

Impact of EPA's Regulatory Assault on Power Plants: New Regulations to Take 34 GW of Electricity Generation Offline and the Plant Closing Announcements Keep Coming...

So if somebody wants to build a coal-fired plant they can. It's just that it will bankrupt them..."
– Barack Obama speaking to San Francisco Chronicle, January 2008

****Update April 20, 2012****

Thirty-four gigawatts (GW) of electrical generating capacity are now set to retire because of the Environmental Protection Agency's (EPA) Mercury and Air Toxics Rule (colloquially called Utility MACT)¹ and the Cross State Air Pollution Rule (CSAPR)² regulations. Most of these retirements will come from coal-fired power plants, shuttering nearly 10 percent of the U.S.'s coal-fired generating capacity.

This report is an update of a report we issued in October 2011.³ Last October the original report, we calculated that 28.3 GW of generating capacity would close as a result of EPA's regulations. At the time, we warned that "this number will grow as plant operators continue to release their EPA compliance plans." Unfortunately, this statement has proven to be true. This update, a mere four months later, shows that 33.8 GW of electrical generating capacity will close—a 5.5 GW increase.

According to EPA, their modeling of Utility MACT and CSAPR indicates that these regulations will only shutter 9.5 GW of electricity generation capacity. But events in the real world already show that EPA's modeling is a gross underestimate.

To calculate the impact of EPA's rules, we first assumed that EPA's modeling of the regulation correctly predicted which power plants would close as a result of the regulations. Then, we looked at statements, filings, and announcements from electrical generators where the generators were closing power plants and in which they cited EPA's regulations as the precipitating cause of the plant closures. We then compared EPA's modeling outputs with the announcements and created a master list of plant closures as the result of EPA regulations (the master list is below).

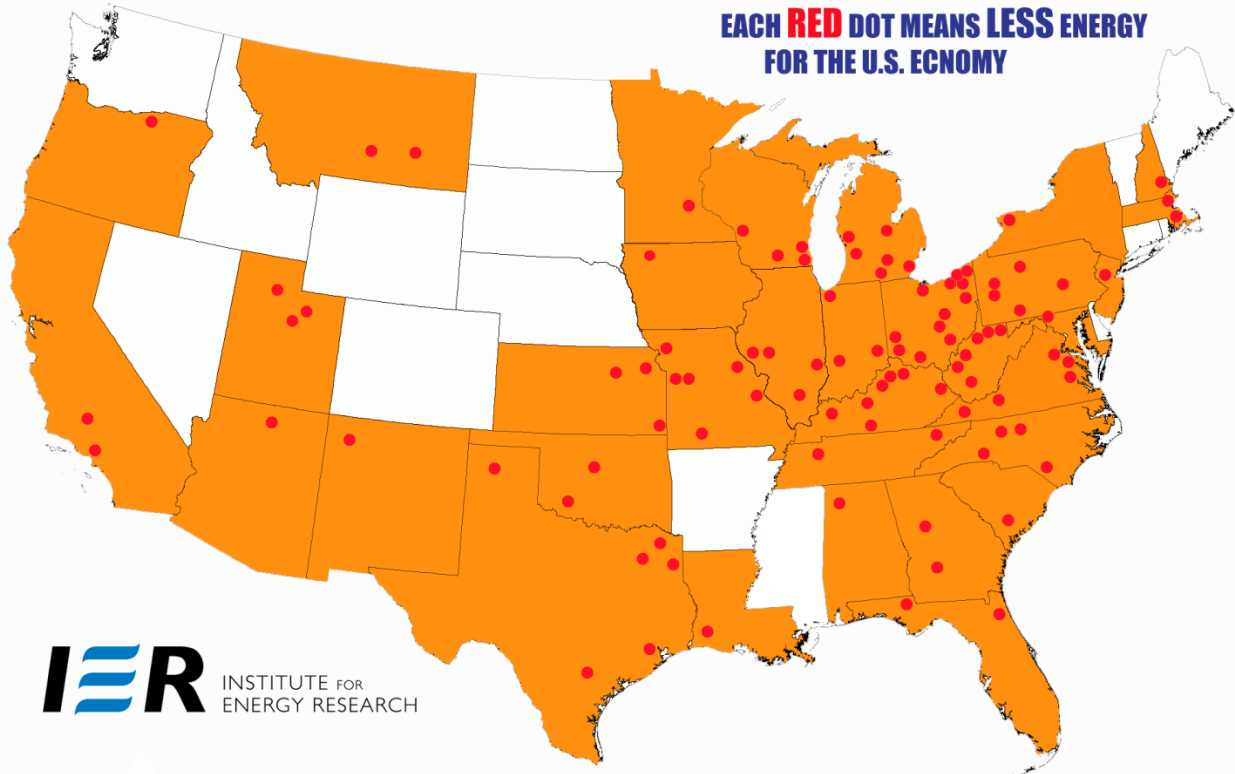
Combining actual announcements with EPA's modeling shows that EPA's modeling grossly underestimates the actual number of closures. As noted above, EPA calculated that only 9.5 GW of electrical generating capacity would close as a result of its rules. But the reality is that nearly 34 GW of power generating capacity will close—over three times the amount predicted by EPA modeling. Worse, as utilities continue to assess how to comply with EPA's finalized Utility MACT rule and CSAPR, there will likely be further plant closure announcements in the coming weeks and months.

POWER PLANTS TO BE CLOSED BY EPA REGULATION

Total MW taken **OFFLINE: 33,809**

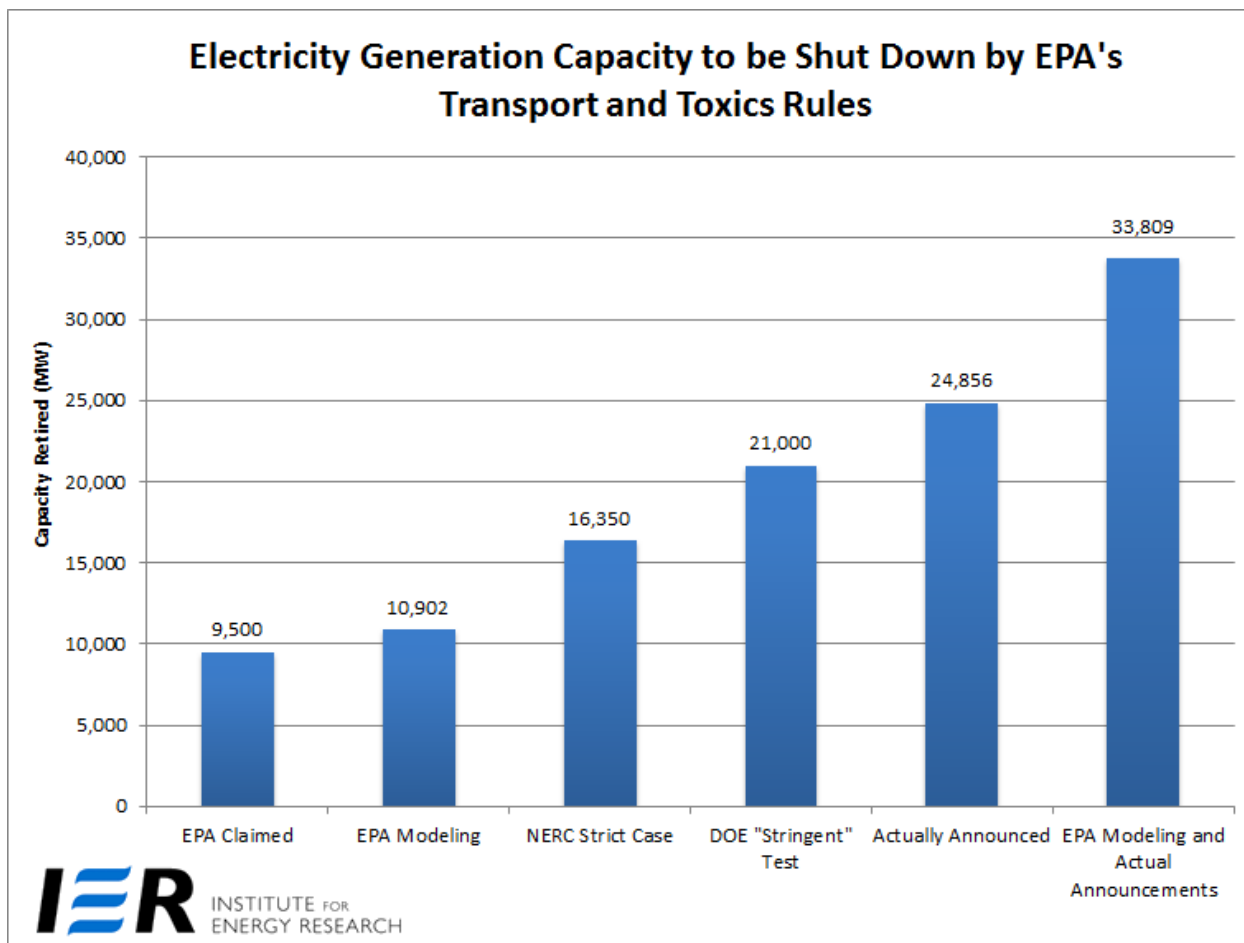
THAT'S NEARLY **10%** OF OUR COAL ENERGY CAPACITY - GONE

EACH **RED** DOT MEANS **LESS ENERGY**
FOR THE U.S. ECONOMY



Since Our First Report was Released in October, an Additional 5 GW of Retirements Due to EPA Regulations Have Been Announced

Operators in Georgia, Maryland, Michigan, New Mexico, Ohio, Pennsylvania, and Wisconsin have announced new closures since we first published our closure list four months ago. Additionally, operators in Minnesota announced they would cease plans to convert a coal plant to natural gas, letting the plant retire due to EPA regulations.⁴ In just six months, retirements related to EPA regulations have grown by 5 GW, more than the 4.7 GW of closures EPA predicted for the entire Utility MACT.



NERC is Concerned about Reliability even though It Underestimates the Amount of Closures

It should be further noted that the North American Reliability Corporation's (NERC) modeling of the MACT rule and CSAPR estimate that under the worst case, or "strict" scenarios, 16.3 GW of electricity capacity will be closed due to the regulations, and the Department of Energy's (DOE) "stringent" test shows that only 21 GW of generating capacity will be closed. Even though NERC's estimate is much lower than what our analysis shows, NERC is concerned that the closures will cause electricity reliability problems.⁵ How much greater will the reliability problems be, given that retirements appear to be twice as great as NERC estimates?

Announced and EPA Projected Retirements Are Significantly Higher than DOE's Worst Case Scenarios

In public statements and the Utility MACT itself, EPA relies heavily on a DOE study claiming that even under a theoretical "stringent" test, EPA regulations would only close 21 GW of generation. EPA has since claimed this study proves regulations will not threaten reliability. Our analysis, however, shows that between EPA projections and operator announcements, nearly 34 GW of generation will close—almost 13 GW more than DOE's supposedly ultra-strict test scenario.

Michigan and Ohio Hit Worst By Latest Announcements

In our updated analysis, the vast majority of new announced retirements will occur in Michigan and Ohio. Operators in Michigan have announced more than 1 GW of closures due to EPA regulations.⁶ Michigan, already reeling from record high unemployment, has warned that further closures due to the regulations could threaten reliability in both the Upper and Lower Peninsulas. The situation is even worse in Ohio, which is now facing 6 GW of closures, the most in the entire country.⁷

Updated List of Power Plants Set to Close According to EPA's Modeling and Public Disclosures

The following is a list of all of the power plants that are set to close according to EPA's modeling combined with public disclosures. A complete explanation of the methodology we used to compile this list is in the Appendix.

EPA Regulations are Already Causing Electricity Prices to Dramatically Rise

Pricing trends in the PJM Interconnection are showing troubling signs concerning the impact on electricity rates of power-plant retirements due EPA regulations. EPA has called PJM Interconnection's operating region "one of the largest and most heavily dependent on coal-fuel generation in the country." Much of this coal generation is in an area PJM calls the "RTO," which encompasses states like Ohio, Indiana and Illinois. Last May, PJM Interconnection held its Future Capacity Auction for 2014/2015, the first to incorporate Utility MACT requirements. During that Auction, future capacity prices in the RTO increased by an incredible 350 percent. PJM concluded the vast majority of this increase was due to requirements "to meet increasingly stringent environmental regulations." According to the *Chicago Tribune*, these price increases will cause Chicago-area electricity bills to go up \$107 to \$178 per year and raise annual costs for Chicago Public Schools by \$2.7 million, \$3.3 million for the Metropolitan Water District, and \$5.4 million for Chicago's city government.

Northern Ohio Expected to See Disproportionally High Electricity Prices

Financial analysts now expect prices to increase even higher in northern Ohio due to recent power-plant closures caused by Utility MACT. UBS projects future capacity prices in this May's Future Capacity Auction for 2015/2016 will increase at least 60 percent in northern Ohio. According to UBS, this increase is due to significant transmission congestion caused by recently announced Utility MACT-related power-plant closures. Deutsch Bank has said that prices could increase by as much as 300 percent. Ratepayers in northern Ohio are paying a high price for EPA's regulatory agenda.

-
- ¹ Environmental Protection Agency, *Regulatory Impact Analysis of the Proposed Toxics Rule*, Mar. 2011, http://www.epa.gov/ttn/atw/utility/ria_toxics_rule.pdf
- ² Environmental Protection Agency, *Regulatory Impact Analysis (RIA) for the final Transport Rule*, <http://www.epa.gov/airtransport/pdfs/FinalRIA.pdf>
- ³ Institute for Energy Research, *IER Identifies Coal Fired Power Plants Likely to Close as Result of EPA Regulations*, Oct. 7, 2011, <http://www.instituteforenergyresearch.org/2011/10/07/ier-identifies-coal-fired-power-plants-likely-to-close-as-result-of-epa-regulations/>.
- ⁴ David Shaffer, *Xcel's power pullback*, STAR TRIBUNE, Dec. 1. 2011, <http://www.startribune.com/business/134825258.html>.
- ⁵ See North American Electric Reliability Corp, *2011 Long-Term Reliability Assessment*, Nov. 2011, http://www.nerc.com/files/2011LTRA_Final.pdf.
- ⁶ Cassandra Sweet, *Michigan Utility to Scrap 'Clean-Coal' Plant, Shut Older Coal Unit*, WALL STREET JOURNAL, <http://online.wsj.com/article/BT-CO-20111202-713204.html>
- ⁷ FirstEnergy, *FirstEnergy, Citing Impact of Environmental Regulations, Will Retire Six Coal-Fired Power Plants* (Press Release), Jan. 26, 2012, <http://www.prnewswire.com/news-releases/firstenergy-citing-impact-of-environmental-regulations-will-retire-six-coal-fired-power-plants-138115263.html>; Dow Jones Newswires, *Midwest Generation, GenOn Energy Announce Power Plant Closings—WP*, Feb. 29, 2012, <http://www.foxbusiness.com/news/2012/02/29/midwest-generation-genon-energy-announce-power-plant-closings-wp/>.

Power Plants Retired by EPA Regulations (EPA Modeling and Announced Retirements)

<u>Plant Name</u>	<u>Unit</u>	<u>Address</u>	<u>City</u>	<u>County</u>	<u>State</u>	<u>Zip</u>	<u>Capacity (MW)</u>	<u>Year</u>	<u>Fuel Source</u>	<u>Source</u>	<u>Citation</u>
Navajo	1	P.O. Box 850	Page	Coconino	AZ	86040	750	2015	Coal	EPA Modeled	IPM Parsed Results - Policy Case (MATS Rule)
Navajo	2	P.O. Box 850	Page	Coconino	AZ	86040	750	2015	Coal	EPA Modeled	IPM Parsed Results - Policy Case (MATS Rule)
Scholz	1	1460 Gulf Power Road	Sneeds	Jackson	FL	32460	49	2015	Coal	EPA Modeled	IPM Parsed Results - Policy Case (MATS Rule)
Scholz	2	1460 Gulf Power Road	Sneeds	Jackson	FL	32460	49	2015	Coal	EPA Modeled	IPM Parsed Results - Policy Case (MATS Rule)
Harlee Branch	1	1100 Milledgeville Road	Milledgeville	Putnam	GA	31061	262	2015	Coal	Operator Announced	<i>Southern Company Comments on EPA NESHAP Action (Aug. 4, 2011).</i>
Harlee Branch	2	1100 Milledgeville Road	Milledgeville	Putnam	GA	31061	319	2015	Coal	Operator Announced	<i>Southern Company Comments on EPA NESHAP Action (Aug. 4, 2011).</i>
Kraft	1	Crossgate Road	Port Wentworth	Chatham	GA	31405	48	2015	Coal	EPA Modeled	IPM Parsed Results - Policy Case (MATS Rule)
Plant Mitchell	4C	5200 Radium Springs Road	Albany	Dougherty	GA	31705	42	2014	Coal	Operator Announced	<i>Power play: Rate hikes for Georgia electricity consumers might be just beginning, Ledger-Enquirer (Oct. 1, 2011).</i>
Yates	Y1B R	708 Dyer Road	Newnan	Coweta	GA	30264	99	2015	Coal	EPA Modeled	IPM Parsed Results - Policy Case (MATS Rule)
Dubuque	1	920 Kerper Road	Dubuque	Dubuque	IA	52001	35	2015	Coal	EPA Modeled	IPM Parsed Results - Policy Case (MATS Rule)
Dubuque	5	920 Kerper Road	Dubuque	Dubuque	IA	52001	30	2015	Coal	EPA Modeled	IPM Parsed Results - Policy Case (MATS Rule)

<u>Plant Name</u>	<u>Unit</u>	<u>Address</u>	<u>City</u>	<u>County</u>	<u>State</u>	<u>Zip</u>	<u>Capacity (MW)</u>	<u>Year</u>	<u>Fuel Source</u>	<u>Source</u>	<u>Citation</u>
Hutsonville	3	15142 E. 1900th Ave.	Hutsonville	Crawford	IL	62433	75	2012	Coal	Operator Annouced	<i>Ameren to shutter 2 coal plants in Illinois</i> , Chicago Tribune (Oct. 4, 2011).
Hutsonville	4	15142 E. 1900th Ave.	Hutsonville	Crawford	IL	62433	75	2012	Coal	Operator Annouced	<i>Ameren to shutter 2 coal plants in Illinois</i> , Chicago Tribune (Oct. 4, 2011).
Marion	4	11543 Lake of Egypt Rd.	Marion	Williamson	IL	62959	170	2014	Coal	EPA Modeled	IPM Parsed Results - Remedy Case (CSAPR)
Meredosia	4	800 W. Washington	Meredosia	Morgan	IL	62665	166	2012	Oil	Operator Annouced	<i>Ameren to shutter 2 coal plants in Illinois</i> , Chicago Tribune (Oct. 4, 2011).
Meredosia	5	800 W. Washington	Meredosia	Morgan	IL	62665	203	2012	Coal	Operator Annouced	<i>Ameren to shutter 2 coal plants in Illinois</i> , Chicago Tribune (Oct. 4, 2011).
Eagle Valley	3	4040 Blue Bluff Road	Martinsville	Morgan	IN	46151	43	2015	Coal	EPA Modeled	IPM Parsed Results - Policy Case (MATS Rule)
Eagle Valley	4	4040 Blue Bluff Road	Martinsville	Morgan	IN	46151	56	2015	Coal	EPA Modeled	IPM Parsed Results - Policy Case (MATS Rule)
R Gallagher	1	30 Jackson St	New Albany	Floyd	IN	47200	139.95	2015	Coal	EPA Modeled	IPM Parsed Results - Policy Case (MATS Rule)
R Gallagher	3	30 Jackson St	New Albany	Floyd	IN	47200	139.95	2015	Coal	EPA Modeled	IPM Parsed Results - Policy Case (MATS Rule)
State Line	1	103rd St. & Lake Michigan	Hammond	Lake	IN	46325	197	2012	Coal	Operator Annouced	<i>Northwest Indiana Power Plant Days Numbered</i> , Indianapolis Star (January 31, 2012).
State Line	2	103rd St. & Lake Michigan	Hammond	Lake	IN	46325	100	2012	Coal	Operator Annouced	<i>Northwest Indiana Power Plant Days Numbered</i> , Indianapolis Star (January 31, 2012).
State Line	3	103rd St. & Lake Michigan	Hammond	Lake	IN	46325	318	2012	Coal	Operator Annouced	<i>Northwest Indiana Power Plant Days Numbered</i> , Indianapolis Star (January 31, 2012).

<u>Plant Name</u>	<u>Unit</u>	<u>Address</u>	<u>City</u>	<u>County</u>	<u>State</u>	<u>Zip</u>	<u>Capacity (MW)</u>	<u>Year</u>	<u>Fuel Source</u>	<u>Source</u>	<u>Citation</u>
State Line	4	103rd St. & Lake Michigan	Hammond	Lake	IN	46325	180	2012	Coal	Operator Annouced	<i>Northwest Indiana Power Plant Days Numbered, Indianapolis Star (January 31, 2012).</i>
Tanners Creek	1	800 AEP Drive	Lawrenceburg	Dearborn	IN	47025	145	2015	Coal	EPA Modeled	<i>IPM Parsed Results - Policy Case (MATS Rule)</i>
Tanners Creek	2	800 AEP Drive	Lawrenceburg	Lawrenceburg	IN	47025	153	2015	Coal	Operator Announced & EPA Modeled	<i>AEP Shares Plan For Compliance With Proposed EPA Regulations, Press Release (June 9, 2011); IPM Parsed Results - Policy Case (MATS Rule)</i>
Tanners Creek	3	800 AEP Drive	Lawrenceburg	Lawrenceburg	IN	47025	215	2015	Coal	Operator Announced & EPA Modeled	<i>AEP Shares Plan For Compliance With Proposed EPA Regulations, Press Release (June 9, 2011); IPM Parsed Results - Policy Case (MATS Rule)</i>
Wabash River	2	450 Bolton Rd	Terre Haute	Vigo	IN	47885	113	2014	Coal	Operator Annouced	<i>EPA regs may force Duke to shut Indiana coal plant, Reuters (Sep. 20, 2011)</i>
Wabash River	3	450 Bolton Rd	Terre Haute	Vigo	IN	47885	123	2014	Coal	Operator Annouced	<i>EPA regs may force Duke to shut Indiana coal plant, Reuters (Sep. 20, 2011)</i>
Wabash River	4	450 Bolton Rd	Terre Haute	Vigo	IN	47885	113	2014	Coal	Operator Annouced	<i>EPA regs may force Duke to shut Indiana coal plant, Reuters (Sep. 20, 2011)</i>
Wabash River	5	450 Bolton Rd	Terre Haute	Vigo	IN	47885	125	2014	Coal	Operator Annouced	<i>EPA regs may force Duke to shut Indiana coal plant, Reuters (Sep. 20, 2011)</i>

<u>Plant Name</u>	<u>Unit</u>	<u>Address</u>	<u>City</u>	<u>County</u>	<u>State</u>	<u>Zip</u>	<u>Capacity (MW)</u>	<u>Year</u>	<u>Fuel Source</u>	<u>Source</u>	<u>Citation</u>
Wabash River	6	450 Bolton Rd	Terre Haute	Vigo	IN	47885	387	2014	Coal	Operator Announced	<i>EPA regs may force Duke to shut Indiana coal plant, Reuters (Sep. 20, 2011)</i>
Clifton	T1	319 Eagle Rd	Clifton	Washington	KS	66937	73	2015	Natural Gas	EPA Modeled	IPM Parsed Results - Policy Case (MATS Rule)
Hutchinson Energy Center	GT1	3200 E 30th Ave	Hutchinson	Reno	KS	67501	51	2015	Natural Gas	EPA Modeled	IPM Parsed Results - Policy Case (MATS Rule)
Hutchinson Energy Center	GT2	3200 E 30th Ave	Hutchinson	Reno	KS	67501	55	2015	Natural Gas	EPA Modeled	IPM Parsed Results - Policy Case (MATS Rule)
Hutchinson Energy Center	GT3	3200 E 30th Ave	Hutchinson	Reno	KS	67501	56	2015	Natural Gas	EPA Modeled	IPM Parsed Results - Policy Case (MATS Rule)
Hutchinson Energy Center	GT4	3200 E 30th Ave	Hutchinson	Reno	KS	67501	77	2015	Natural Gas	EPA Modeled	IPM Parsed Results - Policy Case (MATS Rule)
Lawrence Energy Center	3	1250 N 1800 Rd	Lawrence	Douglas	KS	66049	48	2015	Coal	EPA Modeled	IPM Parsed Results - Policy Case (MATS Rule)
Lawrence Energy Center	4	1250 N 1800 Rd	Lawrence	Douglas	KS	66049	110	2015	Coal	EPA Modeled	IPM Parsed Results - Policy Case (MATS Rule)
Quindaro	GT2	3601 North 12th St	Kansas	Wyandotte	KS	66104	56	2015	Natural Gas	EPA Modeled	IPM Parsed Results - Policy Case (MATS Rule)
Quindaro	GT3	3601 North 12th St	Kansas	Wyandotte	KS	66104	46	2015	Natural Gas	EPA Modeled	IPM Parsed Results - Policy Case (MATS Rule)
Riverton	39	7240 SE HWY 66	Riverton	Cherokee	KS	66730	38	2014	Coal	EPA Modeled	IPM Parsed Results - Policy Case MATS Rule)
Riverton	40	7240 SE HWY 66	Riverton	Cherokee	KS	66730	54	2014	Coal	EPA Modeled	IPM Parsed Results - Policy Case MATS Rule)
Tecumseh Energy Center	9	PO Box 38	Tecumseh	Shawnee	KS	66542	74	2015	Coal	EPA Modeled	IPM Parsed Results - Policy Case (MATS Rule)

<u>Plant Name</u>	<u>Unit</u>	<u>Address</u>	<u>City</u>	<u>County</u>	<u>State</u>	<u>Zip</u>	<u>Capacity (MW)</u>	<u>Year</u>	<u>Fuel Source</u>	<u>Source</u>	<u>Citation</u>
Cane Run	1	5252 Cane Run Road	Louisville	Louisville	KY	40216	16	2016	Coal	Operator Annouced	<i>The 2011 Joint Integrated Resource Plan of Louisville Gas and Electric Company and Kentucky Utilities Compny (Apr. 21, 2011)</i>
Cane Run	2	5252 Cane Run Road	Louisville	Louisville	KY	40216	163	2016	Coal	Operator Annouced	<i>The 2011 Joint Integrated Resource Plan of Louisville Gas and Electric Company and Kentucky Utilities Compny (Apr. 21, 2011)</i>
Cane Run	3	5252 Cane Run Road	Louisville	Louisville	KY	40216	209	2016	Coal	Operator Annouced	<i>The 2011 Joint Integrated Resource Plan of Louisville Gas and Electric Company and Kentucky Utilities Compny (Apr. 21, 2011)</i>
Cane Run	4	5252 Cane Run Road	Louisville	Louisville	KY	40216	272	2016	Coal	Operator Annouced	<i>The 2011 Joint Integrated Resource Plan of Louisville Gas and Electric Company and Kentucky Utilities Compny (Apr. 21, 2011)</i>
Dale	1	1925 Ford Road	Winchester	Clark	KY	40391	27	2014	Coal	EPA Modeled	IPM Parsed Results - Remedy Case (CSAPR)
Dale	2	1925 Ford Road	Winchester	Clark	KY	40391	27	2014	Coal	EPA Modeled	IPM Parsed Results - Remedy Case (CSAPR)
Dale	3	1925 Ford Road	Winchester	Clark	KY	40391	75	2014	Coal	EPA Modeled	IPM Parsed Results - Remedy Case (CSAPR)
Dale	4	1925 Ford Road	Winchester	Clark	KY	40391	75	2014	Coal	EPA Modeled	IPM Parsed Results - Remedy Case (CSAPR)
Green River	1	811 Power Plant Drive	Central City	Central City	KY	42330	75	2016	Coal	Operator Annouced	<i>The 2011 Joint Integrated Resource Plan of Louisville Gas and Electric Company and Kentucky Utilities Compny (Apr. 21, 2011)</i>

<u>Plant Name</u>	<u>Unit</u>	<u>Address</u>	<u>City</u>	<u>County</u>	<u>State</u>	<u>Zip</u>	<u>Capacity (MW)</u>	<u>Year</u>	<u>Fuel Source</u>	<u>Source</u>	<u>Citation</u>
Green River	2	811 Power Plant Drive	Central City	Central City	KY	42330	114	2016	Coal	Operator Announced	<i>The 2011 Joint Integrated Resource Plan of Louisville Gas and Electric Company and Kentucky Utilities Compny (Apr. 21, 2011)</i>
Green River	4	811 Power Plant Drive	Central City	Central City	KY	42330	68	2015	Coal	EPA Modeled	IPM Parsed Results - Policy Case (MATS Rule)
Green River	5	811 Power Plant Drive	Central City	Central City	KY	42330	95	2015	Coal	EPA Modeled	IPM Parsed Results - Policy Case (MATS Rule)
Robert A Reid	1	9000 Highway 2096	Robards	Webster	KY	42452	65	2014	Coal	EPA Modeled	IPM Parsed Results - Remedy Case (CSAPR)
Tyrone		6800 Tyrone Pike	Versailles	Versailles	KY	40383	135	2016	Coal	Operator Announced & EPA Modeled	<i>The 2011 Joint Integrated Resource Plan of Louisville Gas and Electric Company and Kentucky Utilities Compny (Apr. 21, 2011);</i> IPM Parsed Results - Remedy Case (CSAPR)
Brayton Point	5	Brayton Point Road	Somerset	Bristol	MA	2726	435	2014	Natural Gas	EPA Modeled	IPM Parsed Results - Remedy Case (CSAPR)
Salem Harbor	1	24 Fort Avenue	Salem	Salem	MA	01970	82	June, 2014	Coal	Operator Announced	<i>Dominion Sets Schedule to Close Salem Harbor Power Station, Press Release, May 11, 2011.</i>
Salem Harbor	2	24 Fort Avenue	Salem	Salem	MA	01970	82	June, 2014	Coal	Operator Announced	<i>Dominion Sets Schedule to Close Salem Harbor Power Station, Press Release, May 11, 2011.</i>
Salem Harbor	3	24 Fort Avenue	Salem	Salem	MA	01970	166	June, 2014	Coal	Operator Announced	<i>Dominion Sets Schedule to Close Salem Harbor Power Station, Press Release, May 11, 2011.</i>

Plant Name	Unit	Address	City	County	State	Zip	Capacity (MW)	Year	Fuel Source	Source	Citation
Salem Harbor	4	24 Fort Avenue	Salem	Salem	MA	01970	476	June, 2014	Coal	Operator Announced & EPA Modeled	<i>Dominion Sets Schedule to Close Salem Harbor Power Station</i> , Press Release (May 11, 2011)/IPM Parsed Results - Policy Case (MATS Rule)
R. Paul Smith	9	PO Box 168	Williamsport	WASHINGTON	MD	21795	34.5	2015	Coal	Operator Announced	<i>FirstEnergy, Citing Impact of Environmental Regulations, Will Retire Six Coal-Fired Power Plants</i> , Press Release (Jan 26, 2012)
R. Paul Smith	11	PO Box 168	Williamsport	WASHINGTON	MD	21795	75	2015	Coal	Operator Announced	<i>FirstEnergy, Citing Impact of Environmental Regulations, Will Retire Six Coal-Fired Power Plants</i> , Press Release (Jan 26, 2012)
Rumford Cogeneration	6	35 Hartford St	Rumford	Oxford	ME	4276	42.5	2015	Coal	EPA Modeled	IPM Parsed Results - Policy Case (MATS Rule)
Rumford Cogeneration	7	35 Hartford St	Rumford	Oxford	ME	4276	42.5	2015	Coal	EPA Modeled	IPM Parsed Results - Policy Case (MATS Rule)
B.C. Cobb	2	151 N. Causeway	Muskegon	Muskegon	MI	49445	156	2015	Coal	Operator Announced	<i>Michigan Utility To Scrap 'Clean-Coal' Plant, Shut Older Coal Units</i> , Wall Street Journal (Dec. 2, 2011)
B.C. Cobb	4	151 N. Causeway	Muskegon	Muskegon	MI	49445	156	2015	Coal	Operator Announced	<i>Michigan Utility To Scrap 'Clean-Coal' Plant, Shut Older Coal Units</i> , Wall Street Journal (Dec. 2, 2011)
D.E. Karn	1	2742 N. Weadock Hwy.	Essexville	Bay	MI	48732	255	2015	Coal	Operator Announced	<i>Michigan Utility To Scrap 'Clean-Coal' Plant, Shut Older Coal Units</i> , Wall Street Journal (Dec. 2, 2011)

Plant Name	Unit	Address	City	County	State	Zip	Capacity (MW)	Year	Fuel Source	Source	Citation
D.E. Karn	2	2742 N. Weadock Hwy.	Essexville	Bay	MI	48732	260	2015	Coal	Operator Announced	<i>Michigan Utility To Scrap 'Clean-Coal' Plant, Shut Older Coal Units, Wall Street Journal (Dec. 2, 2011)</i>
Endicott Station	4	720 Herring Road	Litchfield	HILLSDALE	MI	49252	55	2014	Coal	EPA Modeled	IPM Parsed Results - Remedy Case (CSAPR)
J.R. Whiting	1	4525 E. Erie Rd.	Erie	Monroe	MI	48133	106	2015	Coal	Operator Announced	<i>Michigan Utility To Scrap 'Clean-Coal' Plant, Shut Older Coal Units, Wall Street Journal (Dec. 2, 2011)</i>
J.R. Whiting	2	4525 E. Erie Rd.	Erie	Monroe	MI	48133	106	2015	Coal	Operator Announced	<i>Michigan Utility To Scrap 'Clean-Coal' Plant, Shut Older Coal Units, Wall Street Journal (Dec. 2, 2011)</i>
J.R. Whiting	3	4525 E. Erie Rd.	Erie	Monroe	MI	48133	133	2015	Coal	Operator Announced	<i>Michigan Utility To Scrap 'Clean-Coal' Plant, Shut Older Coal Units, Wall Street Journal (Dec. 2, 2011)</i>
James De Young	1	64 Pine Ave.	Holland	Ottawa	MI	49423	27	2014	Coal	EPA Modeled	IPM Parsed Results - Remedy Case (CSAPR)
Black Dog	3	1400 Black Dog Road	Burnsville	Dakota	MN	55101	114	2015	Coal	Operator Announced	<i>Xcel's Power Pullback, StarTribune (Dec. 1, 2011)</i>
Black Dog	4	1400 Black Dog Road	Burnsville	Dakota	MN	55101	180	2015	Coal	Operator Announced	<i>Xcel's Power Pullback, StarTribune (Dec. 1, 2011)</i>
Blue Valley	2	21499 E. Truman Rd.	Independence	Jackson	MO	64056	51	2014	Coal	EPA Modeled	IPM Parsed Results - Remedy Case (CSAPR)
Chamois	6	9321 Highway 100	Chamois	Osage	MO	65024	49	2014	Coal	EPA Modeled	IPM Parsed Results - Remedy Case (CSAPR)
Meramec	1	8200 Fine Rd	St. Louis	St. Louis	MO	63129	138	2015	Coal	Operator Announced	<i>The Ameren 2011 Integrated Resource Plan</i>
Meramec	2	8200 Fine Rd	St. Louis	St. Louis	MO	63129	138	2015	Coal	Operator Announced	<i>The Ameren 2011 Integrated Resource Plan</i>

Plant Name	Unit	Address	City	County	State	Zip	Capacity (MW)	Year	Fuel Source	Source	Citation
Meramec	3	8200 Fine Rd	St. Louis	St. Louis	MO	63129	289	2015	Coal	Operator Announced	<i>The Ameren 2011 Integrated Resource Plan</i>
Meramec	4	8200 Fine Rd	St. Louis	St. Louis	MO	63129	359	2015	Coal	Operator Announced	<i>The Ameren 2011 Integrated Resource Plan</i>
Sibley	1	33200 E. Johnson Rd	Sibley	Jackson	MO	64088	54	2014	Coal	EPA Modeled	IPM Parsed Results - Remedy Case (CSAPR)
Sibley	2	33200 E. Johnson Rd	Sibley	Jackson	MO	64088	54	2014	Coal	EPA Modeled	IPM Parsed Results - Remedy Case (CSAPR)
Colstrip Energy LP	BLR 1	18 Snider Subdivision Road	Colstrip	Rosebud	MT	59323	35	2015	Coal	EPA Modeled	IPM Parsed Results - Policy Case (MATS Rule)
Yellowstone Energy LP	BLR 1	2215 N. Frontage Rosd	Billings	Yellowstone	MT	59101	28	2015	Petro. Coke	EPA Modeled	IPM Parsed Results - Policy Case (MATS Rule)
Yellowstone Energy LP	BLR 2	2215 N. Frontage Rosd	Billings	Yellowstone	MT	59101	28	2015	Petro. Coke	EPA Modeled	IPM Parsed Results - Policy Case (MATS Rule)
Buck	1	1555 Dukeville Rd	Salisbury	Rowan	NC	28145	38	2014	Coal	EPA Modeled	IPM Parsed Results - Remedy Case (CSAPR)
Buck	6	1555 Dukeville Rd	Salisbury	Rowan	NC	28145	38	2014	Coal	EPA Modeled	IPM Parsed Results - Remedy Case (CSAPR)
Buck	7	1555 Dukeville Rd	Salisbury	Rowan	NC	28145	38	2014	Coal	EPA Modeled	IPM Parsed Results - Remedy Case (CSAPR)
Cape Fear	5	500 CP&L Road	Moncure	Moncure	NC	27559	148	2015	Coal	Operator Announced & EPA Modeled	<i>Progress Energy Carolinas Integrated Resource Plan (Sep. 13, 2010); IPM Parsed Results - Remedy Case (CSAPR)</i>
Cape Fear	6	500 CP&L Road	Moncure	Moncure	NC	27559	175	2015	Coal	Operator Announced	<i>Progress Energy Carolinas Integrated Resource Plan (Sep. 13, 2010).</i>
Riverbend	7	175 Steamplant Rd	Mount Holly	Gaston	NC	28120	94	2014	Coal	EPA Modeled	IPM Parsed Results - Policy Case (CSAPR/MATS Rule)
Riverbend	8	175 Steamplant Rd	Mount Holly	Gaston	NC	28120	94	2014	Coal	EPA Modeled	IPM Parsed Results - Policy Case (CSAPR/MATS Rule)

<u>Plant Name</u>	<u>Unit</u>	<u>Address</u>	<u>City</u>	<u>County</u>	<u>State</u>	<u>Zip</u>	<u>Capacity (MW)</u>	<u>Year</u>	<u>Fuel Source</u>	<u>Source</u>	<u>Citation</u>
Weatherspoon	1	491 Power Plant Road	Lumberton	Robeson	NC	28358	49	2015	Coal	Operator Annouced	<i>Progress Energy Carolinas Integrated Resource Plan (Sep. 13, 2010).</i>
Weatherspoon	2	491 Power Plant Road	Lumberton	Robeson	NC	28358	49	2015	Coal	Operator Annouced	<i>Progress Energy Carolinas Integrated Resource Plan (Sep. 13, 2010).</i>
Weatherspoon	3	491 Power Plant Road	Lumberton	Robeson	NC	28358	79	2015	Coal	Operator Annouced	<i>Progress Energy Carolinas Integrated Resource Plan (Sep. 13, 2010).</i>
Glen Gardner	1	Rocky Run Road	Glen Gardner	Hunterdon	NJ	8826	20	2015	Coal	Operator Annouced	<i>GenOn Reports 2011 Results and Announces Expected Deactivation of Generation Units, Press Release (Feb. 29, 2012)</i>
Glen Gardner	2	Rocky Run Road	Glen Gardner	Hunterdon	NJ	8826	20	2015	Coal	Operator Annouced	<i>GenOn Reports 2011 Results and Announces Expected Deactivation of Generation Units, Press Release (Feb. 29, 2012)</i>
Glen Gardner	3	Rocky Run Road	Glen Gardner	Hunterdon	NJ	8826	19.6	2015	Coal	Operator Annouced	<i>GenOn Reports 2011 Results and Announces Expected Deactivation of Generation Units, Press Release (Feb. 29, 2012)</i>
Glen Gardner	4	Rocky Run Road	Glen Gardner	Hunterdon	NJ	8826	20	2015	Coal	Operator Annouced	<i>GenOn Reports 2011 Results and Announces Expected Deactivation of Generation Units, Press Release (Feb. 29, 2012)</i>

<u>Plant Name</u>	<u>Unit</u>	<u>Address</u>	<u>City</u>	<u>County</u>	<u>State</u>	<u>Zip</u>	<u>Capacity (MW)</u>	<u>Year</u>	<u>Fuel Source</u>	<u>Source</u>	<u>Citation</u>
Glen Gardner	5	Rocky Run Road	Glen Gardner	Hunterdon	NJ	8826	20	2015	Coal	Operator Annouced	<i>GenOn Reports 2011 Results and Announces Expected Deactivation of Generation Units, Press Release (Feb. 29, 2012)</i>
Glen Gardner	6	Rocky Run Road	Glen Gardner	Hunterdon	NJ	8826	20	2015	Coal	Operator Annouced	<i>GenOn Reports 2011 Results and Announces Expected Deactivation of Generation Units, Press Release (Feb. 29, 2012)</i>
Glen Gardner	7	Rocky Run Road	Glen Gardner	Hunterdon	NJ	8826	20	2015	Coal	Operator Annouced	<i>GenOn Reports 2011 Results and Announces Expected Deactivation of Generation Units, Press Release (Feb. 29, 2012)</i>
Glen Gardner	8	Rocky Run Road	Glen Gardner	Hunterdon	NJ	8826	20	2015	Coal	Operator Annouced	<i>GenOn Reports 2011 Results and Announces Expected Deactivation of Generation Units, Press Release (Feb. 29, 2012)</i>
Four Corners	1	End of County Rd 6675	Fruitland	San Juan	NM	87416	190	2015	Coal	Operator Annouced	<i>Navajo-area coal plants weigh impact of EPA rules, AP (Dec. 19, 2011)</i>
Four Corners	2	End of County Rd 6675	Fruitland	San Juan	NM	87416	190	2015	Coal	Operator Annouced	<i>Navajo-area coal plants weigh impact of EPA rules, AP (Dec. 19, 2011)</i>
Four Corners	3	End of County Rd 6675	Fruitland	San Juan	NM	87416	253	2015	Coal	Operator Annouced	<i>Navajo-area coal plants weigh impact of EPA rules, AP (Dec. 19, 2011)</i>

<u>Plant Name</u>	<u>Unit</u>	<u>Address</u>	<u>City</u>	<u>County</u>	<u>State</u>	<u>Zip</u>	<u>Capacity (MW)</u>	<u>Year</u>	<u>Fuel Source</u>	<u>Source</u>	<u>Citation</u>
WPS Power Niagara	1	5300 Frontier Avenue	Niagara Falls	Niagara	NY	14302	53	2015	Coal	EPA Modeled	IPM Parsed Results - Policy Case (MATS Rule)
Ashtubula	5	2133 Lake Road	Ashtabula Township	Ashtabula	OH	44004	256	2015	Coal	Operator Annouced	<i>FirstEnergy, Citing Impact of Environmental Regulations, Will Retire Six Coal-Fired Power Plants, Press Release (Jan 26, 2012)</i>
Avon Lake	7	33569	Avon Lake	Lorain	OH	44012	86	2015	Coal	Operator Annouced	<i>GenOn Reports 2011 Results and Announces Expected Deactivation of Generation Units, Press Release (Feb. 29, 2012)</i>
Avon Lake	9	33569	Avon Lake	Lorain	OH	44012	680	2015	Coal	Operator Annouced	<i>GenOn Reports 2011 Results and Announces Expected Deactivation of Generation Units, Press Release (Feb. 29, 2012)</i>
Avon Lake	10	33569	Avon Lake	Lorain	OH	44012	29	2015	Coal	Operator Announced & EPA Modeled	GenOn Reports 2011 Results and Announces Expected Deactivation of Generation Units, Press Release (Feb. 29, 2012); IPM Parsed Results - Remedy Case (CSAPR)
Bay Shore	2	4701 Bay Shore Road	Oregon	Lucas	OH	43616	140.6	2015	Coal	Operator Annouced	<i>FirstEnergy, Citing Impact of Environmental Regulations, Will Retire Six Coal-Fired Power Plants, Press Release (Jan 26, 2012)</i>

<u>Plant Name</u>	<u>Unit</u>	<u>Address</u>	<u>City</u>	<u>County</u>	<u>State</u>	<u>Zip</u>	<u>Capacity (MW)</u>	<u>Year</u>	<u>Fuel Source</u>	<u>Source</u>	<u>Citation</u>
Bay Shore	3	4701 Bay Shore Road	Oregon	Lucas	OH	43616	140.6	2015	Coal	Operator Announced	<i>FirstEnergy, Citing Impact of Environmental Regulations, Will Retire Six Coal-Fired Power Plants, Press Release (Jan 26, 2012)</i>
Bay Shore	4	4701 Bay Shore Road	Oregon	Lucas	OH	43616	217.6	2015	Coal	Operator Announced	<i>FirstEnergy, Citing Impact of Environmental Regulations, Will Retire Six Coal-Fired Power Plants, Press Release (Jan 26, 2012)</i>
Conesville	3	47201 CR 273	Conesville	Conesville	OH	43811	165	2015	Coal	Operator Announced	<i>AEP Shares Plan For Compliance With Proposed EPA Regulations, Press Release (June 9, 2011).</i>
Eastlake	1	10 Erie Road	Eastlake	Lake	OH	44095	123	2015	Coal	Operator Announced	<i>FirstEnergy, Citing Impact of Environmental Regulations, Will Retire Six Coal-Fired Power Plants, Press Release (Jan 26, 2012)</i>
Eastlake	2	10 Erie Road	Eastlake	Lake	OH	44095	123	2015	Coal	Operator Announced	<i>FirstEnergy, Citing Impact of Environmental Regulations, Will Retire Six Coal-Fired Power Plants, Press Release (Jan 26, 2012)</i>
Eastlake	3	10 Erie Road	Eastlake	Lake	OH	44095	123	2015	Coal	Operator Announced	<i>FirstEnergy, Citing Impact of Environmental Regulations, Will Retire Six Coal-Fired Power Plants, Press Release (Jan 26, 2012)</i>

<u>Plant Name</u>	<u>Unit</u>	<u>Address</u>	<u>City</u>	<u>County</u>	<u>State</u>	<u>Zip</u>	<u>Capacity (MW)</u>	<u>Year</u>	<u>Fuel Source</u>	<u>Source</u>	<u>Citation</u>
Eastlake	4	10 Erie Road	Eastlake	Lake	OH	44095	208	2015	Coal	Operator Announced	<i>FirstEnergy, Citing Impact of Environmental Regulations, Will Retire Six Coal-Fired Power Plants, Press Release (Jan 26, 2012)</i>
Eastlake	5	10 Erie Road	Eastlake	Lake	OH	44095	680	2015	Coal	Operator Announced	<i>FirstEnergy, Citing Impact of Environmental Regulations, Will Retire Six Coal-Fired Power Plants, Press Release (Jan 26, 2012)</i>
Eastlake	6	10 Erie Road	Eastlake	Lake	OH	44095	32	2015	Coal	Operator Announced	<i>FirstEnergy, Citing Impact of Environmental Regulations, Will Retire Six Coal-Fired Power Plants, Press Release (Jan 26, 2012)</i>
Lake Shore	18	6800 S Marginal Drive	Cleveland	Cuyahoga	OH	44103	256	2015	Coal	Operator Announced	<i>FirstEnergy, Citing Impact of Environmental Regulations, Will Retire Six Coal-Fired Power Plants, Press Release (Jan 26, 2012)</i>
Lake Shore	IC1	6800 S Marginal Drive	Cleveland	Cuyahoga	OH	44103	2	2015	Coal	Operator Announced	<i>FirstEnergy, Citing Impact of Environmental Regulations, Will Retire Six Coal-Fired Power Plants, Press Release (Jan 26, 2012)</i>
Lake Shore	IC2	6800 S Marginal Drive	Cleveland	Cuyahoga	OH	44103	2	2015	Coal	Operator Announced	<i>FirstEnergy, Citing Impact of Environmental Regulations, Will Retire Six Coal-Fired Power Plants, Press Release (Jan 26, 2012)</i>

<u>Plant Name</u>	<u>Unit</u>	<u>Address</u>	<u>City</u>	<u>County</u>	<u>State</u>	<u>Zip</u>	<u>Capacity (MW)</u>	<u>Year</u>	<u>Fuel Source</u>	<u>Source</u>	<u>Citation</u>
Miami Fort	6	PO Box 128 Brower Rd	North Bend	Miami Township	OH	45100	163	2015	Coal	Operator Announced	<i>The Duke Energy Kentucky 2011 Integrated Resource Plan (July 1, 2011).</i>
Muskingum River	1	County Road 32	Beverly	Beverly	OH	45715	220	2015	Coal	Operator Announced & EPA Modeled	<i>AEP Shares Plan For Compliance With Proposed EPA Regulations, Press Release (June 9, 2011); IPM Parsed Results - Remedy Case (CSAPR)</i>
Muskingum River	2	County Road 32	Beverly	Beverly	OH	45715	220	2015	Coal	Operator Announced & EPA Modeled	<i>AEP Shares Plan For Compliance With Proposed EPA Regulations, Press Release (June 9, 2011); IPM Parsed Results - Remedy Case (CSAPR)</i>
Muskingum River	3	County Road 32	Beverly	Beverly	OH	45715	238	2015	Coal	Operator Announced	<i>AEP Shares Plan For Compliance With Proposed EPA Regulations, Press Release (June 9, 2011)</i>
Muskingum River	4	County Road 32	Beverly	Beverly	OH	45715	238	2015	Coal	Operator Announced	<i>AEP Shares Plan For Compliance With Proposed EPA Regulations, Press Release (June 9, 2011)</i>
Niles	1	1047 Belmont Avenue	Niles	Trumbull	OH	44446	132.8	2012	Coal	Operator Announced	<i>GenOn Reports 2011 Results and Announces Expected Deactivation of Generation Units, Press Release (Feb. 29, 2012)</i>

<u>Plant Name</u>	<u>Unit</u>	<u>Address</u>	<u>City</u>	<u>County</u>	<u>State</u>	<u>Zip</u>	<u>Capacity (MW)</u>	<u>Year</u>	<u>Fuel Source</u>	<u>Source</u>	<u>Citation</u>
Niles	2	1047 Belmont Avenue	Niles	Trumbull	OH	44446	132.8	2012	Coal	Operator Announced & EPA Modeled	GenOn Reports 2011 Results and Announces Expected Deactivation of Generation Units, Press Release (Feb. 29, 2012); IPM Parsed Results - Remedy Case (CSAPR)
Picway		US 23	Lockbourne	Lockbourne	OH	43137	100	2015	Coal	Operator Announced	<i>AEP Shares Plan For Compliance With Proposed EPA Regulations, Press Release (June 9, 2011)</i>
R E Burger	5	57246 Ferry Landing Road	Shadyside	Belmont	OH	43947	47	2014	Coal	EPA Modeled	IPM Parsed Results - Remedy Case (CSAPR)
R E Burger	6	57246 Ferry Landing Road	Shadyside	Belmont	OH	43947	47	2014	Coal	EPA Modeled	IPM Parsed Results - Remedy Case (CSAPR)
WC Beckjord	1	757 US Rt 52	New Richmond	Clermont	OH	45200	115	2015	Coal	Operator Announced & EPA Modeled	<i>The Duke Energy Ohio 2011 Integrated Resource Plan (July 15, 2011); IPM Parsed Results - Remedy Case (CSAPR)</i>
WC Beckjord	2	757 US Rt 52	New Richmond	New Richmond	OH	45200	113	2015	Coal	Operator Announced & EPA Modeled	<i>The Duke Energy Ohio 2011 Integrated Resource Plan (July 15, 2011); IPM Parsed Results - Remedy Case (CSAPR)</i>
WC Beckjord	3	757 US Rt 52	New Richmond	Clermont	OH	45200	125	2015	Coal	Operator Announced	<i>The Duke Energy Ohio 2011 Integrated Resource Plan (July 15, 2011)</i>
WC Beckjord	4	757 US Rt 52	New Richmond	New Richmond	OH	45200	163	2015	Coal	Operator Announced	<i>The Duke Energy Ohio 2011 Integrated Resource Plan (July 15, 2011)</i>
WC Beckjord	5	757 US Rt 52	New Richmond	Clermont	OH	45200	245	2015	Coal	Operator Announced	<i>The Duke Energy Ohio 2011 Integrated Resource Plan (July 15, 2011)</i>

<u>Plant Name</u>	<u>Unit</u>	<u>Address</u>	<u>City</u>	<u>County</u>	<u>State</u>	<u>Zip</u>	<u>Capacity (MW)</u>	<u>Year</u>	<u>Fuel Source</u>	<u>Source</u>	<u>Citation</u>
WC Beckjord	6	757 US Rt 52	New Richmond	New Richmond	OH	45200	461	2015	Coal	Operator Announced	<i>The Duke Energy Ohio 2011 Integrated Resource Plan (July 15, 2011)</i>
Boardman		73334 Tower Rd	Boardman	Boardman	OR	97818	601	Not Available	Coal	Operator Announced	<i>Portland Gas and Electric Comments on EPA NESHAP Action (Aug. 2, 2011)</i>
Armstrong	1	108 Power Plant Road	Adrian	Armstrong	PA	16210	163.2	2015	Coal	Operator Announced	<i>FirstEnergy, Citing Impact of Environmental Regulations, Will Retire Six Coal-Fired Power Plants, Press Release (Jan 26, 2012)</i>
Armstrong	2	108 Power Plant Road	Adrian	Armstrong	PA	16210	163.2	2015	Coal	Operator Announced	<i>FirstEnergy, Citing Impact of Environmental Regulations, Will Retire Six Coal-Fired Power Plants, Press Release (Jan 26, 2012)</i>
Elrama Power Plant	1	30 Duquesne Light Way	Elrama	Washington	PA	15038	100	2012	Coal	Operator Announced	<i>GenOn Reports 2011 Results and Announces Expected Deactivation of Generation Units, Press Release (Feb. 29, 2012)</i>
Elrama Power Plant	2	30 Duquesne Light Way	Elrama	Washington	PA	15038	100	2012	Coal	Operator Announced	<i>GenOn Reports 2011 Results and Announces Expected Deactivation of Generation Units, Press Release (Feb. 29, 2012)</i>

<u>Plant Name</u>	<u>Unit</u>	<u>Address</u>	<u>City</u>	<u>County</u>	<u>State</u>	<u>Zip</u>	<u>Capacity (MW)</u>	<u>Year</u>	<u>Fuel Source</u>	<u>Source</u>	<u>Citation</u>
Elrama Power Plant	3	30 Duquesne Light Way	Elrama	Washington	PA	15038	125	2012	Coal	Operator Announced	GenOn Reports 2011 Results and Announces Expected Deactivation of Generation Units, Press Release (Feb. 29, 2012)
Elrama Power Plant	4	30 Duquesne Light Way	Elrama	Washington	PA	15038	185	2012	Coal	Operator Announced	GenOn Reports 2011 Results and Announces Expected Deactivation of Generation Units, Press Release (Feb. 29, 2012)
New Castle	4	2189 St. Rt. 168 South	West Pittsburg	Lawrence	PA	16160	95.9	2015	Coal	Operator Announced & EPA Modeled	GenOn Reports 2011 Results and Announces Expected Deactivation of Generation Units, Press Release (Feb. 29, 2012); IPM Parsed Results - Policy Case (MATS Rule)
New Castle	5	2189 St. Rt. 168 South	West Pittsburg	Lawrence	PA	16160	138	2014	Coal	Operator Announced & EPA Modeled	GenOn Reports 2011 Results and Announces Expected Deactivation of Generation Units, Press Release (Feb. 29, 2012); IPM Parsed Results - Remedy Case (CSAPR)
New Castle	2A	2189 St. Rt. 168 South	West Pittsburg	Lawrence	PA	16160	137.6	2014	Coal	Operator Announced & EPA Modeled	GenOn Reports 2011 Results and Announces Expected Deactivation of Generation Units, Press Release (Feb. 29, 2012); IPM Parsed Results - Remedy Case (CSAPR)
P H Glatfelter	5PB 036	128 S. Main Street	Spring Grove	York	PA	17362	36.1	2015	Coal	EPA Modeled	IPM Parsed Results - Policy Case (MATS Rule)

<u>Plant Name</u>	<u>Unit</u>	<u>Address</u>	<u>City</u>	<u>County</u>	<u>State</u>	<u>Zip</u>	<u>Capacity (MW)</u>	<u>Year</u>	<u>Fuel Source</u>	<u>Source</u>	<u>Citation</u>
Portland	1	5027 River Road	Mt. Bethel	Northampton	PA	18351	172	2015	Coal	Operator Announced	<i>GenOn Reports 2011 Results and Announces Expected Deactivation of Generation Units, Press Release (Feb. 29, 2012)</i>
Portland	2	5027 River Road	Mt. Bethel	Northampton	PA	18351	255	2015	Coal	Operator Announced	<i>GenOn Reports 2011 Results and Announces Expected Deactivation of Generation Units, Press Release (Feb. 29, 2012)</i>
Portland	3	5027 River Road	Mt. Bethel	Northampton	PA	18351	18	2015	Coal	Operator Announced	<i>GenOn Reports 2011 Results and Announces Expected Deactivation of Generation Units, Press Release (Feb. 29, 2012)</i>
Portland	4	5027 River Road	Mt. Bethel	Northampton	PA	18351	20	2015	Coal	Operator Announced	<i>GenOn Reports 2011 Results and Announces Expected Deactivation of Generation Units, Press Release (Feb. 29, 2012)</i>
Portland	5	5027 River Road	Mt. Bethel	Northampton	PA	18351	156	2015	Coal	Operator Announced	<i>GenOn Reports 2011 Results and Announces Expected Deactivation of Generation Units, Press Release (Feb. 29, 2012)</i>

<u>Plant Name</u>	<u>Unit</u>	<u>Address</u>	<u>City</u>	<u>County</u>	<u>State</u>	<u>Zip</u>	<u>Capacity (MW)</u>	<u>Year</u>	<u>Fuel Source</u>	<u>Source</u>	<u>Citation</u>
Shawville	1	250 Power Plant Drive	Shawville	Clearfield	PA	16873	125	2015	Coal	Operator Announced & EPA Modeled	<i>GenOn Reports 2011 Results and Announces Expected Deactivation of Generation Units, Press Release (Feb. 29, 2012); IPM Parsed Results - Remedy Case (CSAPR)</i>
Shawville	2	250 Power Plant Drive	Shawville	Clearfield	PA	16873	125	2015	Coal	Operator Announced	<i>GenOn Reports 2011 Results and Announces Expected Deactivation of Generation Units, Press Release (Feb. 29, 2012)</i>
Shawville	3	250 Power Plant Drive	Shawville	Clearfield	PA	16873	188	2015	Coal	Operator Announced	<i>GenOn Reports 2011 Results and Announces Expected Deactivation of Generation Units, Press Release (Feb. 29, 2012)</i>
Shawville	4	250 Power Plant Drive	Shawville	Clearfield	PA	16873	188	2015	Coal	Operator Announced	<i>GenOn Reports 2011 Results and Announces Expected Deactivation of Generation Units, Press Release (Feb. 29, 2012)</i>
Shawville	5	250 Power Plant Drive	Shawville	Clearfield	PA	16873	2	2015	Coal	Operator Announced	<i>GenOn Reports 2011 Results and Announces Expected Deactivation of Generation Units, Press Release (Feb. 29, 2012)</i>

<u>Plant Name</u>	<u>Unit</u>	<u>Address</u>	<u>City</u>	<u>County</u>	<u>State</u>	<u>Zip</u>	<u>Capacity (MW)</u>	<u>Year</u>	<u>Fuel Source</u>	<u>Source</u>	<u>Citation</u>
Shawville	6	250 Power Plant Drive	Shawville	Clearfield	PA	16873	2	2015	Coal	Operator Announced	<i>GenOn Reports 2011 Results and Announces Expected Deactivation of Generation Units, Press Release (Feb. 29, 2012)</i>
Shawville	7	250 Power Plant Drive	Shawville	Clearfield	PA	16873	2	2015	Coal	Operator Announced	<i>GenOn Reports 2011 Results and Announces Expected Deactivation of Generation Units, Press Release (Feb. 29, 2012)</i>
Sunbury Generation LP	3	N. Old Trail Road, PO Box 517	Shamokin Dam	Snyder	PA	17876	94	2014	Coal	EPA Modeled	IPM Parsed Results - Remedy Case (CSAPR)
Sunbury Generation LP	4	N. Old Trail Road, PO Box 517	Shamokin Dam	Snyder	PA	17876	128	2014	Coal	EPA Modeled	IPM Parsed Results - Remedy Case (CSAPR)
Sunbury Generation LP	2A	N. Old Trail Road, PO Box 517	Shamokin Dam	Snyder	PA	17876	40	2014	Coal	EPA Modeled	IPM Parsed Results - Remedy Case (CSAPR)
Sunbury Generation LP	2B	N. Old Trail Road, PO Box 517	Shamokin Dam	Snyder	PA	17876	40	2014	Coal	EPA Modeled	IPM Parsed Results - Remedy Case (CSAPR)
Titus	1	296 Poplar Neck Road	Birsboro	Berks	PA	19508	75	2015	Coal	Operator Announced	<i>GenOn Reports 2011 Results and Announces Expected Deactivation of Generation Units, Press Release (Feb. 29, 2012)</i>
Titus	2	296 Poplar Neck Road	Birsboro	Berks	PA	19508	75	2015	Coal	Operator Announced	<i>GenOn Reports 2011 Results and Announces Expected Deactivation of Generation Units, Press Release (Feb. 29, 2012)</i>

<u>Plant Name</u>	<u>Unit</u>	<u>Address</u>	<u>City</u>	<u>County</u>	<u>State</u>	<u>Zip</u>	<u>Capacity (MW)</u>	<u>Year</u>	<u>Fuel Source</u>	<u>Source</u>	<u>Citation</u>
Titus	3	296 Poplar Neck Road	Birsboro	Berks	PA	19508	75	2015	Coal	Operator Announced	<i>GenOn Reports 2011 Results and Announces Expected Deactivation of Generation Units, Press Release (Feb. 29, 2012)</i>
Titus	4	296 Poplar Neck Road	Birsboro	Berks	PA	19508	18	2015	Coal	Operator Announced	<i>GenOn Reports 2011 Results and Announces Expected Deactivation of Generation Units, Press Release (Feb. 29, 2012)</i>
Titus	5	296 Poplar Neck Road	Birsboro	Berks	PA	19508	18	2015	Coal	Operator Announced	<i>GenOn Reports 2011 Results and Announces Expected Deactivation of Generation Units, Press Release (Feb. 29, 2012)</i>
Canadys Steam	1	13139 Augusta Hwy.	Walterboro	Colleton	SC	29433	105	2015	Coal	EPA Modeled	IPM Parsed Results - Policy Case (MATS Rule)
John Sevier	1	Hwy 70 S PO Box 2000	Rogersville	Hawkins	TN	37857	176	2014	Coal	EPA Modeled	IPM Parsed Results - Remedy Case (CSAPR)
Johnsonville	1	Hwy 70 PO Box 259	New Johnsonville	Humphreys	TN	37134	106	2014	Coal	EPA Modeled	IPM Parsed Results - Remedy Case (CSAPR)
Johnsonville	2	Hwy 70 PO Box 259	New Johnsonville	Humphreys	TN	37134	106	2014	Coal	EPA Modeled	IPM Parsed Results - Remedy Case (CSAPR)
Johnsonville	3	Hwy 70 PO Box 259	New Johnsonville	Humphreys	TN	37134	106	2014	Coal	EPA Modeled	IPM Parsed Results - Remedy Case (CSAPR)
Johnsonville	4	Hwy 70 PO Box 259	New Johnsonville	Humphreys	TN	37134	106	2014	Coal	EPA Modeled	IPM Parsed Results - Remedy Case (CSAPR)
Johnsonville	5	Hwy 70 PO Box 259	New Johnsonville	Humphreys	TN	37134	106	2014	Coal	EPA Modeled	IPM Parsed Results - Remedy Case (CSAPR)
Johnsonville	6	Hwy 70 PO Box 259	New Johnsonville	Humphreys	TN	37134	106	2014	Coal	EPA Modeled	IPM Parsed Results - Remedy Case (CSAPR)
Johnsonville	7	Hwy 70 PO Box 259	New Johnsonville	Humphreys	TN	37134	141	2014	Coal	EPA Modeled	IPM Parsed Results - Remedy Case (CSAPR)
Johnsonville	8	Hwy 70 PO Box 259	New Johnsonville	Humphreys	TN	37134	141	2014	Coal	EPA Modeled	IPM Parsed Results - Remedy Case (CSAPR)

Plant Name	Unit	Address	City	County	State	Zip	Capacity (MW)	Year	Fuel Source	Source	Citation
Johnsonville	9	Hwy 70 PO Box 259	New Johnsonville	Humphreys	TN	37134	141	2014	Coal	EPA Modeled	IPM Parsed Results - Remedy Case (CSAPR)
Johnsonville	10	Hwy 70 PO Box 259	New Johnsonville	Humphreys	TN	37134	141	2014	Coal	EPA Modeled	IPM Parsed Results - Remedy Case (CSAPR)
AES Deepwater	AAB 001	701 Light Company Road	Pasadena	Harris	TX	77506	139	2015	Petro. Coke	EPA Modeled	IPM Parsed Results - Policy Case (MATS Rule)
Lone Star	1	Hwy 259 South	Lone Star	Morris	TX	75668	50	2014	Natural Gas	EPA Modeled	IPM Parsed Results - Remedy Case (CSAPR)
Monticello	1	PO Box 1266	Mount Pleasant	Titus	TX	75455	593	2012	Coal	Operator Announced	<i>Luminant Announces Facility Closures, Job Reductions in Response to EPA Rule, Luminant (Sep. 12, 2011)</i>
Monticello	2	PO Box 1267	Mount Pleasant	Titus	TX	75455	593	2012	Coal	Operator Announced	<i>Luminant Announces Facility Closures, Job Reductions in Response to EPA Rule, Luminant (Sep. 12, 2011)</i>
Welsh	2	FM Rd 1735	Pittsburg	Pittsburg	TX	75686	528	2015	Coal	Operator Announced	<i>AEP Shares Plan For Compliance With Proposed EPA Regulations, Press Release (June 9, 2011)</i>
KUCC	1	9200 West 3325 South	Magna	Salt Lake	UT	84044	30	2015	Coal	EPA Modeled	IPM Parsed Results - Policy Case (MATS Rule)
KUCC	2	9200 West 3325 South	Magna	Salt Lake	UT	84044	30	2015	Coal	EPA Modeled	IPM Parsed Results - Policy Case (MATS Rule)
KUCC	3	9200 West 3325 South	Magna	Salt Lake	UT	84044	30	2015	Coal	EPA Modeled	IPM Parsed Results - Policy Case (MATS Rule)
Sunnyside Cogen Associates	1	#1 Power Plant Road	Sunnyside	Carbon	UT	84539	51	2015	Coal	EPA Modeled	IPM Parsed Results - Policy Case (MATS Rule)

<u>Plant Name</u>	<u>Unit</u>	<u>Address</u>	<u>City</u>	<u>County</u>	<u>State</u>	<u>Zip</u>	<u>Capacity (MW)</u>	<u>Year</u>	<u>Fuel Source</u>	<u>Source</u>	<u>Citation</u>
Chesapeake	1	2701 VEPCO St	Chesapeake	Chesapeake (city)	VA	23323	19	2016	Coal	Operator Annouced	<i>Dominion plans to shutter Yorktown and Chesapeake power plants between 2015 and 2022 , Daily Press (Sep. 1, 2011).</i>
Chesapeake	2	2701 VEPCO St	Chesapeake	Chesapeake (city)	VA	23323	16	2016	Coal	Operator Annouced	<i>Dominion plans to shutter Yorktown and Chesapeake power plants between 2015 and 2022 , Daily Press (Sep. 1, 2011).</i>
Chesapeake	3	2701 VEPCO St	Chesapeake	Chesapeake (city)	VA	23323	185	2016	Coal	Operator Annouced	<i>Dominion plans to shutter Yorktown and Chesapeake power plants between 2015 and 2022 , Daily Press (Sep. 1, 2011).</i>
Chesapeake	4	2701 VEPCO St	Chesapeake	Chesapeake (city)	VA	23323	16	2016	Coal	Operator Annouced	<i>Dominion plans to shutter Yorktown and Chesapeake power plants between 2015 and 2022 , Daily Press (Sep. 1, 2011).</i>
Chesapeake	6	2701 VEPCO St	Chesapeake	Chesapeake (city)	VA	23323	16	2016	Coal	Operator Annouced	<i>Dominion plans to shutter Yorktown and Chesapeake power plants between 2015 and 2022 , Daily Press (Sep. 1, 2011).</i>
Chesapeake	7	2701 VEPCO St	Chesapeake	Chesapeake (city)	VA	23323	24	2016	Coal	Operator Annouced	<i>Dominion plans to shutter Yorktown and Chesapeake power plants between 2015 and 2022 , Daily Press (Sep. 1, 2011).</i>
Chesapeake	8	2701 VEPCO St	Chesapeake	Chesapeake (city)	VA	23323	24	2016	Coal	Operator Annouced	<i>Dominion plans to shutter Yorktown and Chesapeake power plants between 2015 and 2022 , Daily Press (Sep. 1, 2011).</i>

<u>Plant Name</u>	<u>Unit</u>	<u>Address</u>	<u>City</u>	<u>County</u>	<u>State</u>	<u>Zip</u>	<u>Capacity (MW)</u>	<u>Year</u>	<u>Fuel Source</u>	<u>Source</u>	<u>Citation</u>
Chesapeake	9	2701 VEPCO St	Chesapeake	Chesapeake (city)	VA	23323	24	2016	Coal	Operator Announced	<i>Dominion plans to shutter Yorktown and Chesapeake power plants between 2015 and 2022 , Daily Press (Sep. 1, 2011).</i>
Chesapeake	ST1	2701 VEPCO St	Chesapeake	Chesapeake (city)	VA	23323	113	2016	Coal	Operator Announced	<i>Dominion plans to shutter Yorktown and Chesapeake power plants between 2015 and 2022 , Daily Press (Sep. 1, 2011).</i>
Chesapeake	ST2	2701 VEPCO St	Chesapeake	Chesapeake (city)	VA	23323	113	2016	Coal	Operator Announced	<i>Dominion plans to shutter Yorktown and Chesapeake power plants between 2015 and 2022 , Daily Press (Sep. 1, 2011).</i>
Chesapeake	ST4	2701 VEPCO St	Chesapeake	Chesapeake (city)	VA	23323	239	2016	Coal	Operator Announced	<i>Dominion plans to shutter Yorktown and Chesapeake power plants between 2015 and 2022 , Daily Press (Sep. 1, 2011).</i>
Clinch River	3	State Route 82	Cleveland	Cleveland	VA	24225	235	2015	Coal	Operator Announced	<i>AEP Shares Plan For Compliance With Proposed EPA Regulations, Press Release (June 9, 2011)</i>
Glen Lyn	1	U.S Route 460	Glen Lyn	Giles	VA	24093	100	2015	Coal	Operator Announced	<i>AEP Shares Plan For Compliance With Proposed EPA Regulations, Press Release (June 9, 2011).</i>
Glen Lyn	2	U.S Route 460	Glen Lyn	Giles	VA	24093	238	2015	Coal	Operator Announced	<i>AEP Shares Plan For Compliance With Proposed EPA Regulations, Press Release (June 9, 2011).</i>

Plant Name	Unit	Address	City	County	State	Zip	Capacity (MW)	Year	Fuel Source	Source	Citation
Potomac River	1	1400 Royal St.	Alexandria	Alexandria (city)	VA	22314	88	2015	Coal	Operator Announced	<i>Alexandria coal plant may shut by 2012, Washington Post (Aug. 30, 2011)</i>
Potomac River	2	1400 Royal St.	Alexandria	Alexandria (city)	VA	22314	88	2015	Coal	Operator Announced & EPA Modeled	<i>Alexandria coal plant may shut by 2012, Washington Post (Aug. 30, 2011) ; IPM Parsed Results - Policy Case (CSAPR/MATS Rule)</i>
Potomac River	3	1400 Royal St.	Alexandria	Alexandria	VA	22314	110	2015	Coal	Operator Announced	<i>Alexandria coal plant may shut by 2012, Washington Post (Aug. 30, 2011)</i>
Potomac River	4	1400 Royal St.	Alexandria	Alexandria	VA	22314	110	2015	Coal	Operator Announced	<i>Alexandria coal plant may shut by 2012, Washington Post (Aug. 30, 2011)</i>
Potomac River	5	1400 Royal St.	Alexandria	Alexandria	VA	22314	110	2015	Coal	Operator Announced	<i>Alexandria coal plant may shut by 2012, Washington Post (Aug. 30, 2011)</i>
Yorktown	1	1600 Waterview Road	Yorktown	York	VA	23690	188	2015	Coal	Operator Announced	<i>Dominion plans to shutter Yorktown and Chesapeake power plants between 2015 and 2022 , Daily Press (Sep. 1, 2011).</i>
Yorktown	2	1600 Waterview Road	Yorktown	York	VA	23690	188	2015	Coal	Operator Announced	<i>Dominion plans to shutter Yorktown and Chesapeake power plants between 2015 and 2022 , Daily Press (Sep. 1, 2011).</i>
Transalta Centralia Generation	BW 21	913 Big Hanaford Rd.	Centralia	Lewis	WA	98531	702.5	2015	Coal	EPA Modeled	IPM Parsed Results - Policy Case (MATS Rule)
Transalta Centralia Generation	BW 22	913 Big Hanaford Rd.	Centralia	Lewis	WA	98531	702.5	2015	Coal	EPA Modeled	IPM Parsed Results - Policy Case (MATS Rule)

Plant Name	Unit	Address	City	County	State	Zip	Capacity (MW)	Year	Fuel Source	Source	Citation
Alma	1	1420 S. Main	Alma	Buffalo	WI	54610	15	2012	Coal	Operator Announced	Dairyland to shutter three Alma coal units, <i>LaCrosse Tribune (Dec. 7, 2011)</i>
Alma	2	1420 S. Main	Alma	Buffalo	WI	54610	15	2012	Coal	Operator Announced	Dairyland to shutter three Alma coal units, <i>LaCrosse Tribune (Dec. 7, 2011)</i>
Alma	3	1420 S. Main	Alma	Buffalo	WI	54610	15	2012	Coal	Operator Announced	Dairyland to shutter three Alma coal units, <i>LaCrosse Tribune (Dec. 7, 2011)</i>
Blount Street	8	715 E. Main Street	Madison	Dane	WI	64056	49	2015	Coal	EPA Modeled	IPM Parsed Results - Policy Case (MATS Rule)
Blount Street	9	715 E. Main Street	Madison	Dane	WI	64056	48	2015	Coal	EPA Modeled	IPM Parsed Results - Policy Case (MATS Rule)
Valley	1	1035 West Canal Street	Milwaukee	Milwaukee	WI	53233	70	2014	Coal	EPA Modeled	IPM Parsed Results - Remedy Case (CSAPR)
Valley	2	1035 West Canal Street	Milwaukee	Milwaukee	WI	53233	70	2014	Coal	EPA Modeled	IPM Parsed Results - Remedy Case (CSAPR)
Valley	3	1035 West Canal Street	Milwaukee	Milwaukee	WI	53233	70	2014	Coal	EPA Modeled	IPM Parsed Results - Remedy Case (CSAPR)
Valley	4	1035 West Canal Street	Milwaukee	Milwaukee	WI	53233	70	2014	Coal	EPA Modeled	IPM Parsed Results - Remedy Case (CSAPR)
Albright Power Station	1	P.O.Box 125	Albright	Preston	WV	26519	69	2012	Coal	Operator Announced	<i>FirstEnergy, Citing Impact of Environmental Regulations, Will Retire Three Coal-Fired Power Plants in West Virginia , Press Release (Feb. 8, 2012)</i>
Albright Power Station	2	P.O.Box 125	Albright	Preston	WV	26519	69	2012	Coal	Operator Announced	<i>FirstEnergy, Citing Impact of Environmental Regulations, Will Retire Three Coal-Fired Power Plants in West Virginia , Press Release (Feb. 8, 2012)</i>

<u>Plant Name</u>	<u>Unit</u>	<u>Address</u>	<u>City</u>	<u>County</u>	<u>State</u>	<u>Zip</u>	<u>Capacity (MW)</u>	<u>Year</u>	<u>Fuel Source</u>	<u>Source</u>	<u>Citation</u>
Albright Power Station	3	P.O.Box 125	Albright	Preston	WV	26519	140.2	2012	Coal	Operator Announced	<i>FirstEnergy, Citing Impact of Environmental Regulations, Will Retire Three Coal-Fired Power Plants in West Virginia, Press Release (Feb. 8, 2012)</i>
Kammer	1	W.Va. State Route 2	Captina	Moundsville	WV	26041	238	2015	Coal	Operator Announced	<i>AEP Shares Plan For Compliance With Proposed EPA Regulations, Press Release (June 9, 2011)</i>
Kammer	3	W.Va. State Route 2	Captina	Moundsville	WV	26041	238	2015	Coal	Operator Announced	<i>AEP Shares Plan For Compliance With Proposed EPA Regulations, Press Release (June 9, 2011)</i>
Kammer	2	1301 Lumpkin Road	Oroville	Moundsville	WV	30	238	2015	Coal	Operator Announced	<i>AEP Shares Plan For Compliance With Proposed EPA Regulations, Press Release (June 9, 2011)</i>
Kanawha	1	U.S. Route 60	Glasgow	Glasgow	WV	25086	220	2015	Coal	Operator Announced	<i>AEP Shares Plan For Compliance With Proposed EPA Regulations, Press Release (June 9, 2011)</i>
Kanawha	2	U.S. Route 60	Glasgow	Glasgow	WV	25086	220	2015	Coal	Operator Announced	<i>AEP Shares Plan For Compliance With Proposed EPA Regulations, Press Release (June 9, 2011)</i>
Phillip Sporn	1	State Route 62	Graham Station	New Haven	WV	25265	153	2011 (450 MW), Dec. 31, 2014 (600 MW)	Coal	Operator Announced	<i>AEP Shares Plan For Compliance With Proposed EPA Regulations, Press Release (June 9, 2011).</i>

<u>Plant Name</u>	<u>Unit</u>	<u>Address</u>	<u>City</u>	<u>County</u>	<u>State</u>	<u>Zip</u>	<u>Capacity (MW)</u>	<u>Year</u>	<u>Fuel Source</u>	<u>Source</u>	<u>Citation</u>
Phillip Sporn	2	State Route 62	Graham Station	New Haven	WV	25265	153	2011 (450 MW), Dec. 31, 2014 (600 MW)	Coal	Operator Announced	<i>AEP Shares Plan For Compliance With Proposed EPA Regulations, Press Release (June 9, 2011).</i>
Phillip Sporn	3	State Route 62	Graham Station	New Haven	WV	25265	153	2011 (450 MW), Dec. 31, 2014 (600 MW)	Coal	Operator Announced	<i>AEP Shares Plan For Compliance With Proposed EPA Regulations, Press Release (June 9, 2011).</i>
Phillip Sporn	4	State Route 62	Graham Station	New Haven	WV	25265	153	2011 (450 MW), Dec. 31, 2014 (600 MW)	Coal	Operator Announced	<i>AEP Shares Plan For Compliance With Proposed EPA Regulations, Press Release (June 9, 2011)</i>
Phillip Sporn	5	State Route 62	Graham Station	New Haven	WV	25265	496	2011 (450 MW), Dec. 31, 2014 (600 MW)	Coal	Operator Announced	<i>AEP Shares Plan For Compliance With Proposed EPA Regulations, Press Release (June 9, 2011)</i>
Rivesville	5	P.O.Box 190	Rivesville	Marion	WV	26588	35	2014	Coal	Operator Announced & EPA Modeled	<i>FirstEnergy, Citing Impact of Environmental Regulations, Will Retire Three Coal-Fired Power Plants in West Virginia, Press Release (Feb. 8, 2012); IPM Parsed Results - Policy Case (CSAPR)</i>
Rivesville	6	P.O.Box 190	Rivesville	Marion	WV	26588	74.7	2014	Coal	Operator Announced & EPA Modeled	<i>FirstEnergy, Citing Impact of Environmental Regulations, Will Retire Three Coal-Fired Power Plants in West Virginia, Press Release (Feb. 8, 2012); IPM Parsed Results - Policy Case (CSAPR)</i>

<u>Plant Name</u>	<u>Unit</u>	<u>Address</u>	<u>City</u>	<u>County</u>	<u>State</u>	<u>Zip</u>	<u>Capacity (MW)</u>	<u>Year</u>	<u>Fuel Source</u>	<u>Source</u>	<u>Citation</u>
Willow Island	1	#2 Power Station Blvd	Willow Island	Pleasants	WV	26134	50	2014	Coal	Operator Announced & EPA Modeled	<i>FirstEnergy, Citing Impact of Environmental Regulations, Will Retire Three Coal-Fired Power Plants in West Virginia , Press Release (Feb. 8, 2012); IPM Parsed Results - Policy Case MATS Rule/CSAPR)</i>
Willow Island	2	#2 Power Station Blvd	Willow Island	Pleasants	WV	26134	163.2	2014	Coal	Operator Announced	<i>FirstEnergy, Citing Impact of Environmental Regulations, Will Retire Three Coal-Fired Power Plants in West Virginia , Press Release (Feb. 8, 2012)</i>

<u>Plant Name</u>	<u>Unit</u>	<u>Address</u>	<u>City</u>	<u>County</u>	<u>State</u>	<u>Zip</u>	<u>Capacity (MW)</u>	<u>Year</u>	<u>Fuel Source</u>	<u>Source</u>	<u>Citation</u>
-------------------	-------------	----------------	-------------	---------------	--------------	------------	--------------------------	-------------	------------------------	---------------	-----------------

Notes:

1. All retirements announced by plant owners result from EPA regulation. In each such case, the citation included directly identifies EPA regulations as the sole or main reason for the power plant's retirement.
2. Plant closures attributed to EPA modeling only include those plants that EPA projects to close as a result of EPA regulations. "MATS Rule" results were found by removing plants listed on the MATS Rule "IPM Parsed File - Base Case" (EPA-HQ-OAR-2009-0234-19982) from the "IPM Parsed File - 2015 MATS Policy Case" (EPA-HQ-OAR-2009-0234-19983). "CSAPR" results were found by removing plants listed on CSAPR "TR Base Case Final" from the CATR "TR Remedy Final" (both files available at: <http://www.epa.gov/airmarkets/progsregs/epa-ipm/transport.html>).
3. According to the EPA, the MATS Rule base case includes CSAPR. Thus, theoretically, both the MATS Rule Policy Case and CSAPR Remedy Case (when controlled for their respective base cases) should not both independently identify closure of the same plant. Nevertheless, the list shows a slight overlap between the two rules. This is, presumably, due to variance in the modeling platforms EPA utilized for both rules.
4. Capacity as reported by Energy Information Agency data for nameplate capacity.

POWER PLANT RETIREMENT LIST BACKGROUND INFORMATION

METHODOLOGY

LIST SOURCES

This list is derived from three sources: (1) EPA's parsed modeling files, which identify the power-plant units that EPA models say will close as a result of either the Cross State Air Pollution Rule (CSAPR) or Mercury and Air Toxics Standards (MATS Rule); (2) news releases or press stories where a power-plant operator says a unit will or is likely to close due to EPA regulations; and (3) filings with state public utility commissions where a power-plant operator says a unit will or is likely to close due to EPA regulations. All sources are publically available information.

EPA PARSED FILES

Process to Identify Units Closed by EPA Regulation

Individual power-plants often have multiple boilers, called "units," that generate electricity. EPA, in addition to overall modeling, models the impact that the Agency believes its regulations will have on each unit, at each power-plant in America. EPA lists these results in "parsed files." When producing parsed files for a regulation, EPA will first create a business-as-usual "base" case parsed file where the Agency details what it believes will happen absent EPA's new regulation. Next, EPA creates a "policy" or "remedy" case parsed file showing how EPA believes plants will respond to a regulation. Thus, one can find the difference between these two cases, and figure out the impact EPA believes a regulation will have, by comparing the policy/remedy case parsed file to the base case parsed file. As such, the following steps were CSAPR and MATS Rule:

1. For CSAPR, data from the parsed files for the CSAPR's base case and remedy case were put on a single spreadsheet. The combined results were organized by plant name. Each plant listed in both the base case and remedy case was removed. Thus, the resulting list only shows those plants that EPA believes will close because of the CSAPR.
2. For the MATS Rule, data from the parsed files for the MATS Rule's base case and policy case were put on a single spreadsheet. The combined results were organized by plant name. Each plant listed in both the base case and policy case was removed. Thus, the resulting list only shows those plants that EPA believes will close because of the MATS Rule.

3. The resulting base case-free CSAPR list and MATS Rule list were then put on a single spreadsheet. The combined results were organized by plant name. In each instance where the CSAPR and the MATS Rule independently said the same plant would retire, one of the entries was deleted so as to not double-count it. The citation was modified to attribute the unit closure to both the CSAPR and MATS Rule.

POWER-PLANT OWNER PUBLIC ANNOUNCEMENTS

Ensuring that Retirements are Result of EPA Regulation

All retirements announced by plant owners in news releases or through public filings on this list were due to EPA regulation. In each such case, the source cited directly identifies EPA regulations as the sole or main reason for the power plant's retirement.

Avoiding Double-Counting

If a unit was identified to close by both EPA parsed files and public announcements, then the duplicate entry was released. The units citation was modified to indicate that both EPA and public announcements slated the unit for retirement.

FREQUENTLY ASKED QUESTIONS

Why is this list's total retired capacity higher than EPA's total?

The total retired capacity for this list is higher than EPA's total because this list includes EPA's projected unit retirements *and* unit retirements announced by power-plant operators. No unit cited by both sources was double counted.

Does this list include plants that will close even without the CSAPR or MATS Rule?

No. The parsed file results used in this list do not include business-as-usual base case results. In other words, if EPA modeled a unit to close even if the CSAPR or MATS Rule were not implemented, then that unit was not included.

EPA says only 4.7 GW will close, so why are these numbers higher?

The 4.7 GW retired coal-plant capacity figure is from the EPA Regulatory Impact Analysis (RIA) for the MATS Rule alone. The CSAPR RIA projects an additional 4.8 GW of coal-plant capacity to retire due to the CSAPR. When combined, the RIA's project 9.5 GW of coal-plant capacity to retire due to the MATS Rule and CSAPR. As noted above, additional plant retirements are due to actually announced retirements.

When a power-plant operator announces that it is closing a certain unit, how do you know that is because of EPA regulations?

In each case where a retirement is attributed to public announcements, the cited source material lists EPA regulations as the sole or main reason for the plant's retirement.

Some groups have said EPA regulations will retire 60 - 80 GW of coal-fired generation, but this list only shows 34 GW. Does this mean those projections are wrong?

No. If anything this list gives more credibility to those higher retirement projections. This list is very conservative; it merely shows what units EPA says its regulations will close, plus specific units that plant-operators have said will close because of EPA regulations. Those analyses that show higher power-plant retirements than this list lay out what the final overall impact of EPA's regulation will be. On the other hand, this list focuses just on the currently disclosed impact. Thus, this list will likely grow far higher. However, because this list already finds many more retirements than EPA projected, the Agency's claim that its regulations will have minimal impact on electric generation are clearly incorrect.

EPA has said that other projections showing a high coal generation retirements were based on incorrect assumptions. Is that the case for this list?

No. The only modeling in this list is from EPA. Thus, any mistaken assumption would be EPA's mistaken assumption. Otherwise, the remaining data is from actual public announcements detailing the imminent or highly possible closure of specific units at specific power-plants.

The North American Electric Reliability Corporation (NERC) projected that most power-plants will retire because of EPA 316(b) cooling tower regulations. Does this list account for the fact that EPA has since indicated it will pursue less stringent 316(b) regulations?

This list only includes the parsed files for EPA's CSAPR and MATS Rule modeling. EPA's modeling for the 316(b) is not included. Public unit retirement announcements largely cited the CSAPR and the MATS Rule as causing a unit to retire; there is little discussion of 316(b) regulations. This is likely due to the fact that EPA ultimately chose to pursue less stringent cooling tower rules than the Agency originally insinuated. Regardless, all of the publically announced plant retirements listed are retiring due to EPA regulations.

This list compares its total numbers to NERC's worst case analysis. Does that include NERC's analysis of 316(b) regulations?

No. The NERC analysis was broken down between CSAPR, the MATS Rule and 316(b) regulations. The chart compares the list only to the NERC CSAPR and MATS Rule "strict," or worst case, scenarios.