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Embedding the Auction Uplift

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We're revising estimates for PJM generators to reflect auction results

We're revising estimates and price targets across the sector today to reflect the results from the latest PJM capacity auction for the periods 2016-2019, spread across the three recent auction results. While we are largely revising up estimates, we emphasize caution in simply assuming all assets cleared at the higher Capacity Performance price, with many generators splitting MWs between CP, base, and some simply not clearing at all. We caution on generalizing the auction results beyond a generally pos. halo, as we had prev assumed more capacity cleared than did.

Revising down our Power multiple to reflect a more sober outlook

Alongside the latest positive revisions, we're pushing down our sector average IPP multiple to 8x from 9x, reflecting a multiple more indicative of the 'top' of the power cycle, particularly for PJM, amidst continued concerns over further commodity downside with new entry anticipated. This largely results in flattish price target adjustments across much of the space.

Preference for IPPs over integrated utes– it's about getting paid to wait

With FCF yields for the IPPs range from 15% for DYN, 16% for CPN, and 17% for NRG through the 4-year period, these are among the widest yields (and cheapest implied EV/EBITDA multiples) in some time. We upgrade Calpine to Buy from Neutral, with a higher $21 PT to reflect the company's exceptionally strong outcome from the PJM auction results as well as relative resilience amidst gas price negativity; we suspect CPN could well beat both NRG and DYN amidst improving estimates – and less exposure to gas price volatility.

How about the integrateds? We're worried about expectations being too high

In contrast to our view on IPPs, we see integrateds as offering meaningfully less FCF for taking IPP exposure. We see PSEG and AEP as among the more attractive utilities, however, we remain below long-dated consensus on both equities. We see PSEG Power as offering reasonable FCF generation, while AEP is poised to exit the Genco after clearing nearly all of its assets as CP (relatively better outcome vs. peers).

What will fix the commodity malaise? Unclear at present, but quite cheap

With power and gas prices off of late – and amidst continued new entry in most markets – patience is a clear virtue. We see recovery as most likely in the Texas (ERCOT) market, with the flow of new supply slowing in the next 24-months following a substantial pullback in sparks/power for both on- and off-peak.

Where is PJM heading now? Capacity prices should continue to see-saw

We suspect prices will continue their annual oscillations, with next PJM auction (2019/2020) poised to suffer from a reduction in the PJM load forecast (upwards of a net 5GW). That said, other reforms (see below) as well as final transition to a 100% Capacity Performance (CP) regime could well push prices back up, as both new supply remains modest and demand response begins a more meaningful exodus from participation. *Net-net, we see greater comfort in the constrained markets in the Midwest (ComEd) and East, benefitting NRG and CPN the most.*

More reforms on the way! Stay tuned from PJM on capacity and energy mrkts

There are two key developments of late: 1) proposed reforms to *increase* the reserve margins in the footprint could go to 16.6% from 15.7%, driving up demand by 1.3GW (off '18/19 parameters). This contrasts against our expectations for an anticipated *reduction* in required reserve margin following prior suggestions that the greater 'quality' of MWs procured under the CP rules would allow for thinner margins. 2) FERC's approval today of a notice on energy price formation, likely improving ability to reflect scarcity prices in power markets, notably PJM, but also others.

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Please see our recent PJM auction reports:

9/10/15 The PJM Auction Triple Crown Success
9/1/15 PJM Begins Its Transition
8/26/15 Breaking Down the Auction with PJM (Includes Conf Call Transcript)
8/24/15 PJM: The Full Auction Download
8/21/15 PJM: The Results Are In
7/16/15 Taking a Load Off at PJM

American Electric Pwr (Neutral; $55 PT)

Transition auctions boost EPS to top end

AEP announced that 7,209 MW from its merchant fleet that were bid into the PJM capacity auction cleared the 2018/19 base residual auction (BRA) at the Capacity Performance (CP) price of $164.77/MW-day. Another 43 MW cleared as Base Capacity at $149.98/MW-day. Additionally, the fleet received a boost from the transition auctions for 2016/17 and 2017/18, with 7,169 MW and 6,495 MW clearing as CP at $134 (up from $59.37 before) and $151.50 (up from $120 before), respectively. Another 54 MW and 764 MW cleared as Base Product at the same prices as before the transition auctions at $59.37 and $120, respectively.

We see the Ohio merchant fleet worth an incremental ~$800M ($2/sh), but PT unchanged as a lower utility P/E offsets $100+ annual EBITDA from capacity.

Figure 1: AEP disclosures on 2018/19 PJM Capacity and Transition Auctions

Pre-Capacity Performance	2016/17	2017/18	2018/19
Base Residual Auction (BRA) Cleared MWs	7,176	7,205	NA
BRA Price/MW-day	$59.37	$120.00	NA
Post-Capacity Performance	2016/17	2017/18	2018/19
Capacity Performance (CP) Cleared MWs	7,169	6,495	7,209
Base Capacity Cleared MWs	54	764	43
CP Price/MW-day	$134.00	$151.50	$164.77
Base Price/MW-day	$59.37	$120.00	$149.98
Revenue Impacts (CY)	2016	2017	2018
Pre-CP	$242	$250	NA
Post CP & Transition Auctions	$358	$376	NA
Incremental change	$116	$126	NA

Source: Company filings

Overall, AEP's 2016 and 2017 revenues will see an incremental $116M and $126M boost, respectively, as a result of the auctions. For 2018, capacity revenues will jump another $42M as a result of the BRA.

Figure 2: AEP Genco EBITDA and Valuation at 8x, 2015E-2019E

AEP Generation Resources PJM Mini-Model	2015E	2016E	2017E	2018E	2019E
(Open) Energy Gross Margins [Generation Only]	515	427	382	328	334
Retail Margin	30	30	30	30	30
Capacity Revenues	345	358	376	418	436
PUCO Transition FRR Non-Bypassable Revenues	69	-	-	-	-
Other/Hedges (unswitched customer assumption)	14	(40)			
Subtotal Energy/Capacity Gross Margins	973	775	788	776	800
Guidance (EEI Nov 2014)	*965-1035*	*590-790*			
O&M	(412)	(342)	(317)	(317)	(317)
Guidance (EEI Nov 2014)	*(410)*	*(340)*			
EBITDA	561	433	471	458	483
Value at 8x EV / EBITDA	4,486	3,461	3,764	3,668	3,863
Previous UBSe (July 2015)	*4,563*	*2,473*	*2,654*	*3,036*	

Source: UBS estimates, company filings

Pushing up expectations – but still below Street

Our estimates for AEP rise $0.16 to $3.83, now toward the top end of the guidance range for 2016 of $3.45-$3.85. Our 2018 estimate also rises a dime to $4.06, representing a 5.3% CAGR from 2014A-2018E vs management guidance of 4%-6% off a $3.30 base.

Figure 3: AEP Estimates vs Consensus, 2014-2019E

EPS	2014A	2015E	2016E	2017E	2018E	2019E
Consolidated	$ 3.43	$ 3.57	$ 3.83	$ 3.93	$ 4.06	$ 4.19
Prior estimates	*3.43*	*3.58*	*3.67*	*3.75*	*3.96*	*4.09*
Consensus	*3.43*	*3.60*	*3.73*	*3.93*	*4.22*	*4.41*
EPS CAGR 2014-2018E (Guidance 4%-6% from 3.30 orig 2014 guid)					*5.3%*	
Guidance		*3.50-3.65*	*3.45-3.85*			

Source: UBS estimates, company filings, FactSet consensus

Price Target Unchanged at $55

Lower energy pricing at AD Hub offset the revenue boost from the auction by about -$20M, but overall, we see the Ohio merchant fleet worth an incremental ~$800M ($2/sh). However, in our SOTP below, this is offset by a lower average peer utility 2017E P/E multiple and our PT is unchanged at $55.

The key question we ask on shares is whether the potential divestment of the genco will enable shares to trade at a premium to the group? We suspect much of the re-rating benefit has accrued to shares at their current levels.

Figure 4: AEP SOTP Valuation

American Electric Power Sum-of-the-Parts Analysis	2017E EPS	P/E & EV/EBITDA Multiples				Enterprise Value		
	EPS	Low	Base	(Discount)	High	Low	Base	High
Vertically Integrated Utilities	$2.95	13.1x	14.1x	-5%	15.1x	$18,204	$19,593	$22,087
Transmission Utilities	$0.64	14.1x	15.1x	0%	16.1x	$4,460	$4,776	$5,093
Parent & Other	$0.03	13.1x	14.1x	-5%	15.1x	$180	$194	$219
Total Regulated	**$3.62**	**12.7x**	**13.7x**	**-3%**	**15.3x**	**$22,844**	**$24,563**	**$27,398**
	EBITDA	**Low**	**Base**	**(Discount)**	**High**	**Low**	**Base**	**High**
GenCo	$471	7.0x	8.0x	0%	9.0x	$3,294	$3,764	$4,235
Less: Net Debt						($826)	($826)	($826)
Total GenCo						**$2,468**	**$2,938**	**$3,409**
Total Value						**$25,311**	**$27,502**	**$30,807**
Shares Outstanding (2017E)						496	496	496
Total Value per Share						**$51.00**	**$55.00**	**$62.00**

Source: UBS estimates, company filings,

AES Corp. (Neutral; $13 PT)

Auction driven DPL revenues boost AES EPS ('16-'18E),

We believe, all of DPL's assets cleared the 16/17 and 17/18 CP transition auctions as well as the 18/19 Base and CP auctions. While our 2016-2019 estimates reflect ~3GW of total capacity, it reflects 90% CP and 10% base product for DPL's fleet of ~3GW.

We believe the higher CP prices along with higher capacity under CP product drive the revenues from 2016 through 2019 (see table below).

Figure 5: Capacity Revenues – Post CP Auction adjustments - UBSe

	2016	2017	2018	2019
Total Capacity (MW)	3,060	3,060	3,060	3,060
Capacity Pricing - Base	59	120	150	150
Capacity Pricing Calendarized	91	95	137	150
Capacity Pricing - CP Transition	134	152	165	165
Capacity Pricing Calendarized	135	144	159	165
Capacity Revenues - Base Product	10	10	14	16
Capacity Revenues - CP Transition Product	127	136	150	155
Total Capacity Revenues	136	146	164	171

Source: Company reports and UBSe

Figure 6: Capacity Revenues – Pre- CP Auction adjustments - UBSe

	2016	2017	2018	2019
Total Capacity (MW)	3,246	3,246	3,246	3,246
Capacity Pricing	59	120	120	120
Capacity Pricing Calendarized	91	95	120	120
Total Capacity Revenues	101	105	133	133

Source: Company reports and UBSe

Maintaining 2015, but raising 2016-18 EPS estimates

While all of the 16/17, 17/18, and 18/19 transition auctions prices of $134, $151.5, and $164.77/MW-day cleared higher than the previous base auction results, 2018/19 BRA results of $149.98/MW-day also cleared higher than the previous auctions.

We increase our EPS estimates from 2016 through 2018 to $1.35, $1.44 and $1.55 (from $1.31/$1.39/$1.51). Our updated estimates reflect changes in CP and Base auction prices, MTM adjustments in the model.

We emphasize management has *not* updated guidance following the auction results – and caution they could yet disclose they did not clear all their capacity, consistent with Dynegy in its Midwest portfolio. Further, mgmt had previously guided for *flat* 2016 EPS YoY – the key question is whether there are additional offsets.

Figure 7: AES estimates – 2015E – 2018E

	2015E	2016E	2017E	2018E
EPS	1.29	1.35	1.44	1.55
EPS Growth %	-0.81%	4.42%	6.54%	7.62%
Guidance	*1.25-1.35*		*3-yr CAGR:*	3.7%
Consensus	1.28	1.32	1.41	
Previous EPS	1.29	1.31	1.39	1.51

Source: Company reports, FactSEt and UBSe

Unchanged PT $13 after updates

Our price target is based on a SOTP valuation using 2017E P/E and EV/EBITDA. Below we include our detailed valuation breakdown. We are maintaining our PT of $13 and Neutral rating.

Figure 8: AES SOTP Valuation

Summary SOP Valuation for AES Corp	% Owned by AES	Low	Base	High
Listed Latin American Subsidiaries		$5.16	$5.16	$5.16
Latin American Utilities (Unlisted)		$1.10	$1.73	$2.13
Latin American Generation (Unlisted)		$2.60	$3.49	$4.38
North American Utilities		$1.67	$1.79	$1.91
North American Generation		$2.70	$3.60	$4.37
Asian Generation		$1.65	$1.82	$1.99
European Generation		$0.92	$1.49	$2.05
Summary SOP Valuation for AES Corp		Low	Base	High
Total Subsidiaries Equity Value		$15.82	$19.08	$21.99
Other Adjustments (Parent Debt, etc)				
Parent Adjusments, Debt, and Corp/Other			(3,922)	
Shares Outstanding			680	
Parent Debt Oustanding and Cost Drag per Share			($5.77)	
AES Corp Total Equity Value per Share		$10.05	$13.31	$16.22

Source: UBS Estimates, Company filings

Dominion Resources (Buy; $75 PT)

Seeing RPM benefits on the regulated side too

The regulated fleet seeing material benefits during the suspension of biennial reviews.

The effective rate freeze at utility VEPCO through late-2024 as a result of the suspension of biennial reviews was implemented by VA to provide the utility and its customers with rate stability through implementation of the EPA's clean power plan. While the utility assumes the risk of increased compliance costs, higher operating expenses, and extreme weather events, we note the potential for savings retention and $0.05-$0.08/sh of earnings benefits from PJM capacity revenues (including the upcoming Capacity Performance transition auctions) as a result a net long generation position at the utility.

Along with an update for forward power and gas pricing, our estimates below reflect:

- An incremental $0.02-$0.04 capacity benefit in 2018-2019 on the merchant side from the company's 1.2-GW Fairless CCGT in NJ, which we assume clears as a Capacity Performance (CP) asset.
- Another $0.02-$0.07 incremental benefit is reflected on the regulated side from 2016-2019, largely the result of placing the 1.4-GW Brunswick CCGT in service in mid-2016 as well as an assumption that the proposed 1.6-GW Greensville plant is approved by regulators and is in service in mid-2019. We assume that 95% of the regulated fleet clears for CP pricing.

Figure 9: Dominion Resources EBITDA and EPS, UBSe vs Guidance vs Consensus 2014A-2019E

2015 Guidance vs 2014 Actual Results and UBS 2015E										
Estimates by Segment (EBITDA) using ABS		UBS								
	EBITDA	EBITDA	FY15 EBITDA Guidance					UBSe		
VEPCO	2014A	2014A	Low	High	2015 Mid	2015E	2016E	2017E	2018E	2019E
Electric Distribution	905	905	895	925	910	914	1,020	1,087	1,140	1,192
Electric Transmission	588	588	660	680	670	671	800	906	1,006	1,102
Utility Generation	1,726	1,726	1,855	1,930	1,893	1,893	2,060	2,126	2,147	2,202
Virginia Power - Corp Adjusted	-	-	-	-	-	-	-	-	-	-
VEPCO DD&A	(878)	(877)	(960)	(985)	(973)	(972)	(1,103)	(1,120)	(1,162)	(1,233)
VEPCO Adjusted EBIT	**2,341**	**2,341**	**2,450**	**2,550**	**2,500**	**2,505**	**2,778**	**2,999**	**3,131**	**3,263**
Regulated Gas Ops										
Gas Distribution	327	327	325	350	338	338	377	415	453	490
Gas Transmission (DTI, CP Import)	1,044	1,044	1,015	1,090	1,053	1,076	1,199	1,216	1,326	1,333
Cove Point Export, Prod Svcs, Other		(0)				(25)	87	177	565	549
Dominion Midstream LP Minority Interest (after ta:	(7)	(7)				(18)	(30)	(48)	(77)	(147)
LP Minority Interest % (UBSe)	31.5%	31.5%				31.2%	38.7%	45.0%	50.8%	58.2%
GP Distributions (after tax)	-	-				0	3	16	37	81
Gas Operations DD&A	(241)	(241)	(230)	(250)	(240)	(240)	(260)	(280)	(300)	(312)
Total Regulated Gas EBIT	**1,123**	**1,124**	**1,110**	**1,190**	**1,150**	**1,133**	**1,375**	**1,496**	**2,004**	**1,994**
Merchant Generation EBITDA	459	459	665	745	705	614	504	583	696	765
Merchant DD&A	(98)	(98)	(140)	(145)	(143)	(143)	(140)	(137)	(134)	(132)
Total Merchant Generation EBIT	**361**	**361**	**525**	**600**	**563**	**471**	**364**	**446**	**562**	**633**
Previous Merchant Generation EBIT						*471*	*359*	*441*	*531*	*582*
Dominion Retail EBITDA	70	70	50	70	60	60	60	61	61	62
Retail DD&A	(2)	(2)	-	(5)	(3)	(3)	(3)	(3)	(3)	(3)
Total Dominion Retail EBIT	**68**	**68**	**50**	**65**	**58**	**57**	**57**	**58**	**58**	**59**
Corp & Other	(49)	(49)	(80)	(75)	(78)	(69)	(49)	(52)	(56)	(60)
Total Adjust EBIT	**3,844**	**3,844**	**4,055**	**4,330**	**4,193**	**4,097**	**4,526**	**4,947**	**5,700**	**5,889**
Interest expense	907	907	910	890	900	895	957	1,010	1,177	1,137
Income Taxes	925	925	1,070	1,100	1,085	1,061	1,186	1,313	1,516	1,614
Non-controlling Interests	9	9	15	20	18	-	-	-	-	-
Net Income	**2,003**	**2,003**	**2,060**	**2,320**	**2,190**	**2,141**	**2,383**	**2,624**	**3,007**	**3,138**
Shares Outstanding	585	585	597	595	596	595	619	636	643	639
EPS	**3.43**	**3.43**	**3.45**	**3.90**	**3.67**	**3.60**	**3.85**	**4.12**	**4.67**	**4.91**
Previous UBS Estimates						3.60	3.87	4.10	4.58	4.78
Guidance of 6%-7% growth off 2014 3.48 weax adj base; 5%-6% from '14-'17 and 7%-9% from '17-'20	3.48		3.50	3.85	3.68	3.67	3.87	4.09	4.41	4.77
CAGR of UBS Estimates, 2014-2017 and 2018-2019								**5.8%**		**9.6%**
2014-2019										**7.1%**
Consensus						3.68	3.86	4.04	4.57	5.15

Source: UBS Estimates, Company Filings, FactSet

Reduce PT $2 for lower utility multiple

Our price target is reduced $2 to $75 for a lower average peer utility 2017E P/E multiple. The SOTP is derived using 2017E P/E and EV/EBITDA, with a market value for Dominion Midstream LP share ownership and a DCF approach at a 7.5% discount rate for GP distributions value and Phase 2 Dominion Midstream dropdowns (DTI, Dom E Ohio, Iroquois in 2018+). <u>We continue to see a positive skew to our EPS at VEPCO, suggesting the potential for positive revisions over time</u>.

Figure 10: Dominion Resources Sum of the Parts Valuation on 2017E

Dominion (D) Sum of the Parts Analysis - UBSe							
	2017E Adj. EBITDA	EV/EBITDA			Enterprise Value		
		Low	Base	High	Low	Base	High
Dominion Merchant Generation	434	8.0x	9.0x	10.0x	3,475	3,910	4,344
Hedge Value	(7)	8.0x	9.0x	10.0x	(58)	(65)	(72)
Dominion Energy (DTI & Iroquois)	1,035	10.0x	11.0x	12.0x	10,348	11,383	12,417
Dominion Midstream Partners Minority Interest	(60)	10.0x	11.0x	12.0x	(597)	(656)	(716)
Dominion Retail	61	4.0x	5.0x	6.0x	243	303	364
Total / Implied	1,463	9.2x	10.2x	11.2x	13,411	14,874	16,337
Phase 1 MLP Cove Point Preferred, CGT, Blue Racer, ACP and Cove Point Export through 2020							
			Ownership %	LP Shares	Price		
Dominion Midstream (DM) LP units			70.9%	69	$ 32.29	1,581	*$2.48*
GP Distribution Equity Value NPV						2,326	*$3.65*
PV of Compensation for Dropdowns from DM						3,777	*$5.94*
Total Equity Value of MLP Phase 1						7,684	*$12.07*
Phase 2 (DTI, Dom E Ohio, Iroquois) 2018+							
Phase 2 discounted cash flows from all dropdowns (after tax leakage)			$ 15,978				
Minus DTI, LDCs, & Iroquois Equity Value (before MLP dropdown)			$ (10,936)				
MLP Phase 2 Incremental Uplift to SOP			$ 5,043	probability	80%	4,034	*$6.34*
Total Incremental Equity Value of MLP to SOP						11,718	
add: NPV of 2016 cash flows from Cove Pt Import						191	
less Total Dominion net debt						(24,249)	
netting VEPCO-associated debt						9,992	
netting VEPCO debt allocated to HoldCo						2,560	
netting MLP related debt (Cove Pt Import/Blue Racer-Only)						1,925	
netting Gas LDC-associated debt						1,098	
Net Energy/Generation Debt						(8,675)	
add: NPV of Merchant Generation Hedges						71	
Dominion Energy, MLP, Merchant Generation, and Retail					16,717	18,180	22,493
Current Number of Shares outstanding					636	636	636
Dominion Energy, MLP, Merchant Generation, and Retail per Share					$ 26.27	$ 28.57	$ 35.34
	Peer P/E Multiple	14.3x	Premium 1.0x				
Dominion Delivery	2017 Net Income	P/E Multiple					
Electric	422	14.3x	15.3x	16.3x	6,042	6,464	6,887
Transmission	321	15.3x	16.3x	17.3x	4,912	5,233	5,554
Dominion Generation-Utility	980	14.3x	15.3x	16.3x	14,009	14,988	15,968
Total VEPCO Net Income	1,723	14.5x	15.5x	16.5x	24,962	26,686	28,409
Gas Distribution LDCs							
East Ohio	171	15.3x	16.3x	17.3x	2,610	2,781	2,952
Hope Gas	10	15.3x	16.3x	17.3x	156	167	177
Total Gas Distribution Net Income	181	15.3x	16.3x	17.3x	2,767	2,948	3,128
Current Number of Shares outstanding					636	636	636
Dominion Regulated Utilities SOP Value ($/sh)					$ 43.57	$ 46.56	$ 49.55
Total Equity Value per Share					$ 69.84	$ 75.13	$ 84.90

Source: UBS Estimates, Company Filings, FactSet

Exelon Corp. (Neutral; $33)

EPS up on reflecting auction results & costs cuts

EXC reported that 15.2, 17.6 and 16.4GW of its capacity cleared in 16/17, 17/18, and 18/19 CP transition auction, respectively, and separately, EXC cleared 1.6GW of capacity in 18/19 base auction. Specifically, EXC mentioned that all of its nuclear generation assets in IL cleared the 16/17 CP auction, and all of its nuclear plants in PJM cleared the 17/18 CP auction. In light of the auction result, EXC expects to continue operate its Quad Cities and Byron nuclear plant till May 2018 and May 2019, respectively. Additionally, EXC plans to retire its Oyster Creek nuclear plant by December 31, 2019. While we expect EXC to run the Byron plant, we do not consider EXC to run Quad Cities beyond 2018, and Three Mile Island and Oyster Creek plants beyond 2019.

Figure 11: Capacity cleared in CP Transition auction (16/17,17/18) and Base auction (18/19)

MW	2016/17E	2017/18E	2018/19E	2019/20E	2020/21E
CP Auction - Cleared Cpacity					
RTO	10,800	10,925	9,190	9,190	9,190
ComED	9,950	9,975	8,625	8,625	8,625
BGE	75	150	300	300	300
MAAC	775	800	265	265	265
EMAAC	3,975	5,800	6,400	6,400	6,400
SWMAAC	425	825	850	850	850
Total CP	15,200	17,550	16,440	16,440	16,440
Base Auction - Capacity					
RTO	-	-	500	500	500
ComED			25	25	25
BGE			425	425	425
MAAC			50	50	50
EMAAC			1,050	1,050	1,050
SWMAAC			-	-	-
Total Base	-	-	1,550	1,550	1,550
Uncommitted - Considered as base	6,114	3,764	-	-	-
Uncommitted - assigning $50/MW-day	-	-	1,044	459	459
Total Uncommitted	6,114	3,764	1,044	459	459
Total	21,314	21,314	19,034	18,449	18,449

Source: Company filings and UBSe

We made an attempt to reconcile EXC's cleared capacity with its total fossil fuel and nuclear capacity operating in the PJM region (as per last 10-K). We assumed uncommitted MWs cleared as base capacity for 16/17 and 17/18 respectively. Further out, we assumed the uncommitted MWs for 16/17 and 17/18 periods belong to the MAAC, and separately, assigned $50/MW-day for the uncommitted MWs for 2018 and onwards (refer the table below).

Figure 12: Our assumption on MWs cleared in the PJM auction and MWs uncommitted

MW	2016/17E	2017/18E	2018/19E	2019/20E	2020/21E
Midwest					
Total Capacity - Midwest	12,153	12,153	12,153	12,153	12,153
Less: Renewables and Fossil	787	787	787	787	787
Total Nuclear - Midwest	11,366	11,366	11,366	11,366	11,366
Nuclear (excl Clinton) - Considered under PJM	10,297	10,297	10,297	10,297	10,297
Less: Quad Cities from 5/18			818	1,403	1,403
Total Nuclear Midwest - Cleared	10,297	10,297	9,479	8,894	8,894
Mid-Atlantic					
Total Nuclear - Mid-Atlantic	6,827	6,827	6,827	6,827	6,827
Less: Oyster Creek and Three Mile Island			1,462	1,462	1,462
Total Nuclear - Mid-Atlantic	6,827	6,827	5,365	5,365	5,365
Total Nuclear - PJM	17,124	17,124	14,844	14,259	14,259
Cleared as CP	15,100	16,550	13,800	13,800	13,800
Cleared as Base	-	-	-	-	-
Uncommitted - Considered as base	2,024	574	-	-	-
Uncommitted - assigning $50/MW-day	-	-	1,044	459	459
Fossil and Other - Mid-Atlantic	4,190	4,190	4,190	4,190	4,190
Cleared as CP	100	1,000	2,640	2,640	2,640
Cleared as Base	-	-	1,550	1,550	1,550
Uncommitted - Considered as base	4,090	3,190			
Uncommitted - assigning $50/MW-day	-	-	-	-	-

Source: Company reports and UBSe

We include FCF profile of Quad and Byron

We include below our assessments of each plant, reflecting the latest clearing prices for the transition and base auctions as well as MtM commodity assumptions for both plants. Despite the higher prices, both plants continue to lose modest sums.

Figure 13: Quad Cities FCF Profile

Quad Cities ($Mn)	2015	2016	2017	2018
Capacity (MW) - CP	1,345			
Capacity Payments - CP	65	66	71	92
Dispatch (TWh)	10.8	10.8	10.8	10.8
Power (~$5/MWh disc. to NI Hub)	21	26	25	25
Energy Revenue	229	280	275	272
Revenue ($ Mn)	294	347	346	364
Nuclear Fuel ($/MWh)	6.12	6.48	6.65	7.00
Fuel Cost ($ Mn)	(66.3)	(70.2)	(72.1)	(75.9)
Non-Fuel O&M ($/kW-yr)	(150)			
Non-Fuel Production Cost ($ Mn)	(202)	(202)	(202)	(202)
Taxes other than Inc.	(7)	(8)	(8)	(8)
EBITDA ($ Mn)	18	67	64	78
EBITDA Margin ($/MWh)	1.68	6.18	5.92	7.22
Est. D&A	(38)	(39)	(40)	(41)
EBIT	(20)	28	24	37
Taxes (assume 37%)	7	(10)	(9)	(14)
Net Income	(13)	17	15	23
EPS	(0.01)	0.02	0.02	0.03
Cash Flow Adjustments:				
D&A	38	39	40	41
Addback Nuke Fuel	66	70	72	76
CFO	92	127	127	141
Maintenance Capex	(67)	(67)	(67)	(67)
Nuclear Fuel	(74)	(81)	(81)	(81)
Total Capex	(141)	(148)	(148)	(148)
Free Cash Flow	(49)	(21)	(21)	(8)
FCF per MWh	(4.5)	(2.0)	(1.9)	(0.7)

Source: Company reports and UBS estimates

Byron FCF Profile

We suspect Byron did not clear the 2017/18 auction but seemingly re-cleared in the latest transition auction held.

Figure 14: Byron FCF Profile

Byron	2015	2016	2017	2018
Capacity (MW) - CP	2,346			
Capacity Payments - CP		115	123	160
Capacity Payments - Base				
Capacity Payments -Cp Uncleared - Base				
Capacity Payments (PJM RTO)	107	115	123	160
Dispatch (TWh)	18.9	18.9	18.9	18.9
Power Price (~$3/MWh discount to NI	23	28	27	27
Energy Revenue	437	527	517	513
Revenue ($ Mn)	544	642	641	672
Nuclear Fuel ($/MWh)	6.12	6.48	6.65	7.00
Fuel Cost ($ Mn)	(115.69)	(122.50)	(125.70)	(132.36)
Non-Fuel O&M ($/kW-yr)	(150.00)			
Non-Fuel Production Cost ($ Mn)	(352)	(352)	(352)	(352)
Taxes other than Inc.	(33)	(33)	(34)	(35)
EBITDA ($ Mn)	44	134	129	153
EBITDA Margin ($/MWh)	2.33	7.11	6.82	8.10
Est. D&A	(67)	(69)	(70)	(72)
EBIT	(22)	66	59	81
Taxes (assume 37%)	8	(24)	(22)	(30)
Net Income	(14)	42	37	51
EPS	(0.02)	0.05	0.04	0.06
Cash Flow Adjustments:				
D&A	67	69	70	72
Addback Nuke Fuel	116	123	126	132
CFO	168	233	233	256
Maintenance Capex	(117)	(117)	(117)	(117)
Nuclear Fuel	(128)	(141)	(141)	(141)
Total Capex	(246)	(259)	(259)	(259)
Free Cash Flow	(78)	(26)	(26)	(3)
FCF per MWh	(4.1)	(1.4)	(1.4)	(0.2)

Source: Company reports and UBS estimates

EPS estimates

We hold our EPS estimate for 2015 at $2.43, but are increasing our estimates for 2016/17/18 to $2.47, $2.64, and $2.62 from $2.38, $2.50, and $2.47, respectively. We note our estimates reflect latest CP transition auction and base auction results and MTM adjustments.

- Our latest estimates also reflect a placeholder expectation for a ~3% O&M cut (~$100 Mn) ahead of expected updates with 3Q or at EEI this fall.

Figure 15: Exelon Updated Earnings Estimates – going higher

Exelon Consolidated EPS	2015	2016	2017	2018
PECO	0.43	0.46	0.50	0.55
ComEd	0.52	0.55	0.63	0.69
BGE	0.24	0.26	0.28	0.30
Exelon Generation	1.24	1.22	1.25	1.03
Other	0.00	(0.01)	(0.02)	0.05
Total EPS	**2.43**	**2.47**	**2.64**	**2.62**
Guidance	***$2.35-$2.55***			
Consensus	2.48	2.42	2.57	-
Prior UBS estimates	*2.43*	*2.38*	*2.50*	*2.47*
Regulated EPS	*1.18*	*1.27*	*1.41*	*1.54*
Regulated Guidance	*1.10-1.40*	*1.20-1.50*	*1.25-1.55*	

Source: Company reports, FactSet and UBSe

Valuation: Increasing PT to $33

Our 2017E sum-of-the-parts analysis is presented below with a $33 Price Target. We believe most of the upside captured from auction prices is partially offset by readjusting our assumption on capacity available under PJM. We emphasize we continue to entirely remove the FCF drag from Quad Cities, Clinton, and Ginna in our SOP, adding ~$1.5/sh; we expect this value to be realized largely in 2H15.

Regulated Utilities - ~$20: We lowered our P/E multiple to 14.0x from 14.7x, in-line with the regulated peers. While we do not assign any premium or discount to ComEd, we continue to ascribe a 1.0x P/E premium on PECO, and a 1.0x discount on BGE's regulated business. We also are slightly tweaking up our EPS estimates for ComEd upon our latest review.

Generation - ~$13: EXC's generation segment now reflects positive contribution from CP transition and base auction prices. We arrived at our ~$13/sh valuation by ascribing a 7.2x EV/EBITDA multiple on its generation business. We also reflect an expected ~3% cut to O&M.

Figure 16: Exelon SOTP Valuation

All figures in US $ million except per share data		**EV/EBITDA & P/E Multiple**					**Enterprise Value**		
	2017 EBITDA	*Low*			*Base*	*High*	*Low*	*Base*	*High*
Generation	1,999	7.0x			8.0x	9.0x	13,995	15,994	17,993
DOE Nuclear Fuel Disposal Fee Uplift	150	5.0x			6.0x	7.0x	750	900	1,050
Hedge Value	(442)	7.0x			8.0x	9.0x	(3,094)	(3,536)	(3,978)
Other/Equity Investments	288	7.0x			8.0x	9.0x	2,016	2,304	2,592
Retail Margin (Power+Non-Power)	583	4.0x			5.0x	6.0x	2,334	2,917	3,501
Total / Implied	2,579	*6.2x*			*7.2x*	*8.2x*	16,001	18,580	21,159
less ExGen net debt (incl PTC/ITC benefits)								(6,643)	
less HoldCo debt								(1,300)	
add Hedge Value								442	
Adding back the FCF drag from Potential Retirements(Clinton, Byron, Ginna, Quad Cities)	66	7.0x			8.0x	9.0x	460	526	592
Equity Value							8,961	11,605	14,250
Mn. Shares Outstanding (2017E)							871	871	871
Merchant Generation Value Per Share							***$ 10.28***	***$ 13.32***	***$ 16.35***
Regulated Utilities		**P/E Multiple**					**Equity Value**		
	2017 Net Income	*Low*	*Peer*	*Prem/ Discount*	*Base*	*High*	*Low*	*Base*	*High*
BGE Net Income	241	12.0x	14.0x	-1.0x	13.0x	14.0x	2,888	3,129	3,370
PECO Net Income	435	14.0x	14.0x	1.0x	15.0x	16.0x	6,095	6,530	6,966
ComEd Net Income	549	13.0x	14.0x	0.0x	14.0x	15.0x	7,141	7,691	8,240
Total / Implied	*1,225*	*13.2x*			*14.2x*	*15.2x*	*16,125*	*17,350*	18,575
Implied EPS	*1.41*								
Mn. Shares Outstanding (2017E)							871	871	871
Regulated Utility Value per Share							***$ 18.50***	***$ 19.91***	***$ 21.32***
Total Equity Value per Share							**$ 29.00**	**$ 33.00**	**$ 38.00**

Source: Company reports and UBSe

FirstEnergy (Neutral; $28 PT)

EPS Up on Auction prices – "Clearing the Uncleared"

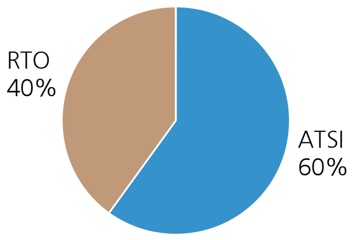
FE benefitted substantially from clearing generation assets that had not cleared earlier cleared in both the transition auctions for 2016/17 and 2017/18.

The 16/17 and 17/18 results are in stark contrast of its earlier BRA results disclosed on 7/30. Specifically, almost 2,500MW and 4,285MW of assets in the ATSI region that didn't clear the base auction held earlier for 16/17 and 17/18, cleared the recent CP transition auctions at ~$134/MW-day and ~$151.5/MW-day, realizing significant upside both from the capacity and from the higher prices (see table below).

Additionally, barring a total of 885MW of uncommitted assets set aside to hedge performance related risk, all the rest cleared in the 2018/2019 PJM BRA and CP auction (see table below).

We believe the clearance of all the capacity available, coupled with higher realized prices in the auctions will translate into higher EPS and higher EBITDA from 2016 through 2018. Specifically, FE expects to generate revenues of $810M and $590M up from $635M and $330M in 2016 and 2017, respectively. Additionally, it expects to generate $620M revenues in 2018 and $260M for the first 5 month of operations in 2019.

Figure 17: Capacity Cleared in 18/19 base auction (%)



Source: Company Filings

Figure 18: Base and Capacity Product – Current Status

Legacy Assets - Base Product MW	2016	2017	2018	2019	2020
RTO	1,250	960	240	240	240
MAAC	80	80		-	-
EMAAC	55	70	35	35	35
ATSI (Transition)	2,390	375	-	-	-
Total Legacy Assets MW	3,775	1,485	275	275	275
CP Assets MW					
RTO	3,675	3,565	3,930	3,930	3,930
MAAC				-	-
EMAAC			20	20	20
ATSI (Transition)	4,210	6,245	6,245	6,245	6,245
Total CP Assets MW	7,885	9,810	10,195	10,195	10,195
Uncommitted MWs					
RTO	-	-	(325)	(325)	(325)
MAAC		-	(35)	(35)	(35)
EMAAC					
ATSI (Transition)			(525)	(525)	(525)
Total Uncommitted Assets MW	-	-	(885)	(885)	(885)

Source: Company reports and UBSe

Figure 19: Base Product – Previous Status

	16/17		17/18	
	Cleared	**Available**	**Cleared**	**Available**
ATSI	3,845	2,500	4,285	2,665
RTO	3,460	370	4,515	170
MAAC	80	-	75	-
EMAAC	55	5	55	-
Total Cleared	**7,440**	**2,875**	**8,930**	**2,835**

Source: Company Reports

Figure 20: Revised EBITDA estimates – Generation segment

EBITDA	2015	2016	2017	2018	2019
Open Fossil EBITDA	324	596	430	387	487
Open Nuclear EBITDA	290	190	156	195	204
Retail & Hedges & Other EBITDA	335	209	85	85	10
FES Total	948	995	671	667	701
Adjusted EBITDA Guidance (Sept 10)	*875-950*	*950-1050*			
Adjusted EBITDA Guidance (Previous)	*875-950*	*825-925*			
Previous UBSe	*937*	*907*	*527*	*561*	*569*

Source: Company reports and UBSe

Increasing our EPS estimates

We hold our 2015 EPS estimate; incorporating the CP auction results, and making other modelling and MTM adjustments, we increase 2016E-2018E EPS estimates to $2.94, $2.57 and $2.65 (from $2.87, $2.41, and $2.55, respectively). We highlight that FES is now contributing a small but positive equity value to the consolidated net income.

Figure 21: FE UBSe EBITDA, 2015E-2019E

UBS Adjusted EPS Estimates	2013A	2014A	2015E	2016E	2017E	2018E
Energy Delivery	2.05	1.92	1.84	2.07	2.12	2.21
FirstEnergy Solutions	0.73	0.22	0.52	0.56	0.07	0.06
Transmission (ATSI, Trail, and OpCo's)	0.51	0.53	0.66	0.72	0.80	0.83
Parent & Other	(0.25)	(0.13)	(0.42)	(0.41)	(0.42)	(0.45)
Total UBSe EPS	3.04	2.53	2.61	2.94	2.57	2.65
Previous UBSe (except Guidance)			2.61	2.87	2.41	2.55
Guidance			$2.40-$2.70	Top-End of Range (July 2015)		
Consensus		*2.50*	*2.66*	*2.73*	*2.57*	*2.71*
Regulated & Parent EPS-Only			2.08	2.38	2.50	2.59
Change			0%	2%	7%	4%

Source: UBS Estimates, FactSet and Company filings

Valuation: Maintaining $28 PT

We continue to utilize a 2017E sum-of-the-parts methodology where we apply P/E multiples to the regulated utilities and non-interest parent drag, and EV/EBITDA multiple for FE's generation business.

Regulated Utilities - $38: While our valuation already included previously disclosed cost cutting plan worth ~$1/sh, we lowered our P/E multiple to 14.0x, in-line with the regulated peers and continue to ascribe a 0.5x P/E discount on FE's regulated side of the business.

FES - ~$2: Our updated SOP now includes FE's generation business, following uplift from incorporating latest CP and Base auction prices in the model, FES now contributing a small but positive equity value to the overall valuation. We arrived at ~$2 valuation by ascribing an 8.0x EV/EBITDA multiple to FE's generation business. Previously, we were viewing FirstEnergy Solutions as an outright negative drag and thus excluded and "zeroed-out" FES operations from our utility-only valuation.

Parent Drag – ($12): Separately, the negative parent drag is comprised entirely of $1Bn recourse sale leasebacks (~$1Bn of which are at FES) and $4.2Bn of parent notes. We're offsetting our lower utility multiple by haircutting the parent disynergy figure following the announced parent cost cuts.

Figure 22: FE SOP Valuation – Keeping the $28 PT

FirstEnergy: Sum of the Parts Analysis - Assuming FES Non-Recourse Subsidiary									
Regulated Utilities	2017 Net Income	P/E Multiple					Equity Value		
		Low	Peers	Premium/ Discount	Base	High	Low	Base	High
Core Utilities									
Energy Delivery (FE and AYE Utilities)	904	12.5x	14.0x	-0.5x	13.5x	14.5x	$11,306	$12,210	$13,115
Transmission (ATSI, TRAIL)	342	14.0x	14.0x	1.0x	15.0x	16.0x	$4,791	$5,133	$5,476
Total EPS	*2.92*								
Parent Costs									
Net HoldCo/Parent Expenses (SG&A, etc)	(181)	13.0x	14.0x	0.0x	14.0x	15.0x	($2,354)	($2,535)	($2,716)
Add Back: Parent Interest Expense	128	13.0x	14.0x	0.0x	14.0x	15.0x	$1,670	$1,798	$1,927
Net Parent EPS (SG&A ex-Interest)	*(0.12)*								
Dis-Synergies (Haircut)	*(29)*	12.9x	14.0x	-0.1x	13.9x	14.9x	($380)	($410)	($439)
Total / Implied Utilities	1,165	17.6x			13.9x	20.3x	$15,413	$16,197	$17,801
Total Regulated EPS	*2.73*								
Number of Shares Outstanding - 2017 (Mn)							426	426	426
Regulated Utilities & Transmission Equity value per share							$36.16	$38.00	$41.76
FirstEnergy Solutions (FES): Net Value							$0.00	$1.73	$0.00
Less: Recourse FES Obligations (Sale Leaseback)								($812)	
Less: Other Parent Sale Leasebacks								($388)	
Less: Parent Notes (12/31)								($4,200)	
Plus: Guided FES Savings Plan (2015-2017)								$375	
Parent/FES Drag per Share								($11.79)	
FirstEnergy Combined (Regulated & FES) Equity Value							$24.59	$27.94	$29.09

Pure P/E Approach Valuation on FE (High Valuation Case)		Low	Peers	Premium/ Discount	Base	High	Low	Base	High
Regulated EPS (T & D)	2.92	12.9x	14.0x	-0.1x	13.9x	14.9x	$37.77	$40.69	$43.62
HoldCo & Interest Expense	(0.42)	12.9x	14.0x	-0.1x	13.9x	14.9x	($5.49)	($5.91)	($6.34)
FirstEnergy EPS	2.50	12.9x	14.0x	-0.1x	13.9x	14.9x	$32.28	$34.78	$37.28
Dis-synergies	(0.07)	12.9x	14.0x	-0.1x	13.9x	14.9x	($0.89)	($0.96)	($1.03)
Pro-Forma Regulated FirstEnergy EPS	2.43	12.9x	14.0x	-0.1x	13.9x	14.9x	$31.39	$33.82	$36.25

Source: Company Filings and UBS Estimates

PSE&G (Neutral; $42 PT)

Power's Sewaren new CCGT clears in EMAAC

PEG reported that 98% of their 8,650 MW in PJM cleared (similar to last year) the 2018/19 Base auction, with all but one unit clearing as Capacity Performance assets. Their new 527-MW (UCAP) CCGT unit at Sewaren was the only new unit to clear in EMAAC. Furthermore, they also report that the average clearing price was $215/MW-day, with 80% in EMAAC. The transition auctions did not change the amount of committed capacity for 2016/17 and 2017/18 although the average prices for these periods increased as well. We believe all other new CCGTs were in Ohio or West Virginia, reflecting a firm shift towards tapping Utica shale over Marcellus as the focus of new plants.

Bottom line, we believe shares will continue to do well on the back of continued willingness to deploy its balance sheet, with both Keys and Sewaren likely to be funded almost entirely with leverage.

Figure 23: PEG PJM Capacity Market Disclosures

PEG PJM Capacity Market Disclosures				
Delivery Year	2015/16	2016/17	2017/18	2018/19
Power's Avg Price/MW-day	$168	$172	$177	$215
RTO Price Result/MW-day	$136	$59	$120	$165 CP/$150 Base
Cleared Capacity	8,750	8,700	8,700	8,650
% Cleared as Capacity Performance				98%
Revenue Impacts (CY)	2016	2017	2018	Through 5/31/19
Revenues ($M)	$542	$555	$631	$281

Source: Company filings

Following the company's decision to deploy debt capital to build out the Keys Energy Center in Maryland, this appears to confirm PSEG's willingness to counter investor concerns with incremental balance sheet latitude and use of leverage. The question remains as to what has precipitated this strategic shift for PSEG – and to what extent CFO Dorsa's departure is related. Bottom line, we believe shares will continue to do well in the near term on the back of continued willingness to deploy its balance sheet, with both Keys and Sewaren likely to be funded almost entirely with leverage.

Raising 2016-2019 estimates

While the 2018/19 BRA CP results of $225/MW-day for EMAAC and PS North zones is higher than previous auctions, the impact in our modelling is somewhat muted as we now reflect the 80% MAAC and 20% PS North split for Power's fleet vs our prior assumption of 50%/50%. The auction results (including transition auctions) for 2014 through 2018 were notably higher for PS North (despite some improvement for EMAAC in the transition auctions), hence our estimates had been somewhat overstated, supressing the positive impact to an extent. Nevertheless, for 2018 and 2019, our estimates are firmly up for the higher EMAAC results in the 2018/19 BRA.

Figure 24: PEG Estimates, 2013A-2019E

PEG EPS Estimates	2013A	2014A	2015E	2016E	2017E	2018E	2019E
PSEG Power	1.40	1.26	1.26	1.11	0.95	0.82	0.84
PSEG Power (prior)	*1.40*	*1.26*	*1.26*	*1.08*	*0.89*	*0.64*	*0.56*
PSE&G	1.21	1.43	1.51	1.69	1.84	1.93	2.07
PSEG Enterprise & Other	(0.03)	0.07	0.07	0.07	0.10	0.10	0.11
Total	***2.58***	***2.76***	***2.84***	***2.88***	***2.89***	***2.85***	***3.02***
Prior	2.58	2.76	2.84	2.84	2.83	2.67	2.75
Consensus			**2.92**	**2.91**	**2.93**	**3.08**	**3.35**
% Regulated	47%	52%	53%	59%	64%	68%	69%
Regulated EPS CAGR ('13--'16 & '14-17')				12%	9%		
Guidance			**$2.80-$2.95**				

Source: UBS estimates, Company filings, FactSet consensus

Unchanged PT $42 after updates

Our price target is based on a SOTP valuation using 2017E P/E and EV/EBITDA. Below we include our detailed valuation breakdown. We continue to ascribe a 0.5x P/E premium on account of the meaningful above-peer multiple expansion.

Figure 25: PEG SOTP Valuation

Sum of the Parts Analysis - Hedged Analysis - UBSe							
All figures in USD millions except per share	**2017E Adj. EBITDA**	**EV/EBITDA & P/E Multiple**			**Enterprise Value**		
		Low	Base	High	Low	Base	High
PSEG Power	1,207	8.0x	9.0x	10.0x	9,658	10,865	12,072
Capacity Price Normalization @ $120/MW-day	(171)	8.0x	9.0x	10.0x	(1,367)	(1,537)	(1,708)
PSEG Enterprise /PSEG LI (LIPA)	57	5.0x	6.0x	7.0x	284	341	398
Corp. & Other	-	4.0x	5.0x	6.0x	-	-	-
Total / Implied	*1,093*	*7.8x*	*8.8x*	*9.8x*	*8,576*	*9,669*	*10,762*
Subtract: Net Debt						(3,081)	
Add: Three years of PS Premium Capacity Pricing (NPV) over $120/MW-day						768	
NPV of Power and Non-Reg Equity					5,495	7,356	7,681
Number of Shares Outstanding (2017E)					508	508	508
Power & Holdings Equity Value per Share using Hedged EBITDA					$10.83	$14.49	$15.14
Maintenance Capex						($190)	
FCF (EBITA - Maintenance Capex)						$745	
Implied FCF Yield on Power Equity						*10.12%*	
	2017 Net Income	**P/E Multiple**					
PSE&G Net Income	932	13.8x	14.8x	15.8x	12,864	13,797	14,729
	Peer Multiple =		*14.3x*				
	Premium/Discount =		*0.5x*				
Number of Shares Outstanding (2017E)					508	508	508
PSE&G Equity Value Per Share					$25.35	$27.18	$29.02
Total Equity Value per Share					$36.00	$42.00	$44.00

Source: UBS Estimates, Company filings

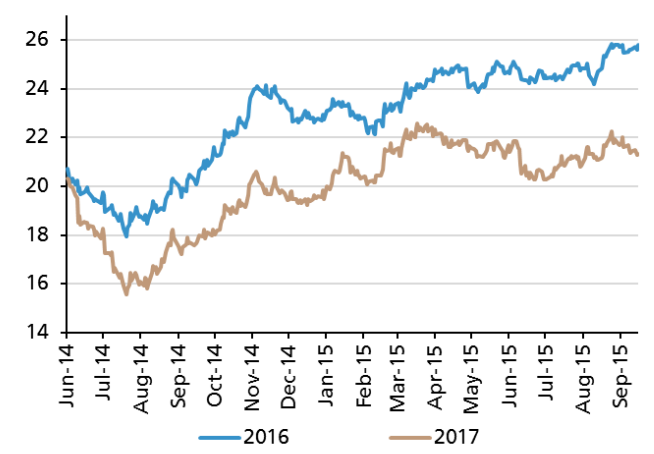
PJM: A peaking market?

Among our primary fears is the potential for re-entrenchment in gas spark spreads in PJM ahead of new gas plant build in the footprint. That said, maintaining gas sparks anywhere near their current levels would prove a meaningful FCF boom. As illustrated in the charts below, persistent shale-driven weakness in Marcellus and Utica natural gas pricing at Dominion South and Tetco continues to pull power pricing in PJM down with it, although marginal heat rates and around-the-clock (ATC) spark spreads have been improving throughout the past 12 months. This is likely due mostly to several factors, including the retirement of coal units as we approached the April 2015 deadline for MATS environmental compliance. The leadup to Capacity Performance rules also likely had the effect of raising required power pricing to account for performance and penalty risk in the capacity market, raising marginal heat rates and widening spreads. With these factors in the rearview, we remain concerned that PJM spreads may be peaking. <u>All this said, gas generators continue to print robust sparks in the current environment, with even a flattish to modestly moderating outlook still quite constructive.</u>

Spreads improved as coal units retired for MATS and Capacity Performance raised operating costs and risks.

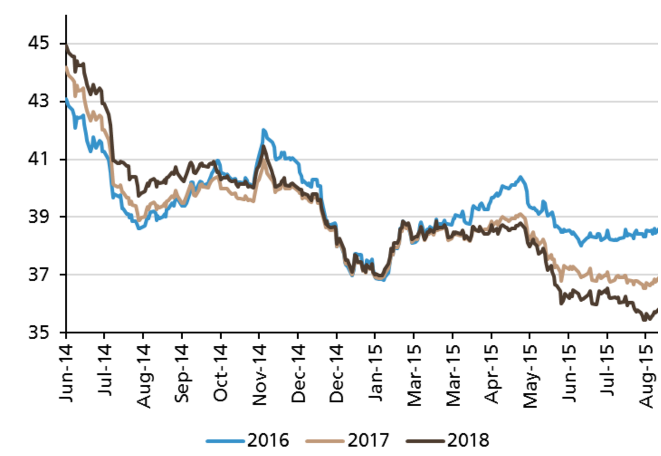
With these factors in the rearview, we remain concerned that PJM spreads may be peaking.

Figure 26: PJM-W ATC Spark Spreads @ 7.2 HR



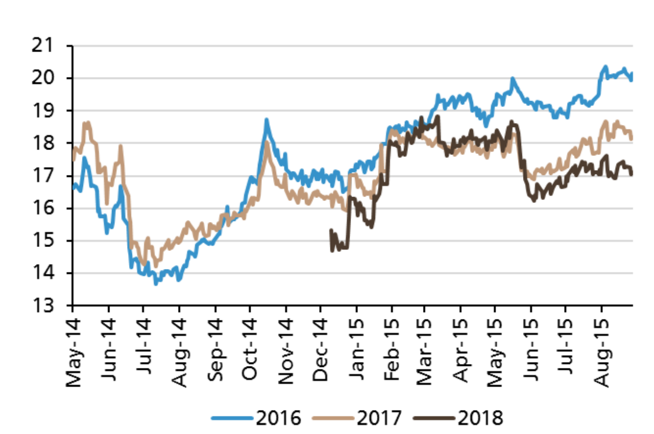
Source: PLATTS

Figure 27: PJM-W ATC Prices



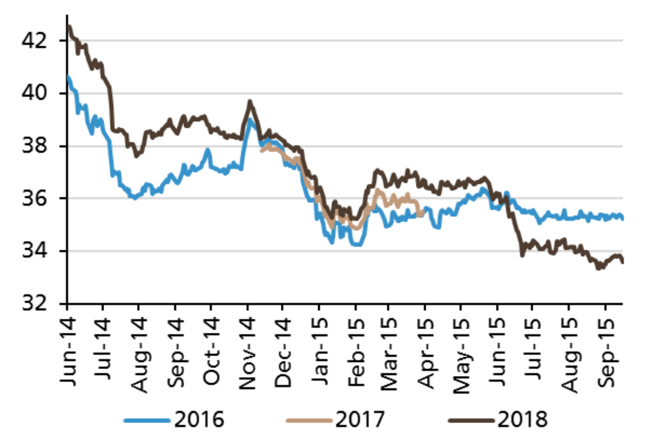
Source: PLATTS

Figure 28: ADHub ATC Spark Spreads @ 7.2 HR



Source: PLATTS

Figure 29: ADHub ATC Prices



Source: PLATTS

More reforms ahead: Offsetting our recent concerns on the weaker PJM demand forecast (see our report "PJM Taking a Load Off"), we see potential to revise up its reserve margin as a modest offset. Further, approval yesterday from FERC on market reforms in PJM pertaining to price formation should also set in motion energy market upside for plants dispatching during peak periods, including Calpine's northeast portfolio. Defining the impact of these approved reforms will likely prove key in coming months.

Texas poised for a recovery?

With expectations on both power and gas alike at multi-year lows, we suspect risk premiums could well be particularly low in many markets. We emphasize demand appeared relatively strong this summer, hitting new peaks and seeing several days of scarcity. We emphasize summer July/Aug ERCOT-Houston forwards remain quite modest – likely reflecting *less* than a single hour of scarcity.

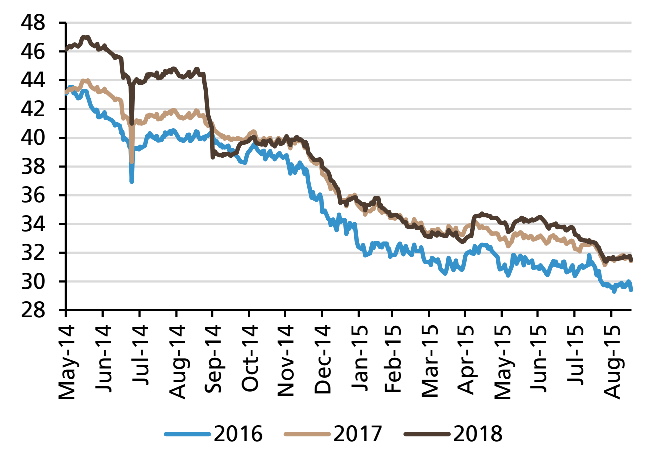
In Texas, spark spreads have not seen the same type of improvement and unsurprisingly, new build economics are not expected to improve until the end of the decade for several reasons.

- **EFH could yet retire at least two of its units in this time frame** (Big Brown 1&2 and Monticello 1&2). Others could continue to operate at least with just seasonal (summer) dispatch. We see a greater focus on cost reduction through the company's finalization of its ongoing bankruptcy. We also see risk to even NRG's portfolio, including Limestone, which could also be pushed to retrofit or retire in the 2020's
- **But what about *new* gas resources?** With Exelon's 2 CCGTs slated for 2017, we think that is the 'low'. The problem in this thesis relates back to CPN's announcement on Friday, with a coop opting to pursue new build despite the lower power price and wider growth projections for the state. We have yet to hear of any *other* projects contemplated for the 2018/19 that will credibly move forward – and suspect those contemplated could well slip into subsequent years.
- **Merchant solar build in Texas for utility-scale projects remains our long term concern.** Good solar resource coupled with generous transmission interconnection policies could yet position the state to see additions. We also see upside to the market as limited by PTCs for wind. On today's merchant economics, prices would need to increase by at least ~$20/MWh to justify non-tax credit driven merchant investment. Please see our latest note on EFH's latest decision to procure merchant solar.
- **Renewable credits falling off** at the end of 2016, we see this market as poised to see a sharp fall-off in new development efforts (both solar and wind). *This thesis is tempered by growing expectations for a further PTC extension next year.*

Figure 30: ERCOT-H Spark Spreads @ 7.2 HR

Source: PLATTS

Figure 31: ERCOT-H ATC Prices

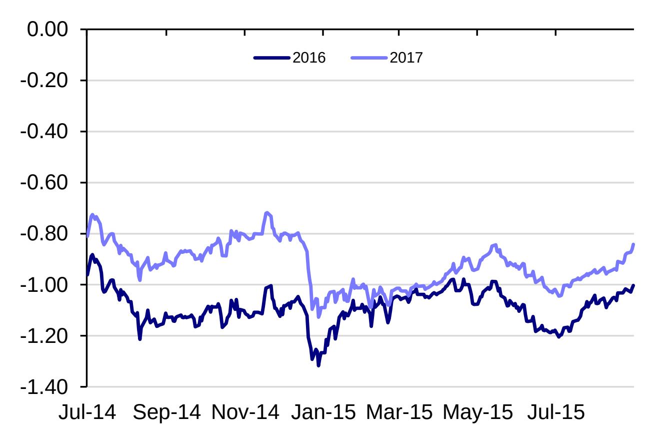


Source: PLATTS

What about Gas too?

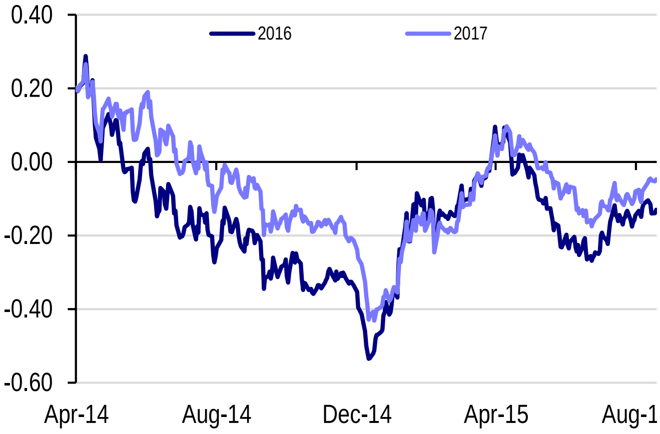
We include a variety of regional gas hubs below. We see modest improvement of late, reflecting increasing expectations for risk around sharp contractions in winter months. We emphasize this remains the primary concern for long-term power investors, particularly when coupled around risks of continued new entry.

Figure 32: DomSouth Gas Basis ($/MMBtu)



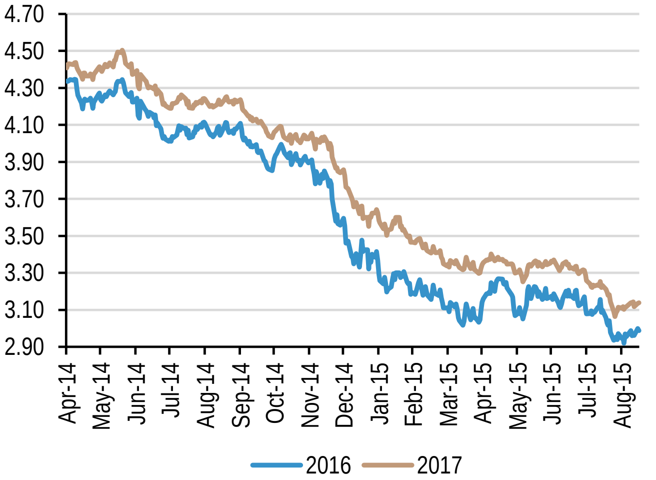
Source: PLATTS

Figure 33: TETCOM3 Gas Basis ($/MMBtu)



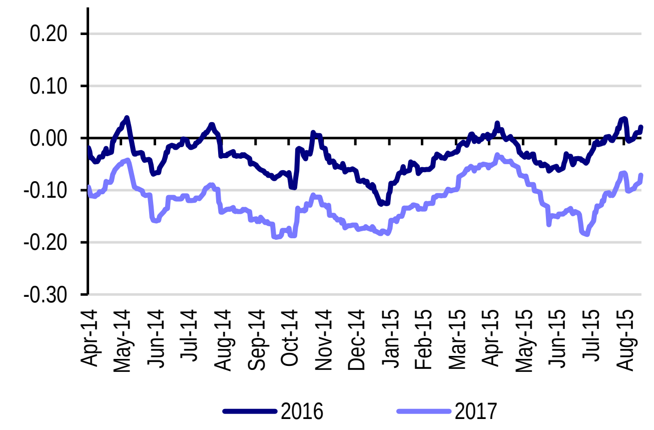
Source: PLATTS

Figure 34: Henry Hub Gas Prices ($/MMBtu)



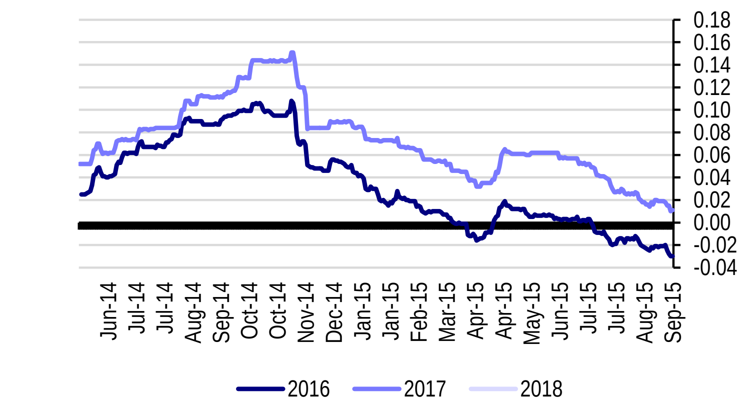
Source: PLATTS

Figure 35: Chicago CityGate Gas Basis ($/MMBtu)



Source: PLATTS

Figure 36: Houston Ship Channel Gas Prices



Source: PLATTS

Statement of Risk

Risks for Utilities and Independent Power Producers (IPPs) primarily relate to volatile commodity prices for power, natural gas, and coal. Risks to IPPs also stem from load variability, and operational risk in running these facilities. Rising coal and, to a certain extent, uranium prices could pressure margins as the fuel hedges roll off Competitive Integrateds. Further, IPPs face declining revenues as in the money power and gas hedges roll off. Other non-regulated risks include weather and for some, foreign currency risk, which again must be diligently accounted in the company's risk management operations. Major external factors, which affect our valuation, are environmental risks. Environmental capex could escalate if stricter emission standards are implemented. We believe a nuclear accident or a change in the Nuclear Regulatory Commission/Environment Protection Agency regulations could have a negative impact on our estimates. Risks for regulated utilities include the uncertainty around the composition of state regulatory Commissions, adverse regulatory changes, unfavorable weather conditions, variance from normal population growth, and changes in customer mix. Changes in macroeconomic factors will affect customer additions/subtractions and usage patterns.

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Neutral	FSR is between -6% and 6% of the MRA.	42%	32%
Sell	FSR is > 6% below the MRA.	13%	20%
Short-Term Rating	**Definition**	**Coverage**[3]	**IB Services**[4]
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Sell	Stock price expected to fall within three months from the time the rating was assigned because of a specific catalyst or event.	less than 1%	less than 1%

Source: UBS. Rating allocations are as of 30 June 2015.
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AES Corporation[16]	AES.N	Neutral	N/A	US$11.17	17 Sep 2015
American Electric Power, Inc.[2, 4, 6a, 6b, 7, 16]	AEP.N	Neutral	N/A	US$55.87	17 Sep 2015
Calpine Corporation[2, 4, 6a, 13, 16]	CPN.N	Buy	N/A	US$15.94	17 Sep 2015
Dominion Resources[2, 4, 5, 6a, 6b, 6c, 7, 16]	D.N	Buy	N/A	US$69.46	17 Sep 2015
Exelon Corp.[4, 6a, 16]	EXC.N	Neutral	N/A	US$31.57	17 Sep 2015
FirstEnergy Corp.[16]	FE.N	Sell	N/A	US$31.72	17 Sep 2015
Public Service Enterprise Group[16]	PEG.N	Neutral	N/A	US$40.60	17 Sep 2015

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