US Electric Utilities & IPPs

Managing Michigan's Coal Transition & the MISO Upside Story

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We see data points suggesting a tightening in Michigan is undeniable

Recent comments from CMS, DYN, and other MISO market participants on higher bilateral capacity contract prices suggest that a near-term tightening of the power market is undeniable, especially in Michigan. This trend is supported by a recent MISO study showing a -2.3 GW shortfall by 2016 (-1.9 GW for Michigan Zone 7 alone) and recent announcements by DTE, CMS, IP&L, and AEP to shutter major coal plants as a result of EPA's MATS rules as well as the economics of cheaper shale gas. With utilities such as CMS and IP&L asking for FERC waivers in their resource adequacy commitments (confirming they are indeed 'short' of requirements for a period), the uplift in MISO capacity value to the $2-3/kW-month (~$65-100/MW-day) range appears broadly equivalent with PJM's RTO prices, and represents an opportunity for generators such as DYN to lock-in much higher pricing than seen in recent auctions. Moreover, with the center of the retirement debate for MISO pitched in MI, we see more robust development outlooks for both CMS and DTE to invest in corresponding infrastructure

Potentially 1 GW of net closures by end of 2016 in Michigan; upside to capacity

DTE has announced 240 MW of coal retirement at Trenton Channel in 2016 to comply with MATS, while CMS has filed with FERC to shut the 941-MW "Classic Seven" coal units down along with a 1-year reliability-based waiver of MISO tariff rules in order to remain operational and compensated for the 2015-2016 capacity planning year. WE Energies 431-MW Presque Isle units are also on the precipice, collecting System Support Resource payments while the plant awaits probable retirement as early as next year.

Eventually new gas-fired plant will be built though; lower capacity px in 2020s

We stress that the shortfalls in MISO Zone 7 caused by these coal plant retirements will be relatively short-lived as we expect new gas CCGTs and peakers to take their place. CMS has already purchased the 540-MW Jackson gas-fired plant. DTE has already announced an extended utility capex projection of $1.3B-$2.0B annually from 2019-2025 supported by 2.6GW of coal retiring from 2021-2025 due to age, EPA's New Source Review and carbon rules as well as 316b water cooling rules (with a decision on whether to retrofit the Belle River plant later this year as well). DTE also has an RFP out for new gas-fired resources that should wrap up by the end of the year. Through 2016 DTE anticipates being able to meet its projected generation shortfall with PPAs but believes that purchasing existing Michigan assets in 2019+ would be ideal assuming the price is right. The growth of existing and prospective gas generation assets in Michigan, coupled with declining Canadian gas exports, is supportive of the NEXUS and ET Rover pipelines' plan to bring Utica shale gas into Michigan.

And perhaps even Palisades nuclear can find a perch too

With ETR's Palisades nuclear plant PPA expiring in 2022, CMS has already stated its intention not to re-contract, signaling yet another asset at risk regionally. However, given the need for carbon-free resources under EPA's new 111(d) targets, we see Indiana as particularly hard hit by the new rules and potentially in need of contracting for the nearby nuclear facility even in spite of its likely high cost structure (~$50/MWh+)

Capacity uplift provides upside to DYN albeit short-lived, with constraints too

We emphasize the potential for DYN to sell meaningfully greater quantities of capacity off its MISO coal portfolio, seeing the bulk of its ~7.4GW portfolio still available to sell within MISO (just ~850 MW is exported to PJM via the auctions). Our ests. reflect a $50/MW-day outcome on just half of eligible capacity in 2015 and 2016, moderating thereafter. Should all be sold @ $3/kW-mo (~$100/MW-day), this would add ~$100M in EBITDA. Beyond '16+ we suspect constrained pricing in IL.

And how about keeping prices elevated in the long-term: MISO rules matter

MATS provides capacity price near-term 'bump' while rules provide view to long-term upside.

Related to maintaining a high capacity price in the medium to long-term in Dynegy's zone, we flag MISO filed this week to keep its 'Reference Level' quite high at $155/MW-day, despite this figure receiving greater scrutiny; this effectively dictates the max price generators (without necessary justification), which is defined as the reference level + 10%, effectively making the new cap ~$180/MW-day (*yet higher from ~$165/MW-day applied to this years' earlier 2014/15 capacity auction*). While DYN has suggested they base all bids on plant-specific fundamental costs, we see this policy as enabling Dynegy to potentially keep capacity prices elevated in Zone 4 through the decade (although shy of the extreme $180/MW-day 'potential' enabled by the rules). We emphasize further potential retirements of units to comply with the Illinois state specific rules in 2019/2020 will lend further credibility of tightening capacity prices (the higher prices may still prove insufficient to incentivize scrubber investment in the DYN+IPH portfolio). We also emphasize while the latest MISO auction outcome in April did not see this improvement reflected, we suspect next year will continue to a positive trend, with potential for material uplift (this year could yet have been muddled by existing DYN retail obligation and continued IPH integration).

What's the untold story for Dynegy? It's the best non-PJM capacity recovery

Street revisions should prove positive on rising MISO capacity expectations

We reiterate our Buy rating on shares, seeing it as ideally exposed to rising capacity prices in MISO (which have largely yet to be reflected in Street estimates), as well as continued positive orientation on New England capacity prices (following its acquisition of the Equipower portfolio). We suspect DYN will likely continue to revise up its sold MISO capacity assumptions, driving up estimates with quarterly updates (where it is likely to continue to disclose these commitments).

MISO tightening is a Michigan story

Coal-to-gas switching in Michigan driving the next wave of retirements

Although we don't see any impending disasters in 2014, we think 2015 and beyond MISO capacity tightening will become a significant issue. This is being driven by around ~1000MW of coal closures lined up in that market for 2016 – a significant 32% of overall US coal closure for 2016 (see figures below).

Furthermore, CMS recently confirmed that MISO capacity market pricing was indeed trending higher, with prices in the $3/kW-month range (~$100/MW-day) range, which is consistent with comments made by Dynegy for upwards of $2/kW-month, despite the latest auction results for the year ahead substantially lower (~$15/MW-day).

Figure 1: Capacity Retirement (MW) in Michigan: ~1.1GW of coal may retire in 2016

Michigan - Capacity (MW)	2012	2013	2014	2015	2016	2017	2018	2019	2020
Coal	**11,772**	**11,584**	**11,584**	**11,584**	**10,414**	**10,414**	**10,414**	**10,414**	**10,414**
Net Additions/ (Retirements)		***(188)***	***0***	***0***	***(1,170)***	***0***	***0***	***0***	***0***
CMS					*(970)*				
DTE					*(200)*				
Gas	10,245	10,318	10,318	10,335	10,421	10,839	10,839	10,839	10,839
Net Additions/ (Retirements)		*73*	*0*	*17*	*86*	*418*	*0*	*0*	*0*
Nuclear	4,131	4,124	4,142	4,142	4,202	4,202	4,202	4,202	4,202
Net Additions/ (Retirements)		*(7)*	*18*	*0*	*60*	*0*	*0*	*0*	*0*
Oil	722	703	703	703	703	703	703	703	703
Net Additions/ (Retirements)		*(19)*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Other Nonrenewable	2,028	2,042	2,042	2,042	2,082	2,332	2,332	2,332	2,332
Net Additions/ (Retirements)		*13*	*0*	*0*	*41*	*250*	*0*	*0*	*0*
Solar	0	0	2	2	2	2	2	2	2
Net Additions/ (Retirements)		*0*	*2*	*0*	*0*	*0*	*0*	*0*	*0*
Biomass	542	545	548	548	548	548	548	548	550
Net Additions/ (Retirements)		*3*	*3*	*0*	*0*	*0*	*0*	*0*	*2*
Water	2,155	2,137	2,159	2,180	2,198	2,219	2,240	2,261	2,261
Net Additions/ (Retirements)		*(18)*	*21*	*21*	*18*	*21*	*21*	*21*	*0*
Wind	987	1,172	1,534	1,784	1,784	1,784	1,784	1,784	1,784
Net Additions/ (Retirements)		*184*	*363*	*250*	*0*	*0*	*0*	*0*	*0*
Total Capacity	**32,583**	**32,624**	**33,031**	**33,319**	**32,354**	**33,043**	**33,065**	**33,086**	**33,088**
Net Additions/ (Retirements)		***42***	***407***	***288***	***(965)***	***689***	***21***	***21***	***2***

Source: SNL, CMS Energy, DTE Energy

DTE to close ~240MW coal units at Trenton Channel

In July, DTE announced that it would be closing Trenton Channel Power Plant Unit 7 in 2016 to comply with EPA MATS rules. This follows the earlier announcement that Unit 8 will be closed; collectively the two units have capacity of 240MW which is significant lower than the newer 535MW Unit 9. DTE plans to keep Unit 9 operational by utilizing DSI and Trona to meet carbon standards.

As we have highlighted recently, this continues the trend of PRB coal plants facing earlier environmental compliance spurred retirements. For further details please refer to our 6/27 note "The Illinois Basin Opportunity".

Consumers Energy files regarding ~940MW of retiring coal

In Michigan, CMS' Consumers Energy has already filed with FERC requesting a waiver of MISO Tariff rules related to resource adequacy for seven coal fired units totaling ~941MW (collectively known as the Classic Seven). CMS had already earmarked these plants for closure to meet the EPA's MATS emission rules by April 16, 2016; but MISO reliability rules – which consider the Classic Seven to be capacity resources – would require them to be operational through to the end of May of that year – ie, to remain operational over the entire 2015-16 planning year. The FERC filing notes that there is no mechanism through which Consumers can buy replacement capacity to cover that 6.5 week period; and that they would be forced to buy capacity at high cost for the entire planning year instead.

Figure 2: Consumers Classic Seven: ~941MW coal capacity retirements in MI

Unit	MW	Planned closure
J.C. Weadock Unit 7	151	16-Apr-16
J.C. Weadock Unit 8	151	16-Apr-16
B.C. Cobb Unit 4	156	16-Apr-16
B.C. Cobb Unit 5	156	16-Apr-16
J.R. Whiting Unit 1	101.2	16-Apr-16
J.R. Whiting Unit 2	101.5	16-Apr-16
J.R. Whiting Unit 3	124	16-Apr-16
Total Classic Seven	**940.7**	

Source: Company sources and FERC filing

And what about arbitrage between PJM and MISO?

Several plants in Michigan are already committed to sell into the MISO capacity auction, including 250 MW of CMS' Dearborn Industrial plant, DIG. However, given the large arbitrage that exists between PJM's RTO price of $120/MW-day in 2017-18 vs MISO at only $15/MW-day (although some bilateral contracts have recently traded closer to $70-$100/MW-day), some IPP's have elected to commit their capacity into PJM, potentially exacerbating the MISO capacity shortfall. We flag the current PJM import requests of Michigan generators Tenaska's New Covert Generating Company (1,200 MW) as well as another 1,660 MW import request from LS Power's Renaissance Power. JP Morgan, the former owner of CMS' 542-MW Jackson plant, has applied for that amount of PJM import transmission service as well (in Jan 2014, the plant was committed to be purchased in late-2015 by CMS for $155M ($287/kW). While unclear which exact units have been committed out of Michigan for the PJM auction, we suspect very little was cleared given the significant reduction in imports in the last 2017/18 RPM auction as a result of tighter rules and a zero marginal capacity price from MISO and Northern Michigan due to constraints. For additional detail on the PJM auction, please see our 5/27 note "What did the Street Miss on the PJM Auction?"

Figure 3: PJM Long-Term Firm Transmission Service Interconnection Queue (Confirmed or Under Study), >250 MW

Queue	Oasis	Queue Date	Customer Name	PathName	MW	StatusCode	Initial Study	Impact Study	Facilities Study
AA1-031	4662618	Jul-14	Excelon Generating Company LLC	PJM-AMIL	3,000	Study	green		
U1-098	906034	Apr-08	First Energy	Duquesne-PJM	1,788	Confirmed			
Y2-082	4510276	Oct-12	New Covert Generating Company, LLC.	MECS-PJM	1,200	Study	green	green	clear
U1-052	889837	Mar-08	Reliant Energy	Duquesne-PJM	1,188	Confirmed			
Z1-070	4598661	Oct-13	Exelon Generation Company LLC(CPSI)	AMIL-PJM	1,045	STUDY	green	clear	
T72	812613	Sep-07	Coned wheel	NYISJK-PJM-NYI	1,000	Confirmed			
Y1-004	3673272	Feb-12	Calpine	TVA-PJM	720	Confirmed	green	green	
X3-021	2723695	Aug-11	Renaissance	MECS-PJM	660	Confirmed	green	green	notrequired
Z1-019	4566427	Jun-13	Castleton Commodities Merchant Tradir	NYIS-PJM	600	Study	green	green	clear
	1251680	Nov-09	TVA	PJM-TVA	600	Confirmed			
X2-042	2403944	Jun-11	NRG Energy, Inc.	CIN-PJM	600	Confirmed	green	green	
	818976	Oct-07	TVA	PJM-TVA	600	Confirmed			
AA1-003	4646885	May-14	NRG	CIN-PJM	575	Study	green	clear	
Y1-002	3641682	Feb-12	NRG Power Marketing LLC	NIPS-PJM	575	Confirmed	green	green	
AA1-005	4646888	May-14	NRG	CIN-PJM	550	Study	green	clear	
Y2-049	4487235	Aug-12	JP Morgan	MECS-PJM	542	Study	green	green	clear
Y3-059	4545202	Mar-13	Exelon Generation Company, LLC	PJM-MECS	500	Study	green	green	clear
Y1-007	3721881	Feb-12	Calpine	TVA-PJM	500	Confirmed	green	green	
	893173	Mar-08	First Energy	OVEC-PJM-FE	462	Confirmed			
AA1-052	4671937	Sep-14	Exelon Generation Company LLC	PJM-IPL	400	Study			
S58D	574906	Jun-07	Gen Power Coal III	PJM.AP-PJM.DO	400	Confirmed	green		
N/A	945095	Jul-08	Dayton	CIN-PJM	368	Confirmed			
	903384	Apr-08	WEP	PJM-WEC	320	Confirmed			
Z2-111	4644159	Apr-14	INVEN	PJM-WEC	300	Study	green	clear	
Y2-004	4392716	May-12	NRG Power Marketing	AMIL-PJM	300	Confirmed	green	green	
	893692	Apr-08	Pennelec	FE-PJM	300	Confirmed			
	893702	Apr-08	Met_Ed	FE-PJM	300	Confirmed			
N/A	1302456	Jan-00	TVAM	PJM-TVA	300	Confirmed			
X3-096	3023630	Oct-11	Ameren	AMIL-PJM	268	Confirmed	green	green	
Z1-043	4585350	Aug-13	Dynegy Power Marketing LLC	AMIL-PJM	260	Study	green	green	clear
	531601	Mar-07	First Energy	OVEC-PJM	253	Confirmed	green	green	
Y3-032	4540149	Feb-13	CMS Energy Resource Management Co	MECS-PJM	250	Study	green	green	clear
Y3-083	4554680	Apr-13	CMS Energy Resource Management Co	MECS-PJM	250	Study	green	green	clear
	825955	Oct-07	AEP	PJM-AMIL	250	Confirmed			
	1115220	Mar-09	AEP	PJM-AMIL	250	Confirmed			

Source: PJM Interconnection L.L.C.

FERC filings for waivers from reliability requirements highlights deficiency story

We also see generators filing with FERC asking for waivers from MISO reliability capacity rules with respect to several coal units which may need to be retired within the 2015-16 Planning Year, because of the EPA MATS regulations kicking in in April '16. However, since the MISO Planning Year ends at the end of May, this creates a 6.5 week gap where MISO capacity requirement rules will be in conflict with EPA's MATS standards.

As the CMS filing for the Classic Seven mentioned above illustrates, we think these deficiency filings are important data points which signal that reliability issues beyond 2014 are very real.

WE Energies' 431MW Presque Isle coal units on the precipice

Earlier this year MISO had sent a proposal to FERC to approve capacity payments to Presque Isle to keep it running beyond April 2016 when it is set to close down due to EPA's MATS ruling. Nevertheless, with the recent Presque Isle RFP process drawing little/no bidding interest, we expect either a sale of the plant for negligible value, or early retirement (due to EPA rules) given the shopping of regional load.

While the plant illustrates the issue with customer choice in Michigan, we remain focused on the transmission opportunities for ATC and ITC on the back of any eventual retirement.

Capital cost for MATS compliance on all five units is expected to be in the range of $6-12Mn if required to utilize dry sorbent injection (DSI) with the expectation that any environmental capex would be recoverable, just as the aforementioned SSR payments, as a requirement to operate the plant.

Indianapolis Power and Light (IPL) files regarding ~340MW of retiring coal

Indiana faces pressures too, akin to Michigan

In Indiana, the 338-MW Eagle Valley coal/oil fired plant is set to retire in April 2016. Like Consumer's, IPL has filed with FERC to get an approval to waive off MISO resource adequacy requirements given shutdowns are being forced due to EPA's MATS standards.

Although Eagle Valley is being closed, the 1,732MW Petersberg plant will continue to operate after it retrofits to comply with MATS standards. The three coal-fired units at Harding Street which were initially lined up to receive emissions control retrofitting as well, are now slated to instead be converted to burn gas (it will retain the 698MW of nameplate capacity).

Also in Indiana, AEP's 995MW Tanners Creek plant is set to also close before or during 2016 as well.

Eventually, these shortfalls will be addressed though

Increasing capex by hundreds of millions per year in longer-dated capital spending plan.

At AGA, DTE released an extended utility capex projection of $1.3B-$2.0B annually from 2019-2025 (increase of hundreds of millions per year at the midpoint from the current five year plan through 2018) and announced with 2Q earnings that it sees the amount closer towards the top end of its long-term range, at closer to $2Bn, given the more stringent environmental standards. The spending is supported by 2.6GW of coal retiring from 2021-2025 due to age, EPA's New Source Review and carbon rules as well as 316b water cooling rules. Some plants need a cooling water retrofit for 316b and/or scrubbers, but may be too close to retirement to justify the investment. Nevertheless, management currently leans toward a retrofit for Belle River despite the $1B cost for FGD and SCR on the 1,200 MW plant (~$800/kW retrofit appears among the most marginal we've seen thus far of late) but stated that dry sorbent injection (DSI) remains an option. The asset is the company's newest in the portfolio. The final decision will depend on gas/coal relative pricing.

Looking for an external solution: June's Generation RFP

We look for DTE to potentially announce a plant acquisition by year end, rather than building new

DTE also issued a Request for Proposals (RFP) to potentially acquire simple or combined cycle gas plants in June as it seeks to meet its generation needs in the face of plans to retire coal plants. DTE Electric's summer procurement is 1GW which the company anticipates remaining somewhat stable in at least the near-term. Management stated that it is currently reviewing proposals and process is expected to last throughout 2014 with negotiations in October and a signed agreement available as early as December.

We look for an overall portfolio update late this year with the conclusion of the RFP alongside key plant retrofit decisions. The exact 'incremental' capital out of this RFP remains unclear vs. the contemplated $1.3-2.0 Bn capex range disclosed.

Figure 4: DTE Request for Proposal Timeline for Gas Power Plants

Step	Timetable
RFP Issued	June 2, 2014
Notice of Intent Due, Non-Disclosure Agreement, and Respondent Pre-Qualification Application Due	June 9, 2014
Respondents Notified of Results of Pre-Qualification Application Review	June 16, 2014
Proposal Deadline	July 11, 2014
Proposal Evaluation Completion Target	October 1, 2014
Negotiations with Selected Respondents	October 2, 2014 – December 14, 2014
Definitive Agreements Executed with Selected Respondents	December 15, 2014

Source: Company Filings

Through 2016 DTE anticipates being able to meet its projected generation MISO shortfall with PPAs and other contracts but believes that purchasing existing Michigan assets would be ideal assuming the price is right; however, emphasizing that such a move is likely beyond the current investment horizon and around 2019.

We expect a more detailed update in the Fall as management assesses what environmental retrofits make sense for its coal fleet as we get more clarity on the EPA's standards

NEXUS and Rover underline the shifting mindset from coal to gas

The 1 bcf/day Nexus pipeline (expandable by an additional 0.5bcf/day; and also possible pipeline expansion from 36 to 42 inches) connecting load centers to Utica and Marcellus gas, in our view, seals the coal vs gas debate and will only further degrade relative coal economics and catalyze closures.

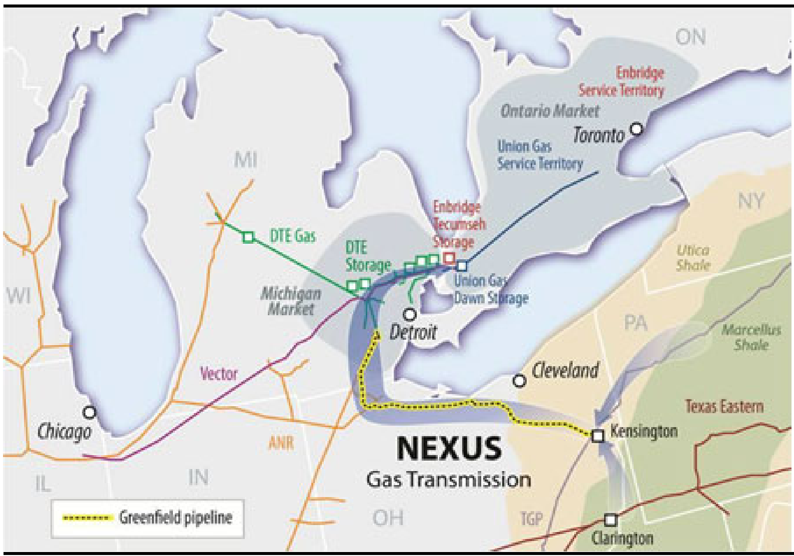
We flag the latest controversy around the project is relatively surprising with DTE and Spectra having discussed in recent weeks upsizing the project given substantial interest. Many investors were surprised by the developments around the ET Rover project, suggesting DTE may yet have been surprised by the size of the contemplated project (2.7 bcf/d committed on 3.0 bcf/d project), at seemingly quite attractive pricing.

Interest in the project is being driven by both producers and at least three LDC sponsors in order to connect trapped products in the Utica shale play with Dawn Hub in Ontario (250 miles) to reach markets in Michigan, Ontario, and Chicago. Some of this interest is being driven by coal retirements in Canada as well as $20/MMBtu realized pricing at Dawn. Storage in Michigan also makes the route ideal for Utica producers who currently only have access to less lucrative markets to the south.

Where are these two projects?

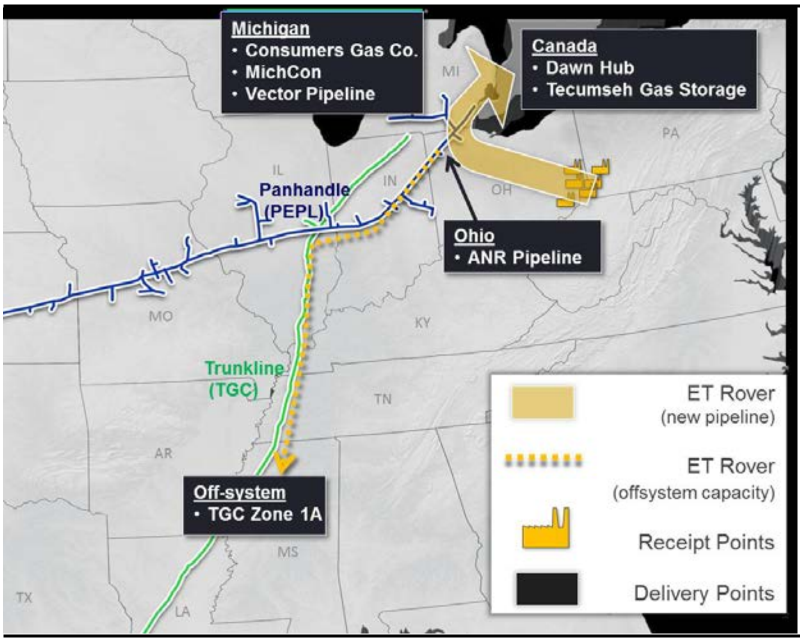
Taking figures from both DTE's and ET's proposed projects, seems to create projects that are aligned on top of each other.

Figure 5: Proposed NEXUS Pipeline Project



Source: Company Filings

Figure 6: Proposed ET Rover Pipeline Project



Source: Company Filings

RPS Review: Potentially Upping the requirement?

With Michigan set to consider new energy legislation next year, we believe there is a good chance for the current 10% renewable portfolio standard to be increased to 15% or even 20%.

Sideview: MPSC directs to more DG solar

The Michigan Public Service Commission (PSC) Staff's Solar Working Group issued a draft report a few months ago detailing ways in which DTE Energy and CMS Energy could promote residential adoption of solar. Despite estimating only a 14% capacity factor, it is clear that Michigan and its utilities want to stay at the forefront of the solar net metering debate. The report presents two broad options: net metering or solar Value of Service (VOS) credits. The PSC Staff stressed that its objective was a "properly designed" system where both the utility and customers would be indifference with respect to cost while ensuring that low-income customers were not disproportionately impacted by the policies.

Under the net metering scenario, customers would opt into the current net metering program and sell-back to the utility at the full energy plus distribution rate as well as receive the REC credit ($0.125/kWh credit + $0.025/kWh REC credit). The VOS scenario differs in that a $0.10/kWh credit would be used in addition to a $0.05/kWh REC credit. In both scenarios there is a $6/month customer charge. A hybrid scenario involves generation sent 'back-to-the-grid' being credited to the customer at VOS and all solar generation receiving the REC credit. The net metering option could be implanted by the respective utility filing a renewable energy plan under the current existing solar policy and changing the renewable surcharge. DTE has been vocal in the past that it opposes subsidies for solar and estimated in the draft report that the cross-subsidization of net metering would be $0.09/kWh. Both DTE and CMS have relied thus far primarily on wind to meet their renewable portfolio standard (RPS) needs. The second and third options rely on a VOS credit and would likely need a PSC proceeding to become possible.

Aside from the typical residential rooftop opportunities, the PSC staff expressed interest in community solar stated that "50% company-owned and 50% developer/customer owned community solar limits would allow for a price competitive atmosphere where program innovation and best practices would thrive." *Case No. U-17302*

What about nukes? Can 111(d) save Palisades?

It is unclear what Entergy will do with its ~800MW Palisades nuclear power unit, with CMS already stating that it does not wish to re-contract its PPA with the plant once it expires in 2022. However, we expect several states to be increasingly keen to tap low emission generation sources given the new 111(d) carbon targets – and this could see Palisades yet being contracted out to states such as Indiana (which are harder-hit under 111(d). Concerns over structural capex at Palisades continue, and we could perhaps see a situation where a utility could buy 'back' the plant in order to make the required necessary upgrades directly.

List of All Assets in the State… What's there now?

Figure 7: Michigan Generating Capacity > 100 MW

Owner	Power Plant	Installed Nameplate Capacity (MW)	Capacity Factor (%)	Technology
DTE Energy Company	Monroe	3,279.6	58.93	Coal
American Electric Power Company, Inc.	Donald C. Cook	2,285.3	84.82	Nuclear
Multi-Owned	Ludington Pumped Storage Facility	1,978.8	12.56	Water
CMS Energy Corporation	Dan E Karn	1,946.3	16.98	CT
Multi-Owned	Midland Cogeneration Venture	1,848.6	19.25	CCGT
Multi-Owned	J.H. Campbell	1,585.9	67.54	Coal
DTE Energy Company	St Clair	1,547.0	50.40	Coal
Multi-Owned	Belle River	1,395.0	67.67	Coal
DTE Energy Company	Fermi	1,217.0	67.26	Nuclear
Tenaska Energy Inc	Covert	1,176.0	17.68	CCGT
DTE Energy Company	River Rouge	933.2	35.37	Coal
DTE Energy Company	Greenwood EC	815.4	2.97	Gas
Entergy Corporation	Palisades	811.8	84.89	Nuclear
DTE Energy Company	Trenton Channel	775.5	53.42	Coal
CMS Energy Corporation	Dearborn Industrial Generation	760.0	33.20	CCGT
LS Power Group	Renaissance Power	680.0	2.19	CT
CMS Energy Corporation	Zeeland Power Project	590.7	24.00	CCGT
JPMorgan Chase & Co.	Jackson Michigan (Triton)	570.0	18.06	CCGT
CMS Energy Corporation	B. C. Cobb	519.6	39.92	Coal
Wisconsin Energy Corporation	Presque Isle	450.0	62.64	Coal
CMS Energy Corporation	Zeeland Power Project CT	377.4	5.43	CT
Lansing Board of Water & Light	Eckert Station	375.0	18.63	Coal
DTE Energy Company	East China	357.6	2.59	CT
CMS Energy Corporation	J.R. Whiting	345.4	57.78	Coal
Wolverine Power Supply Cooperative, Inc.	Sumpter	340.0	2.57	CT
CMS Energy Corporation	J.C. Weadock	312.6	60.36	Coal
DTE Energy Company	Belle River CT	255.9	10.94	CT
DTE Energy Company	Greenwood CT	255.9	6.75	CT
CMS Energy Corporation	Cross Winds Energy Park	211.0	Planned	Wind
CMS Energy Corporation	Livingston Generation Station	170.1	NA	CT
Holland City of	491 East 48th Street	161.7	NA	CT
DTE Energy Company	Hancock	160.2	NA	CT
Lansing Board of Water & Light	Erickson	154.7	NA	Coal
ArcLight Capital Holdings, LLC	Michigan Power	154.1	NA	CCGT
Gamesa Corporacion Tecnologica S.A.	Muskegon Wastewater Treatment W	150.0	Planned	Wind
Multi-Owned	Gratiot Farms Wind Project	150.0	NA	Wind
DTE Energy Company	Delray CT	142.2	NA	CT
DTE Energy Company	Northeast (MI)	129.8	0.04	CT
Holland City of	Holland City CC Project	127.0	Planned	CCGT
Multi-Owned	Eaton County Project	126.0	Planned	Wind
Multi-Owned	Tuscola Bay Wind Park	120.0	35.53	Wind
Invenergy LLC	Gratiot County Wind Project (Brecke	110.4	2.55	Wind
NextEra Energy, Inc.	Tuscola Bay Wind Park II	105.6	5.05	Wind
NewPage Holdings Inc.	Escanaba Paper Company (Mead Pa	103.3	61.10	Coal
Lansing Board of Water & Light	Reo Town Cogeneration Facility (Mo	102.7	NA	CCGT
DTE Energy Company	Gratiot County Wind Project (Brecke	102.0	28.72	Wind
CMS Energy Corporation	Lake Winds Energy Park	100.8	29.53	Wind
Geronimo Energy, LLC	Apple Blossom Wind Farm	100.0	Planned	Wind
Total		**34,706.6**		

Source: SNL Financial and UBS estimates

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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12-Month Rating	Definition	Coverage[1]	IB Services[2]
Buy	FSR is > 6% above the MRA.	48%	33%
Neutral	FSR is between -6% and 6% of the MRA.	41%	30%
Sell	FSR is > 6% below the MRA.	11%	23%
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.	less than 1%	less than 1%
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 2014.
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.

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

Company Disclosures

Company Name	Reuters	12-month rating	Short-term rating	Price	Price date
Dynegy, Inc.[5, 16]	DYN.N	Buy	N/A	US$30.17	11 Sep 2014

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

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.
16. UBS Securities LLC makes a market in the securities and/or ADRs of this company.

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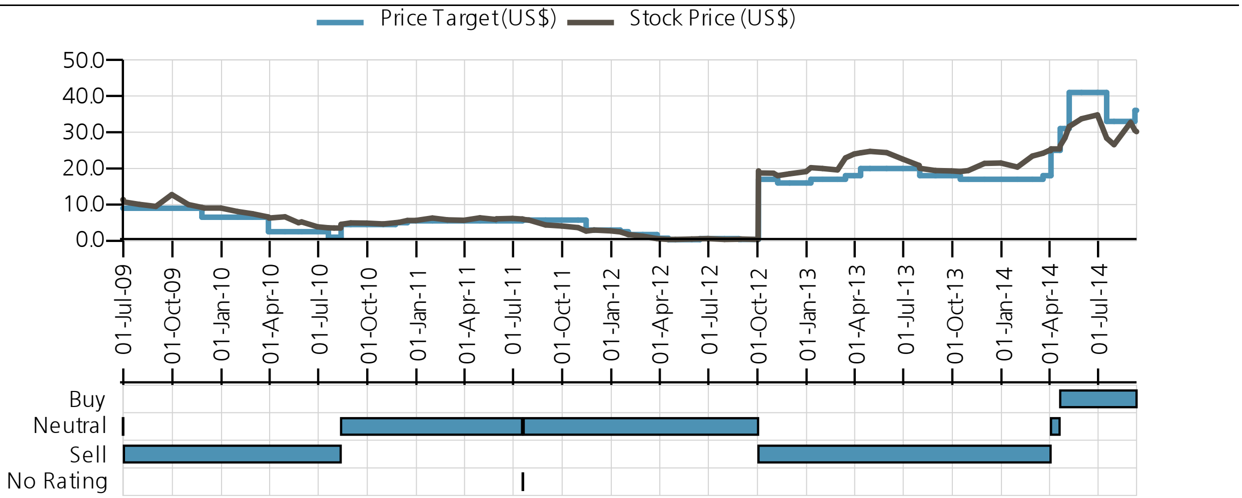
Dynegy, Inc. (US$)



Source: UBS; as of 11 Sep 2014

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