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Global

Supreme Court's EPA Mercury Ruling: The real impacts are yet to come

Consensus is for limited impacts now, but future impacts on the Clean Power Plan loom large

- **The immediate impact to markets from the Supreme Court striking down the EPA's mercury rule (MATS) should be small, consistent with market consensus.** With the compliance deadline for MATS already having passed in April 2015, most coal-fired plants had already made the required investments in anti-pollution technology, or were old and inefficient enough to be facing retirement anyway. Citi expects retirement could be delayed for a handful of coal plants that received extensions.
- **But the consensus view appears to be missing the nuanced implications the ruling could have for a future EPA rule with potential to remake the power sector: the President's Clean Power Plan (CPP).** Citi's analysis, drawing on insight from energy economist and legal scholar Danny Cullenward of UC Berkeley, shows how the MATS ruling holds important clues for the future of the CPP.
- **The MATS ruling might actually make it more difficult to challenge the CPP using the most prominent strategy employed by coal companies to date.** Peabody teamed up with a noted Harvard Law professor to make a technical argument that if the EPA first regulated mercury under section 112 of the Clean Air Act, it could not then utilize section 111 to justify regulation using the CPP. But the recent ruling might actually hamper this type of challenge.
- **The MATS ruling, in combination with the recent Affordable Care Act ruling, may indicate an increasing willingness of the Supreme Court to insert itself in the details of government agency rule making, in our opinion, potentially adding a new wildcard to challenges to the CPP.** Under the long-held "Chevron Deference" in administrative law, courts should defer to agency interpretations of statutes unless they are unreasonable. By striking down the EPA rule because it did not adequately consider costs, even though this was not explicitly in the statute, the Court chose not to defer to the EPA. Related issues were at play in the recent ACA decision too, where SCOTUS elected not to emphasize the Chevron Deference.
- **The Court emphasized that the benefits of mercury regulation did not justify the costs, but this issue looks less lopsided for the CPP according to the EPA's estimates.** While MATS suffers from a nuanced and seemingly lopsided cost/benefit analysis, CPP cost/benefit analysis appears to be more favorable, at least as initially calculated by EPA.
- Citi estimates a 73-Bcf inventory build this week vs. a 75-Bcf build last week and a 100-Bcf build last year.

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See Appendix A-1 for Analyst Certification, Important Disclosures and non-US research analyst disclosures.

Supreme Court's EPA Mercury Ruling: The real impacts are yet to come

The MATS Ruling: little impact on the current market, but important clues for Obama's efforts to regulate CO_2 from power plants

1. The SCOTUS ruling on MATS would not have had a major impact on near-term markets one way or another; hence consensus is that impacts to near-term markets should be minimal.

The compliance deadline for MATS already passed in April 2015, and most plants had already made the required investments in scrubbers or other anti-pollution technology, or were old and inefficient enough to be facing retirement anyway. Some plants have obtained extensions to compliance, but industry estimates suggest only 22 coal plants are operating without mercury controls (SNL). Citi expects retirement could be delayed for a handful of coal plants.

The DC Circuit Court check will now have to decide whether the rule will stand while EPA addresses the Supreme Court's decision, or whether it will be suspended. Either way, Citi expects minimal impacts for power, gas, can coal markets.

But the consensus view appears to be missing the nuanced implications of the ruling for a future EPA rule with potential to remake the power sector: the President's Clean Power Plan (CPP). Citi's analysis, drawing on the work of energy economist and legal scholar Danny Cullenward of the University of California Berkeley, highlights how the MATS ruling might hold clues for the future of the CPP. While there is no precedential rule or argument that emerged with direct bearing on the CPP, some potential impacts are worth noting.

The MATS ruling might actually make it more difficult to challenge the CPP using most prominent strategy employed by coal companies to date. Peabody teamed up with a noted Harvard Law professor to make a technical argument that if the EPA first regulated power plants under section 112 of the Clean Air Act (which it utilized for the mercury regulations), it could not then utilize section 111(d) to justify regulation under the CPP. The MATS rule utilized section 112, so blocking it would potentially deter or complicate future challenges of the type brought by Peabody and its allies. This challenge is likely not the biggest obstacle to the CPP, but it is one of the most prominent yet.

The MATS ruling could also introduce a new wildcard into how the Court will interpret eventual challenges to the CPP – increasing uncertainty for investors. In combination with the recent Affordable Care Act (ACA) ruling, the MATS decision may indicate an increasing willingness of the Supreme Court to insert itself in the details of government agency rule-making, as we see it, potentially adding to investor uncertainty to how the court will react to eventual challenges to the CPP.

Under the long-held "Chevron Deference" in administrative law, courts should defer to agency interpretations of statutes unless they are unreasonable. According to the relevant statutes in the current case, EPA may regulate pollution from power plants if it is deemed "appropriate and necessary".

By striking down the EPA rule because it did not adequately consider costs, even though this was not explicitly required in the statute, the Court chose not to defer to the EPA on interpretation of the relevant statute. The Court similarly decided not to

emphasize the Chevron Deference in the recent ACA ruling. **Supreme Court scholars will surely debate the issue at length, but taken together, we believe the two rulings may indicate a greater willingness of the Court to insert itself in the details of agency rule making.**

Politicians are also loudly using the ruling to argue that states should hold back from implementing the CPP rules because they might be struck down. But beyond making for good sound bites, Citi doesn't expect that anything in the recent ruling changes much for governors who were already looking to avoid regulating carbon from power plants in their states. The ruling offers no explicit "get out of jail free cards" in terms of clear precedents, and as mentioned above, may actually harm the challenge strategy being employed by some coal companies.

2. It's all about the costs: what SCOTUS's requirement for EPA to calculate costs of the regulation means for the CPP

The court ruled that EPA needed to undertake a cost analysis *before* deciding to regulate rather than in the process of regulation. In the majority opinion, Justice Scalia then emphasized that costs of $9.6 billion were disproportionate to EPA's calculated benefits from reduced mercury pollution of $4 to $6 million:

> In accordance with Executive Order, the Agency issued a "Regulatory Impact Analysis" alongside its regulation. This analysis estimated that the regulation would force power plants to bear costs of $9.6 billion per year. The Agency could not fully quantify the benefits of reducing power plants' emissions of hazardous air pollutants; to the extent it could, it estimated that these benefits were worth $4 to $6 million per year.

Somewhat surprisingly, the EPA's initially calculated benefits from reduced mercury regulation were based principally on health impacts from eating recreationally caught fish that contained mercury. If the analysis were expanded more broadly to include things like impacts on pregnant women, child development, as well as other direct health and environmental damages from mercury in the greater food supply, we believe the impacts would likely be greater.

The EPA found total annual benefits, including those from cleaning up secondary pollutants, between $27 and $80 Billion (see Figure 1). **A key question, which the decision leaves to the Circuit Court, is whether these benefits from associated reduction of other pollutants, which are much larger, can be considered.** While the majority opinion suggests SCOTUS may not look favorably upon considering benefits of reducing secondary pollutants, technically it leaves the decision to the lower court.

Figure 1. Mercury Rule Cost/Benefit (billion 2007 USD / year)

Item	Low estimate		High estimate	
Total Costs	$	10	$	10
Total Benefits	$	37	$	90
Hg Benefits*	$	0.004	$	0.006
PM2.5 Benefits	$	36	$	89
Climate Benefits	$	0.360	$	0.360
Net Benefits	$	27	$	80

Source: 77 Fed Reg 9306, Table 2, Cullenward, Citi Research. Note: Numbers for 3% discount rate.

Figure 2. Clean Power Plan Cost/Benefit (billion 2011 USD / year)

Item	Low estimate		High estimate	
Total Costs	$	7	$	7
Total Benefits	$	55	$	89
Climate Benefits	$	30	$	30
Health Benefits	$	25	$	59
Net Benefits	$	48	$	82

Source: 79 Fed Reg 34840-41, Table 2, Cullenward, Citi Research. Note: Numbers for 3% discount rate, regional compliance in 2030.

So what does this suggest for the CPP? It looks like either way the costs are tallied, the CPP cost/benefit is better than the MATS cost/benefit (see Figure 2)**.** Based on the EPA's estimates, the CPP does not appear dependent on secondary

pollutants to generate an attractive cost benefit analysis. According to preliminary estimates, total annual costs of around $7 billion generate annual climate benefits of around $30 billion, not including associated health benefits. Of course the calculation of the benefits or compliance costs might be debated,[1] but generally the positioning of the cost/benefit analysis appears stronger in the case of the CPP.

What does it all mean?

The impacts of MATS are largely behind us, even with the ruling, and markets should pivot to carefully parsing legal decisions for potential impacts on the CPP – which has the potential to reshape the US power sector, and by implication, coal and gas demand. CPP will likely be subject to intense litigation pressure, starting from the federal level down to the individual state level – making early legal signposts all the more relevant in understanding how CPP might, or might not, reshape the US power sector.

[1] Benefits utilize the government's assumptions for the "global social cost of carbon" and a 3% discount rate. According to EPA, "Total costs are approximated by the illustrative compliance costs estimated using the Integrated Planning Model for the proposed guidelines and a discount rate of approximately 5%. This estimate includes monitoring, recordkeeping, and reporting costs and demand side energy efficiency program and participant costs."

Weekly US Gas Storage

Citi estimates a 73-Bcf inventory build this week vs. a 75-Bcf build last week and a 100-Bcf build last year.

Figure 3. US EIA Natural Gas Inventory Estimates

	L48	East	Prod	West	L48	East	Prod	West
	Injection/Withdrawal				Inventory			
This week	73	53	16	4	2,581	1,106	1,034	441
Last week	75	53	15	7	2,508	1,053	1,018	437
Last year	100	65	19	16	1,929	923	675	331
Surplus to last year					652	183	359	110
	Weekly CDD				Weekly HDD			
This week	95	54	32	9	1	1	0	1
Last week	87	51	29	7	3	1	0	2
Last year	86	50	27	9	1	1	0	1

Source: EIA, Citi Research

Figure 4. Weekly injection/withdrawal and inventories table

	Injection (Withdrawal) - Bcf								Inventories - Bcf							
Week	This yr	Last yr	5-yr avg	5-yr min	5-yr max	3-yr avg	3-yr min	3-yr max	This yr	Last yr	5-yr avg	5-yr min	5-yr max	3-yr avg	3-yr min	3-yr max
5/8/2015	111	105	94	61	111	105	99	111	1,897	1,160	1,975	1,160	2,667	1,930	1,160	2,667
5/15/2015	92	106	94	77	106	96	89	106	1,989	1,266	2,071	1,266	2,744	2,021	1,266	2,744
5/22/2015	112	114	94	71	114	105	88	114	2,101	1,380	2,160	1,380	2,815	2,112	1,380	2,815
5/29/2015	132	119	101	62	132	121	111	132	2,233	1,499	2,254	1,499	2,877	2,209	1,499	2,877
6/5/2015	111	107	90	67	111	104	95	111	2,344	1,606	2,339	1,606	2,944	2,299	1,606	2,944
6/12/2015	89	113	91	62	113	98	89	113	2,433	1,719	2,428	1,719	3,006	2,388	1,719	3,006
6/19/2015	75	110	83	57	110	93	75	110	2,508	1,829	2,508	1,829	3,063	2,475	1,829	3,063
6/26/2015	73	100	77	39	100	70	39	100	2,581	1,929	2,585	1,929	3,102	2,545	1,929	3,102
7/3/2015	93	93	74	33	93	69	33	93	2,674	2,022	2,659	2,022	3,135	2,615	2,022	3,135
7/10/2015	75	107	61	28	107	64	28	107	2,749	2,129	2,720	2,129	3,163	2,679	2,129	3,163
7/17/2015	73	90	46	26	90	52	26	90	2,823	2,219	2,765	2,219	3,189	2,731	2,219	3,189
7/24/2015	72	88	50	28	88	58	28	88	2,895	2,307	2,815	2,307	3,217	2,790	2,307	3,217
7/31/2015	74	82	53	24	96	67	24	96	2,969	2,389	2,868	2,389	3,241	2,857	2,389	3,241

Source: EIA, Citi Research

Figure 5. Weekly supply-demand table

Week	Total demand	ElecGen	ResComm	Industrial	Total supply	Production	Imports (Canada)	Exports (MX)	Imports (LNG)	CDD	10-yr avg	HDD	10-yr avg
5/8/2015	63.4	24.6	11.8	20.8	77.1	74.3	5.3	-2.7	0.1	40	37	19	38
5/15/2015	64.6	25.5	12.3	20.7	76.7	74.2	5.1	-2.7	0.1	49	40	29	35
5/22/2015	63.7	24.5	12.4	20.8	77.3	74.4	5.5	-2.6	0.1	46	41	33	31
5/29/2015	60.3	23.8	9.9	20.5	78.0	75.0	5.7	-2.7	0.1	62	52	9	20
6/5/2015	62.7	24.9	11.1	20.7	77.1	73.9	5.7	-2.6	0.1	52	63	20	13
6/12/2015	65.1	29.7	8.7	20.5	77.6	74.6	5.5	-2.6	0.1	83	73	2	8
6/19/2015	66.4	31.0	8.6	20.6	77.5	74.5	5.7	-2.8	0.1	87	77	3	5
6/26/2015	67.8	32.4	8.5	20.7	77.5	74.7	5.5	-2.7	0.1	95	84	1	3
7/3/2015	65.2	30.0	8.4	20.6	77.9	75.0	5.5	-2.8	0.1	85	87	1	2
7/10/2015	66.7	31.6	8.3	20.7	76.7	74.6	5.0	-3.0	0.1	97	92	0	1
7/17/2015	66.9	31.7	8.3	20.7	76.7	74.6	5.0	-3.0	0.1	98	96	1	1
7/24/2015	67.1	31.9	8.4	20.8	76.7	74.6	5.0	-3.0	0.1	99	99	1	1
7/31/2015	66.9	31.6	8.4	20.8	76.7	74.6	5.0	-3.0	0.1	99	98	1	1

Source: EIA, Citi Research

Figure 6. US Monthly Natural Gas Supply-Demand Balance (normal weather for bal-2015 and 2016)

	Jan-14	Feb-14	Mar-14	Apr-14	May-14	Jun-14	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14	Y/Y Change	Annual
Total Supply	**73.0**	**71.9**	**71.5**	**72.2**	**73.8**	**73.7**	**74.3**	**74.8**	**74.7**	**76.3**	**77.2**	**79.6**	**4.3**	**74.4**
Prod	66.8	67.1	68.1	69.4	70.6	70.8	71.3	71.6	71.7	72.8	73.0	75.2	4.5	70.7
LNG	0.3	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	(0.0)	0.2
Exports to Mexico	(1.6)	(1.8)	(1.9)	(1.8)	(2.0)	(2.1)	(2.2)	(2.1)	(2.1)	(2.0)	(1.9)	(1.9)	(0.1)	(2.0)
Imports from Canada	7.4	6.3	5.1	4.55	5.15	5.00	5.12	5.24	5.03	5.38	5.9	6.1	(0.1)	5.5
LNG Exports	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Demand	**104.1**	**97.8**	**82.6**	**65.2**	**58.3**	**58.5**	**61.5**	**62.9**	**61.5**	**63.3**	**82.6**	**88.8**	**2.3**	**73.9**
IND	23.4	22.9	21.9	20.6	19.8	19.7	19.9	20.0	20.1	20.7	22.7	23.0	0.8	21.2
ResComm	49.6	49.8	35.7	19.8	11.7	8.6	8.3	8.2	9.6	14.9	32.1	35.7	0.8	23.7
EG	22.4	19.3	17.8	18.3	21.8	25.5	28.4	30.4	25.9	22.9	19.7	21.0	0.4	22.8
Pipe Use	2.9	2.8	2.3	1.8	1.6	1.6	1.7	1.8	1.7	1.8	2.3	2.4	0.1	2.1
Lease and Plant Fuel	4.0	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	4.0	4.0	0.1	3.9
Transport	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.0	0.2
Inventory (Bcf)	**1,925**	**1,200**	**857**	**1,066**	**1,548**	**2,005**	**2,400**	**2,768**	**3,163**	**3,564**	**3,402**	**3,116**		

	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Y/Y Change	Annual
Total Supply	**79.5**	**79.8**	**78.4**	**77.6**	**77.2**	**77.6**	**77.2**	**76.9**	**76.8**	**76.2**	**77.2**	**77.8**	**3.3**	**77.7**
Prod	74.4	74.7	74.5	74.5	74.4	74.6	74.9	74.8	75.0	75.3	76.0	76.5	4.3	75.0
LNG	0.7	0.8	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2
Exports to Mexico	(2.2)	(2.3)	(2.4)	(2.5)	(2.6)	(2.7)	(3.0)	(3.1)	(3.1)	(3.2)	(3.2)	(3.2)	(0.8)	(2.8)
Imports from Canada	6.7	6.5	6.0	5.4	5.4	5.6	5.1	5.0	4.8	4.5	4.8	4.9	(0.1)	5.4
LNG Exports	-	-	-	-	-	-	-	-	-	(0.6)	(0.6)	(0.6)	(0.1)	(0.1)
Total Demand	**102.8**	**105.0**	**85.0**	**68.3**	**61.4**	**65.1**	**66.9**	**65.8**	**62.1**	**67.0**	**77.3**	**93.7**	**2.8**	**76.7**
IND	23.9	24.5	22.4	21.3	20.7	20.6	20.7	20.8	20.8	21.6	22.8	24.1	0.8	22.0
ResComm	45.1	54.7	31.6	18.4	11.7	9.0	8.3	8.4	9.5	16.5	26.3	39.6	(0.4)	23.3
EG	25.7	23.0	21.9	22.5	24.5	29.9	31.7	30.5	25.9	22.8	21.8	23.1	2.5	25.3
Pipe Use	2.9	3.1	2.3	1.9	1.7	1.8	1.8	1.8	1.7	1.9	2.2	2.7	0.1	2.1
Lease and Plant Fuel	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	0.1	4.0
Transport	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.1	0.3
Inventory (Bcf)	**2,392**	**1,686**	**1,483**	**1,762**	**2,251**	**2,628**	**2,948**	**3,293**	**3,732**	**4,019**	**4,015**	**3,520**		

	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Y/Y Change	Annual
Total Supply	**77.0**	**77.0**	**76.8**	**76.3**	**76.8**	**76.6**	**76.5**	**76.5**	**76.3**	**75.4**	**76.7**	**76.7**	**(1.1)**	**76.5**
Prod	76.0	76.2	76.3	76.3	76.3	76.3	76.3	76.3	76.3	76.3	77.3	77.3	1.4	76.4
LNG	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	(0.2)	0.1
Exports to Mexico	(3.4)	(3.5)	(3.5)	(3.6)	(3.6)	(3.7)	(3.7)	(3.8)	(3.8)	(3.9)	(3.9)	(3.9)	(0.9)	(3.7)
Imports from Canada	5.0	4.8	4.5	4.6	5.2	5.0	5.0	5.0	4.8	4.5	4.8	4.9	(0.6)	4.8
LNG Exports	(0.6)	(0.6)	(0.6)	(1.1)	(1.1)	(1.1)	(1.1)	(1.1)	(1.1)	(1.7)	(1.7)	(1.7)	(1.0)	(1.1)
Total Demand	**98.0**	**98.3**	**82.4**	**69.1**	**64.3**	**65.0**	**66.5**	**66.1**	**62.5**	**67.3**	**78.1**	**94.4**	**(0.7)**	**76.0**
IND	24.6	24.4	23.3	22.3	21.5	21.3	21.4	21.5	21.5	22.4	23.6	25.0	0.7	22.7
ResComm	43.4	44.8	31.7	19.6	12.6	9.1	8.4	8.5	9.6	16.6	26.4	39.7	(0.7)	22.5
EG	22.8	21.9	20.7	21.0	24.1	28.5	30.5	29.9	25.3	22.1	21.5	22.7	(1.0)	24.3
Pipe Use	2.8	2.8	2.3	1.9	1.8	1.8	1.8	1.8	1.7	1.9	2.2	2.7	(0.0)	2.1
Lease and Plant Fuel	4.1	4.1	3.9	3.9	3.9	3.9	3.9	4.0	4.0	3.9	3.9	3.9	(0.1)	4.0
Transport	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.1	0.4
Inventory (Bcf)	**2,870**	**2,253**	**2,079**	**2,293**	**2,680**	**3,028**	**3,338**	**3,659**	**4,070**	**4,320**	**4,278**	**3,728**		

Source: EIA, Citi Research
Note: Forecasts in Italics

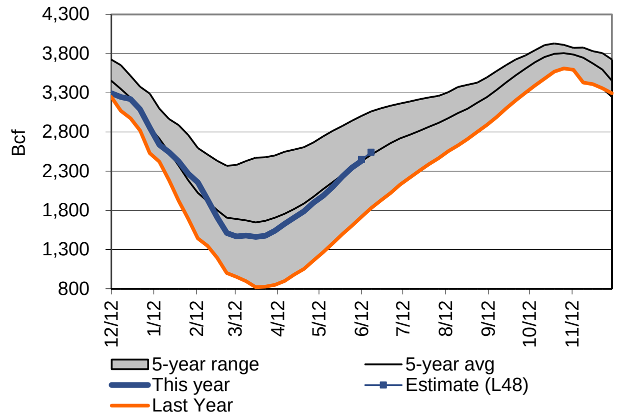
Figure 7. Annual US natural gas supply-demand balance (2009-2020)

Natural Gas (Bcf/d)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2011-17	2011-20	2014-20
Total Supply	**62.9**	**64.7**	**67.2**	**69.2**	**70.1**	**74.4**	**77.7**	**76.0**	**76.4**	**77.1**	**78.2**	**79.1**	**9.3**	**11.9**	**4.7**
Production*	55.6	57.5	61.8	64.9	66.2	70.7	75.0	76.4	79.4	82.9	86.6	88.9	17.6	27.1	18.2
LNG	1.2	1.2	1.0	0.4	0.2	0.2	0.2	0.1	0.1	0.1	0.0	0.0	(0.9)	(0.9)	(0.1)
Exports to Mexico	(0.9)	(0.8)	(1.4)	(1.6)	(1.9)	(2.0)	(2.8)	(3.7)	(4.6)	(5.1)	(5.5)	(6.1)	(3.2)	(4.7)	(4.1)
Imports from Canada	7.0	6.8	5.8	5.5	5.6	5.5	5.4	4.8	4.3	4.3	4.3	4.3	(1.5)	(1.5)	(1.2)
LNG Exports							(0.1)	(1.1)	(2.7)	(5.0)	(7.2)	(8.1)	(2.7)	(8.1)	(8.1)
Total Demand	**63.3**	**65.9**	**66.6**	**69.6**	**71.7**	**73.9**	**76.7**	**76.0**	**76.4**	**77.1**	**78.2**	**79.1**	**9.9**	**12.5**	**5.3**
Industrials	17.7	18.5	18.9	19.5	20.4	21.2	22.0	22.7	23.7	24.5	25.3	26.1	4.8	7.2	4.9
ResComm	21.7	21.9	21.4	19.3	22.9	23.7	23.3	22.5	22.7	22.9	23.1	23.2	1.3	1.8	(0.4)
Electricity Generation	18.8	20.2	20.8	25.0	22.4	22.8	25.3	24.3	23.3	22.8	22.6	22.3	2.6	1.6	(0.4)
Pipe Use	1.7	1.8	1.8	1.9	2.0	2.1	2.1	2.1	2.2	2.3	2.4	2.4	0.4	0.6	0.3
Lease and Plant Fuel	3.4	3.5	3.7	3.8	3.8	3.9	4.0	4.0	4.2	4.3	4.5	4.6	0.5	0.9	0.7
Transport	-	-	-	0.1	0.1	0.2	0.2	0.3	0.3	0.4	0.4	0.5	0.3	0.5	0.3
Demand + Exports	**64.2**	**66.7**	**68.0**	**71.2**	**73.5**	**75.9**	**79.6**	**80.8**	**83.8**	**87.3**	**91.0**	**93.2**	**15.8**	**25.3**	**17.4**
* Production in 2017 and beyond derived by matching total supply with total demand															

Source: EIA, Citi Research
Note: Forecasts in Italics

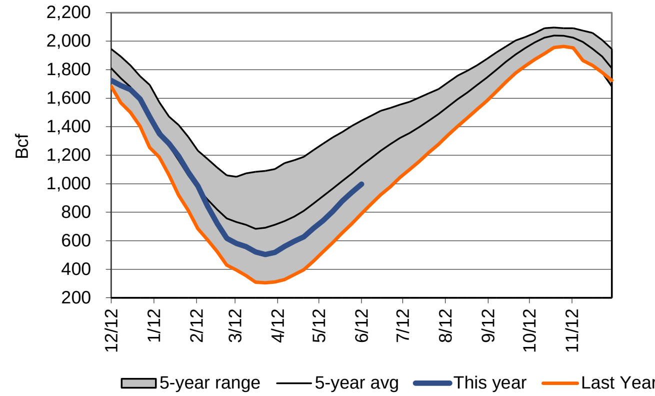
Gas Inventories

Figure 8. Lower 48



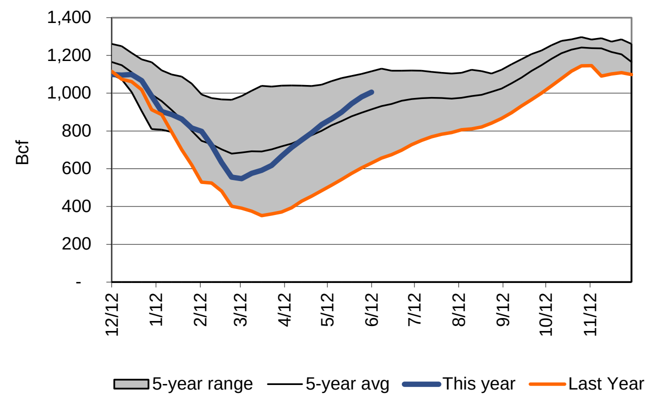
Source: EIA, Citi Research

Figure 9. East region



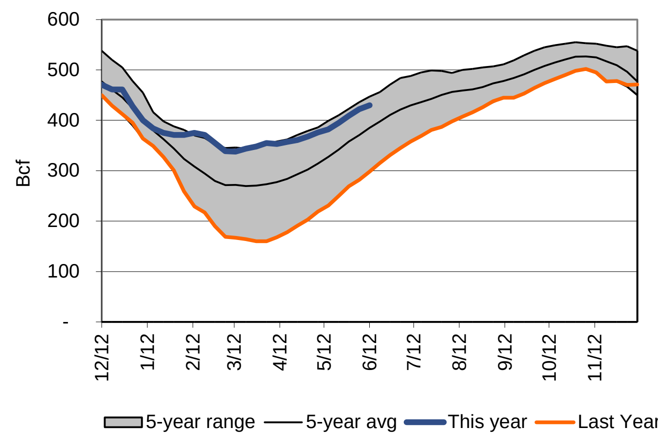
Source: EIA, Citi Research

Figure 10. Producing region



Source: EIA, Citi Research

Figure 11. West region



Source: EIA, Citi Research

Appendix A-1

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