

Impact of EPA's Regulatory Assault on Power Plants: New Regulations to Take More than 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 June 12, 2012****

More than 34 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 over 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 eight months later, shows that 34.7 GW of electrical generating capacity will close—a 6.4 GW increase.

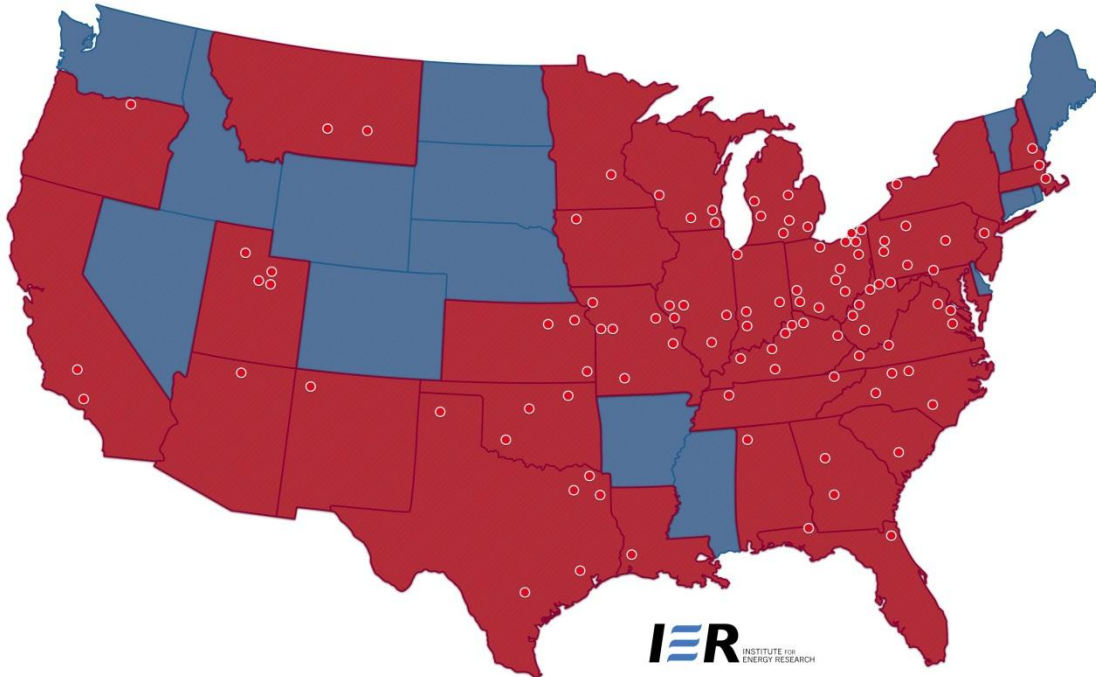
According to EPA, their modeling of Utility MACT and CSAPR indicates that these regulations will only shutter 9.5 GW of electricity generation capacity. But events in the real world already show that EPA's modeling is a gross underestimate.

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 over 35 GW of power generating capacity will likely 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*

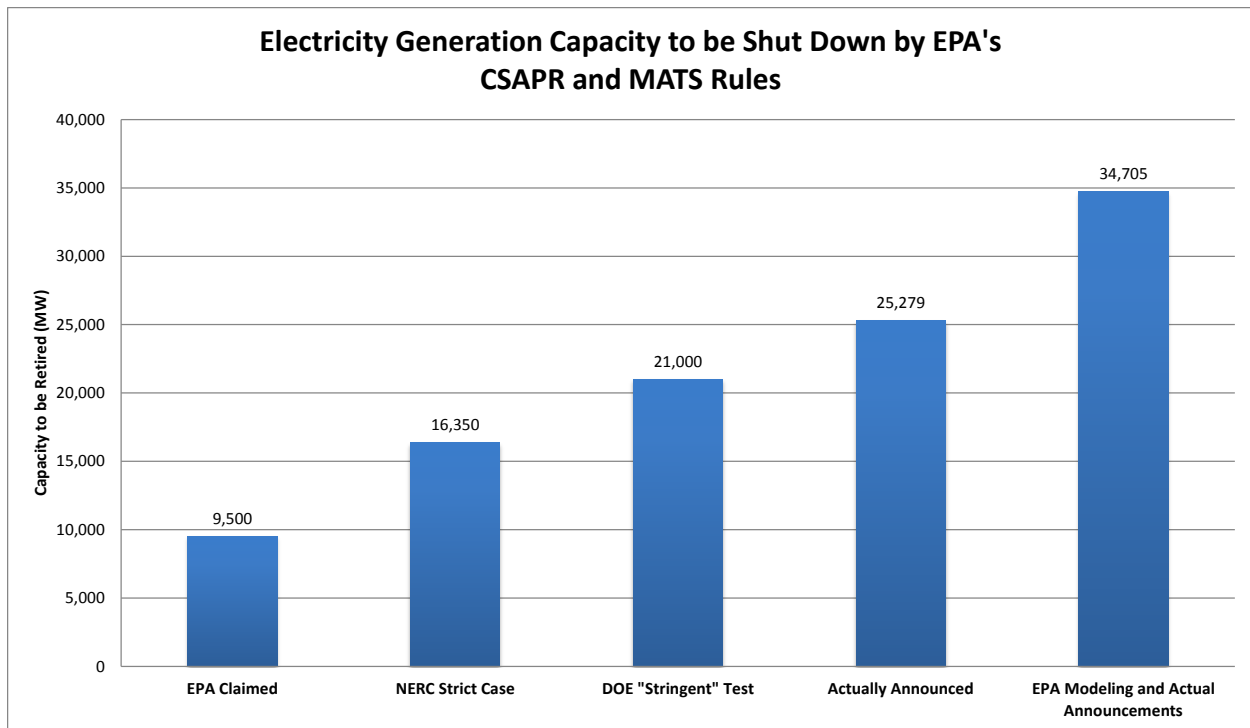
- TOTAL MW TAKEN **OFFLINE: 34,705**
- THAT'S NEARLY **10%** OF OUR COAL **ENERGY** CAPACITY - **GONE**
- EACH **RED DOT** MEANS **LESS ENERGY** FOR THE U.S. ECONOMY



*EACH DOT REPRESENTS A POWER PLANT WHERE ONE OR MORE ELECTRIC GENERATING UNITS ARE EXPECTED TO CLOSE.
SEE [HTTP://INSTITUTEFORENERGYRESEARCH.ORG/EPA-POWERPLANT-CLOSURES](http://instituteeforenergyresearch.org/epa-powerplant-closures)

Since Our First Report was Released in October, an Additional 6 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 eight 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 eight months, retirements related to EPA regulations have grown by 6.4 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, more than 34 GW of generation will close—over 13 GW more than DOE’s supposedly ultra-strict test scenario.

Michigan and Ohio Hit Worst By Recent Announcements

In our recent 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.

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- 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 | Oil | 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 Announced | <i>Ameren to shutter 2 coal plants in Illinois, Chicago Tribune (Oct. 4, 2011).</i> |
| Hutsonville | 4 | 15142 E. 1900th Ave. | Hutsonville | Crawford | IL | 62433 | 75 | 2012 | Coal | Operator Announced | <i>Ameren to shutter 2 coal plants in Illinois, Chicago Tribune (Oct. 4, 2011).</i> |
| 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 Announced | <i>Ameren to shutter 2 coal plants in Illinois, Chicago Tribune (Oct. 4, 2011).</i> |
| Meredosia | 5 | 800 W. Washington | Meredosia | Morgan | IL | 62665 | 203 | 2012 | Coal | Operator Announced | <i>Ameren to shutter 2 coal plants in Illinois, Chicago Tribune (Oct. 4, 2011).</i> |
| 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) |
| Frank E. Ratts | 1 | 6825 N. Blackburn | Petersburg | Pike | IN | 47567 | 117 | 2015 | Coal | Operator Announced | <i>Indiana coal-fired power plant to close in 2015, PowerEngineering.com (May 9, 2012)</i> |
| Frank E. Ratts | 2 | 6825 N. Blackburn | Petersburg | Pike | IN | 47567 | 117 | 2015 | Coal | Operator Announced | <i>Indiana coal-fired power plant to close in 2015, PowerEngineering.com (May 9, 2012)</i> |
| R Gallagher | 1 | 30 Jackson St | New Albany | Floyd | IN | 47200 | 140 | 2015 | Coal | EPA Modeled | IPM Parsed Results - Policy Case (MATS Rule) |
| R Gallagher | 3 | 30 Jackson St | New Albany | Floyd | IN | 47200 | 140 | 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 Announced | <i>Northwest Indiana Power Plant Days Numbered, Indianapolis Star (January 31, 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> |
|-------------------|-------------|---------------------------|--------------|---------------|--------------|------------|--------------------------|-------------|------------------------|----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| State Line | 2 | 103rd St. & Lake Michigan | Hammond | Lake | IN | 46325 | 100 | 2012 | Coal | Operator Announced | <i>Northwest Indiana Power Plant Days Numbered, Indianapolis Star (January 31, 2012).</i> |
| State Line | 3 | 103rd St. & Lake Michigan | Hammond | Lake | IN | 46325 | 318 | 2012 | Coal | Operator Announced | <i>Northwest Indiana Power Plant Days Numbered, Indianapolis Star (January 31, 2012).</i> |
| State Line | 4 | 103rd St. & Lake Michigan | Hammond | Lake | IN | 46325 | 180 | 2012 | Coal | Operator Announced | <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 | IPM Parsed Results - Policy Case (MATS Rule) |
| 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 Announced | <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 Announced | <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 | 4 | 450 Bolton Rd | Terre Haute | Vigo | IN | 47885 | 113 | 2014 | Coal | Operator Announced | EPA regs may force Duke to shut Indiana coal plant, Reuters (Sep. 20, 2011) |
| Wabash River | 5 | 450 Bolton Rd | Terre Haute | Vigo | IN | 47885 | 125 | 2014 | Coal | Operator Announced | EPA regs may force Duke to shut Indiana coal plant, Reuters (Sep. 20, 2011) |
| Wabash River | 6 | 450 Bolton Rd | Terre Haute | Vigo | IN | 47885 | 387 | 2014 | Coal | Operator Announced | EPA regs may force Duke to shut Indiana coal plant, Reuters (Sep. 20, 2011) |
| 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) |

| <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> |
|------------------------|-------------|--------------------|-------------|---------------|--------------|------------|----------------------|-------------|--------------------|--------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| 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) |
| Cane Run | 1 | 5252 Cane Run Road | Louisville | Louisville | KY | 40216 | 16 | 2016 | Coal | Operator Announced | <i>The 2011 Joint Integrated Resource Plan of Louisville Gas and Electric Company and Kentucky Utilities Company (Apr. 21, 2011)</i> |
| Cane Run | 2 | 5252 Cane Run Road | Louisville | Louisville | KY | 40216 | 163 | 2016 | Coal | Operator Announced | <i>The 2011 Joint Integrated Resource Plan of Louisville Gas and Electric Company and Kentucky Utilities Company (Apr. 21, 2011)</i> |
| Cane Run | 3 | 5252 Cane Run Road | Louisville | Louisville | KY | 40216 | 209 | 2016 | Coal | Operator Announced | <i>The 2011 Joint Integrated Resource Plan of Louisville Gas and Electric Company and Kentucky Utilities Company (Apr. 21, 2011)</i> |
| Cane Run | 4 | 5252 Cane Run Road | Louisville | Louisville | KY | 40216 | 272 | 2016 | Coal | Operator Announced | <i>The 2011 Joint Integrated Resource Plan of Louisville Gas and Electric Company and Kentucky Utilities Company (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) |

| <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 | 1 | 811 Power Plant Drive | Central City | Central City | KY | 42330 | 75 | 2016 | Coal | Operator Announced | <i>The 2011 Joint Integrated Resource Plan of Louisville Gas and Electric Company and Kentucky Utilities Company (Apr. 21, 2011)</i> |
| 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 Company (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 Company (Apr. 21, 2011); IPM Parsed Results - Remedy Case (CSAPR)</i> |
| 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> |

| <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> |
|----------------------|-------------|-----------------|--------------|---------------|--------------|------------|----------------------|-------------|--------------------|----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| 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> |
| 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, Press Release (May 11, 2011)/IPM Parsed Results - Policy Case (MATS Rule)</i> |
| R. Paul Smith | 9 | PO Box 168 | Williamsport | WASHINGTON | MD | 21795 | 35 | 2015 | Coal | Operator Announced | <i>FirstEnergy, Citing Impact of Environmental Regulations, Will Retire Six Coal-Fired Power Plants, Press Release (Jan 26, 2012)</i> |
| 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, Press Release (Jan 26, 2012)</i> |
| Rumford Cogeneration | 6 | 35 Hartford St | Rumford | Oxford | ME | 4276 | 43 | 2015 | Coal | EPA Modeled | <i>IPM Parsed Results - Policy Case (MATS Rule)</i> |
| Rumford Cogeneration | 7 | 35 Hartford St | Rumford | Oxford | ME | 4276 | 43 | 2015 | Coal | EPA Modeled | <i>IPM Parsed Results - Policy Case (MATS Rule)</i> |
| 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, Wall Street Journal (Dec. 2, 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> |
|-------------------|-------------|-------------------------|--------------|---------------|--------------|------------|--------------------------|-------------|------------------------|-----------------------|--------------------------------------------------------------------------------------------------------------------------------|
| 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, Wall Street Journal (Dec. 2, 2011)</i> |
| 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, Wall Street Journal (Dec. 2, 2011)</i> |
| 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) |

| <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> |
|-----------------------|-------------|----------------------------|-------------|---------------|--------------|------------|----------------------|-------------|--------------------|----------------------------------|---------------------------------------------------------------------------------------------------------------------|
| 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> |
| 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> |

| <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> |
|-------------------|-------------|-------------------------|--------------|---------------|--------------|------------|--------------------------|-------------|------------------------|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| 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 | <i>IPM Parsed Results - Policy Case (CSAPR/MATS Rule)</i> |
| Riverbend | 8 | 175 Steamplant Rd | Mount Holly | Gaston | NC | 28120 | 94 | 2014 | Coal | EPA Modeled | <i>IPM Parsed Results - Policy Case (CSAPR/MATS Rule)</i> |
| Weatherspoon | 1 | 491 Power Plant Road | Lumberton | Robeson | NC | 28358 | 49 | 2015 | Coal | Operator Announced | <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 Announced | <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 Announced | <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 Announced | <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 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> |
|-------------------|-------------|----------------|--------------|---------------|--------------|------------|--------------------------|-------------|------------------------|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| Glen Gardner | 3 | Rocky Run Road | Glen Gardner | Hunterdon | NJ | 8826 | 20 | 2015 | Coal | Operator Announced | <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 Announced | <i>GenOn Reports 2011 Results and Announces Expected Deactivation of Generation Units, Press Release (Feb. 29, 2012)</i> |
| Glen Gardner | 5 | Rocky Run Road | Glen Gardner | Hunterdon | NJ | 8826 | 20 | 2015 | Coal | Operator Announced | <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 Announced | <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 Announced | <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 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> |
|-------------------|-------------|--------------------------|-----------------------|---------------|--------------|------------|--------------------------|-------------|------------------------|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Four Corners | 1 | End of County Rd 6675 | Fruitland | San Juan | NM | 87416 | 190 | 2015 | Coal | Operator Announced | <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 Announced | <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 Announced | <i>Navajo-area coal plants weigh impact of EPA rules, AP (Dec. 19, 2011)</i> |
| 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 Announced | <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 Announced | <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 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> |
|-------------------|-------------|------------------------|-------------|---------------|--------------|------------|--------------------------|-------------|------------------------|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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 | 141 | 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 | 3 | 4701 Bay Shore Road | Oregon | Lucas | OH | 43616 | 141 | 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 | 218 | 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> |

| <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 | 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> |
| 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> |

| <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> |
|-------------------|-------------|-----------------------|-------------|----------------|--------------|------------|--------------------------|-------------|------------------------|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| 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> |
| 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> |

| <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> |
|-------------------|-------------|--------------------------|--------------|---------------|--------------|------------|----------------------|-------------|--------------------|----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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 | 133 | 2012 | Coal | Operator Announced | <i>GenOn Reports 2011 Results and Announces Expected Deactivation of Generation Units, Press Release (Feb. 29, 2012)</i> |
| Niles | 2 | 1047 Belmont Avenue | Niles | Trumbull | OH | 44446 | 133 | 2012 | 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> |
| 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 | <i>IPM Parsed Results - Remedy Case (CSAPR)</i> |
| R E Burger | 6 | 57246 Ferry Landing Road | Shadyside | Belmont | OH | 43947 | 47 | 2014 | Coal | EPA Modeled | <i>IPM Parsed Results - Remedy Case (CSAPR)</i> |
| 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> |

| <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 | 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> |
| 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> |
| Northeast Station | 3 | Highway 169 & 88 | Oologah | Rogers | OK | 74053 | 473 | 2016 | Coal | Operator Announced | <i>PSO, State Reach Agreement with EPA on Emissions Reduction Plans, Press Release (Apr. 24, 2012)</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 | 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 | 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> |
|--------------------|-------------|------------------------|----------------|---------------|--------------|------------|--------------------------|-------------|------------------------|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Elrama Power Plant | 1 | 30 Duquesne Light Way | Elrama | Washington | PA | 15038 | 100 | 2012 | Coal | Operator Announced | GenOn Reports 2011 Results and Announces Expected Deactivation of Generation Units, Press Release (Feb. 29, 2012) |
| Elrama Power Plant | 2 | 30 Duquesne Light Way | Elrama | Washington | PA | 15038 | 100 | 2012 | Coal | Operator Announced | GenOn Reports 2011 Results and Announces Expected Deactivation of Generation Units, Press Release (Feb. 29, 2012) |
| 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 | 96 | 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) |

| <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> |
|-------------------|-------------|---------------------------|----------------|---------------|--------------|------------|--------------------------|-------------|------------------------|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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 | 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) |
| P H Glatfelter | 5PB 036 | 128 S. Main Street | Spring Grove | York | PA | 17362 | 36 | 2015 | Coal | EPA Modeled | IPM Parsed Results - Policy Case (MATS Rule) |
| 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> |

| <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 | 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> |
| 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> |

| <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 | 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> |
| 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) |

| <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 | 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> |
| 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) |

| <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> |
|-------------------|-------------|------------------------|------------------|---------------|--------------|------------|--------------------------|-------------|------------------------|--------------------|---------------------------------------------------------------------------------------------------------------|
| 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) |
| 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> |

| <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> |
|-------------------------------|-------------|----------------------------------|-------------|----------------------|--------------|------------|--------------------------|-------------|------------------------|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| Carbon | 1 | Hwy 6 & Hwy 91, 12 mi N Price | Price | Carbon | UT | 84526 | 75 | 2015 | Coal | Operator Announced | <i>EPA Rule Prompts Rocky Mountain Power to Retire Utah Coal Plant</i> , Electric Power Daily (May 10, 2012) |
| Carbon | 2 | Hwy 6 & Hwy 91, 12 mi N Price | Price | Carbon | UT | 84526 | 113.6 | 2015 | Coal | Operator Announced | <i>EPA Rule Prompts Rocky Mountain Power to Retire Utah Coal Plant</i> , Electric Power Daily (May 10, 2012) |
| 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) |
| Chesapeake | 1 | 2701 VEPCO St | Chesapeake | Chesapeake (city) | VA | 23323 | 19 | 2016 | Coal | Operator Announced | <i>Dominion plans to shutter Yorktown and Chesapeake power plants between 2015 and 2022</i> , Daily Press (Sep. 1, 2011). |
| Chesapeake | 2 | 2701 VEPCO St | Chesapeake | Chesapeake (city) | VA | 23323 | 16 | 2016 | Coal | Operator Announced | <i>Dominion plans to shutter Yorktown and Chesapeake power plants between 2015 and 2022</i> , Daily Press (Sep. 1, 2011). |
| Chesapeake | 3 | 2701 VEPCO St | Chesapeake | Chesapeake (city) | VA | 23323 | 185 | 2016 | Coal | Operator Announced | <i>Dominion plans to shutter Yorktown and Chesapeake power plants between 2015 and 2022</i> , Daily Press (Sep. 1, 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>Source</u> | <u>Citation</u> |
|-------------------|-------------|----------------|-------------|----------------------|--------------|------------|--------------------------|-------------|------------------------|-----------------------|--------------------------------------------------------------------------------------------------------------------------|
| Chesapeake | 4 | 2701 VEPCO St | Chesapeake | Chesapeake (city) | VA | 23323 | 16 | 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 | 6 | 2701 VEPCO St | Chesapeake | Chesapeake (city) | VA | 23323 | 16 | 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 | 7 | 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 | 8 | 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 | 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> |

| <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 | 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> |
| 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> |

| <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> |
|-----------------------------------|-------------|---------------------------|-------------|---------------|--------------|------------|--------------------------|-------------|------------------------|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| 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 | 703 | 2015 | Coal | EPA Modeled | IPM Parsed Results - Policy Case (MATS Rule) |
| Transalta Centralia Generation | BW 22 | 913 Big Hanaford Rd. | Centralia | Lewis | WA | 98531 | 703 | 2015 | Coal | EPA Modeled | IPM Parsed Results - Policy Case (MATS Rule) |
| Alma | 1 | 1420 S. Main | Alma | Buffalo | WI | 54610 | 15 | 2012 | Coal | Operator Announced | <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 | Operator Announced | <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 | Operator Announced | <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 | 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) |

| <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> |
|------------------------|-------------|------------------------|-------------|---------------|--------------|------------|--------------------------|-------------|------------------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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> |
| Albright Power Station | 3 | P.O.Box 125 | Albright | Preston | WV | 26519 | 140 | 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> |

| <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> |
|-------------------|-------------|-------------------|----------------|---------------|--------------|------------|--------------------------|---------------------------------------|------------------------|--------------------|---------------------------------------------------------------------------------------------|
| Kammer | 2 | 1301 Lumpkin Road | Oroville | Moundsville | WV | 30 | 238 | 2015 | Coal | Operator Announced | 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 | 2015 | Coal | Operator Announced | 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 | 2015 | Coal | Operator Announced | 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 | Operator Announced | AEP Shares Plan For Compliance With Proposed EPA Regulations, Press Release (June 9, 2011). |
| Phillip Sporn | 2 | State Route 62 | Graham Station | New Haven | WV | 25265 | 153 | 2011 (450 MW), Dec. 31, 2014 (600 MW) | Coal | Operator Announced | AEP Shares Plan For Compliance With Proposed EPA Regulations, 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 | Operator Announced | AEP Shares Plan For Compliance With Proposed EPA Regulations, 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 | Operator Announced | AEP Shares Plan For Compliance With Proposed EPA Regulations, 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 | Operator Announced | 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>Source</u> | <u>Citation</u> |
|-------------------|-------------|--------------------------|---------------|---------------|--------------|------------|--------------------------|-------------|------------------------|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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 | 75 | 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> |
| 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 | 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 "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.