



## Energy & Resources Quarterly update

Q3 2018

## Energy sector trends

### Carbon free California – the landmark vote for the Golden State<sup>1</sup>

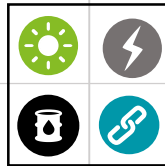
California legislators recently voted on a mandate that, if approved by the State Senate and Governor, would require 100 percent of the state's electricity come from carbon-free sources by 2045. The mandate requires renewable sources to power 60 percent of the states electric utilities by 2030, up from the current target of 50 percent. California, only second to Hawaii, are the only states to call for carbon-free electricity by 2045.

### Q3: A record breaking quarter for oil & gas M&A<sup>3</sup>

US oil & gas merger and acquisition (M&A) activity jumped by 250 percent from Q2 to Q3. This increase put the oil & gas M&A market for Q3 at a total of value of \$32 billion. The \$32 billion worth of M&A deals in Q3, which shattered previous quarters, was 76 percent higher than the quarterly average of \$18.3 billion since 2009. Q3 broke all quarterly records dating back to Q4 of 2012.

### The utility market and fluctuation in natural gas prices<sup>2</sup>

Natural gas prices have softened again back to May's prices of \$2.70/MMBtu, which is a good thing for consumers. The price drop happened in spite of high power generation from natural gas resources that accompanied the high temperatures this summer. Robust gas production is one of the main catalysts for the price drop. Strong stockpiles are considered crucial to meeting the winter gas heating demands. Change needs to be made in the industry update as well as per my previous comment.



### Energy supply chain preps for active hurricane season<sup>4</sup>

After the devastating impact of Hurricanes Harvey and Irma in 2017, the energy industry has made significant strides to help ensure a stable supply of oil and natural gas and improve infrastructure resilience. To reduce spikes to the supply chain, many fuel terminals are working non-stop to dispense supplies to service stations and companies and local, state, and federal governments are coordinating to bring gasoline and diesel supplies from neighboring states if necessary.

## In the news

**September 20<sup>th</sup>, 2018<sup>5</sup>** – The US celebrated another new record for crude oil production of 10.8 million barrels per day (MBD) over the past two months. But US petroleum exports decreased by 1.3 million barrels per day since June. The overall United States' petroleum trade balance went from net imports of 2.9 MBD in June to 4.54 MBD in August, which is more than a 56 percent increase in two months. US natural gas quietly achieved 12 percent annual growth in Q3, but it appears demand was limited by potential coal & nuclear power subsidies, global LNG market conditions, escalating trade disputes, and improved competitiveness by renewables. According to Chief Economist Dean Foreman, the trade war appears to be limiting the United States' access to crude export markets.

**August 8<sup>th</sup>, 2018<sup>6</sup>** – A group of senators announced they have drafted legislation targeted at Russia with the intention to restrict US investment in Russian energy projects. According to the bill, sanctions will be applied to energy projects in Russia whose value exceeds \$250 million. While the draft does not directly define what an "energy project" entails, it is expected the restrictions will be broad and likely include limits on projects ranging from the production of solar panels to the geological exploration of hydrocarbons.

## In this update

- Energy trends
- Economic outlook
- Industry analysis
- Select M&A transactions
- Appendix

This update will focus on news and trends in the following areas:

- Oilfield Services
- Renewable Energy
- Power & Utilities
- Energy and Resources Supply Chain

## Who we are

Deloitte Corporate Finance LLC is a leading global middle market M&A adviser. The firm's professionals have extensive knowledge within various sectors of the Energy space.

## Contacts

### Keith Adams

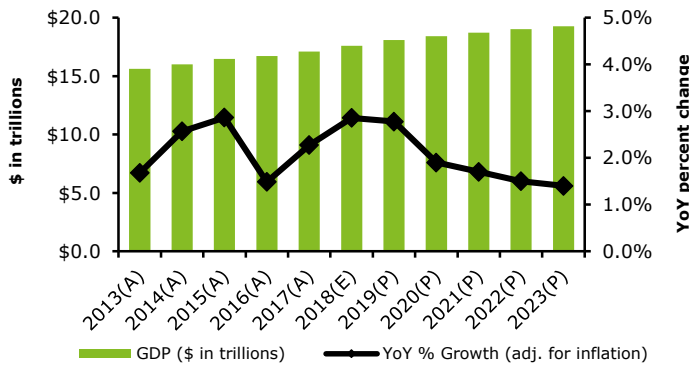
Managing Director  
keadams@deloitte.com  
+1 (404) 631-3455

### Eric Andreozzi

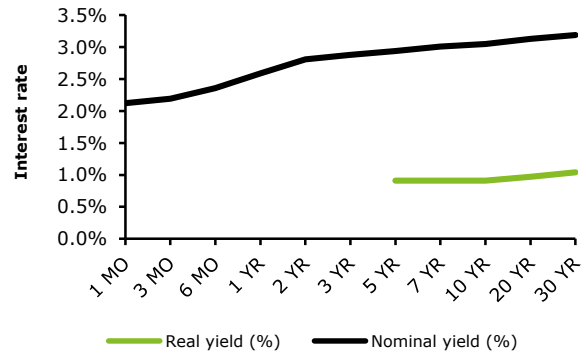
Managing Director  
eandreozi@deloitte.com  
+1 (704) 333-0518

## Macroeconomic outlook

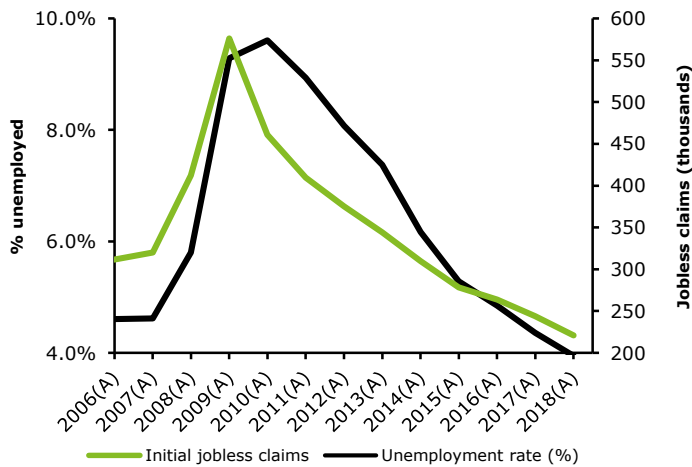
**US gross domestic product (\$ in trillions)<sup>1</sup>**



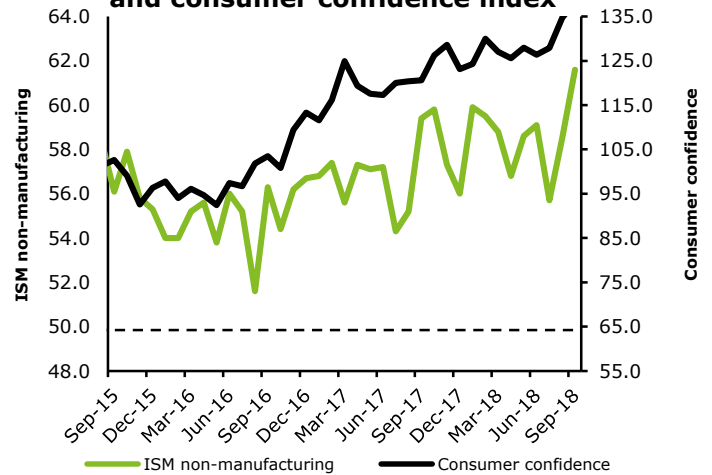
**US Treasury yield curve (nominal vs. real)<sup>2</sup>**



**US unemployment rate (% Unemployed)<sup>3</sup>**



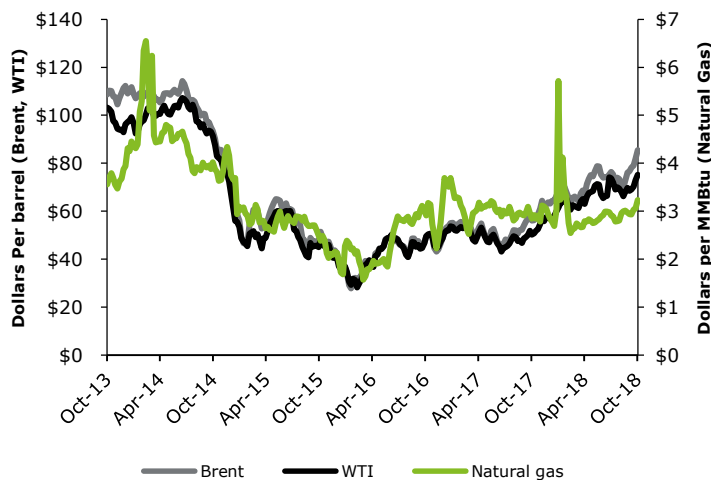
**ISM non-manufacturing index and consumer confidence index<sup>4</sup>**



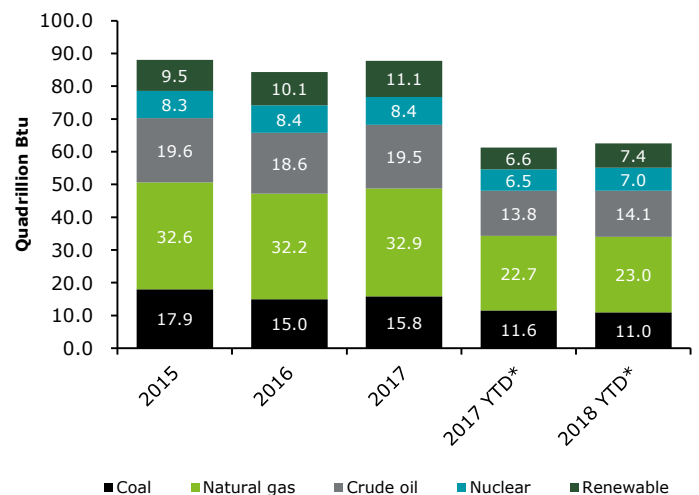
\*An ISM non-manufacturing index value above 50 signals economic expansion.

## Energy sector outlook

**Brent, WTI, and natural gas prices (2012 - 2018 YTD)<sup>5</sup>**



**US energy production by source<sup>6</sup>**

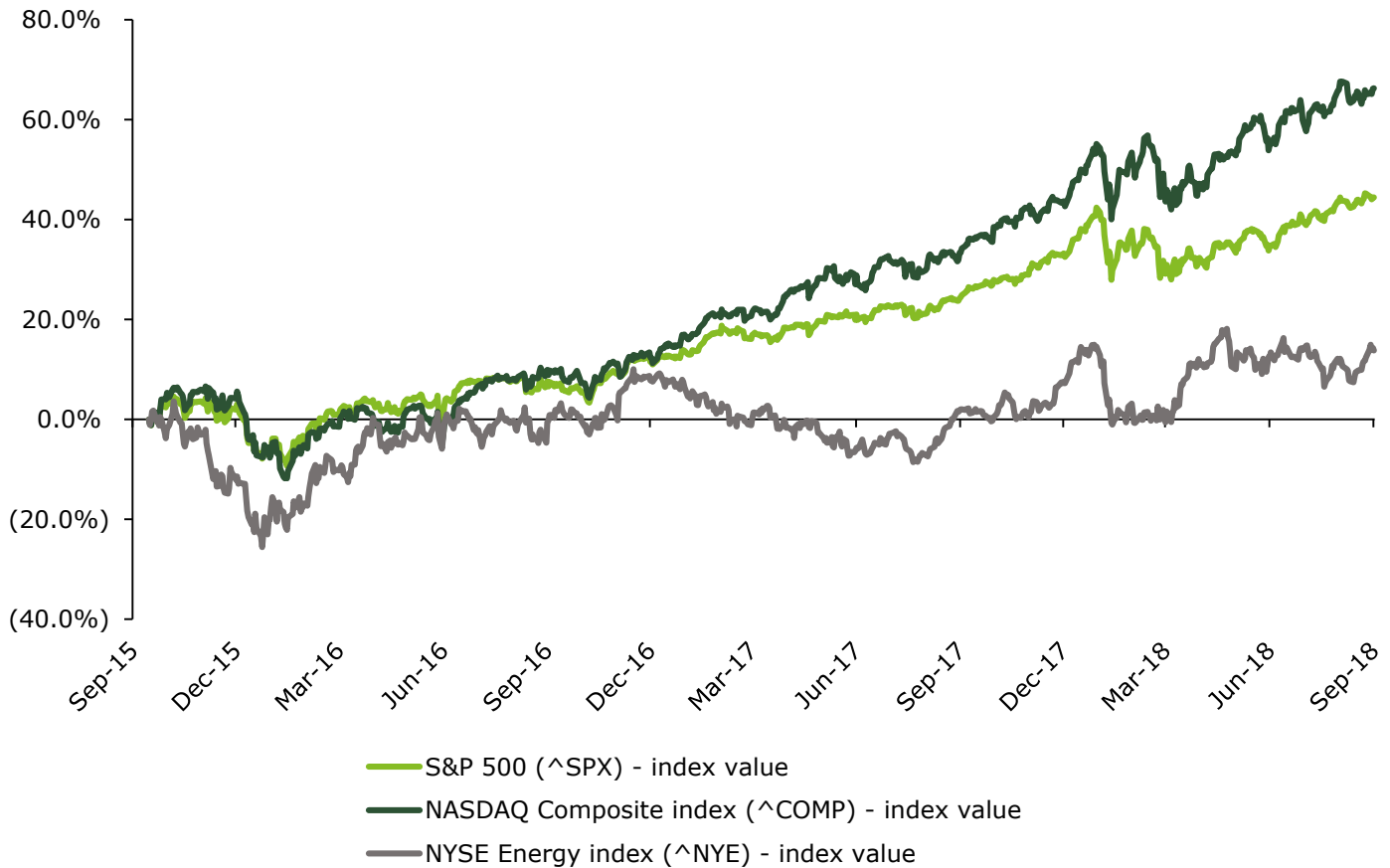


## Energy sector breakdown & trading statistics<sup>1</sup>

Sector	Number of companies	% of 52 week high	Median revenue CAGR (3 Yr)	Median LTM EBITDA	Median EBITDA Margin	Median enterprise value	Last twelve months		NTM	
							EV/ Revenue	EV/ EBITDA	EV/ EBITDA	
<i>(\$ in millions)</i>										
Oil and gas, general (14)	14	77.8 %	1.0 %	\$4,553.5	19.6 %	\$30,309.3	1.5 x	8.5 x	5.6 x	
Power & utilities (19)	19	97.6	2.2	3,014.4	31.5	35,755.2	3.8	12.1	10.8	
Renewable energy (13)	13	73.6	6.7	107.1	11.1	2,218.8	1.9	11.7	10.4	
Nuclear (3)	3	74.9	4.2	486.7	20.2	5,267.8	2.2	10.8	10.4	
<b>Energy index</b>	<b>49</b>	<b>86.1 %</b>	<b>3.0 %</b>	<b>\$2,443.7</b>	<b>27.7 %</b>	<b>\$21,643.6</b>	<b>2.9 x</b>	<b>10.7 x</b>	<b>9.7 x</b>	

## Public comparables three-year stock market performance<sup>2</sup>

S&P 500 index	<b>44.44%</b>
NASDAQ composite index	<b>63.43%</b>
Energy index*	<b>13.79%</b>



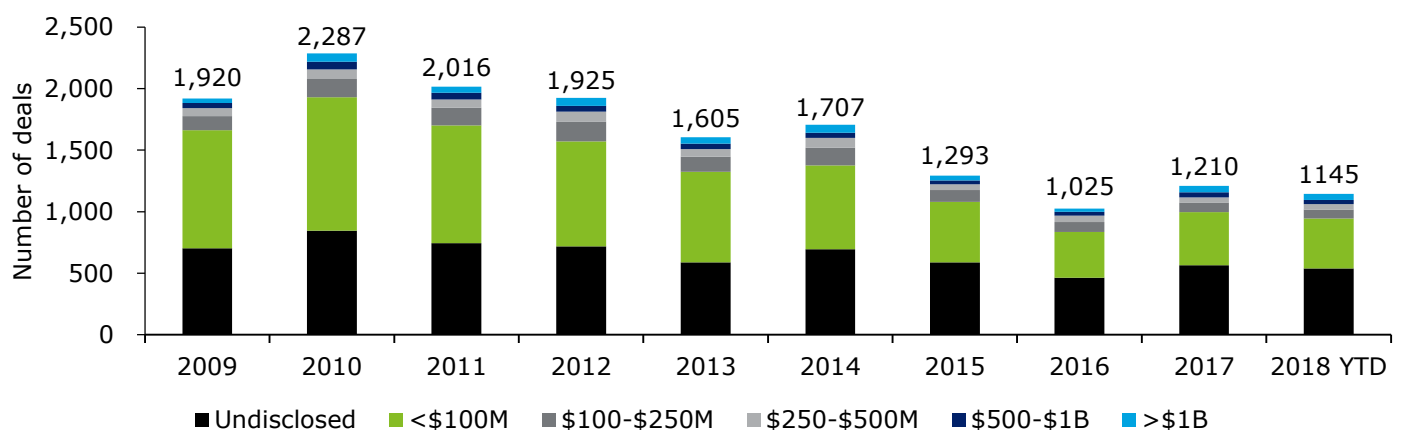
\*Energy index companies listed on pages 6 & 7 in the Appendix.

## Select Energy M&A transactions<sup>1</sup>

Close date*	Target/acquiror	Target business description	Enterprise value ("EV")	EV/ EBITDA
Pending	<b>American Midstream Partners, LP</b> Dominion Energy, Inc.	Provides midstream infrastructure that links the producers of natural gas, crude oil, natural gas liquids (NGLs), condensate, and specialty chemicals to various intermediate and end-use markets and Mexico.	\$1,858.9	20.9x
Pending	<b>Basic Energy Services, Inc.</b> Diamondback Energy, Inc.	Provides well site services to oil and natural gas drilling and producing companies.	509.9	7.8
Pending	<b>Dominion Energy Midstream Partners, LP</b> TLP Acquisition Holdings LLC	Owns liquefied natural gas (LNG) terminalling, storage, regasification, and transportation assets.	8,272.4	21.8
Pending	<b>Energen Corporation</b> United Energy Group Limited	Energen Corporation, through its subsidiary, Energen Resources Corporation, engages in the exploration, development, and production of oil, natural gas liquids, and natural gas.	9,250.6	11.9
Pending	<b>Kuwait Energy plc</b> Transocean Ltd.	Kuwait Energy plc, an independent oil and gas company, engages in the exploration, appraisal, development, and production of hydrocarbons.	1,178.3	7.6
Pending	<b>Marquee Energy Ltd.</b> Centerbridge Partners, L.P.	Marquee Energy Ltd., a junior energy Company, focuses on the acquisition, exploration, development, and production of oil and natural gas properties in Alberta, Canada.	42.4	12.7
Pending	<b>MEG Energy Corp.</b> Birch Hill Equity Partners Management Inc.	MEG Energy Corp., an oil sands company, focuses on sustainable in situ development and production in the southern Athabasca oil sands region of Alberta.	4,987.8	16.3
Pending	<b>Ocean Rig UDW Inc.</b> ArcLight Capital Partners, LLC	Provides midstream infrastructure that links the producers of natural gas, crude oil, natural gas liquids (NGLs) to various intermediate and end-use markets.	2,606.5	7.4
7/17/2018	<b>Seitel, Inc.</b> Husky Energy Inc.	Provides onshore and offshore seismic data to the oil and gas industry in North America.	237.5	4.1
9/14/2018	<b>Tidewater Midstream and Infrastructure Ltd.</b> Ensign Energy Services Inc.	Engages in the gathering, processing, and transportation of natural gas liquids (NGLs) primarily in North America.	540.6	11.7
Pending	<b>Transmontaigne Partners L.P.</b> Prairie Provident Resources Inc.	TransMontaigne Partners L.P. provides integrated terminalling, storage, transportation, and related services.	1,254.3	11.5
Pending	<b>Trinidad Drilling Ltd.</b> Key Energy Services	Designs, builds, and operates drilling rigs for complex wells primarily in Canada, the United States, and internationally.	714.0	8.5

\*Pending transactions sorted by announcement date.

## Annual Energy M&A transaction volume<sup>2</sup>



## Appendix

Public comparables analysis<sup>1</sup>

Market data as of 11/12/18

Company (ticker)	% of 52 week high	LTM revenue	Revenue CAGR (3 Yr)	LTM EBITDA	EBITDA margin	Enterprise value ("EV") <sup>(1)</sup>	Last twelve months		NTM
							EV/revenue	EV/EBITDA	EV/EBITDA
<i>(\$ in millions)</i>									
<b>Oil and gas, general (14)</b>									
Andeavor	94.1 %	\$42,776.0	8.3 %	\$3,433.0	8.0 %	\$0.0	0.0 x	0.0 x	0.0 x
Chevron Corporation (NYSE:CVX)	87.7	153,071.0	3.9	30,173.0	19.7	251,767.8	1.6	8.3	4.7
ConocoPhillips (NYSE:COP)	81.2	35,835.0	0.2	18,778.0	52.4	83,440.9	2.3	4.4	4.6
Devon Energy Corporation (NYSE:DVN)	67.8	14,217.0	1.2	3,159.0	22.2	17,718.7	1.2	5.6	5.0
Diamond Offshore Drilling, Inc. (NYSE:DO)	62.9	1,171.8	(22.2)	332.8	28.4	3,390.8	2.9	10.2	12.8
Energy Transfer Operating, L.P.	88.1	35,941.0	(5.0)	6,986.0	19.4	-	0.0	0.0	0.0
Exxon Mobil Corporation (NYSE:XOM)	89.4	278,412.0	2.1	39,725.0	14.3	378,818.8	1.4	9.5	5.9
Halliburton Company (NYSE:HAL)	59.0	23,999.0	(4.2)	4,457.0	18.6	38,346.7	1.6	8.6	8.9
Hess Corporation (NYSE:HES)	76.8	6,177.0	(6.4)	2,496.0	40.4	22,271.8	3.6	8.9	6.8
Marathon Petroleum Corporation (NYSE:MPC)	74.5	77,690.0	3.0	6,391.0	8.2	63,852.2	0.8	10.0	5.4
Phillips 66 (NYSE:PSX)	78.8	108,773.0	3.5	4,650.0	4.3	57,927.1	0.5	12.5	7.1
Southwestern Energy Company (NYSE:SWN)	86.8	3,496.0	0.9	1,389.0	39.7	6,876.4	2.0	5.0	5.4
Transocean Ltd. (NYSE:RIG)	67.4	2,874.0	(28.2)	1,092.0	38.0	11,522.6	4.0	10.6	11.3
Valero Energy Corporation (NYSE:VLO)	67.7	108,953.0	5.6	6,266.0	5.8	43,052.8	0.4	6.9	5.9
<b>Median</b>	<b>77.8 %</b>	<b>\$35,888.0</b>	<b>1.0 %</b>	<b>\$4,553.5</b>	<b>19.6 %</b>	<b>\$30,309.3</b>	<b>1.5 x</b>	<b>8.5 x</b>	<b>5.6 x</b>
<b>Mean</b>	<b>77.3 %</b>	<b>\$63,813.3</b>	<b>(2.7) %</b>	<b>\$9,237.7</b>	<b>22.8 %</b>	<b>\$69,927.6</b>	<b>1.6 x</b>	<b>7.2 x</b>	<b>6.0 x</b>
<b>Power &amp; utilities (19)</b>									
Ameren Corporation (NYSE:AEE)	99.2 %	\$6,046.0	0.6 %	\$2,468.0	40.8 %	\$25,622.4	4.2 x	10.4 x	10.6 x
ALLETE, Inc. (NYSE:ALE)	95.6	1,388.2	(0.2)	332.2	23.9	5,383.4	3.9	16.2	11.8
American Electric Power Company, Inc. (NYSE:AEP)	97.6	16,205.0	(0.9)	5,105.8	31.5	61,739.1	3.8	12.1	10.0
Avangrid, Inc. (NYSE:AGR)	90.1	6,346.0	13.6	1,907.2	30.1	21,643.6	3.4	11.3	11.2
Black Hills Corporation (NYSE:BKH)	98.7	1,708.4	7.8	592.4	34.7	7,213.5	4.2	12.2	11.9
CenterPoint Energy, Inc. (NYSE:CNP)	93.1	10,191.0	8.6	2,218.0	21.8	21,736.5	2.1	9.8	8.7
Consolidated Edison, Inc. (NYSE:ED)	88.5	12,349.0	(0.9)	3,832.0	31.0	42,489.3	3.4	11.1	10.2
Dominion Energy, Inc. (NYSE:D)	86.1	13,215.0	3.1	6,267.0	47.4	87,956.8	6.7	14.0	13.1
DTE Energy Company (NYSE:DTE)	98.8	13,733.0	7.9	2,527.0	18.4	35,755.2	2.6	14.1	12.4
Duke Energy Corporation (NYSE:DUK)	93.6	23,810.0	0.7	10,238.0	43.0	117,811.4	4.9	11.5	10.8
Entergy Corporation (NYSE:ETR)	97.7	11,120.8	(2.1)	3,014.4	27.1	33,256.6	3.0	11.0	7.5
Eversource Energy (NYSE:ES)	98.8	8,308.7	0.7	2,604.4	31.3	35,087.9	4.2	13.5	12.3
Exelon Corporation (NYSE:EXC)	99.0	35,521.0	5.8	10,035.0	28.3	81,175.7	2.3	8.1	8.5
PG&E Corporation (NYSE:PCG)	57.7	16,771.0	(0.4)	5,443.0	32.5	36,277.9	2.2	6.7	5.6
Sempra Energy (NYSE:SRE)	90.7	11,430.0	3.6	3,886.0	34.0	61,948.4	5.4	15.9	15.3
The Southern Company (NYSE:SO)	89.1	23,786.0	9.9	8,009.0	33.7	96,911.6	4.1	12.1	11.7
Vectren Corporation (NYSE:VVC)	99.8	2,678.9	2.2	636.9	23.8	8,294.8	3.1	13.0	0.0
WEC Energy Group, Inc. (NYSE:WEC)	98.3	7,657.7	13.0	2,443.7	31.9	33,684.6	4.4	13.8	13.4
Xcel Energy Inc. (NasdaqGS:XEL)	97.9	11,452.0	0.4	3,743.0	32.7	42,532.7	3.7	11.4	9.0
<b>Median</b>	<b>97.6 %</b>	<b>\$11,430.0</b>	<b>2.2 %</b>	<b>\$3,014.4</b>	<b>31.5 %</b>	<b>\$35,755.2</b>	<b>3.8 x</b>	<b>12.1 x</b>	<b>10.8 x</b>
<b>Mean</b>	<b>93.2 %</b>	<b>\$12,300.9</b>	<b>3.9 %</b>	<b>\$3,963.3</b>	<b>31.5 %</b>	<b>\$45,080.1</b>	<b>3.8 x</b>	<b>12.0 x</b>	<b>10.2 x</b>
<b>Renewable energy (13)</b>									
Ballard Power Systems Inc. (TSX:BLDP)	58.3 %	\$108.4	27.6 %	(\$11.1)	NM %	\$518.3	4.8 x	NM x	NM x
Brookfield Renewable Partners L.P. (TSX:BEP.UN)	83.0	2,859.0	20.5	1,739.0	60.8	26,889.2	9.4	15.5	11.7
Canadian Solar Inc. (NasdaqGS:CSIQ)	74.8	4,096.5	6.7	401.6	9.8	2,745.9	0.7	6.8	7.8
Enphase Energy, Inc. (NasdaqGM:ENPH)	71.4	303.5	(8.5)	7.2	2.4	573.2	1.9	80.1	28.1
First Solar, Inc. (NasdaqGS:FSLR)	52.3	1,892.0	(19.6)	107.1	5.7	2,218.8	1.2	20.7	3.5
JA Solar Holdings Co., Ltd.	88.3	2,823.2	20.3	253.7	9.0	-	0.0	0.0	0.0
Macquarie Infrastructure Corporation (NYSE:MIC)	56.0	1,924.1	5.4	638.7	33.2	6,765.6	3.5	10.6	10.4
Ormat Technologies, Inc. (NYSE:ORA)	73.6	695.2	6.7	305.7	44.0	3,926.9	5.6	12.8	9.7
ReneSola Ltd (NYSE:SOL)	43.1	173.7	(49.8)	(11.6)	NM	234.6	1.4	NM	13.7
Renewable Energy Group, Inc. (NasdaqGS:REGI)	77.2	2,444.4	22.3	300.6	12.3	932.6	0.4	3.1	6.8
SunPower Corporation (NasdaqGS:SPWR)	63.4	1,998.1	(5.5)	(92.0)	NM	2,770.0	1.4	NM	19.4
Sunrun Inc. (NasdaqGS:RUN)	75.6	669.3	36.2	(8.4)	NM	3,533.8	5.3	NM	105.5
Vivint Solar, Inc. (NYSE:VSLR)	91.7	293.6	74.8	(32.4)	NM	1,812.7	6.2	NM	NM
<b>Median</b>	<b>73.6 %</b>	<b>\$1,892.0</b>	<b>6.7 %</b>	<b>\$107.1</b>	<b>11.1 %</b>	<b>\$2,218.8</b>	<b>1.9 x</b>	<b>11.7 x</b>	<b>10.4 x</b>
<b>Mean</b>	<b>69.9 %</b>	<b>\$1,560.1</b>	<b>10.5 %</b>	<b>\$276.8</b>	<b>22.1 %</b>	<b>\$4,070.9</b>	<b>3.2 x</b>	<b>18.7 x</b>	<b>19.7 x</b>
<b>Nuclear (3)</b>									
BWX Technologies, Inc. (NYSE:BWXT)	61.3 %	\$1,752.0	6.6 %	\$354.1	20.2 %	\$5,069.1	2.9 x	14.3 x	13.0 x
Curtiss-Wright Corporation (NYSE:CW)	74.9	2,375.1	2.7	486.7	20.5	5,267.8	2.2	10.8	10.4
Huntington Ingalls Industries, Inc. (NYSE:HII)	77.4	7,973.0	4.2	1,216.0	15.3	10,411.8	1.3	8.6	8.5
<b>Median</b>	<b>74.9 %</b>	<b>\$2,375.1</b>	<b>4.2 %</b>	<b>\$486.7</b>	<b>20.2 %</b>	<b>\$5,267.8</b>	<b>2.2 x</b>	<b>10.8 x</b>	<b>10.4 x</b>
<b>Mean</b>	<b>71.2 %</b>	<b>\$4,033.4</b>	<b>4.5 %</b>	<b>\$685.6</b>	<b>18.7 %</b>	<b>\$6,916.2</b>	<b>2.1 x</b>	<b>11.2 x</b>	<b>10.6 x</b>

Recent transactions<sup>1</sup>

(\$ in millions)

Target/acquiror	Sub-sector	Close date	LTM revenue	LTM EBITDA	EBITDA margin	Enterprise value ("EV")	Last twelve months	
							EV/Revenue	EV/EBITDA
<b>Dominion Energy Midstream Partners, LP</b> Dominion Energy, Inc.	Oil and Gas Storage and Transportati	Pending	\$592.0	\$378.9	64.0 %	\$8,272.4	14.0 x	21.8 x
<b>Energren Corporation</b> Diamondback Energy, Inc.	Oil and Gas Exploration and Producti	Pending	1,256.5	775.1	61.7	9,250.6	7.4	11.9
<b>Transmontaigne Partners L.P.</b> TLP Acquisition Holdings LLC	Oil and Gas Storage and Transportati	Pending	204.8	109.1	53.3	1,254.3	6.1	11.5
<b>Kuwait Energy plc</b> United Energy Group Limited	Oil and Gas Exploration and Producti	Pending	216.1	154.2	71.3	1,178.3	5.5	7.6
<b>Ocean Rig UDW Inc.</b> Transocean Ltd.	Oil and Gas Drilling	Pending	711.7	352.2	49.5	2,606.5	3.7	7.4
<b>Seitel, Inc.</b> Centerbridge Partners, L.P.; Centerbridge Capital Partners II, L.P.;	Oil and Gas Equipment and Service:	Jul-18	77.8	57.6	74.1	237.5	3.1	4.1
<b>Tidewater Midstream and Infrastructure Ltd.</b> Birch Hill Equity Partners Management Inc.; Birch Hill Equity	Oil and Gas Storage and Transportati	Sep-18	269.6	60.8	22.6	711.3	2.6	11.7
<b>American Midstream Partners, LP</b> ArcLight Capital Partners, LLC; ArcLight Energy Partners Fund V, L.P.	Oil and Gas Storage and Transportati	Pending	752.4	88.9	11.8	1,858.9	2.5	20.9
<b>MEG Energy Corp.</b> Husky Energy Inc.	Oil and Gas Exploration and Producti	Pending	2,700.8	396.0	14.7	6,447.5	2.4	16.3
<b>Trinidad Drilling Ltd.</b> Ensign Energy Services Inc.	Oil and Gas Drilling	Pending	550.5	110.0	20.0	936.9	1.7	8.5
<b>Marquee Energy Ltd.</b> Prairie Provident Resources Inc.	Oil and Gas Exploration and Producti	Pending	33.8	4.4	12.9	55.2	1.6	12.7
<b>Basic Energy Services, Inc.</b> Key Energy Services, Inc.	Oil and Gas Equipment and Service:	Pending	956.8	65.8	6.9	509.9	0.5	7.8
<b>Median</b>			<b>\$571.3</b>	<b>\$109.6</b>	<b>36.0 %</b>	<b>\$1,216.3</b>	<b>2.8 x</b>	<b>11.6 x</b>
<b>Mean</b>			<b>\$693.6</b>	<b>\$212.8</b>	<b>38.6 %</b>	<b>\$2,776.6</b>	<b>4.2 x</b>	<b>11.9 x</b>



## Sources cited

### Page 1:

1. Olliver Milman, "California moves towards 100% carbon-free electricity after landmark vote," *The Guardian*, August 29, 2018, <https://www.theguardian.com/us-news/2018/aug/29/california-electricity-fossil-fuels-wind-solar-vote>, accessed October 12, 2018.
2. "Q3 2018 Outlook: Natural Gas Prices Have Softened Again," *RealPage*, <https://www.realpage.com/utility-management/outlook/#q1Outlook>, accessed October 12, 2018.
3. Tsvetana Paraskova, "U.S. Oil And Gas M&A Soar 250% In Q3 To Highest Since 2012," *OilPrice*, October 4, 2018, <https://oilprice.com/Latest-Energy-News/World-News/US-Oil-And-Gas-MA-Soar-250-In-Q3-To-Highest-Since-2012.html>, accessed October 12, 2018.
4. Jude Clemente, "Hello, Michael: Beware The Resiliency Of The U.S. Oil And Gas System," *Forbes*, October 10, 2018, <https://www.forbes.com/sites/judeclemente/2018/10/10/hello-michael-beware-the-resiliency-of-the-u-s-oil-and-gas-system/#58a555113700>, accessed October 12, 2018.
5. R. Dean Foreman, "Record setting U.S. energy production highlights 2018 Q3 energy outlook but energy exports suffer under new trade and tariff policies" *API Energy*. September, 2018. <https://www.api.org/news-policy-and-issues/news/2018/09/19/record-production-2018-q3-energy-outlook-but-exports-suffer-under-tariffs>, accessed October, 12, 2018.
6. "New U.S. Sanctions Against Russia's Energy Sector," *Warsaw Institute*. August, 19, 2018, <https://warsawinstitute.org/new-u-s-sanctions-russias-energy-sector/>, accessed October, 12, 2018.

### Page 2:

1. U.S. Bureau of Economic Analysis. October 14, 2018. Data as of September 30, 2018.
2. U.S. Department of the Treasury. October 14, 2018. Data as of September 30, 2018.
3. U.S. Bureau of Labor Statistics. October 14, 2018. Data as of September 30, 2018.
4. S&P Capital IQ. October 10, 2018. Data as of September 30, 2018.
5. Federal Reserve Economic Data. October 10, 2018. Data as of October 10, 2018.
6. U.S. Energy Information Administration. October 10 2018. Data as of October 10, 2018.

### Page 3:

1. S&P Capital IQ. October 10, 2018. Data as of October 10, 2018.
2. Ibid.

### Page 4:

1. S&P Capital IQ. October 11, 2018. Data as of September 30, 2018.
2. Ibid.

### Page 5:

1. S&P Capital IQ. October 11, 2018. Data as of September 30, 2018.

### Page 6:

1. S&P Capital IQ. October 11, 2018. Data as of September 30, 2018.



## Deloitte Corporate Finance LLC (DCF)

DCF provides deal execution and lead financial advisory services to large corporate, middle market, private equity and venture capital firms. DCF and its affiliates maintain a presence in key US financial centers.

For additional information or to find out more about how DCF can assist the deal initiation and execution process, please contact one of our DCF managing directors:

**Phil Colaco**

CEO  
philcolaco@deloitte.com  
+1 704 333 0533

**Hector Calzada**

hcalzada@deloitte.com  
+1 404 631 3015

**Bill Kerkam**

wkerkam@deloitte.com  
+1 980 312 3613

**Jason Porter**

jasporter@deloitte.com  
+1 704 333 0136

**Jonathan Adams**

jonadams@deloitte.com  
+1 214 840 1779

**Nick Cirignano**

nicirignano@deloitte.com  
+1 212 436 3273

**Jamie Lewin**

jlewin@deloitte.com  
+1 214 840 7057

**Matt Preece**

mpreece@deloitte.com  
+1 704 731 7186

**Keith Adams**

keadams@deloitte.com  
+1 404 631 3455

**John Deering**

jdeering@deloitte.com  
+1 704 333 0574

**James Miller**

jamesmiller5@deloitte.com  
+1 704 731 8230

**Ron Rivera**

rorivera@deloitte.com  
+1 404 631 3710

**Eric Andreozzi**

eandreozi@deloitte.com  
+1 704 333 0518

**Lorin DeMordaunt**

ldemordaunt@deloitte.com  
+1 704 333 0591

**Byron Nelson**

bynelson@deloitte.com  
+1 469 417 2462

**Justin Silber**

jsilber@deloitte.com  
+1 404 942 6960

**Tony Blanchard**

anblanchard@deloitte.com  
+1 313 396 3738

**Will Frame**

wframe@deloitte.com  
+1 312 486 4458

**Jonathan Ohm**

johm@deloitte.com  
+1 212 436 2287

**Tom Spivey**

tspivey@deloitte.com  
+1 214 840 7014

**Doug Bolt**

dbolt@deloitte.com  
+1 704 731 7219

**Mike Garcia**

migarcia@deloitte.com  
+1 213 996 4901

**Lou Paone**

lpaone@deloitte.com  
+1 704 731 7202

**Vijay Balasubramanian**

vbalasubramanian@deloitte.com  
+1 212 313 1723

**Simon Gisby**

sgisby@deloitte.com  
+1 212 436 2495

**Charlie Welch**

charliewelch@deloitte.com  
+1 704 731 7201

Deloitte Corporate Finance business development group:

**Brad Heston**

Senior Vice President  
bheston@deloitte.com  
+1 404 631 3839

**John Lindsey**

Senior Vice President  
jlindsey@deloitte.com  
+1 469 417 2147

**Bill Pucci**

Senior Vice President  
wpucci@deloitte.com  
+1 973 602 4542

[www.investmentbanking.deloitte.com](http://www.investmentbanking.deloitte.com)

# Deloitte.

This newsletter is a periodic compilation of certain completed and announced merger and acquisition activity. Information contained in this newsletter should not be construed as a recommendation to sell or a recommendation to buy any security. Any reference to or omission of any reference to any company in this newsletter shall not be construed as a recommendation to sell, buy or take any other action with respect to any security of any such company. We are not soliciting any action with respect to any security or company based on this newsletter. This newsletter is published solely for the general information of clients and friends of Deloitte Corporate Finance LLC. It does not take into account the particular investment objectives, financial situation, or needs of individual recipients. Certain transactions, including those involving early stage companies, give rise to substantial risk and are not suitable for all investors. This newsletter is based on information that we consider reliable, but we do not represent that it is accurate or complete, and it should not be relied upon as such. Prediction of future events is inherently subject to both known risks, uncertainties and other factors that may cause actual results to vary materially. We are under no obligation to update the information contained in this newsletter. We and our affiliates and related entities, partners, principals, directors, and employees, including persons involved in the preparation or issuance of this newsletter, may from time to time have “long” and “short” positions in, and buy or sell, the securities, or derivatives (including options) thereof, of companies mentioned herein. The companies mentioned in this newsletter may be: (i) investment banking clients of Deloitte Corporate Finance LLC; or (ii) clients of Deloitte Financial Advisory Services LLP and its related entities. The decision to include any company for mention or discussion in this newsletter is wholly unrelated to any audit or other services that Deloitte Corporate Finance LLC may provide or to any audit services or any services that any of its affiliates or related entities may provide to such company. No part of this newsletter may be copied or duplicated in any form by any means, or redistributed without the prior written consent of Deloitte Corporate Finance LLC.

## About Deloitte

Deloitte Corporate Finance LLC, an SEC registered broker-dealer and member of [FINRA](#) and [SIPC](#), is an indirect wholly-owned subsidiary of Deloitte Financial Advisory Services LLP and affiliate of Deloitte Transactions and Business Analytics LLP. Investment banking products and services within the United States are offered exclusively through Deloitte Corporate Finance LLC. For more information, visit [www.investmentbanking.deloitte.com](http://www.investmentbanking.deloitte.com). Please see [www.deloitte.com/us/about](http://www.deloitte.com/us/about) for a detailed description of our legal structure. Certain services may not be available to attest clients under the rules and regulations of public accounting.

Copyright © 2018 Deloitte Corporate Finance LLC. All rights reserved.