

Talen Energy Corp

A Call To Action

Debt reduction plan is credible and likely to be well received in our view

In the absence of significantly accretive M&A, we see debt reductions as the best use of TLN's capital. Mgmt has already committed to reducing borrowing by ~\$900M in '16 (\$54M done in Jan/Feb + \$355M debt maturing). We est that there is another ~\$545M of capital available for allocation. TLN confirmed interest in a potential tender which could target the '19/'21 maturities as they offer material discounts (15-30%) while also helping to address liquidity concerns with \$1.67B of debt maturing in '18-'19. TLN is also exploring adding secured asset-level debt to create further capacity to reduce corp obligations. Since the 2/25 call the TLN bonds have rallied 5-10pts. In a scenario where mgmt retires \$500M of '19 bonds at a 20% disc we est ~\$0.75/sh of improved value.

Timing is the key question: will a deal come before addressing debt?

With proceeds pending from the asset sale in March (~Spring latest)- and given the meaningful cash on the balance sheet and more IG-like covenant package pro-forma (limited change of controls, except revolver and some of the muni-package), we see the valuation case becoming more attractive given cash on the balance sheet with limited restrictions. Mgmt has been clear in recent quarters of its interest to evaluate further deals despite loss in its bid for Engie assets. Mgmt is keen to explore asset acquisitions rather than just debt paydowns (with a preference to diversify – and not just pursue more PJM coal like AEP's portfolio, etc). Expect meaningful updates in the ~2Q period.

Flexibility to refi w/ secured capacity and asset sale bolster outlook too

The focus on lowering debt (and refinancing w/ secured debt at cheaper rates) should help improve FCF which we forecast to decline to below-\$100Mn/yr in '17-'19. Further w/ largely unlimited secured debt capacity, we suspect market could support 2-3x EBITDA (although this would also include a new debt package). **Taxable income could prove limited given losses likely recognized under a sale of Colstrip in MT (likely this year).**

Valuation: Maintain \$6 PT; As debt reduction nears, shares should trade up

We rolled our SOP to '18E. TLN looks to be the most aggressive IPP w.r.t reducing debt, a characteristic that investors are looking for. While capital available for allocation in '16 is robust due to the divestiture proceeds, the qn turns to how TLN will manage its FCF in '17+ to address obligations given lowest FCF yield vs. peers (even ex-taxes).

Equities

Americas
Electric Utilities

12-month rating **Neutral**

12m price target **US\$6.00**

Price **US\$7.81**

RIC: TLN.N BBG: TLN US

Trading data and key metrics

52-wk range	US\$23.48-5.76
Market cap.	US\$1.00bn
Shares o/s	129m (COM)
Free float	100%
Avg. daily volume ('000)	266
Avg. daily value (m)	US\$1.7
Common s/h equity (12/15E)	US\$4.30bn
P/BV (12/15E)	0.2x
Net debt / EBITDA (12/15E)	4.3x

EPS (UBS, diluted) (US\$)

	12/15E		% ch	Cons.
	From	To		
Q1	0.83	0.86	4	-
Q2	0.20	0.20	0	0.26
Q3	1.09	1.09	0	1.42
Q4E	(0.81)	(0.09)	NM	(0.17)
12/15E	1.29	2.04	58	2.69
12/16E	0.65	0.51	-22	0.66
12/17E	(0.15)	(0.95)	NM	0.20

Julien Dumoulin-Smith

Analyst

julien.dumoulin-smith@ubs.com
+1-212-713 9848

Michael Weinstein

Associate Analyst
michael.weinstein@ubs.com
+1-212-713 3182

Paul Zimbardo

Associate Analyst
paul.zimbardo@ubs.com
+1-212-713 1033

Highlights (US\$m)	-	-	12/14	12/15E	12/16E	12/17E	12/18E	12/19E
Revenues	-	-	4,274	4,481	3,916	3,748	3,802	3,795
EBIT (UBS)	-	-	441	500	244	79	89	57
Net earnings (UBS)	-	-	139	262	66	(125)	(106)	(140)
EPS (UBS, diluted) (US\$)	-	-	1.08	2.04	0.51	(0.95)	(0.80)	(1.05)
DPS (US\$)	-	-	0.00	0.00	0.00	0.00	0.00	0.00
Net (debt) / cash	-	-	(3,931)	(4,705)	(4,932)	(5,054)	(5,260)	(5,492)
Profitability/valuation	-	-	12/14	12/15E	12/16E	12/17E	12/18E	12/19E
EBIT margin %	-	-	10.3	11.2	6.2	2.1	2.4	1.5
ROIC (EBIT) %	-	-	-	5.2	2.3	0.7	0.8	0.5
EV/EBITDA (core) x	-	-	-	4.9	7.0	10.1	10.2	11.3
P/E (UBS, diluted) x	-	-	-	3.8	15.4	(8.2)	(9.8)	(7.4)
Equity FCF (UBS) yield %	-	-	-	31.6	128.7	10.2	7.2	5.5
Net dividend yield %	-	-	-	0.0	0.0	0.0	0.0	0.0

Source: Company accounts, Thomson Reuters, UBS estimates. UBS adjusted EPS is stated before goodwill-related charges and other adjustments for abnormal and economic items at the analysts' judgement. Valuations: based on an average share price that year, (E): based on a share price of US\$7.81 on 04 Mar 2016 19:41 EST

www.ubs.com/investmentresearch

This report has been prepared by UBS Securities LLC. **ANALYST CERTIFICATION AND REQUIRED DISCLOSURES BEGIN ON PAGE 10.** UBS does and seeks to do business with companies covered in its research reports. As a result, investors should be aware that the firm may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making their investment decision.

ENVIRONMENTAL QUALITY
COUNCIL. 2015-16

March 9, 2016

Exhibit 2

For additional context, please refer links to relevant recent reports below:

[2/25/16 How Will Capital Be Allocated?](#)

[1/7/16 Will 2016 Offer a Turnaround?](#)

[11/16/15 Riding the Power Curve](#)

[10/26/15 Unpacking the Latest Portfolio Developments](#)

[10/9/15 Extracting Top Dollar on Divestments](#)

[9/18/15 Capacity Auction Misses The Mark](#)

[8/18/15 Tapping Into Gas Conversions](#)

[8/7/15 Traveling on Calmer Waters \(Upgrade to Neutral\)](#)

[7/21/15 Deploying The War Chest](#)

[7/20/15 Opening The War Chest?](#)

[6/4/15 Initiation: Choppy Waters on the Susquehanna](#)

[5/22/15 The 10 Key Talen Debates](#)

Capital available for allocation: Strong today but the future is the question

Preference is for growth but repurchasing debt is very compelling: The number one topic for Talen continues to be capital allocation and how management decides to utilize the proceeds from its asset divestitures (\$1,220Mn) disclosed in 2015 as well as organic free cash flow generated in 2016E (\$350Mn midpoint pre-\$108Mn growth capex). On the 4Q15 call Talen disclosed that it has already repaid \$500Mn of revolver borrowings in February and at a minimum intends to retire \$396Mn of maturing debt obligations in 2016. We present our preliminary cash flow analysis on the next page. While Talen's first preference is seemingly to execute on growth opportunities, it sees the return profile of repurchasing its own debt as very compelling as it can effectively 'lock-in' an IRR on the transaction (*rather* than buying assets at an unknown realized IRR through the merchant cycle). With 2019+ debt trading at material discounts (20%+ as of the earnings call and still 16% today) it sees an attractive return profile but management is mindful of the need to balance the return profile with investors' desire for near-term liquidity. Although Talen was not involved in the Engie transaction, management comments that it still sees a robust opportunity set of potential power assets in the market. For example, Talen estimates that ~20GW of capacity trades hands on average annually in the power markets.

If it is able to achieve the same/similar returns from executing on M&A/organic expansions vs paying down debt, we believe Talen will pursue the growth avenue given the qualitative attributes (asset/fuel diversification, etc.)

Secured debt could help facilitate liabilities management program: Talen has been exploring whether it should add more secured asset-level debt to some of its facilities in order to create capacity to reduce corporate level obligations. Management is carefully weighing its options as it sees value in its current flexible capital structure which does not have significant covenants currently.

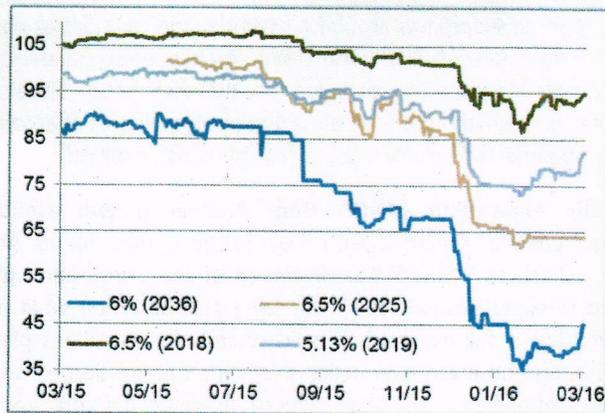
Below we detail estimated capital available for allocation showing that management still has adequate cash at its disposal to make a dent in upcoming maturities but the question will be if investors reward this. Talen indicated that an update on capital allocation is unlikely until it has actually received the divestiture proceeds cash (~end of March) and made a decision on the Montour gas project (1H16).

Figure 1: Talen Cash Flow Analysis

Cash Flow Analysis (\$Mn)	2016E
YE15 Unrestricted Cash Balance	141
Release of Restricted Cash	55
Divestiture Proceeds	1,220
2016E FCF	249
Less: TSA Costs	(25)
Less: Feb Revolver Repayment	(500)
Less: Jan Ironwood Redemption	(41)
Capital Available for Allocation	1,099
Less: 2016 Debt Maturities	(355)
Less: Minimum Cash Target	(200)
Remaining Available for Allocation	544
Committed 2016 Debt Reduction	(896)
Total Potential Debt Reduction in 2016	(1,440)

Source: Company Filings and UBS Estimates

Figure 2: Talen Bond Trading Values



Source: FactSet

2016 FCF profile improves but 5Yr capex forecast is lifted \$53Mn

The 2016E adjusted FCF guidance increased to \$250-\$450Mn from \$260Mn despite a \$100Mn reduction in adjusted EBITDA and while lower cash taxes is the primary driver, it appears that mgmt has deferred "sustenance" capex into 2017. 2016E maintenance capex declined \$56Mn since EEI disclosures but 2017E increased \$49Mn; collective 2016-2019E capex increased \$53Mn. "Reduced outage scope" was mentioned as a driver of \$70Mn lower O&M for 2016 versus its prior guidance midpoint; the question is how much of this could return in 2017 along with higher maintenance capex?

Best Harquahala risk/reward likely involves finding a local solution:

Management believes the best risk/reward is in finding a local solution such as selling the plant to a local utility or entering into a PPA rather than attempting to move the unit. While the cost estimate to relocate the asset has been refined to ~\$315-\$500/kW, if management is able to realize \$500-\$700/kW in value depending on the market for the new plant it would have essentially the same value creation as if it simply sold the asset for ~\$200-\$250/kW without the risk of transportation.

We're biased to believe the asset is able to get a contract – rather than moving

- As a reminder, Arizona Public Service has an RFP set for March but the timeline could be protracted – [details on the RFP are available in our Conference note here \(Page 45\)](#).
- The plant was built in a modular way, has three independent units, and TLN has been working with firms that specialize in the type of work so management is not concerned by the prospects of moving the asset; however, we would be surprised if management opts to relocate the asset. In the interim Talen is attempting to improve the cost structure of the plant and reduce the EBITDA drag which is estimated to be \$5-10Mn.
- Mgmt has indicated it would address the future of this plant in 2016e. It would appear the cost of transporting the plant could approach ~\$350/kW.

Eliminating taxes with Colstrip sale: another 2016 positive

We see elimination of any forecasted taxable liabilities as a result of a sale or closure of this plant for TLN. While a discussion of a sale or divestment of Colstrip has been contemplated for some time (dating back to the legacy PPL ownership),

we expect this issue to be resolved in the medium-term. We see mgmt as closely focusing on developments around a potential sale to Puget as part of an ongoing review in the state of Washington. We emphasize even a shutdown of the unit would force a recognition of a loss on the asset sale. Either way, we expect pressure to grow to reconcile these remaining units as the company steps into years with projected taxable income as existing NOLs roll off.

Carefully expanding MACH Gen: Another growth avenue discussed by management was potential attractively priced uprates for its Athens/Millennium plants, collectively ~80-85MWs. In-service of the Constitution pipeline has been delayed to late-2016/early-2017 (we say 1H17) based on what management has observed but it still expects improved spreads for its Athens plant in New York. Talen has also observed a reduction in electric transmission constraints around the Athens plant as flows have been reduced; however, this could relate to the below-average weather recently.

Looking at the markets: In its Pennsylvania footprint management believes drilling is slowing and that natural gas pricing should stabilize but does not anticipate a quick commodity recovery. Following a strong operational year at Susquehanna, management is confident that it can further improve the cost structure of the 2.3GW nuclear asset as part of the broader industry-wide push to reduce nuclear costs.

Across its fleet none of Talen's eastern assets are generating losses although the economics of the ERCOT fleet are more challenged: Management believes that there could be further asset rationalization in the TX market in 2017-2018 as generators get closer to facing environmental liabilities. Additionally potential reforms to the ORDC could help price formation going forward if approved by the Public Utilities Commission of Texas (PUCT). Finding a way to monetize the money-losing Colstrip assets remains a priority but any transaction with a utility seemingly would still require local legislation to be passed.

Still confident in competitive markets for the long term: Talen continues to believe that the Supreme Court and FERC will make the "right decision" when reviewing the facts of the relevant cases impacting the power markets such as the Maryland/New Jersey case and the Ohio PPA requests. Talen does not perceive a risk that there will be a broader push for re-regulation in its markets.

As we depict in Figure 3 we see free cash flow declining sharply in 2017-2019 but recover to ~\$140Mn in 2020-2023E based upon management's expected decline in 'sustenance'/maintenance capex and preliminary adjusted EBITDA estimates. The effective cash tax rate was revised lower once again to near zero for at least the next five years. Our FCF estimates below include growth capex and our comparable basis 2016E FCF estimate is \$357Mn, near the midpoint of management's guidance.

TLN sees its nuclear cost structure as competitive and anticipates improvements.

In 2015 Talen made substantially all of the year's EBITDA in ERCOT in a ~10-day period this summer when there was above-average weather; FY15 adjusted EBITDA from the West was \$56Mn but this also includes Colstrip.

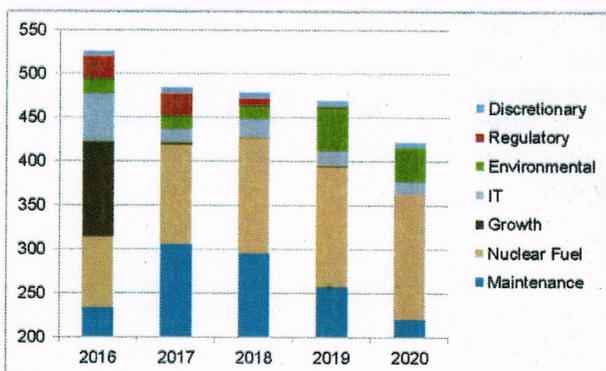
Figure 3: Talen Updated Free Cash Flow Estimates

Talen Free Cash Flow Analysis	2015	2016	2017	2018	2019
Adjusted EBITDA	\$1,082	\$751	\$589	\$599	\$563
Nuclear D&A	\$149	\$153	\$155	\$156	\$158
Less: Interest Expense	(\$211)	(\$225)	(\$211)	(\$201)	(\$204)
Less: Taxes	(\$126)	\$95	\$7	\$6	\$7
FCF Pre-Capex (Proxy for FFO)	\$894	\$775	\$539	\$560	\$525
Capital Expenditures	(\$491)	(\$526)	(\$484)	(\$479)	(\$469)
Free Cash Flow	\$403	\$249	\$55	\$81	\$56
Combined Guidance		\$375-\$425	\$250-\$450		

Source: Company Filings, Platts, ThomsonReuters, SNL Energy, and UBS Estimates

As discussed on Page 1, the \$34Mn 2016E reduction in capex guidance since EEI disclosures in November is more than offset by an increase in future spending expectations.

Figure 4: Talen Updated Capex (4Q15)



Source: Company Filings

Figure 5: Change in Talen Capex (Nov. 2015 vs 4Q15)

Change in Capex QoQ	2016	2017	2018	2019	Total
Maintenance	(56)	49	(4)	33	22
Nuclear Fuel	(3)	(6)	6	8	5
Growth	23	2	0	0	25
IT	12	(6)	7	6	19
Environmental	(11)	(22)	(4)	18	(19)
Regulatory	1	3	(3)	(1)	0
Discretionary	0	0	1	0	1
Total	(34)	20	3	64	53

Source: Company Filings

Updated Adjusted EBITDA Estimates

We have updated for the latest disclosures and commodity mark-to-market. Talen pointed to \$20-\$35Mn of additional potential adjusted EBITDA from the Brunner project in 2Q16 but we expect the economics have only improved due to the declining cost of gas in the region.

Talen continues to evaluate its asset-level cost structure and believes the O&M reductions disclosed lately (ex-synergies) are sustainable. Without discussing specifics, management does see a path to further costs reductions at Susquehanna in accordance with the NEI industry-wide initiative but sees the nuclear asset as well positioned for today's market environment even with its current cost profile.

We note that we have not assumed a pick-up in O&M in 2017 related to the increase in maintenance capex in the latest disclosures but also do not yet reflect the improved economics for the gas projects at Brunner Island/ Montour (Montour still under management evaluation).

Figure 6: Talen Adjusted EBITDA Estimates

Talen Energy EBITDA Summary	2015	2016	2017	2018	2019
PPL Supply	\$706	\$366	\$142	\$152	\$145
Raven Power	\$121	\$87	\$91	\$94	\$91
Sapphire Power	\$55	\$41	\$35	\$37	\$12
Topaz/Jade Power	\$22	-\$5	-\$9	-\$6	-\$7
MACH Gen	\$44	\$122	\$135	\$130	\$129
Subtotal	\$948	\$611	\$393	\$409	\$370
Synergies and Other	\$134	\$140	\$195	\$190	\$193
Total Adjusted EBITDA	\$1,082	\$751	\$589	\$599	\$563
Combined Guidance	1,050-1,100	635-835			
UBS Prior	1,041	789	615	636	655
Consensus	1,058	778	694	655	633

Source: Company Filings, Platts, ThomsonReuters, SNL Energy, and UBS Estimates

Average 2016 hedged spark spread declined to \$10-\$12/MWh from \$12-\$13/MWh which management attributed the decline in 2016 eastern spark spreads to additional off-peak hedging for high heat rate units. Hedging delivered eastern coal costs declined to \$65-\$67/ton from \$67-\$70/ton. 2017 hedge disclosures were initiated where eastern power (nuclear and coal) is expected to decline \$2/MWh at the midpoint but western power (coal) is up \$4.50/MWh.

Valuation: Maintain \$6 Price Target

We have rolled our valuation forward to 2018E basis where we continue to utilize a sum-of-the-parts methodology. Although we have reduced our adjusted EBITDA estimates, estimated total net debt has declined as well which leaves our valuation unchanged. After falling below \$6/sh on February 26, TLN was trading above \$7.50/sh on March 4th as investors have seemingly begun to take into account management's plans to reduce leverage.

What keeps us on the sidelines is the still meaningfully weaker FCF profile vs. peer IPPs and more challenged outlook for solid fuel assets in PJM.

Figure 7: Talen Energy Valuation

Talen Energy - 2018E	UBS EBITDA	EV/EBITDA Multiples			Valuation Cases		
		Low	Base	High	Low	Base	High
PPL Supply: Wholesale	117	6.0x	7.0x	8.0x	\$701	\$818	\$935
PPL EnergyPlus: Market & Trading	35	4.0x	5.0x	6.0x	\$141	\$176	\$211
Total Net PPL Supply	152	5.5x	6.5x	7.5x	\$842	\$994	\$1,146
Raven, Jade, Sapphire, Power	126	6.0x	7.0x	8.0x	\$757	\$883	\$1,009
Less: Wagner 2, & Bayonne	(14)	6.0x	7.0x	8.0x	(\$82)	(\$95)	(\$109)
Net RJS (Riverstone)	113	6.0x	7.0x	8.0x	\$675	\$788	\$900
MACH Gen	140	6.0x	7.0x	8.0x	\$842	\$983	\$1,123
Plus: Harquahala	(10)	Using \$/kW Approach			\$55	\$109	\$273
Total Net MACH Gen	130	6.9x	8.4x	10.7x	\$897	\$1,092	\$1,396
Synergies and Other	190	6.0x	7.0x	8.0x	\$1,143	\$1,333	\$1,523
Total Unregulated EV	585	6.1x	7.2x	8.5x	\$3,557	\$4,207	\$4,966
Net Debt							
Short-Term Debt					(\$608)	(\$608)	(\$608)
Long-Term Debt					(\$4,038)	(\$4,228)	(\$4,228)
Cash and Investments					\$247	\$247	\$247
Net Debt (4Q15A)					(\$4,399)	(\$4,589)	(\$4,589)
Less: Net Proceeds from Divestitures					\$1,220	\$1,220	\$1,220
Total Net Debt					(\$3,179)	(\$3,369)	(\$3,369)
Net Debt / Adj. EBITDA					5.4x	5.8x	5.8x
Total Equity Value					\$378	\$838	\$1,597
Implied FCF Yield (EBITDA - Capex - Interest Exp - Taxes)					15%	7%	3%
Shares Outstanding					128.5	131.3	132.7
Talen (TLN) Price Target					\$3.00	\$6.00	\$12.00
Upside/(Downside)					-62%	-24%	52%

Source: Company Filings, Platts, SNL Energy, and UBS Estimates

The bonds have traded off their mid-January lows with ~5-10 point rallies across the maturities but the longer-dated obligations continue to trade at large discounts.

Figure 8: Talen Long-Term Debt Analysis: Obligations as of 12/31/15 and Current Yields as of 3/4/2016

As of 12/31/15	Maturity (yr)	Book Yield	Current Yield	2016	2017	2018	2019	2020	2021+
Talen Energy Supply, LLC.									
Senior Notes:									
Talen ES 6.20%	2016	6.20%	6.20%	350					
Talen ES 6.50%	2018	6.50%	6.82%			400			
Talen ES 5.125%	2019	5.13%	6.14%				1,220		
Talen ES 4.60%	2021	4.60%	6.57%						712
Talen ES 6.50%	2025	6.50%	10.16%						600
Talen ES 6.00%	2036	6.00%	13.33%						200
Total Senior Notes		3,482		350	-	400	1,220	-	1,512
Municipal Bonds:									
Talen ES variable-rate Series A	2038	6.40%	6.40%						100
Talen ES variable-rate Series B	2038	3.00%	6.40%					50	
Talen ES variable-rate Series C	2037	6.00%	6.40%					81	
Total Municipal Bonds		231						131	100
Talen Ironwood, LLC									
Talen Ironwood (A)	2025	8.86%		41					
MACH Gen LLC									
Term Loan B	2022	4.25%	6.14%	5	5	24	24	48	368
Total Maturities		4,228		396	5	424	1,244	179	1,980
Book Interest Expense (Consolidated)		\$223							
MtM Interest Expense (Consolidated)		\$302							
Delta (%)		-26%							
2018E EBITDA (UBSe)		\$636							
Delta (%)		-12%							
2018E FCF (UBSe)		\$81							
Delta (%)		-97%							

(A): Retired in Jan 2016

Source: Company Filings, FactSet, and UBS Estimates. The analysis above was performed for all of Talen's debt as of 12/31/15. The MACH Gen Term Loan B is non-recourse to Talen Energy. [Further details are available in our note 'Can M&A Save Power?'](#)

Forecast returns

Forecast price appreciation	-23.2%
Forecast dividend yield	0.0%
Forecast stock return	-23.2%
Market return assumption	5.9%
Forecast excess return	-29.1%

Valuation Method and Risk Statement

Risks for Talen Energy (TLN) include but are not limited to: (1) potential increases in environmental capital expenditures; (2) unfavorable commodity movements [natural gas, power, etc.]; (3) adverse political/legal/regulatory actions; (4) unfavorable weather; (5) operational and construction risk; (6) inability to access the capital markets on attractive terms; (7) declines in customer demand and population; (8) failure to close pending or prospective M&A transactions; (9) natural disasters or nuclear accidents; (10) losses at the retail marketing segment; (11) change in macroeconomics; (12) operational challenges at the nuclear and other assets; (13) inability to achieve synergy and other financial metrics; and (16) other unforeseen changes.

Valuation is based on a sum-of-the-parts analysis.

Required Disclosures

This report has been prepared by UBS Securities LLC, an affiliate of UBS AG. UBS AG, its subsidiaries, branches and affiliates are referred to herein as UBS.

For information on the ways in which UBS manages conflicts and maintains independence of its research product; historical performance information; and certain additional disclosures concerning UBS research recommendations, please visit www.ubs.com/disclosures. The figures contained in performance charts refer to the past; past performance is not a reliable indicator of future results. Additional information will be made available upon request. UBS Securities Co. Limited is licensed to conduct securities investment consultancy businesses by the China Securities Regulatory Commission. UBS acts or may act as principal in the debt securities (or in related derivatives) that may be the subject of this report.

Analyst Certification: Each research analyst primarily responsible for the content of this research report, in whole or in part, certifies that with respect to each security or issuer that the analyst covered in this report: (1) all of the views expressed accurately reflect his or her personal views about those securities or issuers and were prepared in an independent manner, including with respect to UBS, and (2) no part of his or her compensation was, is, or will be, directly or indirectly, related to the specific recommendations or views expressed by that research analyst in the research report.

UBS Investment Research: Global Equity Rating Definitions

12-Month Rating	Definition	Coverage ¹	IB Services ²
Buy	FSR is > 6% above the MRA.	48%	36%
Neutral	FSR is between -6% and 6% of the MRA.	39%	28%
Sell	FSR is > 6% below the MRA.	12%	22%
Short-Term Rating	Definition	Coverage ³	IB Services ⁴
Buy	Stock price expected to rise within three months from the time the rating was assigned because of a specific catalyst or event.	<1%	<1%
Sell	Stock price expected to fall within three months from the time the rating was assigned because of a specific catalyst or event.	<1%	<1%

Source: UBS. Rating allocations are as of 31 December 2015.

1:Percentage of companies under coverage globally within the 12-month rating category.

2:Percentage of companies within the 12-month rating category for which investment banking (IB) services were provided within the past 12 months.

3:Percentage of companies under coverage globally within the Short-Term rating category.

4:Percentage of companies within the Short-Term rating category for which investment banking (IB) services were provided within the past 12 months.

KEY DEFINITIONS: **Forecast Stock Return (FSR)** is defined as expected percentage price appreciation plus gross dividend yield over the next 12 months. **Market Return Assumption (MRA)** is defined as the one-year local market interest rate plus 5% (a proxy for, and not a forecast of, the equity risk premium). **Under Review (UR)** Stocks may be flagged as UR by the analyst, indicating that the stock's price target and/or rating are subject to possible change in the near term, usually in response to an event that may affect the investment case or valuation. **Short-Term Ratings** reflect the expected near-term (up to three months) performance of the stock and do not reflect any change in the fundamental view or investment case. **Equity Price Targets** have an investment horizon of 12 months.

EXCEPTIONS AND SPECIAL CASES: UK and European Investment Fund ratings and definitions are: **Buy:** Positive on factors such as structure, management, performance record, discount; **Neutral:** Neutral on factors such as structure, management, performance record, discount; **Sell:** Negative on factors such as structure, management, performance record, discount. **Core Banding Exceptions (CBE):** Exceptions to the standard +/-6% bands may be granted by the Investment Review Committee (IRC). Factors considered by the IRC include the stock's volatility and the credit spread of the respective company's debt. As a result, stocks deemed to be very high or low risk may be subject to higher or lower bands as they relate to the rating. When such exceptions apply, they will be identified in the Company Disclosures table in the relevant research piece.

Research analysts contributing to this report who are employed by any non-US affiliate of UBS Securities LLC are not registered/qualified as research analysts with FINRA. Such analysts may not be associated persons of UBS Securities LLC and therefore are not subject to the FINRA restrictions on communications with a subject company, public appearances, and trading securities held by a research analyst account. The name of each affiliate and analyst employed by that affiliate contributing to this report, if any, follows.

UBS Securities LLC: Julien Dumoulin-Smith; Michael Weinstein; Paul Zimbardo.

Company Disclosures

Company Name	Reuters	12-month rating	Short-term rating	Price	Price date
Talen Energy Corp ^{4, 5, 6, 16}	TLN.N	Neutral	N/A	US\$7.81	04 Mar 2016

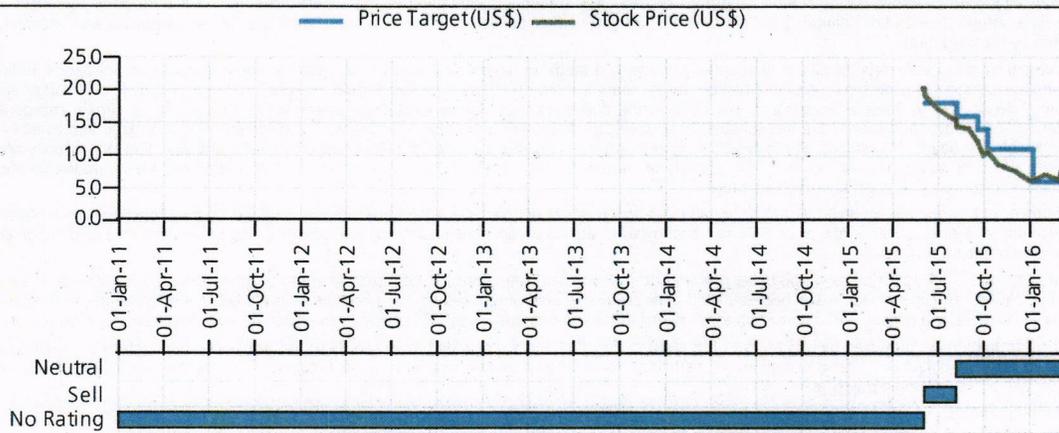
Source: UBS. All prices as of local market close.

Ratings in this table are the most current published ratings prior to this report. They may be more recent than the stock pricing date

- 4. Within the past 12 months, UBS AG, its affiliates or subsidiaries has received compensation for investment banking services from this company/entity or one of its affiliates.
- 5. UBS AG, its affiliates or subsidiaries expect to receive or intend to seek compensation for investment banking services from this company/entity within the next three months.
- 6. This company/entity is, or within the past 12 months has been, a client of UBS Securities LLC, and investment banking services are being, or have been, provided.
- 16. UBS Securities LLC makes a market in the securities and/or ADRs of this company.

Unless otherwise indicated, please refer to the Valuation and Risk sections within the body of this report. For a complete set of disclosure statements associated with the companies discussed in this report, including information on valuation and risk, please contact UBS Securities LLC, 1285 Avenue of Americas, New York, NY 10019, USA, Attention: Investment Research.

Talen Energy Corp (US\$)



Source: UBS; as of 04 Mar 2016

Global Disclaimer

This document has been prepared by UBS Securities LLC, an affiliate of UBS AG. UBS AG, its subsidiaries, branches and affiliates are referred to herein as UBS.

Global Research is provided to our clients through UBS Neo, the UBS Client Portal and UBS.com (each a "System"). It may also be made available through third party vendors and distributed by UBS and/or third parties via e-mail or alternative electronic means. The level and types of services provided by Global Research to a client may vary depending upon various factors such as a client's individual preferences as to the frequency and manner of receiving communications, a client's risk profile and investment focus and perspective (e.g. market wide, sector specific, long-term, short-term, etc.), the size and scope of the overall client relationship with UBS and legal and regulatory constraints.

When you receive Global Research through a System, your access and/or use of such Global Research is subject to this Global Research Disclaimer and to the terms of use governing the applicable System.

When you receive Global Research via a third party vendor, e-mail or other electronic means, your use shall be subject to this Global Research Disclaimer and to UBS's Terms of Use/Disclaimer (<http://www.ubs.com/global/en/legalinfo2/disclaimer.html>). By accessing and/or using Global Research in this manner, you are indicating that you have read and agree to be bound by our Terms of Use/Disclaimer. In addition, you consent to UBS processing your personal data and using cookies in accordance with our Privacy Statement (<http://www.ubs.com/global/en/legalinfo2/privacy.html>) and cookie notice (<http://www.ubs.com/global/en/homepage/cookies/cookie-management.html>).

If you receive Global Research, whether through a System or by any other means, you agree that you shall not copy, revise, amend, create a derivative work, transfer to any third party, or in any way commercially exploit any UBS research provided via Global Research or otherwise, and that you shall not extract data from any research or estimates provided to you via Global Research or otherwise, without the prior written consent of UBS.

For access to all available Global Research on UBS Neo and the Client Portal, please contact your UBS sales representative.

This document is for distribution only as may be permitted by law. It is not directed to, or intended for distribution to or use by, any person or entity who is a citizen or resident of or located in any locality, state, country or other jurisdiction where such distribution, publication, availability or use would be contrary to law or regulation or would subject UBS to any registration or licensing requirement within such jurisdiction. It is published solely for information purposes; it is not an advertisement nor is it a solicitation or an offer to buy or sell any financial instruments or to participate in any particular trading strategy. No representation or warranty, either expressed or implied, is provided in relation to the accuracy, completeness or reliability of the information contained in this document ("the Information"), except with respect to Information concerning UBS. The Information is not intended to be a complete statement or summary of the securities, markets or developments referred to in the document. UBS does not undertake to update or keep current the Information. Any opinions expressed in this document may change without notice and may differ or be contrary to opinions expressed by other business areas or groups of UBS. Any statements contained in this report attributed to a third party represent UBS's interpretation of the data, information and/or opinions provided by that third party either publicly or through a subscription service, and such use and interpretation have not been reviewed by the third party.

Nothing in this document constitutes a representation that any investment strategy or recommendation is suitable or appropriate to an investor's individual circumstances or otherwise constitutes a personal recommendation. Investments involve risks, and investors should exercise prudence and their own judgement in making their investment decisions. The financial instruments described in the document may not be eligible for sale in all jurisdictions or to certain categories of investors. Options, derivative products and futures are not suitable for all investors, and trading in these instruments is considered risky. Mortgage and asset-backed securities may involve a high degree of risk and may be highly volatile in response to fluctuations in interest rates or other market conditions. Foreign currency rates of exchange may adversely affect the value, price or income of any security or related instrument referred to in the document. For investment advice, trade execution or other enquiries, clients should contact their local sales representative.

The value of any investment or income may go down as well as up, and investors may not get back the full (or any) amount invested. Past performance is not necessarily a guide to future performance. Neither UBS nor any of its directors, employees or agents accepts any liability for any loss (including investment loss) or damage arising out of the use of all or any of the Information.

Any prices stated in this document are for information purposes only and do not represent valuations for individual securities or other financial instruments. There is no representation that any transaction can or could have been effected at those prices, and any prices do not necessarily reflect UBS's internal books and records or theoretical model-based valuations and may be based on certain assumptions. Different assumptions by UBS or any other source may yield substantially different results.

This document and the Information are produced by UBS as part of its research function and are provided to you solely for general background information. UBS has no regard to the specific investment objectives, financial situation or particular needs of any specific recipient. In no circumstances may this document or any of the Information be used for any of the following purposes:

- (i) valuation or accounting purposes;
- (ii) to determine the amounts due or payable, the price or the value of any financial instrument or financial contract; or
- (iii) to measure the performance of any financial instrument.

By receiving this document and the Information you will be deemed to represent and warrant to UBS that you will not use this document or any of the Information for any of the above purposes or otherwise rely upon this document or any of the Information.

Research will initiate, update and cease coverage solely at the discretion of UBS Investment Bank Research Management. The analysis contained in this document is based on numerous assumptions. Different assumptions could result in materially different results. The analyst(s) responsible for the preparation of this document may interact with trading desk personnel, sales personnel and other parties for the purpose of gathering, applying and interpreting market information. UBS relies on information barriers to control the flow of information contained in one or more areas within UBS into other areas, units, groups or affiliates of UBS. The compensation of the analyst who prepared this document is determined exclusively by research management and senior management (not including investment banking). Analyst compensation is not based on investment banking revenues; however, compensation may relate to the revenues of UBS Investment Bank as a whole, of which investment banking, sales and trading are a part.

For financial instruments admitted to trading on an EU regulated market: UBS AG, its affiliates or subsidiaries (excluding UBS Securities LLC) acts as a market maker or liquidity provider (in accordance with the interpretation of these terms in the UK) in the financial instruments of the issuer save that where the activity of liquidity provider is carried out in accordance with the definition given to it by the laws and regulations of any other EU jurisdictions, such information is separately disclosed in this document. For financial instruments admitted to trading on a non-EU regulated market: UBS may act as a market maker save that where this activity is carried out in the US in accordance with the definition given to it by the relevant laws and regulations, such activity will be specifically disclosed in this document. UBS may have issued a warrant the value of which is based on one or more of the financial instruments referred to in the document. UBS and its affiliates and employees may have long or short positions, trade as principal and buy and sell in instruments or derivatives identified herein; such transactions or positions may be inconsistent with the opinions expressed in this document.

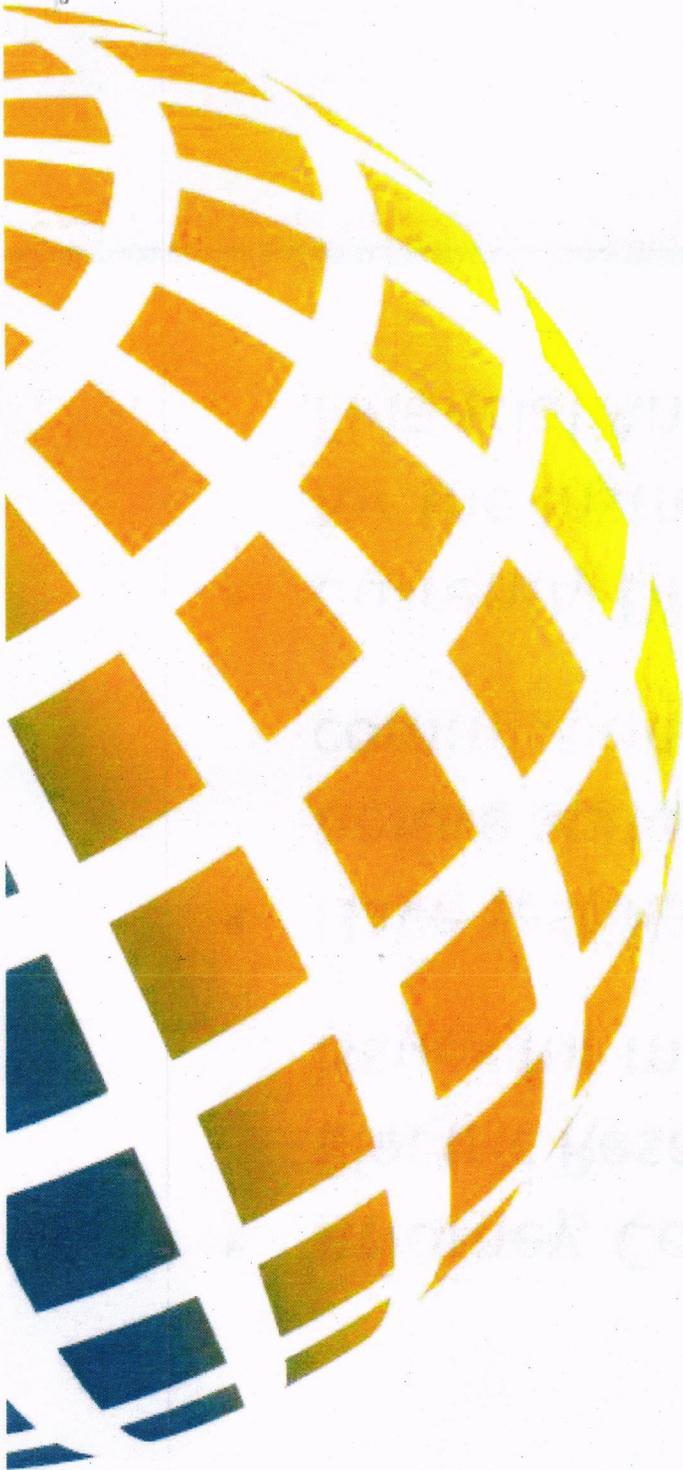
United Kingdom and the rest of Europe: Except as otherwise specified herein, this material is distributed by UBS Limited to persons who are eligible counterparties or professional clients. UBS Limited is authorised by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Regulation Authority. **France:** Prepared by UBS Limited and distributed by UBS Limited and UBS Securities France S.A. UBS Securities France S.A. is regulated by the ACPR (Autorité de Contrôle Prudentiel et de Résolution) and the Autorité des Marchés Financiers (AMF). Where an analyst of UBS Securities France S.A. has contributed to this document, the document is also deemed to have been prepared by UBS Securities France S.A. **Germany:** Prepared by UBS Limited and distributed by UBS Limited and UBS Deutschland AG. UBS Deutschland AG is regulated by the Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin). **Spain:** Prepared by UBS Limited and distributed by UBS Limited and UBS Securities España SV, SA. UBS Securities España SV, SA is regulated by the Comisión Nacional del Mercado de Valores (CNMV). **Turkey:** Distributed by UBS Limited. No information in this document is provided for the purpose of offering, marketing and sale by any means of any capital market instruments and services in the Republic of Turkey. Therefore, this document may not be considered as an offer made or to be made to residents of the Republic of Turkey. UBS AG is not licensed by the Turkish Capital Market Board under the provisions of the Capital Market Law (Law No. 6362). Accordingly, neither this document nor any other offering material related to the instruments/services may be utilized in connection with providing any capital market services to persons within the Republic of Turkey without the prior approval of the Capital Market Board. However, according to article 15 (d) (ii) of the Decree No. 32, there is no restriction on the purchase or sale of the securities abroad by residents of the Republic of Turkey. **Poland:** Distributed by UBS Limited (spółka z ograniczoną odpowiedzialnością) Oddział w Polsce regulated by the Polish Financial Supervision Authority. Where an analyst of UBS Limited (spółka z ograniczoną odpowiedzialnością) Oddział w Polsce has contributed to this

document, the document is also deemed to have been prepared by UBS Limited (spolka z ograniczona odpowiedzialnoscia) Oddzial w Polsce. **Russia:** Prepared and distributed by UBS Bank (OOO). **Switzerland:** Distributed by UBS AG to persons who are institutional investors only. UBS AG is regulated by the Swiss Financial Market Supervisory Authority (FINMA). **Italy:** Prepared by UBS Limited and distributed by UBS Limited and UBS Italia Sim S.p.A. UBS Italia Sim S.p.A. is regulated by the Bank of Italy and by the Commissione Nazionale per le Società e la Borsa (CONSOB). Where an analyst of UBS Italia Sim S.p.A. has contributed to this document, the document is also deemed to have been prepared by UBS Italia Sim S.p.A. **South Africa:** Distributed by UBS South Africa (Pty) Limited (Registration No. 1995/011140/07), an authorised user of the JSE and an authorised Financial Services Provider (FSP 7328). **Israel:** This material is distributed by UBS Limited. UBS Limited is authorised by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Regulation Authority. UBS Securities Israel Ltd is a licensed Investment Marketer that is supervised by the Israel Securities Authority (ISA). UBS Limited and its affiliates incorporated outside Israel are not licensed under the Israeli Advisory Law. UBS Limited is not covered by insurance as required from a licensee under the Israeli Advisory Law. UBS may engage among others in issuance of Financial Assets or in distribution of Financial Assets of other issuers for fees or other benefits. UBS Limited and its affiliates may prefer various Financial Assets to which they have or may have Affiliation (as such term is defined under the Israeli Advisory Law). Nothing in this Material should be considered as investment advice under the Israeli Advisory Law. This Material is being issued only to and/or is directed only at persons who are Eligible Clients within the meaning of the Israeli Advisory Law, and this material must not be relied on or acted upon by any other persons. **Saudi Arabia:** This document has been issued by UBS AG (and/or any of its subsidiaries, branches or affiliates), a public company limited by shares, incorporated in Switzerland with its registered offices at Aeschenvorstadt 1, CH-4051 Basel and Bahnhofstrasse 45, CH-8001 Zurich. This publication has been approved by UBS Saudi Arabia (a subsidiary of UBS AG), a Saudi closed joint stock company incorporated in the Kingdom of Saudi Arabia under commercial register number 1010257812 having its registered office at Tatweer Towers, P.O. Box 75724, Riyadh 11588, Kingdom of Saudi Arabia. UBS Saudi Arabia is authorized and regulated by the Capital Market Authority to conduct securities business under license number 08113-37. **Dubai:** The information distributed by UBS AG Dubai Branch is intended for Professional Clients only and is not for further distribution within the United Arab Emirates. **United States:** Distributed to US persons by either UBS Securities LLC or by UBS Financial Services Inc., subsidiaries of UBS AG; or by a group, subsidiary or affiliate of UBS AG that is not registered as a US broker-dealer (a "non-US affiliate") to major US institutional investors only. UBS Securities LLC or UBS Financial Services Inc. accepts responsibility for the content of a document prepared by another non-US affiliate when distributed to US persons by UBS Securities LLC or UBS Financial Services Inc. All transactions by a US person in the securities mentioned in this document must be effected through UBS Securities LLC or UBS Financial Services Inc., and not through a non-US affiliate. UBS Securities LLC is not acting as a municipal advisor to any municipal entity or obligated person within the meaning of Section 15B of the Securities Exchange Act (the "Municipal Advisor Rule"), and the opinions or views contained herein are not intended to be, and do not constitute, advice within the meaning of the Municipal Advisor Rule. **Canada:** Distributed by UBS Securities Canada Inc., a registered investment dealer in Canada and a Member-Canadian Investor Protection Fund, or by another affiliate of UBS AG that is registered to conduct business in Canada or is otherwise exempt from registration. **Brazil:** Except as otherwise specified herein, this material is prepared by UBS Brasil CCTVM S.A. to persons who are eligible investors residing in Brazil, which are considered to be: (i) financial institutions, (ii) insurance firms and investment capital companies, (iii) supplementary pension entities, (iv) entities that hold financial investments higher than R\$300,000.00 and that confirm the status of qualified investors in written, (v) investment funds, (vi) securities portfolio managers and securities consultants duly authorized by Comissão de Valores Mobiliários (CVM), regarding their own investments, and (vii) social security systems created by the Federal Government, States, and Municipalities. **Hong Kong:** Distributed by UBS Securities Asia Limited and/or UBS AG, Hong Kong Branch. **Singapore:** Distributed by UBS Securities Pte. Ltd. [MCI (P) 018/09/2015 and Co. Reg. No.: 198500648C] or UBS AG, Singapore Branch. Please contact UBS Securities Pte. Ltd., an exempt financial adviser under the Singapore Financial Advisers Act (Cap. 110); or UBS AG, Singapore Branch, an exempt financial adviser under the Singapore Financial Advisers Act (Cap. 110) and a wholesale bank licensed under the Singapore Banking Act (Cap. 19) regulated by the Monetary Authority of Singapore, in respect of any matters arising from, or in connection with, the analysis or document. The recipients of this document represent and warrant that they are accredited and institutional investors as defined in the Securities and Futures Act (Cap. 289). **Japan:** Distributed by UBS Securities Japan Co., Ltd. to professional investors (except as otherwise permitted). Where this document has been prepared by UBS Securities Japan Co., Ltd., UBS Securities Japan Co., Ltd. is the author, publisher and distributor of the document. Distributed by UBS AG, Tokyo Branch to Professional Investors (except as otherwise permitted) in relation to foreign exchange and other banking businesses when relevant. **Australia:** Clients of UBS AG: Distributed by UBS AG (Holder of Australian Financial Services Licence No. 231087). Clients of UBS Securities Australia Ltd: Distributed by UBS Securities Australia Ltd (Holder of Australian Financial Services Licence No. 231098). Clients of UBS Wealth Management Australia Ltd: Distributed by UBS Wealth Management Australia Ltd (Holder of Australian Financial Services Licence No. 231127). This Document contains general information and/or general advice only and does not constitute personal financial product advice. As such, the Information in this document has been prepared without taking into account any investor's objectives, financial situation or needs, and investors should, before acting on the Information, consider the appropriateness of the Information, having regard to their objectives, financial situation and needs. If the Information contained in this document relates to the acquisition, or potential acquisition of a particular financial product by a 'Retail' client as defined by section 761G of the Corporations Act 2001 where a Product Disclosure Statement would be required, the retail client should obtain and consider the Product Disclosure Statement relating to the product before making any decision about whether to acquire the product. The UBS Securities Australia Limited Financial Services Guide is available at: www.ubs.com/ecs-research-fsg. **New Zealand:** Distributed by UBS New Zealand Ltd. The information and recommendations in this publication are provided for general information purposes only. To the extent that any such information or recommendations constitute financial advice, they do not take into account any person's particular financial situation or goals. We recommend that recipients seek advice specific to their circumstances from their financial advisor. **Korea:** Distributed in Korea by UBS Securities Pte. Ltd., Seoul Branch. **Malaysia:** This material is authorized to be distributed in Malaysia by UBS Securities Malaysia Sdn. Bhd (Capital Markets Services License No.: CMSL/A0063/2007). This material is intended for professional/institutional clients only and not for distribution to any retail clients. **India:** Prepared by UBS Securities India Private Ltd. (Corporate Identity Number U67120MH1996PTC097299) 2/F, 2 North Avenue, Maker Maxity, Bandra Kurla Complex, Bandra (East), Mumbai (India) 400051. Phone: +912261556000. It provides brokerage services bearing SEBI Registration Numbers: NSE (Capital Market Segment): INB230951431, NSE (F&O Segment) INF230951431, NSE (Currency Derivatives Segment) INE230951431, BSE (Capital Market Segment) INB010951437; merchant banking services bearing SEBI Registration Number: INM000010809 and Research Analyst services bearing SEBI Registration Number: INH000001204. UBS AG, its affiliates or subsidiaries may have debt holdings or positions in the subject Indian company/companies. Within the past 12 months, UBS AG, its affiliates or subsidiaries may have received compensation for non-investment banking securities-related services and/or non-securities services from the subject Indian company/companies. The subject company/companies may have been a client/clients of UBS AG, its affiliates or subsidiaries during the 12 months preceding the date of distribution of the research report with respect to investment banking and/or non-investment banking securities-related services and/or non-securities services. With regard to information on associates, please refer to the Annual Report at: http://www.ubs.com/global/en/about_ubs/investor_relations/annualreporting.html

The disclosures contained in research documents produced by UBS Limited shall be governed by and construed in accordance with English law.

UBS specifically prohibits the redistribution of this document in whole or in part without the written permission of UBS and UBS accepts no liability whatsoever for the actions of third parties in this respect. Images may depict objects or elements that are protected by third party copyright, trademarks and other intellectual property rights. © UBS 2016. The key symbol and UBS are among the registered and unregistered trademarks of UBS. All rights reserved.





A Bleak Future for Colstrip Units 1 and 2 Has Become Much Bleaker



**Institute for Energy Economics
and Financial Analysis**
IEEFA.org

David Schlissel
March 4, 2016

Who Am I

- Attorney, Consultant, Expert Witness and Electric Resource Planning and Ratemaking Issues for more than 40 years.
- Have testified as an expert witness in 150 cases before state and federal regulatory commissions
- Currently Director of Resource Planning Analysis for the Institute for Energy Economics and Financial Analysis (IEEFA)

Recent History

- IEEFA June 2015 report concluded that Talen Montana, owner of 50% of Units 1& 2, would earn relatively small profits in coming years or, even more likely, would experience significant financial losses.
- Original response from Puget Sound Energy was that Talen is making money on Colstrip and is in for the long haul.
- Now, Puget Sound admits Talen is “hemorrhaging” money at Colstrip and may be looking to get out.

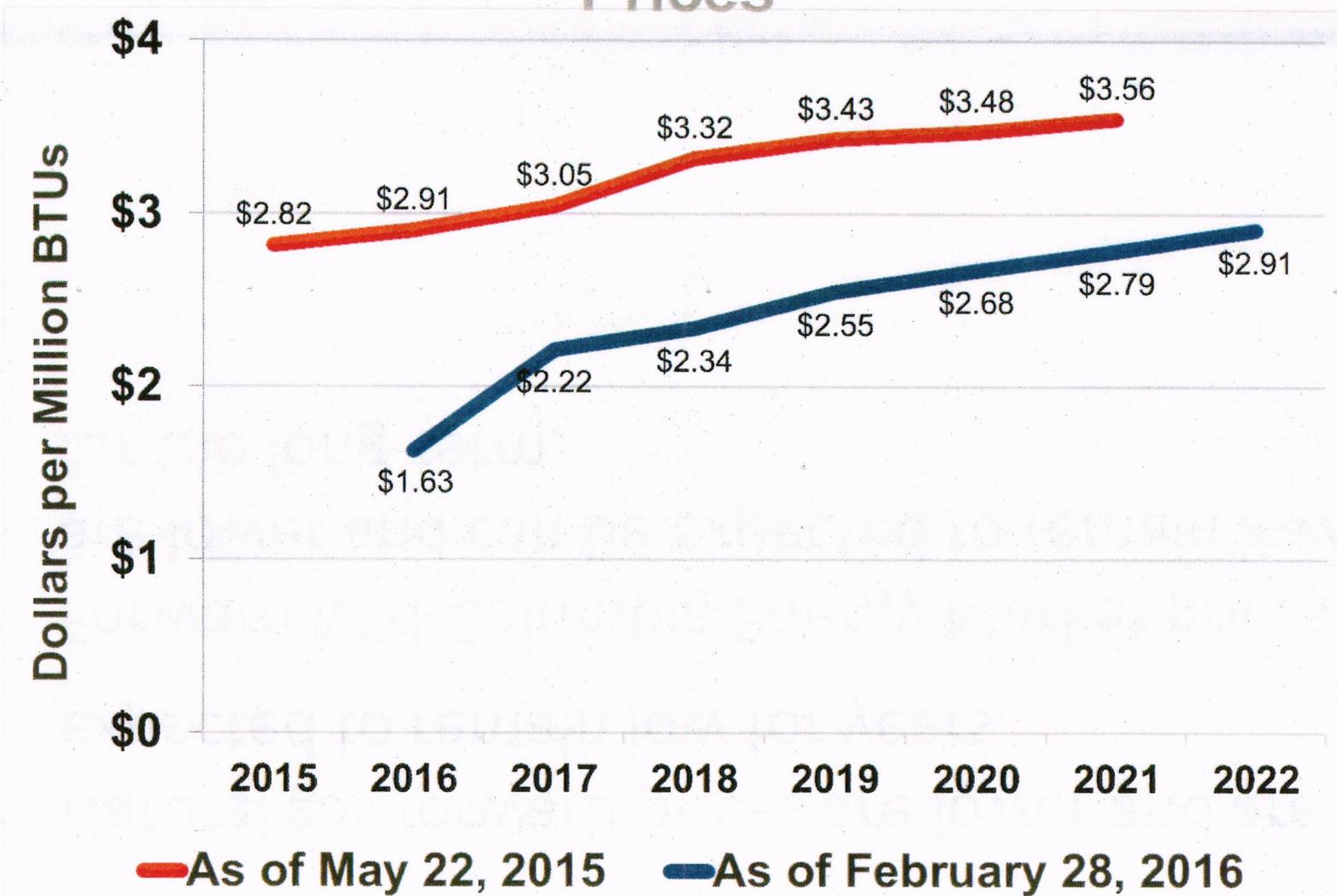
Findings of Updated IEEFA Analysis

- Talen will experience very significant financial losses due to Colstrip 1&2.
- Generating power at Colstrip 1&2 is substantially more expensive for Puget Sound's ratepayers than buying power at Mid-Columbia Hub.
- Talen's share of Colstrip 3 has little to negative value.

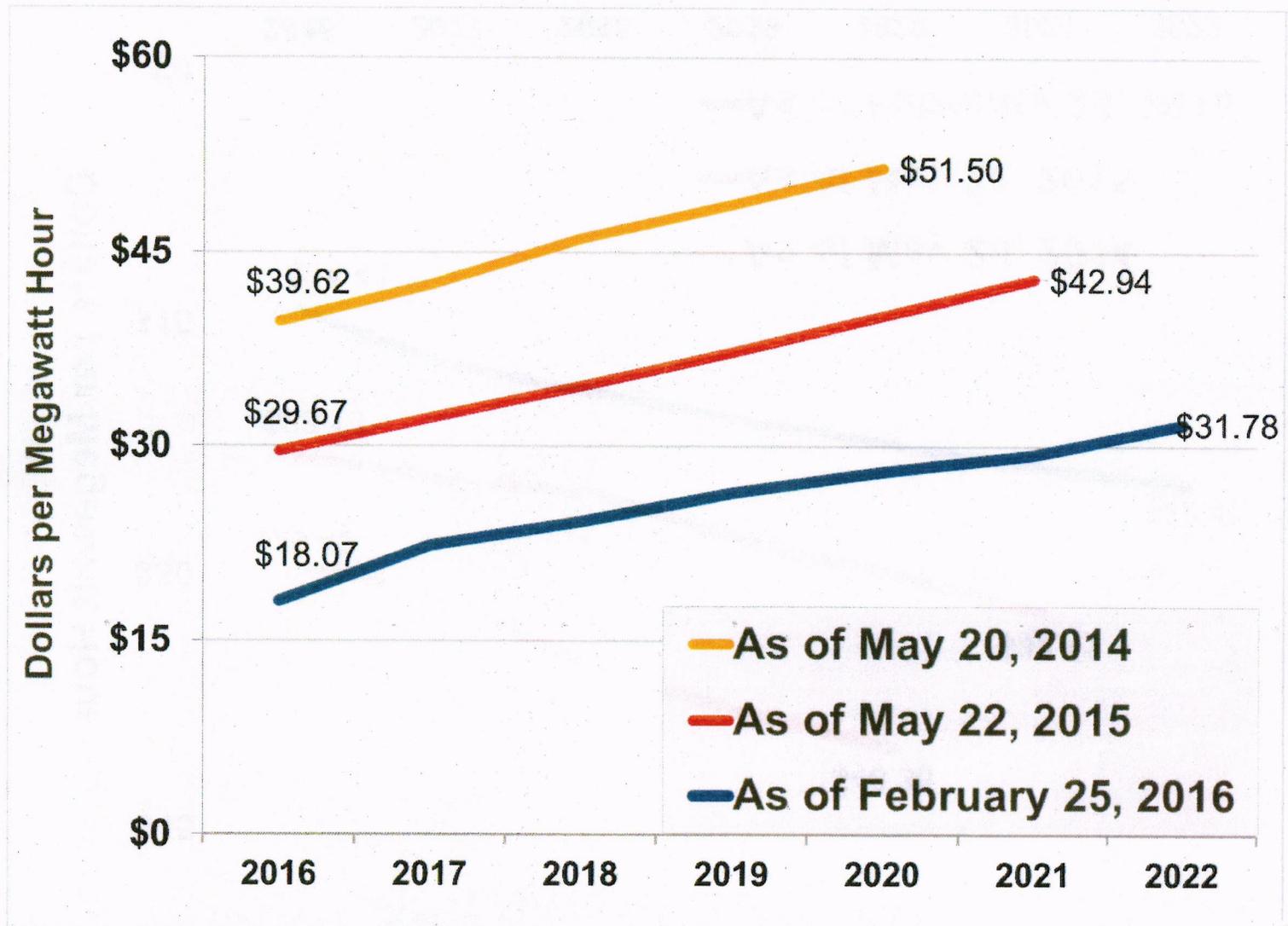
What Has Changed in Last Eight Months?

- Natural gas forward prices are lower and are expected to remain low for years.
- Forward Mid-Columbia Energy Market prices are lower and can be expected to remain low for the long-term.

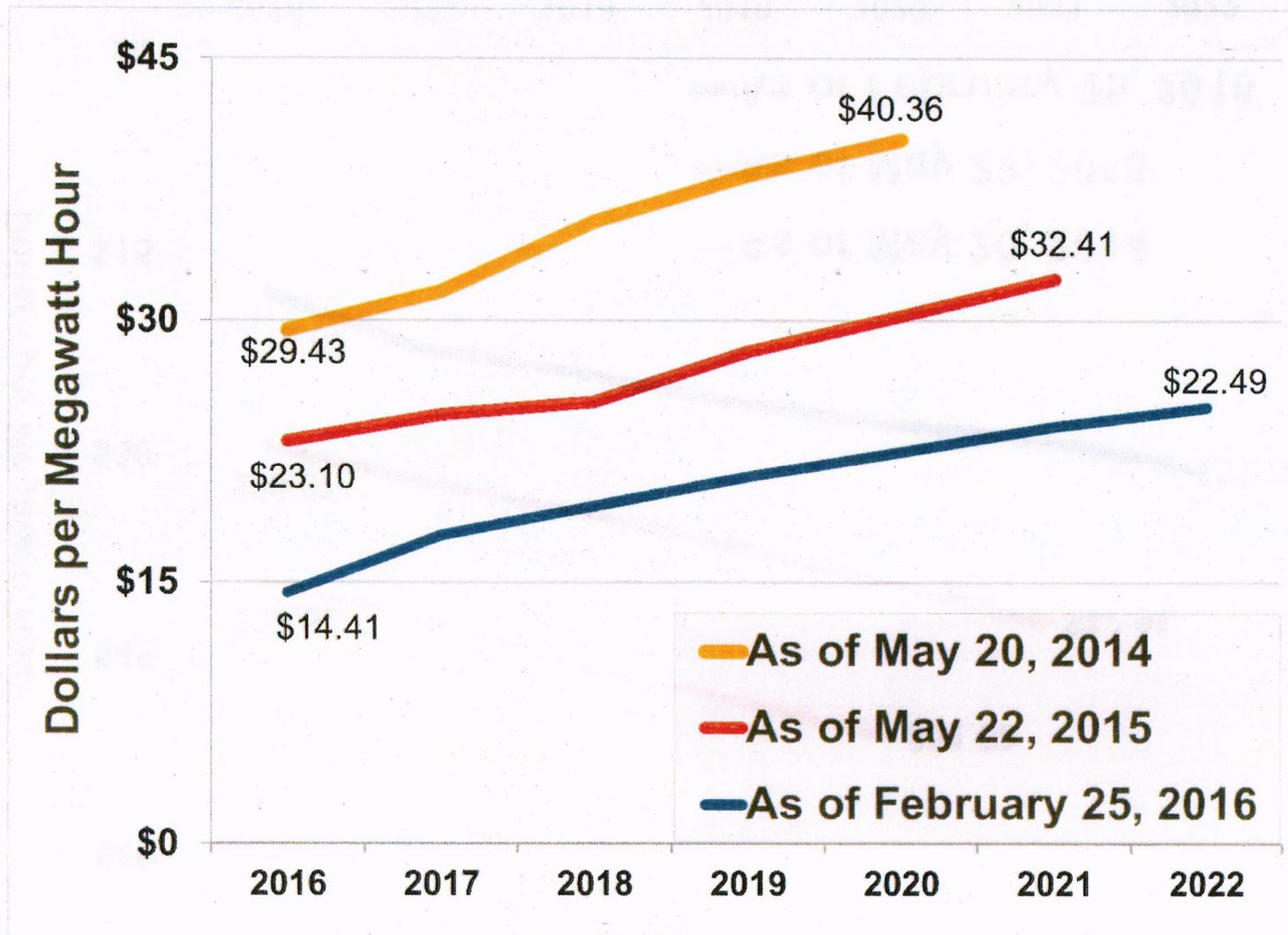
Much Lower Expectations for Future Natural Gas Prices



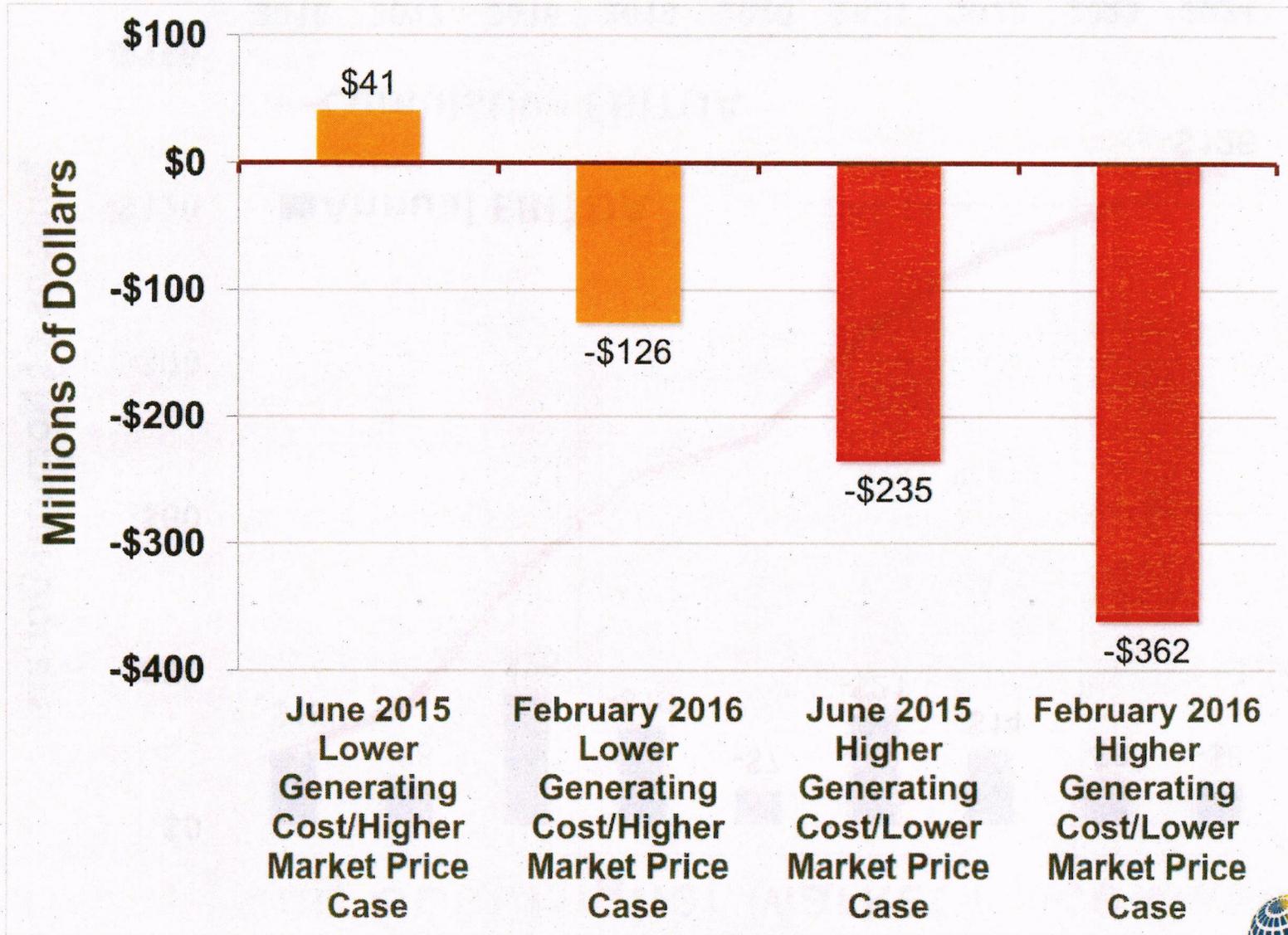
Much Lower Expectations for Peak Period Mid-Columbia Hub Energy Market Prices



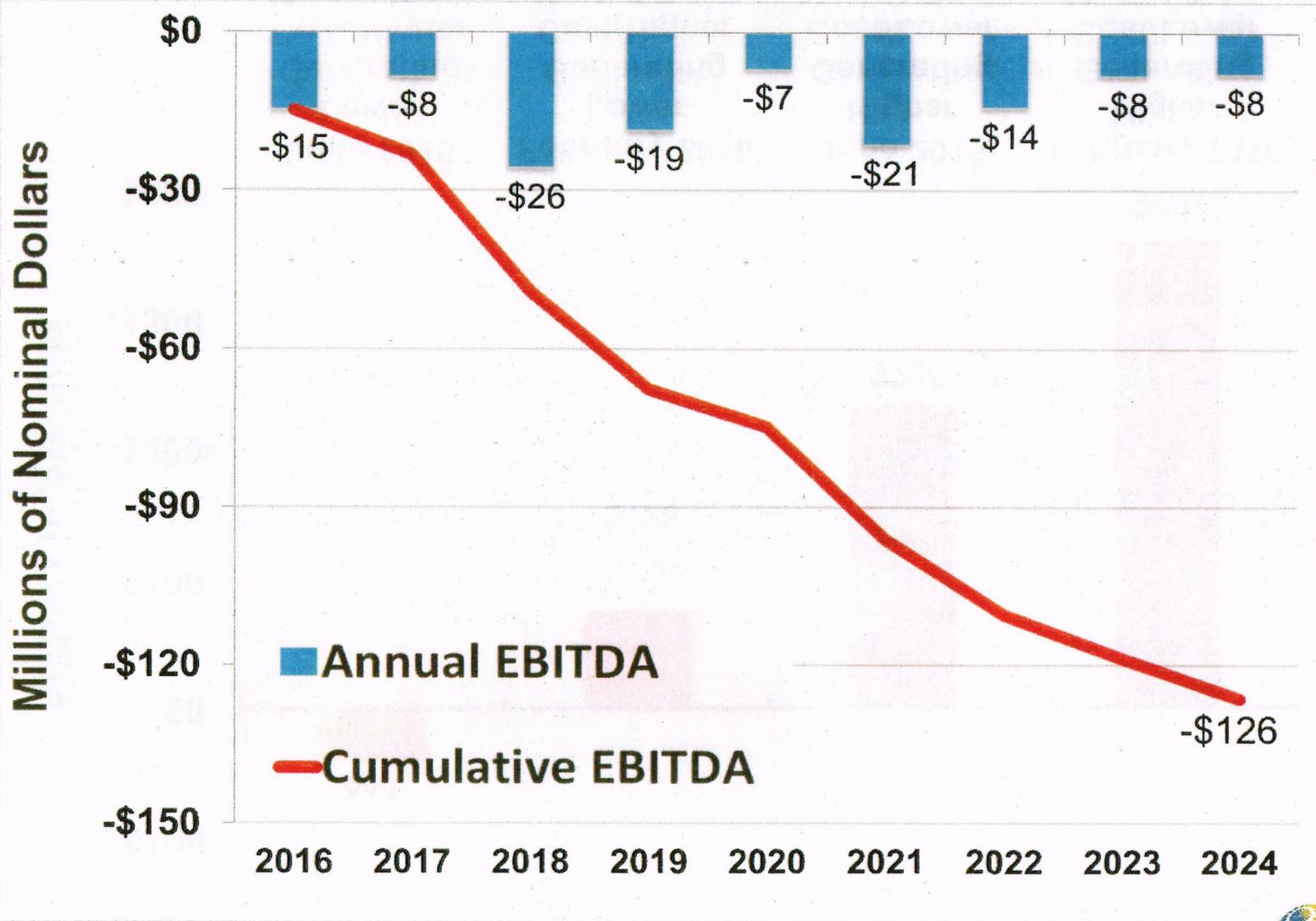
Much Lower Expectations for Off-Peak Period Mid-Columbia Hub Energy Market Prices



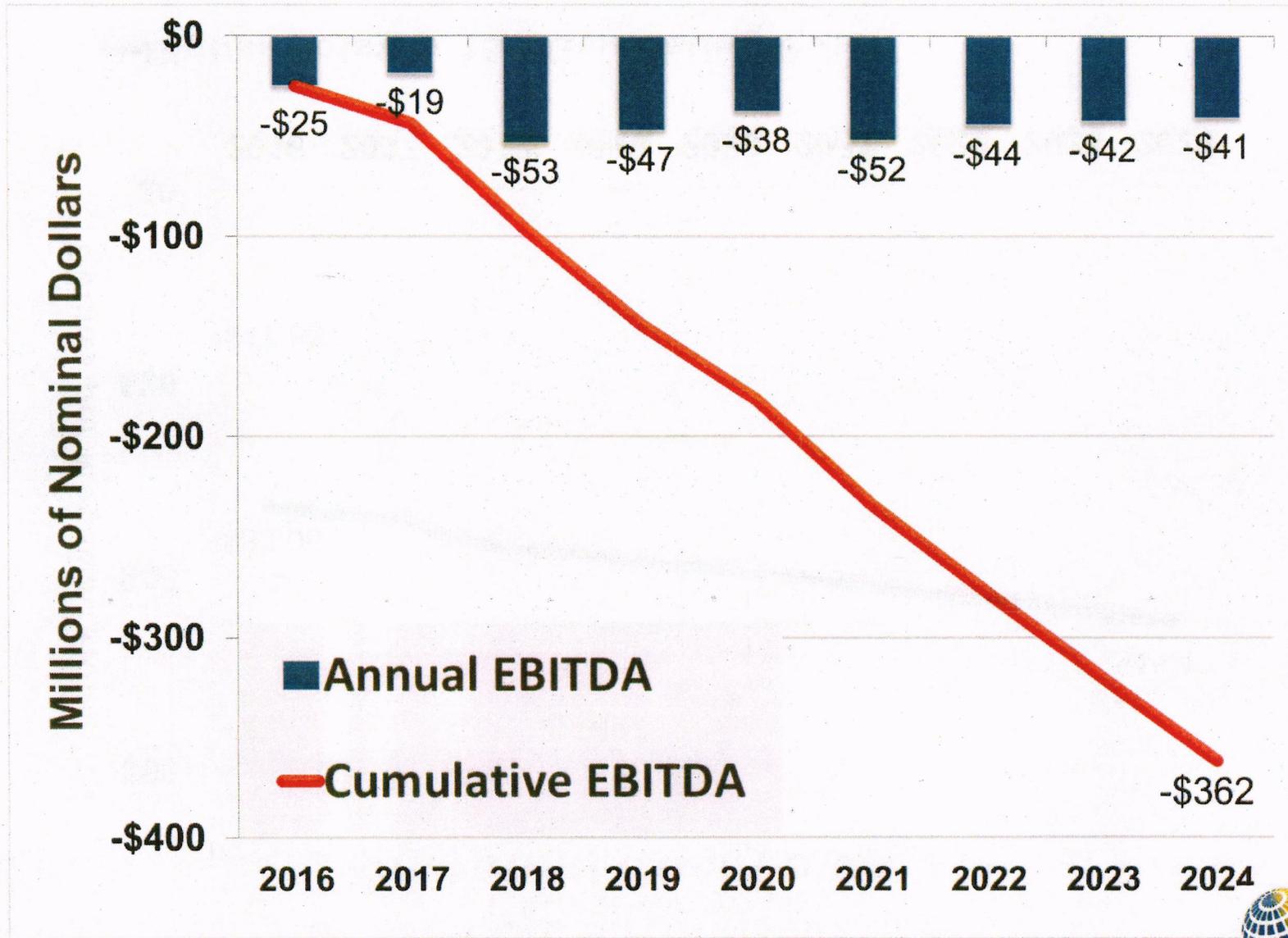
Results of February 2016 New IEEFA Analysis versus June 2015 Analysis



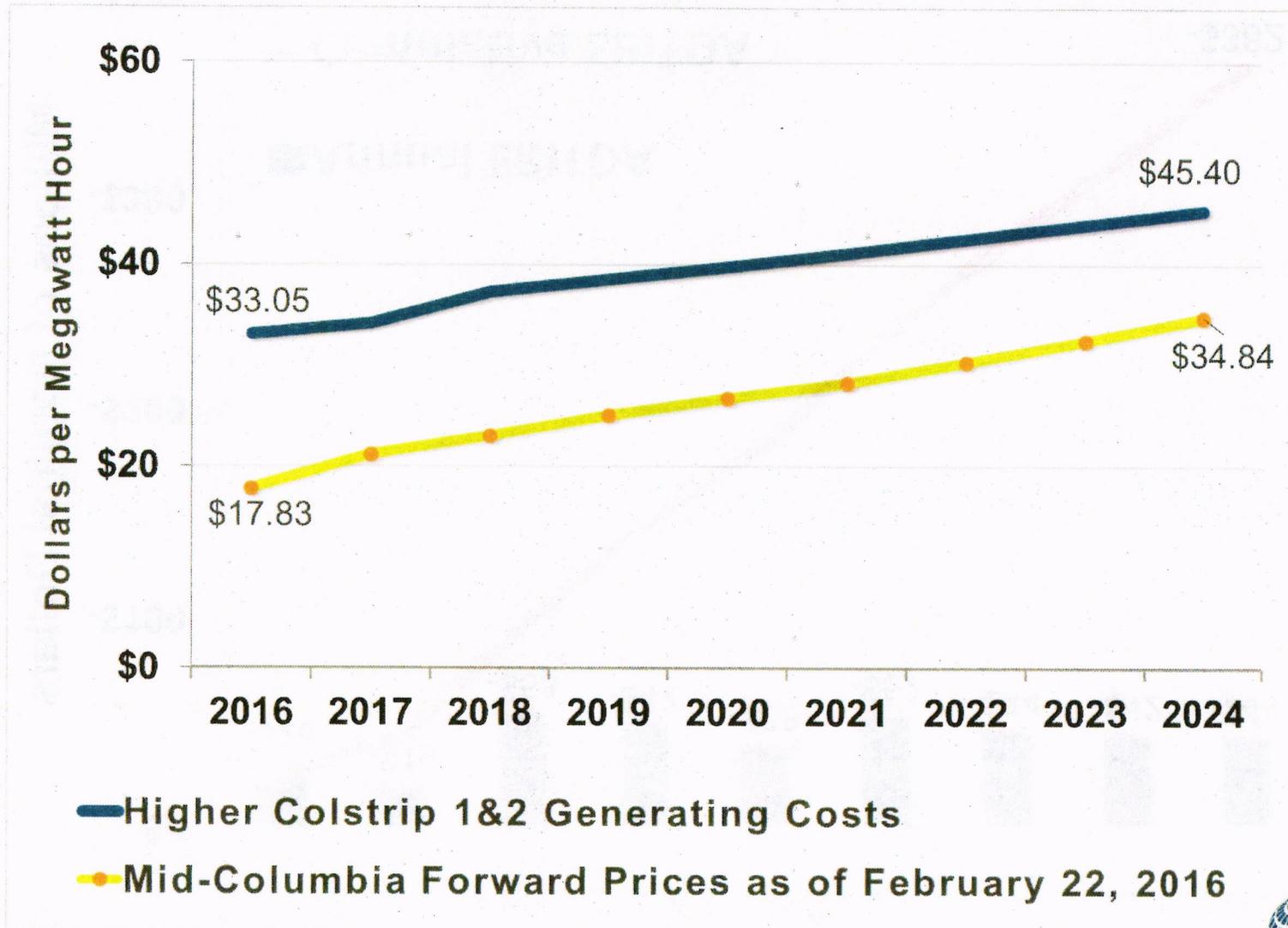
Talen's Pre-Tax Losses - February 2016 Lower Generating Cost/Higher Market Price Case



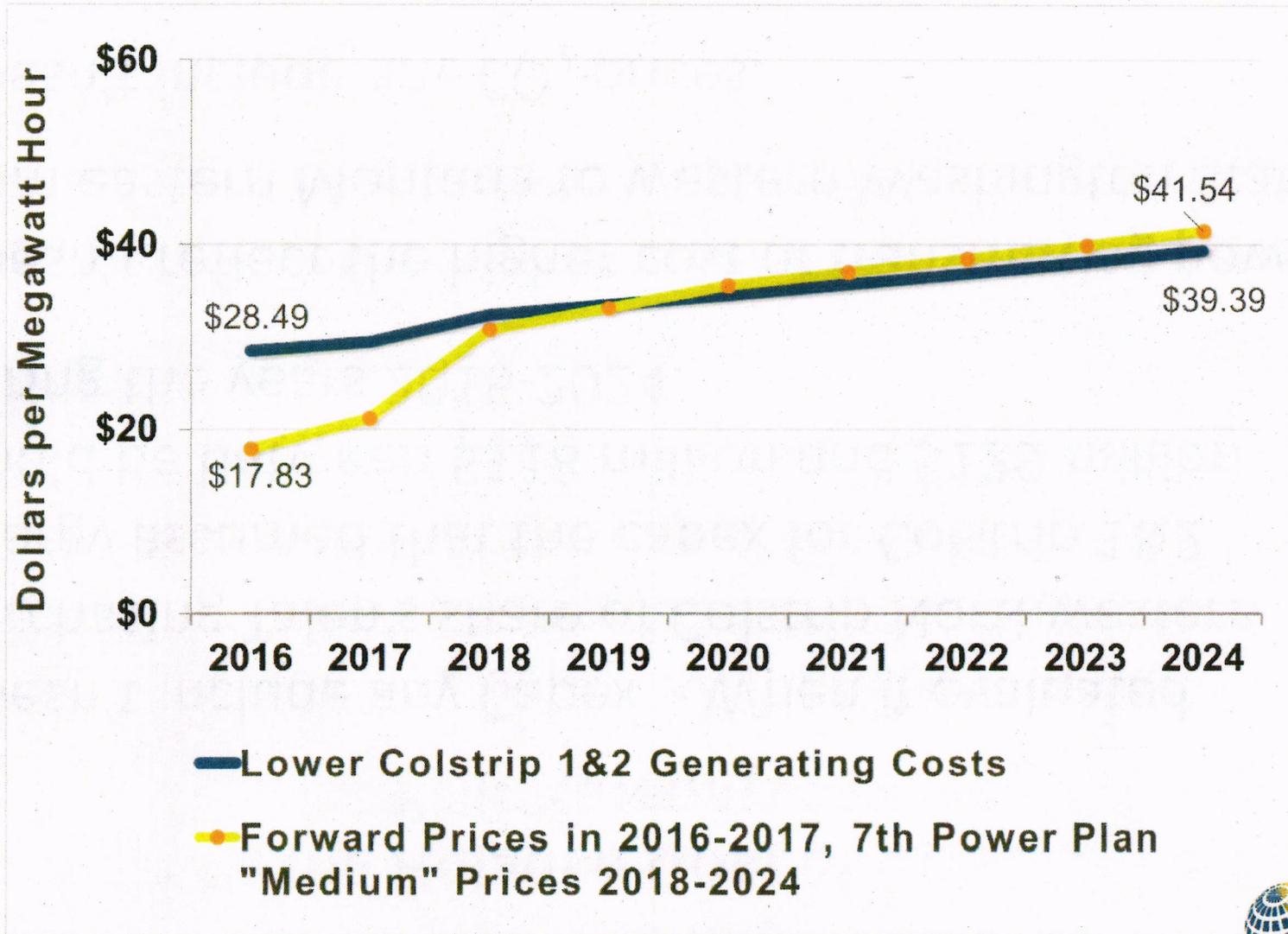
Talen's Pre-Tax Losses – February 2016 Higher Generating Cost/Lower Market Price Case



Cost of Power for PSE's Ratepayers – IEEFA February 2016 - Higher Generating Cost/Lower Market Price Case



Cost of Power for PSE's Ratepayers – IEEFA February 2016 Analysis - Lower Generating Cost/Higher Market Price Case



IEEFA February 2016 Analysis Significantly Understates the Relative Cost of Colstrip 1 & 2 to PSE Ratepayers

- Doesn't include any Capex – When it evaluated purchasing Talen's share of Colstrip Northwestern Energy assumed that the capex for Colstrip 1&2 would be between \$118 million and \$129 million during the years 2016-2024.
- Doesn't reflect the higher cost of transmitting power from eastern Montana to western Washington State.
- Doesn't include any CO₂ prices.

The Value of Talen's Share of Colstrip 3

- Preliminary IEEFA analysis shows that Talen's share of Colstrip 3 has little to negative valuation over the next twenty years.
- This analysis is conservative because it does not:
 - Include any transmission costs.
 - Reflect any CO₂ prices.
 - Include any income, gross revenue or property taxes.
 - Reflect the rate basing of any acquisition costs.

Recommendations

- Bring all stakeholders together to prepare for a just transition to life after Colstrip 1&2.
- Require Puget Sound Energy to analyze lower cost alternatives to the continued operation of Colstrip 3.
- Require Puget Sound Energy to demonstrate the economic viability of its continued ownership of Colstrip 4.