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Setting the Tone On Nuclear

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Exelon negotiating with Entergy to add nuclear capacity in NY

On July 13th, Entergy and Exelon disclosed negotiations for Entergy to sell its FitzPatrick nuclear plant in upstate New York to Exelon rather than retiring the plant in January 2017. Any transaction would seemingly be predicated on the New York Public Service Commission (PSC) approving of the Zero Emission Credits (ZEC) out-of-market compensation for carbon-free electricity. The PSC is expected to vote on the proposal at its August 1st meeting, and an agreement between ETR and EXC could be possible in the following weeks (mid-August).

What is a ZEC worth? $17.50/MWh initially but up to $29/MWh long-term

The ZEC construct would essentially guarantee FCF positive operations for Ginna, Nine Mile, and FitzPatrick assuming that the cost structure for the plants does not increase materially. We emphasize the deal is structured such that the ZECs maintain a stable level of compensation to generators. This assuages our wider concerns in the market around risks of further profitability degradation amidst a ramping in the Renewable Portfolio Standard (RPS) in NYS. Specifically we see $250-$400Mn annual customer support for the plants under the plan for the three plants. From 2017-2029, we estimate the three plants will generate $4.2Bn FCF ($300Mn average per year) with a net present value of $1.8Bn assuming a $100Mn purchase price for FitzPatrick. Collectively this uplift could be worth +$2/sh to EXC.

Timeline Moving Forward? Awaiting Decision

Following the responsive proposal, released by the Public Service Commission on July 8, the public now has until July 18 to comment on the document. Based on the short period for public discussion of the proposal, *a ruling could occur as early as August 1*, 2016. Timing is critical as units evaluate whether to pursue refueling in 2017 (originally Fitz was slated for Fall 2016). Given the magnitude of the subsidization and based on examples in other states, we would expect legal challenges to the ZEC construct. For example, Entergy previously sued regarding a similar NY PSC agreement to subsidize NRG's Dunkirk plant.

Fitzpatrick could sell for ~$100 Mn, generating positive NPV of EXC.

We estimate the ZEC value for Fitzpatrick as putting this back into a cash flow positive. According to ETR mgmt, Fitzpatrick had a net book value of $157 million as of 1Q16. We continue to expect ETR to divest itself of its overall merchant portfolio, with next steps including a deal for Indian Point (latest reduces their leverage in striking a deal with Governor Cuomo albeit should create a more constructive dialogue) as well as any eventual similar deal in Michigan for Palisades. How much is Fitz worth? We assume a sale of Fitz is likely a modest ~$100Mn, albeit we figure the DCF value of the plant is ~$700Mn (on a ~$44/MWh cost). We note this would help avoid an annual EBITDA loss for ETR related to ongoing closure costs (~$7-10Mn/yr) outside of NDT funding.

Nuclear Put with EDF would be back in play

EDF owns 49.99% of the Constellation Energy Nuclear Group (CENG) and as part of the original CENG transaction, EDF may exercise a put option to Exelon from 2016-2022. We previously ascribed limited value to the option given FCF losses for much of the portfolio, but the ZEC uplift could change the equation and increase the probability. While Ginna and Nine-Mile would essentially have contracted cash flows, Calvert Cliffs 1 & 2 in Maryland is still a merchant asset and would represent a step backwards in the company's efforts to become more regulated. This could be worth as much as $850 Mn, albeit is still likely less than this. The Put is eligible to be exercised from 2016-2022.

We are incrementally more constructive on EXC on potential approval

We see potential for EXC and other diversified utilities to outperform into approval.

What are Implications of the Deal?

- **Could the ZEC deal happen *without* Fitzpatrick?** Given the strong emphasis by Governor Cuomo, it is not clear the ZEC deal could have happened without the Fitzpatrick plant (as Entergy has poised to close the plant, following months of public back and forth with the Governor).

- **No deal on Indian Point here though for Entergy:** The question remains what next for Indian Point as Entergy has lost its key negotiating leverage in keeping this asset open. While we continue to perceive constructive developments on permitting process for another 20-year license extension, we still believe a deal remains the ideal path way for all involved given significant costs of re-permitting the plant.

- **Deal with Fitz illustrates confidence on ZEC deal.** While we have believed the ZEC was viable for some time, we see the latest willingness to strike a deal around this ZEC program as boding well for passage of the ZEC program on August 1.

- **Model for other states to follow? Looking towards PA and NJ.** We see the latest deal struck in NY as a model for other states to follow including EXC's nascent efforts in PA as well as PSEG's efforts in New Jersey. We also see this as boding positively for Connecticut, where Dominion remains confident it can push forward on a similar deal to save its own plant (legislation failed this year). However, we do not sense similar optimism in Illinois despite years of efforts to preserve plants – and active retirements. *The wider question is how much of a benefit could accrue under a Clinton election win scenario should carbon become a national priority once more. We continue to expect carbon to become a key utility sector theme in 2H as election debate focuses on energy.*

- **This is just the latest example of applying meaningful carbon values.** While RGGI prices remain exceptionally modest (and have a ceiling price that is unlikely to move materially higher through its ongoing review process), we see this as the latest example where an individual state is using a meaningfully higher value of carbon than regional trading prices. We note Alberta is putting place its own effective carbon price of $30/t in 2018 despite Western carbon prices closer to $10/t

- **How sustainable is this value of carbon?** The question is whether the appropriate value of carbon should be $10-20/t or closer to the $30/t+ implied by the $17/MWh ZEC uplift. We caution that this is likely a transient value as the declining cost of renewables puts downward pressure on the value of carbon. Further, execution on a meaningful RPS transition under slated plans across not just New York, but wider New England region will demand more flexible units.

- **At end of 12-year contract, we still see the assets as being at risk.** While carbon value is likely to be a much more transparent market by the program's end in 2029, we would be surprised to see the assets have meaningful life or value thereafter. We see asset value as largely tied to the NPV of this portfolio through this 12-year contract under the ZEC. As such, we suspect the value for the Put Option will be largely driven by the value from this exercise as well as the value derived from the Calvert Cliffs asset in Maryland.

- **Negative to RGGI carbon prices and NY capacity expectations.**

How Much Value does this add?

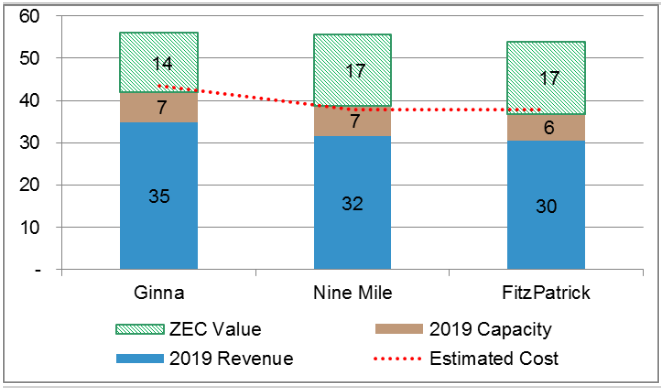
Below we show the summary of potential value creation for the three plants on an NPV basis using a 13% discount rate. We estimate ~$1/sh for Fitzpatrick in acquisition NPV as well as ~$1/sh in uplift for the two plants (Ginna and Nine Mile).

Figure 1: NY Nuclear Summary for ZECs

NY Nuclear Summary for ZECs				
Asset	**Avg FCF**	**Total FCF**	**NPV**	**Per Sh**
FitzPatrick	$111	$1,553	$509	$0.57
Ginna	$44	$613	$246	$0.28
Nine Mile	$146	$2,040	$835	$0.94
Total	**$300**	**$4,205**	**$1,590**	**$1.79**

Source: Company Filings, Platts, SNL Energy, and UBS Estimates * Per Sh represents EXC shares and assumes a $100Mn purchase price for FitzPatrick.

Figure 2: NY Nuclear Summary for ZECs (2019E $/MWh)



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

Similarly we show the potential value uplift by using a 6x EV / EBITDA multiple which is largely consistent with the high discount rate approach above.

Figure 3: EBITDA and EPS Value Added by ZECs

Company	EBITDA Associated with ZECs ($M)	EBITDA Increase Associated with ZECs (in %)	Value EBITDA Associated with ZECs 6x Multiple ($M)	Value EBITDA Associated with ZECs 6x Multiple ($/share)	EPS Associated with ZECs ($/share)	EPS Increase Associated with ZECs (in %)
Exelon	$ 164.2	2.07%	$ 985.4	$ 1.06	$ 0.12	4.02%
Entergy	$ 121.9	3.08%	$ 731.3	$ 4.09	$ 0.44	8.74%

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

Re-estimate the CENG Put Value Option

We see ZEC resolution as driving a decision point on the Put, which we *now* expect to be executed. Under this agreement, EXC would be required to buy EDF out of its 50% JV stake in CENG. This could equate to *as much as* ~$850 Mn, net of the $600 Mn in debt from quite modest values prior (we had estimated ~$50 Mn as of October 2015). See our note here.

Figure 4: Pinning a New Value on the JV (@ 13%)

Latest DCF on Calvert Cliffs @ 20-Years	**$371**
Added ZEC-Based DCF Value *(~Equal to Asset Value):*	
Ginna	$246
Nine Mile	$835
CENG 5.25% $400 Mn Loan	-$400
CENG 8.5% reminaing $400 Mn Pfd	-$199
Total Potential Price Point	**$853**

Source: Company reports and UBS estimates

What are the Plant Specific Economics?

We include an initial DCF of the plant using a plant-level cost estimate of Fitzpatrick similar to Ginna. We would imagine some level of cost synergies between these sites. We suspect our cost estimate could be a bit low here (eg – FCF a bit over-stated), hence our more conservative estimate of sale price. Synergies with the EXC fleet would likely be modest.

The uplift isn't as relevant as the firm plant economics for Fitz

Figure 5: FitzPatrick FCF Analysis

FitzPatrick FCF Analysis	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**
Owned Capacity (MW)	838	838	838	838	838	838	838	838	838	838	838
Capacity Factor	98%	80%	98%	80%	98%	80%	98%	80%	98%	80%	98%
Generation (TWh)	7.2	5.9	7.2	5.9	7.2	5.9	7.2	5.9	7.2	5.9	7.2
Energy Revenue ($MWh)	$30.32	$30.06	$29.57	$30.05	$30.53	$31.01	$31.49	$31.97	$32.45	$32.45	$32.45
Capacity ($MWh)	$5.11	$9.85	$6.64	$8.13	$5.59	$6.85	$5.59	$6.85	$5.59	$6.85	$5.59
Total Market Revenue ($MWh)	$35.43	$39.91	$36.21	$38.18	$36.12	$37.86	$37.08	$38.82	$38.04	$39.30	$38.04
Net ZEC Value ($MWh)	$17.48	$16.57	$17.48	$19.06	$19.59	$20.93	$21.38	$23.22	$23.83	$25.50	$26.45
Total Revenue ($MWh)	**$52.91**	**$56.48**	**$53.69**	**$57.25**	**$55.71**	**$58.79**	**$58.46**	**$62.04**	**$61.87**	**$64.80**	**$64.49**
Estimated Cost ($MWh)	$43.54	$43.54	$43.54	$43.54	$43.54	$43.54	$43.54	$43.54	$43.54	$43.54	$43.54
Free Cash Flow ($MWh)	**$9.37**	**$12.94**	**$10.15**	**$13.71**	**$12.17**	**$15.25**	**$14.92**	**$18.50**	**$18.33**	**$21.26**	**$20.95**
Free Cash Flow ($Mn)	**$67**	**$76**	**$73**	**$80**	**$88**	**$90**	**$107**	**$109**	**$132**	**$125**	**$151**
ZEC FCF Improvement ($Mn)	$126	$97	$126	$112	$141	$123	$154	$136	$171	$150	$190
Total FCF ($Mn)	$1,553			ZEC FCF ($Mn)				$2,071			
Discount Rate	13%			Discount Rate				13%			
Net Present Value ($Mn)	$609			Net Present Value ($Mn)				$858			
Less: Purchase Price	-$100										
Net Value ($Mn)	**$509**										
Value per Share	**$0.57**										

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

What about the Legacy Units?

Figure 6: Ginna FCF Analysis

Ginna FCF Analysis	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**
Owned Capacity (MW)	291	291	291	291	291	291	291	291	291	291	291
Capacity Factor	90%	98%	90%	98%	90%	98%	90%	98%	90%	98%	90%
Generation (TWh)	2.3	2.5	2.3	2.5	2.3	2.5	2.3	2.5	2.3	2.5	2.3
Energy Revenue ($MWh)	$34.74	$34.44	$33.88	$34.43	$34.98	$35.53	$36.08	$36.63	$37.18	$37.18	$37.18
Capacity ($MWh)	$5.57	$8.04	$7.23	$6.64	$6.09	$5.59	$6.09	$5.59	$6.09	$5.59	$6.09
Total Market Revenue ($MWh)	$40.30	$42.48	$41.11	$41.07	$41.07	$41.12	$42.17	$42.22	$43.27	$42.77	$43.27
Net ZEC Value ($MWh)	$16.18	$14.00	$15.37	$16.99	$17.52	$18.81	$18.21	$19.99	$19.56	$22.02	$22.18
Total Revenue ($MWh)	**$56.48**	**$56.48**	**$56.48**	**$58.06**	**$58.59**	**$59.93**	**$60.38**	**$62.22**	**$62.83**	**$64.80**	**$65.45**
Estimated Cost ($MWh)	$43.54	$43.54	$43.54	$43.54	$43.54	$43.54	$43.54	$43.54	$43.54	$43.54	$43.54
Free Cash Flow ($MWh)	**$12.94**	**$12.94**	**$12.94**	**$14.52**	**$15.05**	**$16.39**	**$16.84**	**$18.68**	**$19.29**	**$21.26**	**$21.91**
Free Cash Flow ($Mn)	**$30**	**$32**	**$30**	**$36**	**$34**	**$41**	**$39**	**$47**	**$44**	**$53**	**$50**
ZEC FCF Improvement ($Mn)	$37	$35	$35	$42	$40	$47	$42	$50	$45	$55	$51
Total FCF ($Mn)	$613			ZEC FCF ($Mn)				$661			
Discount Rate	13%			Discount Rate				13%			
Net Present Value ($Mn)	$246			Net Present Value ($Mn)				$273			
Less: Purchase Price	0										
Net Value ($Mn)	**$246**										
Value per Share	**$0.28**										

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

Figure 7: Ninemile FCF Analysis

Nine Mile	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Owned Capacity (MW)	780	780	780	780	780	780	780	780	780	780	780
Capacity Factor	85%	95%	85%	95%	85%	95%	85%	95%	85%	95%	85%
Generation (TWh)	5.8	6.5	5.8	6.5	5.8	6.5	5.8	6.5	5.8	6.5	5.8
Energy Revenue ($MWh)	$31.58	$31.31	$30.80	$31.30	$31.80	$32.30	$32.80	$33.30	$33.80	$33.80	$33.80
Capacity ($MWh)	$5.89	$8.29	$7.66	$6.85	$6.45	$5.77	$6.45	$5.77	$6.45	$5.77	$6.45
Total Market Revenue ($MWh)	$37.47	$39.60	$38.46	$38.15	$38.25	$38.07	$39.25	$39.07	$40.25	$39.57	$40.25
Net ZEC Value ($MWh)	$17.48	$16.88	$17.48	$19.06	$19.59	$20.93	$21.13	$23.15	$22.58	$25.22	$25.20
Total Revenue ($MWh)	**$54.95**	**$56.48**	**$55.94**	**$57.21**	**$57.84**	**$59.00**	**$60.38**	**$62.22**	**$62.83**	**$64.80**	**$65.45**
Estimated Cost ($MWh)	$37.83	$37.83	$37.83	$37.83	$37.83	$37.83	$37.83	$37.83	$37.83	$37.83	$37.83
Free Cash Flow ($MWh)	**$17.13**	**$18.66**	**$18.11**	**$19.39**	**$20.01**	**$21.18**	**$22.56**	**$24.39**	**$25.01**	**$26.97**	**$27.63**
Free Cash Flow ($Mn)	**$99**	**$121**	**$105**	**$126**	**$116**	**$137**	**$131**	**$158**	**$145**	**$175**	**$160**
ZEC FCF Improvement ($Mn)	$101	$109	$101	$124	$114	$136	$123	$150	$131	$164	$146
Total FCF ($Mn)	$2,040			ZEC FCF ($Mn)				$1,928			
Discount Rate	13%			Discount Rate				13%			
Net Present Value ($Mn)	$835			Net Present Value ($Mn)				$796			
Less: Purchase Price	0										
Net Value ($Mn)	**$835**										
Value per Share	**$0.94**										

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

NYISO Capacity Market Implications: Negative.

We see NYISO Rest of State prices remaining relatively flat into 2017 now, see a ~$5/kW-mo outlook as more reasonably rather than the ~$8/kW-mo previously estimated. Further, without upside of future nuclear retirements this market is meaningfully less interesting, particularly when coupled with pending RPS implementation. We think this is most negative for **NRG** followed by **DYN**. This likely brings down the sale price expectation for Independence, pending a sale in the near term.

Further, we would expect a negative impact to both power prices (which had seemingly been volatile around these prices points previously) as well as negative to RGGI price expectations (which are currently under a model reset). RGGI implications include potential for other states to follow suit weighing on prices.

Figure 8: NYISO Capacity by Operator

NY Capacity (MW)	NRG	ETR	EXC	PEG	DYN	CPN	TLN
Rest of State	1,628	852	1,128	774	1,108	-	1,080
Lower Hudson Valley	758	2,069	-	-	-	-	-
New York City	1,366	-	-	-	-	121	-
Long Island	-	-	-	-	-	231	-
Total	**3,752**	**2,921**	**1,128**	**774**	**1,108**	**352**	**1,080**
Sensitivity to $1/kW-Month Change in Capacity Pricing							
Rest of State	20	10	14	9	13	-	13
Lower Hudson Valley	9	25	-	-	-	-	-
New York City	16	-	-	-	-	1	-
Long Island	-	-	-	-	-	3	-
Total	**45**	**35**	**14**	**9**	**13**	**4**	**13**
2017 UBSe EBITDA	2,944	3,999	6,486	4,481	1,162	2,163	708
% Change	**1.5%**	0.9%	0.2%	0.2%	**1.1%**	0.2%	**1.8%**

Source: SNL and UBS estimates

Subsidies to Help Out Upstate Nuclear

On Friday, July 8, the New York Public Service Commission (PSC) announced its responsive proposal for preserving zero emissions attributes, according to which the PSC suggests to implement a zero emissions credit (ZEC) to subsidize existing nuclear power generation. Subsidy eligibility will be decided on a case-by-case basis and depend on the public necessity to ensure the preservation of nuclear power plant's environmental values, their benefit to the electric system, the facility's inability to ensure such environmental and load benefits due to insufficient revenues, and a cost benefit analysis relative to other sources of zero emission energy sources. Based on the Commission's comments, only the upstate nuclear plants Fitzpatrick, Ginna and Nine Mile Point currently illustrate a public necessity for subsidy support.

The ZEC Subsidy Calculation

The PSC suggests the following formula for the calculation of ZECs for upstate nuclear facilities:

Figure 9: ZEC Price Calculation Formula

Social Cost of Carbon	-	Baseline RGGI Effect	-	Amount Zone A Forecast Energy Price and ROS Forecast Capacity Price combined exceeds $39/MWh	=	Upstate ZEC Price

Source: NY DPS

The social costs of carbon (SCC) assumptions are based on the U.S. Interagency Working Group's (USIWG) projected SCC. It assumes a replacement of zero emission nuclear generation with fossil-fuel generation, and the resulting costs of that increase in CO_2 for the overall society. From that base the formula subtracts the average forecasted revenues facilities will receive through the Regional Greenhouse Gas Initiative (RGGI) as well as any revenue from energy prices and capacity prices that exceed $39/MWh. Currently none of the eligible nuclear power plants have revenues exceeding those $39/MWh; thus, this deductible is zero for the first tranche and the upstate ZEC for April 1, 2017 to March 31, 2019, will amount to $17.48/MWh. As we cannot predict the exact timing for Energy & Capacity Forecast Adjustments for each eligible plant, the figure below illustrates the maximum subsidies achievable in an upside case of no adjustment. Between 2017 and 2027, ZECs range from $17.48 to $29.15 per MWh. This over $12 increase is mostly attributable to an increase in the social cost of carbon while RGGI deductions remain constant. As we do not expect operational costs for nuclear plant to increase at the same rate as ZECs, we note that ZECs will grow in profitability for nuclear facilities over time. We note that Ginna's 2019 expected revenue from energy and capacity prices is already $38. With rising electricity prices in NYS, we, thus, expect the Energy and & Capacity Forecast Adjustment to take effect for Ginna as soon as Tranche 2.

Figure 10: Upstate ZEC Calculation ($ per short tons unless otherwise stated)

	Period	Social Cost of Carbon (SCC)	Baseline Avg April 2017 - Mar 2019 RGGI estimate in CARIS LBMP	Net CO_2 Externality	Net CO2 Externality (in MWh)	Energy & Capacity Forecast Adjustment	Upstate ZEC Price (in MWh)
Tranche 1	4/1/2017-3/31/2019	$ 42.87	$ 10.41	$ 32.46	$ 17.48	N/A	$ 17.48
Tranche 2	4/1/2019-3/31/2021	$ 46.79	$ 10.41	$ 36.38	$ 19.59	TBD	TBD
Tranche 3	4/1/2021-3/31/2023	$ 50.11	$ 10.41	$ 39.70	$ 21.38	TBD	TBD
Tranche 4	4/1/2023-3/31/2025	$ 54.66	$ 10.41	$ 44.25	$ 23.83	TBD	TBD
Tranche 5	4/1/2025-3/31/2027	$ 59.54	$ 10.41	$ 49.13	$ 26.45	TBD	TBD
Tranche 6	4/1/2027-3/31/2029	$ 64.54	$ 10.41	$ 54.13	$ 29.15	TBD	TBD

Source: NY DPS

Downstate Exclusion

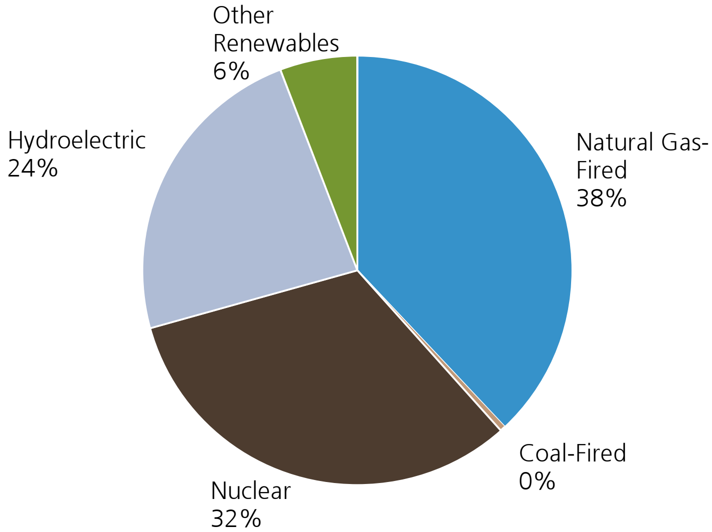
As there currently does not exist any public necessity at the downstate facility Indian Point, the PSC has not released any specific information regarding downstate ZECs. Indian Point, so the PSC, operates in an area of higher electricity demand and constraints and, therefore, receives substantially higher revenues which ensure its profitability even without subsidies. The PSC will review subsidy qualification for currently excluded facilities at every new tranche. Should the PSC determine Indian Point as eligible, it will not receive ZECs based on the upstate formula. Instead the PSC suggests a special formula to adjust for a potential revenue differential between upstate and downstate generation in order to ensure the facilities' relative competiveness.

The Importance of Nuclear to NYS

CPP Pressure

Should the Supreme Court rule in favor of the Clean Power Plan, we believe it will be exceptionally challenging for NYS to achieve the preliminary CPP targets if it retires the entire nuclear fleet in the state. We see the DPS' proposal as a realization of this reality and an attempt by the Commission to maintain the zero-emissions generation fleet and give more support for nuclear assets.

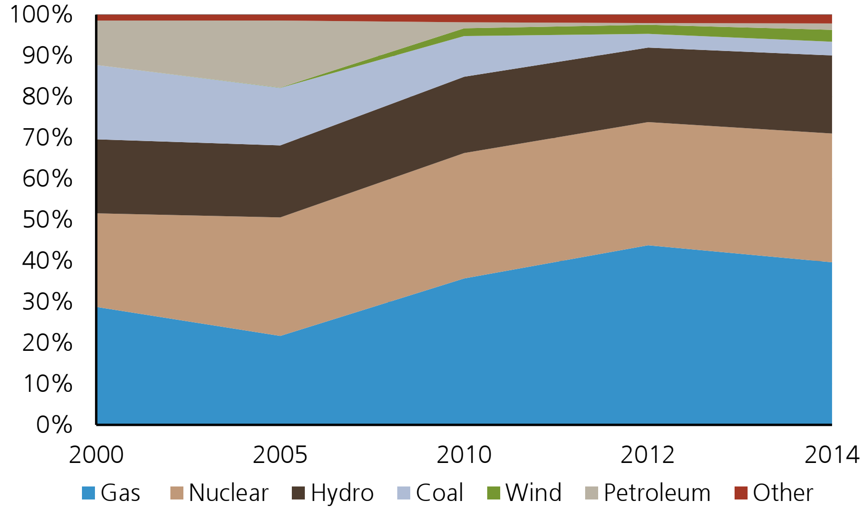
Figure 11: New York State Electricity Generation by Source, March 2016 (MWh)



Source: EIA

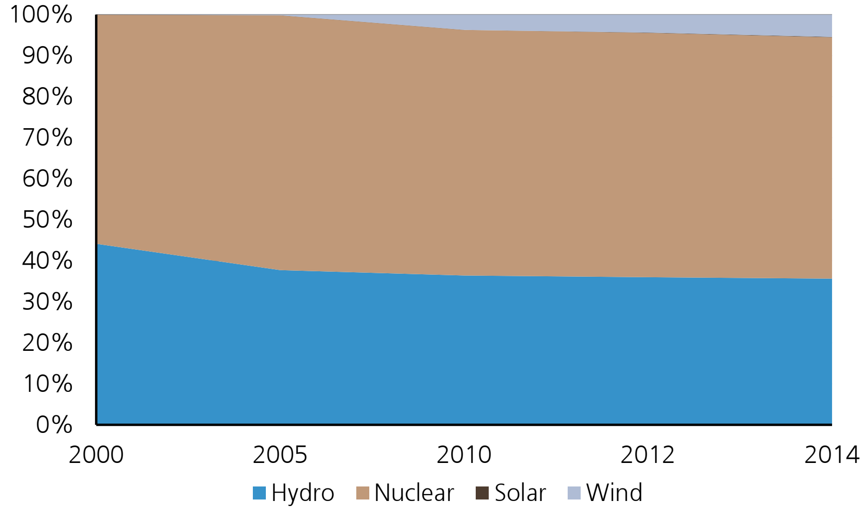
Nuclear currently makes up 32% of NYS' electricity generation, second to only natural gas with 38%. Should all uneconomic plants retire within the next few years, as previously expected by industry participants, NYS would have to replace almost one third of its generation. Possible replacement fuels could be natural gas or other renewables. However, we estimate the equivalent Levelized Cost of Energy (LCOE) for a new gas plant to range between $45-55/MWh using recent gas curves - largely equal to the variable cost of continuing to operate even higher-cost nuclear plants. Replacing retired nuclear plant with new gas generation, however, has the potential, so the PSC, to increase CO_2 emissions approximately 31 million tons. While we note the possibility of other renewable generation, supported by ITC and PTC, to capture some of the lost nuclear generation, we emphasize transmission constraints and grid intermittency remain clear limiting factors.

Figure 12: Historic Power Generation by Source 2000-2014



Source: EIA

Figure 13: Zero Carbon Emission Generation by Source



Source: EIA

Maintaining Jobs: At What Cost?

Upstate nuclear facilities, Fitzpatrick, Ginna, and Nine Mile Point, employ a work force of over 2,100, which could be maintained through the ZECs. On a direct employee basis, this subsidy would equate to approximately $145,000 per person. In comparison, the ZEC proposal in Illinois averaged approximately $200,000 per person, by our estimation.

Valuation Method and Risk Statement

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.

Solar sector risks include : 1)Solar panel and other input pricing is subject to ongoing price deflation, which affects economics of downstream projects and margins of upstream producers. 2) Government incentives being added or removed have had a disproportionate effect on demand in the past, and may continue to 3) reliance on power purchase agreements in electricity markets could make future contracts more difficult to sign 4) solar power is directly competing with other traditional generators as well as other renewables like wind, which creates uncertainty as wholesale power markets shift 5)Headline risk and policy risk continue to shift economics in countries as trade policies and changes to other key policies affect solar economics.

Risks for Exelon Corp. (EXC) include but are not limited to: (1) potential inability to deliver on its regulated capital expenditure program; (2) unfavorable commodity movements [natural gas, power, etc.]; (3) adverse political/legal/regulatory actions; (4) unfavorable weather and natural resources yield [wind generation]; (5) operational and construction risk; (6) inability to access the capital markets on attractive terms; (7) inability to re-contract assets after contract expiration; (8) declines in customer demand and population; (9) failure to close pending or prospective M&A transactions; (10) natural disasters or nuclear accidents; (11) losses at the retail marketing segment; (12) change in macroeconomics; and (13) other unforeseen changes. Our valuation is based on a sum-of-the-parts approach.

Risks for Entergy (ETR) include but are not limited to: (1) potential inability to deliver on its capital expenditure program; (2) unfavorable commodity movements; (3) adverse political/legal/regulatory actions; (4) accidents at the nuclear plants or other natural disasters; (5) unfavorable weather; (6) operational and construction risk; (7) inability to access the capital markets on attractive terms; (8) inability to recontract assets after contract expiration; (9) declines in customer demand and growth, both of which could reduce regulated earnings; (10) failure to close pending or prospective M&A transactions; (11) unfavorable resolution of tax and legal positions; (12) change in macroeconomics; and (13) other unforeseen changes. Valuation is based on sum-of-the-parts analysis.

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12-Month Rating	Definition	Coverage[1]	IB Services[2]
Buy	FSR is > 6% above the MRA.	47%	32%
Neutral	FSR is between -6% and 6% of the MRA.	38%	25%
Sell	FSR is > 6% below the MRA.	15%	21%
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 30 June 2016.
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.
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UBS Securities LLC: Julien Dumoulin-Smith; Paul Zimbardo; Jerimiah Booream, CFA.

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Company Name	Reuters	12-month rating	Short-term rating	Price	Price date
Entergy Corp.[16]	ETR.N	Sell	N/A	US$81.06	12 Jul 2016
Exelon Corp.[6, 7, 16]	EXC.N	Neutral	N/A	US$36.43	12 Jul 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

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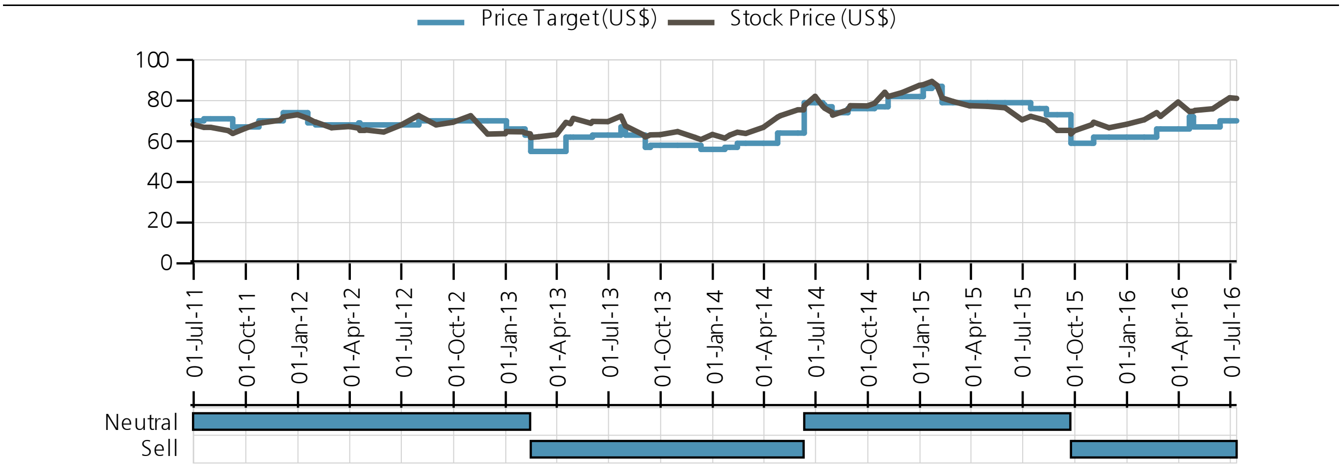
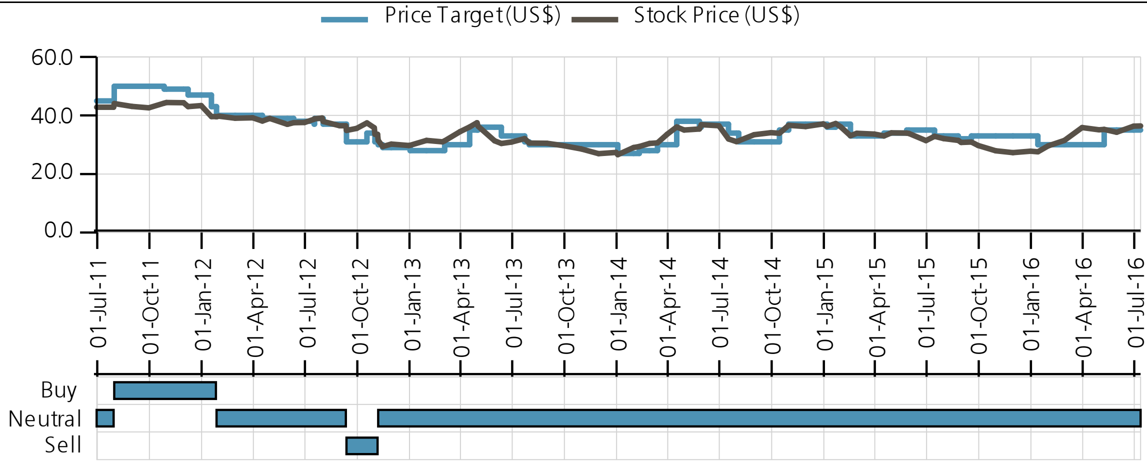
Entergy Corp. (US$)



Source: UBS; as of 12 Jul 2016

Exelon Corp. (US$)



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