

## **Impact of EPA's Regulatory Assault on Power Plants: New Regulations to Take 33 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

### **February 7, 2012—Update**

More than 33 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)<sup>1</sup> and the Cross State Air Pollution Rule (CSAPR)<sup>2</sup> 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 the Institute for Energy Research (IER) issued in October 2011.<sup>3</sup> In the original report, we calculated that 28 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 over 33 GW of electrical generating capacity will close—nearly a 5 GW increase.

According to EPA, their modeling of Utility MACT and CSAPR indicates that these regulations will only shutter 14.5 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 was correct. Then, we looked at statements, filings, and announcements from electrical generators where the generators were closing power plants and citing 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).

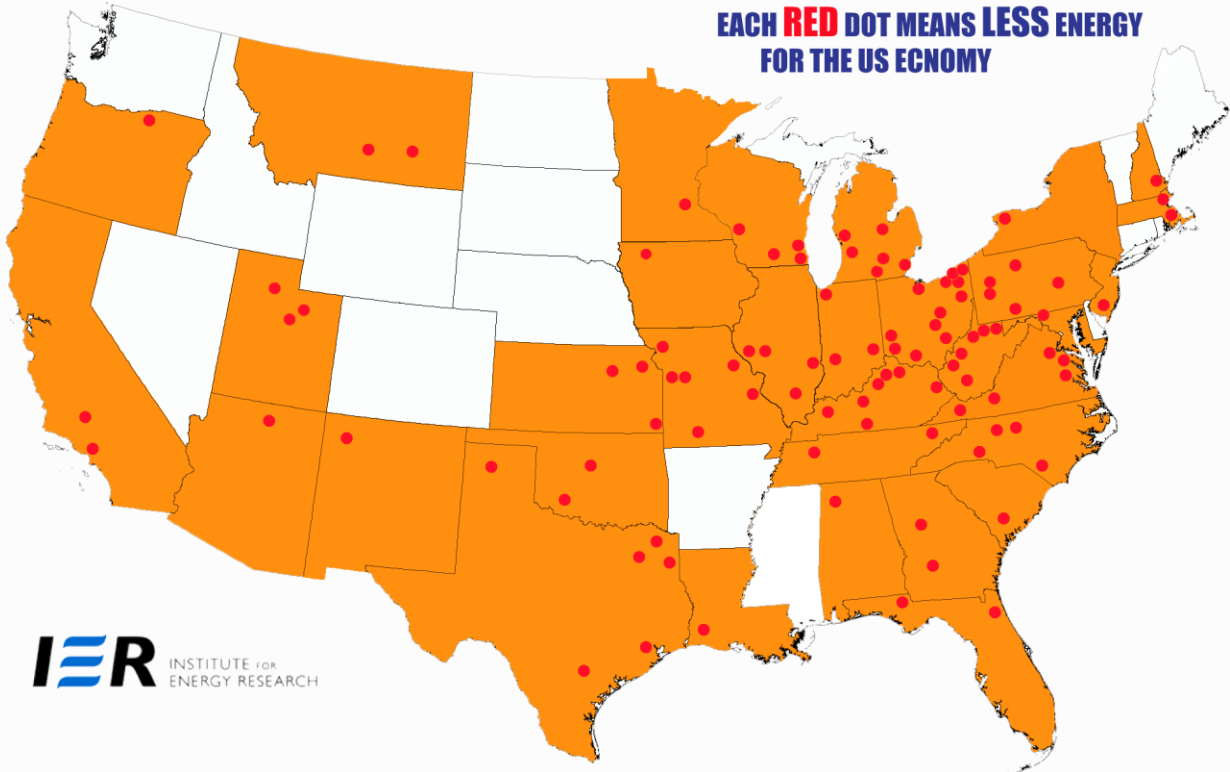
Combining actual announcements with EPA's modeling shows that EPA's modeling grossly underestimates the actual number of closures. As noted above, EPA calculated that only 14.5 GW of electrical generating capacity would close as a result of its rules. But the reality is that over 33 GW of power generating capacity will close—over twice as much as EPA's modeling predicted. 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: 33,238**

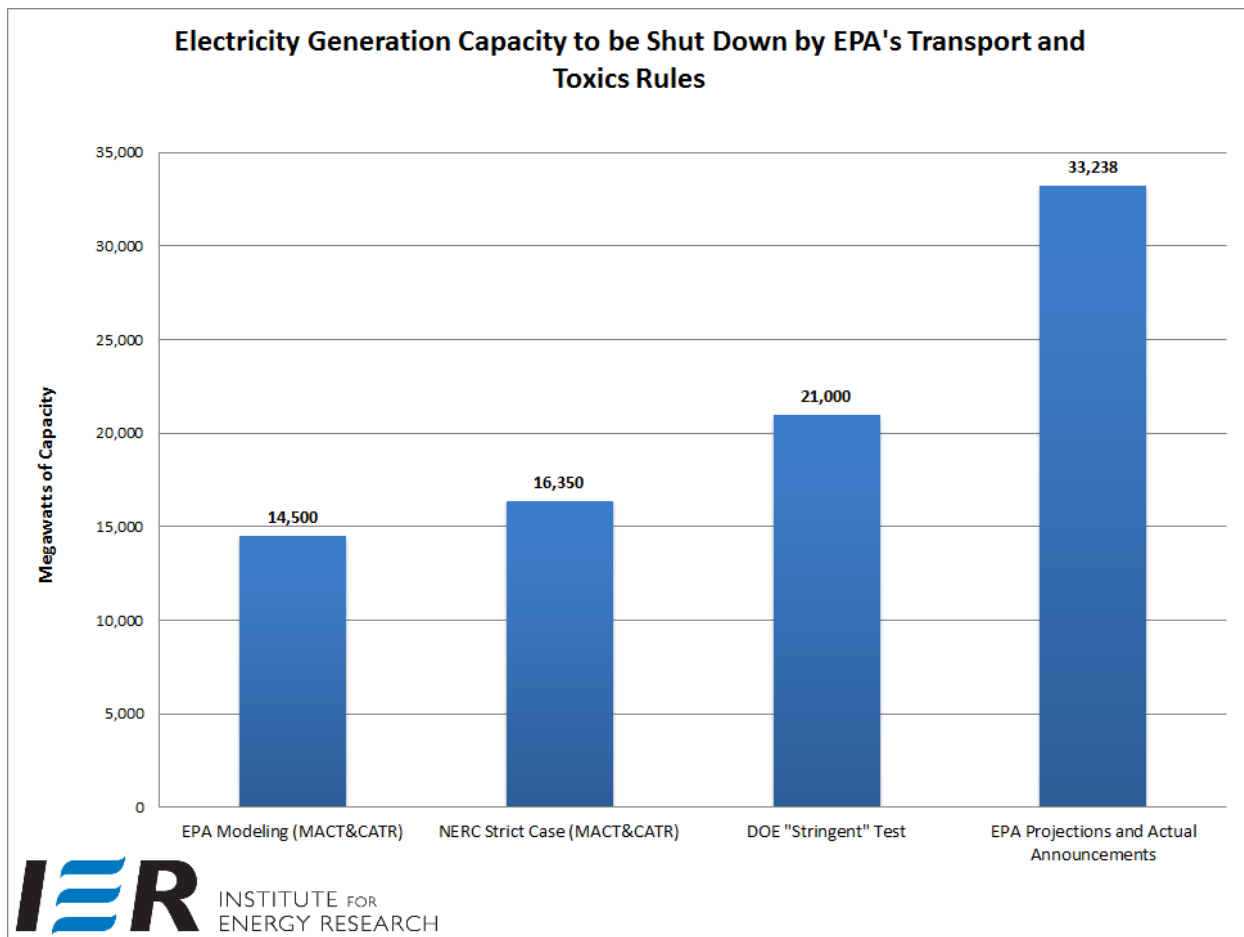
THAT'S NEARLY **10%** OF OUR COAL ENERGY CAPACITY - GONE

EACH **RED** DOT MEANS LESS ENERGY FOR THE US 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.<sup>4</sup> In just two short months, retirements related to EPA regulations have grown by 5 GW, over one third of the *total* retirements predicted by EPA.



### **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.<sup>5</sup> How much greater will the reliability problems be, given that retirements appears to be twice as great as NERC estimates?

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

The Obama administration's DOE recently released a 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, over 33 GW of generation will close—almost 12 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.<sup>6</sup> 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 not better in Ohio. *FirstEnergy* has announced more than 2.3 GW of closures due to EPA regulations in Ohio.<sup>7</sup>

## **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.

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- <sup>1</sup> Environmental Protection Agency, *Regulatory Impact Analysis of the Proposed Toxics Rule*, Mar. 2011, [http://www.epa.gov/ttn/atw/utility/ria\\_toxics\\_rule.pdf](http://www.epa.gov/ttn/atw/utility/ria_toxics_rule.pdf)
- <sup>2</sup> Environmental Protection Agency, *Regulatory Impact Analysis (RIA) for the final Transport Rule*, <http://www.epa.gov/airtransport/pdfs/FinalRIA.pdf>
- <sup>3</sup> 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/>.
- <sup>4</sup> David Shaffer, *Xcel's power pullback*, STAR TRIBUNE, Dec. 1. 2011, <http://www.startribune.com/business/134825258.html>.
- <sup>5</sup> See North American Electric Reliability Corp, *2011 Long-Term Reliability Assessment*, Nov. 2011, [http://www.nerc.com/files/2011LTRA\\_Final.pdf](http://www.nerc.com/files/2011LTRA_Final.pdf).
- <sup>6</sup> 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>
- <sup>7</sup> 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>.

**Power Plants Retired by EPA Regulations (EPA Modeling and Announced Retirements) \*\* February 7, 2012 Update \*\***

<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>Citation</u>
Colbert	1	900 Steam Plant Rd.	Tuscumbia	Colbert	AL	35674	176	2015	Coal	IPM Parsed Results - Policy Case (Toxics Rule)
Colbert	2	900 Steam Plant Rd.	Tuscumbia	Colbert	AL	35674	176	2015	Coal	IPM Parsed Results - Policy Case (Toxics Rule)
Colbert	3	900 Steam Plant Rd.	Tuscumbia	Colbert	AL	35674	176	2015	Coal	IPM Parsed Results - Policy Case (Toxics Rule)
Colbert	4	900 Steam Plant Rd.	Tuscumbia	Colbert	AL	35674	172	2015	Coal	IPM Parsed Results - Policy Case (Toxics Rule)
Navajo	3	P.O. Box 850	Page	Coconino	AZ	86040	750	2015	Coal	IPM Parsed Results - Policy Case (Toxics Rule)
BP Wilmington Calciner	GEN1	1175 Carrack Ave, PO BOX 1028	Wilmington	Los Angeles	CA	90748	29	2015	Petroleum Coke	IPM Parsed Results - Policy Case (Toxics Rule)
Rio Bravo Poso	CFB	16608 Porterville Hwy	Bakersfield	Kern	CA	93380	33	2015	Petroleum Coke	IPM Parsed Results - Policy Case (Toxics Rule)
Northside Generating Station	1	4377 Heckscher Drive	Jacksonville	Duval	FL	32226	275	2015	Petroleum Coke	IPM Parsed Results - Policy Case (Toxics Rule)
Northside Generating Station	2	4377 Heckscher Drive	Jacksonville	Duval	FL	32226	275	2015	Petroleum Coke	IPM Parsed Results - Policy Case (Toxics Rule)
Scholz	1	1460 Gulf Power Road	Sneeds	Jackson	FL	32460	49	2015	Coal	IPM Parsed Results - Policy Case (Toxics Rule)
Scholz	2	1460 Gulf Power Road	Sneeds	Jackson	FL	32460	49	2015	Coal	IPM Parsed Results - Policy Case (Toxics Rule)
Harlee Branch	1	1100 Milledgeville Road	Milledgeville	Putnam	GA	31061	262	2015	Coal	<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	<i>Southern Company Comments on EPA NESHAP Action (Aug. 4, 2011).</i>
Plant Mitchell	4C	5200 Radium Springs Road	Albany	Dougherty	GA	31705	42	2014	Coal	<i>Power play: Rate hikes for Georgia electricity consumers might be just beginning, Ledger-Enquirer (Oct. 1, 2011).</i>
Dubuque	1	920 Kerper Road	Dubuque	Dubuque	IA	52001	35	2015	Coal	IPM Parsed Results - Policy Case (Toxics Rule)
Dubuque	5	920 Kerper Road	Dubuque	Dubuque	IA	52001	30	2015	Coal	IPM Parsed Results - Policy Case (Toxics Rule)
Earl F Wisdom	1	3365 165 Ave	Spencer	Clay	IA	51301	38	2015	Coal	IPM Parsed Results - Policy Case (Toxics Rule)

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Dallman	31	3100 Stevenson Drive	Springfield	Sangamon	IL	62703	86	2015	Coal	IPM Parsed Results - Policy Case (Toxics Rule)
Dallman	32	3100 Stevenson Drive	Springfield	Sangamon	IL	62703	87	2015	Coal	IPM Parsed Results - Policy Case (Toxics Rule)
Hutsonville	3	15142 E. 1900th Ave.	Hutsonville	Crawford	IL	62433	75	2012	Coal	<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	<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	IPM Parsed Results - Policy Case (Toxics Rule/Clean Air Transport Rule)
Meredosia	4	800 W. Washington	Meredosia	Morgan	IL	62665	166	2012	Oil	<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	<i>Ameren to shutter 2 coal plants in Illinois</i> , Chicago Tribune (Oct. 4, 2011); IPM Parsed Results - Policy Case (Toxics Rule).
State Line	1	103rd St. & Lake Michigan	Hammond	Lake	IN	46325	197	2015	Coal	<i>Aging Indiana Power Plant to Shut Down, Cutting Chicago-Area Air Pollution</i> , Chicago Tribune (May 5, 2011).
State Line	2	103rd St. & Lake Michigan	Hammond	Lake	IN	46325	100	2015	Coal	<i>Aging Indiana Power Plant to Shut Down, Cutting Chicago-Area Air Pollution</i> , Chicago Tribune (May 5, 2011).
State Line	3	103rd St. & Lake Michigan	Hammond	Lake	IN	46325	318	2015	Coal	<i>Aging Indiana Power Plant to Shut Down, Cutting Chicago-Area Air Pollution</i> , Chicago Tribune (May 5, 2011)
State Line	4	103rd St. & Lake Michigan	Hammond	Lake	IN	46325	180	2015	Coal	<i>Aging Indiana Power Plant to Shut Down, Cutting Chicago-Area Air Pollution</i> , Chicago Tribune (May 5, 2011)
Tanners Creek	1	800 AEP Drive	Lawrenceburg	Dearborn	IN	47025	145	2015	Coal	IPM Parsed Results - Policy Case (Toxics Rule)

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Tanners Creek	2	800 AEP Drive	Lawrenceburg	Lawrenceburg	IN	47025	153	12/31/2014	Coal	<i>AEP Shares Plan For Compliance With Proposed EPA Regulations, Press Release (June 9, 2011)</i>
Tanners Creek	3	800 AEP Drive	Lawrenceburg	Lawrenceburg	IN	47025	215	12/31/2014	Coal	<i>AEP Shares Plan For Compliance With Proposed EPA Regulations, Press Release (June 9, 2011)</i>
Wabash River	2	450 Bolton Rd	Terre Haute	Vigo	IN	47885	113	2014	Coal	<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	<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	<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	<i>EPA regs may force Duke to shut Indiana coal plant, Reuters (Sep. 20, 2011)</i>
Wabash River	6	450 Bolton Rd	Terre Haute	Vigo	IN	47885	387	2014	Coal	<i>EPA regs may force Duke to shut Indiana coal plant, Reuters (Sep. 20, 2011)</i>
Lawrence Energy Center	3	1250 N 1800 Rd	Lawrence	Douglas	KS	66049	48	2015	Coal	<i>IPM Parsed Results - Policy Case (Toxics Rule)</i>
Riverton	39	7240 SE HWY 66	Riverton	Cherokee	KS	66730	38	2014	Coal	<i>IPM Parsed Results - Policy Case (Toxics Rule/Transport Rule)</i>
Riverton	40	7240 SE HWY 66	Riverton	Cherokee	KS	66730	54	2014	Coal	<i>IPM Parsed Results - Policy Case (Toxics Rule/Clean Air Transport Rule)</i>
Tecumseh Energy Center	9	PO Box 38	Tecumseh	Shawnee	KS	66542	74	2015	Coal	<i>IPM Parsed Results - Policy Case (Toxics Rule)</i>
Big Sandy	2	22999 Hwy 23	Louisa	Louisa	KY	41230	438	12/31/2014	Coal	<i>AEP Shares Plan For Compliance With Proposed EPA Regulations, Press Release (June 9, 2011).</i>
Cane Run	1	5252 Cane Run Road	Louisville	Louisville	KY	40216	16	2016	Coal	<i>The 2011 Joint Integrated Resource Plan of Louisville Gas and Electric Company and Kentucky Utilities Compny (Apr. 21, 2011)</i>



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Cane Run	2	5252 Cane Run Road	Louisville	Louisville	KY	40216	163	2016	Coal	<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	<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	<i>The 2011 Joint Integrated Resource Plan of Louisville Gas and Electric Company and Kentucky Utilities Compny (Apr. 21, 2011)</i>
D B Wilson	W1	5663 Highway 85 West	Centertown	Ohio	KY	42328	420	2015	Petroleum Coke	IPM Parsed Results - Policy Case (Toxics Rule)
Dale	1	1925 Ford Road	Winchester	Clark	KY	40391	27	2014	Coal	IPM Parsed Results - Policy Case (Transport Rule)
Dale	2	1925 Ford Road	Winchester	Clark	KY	40391	27	2014	Coal	IPM Parsed Results - Policy Case (Transport Rule)
Dale	3	1925 Ford Road	Winchester	Clark	KY	40391	75	2014	Coal	IPM Parsed Results - Policy Case (Transport Rule)
Dale	4	1925 Ford Road	Winchester	Clark	KY	40391	75	2014	Coal	IPM Parsed Results - Policy Case (Transport Rule)
Green River	1	811 Power Plant Drive	Central City	Central City	KY	42330	75	2016	Coal	<i>The 2011 Joint Integrated Resource Plan of Louisville Gas and Electric Company and Kentucky Utilities Compny (Apr. 21, 2011)</i>
Green River	2	811 Power Plant Drive	Central City	Central City	KY	42330	114	2016	Coal	<i>The 2011 Joint Integrated Resource Plan of Louisville Gas and Electric Company and Kentucky Utilities Compny (Apr. 21, 2011)</i>
Robert A Reid	1	9000 Highway 2096	Robards	Webster	KY	42452	65	2014	Coal	IPM Parsed Results - Policy Case (Toxics Rule/Transport Rule)

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Tyrone		6800 Tyrone Pike	Versailles	Versailles	KY	40383	135	2016	Coal	<i>The 2011 Joint Integrated Resource Plan of Louisville Gas and Electric Company and Kentucky Utilities Company (Apr. 21, 2011); IPM Parsed Results - Policy Case (Toxics Rule)</i>
Nelson Industrial Steam and Operating Company	1A	3500 Houston River Rd.	Westlake	Calcasieu	LA	70669	107	2015	Petroleum Coke	IPM Parsed Results - Policy Case (Toxics Rule)
Nelson Industrial Steam and Operating Company	2A	3501 Houston River Rd.	Westlake	Calcasieu	LA	70669	106	2015	Petroleum Coke	IPM Parsed Results - Policy Case (Toxics Rule)
Brayton Point	3	Brayton Point Road	Somerset	Bristol	MA	02726	612	2015	Coal	IPM Parsed Results - Policy Case (Toxics Rule)
Brayton Point	4	Brayton Point Road	Somerset	Bristol	MA	02726	435	2014	Coal	IPM Parsed Results - Policy Case (Transport Rule)
Salem Harbor	1	24 Fort Avenue	Salem	Salem	MA	01970	82	June, 2014	Coal	<i>Dominion Sets Schedule to Close Salem Harbor Power Station, Press Release, May 11, 2011; IPM Parsed Results - Policy Case (Toxics Rule).</i>
Salem Harbor	2	24 Fort Avenue	Salem	Salem	MA	01970	82	June, 2014	Coal	<i>Dominion Sets Schedule to Close Salem Harbor Power Station, Press Release, May 11, 2011; IPM Parsed Results - Policy Case (Toxics Rule).</i>
Salem Harbor	3	24 Fort Avenue	Salem	Salem	MA	01970	166	June, 2014	Coal	<i>Dominion Sets Schedule to Close Salem Harbor Power Station, Press Release, May 11, 2011; IPM Parsed Results - Policy Case (Toxics Rule).</i>
Salem Harbor	4	24 Fort Avenue	Salem	Salem	MA	01970	476	June, 2014	Coal	<i>Dominion Sets Schedule to Close Salem Harbor Power Station, Press Release (May 11, 2011).</i>
R. Paul Smith	11	PO Box 168	Williamsport	WASHINGTON	MD	21795	75	2015	Coal	<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>Citation</u>
R. Paul Smith	9	PO Box 168	Williamsport	WASHINGTON	MD	21795	34.5	2015	Coal	FirstEnergy, Citing Impact of Environmental Regulations, Will Retire Six Coal-Fired Power Plants, Press Release (Jan 26, 2012)
B.C. Cobb	2	151 N. Causeway	Muskegon	Muskegon	MI	49445	156	2015	Coal	Michigan Utility To Scrap 'Clean-Coal' Plant, Shut Older Coal Units, Wall Street Journal (Dec. 2, 2011)
B.C. Cobb	4	151 N. Causeway	Muskegon	Muskegon	MI	49445	156	2015	Coal	Michigan Utility To Scrap 'Clean-Coal' Plant, Shut Older Coal Units, Wall Street Journal (Dec. 2, 2011)
D.E. Karn	1	2742 N. Weadock H	Essexville	Bay	MI	48732	255	2015	Coal	Michigan Utility To Scrap 'Clean-Coal' Plant, Shut Older Coal Units, Wall Street Journal (Dec. 2, 2011)
D.E. Karn	2	2742 N. Weadock H	Essexville	Bay	MI	48732	260	2015	Coal	Michigan Utility To Scrap 'Clean-Coal' Plant, Shut Older Coal Units, Wall Street Journal (Dec. 2, 2011)
Eckert Station	1	601 Island Ave	Lansing	Ingham	MI	48910	40	2015	Coal	IPM Parsed Results - Policy Case (Toxics Rule)
Eckert Station	2	601 Island Ave	Lansing	Ingham	MI	48910	42	2015	Coal	IPM Parsed Results - Policy Case (Toxics Rule)
Eckert Station	3	601 Island Ave	Lansing	Ingham	MI	48910	41	2015	Coal	IPM Parsed Results - Policy Case (Toxics Rule)
Eckert Station	4	601 Island Ave	Lansing	Ingham	MI	48910	69	2015	Coal	IPM Parsed Results - Policy Case (Toxics Rule)
Eckert Station	5	601 Island Ave	Lansing	Ingham	MI	48910	69	2015	Coal	IPM Parsed Results - Policy Case (Toxics Rule)
Eckert Station	6	601 Island Ave	Lansing	Ingham	MI	48910	67	2015	Coal	IPM Parsed Results - Policy Case (Toxics Rule)
Endicott Station	1	720 Herring Road	Litchfield	Hillsdale	MI	49252	55	2014	Coal	IPM Parsed Results - Policy Case (Toxics Rule/Clean Air Transport Rule)
J.R. Whiting	1	4525 E. Erie Rd.	Erie	Monroe	MI	48133	106	2015	Coal	Michigan Utility To Scrap 'Clean-Coal' Plant, Shut Older Coal Units, Wall Street Journal (Dec. 2, 2011)

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J.R. Whiting	2	4525 E. Erie Rd.	Erie	Monroe	MI	48133	106	2015	Coal	Michigan Utility To Scrap 'Clean-Coal' Plant, Shut Older Coal Units, <i>Wall Street Journal</i> (Dec. 2, 2011)
J.R. Whiting	3	4525 E. Erie Rd.	Erie	Monroe	MI	48133	133	2015	Coal	Michigan Utility To Scrap 'Clean-Coal' Plant, Shut Older Coal Units, <i>Wall Street Journal</i> (Dec. 2, 2011)
James De Young	5	64 Pine Ave.	Holland	Ottawa	MI	49423	27	2014	Coal	IPM Parsed Results - Policy Case (Toxics Rule/Transport Rule)
Black Dog	3	1400 Black Dog Ro	Burnsville	Dakota	MN	55101	114	2015	Coal	<i>Xcel's Power Pullback</i> , StarTribune (Dec. 1, 2011)
Black Dog	4	1400 Black Dog Ro	Burnsville	Dakota	MN	55101	180	2015	Coal	<i>Xcel's Power Pullback</i> , StarTribune (Dec. 1, 2011)
Blue Valley	3	21499 E. Truman Rd.	Independence	Jackson	MO	64056	51	2014	Coal	IPM Parsed Results - Policy Case (Transport Rule)
Chamois	2	9321 Highway 100	Chamois	Osage	MO	65024	49	2014	Coal	IPM Parsed Results - Policy Case (Toxics Rule/Transport Rule)
James River Power Station	3	5701 S. Kissick	Springfield	Greene	MO	65804	41	2015	Coal	IPM Parsed Results - Policy Case (Toxics Rule)
James River Power Station	4	5701 S. Kissick	Springfield	Greene	MO	65804	56	2015	Coal	IPM Parsed Results - Policy Case (Toxics Rule)
Lake Road	6	1413 Lower Lake Rd	St Joseph	Buchanan	MO	64504	97	2015	Coal	IPM Parsed Results - Policy Case (Toxics Rule)
Meramec	1	8200 Fine Rd	St. Louis	St. Louis	MO	63129	138	2015	Coal	<i>The Ameren 2011 Integrated Resource Plan</i>
Meramec	2	8200 Fine Rd	St. Louis	St. Louis	MO	63129	138	2015	Coal	<i>The Ameren 2011 Integrated Resource Plan</i>
Meramec	3	8200 Fine Rd	St. Louis	St. Louis	MO	63129	289	2015	Coal	<i>The Ameren 2011 Integrated Resource Plan</i>
Meramec	4	8200 Fine Rd	St. Louis	St. Louis	MO	63129	359	2015	Coal	<i>The Ameren 2011 Integrated Resource Plan</i>
Sibley	1	33200 E. Johnson Rd	Sibley	Jackson	MO	64088	54	2014	Coal	IPM Parsed Results - Policy Case (Transport Rule)
Sibley	2	33200 E. Johnson Rd	Sibley	Jackson	MO	64088	54	2014	Coal	IPM Parsed Results - Policy Case (Transport Rule)
Colstrip Energy LP	BLR1	18 Snider Subdivision Road	Colstrip	Rosebud	MT	59323	35	2015	Coal	IPM Parsed Results - Policy Case (Toxics Rule)
Yellowstone Energy LP	BLR1	2215 N. Frontage Rosd	Billings	Yellowstone	MT	59101	28	2015	Petroleum Coke	IPM Parsed Results - Policy Case (Toxics Rule)

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Yellowstone Energy LP	BLR2	2215 N. Frontage Rosd	Billings	Yellowstone	MT	59101	28	2015	Petroleum Coke	IPM Parsed Results - Policy Case (Toxics Rule)
Buck	5	1555 Dukeville Rd	Salisbury	Rowan	NC	28145	38	2014	Coal	IPM Parsed Results - Policy Case (Toxics Rule/Transport Rule)
Buck	6	1555 Dukeville Rd	Salisbury	Rowan	NC	28145	38	2014	Coal	IPM Parsed Results - Policy Case (Toxics Rule/Transport Rule)
Buck	7	1555 Dukeville Rd	Salisbury	Rowan	NC	28145	38	2014	Coal	IPM Parsed Results - Policy Case (Toxics Rule/Transport Rule)
Cape Fear	5	500 CP&L Road	Moncure	Moncure	NC	27559	148	12/31/2014	Coal	<i>Progress Energy Carolinas Integrated Resource Plan (Sep. 13, 2010).</i>
Cape Fear	6	500 CP&L Road	Moncure	Moncure	NC	27559	175	12/31/2014	Coal	<i>Progress Energy Carolinas Integrated Resource Plan (Sep. 13, 2010); IPM Parsed Results - Policy Case (Toxics Rule).</i>
Riverbend	7	175 Steamplant Rd	Mount Holly	Gaston	NC	28120	94	2015	Coal	IPM Parsed Results - Policy Case (Toxics Rule)
Riverbend	8	175 Steamplant Rd	Mount Holly	Gaston	NC	28120	94	2015	Coal	IPM Parsed Results - Policy Case (Toxics Rule)
Weatherspoon	1	491 Power Plant Road	Lumberton	Robeson	NC	28358	49	12/31/2014	Coal	<i>Progress Energy Carolinas Integrated Resource Plan (Sep. 13, 2010).</i>
Weatherspoon	2	491 Power Plant Road	Lumberton	Robeson	NC	28358	49	12/31/2014	Coal	<i>Progress Energy Carolinas Integrated Resource Plan (Sep. 13, 2010).</i>
Weatherspoon	3	491 Power Plant Road	Lumberton	Robeson	NC	28358	79	12/31/2014	Coal	<i>Progress Energy Carolinas Integrated Resource Plan (Sep. 13, 2010).</i>
Schiller	4	400 Gosling Rd.	Portsmouth	Rockingham	NH	03801	48	2015	Coal	IPM Parsed Results - Policy Case (Toxics Rule)
Deepwater	8	373 North Broadway	Pennsville	Salem	NJ	08070	80	2015	Coal	IPM Parsed Results - Policy Case (Toxics Rule)
Four Corners	1	End of County Rd 6675	Fruitland	San Juan	NM	87416	190	2015	Coal	Navajo-area coal plants weigh impact of EPA rules, <i>AP</i> (Dec. 19, 2011)
Four Corners	2	End of County Rd 6675	Fruitland	San Juan	NM	87416	190	2015	Coal	Navajo-area coal plants weigh impact of EPA rules, <i>AP</i> (Dec. 19, 2011)

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Four Corners	3	End of County Rd 6675	Fruitland	San Juan	NM	87416	253	2015	Coal	Navajo-area coal plants weigh impact of EPA rules, AP (Dec. 19, 2011)
Glenwood	40	Shore Road	Glenwood Landing	Nassau	NY	11547	117	2015	Natural Gas	IPM Parsed Results - Policy Case (Toxics Rule)
Glenwood	50	Shore Road	Glenwood Landing	Nassau	NY	11547	122	2015	Natural Gas	IPM Parsed Results - Policy Case (Toxics Rule)
Port Jefferson	3	Beach Street	Port Jefferson	Suffolk	NY	11777	185	2015	Natural Gas, Residual Fuel Oil	IPM Parsed Results - Policy Case (Toxics Rule)
WPS Power Niagara	1	5300 Frontier Avenue	Niagara Falls	Niagara	NY	14302	53	2015	Coal	IPM Parsed Results - Policy Case (Toxics Rule)
Ashtubula	5	2133 Lake Road	Ashtabula Towns	Ashtabula	OH	44004	256	2015	Coal	<i>FirstEnergy, Citing Impact of Environmental Regulations, Will Retire Six Coal-Fired Power Plants, Press Release (Jan 26, 2012)</i>
Avon Lake	10	33569	Avon Lake	Lorain	OH	44012	93	2014	Coal	IPM Parsed Results - Policy Case (Clean Air Transport Rule)
Bay Shore	2	4701 Bay Shore Rd	Oregon	Lucas	OH	43616	140.6	2015	Coal	<i>FirstEnergy, Citing Impact of Environmental Regulations, Will Retire Six Coal-Fired Power Plants, Press Release (Jan 26, 2012)</i>
Bay Shore	3	4701 Bay Shore Rd	Oregon	Lucas	OH	43616	140.6	2015	Coal	<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 Rd	Oregon	Lucas	OH	43616	217.6	2015	Coal	<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	12/31/2014	Coal	<i>AEP Shares Plan For Compliance With Proposed EPA Regulations, Press Release (June 9, 2011).</i>

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Eastlake	1	10 Erie Road	Eastlake	Lake	OH	44095	123	2015	Coal	<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	<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	<i>FirstEnergy, Citing Impact of Environmental Regulations, Will Retire Six Coal-Fired Power Plants, Press Release (Jan 26, 2012)</i>
Eastlake	4	10 Erie Road	Eastlake	Lake	OH	44095	208	2015	Coal	<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	<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	<i>FirstEnergy, Citing Impact of Environmental Regulations, Will Retire Six Coal-Fired Power Plants, Press Release (Jan 26, 2012)</i>
Hamilton	8	960 N. 3rd Street	Hamilton	Butler	OH	45011	33	2014	Natural Gas, Residual Fuel Oil	IPM Parsed Results - Policy Case (Transport Rule).
Lake Shore	18	6800 S Marginal Dr	Cleveland	Cuyahoga	OH	44103	256	2015	Coal	<i>FirstEnergy, Citing Impact of Environmental Regulations, Will Retire Six Coal-Fired Power Plants, Press Release (Jan 26, 2012)</i>

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Lake Shore	IC1	6800 S Marginal Dr	Cleveland	Cuyahoga	OH	44103	2	2015	Coal	<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 Dr	Cleveland	Cuyahoga	OH	44103	2	2015	Coal	<i>FirstEnergy, Citing Impact of Environmental Regulations, Will Retire Six Coal-Fired Power Plants, Press Release (Jan 26, 2012)</i>
Miami Fort	6	PO Box 128 Brower Rd	North Bend	Miami Township	OH	45100	163	1/1/2015	Coal	<i>The Duke Energy Kentucky 2011 Integrated Resource Plan (July 1, 2011).</i>
Muskingum River	1	County Road 32	Beverly	Beverly	OH	45715	220	12/31/2014	Coal	<i>AEP Shares Plan For Compliance With Proposed EPA Regulations, Press Release (June 9, 2011); IPM Parsed Results - Policy Case (Toxics Rule)</i>
Muskingum River	2	County Road 32	Beverly	Beverly	OH	45715	220	12/31/2014	Coal	<i>AEP Shares Plan For Compliance With Proposed EPA Regulations, Press Release (June 9, 2011); IPM Parsed Results - Policy Case (Toxics Rule)</i>
Muskingum River	3	County Road 32	Beverly	Beverly	OH	45715	238	12/31/2014	Coal	<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	12/31/2014	Coal	<i>AEP Shares Plan For Compliance With Proposed EPA Regulations, Press Release (June 9, 2011)</i>
Niles	2	1047 Belmont Avenue	Niles	Trumbull	OH	44446	111	2015	Coal	<i>IPM Parsed Results - Policy Case (Toxics Rule/Transport Rule)</i>
Picway		US 23	Lockbourne	Lockbourne	OH	43137	100	12/31/2014	Coal	<i>AEP Shares Plan For Compliance With Proposed EPA Regulations, Press Release (June 9, 2011); IPM Parsed Results - Policy Case (Toxics Rule)</i>



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R E Burger	5	57246 Ferry Landing Road	Shadyside	Belmont	OH	43947	47	2014	Coal	IPM Parsed Results - Policy Case (Transport Rule)
R E Burger	6	57246 Ferry Landing Road	Shadyside	Belmont	OH	43947	47	2014	Coal	IPM Parsed Results - Policy Case (Transport Rule)
WC Beckjord	1	757 US Rt 52	New Richmond	Clermont	OH	45200	115	1/1/2015	Coal	<i>The Duke Energy Ohio 2011 Integrated Resource Plan (July 15, 2011);</i> IPM Parsed Results - Policy Case (Toxics Rule)
WC Beckjord	2	757 US Rt 52	New Richmond	New Richmond	OH	45200	113	1/1/2015	Coal	<i>The Duke Energy Ohio 2011 Integrated Resource Plan (July 15, 2011);</i> IPM Parsed Results - Policy Case (Toxics Rule)
WC Beckjord	3	757 US Rt 52	New Richmond	Clermont	OH	45200	125	1/1/2015	Coal	<i>The Duke Energy Ohio 2011 Integrated Resource Plan (July 15, 2011);</i> IPM Parsed Results - Policy Case (Toxics Rule)
WC Beckjord	4	757 US Rt 52	New Richmond	New Richmond	OH	45200	163	1/1/2015	Coal	<i>The Duke Energy Ohio 2011 Integrated Resource Plan (July 15, 2011);</i> IPM Parsed Results - Policy Case (Toxics Rule)
WC Beckjord	5	757 US Rt 52	New Richmond	Clermont	OH	45200	245	1/1/2015	Coal	<i>The Duke Energy Ohio 2011 Integrated Resource Plan (July 15, 2011);</i> IPM Parsed Results - Policy Case (Toxics Rule)
WC Beckjord	6	757 US Rt 52	New Richmond	New Richmond	OH	45200	461	1/1/2015	Coal	<i>The Duke Energy Ohio 2011 Integrated Resource Plan (July 15, 2011);</i> IPM Parsed Results - Policy Case (Toxics Rule)
Anadarko Plant	3	700 NE 7TH STREET	Anadarko	Caddo	OK	73005	44	2015	Natural Gas	IPM Parsed Results - Policy Case (Toxics Rule)
Mustang	1	501 Mustang Plant Rd.	Oklahoma City	Canadian	OK	73127	53	2015	Natural Gas	IPM Parsed Results - Policy Case (Toxics Rule)
Mustang	2	501 Mustang Plant Rd.	Oklahoma City	Canadian	OK	73127	53	2015	Natural Gas	IPM Parsed Results - Policy Case (Toxics Rule)
Mustang	3	501 Mustang Plant Rd.	Oklahoma City	Canadian	OK	73127	118	2015	Natural Gas	IPM Parsed Results - Policy Case (Toxics Rule)
Mustang	4	501 Mustang Plant Rd.	Oklahoma City	Canadian	OK	73127	250	2015	Natural Gas	IPM Parsed Results - Policy Case (Toxics Rule)
Boardman		73334 Tower Rd	Boardman	Boardman	OR	97818	601	Not Available	Coal	<i>Portland Gas and Electric Comments on EPA NESHAP Action (Aug. 2, 2011)</i>

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Armstrong	1	108 Power Plant Rd	Adrian	Armstrong	PA	16210	163.2	2015	Coal	FirstEnergy, Citing Impact of Environmental Regulations, Will Retire Six Coal-Fired Power Plants, Press Release (Jan 26, 2012)
Armstrong	2	108 Power Plant Rd	Adrian	Armstrong	PA	16210	163.2	2015	Coal	FirstEnergy, Citing Impact of Environmental Regulations, Will Retire Six Coal-Fired Power Plants, Press Release (Jan 26, 2012)
G F Weaton Power Station	1	300 Frankfort Road	Monaca	Beaver	PA	15061	56	2015	Coal	IPM Parsed Results - Policy Case (Toxics Rule)
G F Weaton Power Station	2	300 Frankfort Road	Monaca	Beaver	PA	15061	56	2015	Coal	IPM Parsed Results - Policy Case (Toxics Rule)
New Castle	3	2189 St. Rt. 168 South	West Pittsburg	Lawrence	PA	16160	95	2014	Coal	IPM Parsed Results - Policy Case (Transport Rule)
New Castle	5	2189 St. Rt. 168 South	West Pittsburg	Lawrence	PA	16160	138	2014	Coal	IPM Parsed Results - Policy Case (Transport Rule)
Shawville	1	250 Power Plant Drive	Shawville	Clearfield	PA	16873	122	2014	Coal	IPM Parsed Results - Policy Case (Toxics Rule/Transport Rule)
Sunbury Generation LP	2A	N. Old Trail Road, PO Box 517	Shamokin Dam	Snyder	PA	17876	40	2014	Coal	IPM Parsed Results - Policy Case (Transport Rule)
Sunbury Generation LP	2B	N. Old Trail Road, PO Box 517	Shamokin Dam	Snyder	PA	17876	40	2014	Coal	IPM Parsed Results - Policy Case (Transport Rule)
Sunbury Generation LP	3	N. Old Trail Road, PO Box 517	Shamokin Dam	Snyder	PA	17876	94	2014	Coal	IPM Parsed Results - Policy Case (Toxics Rule/Transport Rule)
Sunbury Generation LP	4	N. Old Trail Road, PO Box 517	Shamokin Dam	Snyder	PA	17876	128	2014	Coal	IPM Parsed Results - Policy Case (Toxics Rule/Transport Rule)
Canadys Steam	1	13139 Augusta Hwy.	Walterboro	Colleton	SC	29433	105	2015	Coal	IPM Parsed Results - Policy Case (Toxics Rule)
John Sevier	4	Hwy 70 S PO Box 2000	Rogersville	Hawkins	TN	37857	176	2014	Coal	IPM Parsed Results - Policy Case (Transport Rule)
Johnsonville	1	Hwy 70 PO Box 259	New Johnsonville	Humphreys	TN	37134	106	2014	Coal	IPM Parsed Results - Policy Case (Transport Rule)
Johnsonville	10	Hwy 70 PO Box 259	New Johnsonville	Humphreys	TN	37134	141	2014	Coal	IPM Parsed Results - Policy Case (Toxics Rule/Transport Rule)
Johnsonville	2	Hwy 70 PO Box 259	New Johnsonville	Humphreys	TN	37134	106	2014	Coal	IPM Parsed Results - Policy Case (Transport Rule)

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Johnsonville	3	Hwy 70 PO Box 259	New Johnsonville	Humphreys	TN	37134	106	2014	Coal	IPM Parsed Results - Policy Case (Transport Rule)
Johnsonville	4	Hwy 70 PO Box 259	New Johnsonville	Humphreys	TN	37134	106	2014	Coal	IPM Parsed Results - Policy Case (Transport Rule)
Johnsonville	5	Hwy 70 PO Box 259	New Johnsonville	Humphreys	TN	37134	106	2014	Coal	IPM Parsed Results - Policy Case (Toxics Rule/Transport Rule)
Johnsonville	6	Hwy 70 PO Box 259	New Johnsonville	Humphreys	TN	37134	106	2014	Coal	IPM Parsed Results - Policy Case (Toxics Rule/Transport Rule)
Johnsonville	7	Hwy 70 PO Box 259	New Johnsonville	Humphreys	TN	37134	141	2014	Coal	IPM Parsed Results - Policy Case (Toxics Rule/Transport Rule)
Johnsonville	8	Hwy 70 PO Box 259	New Johnsonville	Humphreys	TN	37134	141	2014	Coal	IPM Parsed Results - Policy Case (Toxics Rule/Transport Rule)
Johnsonville	9	Hwy 70 PO Box 259	New Johnsonville	Humphreys	TN	37134	141	2014	Coal	IPM Parsed Results - Policy Case (Toxics Rule/Transport Rule)
AES Deepwater	AAB001	701 Light Company Road	Pasadena	Harris	TX	77506	139	2015	Petroleum Coke	IPM Parsed Results - Policy Case (Toxics Rule)
ERCT_TX_Coal steam	1	n/a	n/a	n/a	TX	n/a	300	2015	Petroleum Coke	IPM Parsed Results - Policy Case (Toxics Rule)
Lone Star	1	Hwy 259 South	Lone Star	Morris	TX	75668	50	2014	Natural Gas, Distillate Fuel Oil	IPM Parsed Results - Policy Case (Toxics Rule/Transport Rule)
Monticello	1	PO Box 1266	Mount Pleasant	Titus	TX	75455	593	2012	Coal	<i>Luminant Announces Facility Closures, Job Reductions in Response to EPA Rule</i> , Luminant (Sep. 12, 2011)
Monticello	2	PO Box 1267	Mount Pleasant	Titus	TX	75455	593	2012	Coal	<i>Luminant Announces Facility Closures, Job Reductions in Response to EPA Rule</i> , Luminant (Sep. 12, 2011)
Moore County	3	5m SW os Sunray, FM Rd 119	Sunray	Moore	TX	79170	48	2015	Natural Gas	IPM Parsed Results - Policy Case (Toxics Rule)
San Miguel	SM-1	6200 FM 3387	Christine	Atascosa	TX	78012	391	2015	Coal	IPM Parsed Results - Policy Case (Toxics Rule)

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Welsh	2	FM Rd 1735	Pittsburg	Pittsburg	TX	75686	528	12/31/2014	Coal	<i>AEP Shares Plan For Compliance With Proposed EPA Regulations, Press Release (June 9, 2011)</i>
Carbon	1	Hwy 6 & Hwy 91, 12 mi N Price	Price	Carbon	UT	84526	67	2015	Coal	IPM Parsed Results - Policy Case (Toxics Rule)
KUCC	1	9200 West 3325 South	Magna	Salt Lake	UT	84044	30	2015	Coal	IPM Parsed Results - Policy Case (Toxics Rule)
KUCC	2	9200 West 3325 South	Magna	Salt Lake	UT	84044	30	2015	Coal	IPM Parsed Results - Policy Case (Toxics Rule)
KUCC	3	9200 West 3325 South	Magna	Salt Lake	UT	84044	30	2015	Coal	IPM Parsed Results - Policy Case (Toxics Rule)
Sunnyside Cogen Associates	1	#1 Power Plant Road	Sunnyside	Carbon	UT	84539	51	2015	Coal	IPM Parsed Results - Policy Case (Toxics Rule)
Chesapeake	1	2701 VEPCO St	Chesapeake	Chesapeake (city)	VA	23323	19	2016	Coal	<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	<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	<i>Dominion plans to shutter Yorktown and Chesapeake power plants between 2015 and 2022, Daily Press (Sep. 1, 2011).</i>
Chesapeake	10	2701 VEPCO St	Chesapeake	Chesapeake (city)	VA	23323	24	2016	Coal	IPM Parsed Results - Policy Case (Toxics Rule)
Chesapeake	3	2701 VEPCO St	Chesapeake	Chesapeake (city)	VA	23323	185	2016	Coal	<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	<i>Dominion plans to shutter Yorktown and Chesapeake power plants between 2015 and 2022, Daily Press (Sep. 1, 2011).</i>

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Chesapeake	7	2701 VEPCO St	Chesapeake	Chesapeake (city)	VA	23323	24	2016	Coal	<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	<i>Dominion plans to shutter Yorktown and Chesapeake power plants between 2015 and 2022 , Daily Press (Sep. 1, 2011).</i>
Chesapeake	9	2701 VEPCO St	Chesapeake	Chesapeake (city)	VA	23323	24	2016	Coal	<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	<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	<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	<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	12/31/2014	Coal	<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	12/31/2014	Coal	<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	12/31/2014	Coal	<i>AEP Shares Plan For Compliance With Proposed EPA Regulations, Press Release (June 9, 2011).</i>

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Glen Lyn	51	U.S Route 460	Glen Lyn	Giles	VA	24093	45	2015	Coal	IPM Parsed Results - Policy Case (Toxics Rule)
Glen Lyn	52	U.S Route 460	Glen Lyn	Giles	VA	24093	45	2015	Coal	IPM Parsed Results - Policy Case (Toxics Rule)
Potomac River	1	1400 Royal St.	Alexandria	Alexandria (city)	VA	22314	88	2015	Coal	<i>Alexandria coal plant may shut by 2012, Washington Post (Aug. 30, 2011);</i> IPM Parsed Results - Policy Case (Transport Rule)
Potomac River	2	1400 Royal St.	Alexandria	Alexandria (city)	VA	22314	88	2015	Coal	<i>Alexandria coal plant may shut by 2012, Washington Post (Aug. 30, 2011)</i>
Potomac River	3	1400 Royal St.	Alexandria	Alexandria	VA	22314	110	2015	Coal	<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	<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	<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	<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	<i>Dominion plans to shutter Yorktown and Chesapeake power plants between 2015 and 2022, Daily Press (Sep. 1, 2011).</i>
Alma	1	1420 S. Main	Alma	Buffalo	WI	54610	15	2012	Coal	<i>Dairyland to shutter three Alma coal units, LaCrosse Tribune (Dec. 7, 2011)</i>
Alma	2	1420 S. Main	Alma	Buffalo	WI	54610	15	2012	Coal	<i>Dairyland to shutter three Alma coal units, LaCrosse Tribune (Dec. 7, 2011)</i>
Alma	3	1420 S. Main	Alma	Buffalo	WI	54610	15	2012	Coal	<i>Dairyland to shutter three Alma coal units, LaCrosse Tribune (Dec. 7, 2011)</i>
Blount Street	8	715 E. Main Street	Madison	Dane	WI	64056	49	2015	Coal	IPM Parsed Results - Policy Case (Toxics Rule)

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Blount Street	9	715 E. Main Street	Madison	Dane	WI	64056	48	2015	Coal	IPM Parsed Results - Policy Case (Toxics Rule)
South Oak Creek	5	11060 S. Chicago Road	Oak Creek	Milwaukee	WI	53154	261	2015	Coal	IPM Parsed Results - Policy Case (Toxics Rule)
South Oak Creek	6	11060 S. Chicago Road	Oak Creek	Milwaukee	WI	53154	264	2015	Coal	IPM Parsed Results - Policy Case (Toxics Rule)
Valley	1	1035 West Canal Street	Milwaukee	Milwaukee	WI	53233	70	2014	Coal	IPM Parsed Results - Policy Case (Toxics Rule/Transport Rule)
Valley	2	1035 West Canal Street	Milwaukee	Milwaukee	WI	53233	70	2014	Coal	IPM Parsed Results - Policy Case (Toxics Rule/Transport Rule)
Valley	3	1035 West Canal Street	Milwaukee	Milwaukee	WI	53233	70	2014	Coal	IPM Parsed Results - Policy Case (Toxics Rule/Transport Rule)
Valley	4	1035 West Canal Street	Milwaukee	Milwaukee	WI	53233	70	2014	Coal	IPM Parsed Results - Policy Case (Toxics Rule/Transport Rule)
Kammer	1	W.Va. State Route 2	Captina	Moundsville	WV	26041	238	12/31/2014	Coal	AEP Shares Plan For Compliance With Proposed EPA Regulations, Press Release (June 9, 2011)
Kammer	3	W.Va. State Route 2	Captina	Moundsville	WV	26041	238	12/31/2014	Coal	AEP Shares Plan For Compliance With Proposed EPA Regulations, Press Release (June 9, 2011)
Kammer	2	1301 Lumpkin Road	Oroville	Moundsville	WV	30	238	12/31/2014	Coal	AEP Shares Plan For Compliance With Proposed EPA Regulations, Press Release (June 9, 2011)
Kanawha	1	U.S. Route 60	Glasgow	Glasgow	WV	25086	220	12/31/2014	Coal	AEP Shares Plan For Compliance With Proposed EPA Regulations, Press Release (June 9, 2011)
Kanawha	2	U.S. Route 60	Glasgow	Glasgow	WV	25086	220	12/31/2014	Coal	AEP Shares Plan For Compliance With Proposed EPA Regulations, Press Release (June 9, 2011)
Phillip Sporn	1	State Route 62	Graham Station	New Haven	WV	25265	153	2011 (450 MW), Dec. 31, 2014 (600 MW)	Coal	AEP Shares Plan For Compliance With Proposed EPA Regulations, Press Release (June 9, 2011).

<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>Citation</u>
Phillip Sporn	2	State Route 62	Graham Station	New Haven	WV	25265	153	2011 (450 MW), Dec. 31, 2014 (600 MW)	Coal	<i>AEP Shares Plan For Compliance With Proposed EPA Regulations</i> , Press Release (June 9, 2011).
Phillip Sporn	3	State Route 62	Graham Station	New Haven	WV	25265	153	2011 (450 MW), Dec. 31, 2014 (600 MW)	Coal	<i>AEP Shares Plan For Compliance With Proposed EPA Regulations</i> , Press Release (June 9, 2011).
Phillip Sporn	4	State Route 62	Graham Station	New Haven	WV	25265	153	2011 (450 MW), Dec. 31, 2014 (600 MW)	Coal	<i>AEP Shares Plan For Compliance With Proposed EPA Regulations</i> , Press Release (June 9, 2011)
Phillip Sporn	5	State Route 62	Graham Station	New Haven	WV	25265	496	2011 (450 MW), Dec. 31, 2014 (600 MW)	Coal	<i>AEP Shares Plan For Compliance With Proposed EPA Regulations</i> , Press Release (June 9, 2011)
Rivesville	7	P.O.Box 190	Rivesville	Marion	WV	26588	46	2014	Coal	IPM Parsed Results - Policy Case (Toxics Rule/Transport Rule)
Rivesville	8	P.O.Box 190	Rivesville	Marion	WV	26588	91	2014	Coal	IPM Parsed Results - Policy Case (Toxics Rule/Transport Rule)
Willow Island	1	#2 Power Station Blvd	Willow Island	Pleasants	WV	26134	54	2014	Coal	IPM Parsed Results - Policy Case (Toxics Rule/Transport 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>Citation</u>
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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. "Toxics Rule" results were found by removing plants listed on the Toxics Rule "IPM Parsed File - Base Case" (EPA-HQ-OAR-2009-0234-3032) from the "IPM Parsed File - Policy Case" (EPA-HQ-OAR-2009-0234-3033). "Transport Rule" results were found by removing plants listed on CATR "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 Toxics Rule base case includes the Transport Rule. Thus, theoretically, both the Toxics Rule Policy Case and Transport Rule Remedy Case (when controlled for their respective base cases) should not both independently identify closure of the same plant. Nevertheless, the list shows a 2 GW overlap between the two rules. This is, presumably, due to variance in the modeling platforms EPA utilized for both rules.

# APPENDIX

## POWER PLANT RETIREMENT LIST BACKGROUND INFORMATION

### METHODOLOGY

#### LIST SOURCES

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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 Clean Air Transport Rule (Transport Rule) or Utility MACT (Toxics 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

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##### **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 taken so that the list would only include those units EPA said would retire as a result of the Transport Rule and Toxics Rule:

1. For the Transport Rule, data from the parsed files for the Transport Rule'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 Transport Rule.
2. For the Toxics Rule, data from the parsed files for the Toxics 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 Toxics Rule.

3. The resulting base case-free Transport Rule list and Toxics Rule list were then put on a single spreadsheet. The combined results were organized by plant name. In each instance where the Transport Rule and the Toxics 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 Transport Rule and Toxics Rule.

### **Transport Rule Parsed File**

The parsed file for the Transport Rule is based on EPA's proposed Clean Air Transport Rule and not the final Cross State Air Pollution Rule (CSAPR). EPA has not yet made the CSAPR parsed files available to the public. However, given that the final CSAPR is more stringent than the rule's proposed version, it is likely that CSAPR's parsed file will show more unit closures than the parsed file used on this list.

### **POWER-PLANT OWNER PUBLIC ANNOUNCEMENTS**

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#### **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 Transport Rule or Toxics 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 Transport Rule or Toxics Rule were not implemented, then that unit was not included.

### **EPA says only 9.9 GW will close, so why are these numbers higher?**

The 9.9 GW retired coal-plant capacity figure is from the EPA Regulatory Impact Analysis (RIA) for the Toxics Rule alone. The Transport Rule RIA projects an additional 4.8 GW of coal-plant capacity to retire due to the Transport Rule. When combined, the RIA's project 13.8 GW of coal-plant capacity to retire due to the Toxics Rule and Transport Rule. As noted above, additional plant retirements are due to actually announced retirements.

### **Why do EPA's RIAs say the Transport and Toxics Rule will retire 13.8 GW of coal-capacity, while EPA's parsed files say the two rules will retire 14.5 GW?**

EPA's overall modeling runs and parsed model use slightly different methods. Thus, the totals for the final results are slightly different, though very similar. The difference between the two totals is only .8 GW.

### **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 28 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. Plant-operators generally announce retirements only when required to by public filings. Thus, this list will likely grow far higher. However, because this list already finds twice as many retirements as 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 Transport Rule and Toxics Rule modeling. EPA's modeling for the 316(b) is not included. Public unit retirement announcements largely cited the Transport Rule and Toxics 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 the Transport Rule, the Toxics Rule and 316(b) regulations. The chart compares the list only to the NERC Transport Rule and Toxic Rule "strict," or worst case, scenarios.