



# **U.S. Energy and Utilities Comps Analysis**

TresVista Financial Services

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# Introduction

As the United States continues to maintain its place as a major producer of both oil and gas, historical energy trade patterns are shifting. The country can now satisfy roughly 90% of its energy needs from domestic sources, up from 70% in 2005.

The U.S. remains the world's largest consumer and importer of oil, however, its crude oil imports dropped 3% yoy as of January 2015. Some North American E&P companies are even spinning off their international assets to focus on serving more stable domestic markets, redrawing the lines of supply and demand at the exploration level as well.

With the loss of the U.S. as an anchor market, the world's major oil suppliers are casting about for new buyers. Over the past four years, the U.S. completed roughly 20,000 new shale wells. This has boosted its oil production to nearly 9 MMbbl/d, a number that rises to 12.5 MMbbl/d when natural gas liquids are included. Since 2008, U.S. tight oil supply has risen from 0.5% of the world's total to 3.7% as of 2015.

As per Statista.com the value added by the U.S. oil and gas extraction industry came to ~\$38bn in 1998. As of 2014 the value added stood at ~302.2bn.

This analysis includes an overview of the U.S. Energy and Utilities Sector wherein we have evaluated the midcap energy and utility companies to notice the trends in the industry.

- We have divided the analysis into 2 segments U.S. Energy (Oil and Gas) and U.S. Utilities Sector (Gas Distributors and Electric Utilities)
- The Energy sector is sub divided into 3 categories:
  1. **Upstream Companies**
  2. **Midstream Companies**
  3. **Downstream Companies**
- The Utilities sector is sub divided into 2 categories:
  1. **Gas Distributors**
  2. **Electric Utilities**

# Methodology

## Energy Sector

1. **Upstream Companies:** Upstream firms deal primarily with the exploration and initial production stages of the oil and gas industry. We have focused on the top 6 companies having a market cap of ~4bn to 5bn

Companies Covered: **Energen Corporation (EGN); Murphy Oil Corporation (MUR); Chesapeake Energy Corporation (CHK); QEP Resources, Inc. (QEP); Rice Energy, Inc. (RICE); WPX Energy, Inc. (WPX)**

2. **Midstream Companies:** Midstream sector involves the transportation (by pipeline, rail, barge, oil tanker or truck), storage, and wholesale marketing of crude or refined petroleum products. We have included the top 5 companies based on a market cap of ~1bn to 5bn

Companies Covered: **Tesoro Logistics LP (TLLP), Genesis Energy, L.P. (GEL); NuStar Energy L.P. (NS); Rice Midstream Partners LP (RMP); Western Refining Logistics LP (WNRL)**

3. **Downstream Companies:** The downstream sector refers to the refining of petroleum crude oil and the processing and purifying of raw natural gas, as well as the marketing and distribution of products derived from crude oil and natural gas. We have focused on the top 6 companies based on a market cap of ~1bn to 5bn

Companies Covered: **HollyFrontier Corporation (HFC); Black Stone Minerals LP (BSM); Western Refining, Inc. (WNR); PBF Energy, Inc. (PBF); CVR Energy, Inc. (CVI); Delek US Holdings, Inc. (DK)**

## Utilities sector

1. **Gas Distributors:** Local Distribution Companies (LDCs) are regulated utilities involved in the delivery of natural gas to consumers within a specific geographic area. We have focused on the top 5 distributors with a market cap of 3bn to 5bn

Companies Covered: **MDU Resources Group, Inc. (MDU); Questar Corporation (STR); Vectren Corporation (VVC); Southwest Gas Corporation (SWX); WGL Holdings, Inc (WGL)**

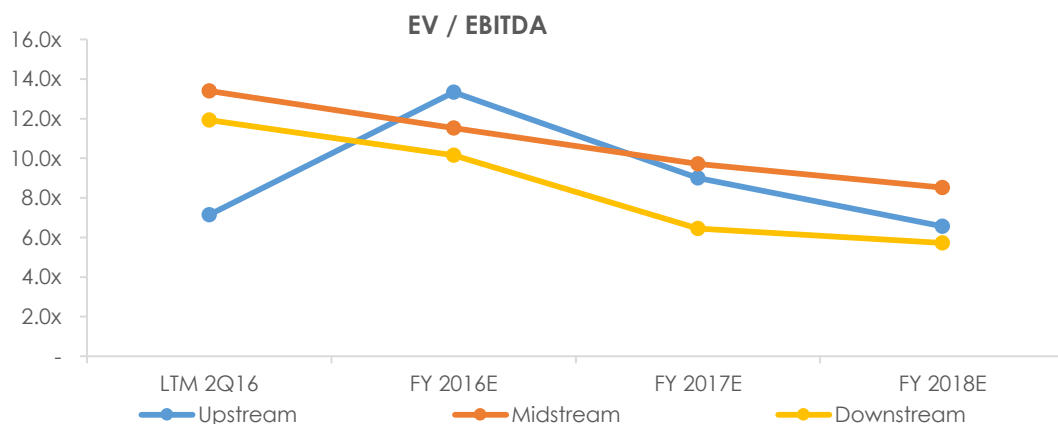
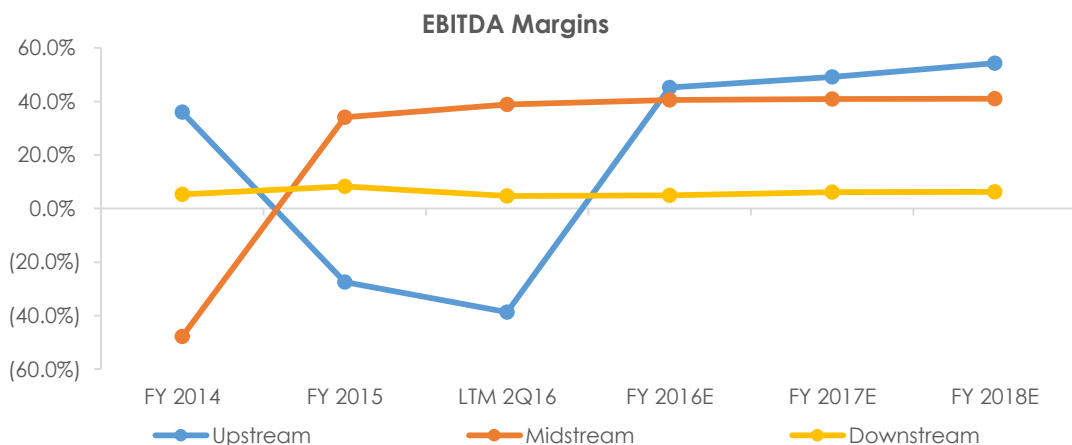
2. **Electric Utilities:** An electric utility is a company in the electric power industry (often a public utility) that engages in electricity generation. We have focused on top 6 companies with a market cap of 3bn to 5bn

Companies Covered: **Great Plains Energy Inc (GXP); NRG Energy, Inc. (NRG); IDACORP, Inc. (IDA); Portland General Electric Company (POR); Hawaiian Electric Industries, Inc. (HE); Black Hills Corporation (BKH)**

# U.S. Energy Sector (Oil and Gas)

## Energy Sector:

- Declining oil prices have taken a toll on the global oil and gas industry. In December 2014, West Texas Intermediate (WTI) crude prices dropped from over \$100 per barrel to less than \$60 per barrel, with Brent Oil prices following the suit. The significant drop in prices reflects a supply glut coupled with a weaker global demand amid concerns over slowing economic growth around the world
- Evidently, the Upstream players experienced a significant decline in margins during 2015, with improvements expected only post 2016. Midstream and Downstream companies on the other hand, since are impacted minimally by the falling prices in the short run, enjoy stable margins
- The implied valuation in the short term reflect the same scenario with a upward sloping curve for Upstream, and a downward sloping curve for Mid and Downstream companies. Midstream companies typically generate revenue from volume based long-term contracts to use their pipelines, processing plants, and storage capacity, that generate steady cash flow for a considerable period of time

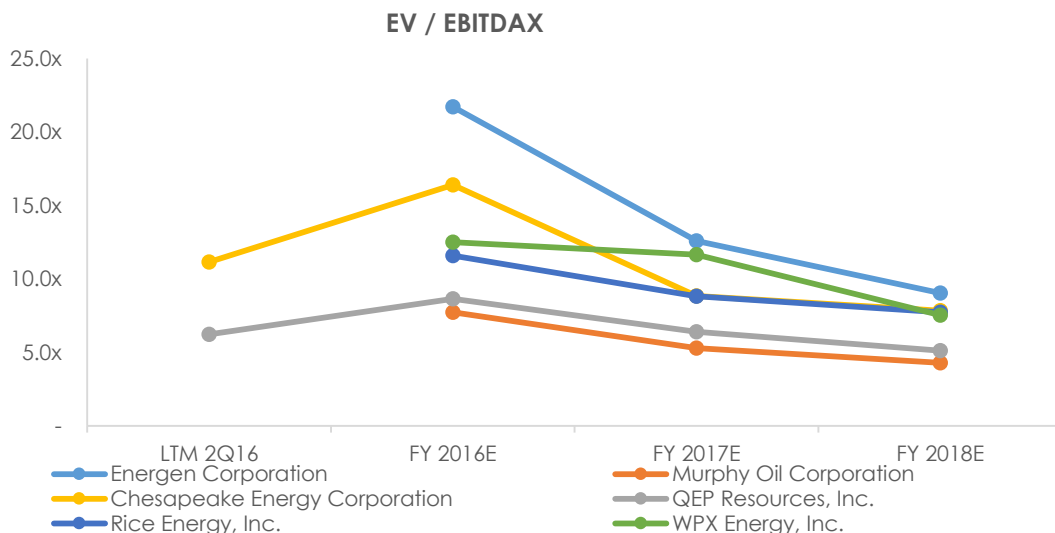
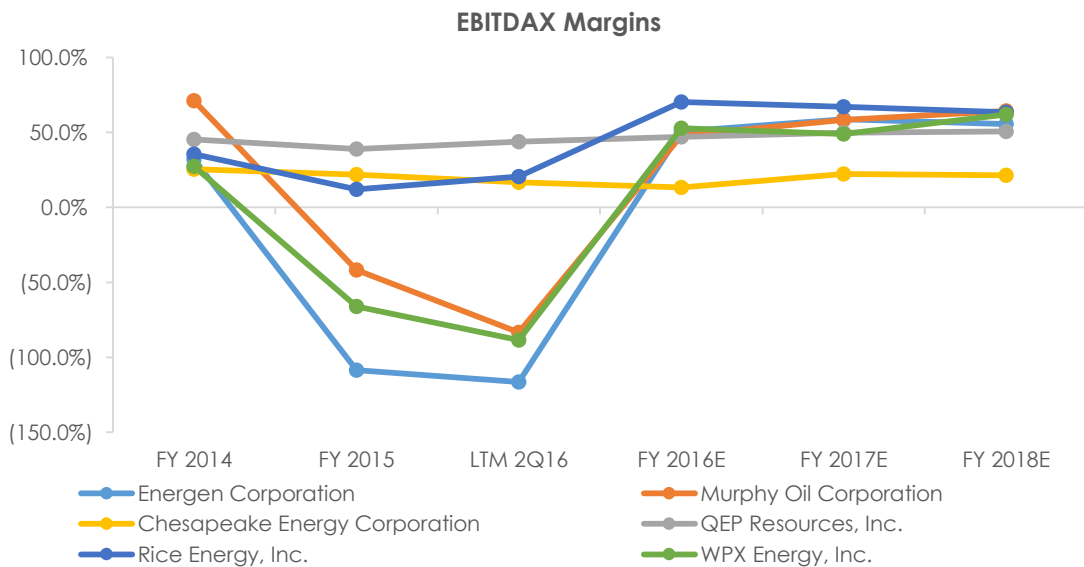


EV/EBITDA limits Min. 0.0x and Max. 30.0x

# U.S. Energy Sector (Oil and Gas)

## Upstream EBITDAX Margins:

- As Exploration and Production companies incur exploration costs, we have incorporated the EBITDAX metric for our analysis
- For 2016E the mean EBITDAX margins from our compset is 47.1% for the estimated 2016 year. Rice Energy, Inc. commands the highest margins in the compset at 70.4%. The companies experienced narrower margins during 2015, which further declined for LTM 2Q16 (Median EBITDAX margin for LTM 2Q16 was -33.4%, largely driven by -116.4% EBITDAX margin of Energen Corporation). However, EBITDAX Margins are expected to stabilize from the year 2016 to 2018

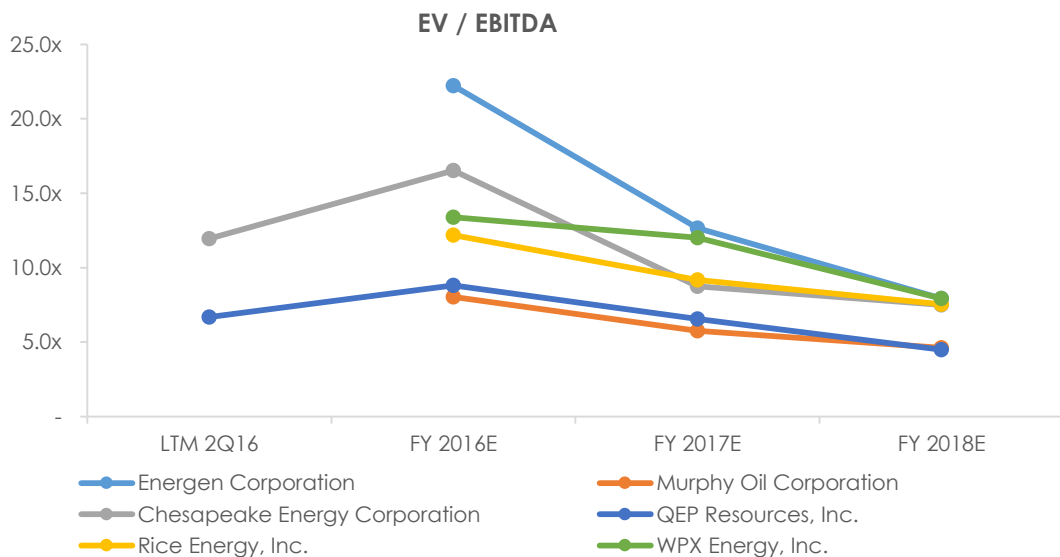
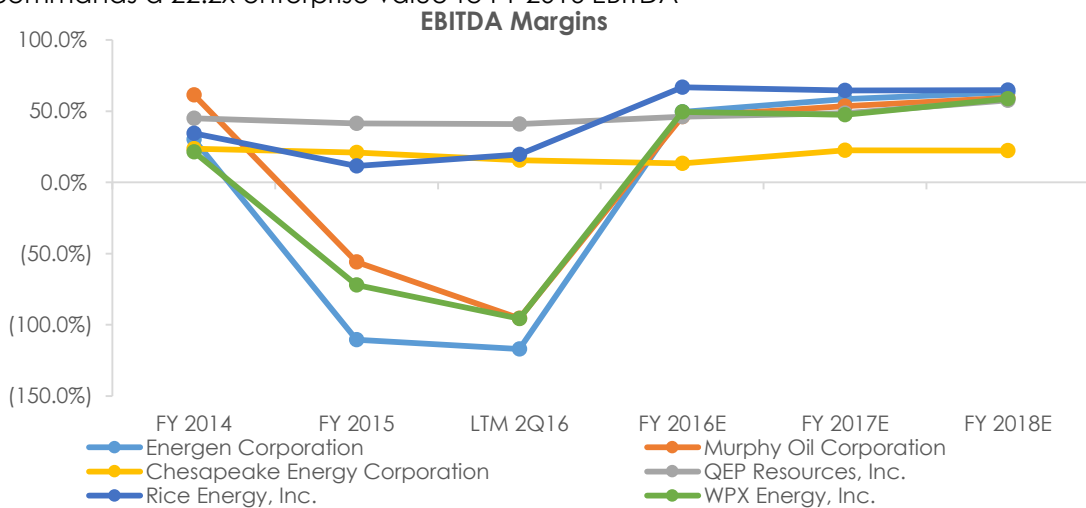


EV/EBITDAX limits Min. 0.0x and Max. 30.0x

# U.S. Energy Sector (Oil and Gas)

## Upstream EBITDA Margins:

- The EBITDA margins follow the same pattern, and lead to a median EBITDA margins for LTM 2Q16 of -40.0%, with QEP Resources, Inc. posting the highest margins at 40.9% and Energen Corporation posting the lowest margins at -117.0% on account of Impairment of Proved Properties in Permian Basin and San Juan Basin
- To counter the steep declines in margins arising mainly due to the lower oil prices, upstream companies have already begun to close the gap between spending and income by cutting costs and laying off workforce
- The comp-set has a mean EV/EBITDA multiple of 13.5x for FY 2016E, wherein Energen corp. commands a 22.2x enterprise value to FY 2016 EBITDA

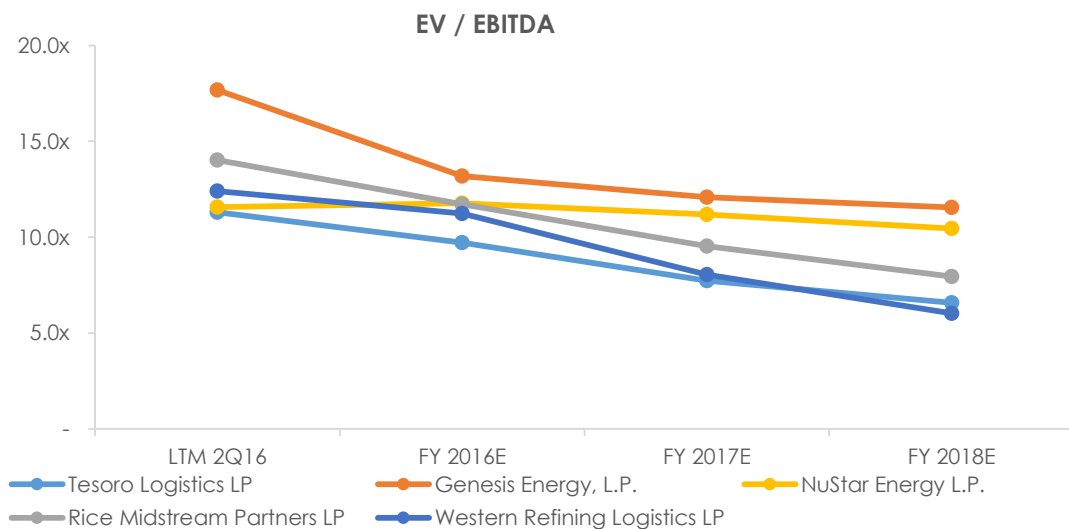
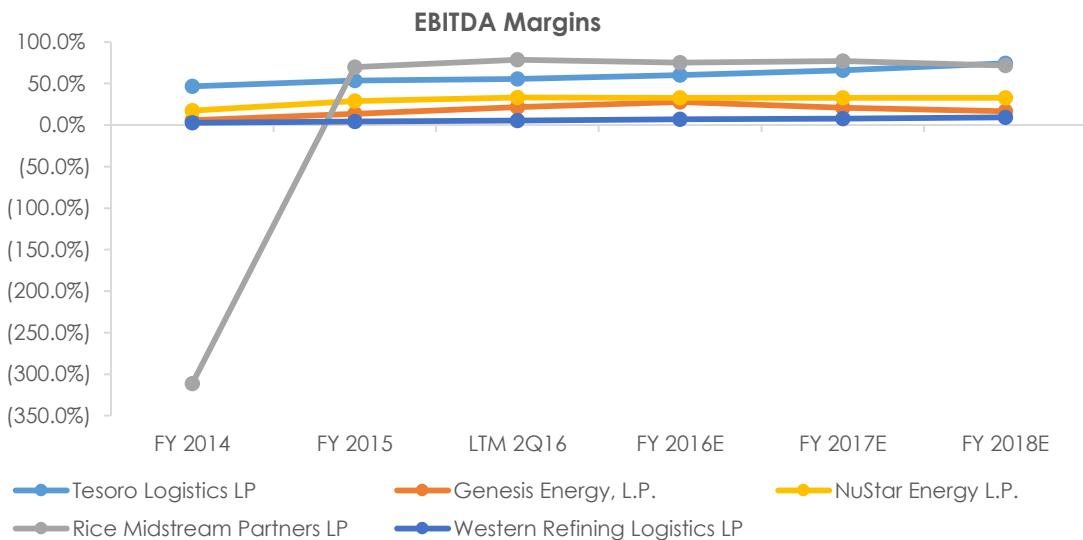


EV/EBITDA limits Min. 0.0x and Max. 30.0x

# U.S. Energy Sector (Oil and Gas)

## Midstream EBITDA Margins:

- Rice Midstream Partners commands the highest EBITDA margins in the compset, 78.8% as of LTM 2Q16, compared to the lowest margins of 5.3% posted by Western Refining Logistics LP
- The mean EV/EBITDA multiple for our midstream compset is 13.7x, with Genesis Energy L.P. commanding the highest multiple at 17.9x enterprise value to LTM 2Q16

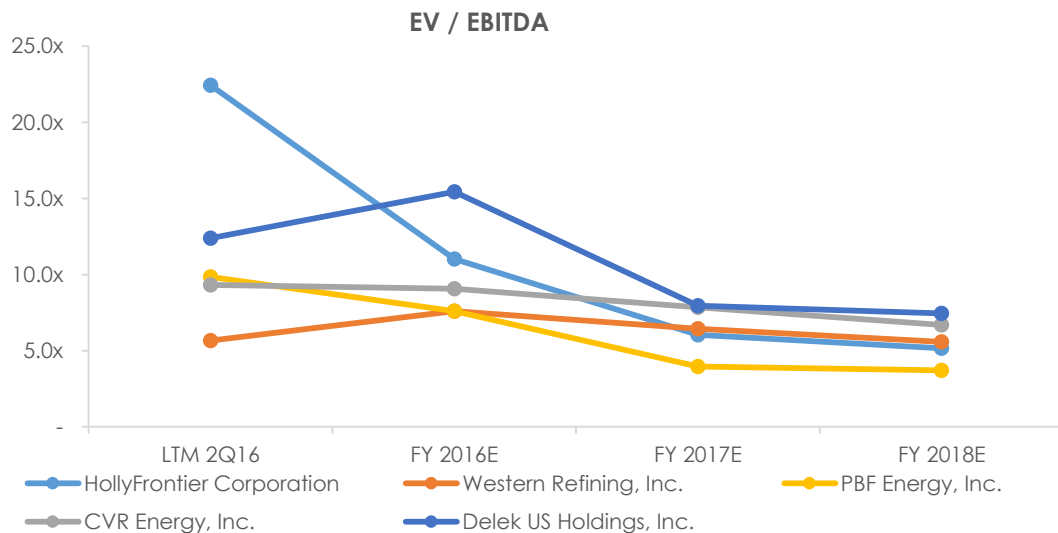
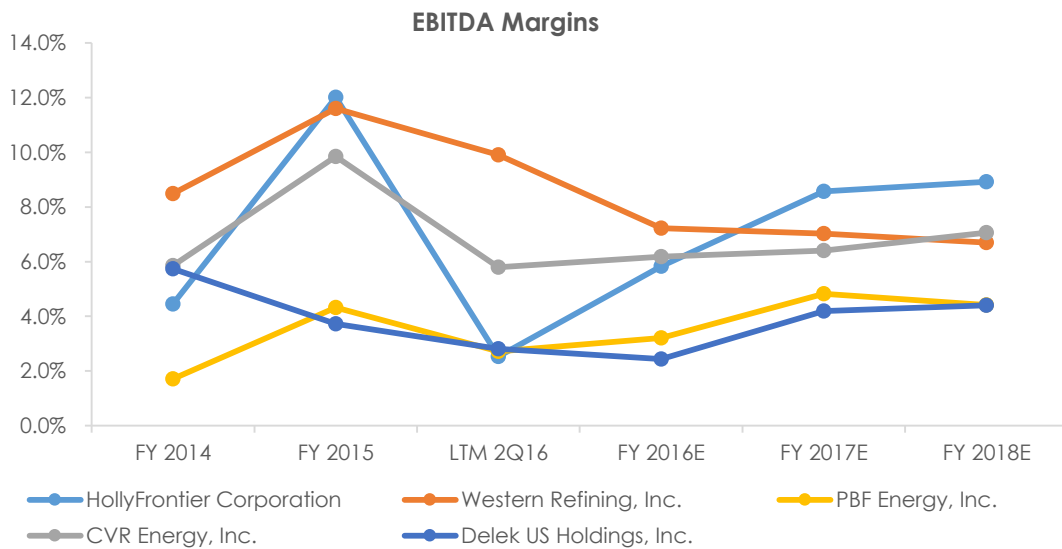


EV/EBITDA limits Min. 0.0x and Max. 30.0x

# U.S. Energy Sector (Oil and Gas)

## Downstream EBITDA Margins:

- During LTM 2Q16, the average EBITDA Margins for the Downstream compset stood at 4.8% with the highest Margins being posted by Western Refining Inc., 9.9% and the lowest 2.5% being posted by HollyFrontier Corp
- The Average EV/EBITDA multiple in the compset stood at 11.9x during LTM 2Q16, with the highest being 22.4x for HolyFrontier Corp and the lowest being 6.2x for Western Refining Inc.



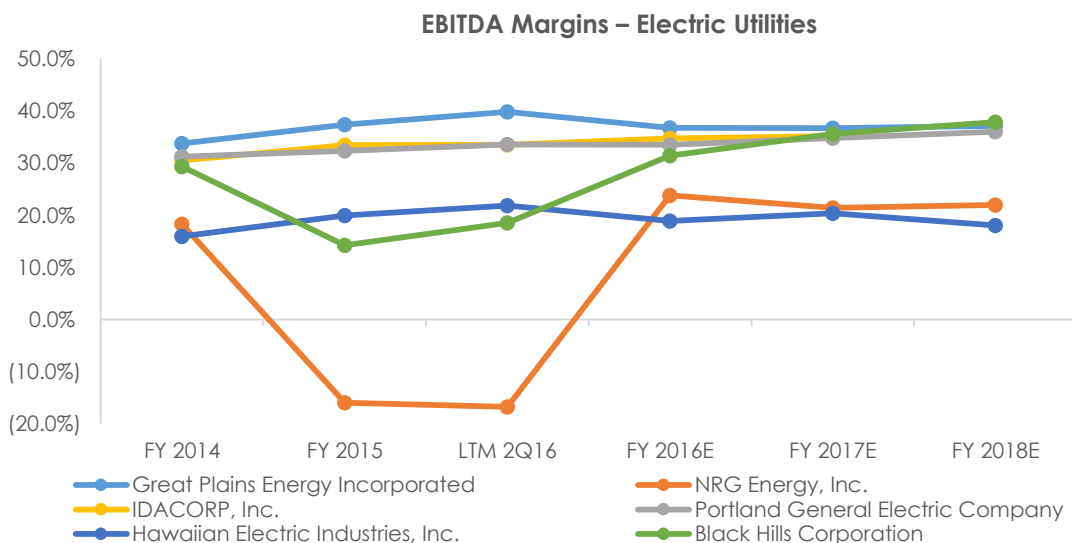
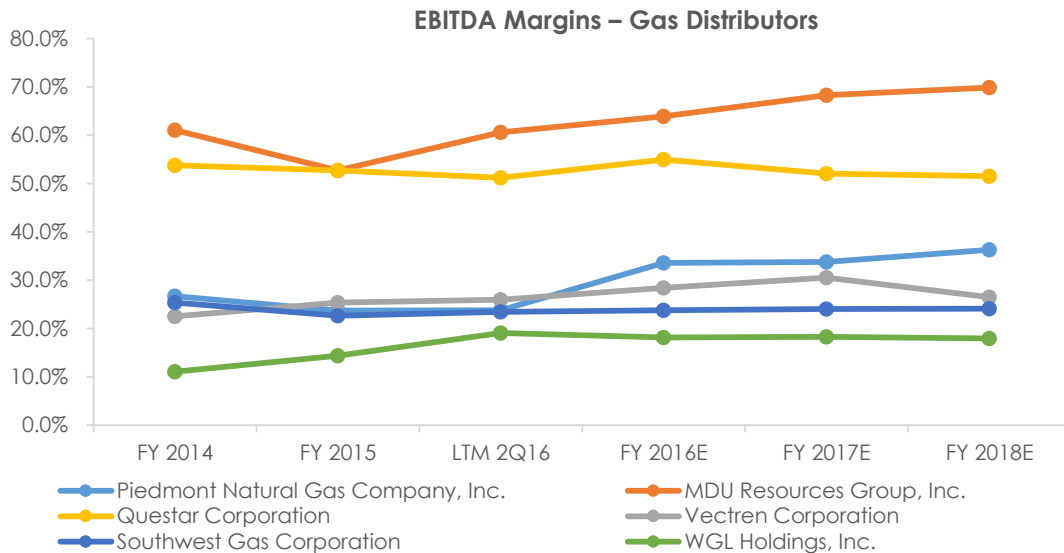
EV/EBITDA limits Min. 0.0x and Max. 30.0x



# U.S. Utilities Sector (Gas Distributors and Electric Utilities)

## Operating Margins:

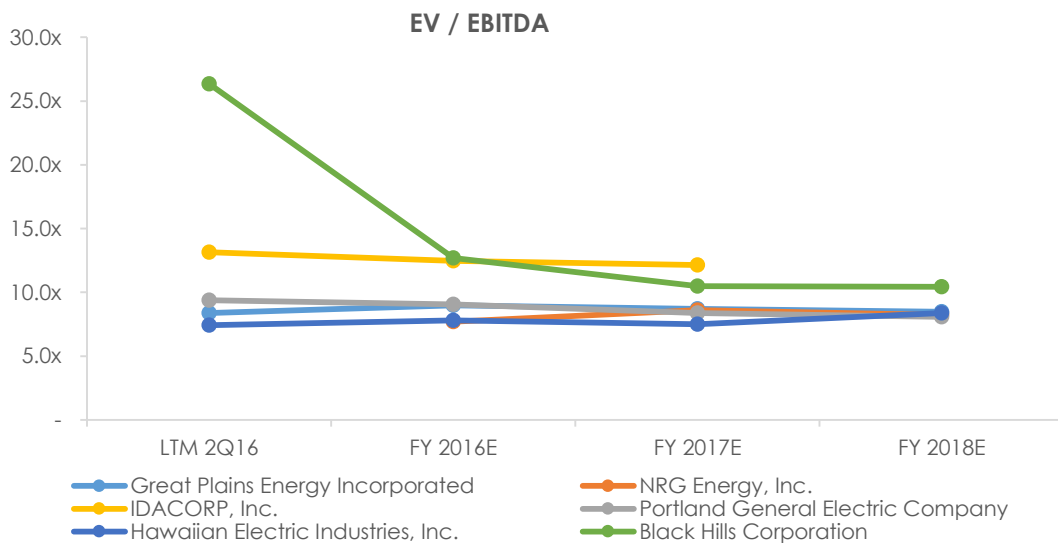
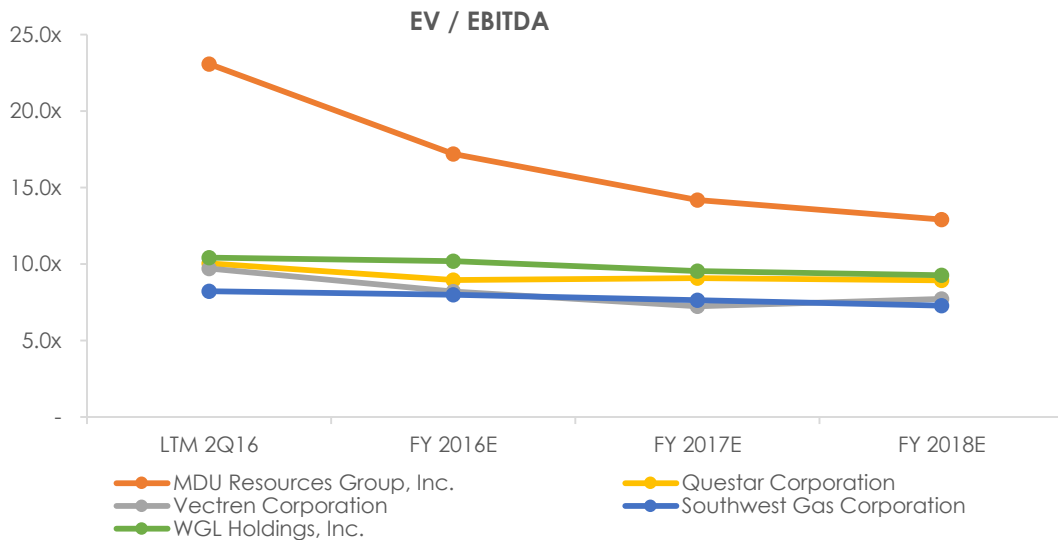
- For Gas Distributors, the average EBITDA margins in the comps set for the period LTM 2Q16 was 34.0%, with the highest margins posted by MDU Resources Group, Inc. of 60.6%. The Street estimates a sustained expansion in EBITDA margin in the next 3 years
- For Electric Utilities, the average EBITDA margins for the comparable period stood at 21.7%, with the highest margins posted by Great Plains Energy Inc. of 39.9%. The Street estimates a sustained expansion in EBITDA margin, and reach 30.2% by 2018



# U.S. Utilities Sector (Gas Distributors and Electric Utilities)

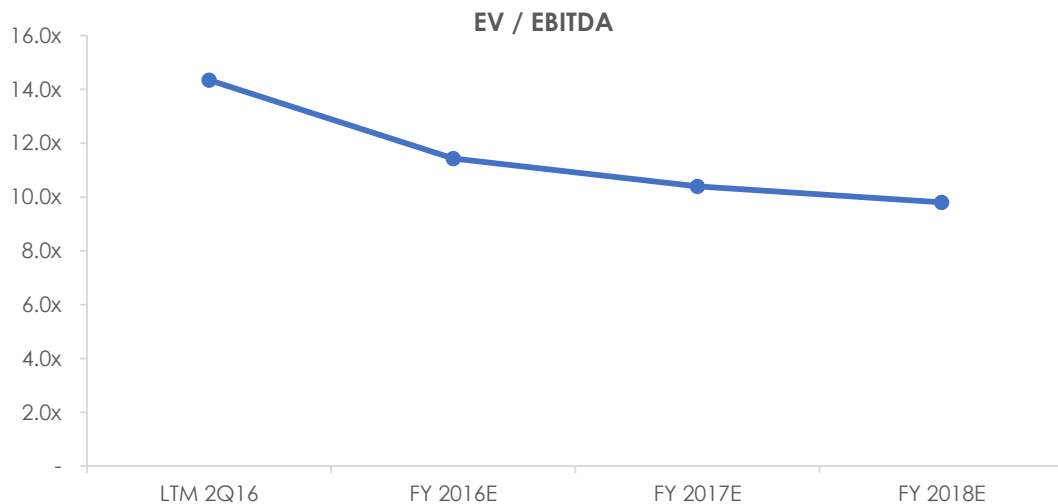
## Valuations:

- For Gas Distributors, the mean EV/EBITDA multiple for the comp set was 12.9x for LTM 2Q16
- For Electric Utilities, Great Plains with the strongest EBITDA margins is valued at a premium only to Hawaiian Electric in the entire peer group. The mean EV/EBITDA multiple for the comp set was 12.3x for LTM 2Q16

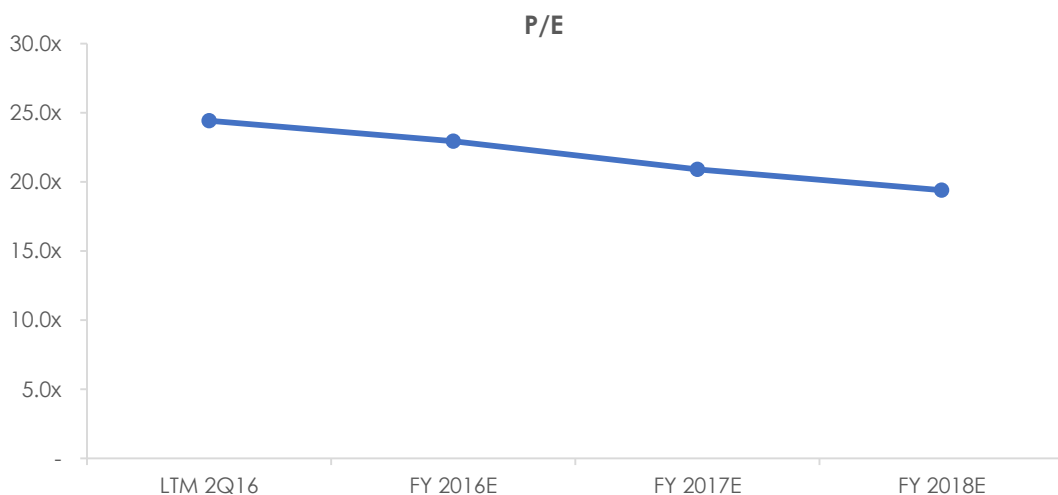


EV/EBITDA limits Min. 0.0x and Max. 30.0x

# U.S. Utilities Sector (Gas Distributors)

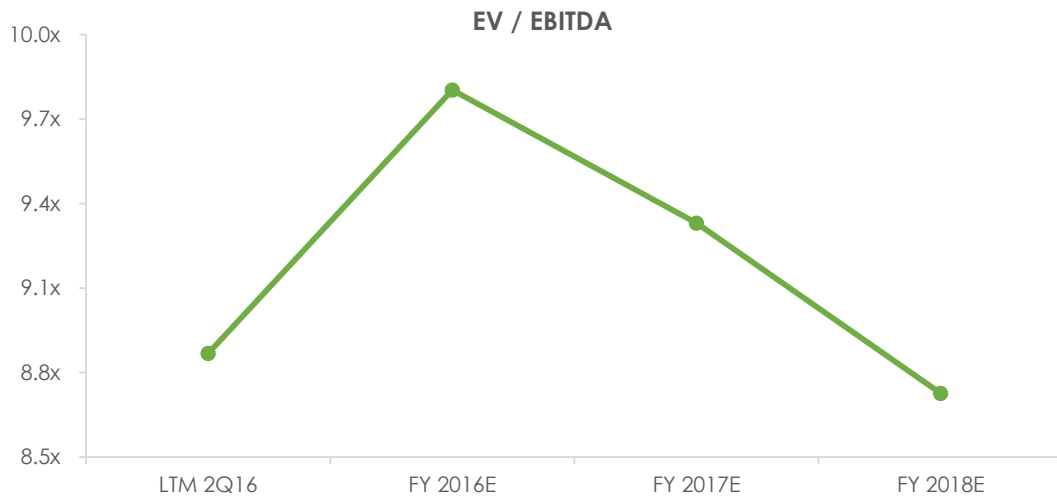


- Gas Distributors currently trade at a EV/EBITDA multiple 12.3x and are expected to trade lower going forward from 2016 to 2018

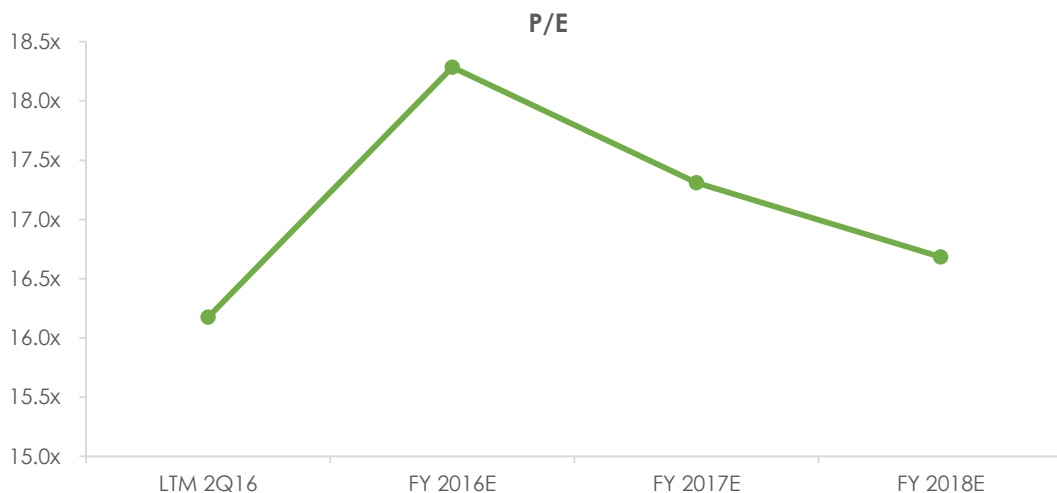


- Gas Distributors currently trade at a 21.1x P/E multiple and are expected to trade lower due to higher expected earnings from 2016 to 2018

# U.S. Utilities Sector (Electric Utilities)



- Electric Distributors currently trade at a 12.9x EV/EBITDA multiple and are expected to trade higher in 2016 and then continue the trend downwards due to increased EBITDA forecasts from 2016 to 2018



- Continuing with the same valuation trend, Electric Utilities currently trade at a 19.9x P/E multiple, and are expected to continue trade higher during 2016 and continue on a downward trend post 2016 largely due to increased earnings forecasts

# U.S. Energy Sector - Output

## Public Comparables

All figures in USD million except per share data

Source: Bloomberg

Company Name	Country	Market	Enterprise	EV / Sales			
		Cap	Value	LTM 2Q16	CY 2016E	CY 2017E	CY 2018E
<b>Upstream</b>							
Energen Corporation	United States	5,603.6	6,378.5	8.40x	NM	7.41x	5.02x
Murphy Oil Corporation	United States	4,995.5	7,052.3	3.22x	3.70x	3.08x	2.75x
Chesapeake Energy Corporation	United States	5,233.9	18,202.4	1.85x	2.19x	1.97x	1.67x
QEP Resources, Inc.	United States	4,243.3	5,399.6	2.73x	4.07x	3.18x	2.59x
Rice Energy, Inc.	United States	4,568.7	6,534.1	7.86x	8.15x	5.92x	4.89x
WPX Energy, Inc.	United States	4,358.7	6,398.7	3.91x	6.61x	5.70x	4.66x
High				8.40x	8.15x	7.41x	5.02x
Low				1.85x	2.19x	1.97x	1.67x
Mean				4.66x	4.95x	4.54x	3.60x
Median				3.57x	4.07x	4.44x	3.71x

Company Name	Country	Market	Enterprise	EV / Sales			
		Cap	Value	LTM 2Q16	CY 2016E	CY 2017E	CY 2018E
<b>Midstream</b>							
Tesoro Logistics LP	United States	4,715.0	7,251.0	6.21x	5.82x	5.06x	4.86x
Genesis Energy, L.P.	United States	4,112.1	7,310.9	3.87x	3.72x	2.55x	1.97x
NuStar Energy L.P.	United States	3,808.6	6,911.3	3.84x	3.89x	3.66x	3.43x
Rice Midstream Partners LP	United States	1,640.3	1,789.5	NM	9.45x	7.92x	6.14x
Western Refining Logistics LP	United States	1,235.2	1,530.8	0.67x	0.77x	0.64x	0.57x
High				6.21x	9.45x	7.92x	6.14x
Low				0.67x	0.77x	0.64x	0.57x
Mean				3.65x	4.73x	3.96x	3.39x
Median				3.85x	3.89x	3.66x	3.43x

Company Name	Country	Market	Enterprise	EV / Sales			
		Cap	Value	LTM 2Q16	CY 2016E	CY 2017E	CY 2018E
<b>Downstream</b>							
HollyFrontier Corporation	United States	4,700.8	6,407.1	0.57x	0.64x	0.52x	0.46x
Western Refining, Inc.	United States	2,758.3	5,046.7	0.62x	0.60x	0.50x	0.41x
PBF Energy, Inc.	United States	1,972.2	3,268.5	0.25x	0.23x	0.18x	0.15x
CVR Energy, Inc.	United States	1,241.7	2,599.0	0.56x	0.58x	0.52x	0.49x
Delek US Holdings, Inc.	United States	1,125.9	1,891.2	0.35x	0.37x	0.33x	0.33x
High				0.62x	0.64x	0.52x	0.49x
Low				0.25x	0.23x	0.18x	0.15x
Mean				0.47x	0.49x	0.41x	0.37x
Median				0.56x	0.58x	0.50x	0.41x

# U.S. Energy Sector - Output

## Public Comparables

All figures in USD million except per share data

Source: Bloomberg

Company Name	EV / EBITDA				EV / EBITDAX				P/E			
	LTM 2Q16	CY 2016E	CY 2017E	CY 2018E	LTM 2Q16	CY 2016E	CY 2017E	CY 2018E	LTM 2Q16	CY 2016E	CY 2017E	CY 2018E
<b>Upstream</b>												
Energren Corporation	NM	22.2x	12.7x	7.9x	NM	21.7x	12.6x	9.0x	NM	NM	NM	NM
Murphy Oil Corporation	NM	8.0x	5.8x	4.6x	NM	7.7x	5.3x	4.3x	NM	NM	NM	44.6x
Chesapeake Energy Corporation	12.0x	16.5x	8.7x	7.5x	11.1x	16.4x	8.8x	7.8x	NM	NM	9.4x	6.0x
QEP Resources, Inc.	6.7x	8.8x	6.5x	4.5x	6.2x	8.6x	6.4x	5.1x	NM	NM	NM	39.4x
Rice Energy, Inc.	NM	12.2x	9.2x	7.6x	NM	11.6x	8.8x	7.7x	NM	NM	NM	NM
WPX Energy, Inc.	NM	13.4x	12.0x	7.9x	NM	12.5x	11.7x	7.5x	NM	NM	NM	NM
High	12.0x	22.2x	12.7x	7.9x	11.1x	21.7x	12.6x	9.0x	-	-	9.4x	44.6x
Low	6.7x	8.0x	5.8x	4.5x	6.2x	7.7x	5.3x	4.3x	-	-	9.4x	6.0x
Mean	9.3x	13.5x	9.1x	6.7x	8.7x	13.1x	8.9x	6.9x	NA	NA	9.4x	30.0x
Median	9.3x	12.8x	9.0x	7.5x	8.7x	12.0x	8.8x	7.6x	NA	NA	9.4x	39.4x

Company Name	EV / EBITDA				P/E				EBITDA Margin			
	LTM 2Q16	CY 2016E	CY 2017E	CY 2018E	LTM 2Q16	CY 2016E	CY 2017E	CY 2018E	LTM 2Q16	CY 2016E	CY 2017E	CY 2018E
<b>Midstream</b>												
Tesoro Logistics LP	11.2x	9.7x	7.7x	6.5x	20.6x	16.0x	15.7x	13.7x	55.4%	60.3%	65.8%	74.3%
Genesis Energy, L.P.	17.9x	13.4x	12.3x	11.7x	9.0x	22.6x	17.3x	13.8x	21.6%	27.8%	20.8%	16.8%
NuStar Energy L.P.	11.6x	11.8x	11.2x	10.5x	20.5x	22.3x	21.0x	19.6x	33.1%	32.9%	32.7%	32.7%
Rice Midstream Partners LP	15.1x	12.6x	10.3x	8.5x	18.4x	15.0x	13.4x	NA	78.8%	75.1%	77.2%	71.9%
Western Refining Logistics LP	12.5x	11.4x	8.1x	6.1x	18.3x	17.3x	18.3x	12.1x	5.3%	6.8%	7.9%	9.4%
High	17.9x	13.4x	12.3x	11.7x	20.6x	22.6x	21.0x	19.6x	78.8%	75.1%	77.2%	74.3%
Low	11.2x	9.7x	7.7x	6.1x	9.0x	15.0x	13.4x	12.1x	5.3%	6.8%	7.9%	9.4%
Mean	13.7x	11.8x	9.9x	8.7x	17.4x	18.6x	17.1x	14.8x	38.8%	40.6%	40.9%	41.0%
Median	12.5x	11.8x	10.3x	8.5x	18.4x	17.3x	17.3x	13.8x	33.1%	32.9%	32.7%	32.7%

Company Name	EV / EBITDA				P/E				EBITDA Margin			
	LTM 2Q16	CY 2016E	CY 2017E	CY 2018E	LTM 2Q16	CY 2016E	CY 2017E	CY 2018E	LTM 2Q16	CY 2016E	CY 2017E	CY 2018E
<b>Downstream</b>												
HollyFrontier Corporation	22.4x	11.0x	6.0x	5.2x	NM	32.4x	12.5x	10.1x	2.5%	5.8%	8.6%	8.9%
Western Refining, Inc.	6.2x	8.4x	7.1x	6.1x	10.0x	19.0x	14.3x	11.3x	9.9%	7.2%	7.0%	6.7%
PBF Energy, Inc.	9.1x	7.0x	3.6x	3.4x	NM	33.2x	9.0x	10.5x	2.7%	3.2%	4.8%	4.4%
CVR Energy, Inc.	9.7x	9.4x	8.1x	6.9x	49.3x	36.7x	NM	NA	5.8%	6.2%	6.4%	7.1%
Delek US Holdings, Inc.	12.3x	15.4x	7.9x	7.4x	NM	NM	NM	43.9x	2.8%	2.4%	4.2%	4.4%
High	22.4x	15.4x	8.1x	7.4x	49.3x	36.7x	14.3x	43.9x	9.9%	7.2%	8.6%	8.9%
Low	6.2x	7.0x	3.6x	3.4x	10.0x	19.0x	9.0x	10.1x	2.5%	2.4%	4.2%	4.4%
Mean	11.9x	10.2x	6.6x	5.8x	29.6x	30.3x	11.9x	18.9x	4.8%	5.0%	6.2%	6.3%
Median	9.7x	9.4x	7.1x	6.1x	29.6x	32.8x	12.5x	10.9x	2.8%	5.8%	6.4%	6.7%

# U.S. Energy Sector - Output

## Public Comparables

All figures in USD million except per share data

Source: Bloomberg

Company Name	EBITDAX Margin				EBITDA Margin				CAGR (14-18)		CAGR (14-18)
	LTM 2Q16	CY 2016E	CY 2017E	CY 2018E	LTM 2Q16	CY 2016E	CY 2017E	CY 2018E	Sales	EBITDA	EBITDAX
<b>Upstream</b>											
Energen Corporation	(116.4%)	50.7%	58.9%	55.5%	(117.0%)	49.6%	58.6%	63.2%	(1.7%)	18.3%	12.7%
Murphy Oil Corporation	(83.4%)	48.0%	58.4%	64.3%	(95.5%)	46.1%	53.5%	59.5%	(16.6%)	(17.3%)	(18.7%)
Chesapeake Energy Corporation	16.6%	13.4%	22.3%	21.4%	15.5%	13.3%	22.5%	22.3%	(15.9%)	(17.1%)	(19.6%)
QEP Resources, Inc.	43.8%	47.1%	49.7%	50.7%	40.9%	46.2%	48.5%	57.6%	(10.7%)	(5.0%)	(8.2%)
Rice Energy, Inc.	20.5%	70.4%	67.1%	63.4%	19.5%	66.9%	64.5%	64.8%	37.6%	61.2%	59.1%
WPX Energy, Inc.	(88.4%)	52.9%	48.9%	61.9%	(95.7%)	49.4%	47.4%	58.8%	(17.3%)	6.4%	1.4%
High	43.8%	70.4%	67.1%	64.3%	40.9%	66.9%	64.5%	64.8%	37.6%	61.2%	59.1%
Low	(116.4%)	13.4%	22.3%	21.4%	(117.0%)	13.3%	22.5%	22.3%	(17.3%)	(17.3%)	(19.6%)
Mean	(34.5%)	47.1%	50.9%	52.9%	(38.7%)	45.2%	49.2%	54.4%	(4.1%)	7.7%	4.5%
Median	(33.4%)	49.3%	54.0%	58.7%	(40.0%)	47.8%	51.0%	59.1%	(13.3%)	0.7%	(3.4%)

Company Name	CAGR (14-18)	
	Sales	EBITDA
<b>Midstream</b>		
Tesoro Logistics LP	25.6%	41.2%
Genesis Energy, L.P.	(0.9%)	29.3%
NuStar Energy L.P.	(10.0%)	5.2%
Rice Midstream Partners LP	159.3%	NA
Western Refining Logistics LP	(6.4%)	29.1%
High	159.3%	41.2%
Low	(10.0%)	5.2%
Mean	33.5%	26.2%
Median	(0.9%)	29.2%

Company Name	CAGR (14-18)	
	Sales	EBITDA
<b>Downstream</b>		
HollyFrontier Corporation	(8.4%)	9.0%
Western Refining, Inc.	(5.1%)	(10.6%)
PBF Energy, Inc.	2.2%	29.6%
CVR Energy, Inc.	(12.9%)	(8.8%)
Delek US Holdings, Inc.	(8.7%)	(14.5%)
High	2.2%	29.6%
Low	(12.9%)	(14.5%)
Mean	(6.6%)	0.9%
Median	(8.4%)	(8.8%)

# U.S. Utilities Sector - Output

## Public Comparables

All figures in USD million except per share data

Source: Bloomberg

Company Name	Country	Market Cap	Enterprise Value	EV / Sales				EV / EBITDA				
				LTM 2Q16	CY 2016E	CY 2017E	CY 2018E	LTM 2Q16	CY 2016E	CY 2017E	CY 2018E	
<b>Gas Distributors</b>												
MDU Resources Group, Inc.	United States	4,910.0	6,827.1	NM	NM	9.68x	9.01x	23.1x	17.2x	14.2x	12.9x	
Questar Corporation	United States	4,396.5	5,858.7	5.15x	4.92x	4.73x	4.60x	10.1x	9.0x	9.1x	8.9x	
Vectren Corporation	United States	4,046.4	5,789.2	2.52x	2.33x	2.21x	2.05x	9.7x	8.2x	7.2x	7.7x	
Southwest Gas Corporation	United States	3,292.5	4,771.1	1.93x	1.90x	1.84x	1.75x	8.2x	8.0x	7.6x	7.3x	
WGL Holdings, Inc.	United States	3,122.7	4,687.0	1.99x	1.85x	1.74x	1.66x	10.4x	10.2x	9.5x	9.3x	
				High	5.15x	4.92x	9.68x	9.01x	23.1x	17.2x	14.2x	12.9x
				Low	1.93x	1.85x	1.74x	1.66x	8.2x	8.0x	7.2x	7.3x
				Mean	2.90x	2.75x	4.04x	3.82x	12.3x	10.5x	9.5x	9.2x
				Median	2.25x	2.11x	2.21x	2.05x	10.1x	9.0x	9.1x	8.9x

Company Name	Country	Market Cap	Enterprise Value	EV / Sales				EV / EBITDA				
				LTM 2Q16	CY 2016E	CY 2017E	CY 2018E	LTM 2Q16	CY 2016E	CY 2017E	CY 2018E	
<b>Electric Utilities</b>												
Great Plains Energy Incorporated	United States	4,258.8	8,624.8	3.33x	3.30x	3.19x	3.15x	8.4x	9.0x	8.7x	8.5x	
NRG Energy, Inc.	United States	3,710.1	24,051.1	1.81x	1.84x	1.84x	1.81x	NM	7.7x	8.6x	8.2x	
IDACORP, Inc.	United States	3,817.5	5,501.2	4.40x	4.33x	4.27x	4.10x	13.1x	12.5x	12.1x	NA	
Portland General Electric Company	United States	3,720.4	5,951.4	3.15x	3.03x	2.91x	2.91x	9.4x	9.0x	8.4x	8.1x	
Hawaiian Electric Industries, Inc.	United States	3,139.6	3,979.1	1.62x	1.48x	1.52x	1.51x	7.4x	7.8x	7.5x	8.4x	
Black Hills Corporation	United States	3,436.9	6,666.9	4.88x	3.99x	3.73x	3.95x	26.3x	12.7x	10.5x	10.4x	
				High	4.88x	4.33x	4.27x	4.10x	26.3x	12.7x	12.1x	10.4x
				Low	1.62x	1.48x	1.52x	1.51x	7.4x	7.7x	7.5x	8.1x
				Mean	3.20x	2.99x	2.91x	2.90x	12.9x	9.8x	9.3x	8.7x
				Median	3.24x	3.17x	3.05x	3.03x	9.4x	9.0x	8.6x	8.4x



# U.S. Utilities Sector - Output

## Public Comparables

All figures in USD million except per share data

Source: Bloomberg

Company Name	Country	Market Cap	Enterprise Value	EV / Sales				EV / EBITDA				
				LTM 2Q16	CY 2016E	CY 2017E	CY 2018E	LTM 2Q16	CY 2016E	CY 2017E	CY 2018E	
<b>Gas Distributors</b>												
MDU Resources Group, Inc.	United States	4,910.0	6,827.1	NM	NM	9.68x	9.01x	23.1x	17.2x	14.2x	12.9x	
Questar Corporation	United States	4,396.5	5,858.7	5.15x	4.92x	4.73x	4.60x	10.1x	9.0x	9.1x	8.9x	
Vectren Corporation	United States	4,046.4	5,789.2	2.52x	2.33x	2.21x	2.05x	9.7x	8.2x	7.2x	7.7x	
Southwest Gas Corporation	United States	3,292.5	4,771.1	1.93x	1.90x	1.84x	1.75x	8.2x	8.0x	7.6x	7.3x	
WGL Holdings, Inc.	United States	3,122.7	4,687.0	1.99x	1.85x	1.74x	1.66x	10.4x	10.2x	9.5x	9.3x	
				High	5.15x	4.92x	9.68x	9.01x	23.1x	17.2x	14.2x	12.9x
				Low	1.93x	1.85x	1.74x	1.66x	8.2x	8.0x	7.2x	7.3x
				Mean	2.90x	2.75x	4.04x	3.82x	12.3x	10.5x	9.5x	9.2x
				Median	2.25x	2.11x	2.21x	2.05x	10.1x	9.0x	9.1x	8.9x

Company Name	Country	Market Cap	Enterprise Value	EV / Sales				EV / EBITDA				
				LTM 2Q16	CY 2016E	CY 2017E	CY 2018E	LTM 2Q16	CY 2016E	CY 2017E	CY 2018E	
<b>Electric Utilities</b>												
Great Plains Energy Incorporated	United States	4,258.8	8,624.8	3.33x	3.30x	3.19x	3.15x	8.4x	9.0x	8.7x	8.5x	
NRG Energy, Inc.	United States	3,710.1	24,051.1	1.81x	1.84x	1.84x	1.81x	NM	7.7x	8.6x	8.2x	
IDACORP, Inc.	United States	3,817.5	5,501.2	4.40x	4.33x	4.27x	4.10x	13.1x	12.5x	12.1x	NA	
Portland General Electric Company	United States	3,720.4	5,951.4	3.15x	3.03x	2.91x	2.91x	9.4x	9.0x	8.4x	8.1x	
Hawaiian Electric Industries, Inc.	United States	3,139.6	3,979.1	1.62x	1.48x	1.52x	1.51x	7.4x	7.8x	7.5x	8.4x	
Black Hills Corporation	United States	3,436.9	6,666.9	4.88x	3.99x	3.73x	3.95x	26.3x	12.7x	10.5x	10.4x	
				High	4.88x	4.33x	4.27x	4.10x	26.3x	12.7x	12.1x	10.4x
				Low	1.62x	1.48x	1.52x	1.51x	7.4x	7.7x	7.5x	8.1x
				Mean	3.20x	2.99x	2.91x	2.90x	12.9x	9.8x	9.3x	8.7x
				Median	3.24x	3.17x	3.05x	3.03x	9.4x	9.0x	8.6x	8.4x

# U.S. Utilities Sector - Output

## Public Comparables

All figures in USD million except per share data

Source: Bloomberg

Company Name	P/E				EBITDA Margin				CAGR (14-18)	
	LTM 2Q16	2016	2017	2018	LTM 2Q16	CY 2016E	CY 2017E	CY 2018E	Sales	EBITDA
<b>Gas Distributors</b>										
MDU Resources Group, Inc.	NM	NM	19.2x	18.5x	60.6%	63.9%	68.3%	69.8%	9.7%	13.4%
Questar Corporation	22.6x	19.0x	19.3x	19.4x	51.2%	55.0%	52.1%	51.5%	1.7%	0.6%
Vectren Corporation	21.8x	19.8x	18.4x	17.2x	26.0%	28.4%	30.5%	26.5%	2.0%	6.2%
Southwest Gas Corporation	22.7x	22.3x	19.9x	18.6x	23.5%	23.8%	24.0%	24.1%	6.4%	5.1%
WGL Holdings, Inc.	17.3x	19.0x	18.8x	16.6x	19.1%	18.1%	18.3%	17.9%	0.3%	13.1%
	22.7x	22.3x	19.9x	19.4x	60.6%	63.9%	68.3%	69.8%	9.7%	13.4%
	17.3x	19.0x	18.4x	16.6x	19.1%	18.1%	18.3%	17.9%	0.3%	0.6%
	21.1x	20.0x	19.1x	18.1x	36.1%	37.8%	38.6%	38.0%	4.0%	7.7%
	22.2x	19.4x	19.2x	18.5x	26.0%	28.4%	30.5%	26.5%	2.0%	6.2%

Company Name	P/E				EBITDA Margin				CAGR (14-18)	
	LTM 2Q16	2016	2017	2018	LTM 2Q16	CY 2016E	CY 2017E	CY 2018E	Sales	EBITDA
<b>Electric Utilities</b>										
Great Plains Energy Incorporated	20.5x	15.8x	15.3x	14.8x	39.9%	36.8%	36.7%	37.1%	1.6%	4.1%
NRG Energy, Inc.	NM	13.1x	NM	16.7x	(16.8%)	23.8%	21.4%	22.0%	(4.3%)	0.2%
IDACORP, Inc.	20.3x	19.5x	18.8x	18.1x	33.5%	34.7%	35.2%	NA	1.1%	NA
Portland General Electric Company	20.2x	19.9x	17.7x	17.0x	33.5%	33.5%	34.8%	36.0%	1.9%	5.6%
Hawaiian Electric Industries, Inc.	18.5x	17.4x	16.0x	14.9x	21.8%	18.9%	20.3%	18.0%	(5.0%)	(2.0%)
Black Hills Corporation	NM	23.5x	18.7x	17.4x	18.5%	31.4%	35.6%	37.8%	4.9%	11.8%
	20.5x	23.5x	18.8x	18.1x	39.9%	36.8%	36.7%	37.8%	4.9%	11.8%
	18.5x	13.1x	15.3x	14.8x	(16.8%)	18.9%	20.3%	18.0%	(5.0%)	(2.0%)
	19.9x	18.2x	17.3x	16.5x	21.7%	29.9%	30.7%	30.2%	0.0%	3.9%
	20.3x	18.4x	17.7x	16.9x	27.6%	32.5%	35.0%	36.0%	1.4%	4.1%