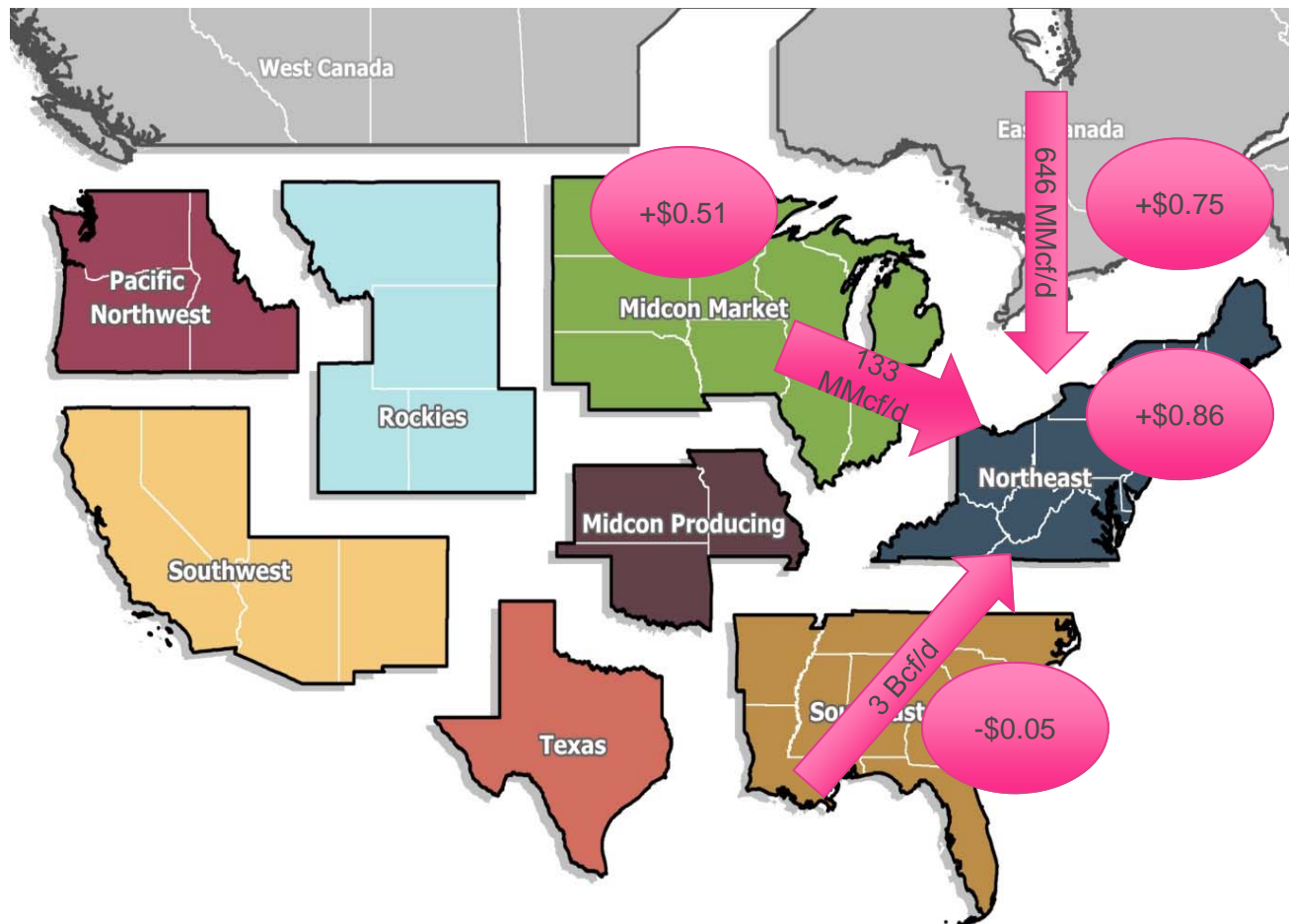
## DRILLING EFFICIENCIES



## US GAS PRODUCTION STAGNATING



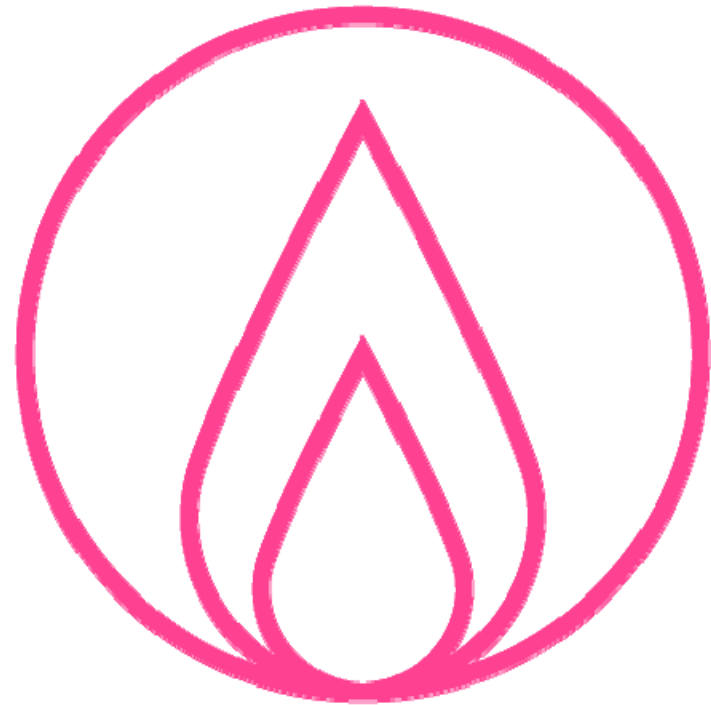
# HISTORICAL NATURAL GAS FLOW



\*Average flow and regional prices are calculated from Winter11/12 to Summer15.  
 -NE Avg Price is a simple average of TCO, Dominion South, and Algonquin CG.  
 -SE is represented by Tenn 800L.  
 -MidCon is represented by Northern Ventura.  
 -East Canada is represented by Dawn.

## SECTION NO. 2

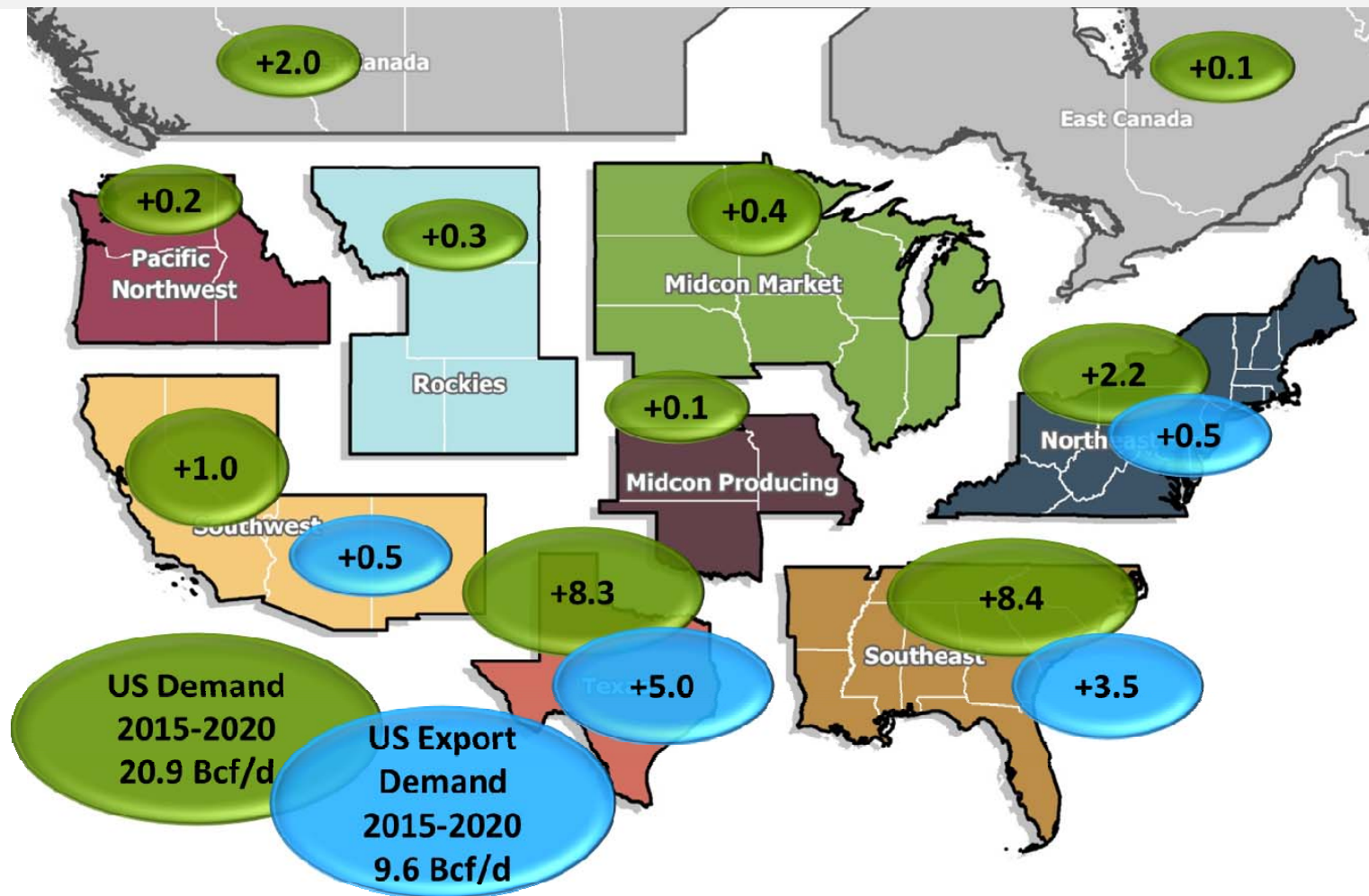
# NATURAL GAS FUNDAMENTAL AND PRICE OUTLOOKS



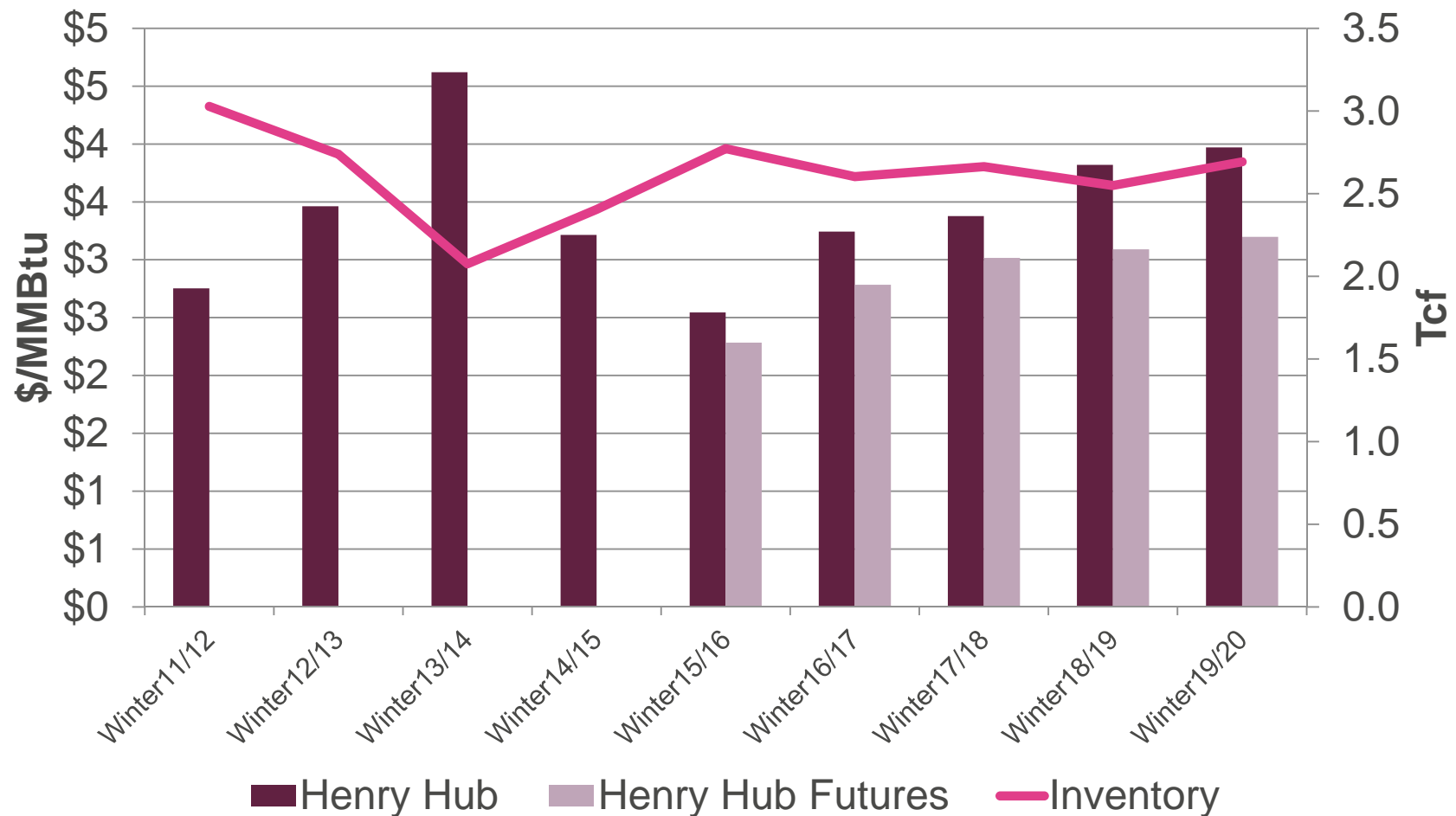
## NEW INFRASTRUCTURE KEY TO GAS GROWTH



## NEW DEMAND EMERGES IN SE AND TX

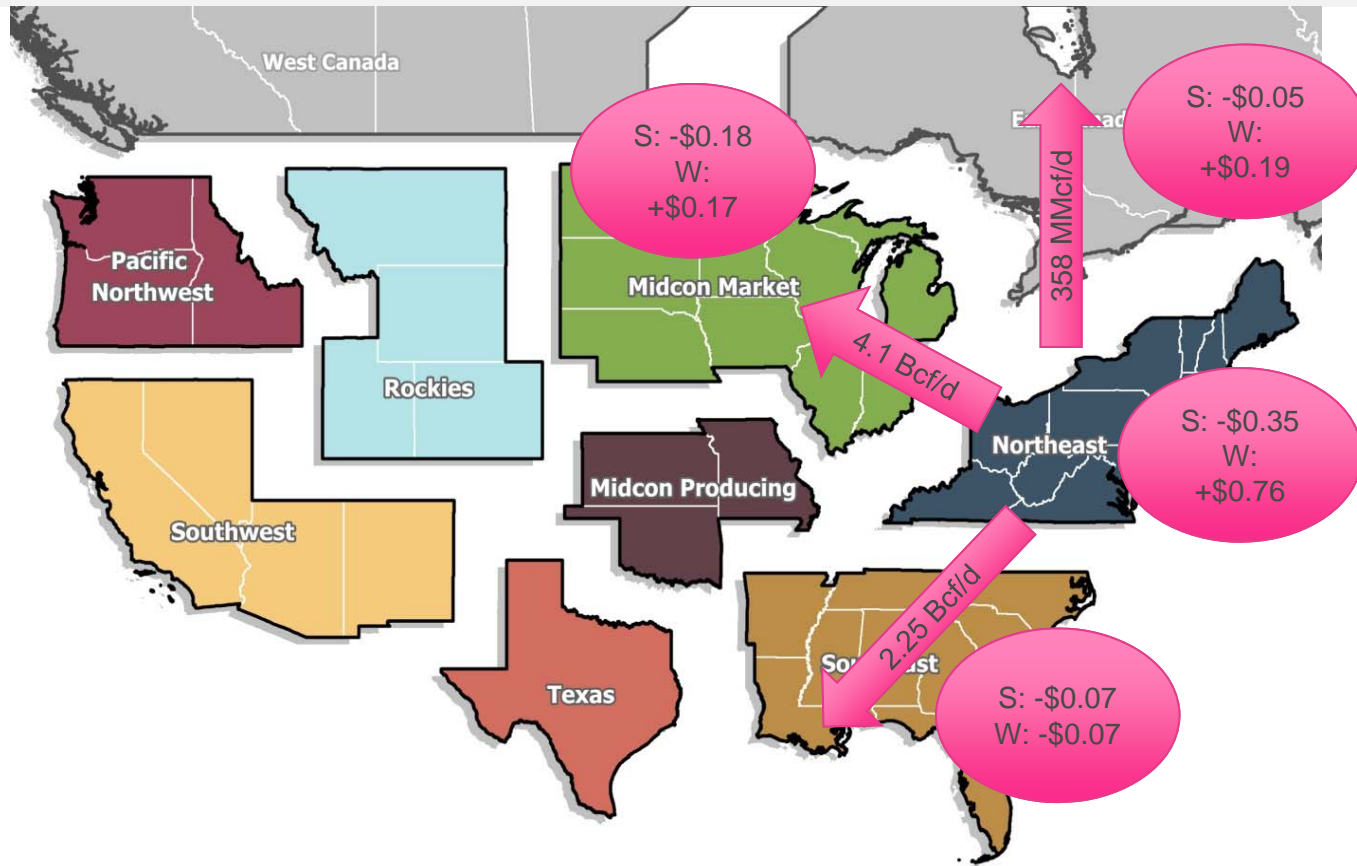


## HENRY HUB GAS PRICE FORECAST VS. FUTURES





# NEW NATURAL GAS FLOW – THROUGH 2020



\*Average flow and regional prices are calculated from Jan16 to Dec20.

- NE Avg Price is a simple average of TCO, Dominion South, and Algonquin CG.
- SE is represented by Tenn 800L.
- MidCon is represented by Northern Ventura.
- East Canada is represented by Dawn.

## KEY TAKEAWAYS AND RECAP

### **Recap of US natural gas fundamentals**

- Last few winters and price relationships

### **Despite low prices, oil and gas production continues**

### **Outlooks for natural gas fundamentals and price**

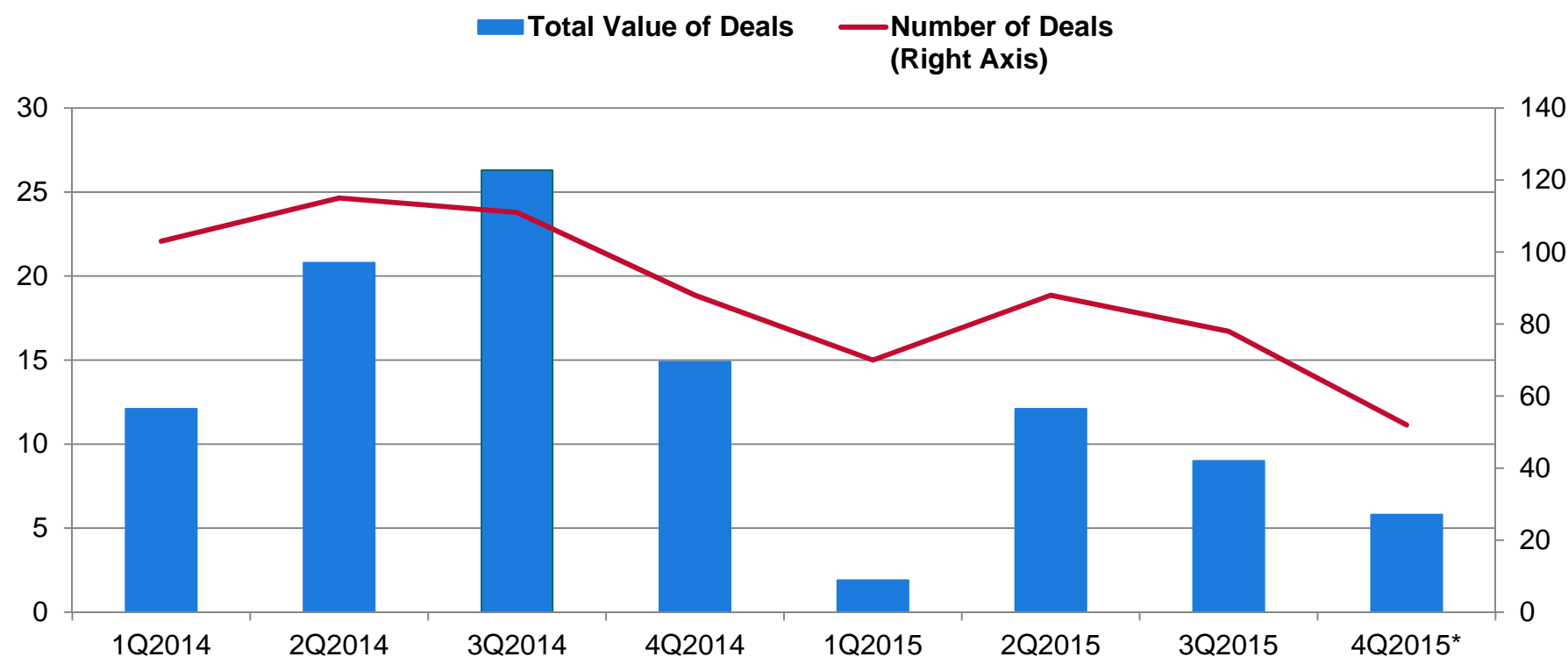
- Continued production yields bearish near-term prices

# The Outlook For The U.S. Energy Sector

**Richard Peterson**  
Senior Director, Global Markets Intelligence  
S&P Capital IQ

December 9, 2015

# Announced U.S. Oil & Gas Exploration And Production M&A



Source: S&P Capital IQ. Past performance is not indicative of future results.

\*Information as of December 7, 2015.

# U.S. Oil & Gas Exploration And Production M&A Summary

Valuation Summary	2014 YTD	2015 YTD
Total Deal Value(\$mm):	73,479.5	28,859.27
Average Deal Value:	267.20	164.91
Average TEV/Revenue:	17.96	4.36
Average TEV/EBITDA:	12.01	4.35
Average Day Prior Premium(%):	-11.99	( 27.0)
Average Week Prior Premium(%):	-9.19	( 29.78)
Average Month Prior Premium(%):	-6.83	( 33.65)

Number of Deals by Transaction Ranges	2014 YTD	2015 YTD
Greater than \$1 billion	5	5
\$500 - \$999.9mm	8	8
\$100 - \$499.9mm	38	38
Less than \$100mm	124	124
Undisclosed	112	112
<b>Total</b>	<b>406</b>	<b>287</b>

TEV = Total Enterprise Value.

Source: S&P Capital IQ. Information as of December 7, 2015.

# Active Buyers – U.S. Oil & Gas Exploration And Production M&A

## 2015 YTD

**Most Active Buyers/Investors  
By Number of Transactions**

Company Name	Number of Transactions
America Resources Exploration Inc. (OTCPK:AREN)	8
Southern Energy Group, Inc.	6
Earthstone Energy, Inc. (AMEX:ESTE)	4
Northern Oil and Gas, Inc. (AMEX:NOG)	4
Jericho Oil Corporation (TSXV:JCO)	3
Parsley Energy, Inc. (NYSE:PE)	3
Permex Petroleum Operating Ltd.	3
Synergy Resources Corporation (AMEX:SYRG)	3
Aethon Energy Management LLC	2
Aresco, LP	2

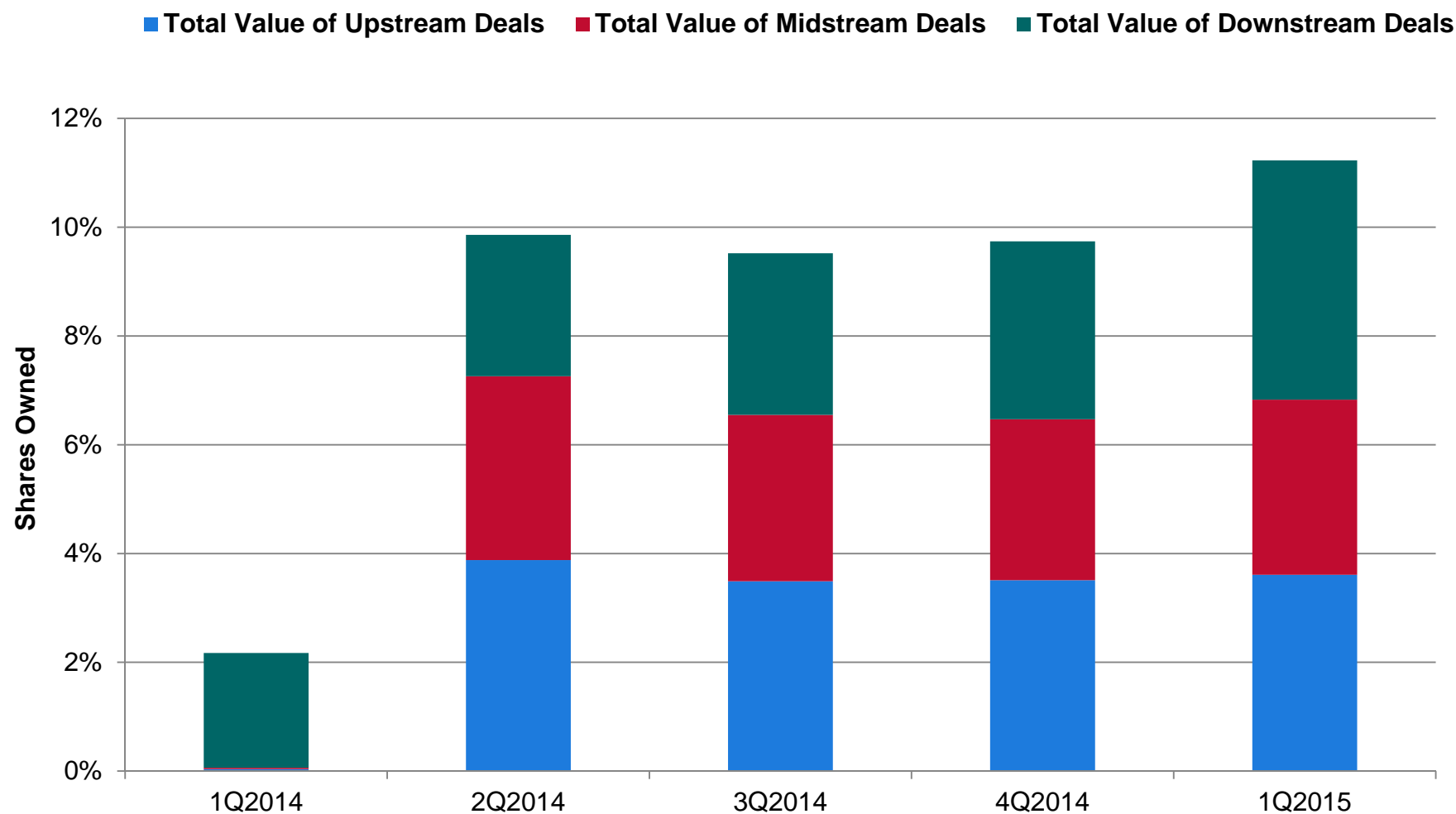
**Most Active Buyers/Investors  
By Total Transaction Size**

Company Name	Total (\$mm)
Noble Energy, Inc. (NYSE:NBL)	3,898.4
WPX Energy, Inc. (NYSE:WPX)	3,236.0
Global Infrastructure Partners	2,675.0
Enterprise Products Operating LLC	2,150.0
Moss Creek Resources LLC	1,300.0
Vanguard Natural Resources, LLC (NasdaqGS:VNR)	1,199.2
Canada Pension Plan Investment Board	900.0
The Broe Companies, Inc.	900.0
EnerVest, Ltd.	876.0
GSO Capital Partners LP	850.0

Source: S&P Capital IQ. Information as of December 7, 2015.

Please note: The above table has been sorted by number of transactions and transaction value.

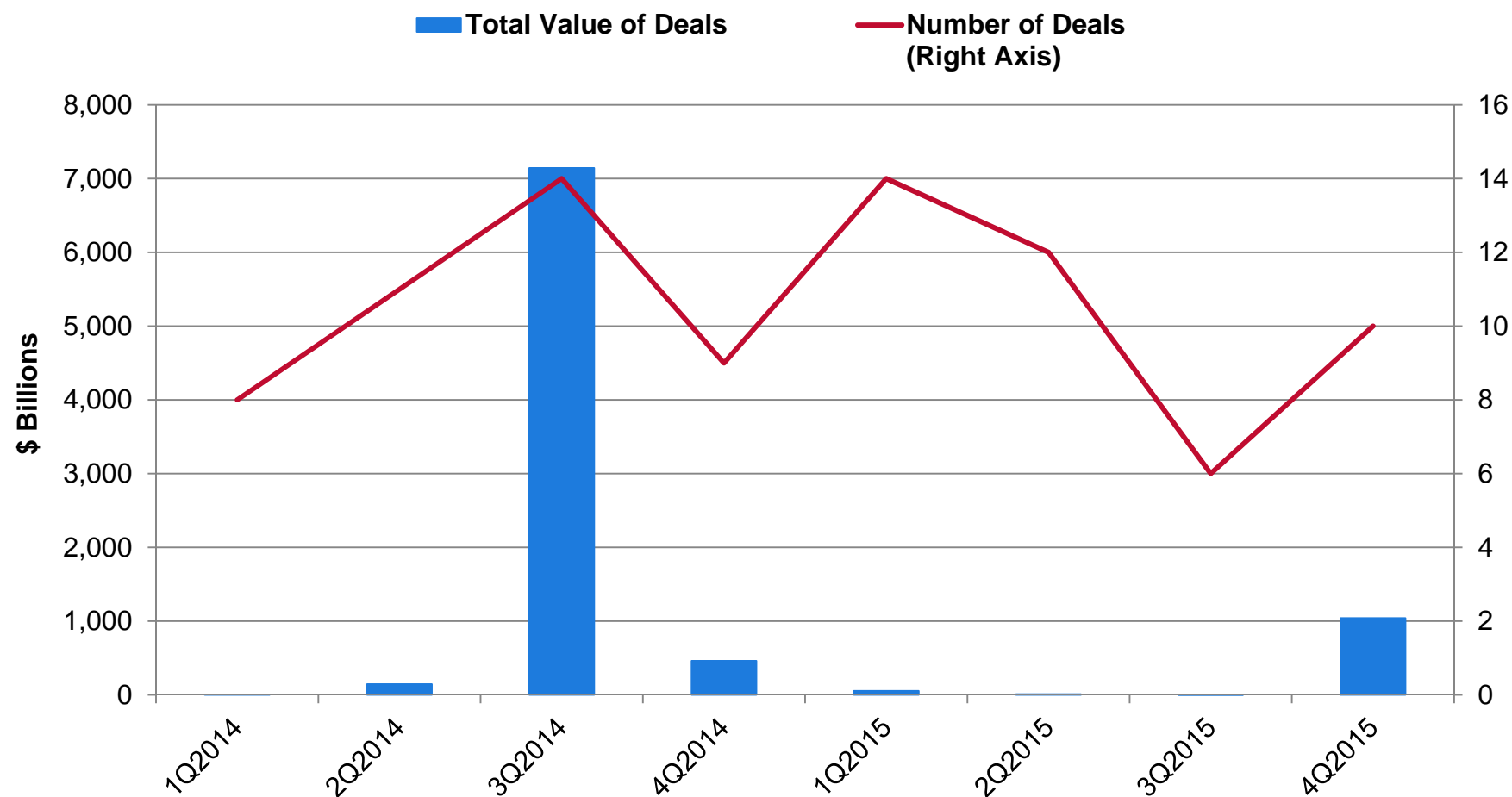
# Activist Investor Stakes In S&P 1500<sup>®</sup> Energy Areas\*



Source: S&P Capital IQ, Information as of December 7, 2015.

\*Average ownership stake. Past performance is not indicative of future results.

# Foreign Buyers In U.S. Oil & Gas Exploration And Production Industry



Source: S&P Capital IQ. Data as of December 7, 2015. Past performance is not indicative of future results.



# Foreign Buyers In U.S. Oil & Gas Exploration And Production Industry

## 2015 YTD

### Most Active Buyers/Investors By Number of Transactions

Company Name	Number of Transactions
Jericho Oil Corporation (TSXV:JCO)	3
Permex Petroleum Operating Ltd.	3
Cardiff Energy Corp. (TSXV:CRS)	2
Falcon Crest Energy Inc.	2
Nostra Terra Oil & Gas Company plc (AIM:NTOG)	2
Red Sky Energy Limited (ASX:ROG)	2
US Energy Group AB (OM:USE B)	2
Abilene Oil and Gas Limited (ASX:ABL)	1
Arctic Hunter Energy Inc. (TSXV:AHU)	1
Artek Exploration Ltd	1

### Most Active Buyers/Investors By Total Transaction Size

Company Name	Total (\$mm)
Canada Pension Plan Investment Board	900.0
The Broe Companies, Inc.	900.0
ORLEN Upstream Sp z o.o.	133.8
Palang Sophon Offshore Pte. Ltd	20.1
Kelt Exploration Ltd. (TSX:KEL)	17.7
Artek Exploration Ltd	17.7
Sundance Energy Australia Limited (ASX:SEA)	10.3
Jericho Oil Corporation (TSXV:JCO)	8.1
Incremental Oil and Gas Limited (ASX:IOG)	6.3
BE Resources Inc.	3.5

### Merger & Acquisition Statistics

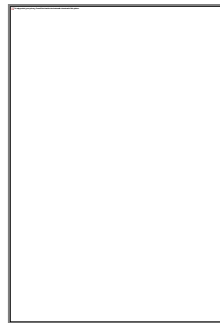
Valuation Summary	
Total Deal Value(\$mm)	1,108.32
Average Deal Value	46.18
Average TEV/Revenue	4.72
Average TEV/EBITDA	-
Average Day Prior Premium (%):	(41.03)

Number of Deals by Transaction Ranges	
Greater than \$1 billion	0
\$500 - \$999.9mm	1
\$100 - \$499.9mm	1
Less than \$100mm	22
Undisclosed	18

Source: S&P Capital IQ. Information as of December 7, 2015

Please note: The above table has been sorted by number of transactions and transaction value.

# Q&A



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# Thank You

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# Speaker Biographies

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## **Brian Batson, Ph.D.**

Senior Analyst, Quantitative Modeling, Bentek Energy

Dr. Batson currently leads the North American power and gas risk modeling team, and is mainly responsible for the research and development of quantitatively derived forward curves and implied volatilities. In addition, Dr. Batson one of the main contributors to Bentek's fundamentally-based natural gas basis forecasts, where forecasts are derived at regional gas trading hubs with monthly granularity. Prior to joining Bentek/Platts, Dr. Batson worked in oilfield services with the supply chain management group of Schlumberger. He then received his PhD in Energy Economics from Colorado School of Mines, specializing in econometrics and intertemporal optimization.

## **Richard Peterson**

Senior Director, Global Markets Intelligence, S&P Capital IQ

Richard Peterson is Senior Director, Global Markets Intelligence (GMI) at S&P Capital IQ. In his current role, Richard provides in-depth evaluation of capital markets activity from M&A transactions, IPO issuance, corporate cash balances and fixed-income underwriting. His analysis is featured in several GMI publications including Deal Detector, M&A Trends, IPO Trends, and Corporate Cash Trends. Also, he provides commentary to The Lookout Report as well as CUSIP Global Services' CUSIP Trends, a monthly compilation of new securities identifier trends. Previously he served as Chief Market Strategist at Securities Data Company and Senior Research Analyst at Thomson Reuters Propriety Research. Richard is the author of Inside IPOs (McGraw-Hill) and has frequently appeared on CNBC, Fox Business and other financial media programs as well as being quoted in The Wall Street Journal, Financial Times, The New York Times and Barron's. He previously wrote an IPO column for CNET.com. Richard holds a Bachelor of Arts from Rutgers University, attended Rutgers Graduate School and earned a J.D. from Rutgers Law School.

Richard frequently contributes his capital markets insights on Twitter: @SPCapitalIQ

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