

The Impact of Federal Clean Air Rules on Mercury Emissions at U.S. Coal-Fired Power Plants

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Executive Summary

National Wildlife Federation commissioned the following technical analysis to assess the extent to which mercury emissions will be reduced at coal-fired power plants as a result of new federal clean air regulations. This analysis compares the projected impacts of both the Clean Air Interstate Rule (CAIR) and Clean Air Mercury Rule (CAMR) on reducing mercury emissions at each affected power plant¹. The CAIR rule imposes new pollution limits on states for ozone-forming pollutants (sulfur dioxide and nitrogen oxides), and soot pollution (particulates). The CAMR rule imposes a federal cap on mercury emissions from coal-fired power plants.

NWF commissioned this study as states throughout the country are trying to determine the stringency of their mercury reduction plans for coal-fired power plants. Under CAMR, states are obligated to submit to the U.S. Environmental Protection Agency (EPA) implementation plans by November 17, 2006, indicating how they intend to meet their federally-imposed mercury emissions budget (or limit).

Using the most current economic forecasting model available, called the Integrated Planning Model (IPM) developed by EPA, this analysis identifies the investments or other operational changes coal-fired power plants are projected to make to reduce sulfur, nitrogen, and fine particle pollution, and calculates how much mercury will be reduced if such investments are made. The IPM is the most comprehensive tool publicly available that projects what pollution control equipment will be installed on the nation's coal burning power plants to meet federal clean air requirements.

The analysis also identifies whether a particular state will meet their mercury emissions budget through the installation of pollution control technology or other modifications, or whether it will rely on the CAMR national cap and trade program and purchase pollution credits to meet its state mercury budget.

Under EPA's CAMR, states distribute a portion of their federally-allocated mercury emissions budget to each power plant. The plant is then responsible for meeting that emissions budget. The plant can either reduce emissions to meet its assigned budget or buy pollution credits from another plant that has reduced emissions beyond its allocated budget. A plant can buy pollution credits from plants in its own state or any other state participating in the CAMR mercury trading program. Because CAMR is a two-phased program (with 2010 and 2018 as the target years), plants may also over-control in the first phase and "bank" or store mercury emissions credits to comply with the next phase of the rule.

For each state, detailed information has been provided for all coal-fired power plants, including:

- 2002 estimated mercury emissions;
- plant capacity;
- current control technology installations;
- projected installations, or other plant modifications under CAIR and CAMR;
- and projected mercury reductions under CAIR and CAMR.

¹EPA's IPM analysis, IPM documentation, and parsed files can be found at www.epa.gov/airmarkets/epa-ipm.

In addition, projected mercury emissions following these installations were compared to the mercury emissions budget assigned to each state by EPA. This is useful for predicting whether a particular state will likely purchase credits rather than make the mercury emissions reductions necessary to meet its actual cap.

In reviewing the results of this analysis, it is important to note that these are *estimates produced from a computer model*. None of the projected installations or emissions reductions are in any way certain to occur. The structure of both the CAIR and CAMR programs provides flexibility to plants for achieving compliance. They can choose to purchase either pollution control technology or emission credits. There is no guarantee that the technology installations outlined in the following tables will, in fact, occur.

Summary Findings

- Under CAMR, by 2010 27 states are projected to be below their Phase I State Budget (based on the national cap of 38 tons). Plants are projected to “bank” their excess emissions allowances to comply with the second phase of the mercury rule. Between 2010 and 2017, 70.6 tons of mercury allowances are projected to be banked nationally.
- In 2020, EPA projects that only 7 states will be below their Phase II CAMR Budget. In the 38 states with projected emissions above the CAMR budget, plants will buy pollution credits or use banked allowances for compliance.
- Under CAMR (which includes compliance with CAIR), national mercury emissions are projected to be 24.3 tons in 2020, higher than CAMR’s actual emissions cap of 15 tons by 2018. Current emissions are 50 tons nationally, based on 2002 estimates.
- EPA’s analysis predicts that the bank of mercury allowances will not run out until after 2026. Therefore, the final CAMR cap of 15 tons likely will not be achieved until 2026, if not later.
- In Phase I of the CAMR program, mercury emission reductions are projected to be made primarily through the use of pollution controls for nitrogen oxides (NO_x) and sulfur dioxide (SO₂), e.g., selective catalytic reduction and wet scrubbers. Mercury reductions are also projected to be made through coal switching and dispatch changes. Some mercury reductions are projected through the use of activated carbon injection (ACI) (about 2 GW out of 305 GW coal-fired capacity will install ACI).
- In Phase II of the CAMR program, again mercury emission reductions are projected to be made primarily through the use of NO_x and SO₂ pollution controls. Additional mercury reductions are projected to be made through coal switching and dispatch changes. Mercury reductions using ACI are projected to increase to about 13 GW of coal-fired capacity using ACI by 2020 and beyond.
- EPA analysis projects that after 2026 about 43 GW of ACI will be used nationally to comply with the final mercury cap of 15 tons, 14% of coal capacity. This technology is proven, affordable, and available today. However, given how CAMR is structured, no substantial installations of ACI are expected for another 20 years.

Methodology

The analysis relied on EPA's IPM data files that were generated by the federal agency as part of the CAIR and CAMR rulemaking process. IPM finds the least-cost solution to meet electricity demand assuming environmental, transmission, and other operating constraints for a specified region and time period. EPA relied on IPM to project the impact that complying with CAIR and CAMR will have on the electricity sector through 2020. Thus, the state tables developed in this analysis contain the projections from IPM on how plants will comply with CAIR and CAMR.

In IPM, mercury emissions are calculated from the mercury content of the coal using emission modification factors developed from EPA's 1999 mercury Information Collection Request and other EPA/DOE test data (see IPM documentation for summary¹). In addition, IPM has assumptions about the mercury content of coal available throughout the country that were developed using the 1999 ICR data. Future year projections of mercury emissions are based on future year projections of coal use and pollution controls installed. Decisions on coal use and pollution controls in the model are driven by economic factors that the plant may face at a future time. For example, for some plants, their 2002 baseline emissions may differ significantly from future IPM predicted mercury emissions because a plant is projected to use a different coal (i.e., one with higher or lower mercury content) or the plant is projected to operate at higher or lower capacity.

Differences in CAIR and CAMR mercury emission projections could be due to a number of factors. EPA's IPM data files allow the user to ascertain whether changes in projected emissions are due to either added pollution control retrofits (e.g., activated carbon injection (ACI)), changes in fuel use or unit operating capacity, or changes in coal grades (e.g., subbituminous coal to bituminous coal). While the mercury content of the coal is not provided in the IPM data files, it was assumed to be the reason for a change between CAIR and CAMR projected mercury emissions when fuel use, retrofit choice, and coal grade were the same in both CAIR and CAMR compliance scenarios.

The completed analysis indicates that a significant amount of emissions banking occurs nationally in the first phase, which is then used for compliance in the second phase of the program. Comparing EPA's mercury emission projections under CAMR to the assigned mercury state budget gives an indication of which states on average are banking, buying, or selling emission allowances:

1. In the first phase, states that are projected to have emissions below their CAMR mercury budget are assumed to be net bankers.
2. In the second phase, states that are projected to have emissions below their CAMR mercury budget are assumed to be net sellers.
3. In the second phase, states that are projected to have emissions above their CAMR budget are assumed to be using banked allowances or to be net buyers of emission credits.
4. In the second phase, plants will run out of banked allowances and will have to install controls or buy allowances.

¹ IPM documentation and parsed output files can be found at: www.epa.gov/airmarkets/epa-ipm.

Data Sources:

- Data on plant controls and emissions in 2015 and 2020 obtained from EPA's Integrated Planning Model Parsed files: CAIR – Final – 2015; CAIR – Final – 2020; and CAMR – Option 1- 2020.
- 2002 plant-level mercury emissions data obtained from EPA's National Emissions Inventory (NEI)¹. 2002 NEI represents EPA's most recent emissions estimate for coal-fired power plants and may differ from TRI estimate. EPA reviews TRI data in making its NEI estimate and may make further adjustments to the data to develop its NEI estimate, which the Agency believes to be the better estimate. Also, note that the NEI estimate may differ from a state Hg emissions inventory, especially if a state has gathered emission test data from its plants.
- EPA's Standalone Documentation for EPA's Basecase 2004 (V.2.1.9) Using the Integrated Planning Model, US EPA, September 2005, Chapter 5².

Analysis Assumptions:

- IPM parsed files contain fuel use data (TBtu) at the unit level, and not generation data (GWh) at the unit level. Therefore, emission rates were calculated using fuel use data (lb/TBtu) and converted to output format (lb/GWh) using the following assumption: For a typical coal power plant, 10 million BTU's of heat energy generates one megawatt-hr of electricity.
- During EPA's 1999 Hg ICR it was determined that FBC units burning waste coal achieve a 99% control of mercury emissions, measured from the mercury content of coal burned. EPA's IPM mercury emissions modification factors do not reflect this 99% control level. In this analysis, IPM outputs for FBC are flagged in states with FBC units. For Pennsylvania, where several FBC plants exist, it was assumed that all FBC units will continue to be well controlled for mercury, so 2002 emissions data are used for 2020 projections under CAIR and CAMR.

¹ NEI data can be found at www.epa.gov/ttn/chief/net. Analyst contacted EPA directly for 2002 Hg emissions for power plants, since they were not yet available on website.

² IPM documentation and parsed output files can be found at: www.epa.gov/airmarkets/epa-ipm.

Glossary of Terms

Power Plant Controls

CS-ESP	cold-side electrostatic precipitator (particulate control)
EMF	emission modification factor
FBC	fluidized bed combustion (boiler type)
FF	fabric filter (particulate control)
FGD	flue gas desulfurization (sulfur dioxide control)
HS-ESP	hot-side electrostatic precipitator (particulate control)
ICR	Information Collection Request
IPM	Integrated Planning Model
PM	particulate matter
SCR	selective catalytic reduction (nitrogen oxide control)
SDA	spray dryer absorber (nitrogen oxide control)
SNCR	selective non-catalytic reduction (nitrogen oxide control)
TOX	TOXECON (fine particulate control)

Federal Rules

CAIR	Clean Air Interstate Rule
CAMR	Clean Air Mercury Rule

Units

MW	megawatt
lb/TBtu	pounds per trillion British thermal units
lb/GWh	pounds per gigawatt hour
Hg	mercury

State Summary Tables

State Summary Table Key*

Plant	Includes all coal-fired power plants in the state
2002 Hg Plant-Level Emissions	Estimated emissions (from EPA's 2002 National Emissions Inventory)
No. of Units	Total number of units (boilers), in operation in 2002
Current PM, NOx, SO2 Controls	Pollution controls currently installed (or under construction) in 2002
CAIR Installations Planned	Projected installations found in EPA's Integrated Planning Model (IPM), last updated in 2004
Hg control after CAIR**	Estimated mercury capture measured from coal across pollution control device to stack; if no CAIR installations are planned, estimated mercury control reflects capture across currently-installed pollution control devices
Plant emissions under CAIR & CAMR	Projected emissions after compliance with CAIR & CAMR
Plant emission rates under CAIR & CAMR	Projected emissions calculated as a rate based standard (input and output-based)
Additional CAMR Installations	Projected installations or other modifications due to CAMR compliance; includes changes in fuel use, changes in operation, installation of conventional and mercury-specific controls
Hg control after CAMR**	Estimated mercury capture, measured from coal across pollution control device to stack, after installation of all projected pollution control devices, or other plant- or unit-specific modifications

*Alaska and Hawaii are not included because their power plants are not in EPA's Integrated Planning Model. Idaho, Rhode Island, Vermont, and Washington DC, are not included because they do not have coal-fired power plants. These states have a zero mercury emissions budget under CAMR.

**IPM uses Emission Modification Factors (EMFs) to estimate the mercury reductions attributable to a specific boiler type, coal type, and configuration of SO₂, NO_x, and particulate matter control devices at an electric generating unit. In IPM, the EMF is applied to the mercury content in the coal to determine the final projected mercury emissions. EPA's EMFs can be found in table 5.10 starting on page 12 at: <http://www.epa.gov/airmarkets/epa-ipm/bc5emission.pdf>

Alabama

How the federal mercury rule would look in Alabama:

- 2020 projected emissions are 42% higher than allocated budget of 1,018 pounds
- 2020 estimated emissions will be a 71% reduction from 2002 estimated emissions
- State will be a net buyer of mercury allowances or user of banked allowances from excess emission reductions made in first phase of CAMR.

Plant	2002 Hg Plant-Level Emissions (lbs)	Total Plant Capacity (MW)	No. of Units	Current PM Controls	Current NOx & SO2 Controls	CAIR Installations Planned by 2015 (Projected Installations by 2020)	Hg control after CAIR	Plant 2020 Hg (lbs) under CAIR	Plant 2020 Hg (lbs) under CAMR	Plant CAMR 2020 Hg (lb/TBtu)	Plant CAMR 2020 Hg (lb/GWh)	Additional CAMR Installations/ Modifications Projected (by 2020)	Hg control after CAMR
BARRY	468.54	1,642	5	HS-ESP	SNCR		10%	221.80	231.20	1.9285	0.0193	Hg coal content lower under CAIR	10%
				HS-ESP	SNCR		10%						10%
				HS-ESP	SNCR		10%						10%
				CS-ESP	SNCR		36%						10%
				CS-ESP		SCR & Wet Scrubber	90%						90%
CHARLES R LOWMAN	164.41	552	3	HS-ESP			10%	28.80	27.40	0.6346	0.0063	Hg coal content higher under CAIR	10%
				HS-ESP	Wet Scrubber	SCR	90%						90%
				HS-ESP	Wet Scrubber	SCR	90%						90%
COLBERT	331.41	1,163	5	CS-ESP		SCR (Wet Scrubber)	90%	68.20	178.40	1.9065	0.0191	No scrubber units 1-4 under CAMR	36%
				CS-ESP		SCR (Wet Scrubber)	90%						36%
				CS-ESP		SCR (Wet Scrubber)	90%						36%
				CS-ESP		SCR (Wet Scrubber)	90%						36%
				CS-ESP	SCR	Wet Scrubber	90%						90%
E C GASTON	663.90	1,861	5	CS-ESP		SCR & Wet Scrubber	90%	102.80	97.80	0.7280	0.0073	Hg coal content higher under CAIR	90%
				CS-ESP		SCR & Wet Scrubber	90%						90%
				CS-ESP		SCR & Wet Scrubber	90%						90%
				CS-ESP		SCR & Wet Scrubber	90%						90%
				HS-ESP	SCR	Wet Scrubber	90%						90%
GADSDEN	39.15	130	2	CS-ESP		Early Retirement	NA	0.00	0.00				NA
				CS-ESP		Early Retirement	NA						NA
GORGAS	939.71	1,273	5	CS-ESP		SCR	36%	181.17	108.07	1.1189	0.0112	Scrubber added to units 8-9 under CAMR	36%
				CS-ESP		SCR	36%						36%
				HS-ESP		SCR	36%						90%
				HS-ESP		SCR	10%						90%
				CS-ESP	SCR	Wet Scrubber	90%						90%

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Plant	2002 Hg Plant-Level Emissions (lbs)	Total Plant Capacity (MW)	No. of Units	Current PM Controls	Current NOx & SO2 Controls	CAIR Installations Planned by 2015 (Projected Installations by 2020)	Hg control after CAIR	2020 Hg (lbs) under CAIR	2020 Hg (lbs) under CAMR	Plant CAMR 2020 Hg (lb/TBtu)	Plant CAMR 2020 Hg (lb/GWh)	Additional CAMR Installations/ Modifications Projected (by 2020)	Hg control after CAMR
GREENE COUNTY	226.18	517	2	HS-ESP		SCR	10%	135.43	25.33	0.6647	0.0066	Scrubber added to units 1-2 under CAMR	90%
				HS-ESP		SCR	10%						90%
JAMES H MILLER JR	1704.50	2,800	4	CS-ESP	SCR		36%	530.00	563.80	2.6241	0.0262	Hg coal content lower under CAIR	36%
				CS-ESP	SCR		36%						36%
				CS-ESP	SCR		36%						36%
				CS-ESP	SCR		36%						36%
WIDOWS CREEK	418.24	1,610	8	CS-ESP		SCR	36%	208.40	208.40	1.5956	0.0160		36%
				CS-ESP		SCR	36%						36%
				CS-ESP		SCR	36%						36%
				CS-ESP		SCR	36%						36%
				CS-ESP		SCR	36%						36%
				CS-ESP		SCR	36%						36%
				CS-ESP	SCR & Wet Scrubber		90%						90%
				CS-ESP	SCR & Wet Scrubber		90%						90%
TOTAL	4956.04							1476.60	1440.40				

Arizona

How the federal mercury rule would look in Arizona:

- 2020 projected emissions are 69% higher than allocated budget of 586 pounds¹
- 2020 estimated emissions will be a 30% reduction from 2002 estimated emissions
- State will be a net buyer of mercury allowances.

Plant *	2002 Hg Plant-Level Emissions (lbs)	Total Plant Capacity (MW)	No. of Units	Current PM Controls	Current NOx & SO2 Controls	CAIR Installations Planned by 2015 (Projected Installations by 2020)	Hg control after CAIR	Plant 2020 Hg (lbs) under CAIR	Plant 2020 Hg (lbs) under CAMR	Plant CAMR 2020 Hg (lb/TBtu)	Plant CAMR 2020 Hg (lb/GWh)	Additional CAMR Installations/ Modifications Projected (by 2020)	Hg control after CAMR
APACHE STATION	117.76	350	2	HS-ESP	Wet Scrubber		20%	126.70	79.10	2.9420	0.0294	Switch to bit coal under CAMR	42%
				HS-ESP	Wet Scrubber		20%						42%
CHOLLA	379.29	995	4		Wet Scrubber		30%	360.60	230.00	2.8676	0.0287	Units 1,3,&4 switch to bit coal under CAMR	42%
					Wet Scrubber		42%						42%
				HS-ESP		(Wet Scrubber**)	20%						42%
				HS-ESP		(Wet Scrubber**)	20%						42%
CORONADO	240.62	730	2	HS-ESP	Wet Scrubber		20%	268.30	167.50	2.9420	0.0294	Switch to bit coal under CAMR	42%
				HS-ESP	Wet Scrubber		20%						42%
IRVINGTON	2.80	156	1	FF			89%	4.40	4.40	0.3776	0.0038		89%
NAVAJO***	335.15	2,250	3	HS-ESP	Wet Scrubber		42%	496.20	496.20	2.9399	0.0294		42%
				HS-ESP	Wet Scrubber		42%						42%
				HS-ESP	Wet Scrubber		42%						42%
SPRINGERVILLE	340.91	720	2	FF	Dry Scrubber		25%	240.00	13.60	0.2504	0.0025	Switch to bit coal under CAMR	95%
				FF	Dry Scrubber		25%						95%
TOTAL	1416.53							1496.20	990.80				

* Arizona not covered by CAIR

** Installations due to Acid Rain requirements

*** Navajo plant part of Navajo Nation Budget

¹For comparison, Navajo plant portion of Navajo Nation Budget has been added to New Mexico state budget (227.5 lbs)

Arkansas

How the federal mercury rule would look in Arkansas:

- 2020 projected emissions are 13% lower than allocated budget of 408 pounds
- 2020 estimated emissions will be a 65% reduction from 2002 estimated emissions
- State will be a net seller of mercury allowances.

Plant*	2002 Hg Plant-Level Emissions (lbs)	Total Plant Capacity (MW)	No. of Units	Current PM Controls	Current NOx & SO2 Controls	CAIR Installations Planned by 2015 (Projected Installations by 2020)	Hg control after CAIR	Plant 2020 Hg (lbs) under CAIR	Plant 2020 Hg (lbs) under CAMR	Plant CAMR 2020 Hg (lb/TBtu)	Plant CAMR 2020 Hg (lb/GWh)	Additional CAMR Installations/ Modifications Projected (by 2020)	Hg control after CAMR
FLINT CREEK	153.35	480	1	HS-ESP		none	6%	198.80	198.80	5.5388	0.0554		6%
INDEPENDENCE	397.46	1,678	2	CS-ESP		none	3%	777.08	80.13	0.5891	0.0059	ACI installed all units under CAMR	90%
				CS-ESP		none	3%						90%
WHITE BLUFF	473.21	1,659	2	CS-ESP		none	3%	755.12	77.87	0.5891	0.0059	ACI installed all units under CAMR	90%
				CS-ESP		none	3%						90%
TOTAL	1024.01							1731.00	356.80				

* Arkansas covered by the ozone portion of CAIR only

California

How the federal mercury rule would look in California:

- 2020 projected emissions are 89% higher than allocated budget of 32 pounds
- 2020 estimated emissions will be a 292% increase from 2002 estimated emissions
- State will be a net buyer of mercury allowances or user of banked allowances from excess emission reductions made in first phase of CAMR.

Plant *	2002 Hg Plant-Level Emissions (lbs)	Total Plant Capacity (MW)	No. of Units	Current PM Controls	Current NOx & SO2 Controls	CAIR Installations Planned by 2015 (Projected Installations by 2020)	Hg control after CAIR	Plant 2020 Hg (lbs) under CAIR	Plant 2020 Hg (lbs) under CAMR	Plant CAMR 2020 Hg (lb/TBtu)	Plant CAMR 2020 Hg (lb/GWh)	Additional CAMR Installations/ Modifications Projected (by 2020)	Hg control after CAMR
ACE Cogeneration Company	1.73	98	1		Dry Scrubber		40%	38.80	4.00	0.5211	0.0052	ACI installed under CAMR	90%
Long Beach Generation LLC	NA	58	1				0%	18.60	18.60	4.1009	0.0410		0%
Mt Poso Cogeneration	3.40	55	1		Dry Scrubber		40%	22.60	2.20	0.4911	0.0049	ACI installed under CAMR	90%
Rio Bravo Jasmin	3.75	34	1		SNCR & Dry Scrubber		15%	15.00	12.40	4.6011	0.0460	Hg coal content higher under CAIR	15%
Rio Bravo Poso	4.01	34	1		SNCR & Dry Scrubber		15%	14.40	11.80	4.6101	0.0461	Hg coal content higher under CAIR	15%
Stockton CoGen Company	1.34	45	1	FF	SNCR & Dry Scrubber		40%	8.00	8.00	2.0177	0.0202		40%
Port of Stockton District Energy Facility	1.23	11	1		SNCR		0%	3.60	3.60	4.1228	0.0412		0%
TOTAL	15.45							121.00	60.60				
* California not covered by CAIR													
* Some of California units may be FBC that have been misclassified in IPM In IPM FBC Hg emf may not reflect 1999 Hg ICR - unit should achieve high Hg removal													

Colorado

How the federal mercury rule would look in Colorado:

- 2020 projected emissions are 12% lower than allocated budget of 558 pounds
- 2020 estimated emissions will be a 41% reduction from 2002 estimated emissions
- State will be a net seller of mercury allowances.

Plant *	2002 Hg Plant-Level Emissions (lbs)	Total Plant Capacity (MW)	No. of Units	Current PM Controls	Current NOx & SO2 Controls	CAIR Installations Planned by 2015 (Projected Installations by 2020)	Hg control after CAIR	Plant 2020 Hg (lbs) under CAIR	Plant 2020 Hg (lbs) under CAMR	Plant CAMR 2020 Hg (lb/TBtu)	Plant CAMR 2020 Hg (lb/GWh)	Additional CAMR Installations/ Modifications Projected (by 2020)	Hg control after CAMR
ARAPAHOE	61.31	156	2	FF			89%	5.80	5.80	0.4479	0.0045		89%
				FF			89%						89%
CAMEO	1.56	49	1	FF			89%	1.91	1.91	0.4314	0.0043		89%
CHEROKEE	131.14	717	4	FF			89%	25.40	25.40	0.4158	0.0042		89%
				FF			89%						89%
				FF	Dry Scrubber		96%						96%
				FF			89%						89%
COMANCHE	86.01	660	2	FF			73%	82.60	82.60	1.5930	0.0159		73%
				FF			73%						73%
CRAIG	181.90	1264	3	HS-ESP	Wet Scrubber		42%	192.60	192.60	2.0489	0.0205		42%
				HS-ESP	Wet Scrubber		42%						42%
				FF	Dry Scrubber		95%						95%
HAYDEN	144.45	446	2	FF	Dry Scrubber		95%	8.60	8.60	0.2501	0.0025		95%
				FF	Dry Scrubber		95%						95%
MARTIN DRAKE	9.81	259	3	FF			89%	9.09	9.09	0.4533	0.0045		89%
				FF			89%						89%
				FF			89%						89%
NUCLA**	21.47	100	1	FF	Dry Scrubber - FBC		95%	2.20	2.20	0.2522	0.0025		95%
PAWNEE	80.77	505	1	FF			73%	62.80	62.80	1.5898	0.0159		73%
RAWHIDE	59.02	262	1	FF	Dry Scrubber		25%	91.60	91.60	4.5060	0.0451		25%
RAY D NIXON	13.70	208	1	FF			89%	7.20	7.20	0.4482	0.0045		89%
VALMONT	44.10	186	1	FF	Dry Scrubber		95%	3.60	3.60	0.2425	0.0024		95%
TOTAL	835.25							493.40	493.40				

* Colorado not covered by CAIR

** In IPM FBC Hg emf may not reflect 1999 Hg ICR - unit should achieve high Hg removal

Connecticut

How the federal mercury rule would look in Connecticut:

- 2020 projected emissions are 71% higher than allocated budget of 42 pounds
- 2020 estimated emissions will be a 59% reduction from 2002 estimated emissions
- State will be a net buyer of mercury allowances or user of banked allowances from excess emission reductions made in first phase of CAMR.

Connecticut has enacted a state specific rule¹ that will alter mercury emissions from the projected mercury emissions under CAMR.

Plant *	2002 Hg Plant-Level Emissions (lbs)	Total Plant Capacity (MW)	No. of Units	Current PM Controls	Current NOx & SO2 Controls	CAIR Installations Planned by 2015*** (Projected Installations by 2020)	Hg control after CAIR	Plant 2020 Hg (lbs) under CAIR	Plant 2020 Hg (lbs) under CAMR	Plant CAMR 2020 Hg (lb/Tbtu)	Plant CAMR 2020 Hg (lb/GWh)	Additional CAMR Installations/ Modifications Projected (by 2020)	Hg control after CAMR
AES Thames Incorporated	79.64	#REF!	1		Dry Scrubber - FBC**	ACI	90%	28.40	28.40	1.8346	0.0183		90%
BRIDGEPORT HARBOR	94.16	#REF!	1	CS-ESP		Wet Scrubber & ACI	90%	43.40	43.40	1.5404	0.0154		90%
TOTAL	173.80							71.80	71.80				

* Connecticut covered by the ozone portion of CAIR only.

** In IPM FBC Hg emf may not reflect 1999 Hg ICR - most FBC unit should achieve high Hg removal

*** Installations due State Requirements, not CAIR

¹ CT Public Act 03-72. Available at: <http://www.cqa.ct.gov/2003/act/Pa/2003PA-00072-R00HB-06048-PA.htm>

Delaware

How the federal mercury rule would look in Delaware:

- 2020 projected emissions are 356% higher than allocated budget of 56 pounds
- 2020 estimated emissions will be a 9% increase from 2002 estimated emissions
- State will be a net buyer of mercury allowances.

Plant	2002 Hg Plant-Level Emissions (lbs)	Total Plant Capacity (MW)	No. of Units	Current PM Controls	Current NOx & SO2 Controls	CAIR Installations Planned by 2015 (Projected Installations by 2020)	Hg control after CAIR	Plant 2020 Hg (lbs) under CAIR	Plant 2020 Hg (lbs) under CAMR	Plant CAMR 2020 Hg (lb/TBtu)	Plant CAMR 2020 Hg (lb/GWh)	Additional CAMR Installations/ Modifications Projected (by 2020)	Hg control after CAMR
EDGE MOOR	96.41	251	2	CS-ESP	SNCR	none	36%	61.40	61.40	3.3137	0.0331		36%
				CS-ESP	SNCR	none	36%						36%
INDIAN RIVER	139.59	743	4	CS-ESP		none	36%	206.80	194.80	3.3060	0.0331	Fuel use higher under CAIR	36%
				CS-ESP		none	36%						36%
				CS-ESP	SNCR	none	36%						36%
				CS-ESP	SNCR	none	36%						36%
TOTAL	236.00							268.20	256.20				

Florida

How the federal mercury rule would look in Florida:

- 2020 projected emissions are 11% lower than allocated budget of 974 pounds
- 2020 estimated emissions will be a 53% reduction from 2002 estimated emissions
- State will be a net seller of mercury allowances.

Plant	2002 Hg Plant-Level Emissions (lbs)	Total Plant Capacity (MW)	No. of Units	Current PM Controls	Current NOx & SO2 Controls	CAIR Installations Planned by 2015 (Projected Installations by 2020)	Hg control after CAIR	Plant 2020 Hg (lbs) under CAIR	Plant 2020 Hg (lbs) under CAMR	Plant CAMR 2020 Hg (lb/TBtu)	Plant CAMR 2020 Hg (lb/GWh)	Additional CAMR Installations/Modifications Projected (by 2020)	Hg control after CAMR
BIG BEND	154.86	1,711	4	CS-ESP	Wet Scrubber	SCR	90%	101.40	101.40	0.8125	0.0081		90%
				CS-ESP	Wet Scrubber	SCR	90%						90%
				CS-ESP	Wet Scrubber	SCR	90%						90%
				CS-ESP	Wet Scrubber	SCR	90%						90%
C D MCINTOSH JR	41.95	333	1	CS-ESP	Wet Scrubber	SCR	90%	20.26	20.26	0.8042	0.0080		90%
Cedar Bay Generating Company L P *	13.50	248	1		SNCR & Dry Scrubber - FBC		55%	71.20	15.80	0.8025	0.0080	ACI installed under CAMR	90%
Central Power and Lime Incorporated	1.02	111	1		Dry Scrubber		40%	26.80	4.40	0.4993	0.0050	ACI installed under CAMR	90%
CRIST	183.33	927	4	CS-ESP			36%	109.68	116.73	1.6584	0.0166	Fuel use lower under CAIR	36%
				CS-ESP			36%						36%
				CS-ESP	SNCR		36%						36%
				CS-ESP	SCR	Wet Scrubber	90%						90%
CRYSTAL RIVER	588.59	2,198	4	CS-ESP		(Wet Scrubber)	66%	235.60	229.40	1.4793	0.0148	No scrubber on units 1-2 under CAMR	36%
				CS-ESP		(Wet Scrubber)	66%						36%
				CS-ESP		SCR & Wet Scrubber	90%						90%
				CS-ESP		SCR & Wet Scrubber	90%						90%
DEERHAVEN	91.70	218	1	HS-ESP		(Wet Scrubber)	42%	70.00	12.20	0.6891	0.0069	SCR installed under CAMR	90%
Indiantown Cogeneration Facility	1.57	294	1		SCR & Dry Scrubber		40%	112.60	71.00	3.0421	0.0304	Hg coal content higher under CAIR	40%
Polk	NA	250	1	IGCC			95%	11.00	11.00	0.4052	0.0041		95%
SCHOLZ	14.28	98	2	CS-ESP			36%	20.72	23.67	2.6153	0.0262	Fuel use lower under CAIR	36%
				CS-ESP			36%						36%
SEMINOLE	117.53	1,250	2	CS-ESP	Wet Scrubber	SCR	90%	70.07	70.07	0.8042	0.0080		90%
				CS-ESP	Wet Scrubber	SCR	90%						90%

Florida, 2

Plant	2002 Hg Plant-Level Emissions (lbs)	Total Plant Capacity (MW)	No. of Units	Current PM Controls	Current NOx & SO2 Controls	CAIR Installations Planned by 2015 (Projected Installations by 2020)	Hg control after CAIR	2020 Hg (lbs) under CAIR	2020 Hg (lbs) under CAMR	Plant CAMR 2020 Hg (lb/TBtu)	Plant CAMR 2020 Hg (lb/GWh)	Additional CAMR Installations/ Modifications Projected (by 2020)	Hg control after CAMR
SMITH	113.89	351	2	CS-ESP CS-ESP			36% 36%	65.40	69.40	2.6254	0.0263	Hg coal content lower under CAIR	36% 36%
ST JOHNS RIVER POWER	128.34	1,248	2	CS-ESP CS-ESP	Wet Scrubber Wet Scrubber	SCR SCR	90% 90%	70.15	70.15	0.8042	0.0080		90% 90%
STANTON ENERGY	121.95	882	2	CS-ESP CS-ESP	Wet Scrubber SCR & Wet Scrubber	SCR	90% 90%	55.71	55.71	0.8051	0.0081		90% 90%
Tampa Electric Plant	284.42	not found in IPM parsed file											
TOTAL	1856.93							1040.60	871.20				

* FBC unit, Hg emf in IPM incorrect - should have over 90% control

Georgia

How the federal mercury rule would look in Georgia:

- 2020 projected emissions are 129% higher than allocated budget of 968 pounds
- 2020 estimated emissions will be a 28% reduction from 2002 estimated emissions
- State will be a net buyer of mercury allowances.

Plant*	2002 Hg Plant-Level Emissions (lbs)	Total Plant Capacity (MW)	No. of Units	Current PM Controls	Current NOx & SO2 Controls	CAIR Installations Planned by 2015 (Projected Installations by 2020)	Hg control after CAIR	Plant 2020 Hg (lbs) under CAIR	Plant 2020 Hg (lbs) under CAMR	Plant CAMR 2020 Hg (lb/TBtu)	Plant CAMR 2020 Hg (lb/GWh)	Additional CAMR Installations/ Modifications Projected (by 2020)	Hg control after CAMR
BOWEN	766.74	3194	4	CS-ESP	SCR	Wet scrubber	90%	423.63	282.10	1.1090	0.0111	Hg coal content higher under CAIR	90%
				CS-ESP	SCR	Wet scrubber	90%						90%
				CS-ESP	SCR	Wet scrubber	90%						90%
				CS-ESP	SCR	Wet scrubber	90%						90%
HAMMOND	88.72	832	4	CS-ESP		SCR & Wet Scrubber	90%	142.21	57.44	0.8767	0.0088	Hg coal content higher under CAIR	90%
				CS-ESP		SCR & Wet Scrubber	90%						90%
				CS-ESP		SCR & Wet Scrubber	90%						90%
				CS-ESP	SCR	Wet scrubber	90%						90%
HARLLEE BRANCH	371.67	1590	4	CS-ESP		SCR & Wet Scrubber	90%	59.84	60.43	0.5174	0.0052	Hg coal content lower under CAIR	90%
				CS-ESP		SCR & Wet Scrubber	90%						90%
				CS-ESP		SCR & Wet Scrubber	90%						90%
				CS-ESP		SCR & Wet Scrubber	90%						90%
JACK MCDONOUGH	70.91	512	2	CS-ESP		SCR & Wet Scrubber	90%	19.21	19.40	0.5174	0.0052		90%
				CS-ESP		SCR & Wet Scrubber	90%					90%	
KRAFT	33.40	202	3	CS-ESP			36%	16.07	16.07	3.3131	0.0331		36%
				CS-ESP			36%					36%	
				CS-ESP			66%					66%	
MCINTOSH	47.66	155	1	CS-ESP			36%	12.00	12.00	3.3066	0.0331		36%
MITCHELL	35.58	153	3	CS-ESP			36%	11.59	11.59	3.3128	0.0331		36%
SCHERER	1124.23	3430	4	CS-ESP			3%	1472.40	1472.40	5.7135	0.0571		3%
				CS-ESP			3%					3%	
				CS-ESP			3%					3%	
				CS-ESP			3%					3%	

Georgia, 2

Plant	2002 Hg Plant-Level Emissions (lbs)	Total Plant Capacity (MW)	No. of Units	Current PM Controls	Current NOx & SO2 Controls	CAIR Installations Planned by 2015 (Projected Installations by 2020)	Hg control after CAIR	2020 Hg (lbs) under CAIR	2020 Hg (lbs) under CAMR	Plant CAMR 2020 Hg (lb/TBtu)	Plant CAMR 2020 Hg (lb/GWh)	Additional CAMR Installations/ Modifications Projected (by 2020)	Hg control after CAMR
WANSLEY	362.52	1746	2	CS-ESP CS-ESP	SCR SCR	Wet scrubber Wet scrubber	90% 90%	170.15	154.18	1.1089	0.0111	Hg coal content higher under CAIR	90% 90%
YATES	177.04	1292	7	CS-ESP CS-ESP CS-ESP CS-ESP CS-ESP CS-ESP CS-ESP	Wet Scrubber	SNCR SCR & Wet Scrubber SCR & Wet Scrubber (Wet Scrubber) (Wet Scrubber)	36% 36% 36% 90% 90% 66% 66%	135.90	134.00	1.5289	0.0153	Hg coal content higher under CAIR	36% 36% 36% 90% 90% 90% 90%
Arkwright	7.48	not found in IPM parsed file											
TOTAL	3085.95							2463.00	2219.60				

* Note Georgia is covered only by the PM portion of the CAIR

Illinois

How the federal mercury rule would look in Illinois:

- 2020 projected emissions are 115% higher than allocated budget of 1,258 pounds
- 2020 estimated emissions will be a 64% reduction from 2002 estimated emissions
- State will be a net buyer of mercury allowances or user of banked allowances from excess emission reductions made in first phase of CAMR.

Plant	2002 Hg Plant-Level Emissions (lbs)	Total Plant Capacity (MW)	No. of Units	Current PM Controls	Current NOx & SO2 Controls	CAIR Installations Planned by 2015 (Projected Installations by 2020)	Hg control after CAIR	2020 Hg (lbs) under CAIR	2020 Hg (lbs) under CAMR	Plant CAMR 2020 Hg (lb/TBtu)	Plant CAMR 2020 Hg (lb/GWh)	Additional CAMR Installations/ Modifications Projected (by 2020)	Hg control after CAMR	
BALDWIN	673.89	1,751	3	CS-ESP	SCR		36%	363.84	363.84	2.6236	0.0262		36%	
				CS-ESP	SCR		36%							
				CS-ESP			36%							
COFFEEN	195.94	881	2	CS-ESP	SCR	Scrubber	90%	51.00	47.80	0.6822	0.0068	Hg coal content higher under CAIR	90%	
				CS-ESP	SCR	Scrubber	90%							
CRAWFORD	316.37	532	2	CS-ESP			3%	236.20	108.60	2.6274	0.0263	Switch to Bit coal under CAMR	36%	
				CS-ESP			3%							
DALLMAN	25.43	364	3	HS-ESP	SCR & Wet Scrubber		90%	25.20	25.20	0.8072	0.0081		90%	
				CS-ESP	SCR & Wet Scrubber		90%							
				CS-ESP	SCR & Wet Scrubber		90%							
DUCK CREEK	34.09	366	1	CS-ESP	Wet Scrubber	SCR	90%	18.80	22.20	0.8083	0.0081	Hg coal content lower under CAIR	90%	
E D EDWARDS	146.20	724	3	CS-ESP		SCR & Wet Scrubber	90%	41.60	41.60	0.6845	0.0068		90%	
				CS-ESP		SCR & Wet Scrubber	90%							
				CS-ESP	SCR	Wet Scrubber	90%							
FISK	174.46	316	1	CS-ESP			3%	134.96	62.03	2.6261	0.0263	Switch to Bit coal under CAMR	36%	
HAVANA	74.47	419	1	HS-ESP	SCR	(Wet Scrubber)	90%	26.80	26.80	0.8030	0.0080		90%	
HENNEPIN	124.96	284	2	CS-ESP		Early Retirement	NA	41.24	41.24	2.3231	0.0232		NA	
				CS-ESP		Wet Scrubber	66%							
HUTSONVILLE	33.50	153	2	CS-ESP		Early Retirement	NA	0.00	0.00				NA	
				CS-ESP		Early Retirement	NA							
JOLIET 29	847.01	1,017	4	CS-ESP			3%	441.20	332.40	4.4116	0.0441	Fuel use higher under CAIR	3%	
				CS-ESP			3%						Hg coal content higher under CAIR	3%
				CS-ESP			3%							
				CS-ESP			3%							

Illinois, 2

Plant	2002 Hg Plant-Level Emissions (lbs)	Total Plant Capacity (MW)	No. of Units	Current PM Controls	Current NOx & SO2 Controls	CAIR Installations Planned by 2015 (Projected Installations by 2020)	Hg control after CAIR	2020 Hg (lbs) under CAIR	2020 Hg (lbs) under CAMR	Plant CAMR 2020 Hg (lb/TBtu)	Plant CAMR 2020 Hg (lb/GWh)	Additional CAMR Installations/ Modifications Projected (by 2020)	Hg control after CAMR
JOLIET 9	209.70	292	1	CS-ESP			3%	113.00	113.00	5.7079	0.0571		3%
JOPPA STEAM	578.73	1,014	6	CS-ESP			36%	204.80	204.80	2.6230	0.0262		36%
				CS-ESP			36%					36%	
				CS-ESP			36%					36%	
				CS-ESP			36%					36%	
				CS-ESP			36%					36%	
				CS-ESP			36%					36%	
KINCAID	697.09	1,108	2	CS-ESP	SCR		36%	217.56	217.56	2.6235	0.0262		36%
				CS-ESP	SCR		36%					36%	
LAKESIDE	10.38	80	2	HS-ESP		Early Retirement	NA	0.00	0.00				NA
				HS-ESP		Early Retirement	NA					NA	
MANO_IL_Coal Steam	N/A	500	1	CS-ESP	SCR & Wet Scrubber		90%	26.00	26.00	0.8037	0.0080		90%
MARION	68.01	272	4	HS-ESP		Early Retirement	NA	12.60	12.60	0.7958	0.0080		NA
				HS-ESP		Early Retirement	NA					NA	
				HS-ESP		Early Retirement	NA					NA	
				HS-ESP	SCR & Wet Scrubber		90%					90%	
MEREDOSIA	65.89	334	5	CS-ESP		Early Retirement	NA	11.80	11.80	0.6879	0.0069		NA
				CS-ESP		Early Retirement	NA					NA	
				CS-ESP		Early Retirement	NA					NA	
				CS-ESP		Early Retirement	NA					NA	
				CS-ESP	SCR & Wet Scrubber		90%					90%	
NEWTON	335.22	1,098	2	CS-ESP		Wet Scrubber	66%	216.56	216.56	2.4706	0.0247		66%
				CS-ESP			36%					36%	
POWERTON	1242.60	1,400	4	CS-ESP		SCR	36%	286.60	286.60	2.6240	0.0262		36%
				CS-ESP		SCR	36%					36%	
				CS-ESP		SCR	36%					36%	
				CS-ESP		SCR	36%					36%	
VERMILION	33.11	176	2	CS-ESP		Early Retirement	NA	0.00	0.00				NA
				CS-ESP		Early Retirement	NA					NA	
WAUKEGAN	631.77	725	3	CS-ESP		SCR	3%	317.62	189.90	3.3682	0.0337	Units 7 & 8 switch to Bit coal under CAMR	3%
				HS-ESP			6%						10%
				CS-ESP			3%						36%

Illinois, 3

Plant	2002 Hg Plant-Level Emissions (lbs)	Total Plant Capacity (MW)	No. of Units	Current PM Controls	Current NOx & SO2 Controls	CAIR Installations Planned by 2015 (Projected Installations by 2020)	Hg control after CAIR	2020 Hg (lbs) under CAIR	2020 Hg (lbs) under CAMR	Plant CAMR 2020 Hg (lb/TBtu)	Plant CAMR 2020 Hg (lb/GWh)	Additional CAMR Installations/ Modifications Projected (by 2020)	Hg control after CAMR
WILL COUNTY	794.14	1,060	4	CS-ESP		SCR	36%	397.82	253.06	3.0162	0.0302	Unit 4 switch to Bit coal under CAMR	36%
				CS-ESP		SCR	36%						36%
				HS-ESP			6%						6%
				CS-ESP			3%						36%
WOOD RIVER	126.25	468	2	HS-ESP			10%	103.00	98.00	2.7297	0.0273	Hg coal content higher under CAIR	10%
				CS-ESP			36%						36%
TOTAL	7439.22							3288.20	2701.60				

Indiana

How the federal mercury rule would look in Indiana:

- 2020 projected emissions are 29% higher than allocated budget of 1,656 pounds
- 2020 estimated emissions will be a 61% reduction from 2002 estimated emissions
- State will be a net buyer of mercury allowances or user of banked allowances from excess emission reductions made in first phase of CAMR.

Plant	2002 Hg Plant-Level Emissions (lbs)	Total Plant Capacity (MW)	No. of Units	Current PM Controls	Current NOx & SO2 Controls	CAIR Installations Planned by 2015 (Projected Installations by 2020)	Hg control after CAIR	Plant 2020 Hg (lbs) under CAIR	Plant 2020 Hg (lbs) under CAMR	Plant CAMR 2020 Hg (lb/TBtu)	Plant CAMR 2020 Hg (lb/GWh)	Additional CAMR Installations/Modifications Projected (by 2020)	Hg control after CAMR	
A B BROWN	61	500	2	CS-ESP	Wet Scrubber		66%	31.20	31.20	0.8001	0.0080		66%	
				CS-ESP	SCR & Wet Scrubber		90%							90%
BAILLY	201	480	2	CS-ESP	Wet Scrubber	SCR	90%	31.60	31.60	0.8031	0.0080		90%	
				CS-ESP	Wet Scrubber	SCR	90%							90%
CAYUGA	214	969	2	CS-ESP		SCR & Wet Scrubber	90%	58.89	58.89	0.8035	0.0080		90%	
				CS-ESP		SCR & Wet Scrubber	90%							90%
CLIFTY CREEK	480	1,225	6	CS-ESP	SCR	Wet scrubber	90%	118.20	71.00	0.6836	0.0068	Wet scrubber added to unit 6 under CAMR	90%	
				CS-ESP	SCR	Wet scrubber	90%							90%
				CS-ESP	SCR	Wet scrubber	90%							90%
				CS-ESP	SCR	Wet scrubber	90%							90%
				CS-ESP	SCR	Wet scrubber	90%							90%
				HS-ESP	SCR	SCR	10%							90%
DEAN H MITCHELL	NA	485	4	CS-ESP			3%	201.60	139.60	4.4120	0.0441	Fuel use higher under CAIR Hg content of coal higher under CAIR	3%	
				CS-ESP			3%							3%
				CS-ESP			3%							3%
				CS-ESP			3%							3%
EDWARDSPORT	20	120	3	CS-ESP		Early Retirement	NA	0.00	0.00				NA	
				CS-ESP		Early Retirement	NA						NA	
				CS-ESP		Early Retirement	NA						NA	
ELMER W STOUT	173	634	3	CS-ESP			36%	58.21	62.11	1.3358	0.0134	Fuel use lower under CAIR	36%	
				CS-ESP			36%							36%
				CS-ESP		SCR (Wet Scrubber)	90%							90%

Indiana, 2

Plant	2002 Hg Plant-Level Emissions (lbs)	Total Plant Capacity (MW)	No. of Units	Current PM Controls	Current NOx & SO2 Controls	CAIR Installations Planned by 2015 (Projected Installations by 2020)	Hg control after CAIR	2020 Hg (lbs) under CAIR	2020 Hg (lbs) under CAMR	Plant CAMR 2020 Hg (lb/TBtu)	Plant CAMR 2020 Hg (lb/GWh)	Additional CAMR Installations/ Modifications Projected (by 2020)	Hg control after CAMR
F B CULLEY	60	340	2	CS-ESP CS-ESP/FF	Wet Scrubber SCR & Wet Scrubber	SNCR	66% 90%	38.20	38.20	1.3795	0.0138		66% 90%
FRANK E RATTS	68	243	2	CS-ESP CS-ESP		SCR (Wet Scrubber) SCR (Wet Scrubber)	90% 90%	12.44	12.38	0.6796	0.0068	Hg content of coal higher under CAIR	90% 90%
GIBSON	606	3,091	5	CS-ESP CS-ESP CS-ESP CS-ESP CS-ESP	SCR SCR SCR SCR & Wet Scrubber SCR & Wet Scrubber	Wet scrubber Wet scrubber Wet scrubber	90% 90% 90% 90% 90%	187.20	187.00	0.7658	0.0077	Hg content of coal higher under CAIR	90% 90% 90% 90% 90%
H T PRITCHARD	66	260	4	CS-ESP HS-ESP CS-ESP CS-ESP			36% 10% 36% 36%	49.40	49.20	2.7351	0.0274	Fuel use lower under CAIR Hg content of coal higher under CAIR	36% 10% 36% 36%
MEROM	112	1,000	2	CS_ESP CS-ESP	Wet Scrubber Wet Scrubber	SCR SCR	90% 90%	62.40	62.40	0.8025	0.0080		90% 90%
MICHIGAN CITY	180	469	1	CS-ESP	SCR		3%	212.80	97.60	2.6210	0.0262	Switch to bituminous coal under CAMR	36%
PETERSBURG	248	1,664	4	CS-ESP CS-ESP CS-ESP CS-ESP	Wet Scrubber Wet Scrubber Wet Scrubber Wet Scrubber	SCR	66% 90% 66% 66%	290.60	103.60	0.8029	0.0080	SCR installed on all units under CAMR	90% 90% 90% 90%
R GALLAGHER	141	560	4	CS-ESP CS-ESP CS-ESP CS-ESP		SCR SCR SCR SCR	36% 36% 36% 36%	112.00	110.40	2.6244	0.0262	No SCR installed under CAMR Fuel use higher under CAIR	36% 36% 36% 36%
R M SCHAFFER	584	1,625	4	CS-ESP CS-ESP CS-ESP CS-ESP		SCR	3% 3% 66% 66%	609.40	252.80	1.8354	0.0184	SCR installed on three units under CAMR All units use bituminous coal under CAMR	36% 36% 90% 90%
ROCKPORT	1,413	2,600	2	CS-ESP CS-ESP		SCR SCR	36% 36%	497.60	497.60	2.6240	0.0262		36% 36%
STATE LINE	159	490	2	FF CS-ESP			73% 3%	146.40	113.20	3.1293	0.0313	Hg content of coal higher under CAIR	73% 3%

Indiana, 3

Plant	2002 Hg Plant-Level Emissions (lbs)	Total Plant Capacity (MW)	No. of Units	Current PM Controls	Current NOx & SO2 Controls	CAIR Installations Planned by 2015 (Projected Installations by 2020)	Hg control after CAIR	2020 Hg (lbs) under CAIR	2020 Hg (lbs) under CAMR	Plant CAMR 2020 Hg (lb/TBtu)	Plant CAMR 2020 Hg (lb/GWh)	Additional CAMR Installations/ Modifications Projected (by 2020)	Hg control after CAMR
TANNERS CREEK	310	970	4	CS-ESP		SCR	36%	124.80	124.80	1.7042	0.0170		36%
				CS-ESP		SCR	36%					36%	
				CS-ESP		SCR	36%					36%	
				CS-ESP		SCR & Wet Scrubber	90%					90%	
WABASH RIVER	197	923	6	CS-ESP/Cyclone		SNCR	36%	86.91	90.31	1.2838	0.0128	No SNCR installed under CAMR	36%
				CS-ESP/Cyclone		SNCR	36%					Fuel use lower under CAIR	36%
				CS-ESP/Cyclone		SNCR	36%					36%	
				CS-ESP/Cyclone		SNCR	36%					36%	
				CS-ESP		SCR & Wet Scrubber	90%					90%	
IGCC			95%	95%									
WARRICK	133	135	1	CS-ESP		SCR (Wet Scrubber)	90%	7.15	7.11	0.6796	0.0068	Hg content of coal higher under CAIR	90%
WHITEWATER VALLEY	39	98	2	CS-ESP		Early Retirement	NA	0.00	0.00				NA
				HS-ESP		unit idle	NA						NA
Noblesville	9												
TOTAL	5,475							2,937	2,141				

Iowa

How the federal mercury rule would look in Iowa:

- 2020 projected emissions are 86% higher than allocated budget of 574 pounds
- 2020 estimated emissions will be a 53% reduction from 2002 estimated emissions
- State will be a net buyer of mercury allowances.

Plant	2002 Hg Plant-Level Emissions (lbs)	Total Plant Capacity (MW)	No. of Units	Current PM Controls	Current NOx & SO2 Controls	CAIR Installations Planned by 2015 (Projected Installations by 2020)	Hg control after CAIR	Plant 2020 Hg (lbs) under CAIR	Plant 2020 Hg (lbs) under CAMR	Plant CAMR 2020 Hg (lb/TBtu)	Plant CAMR 2020 Hg (lb/GWh)	Additional CAMR Installations/ Modifications Projected (by 2020)	Hg control after CAMR
AMES	21.14	95	2	CS-ESP HS-ESP			3% 6%	39.60	39.60	5.5980	0.0560		3% 6%
BURLINGTON	58.46	211	1	CS-ESP			36%	40.00	43.00	2.6195	0.0262	Fuel use lower under CAIR	36%
COUNCIL BLUFFS	351.67	768	3	HS-ESP HS-ESP CS-ESP			6% 6% 3%	317.80	88.20	1.4832	0.0148	ACI installed on unit 3 under CAMR	6% 6% 90%
DUBUQUE	19.27	65	2	HS-ESP HS-ESP			10% 10%	20.62	17.19	3.0750	0.0307	Hg coal content higher under CAIR	10% 10%
EARL F WISDOM	1.58	39.0004	1	CS-ESP		Early Retirement	NA	0.00	0.00				NA
FAIR STATION	11.66	41.0004	1	HS-ESP		Early Retirement	NA	0.00	0.00				NA
GEORGE NEAL NORTH	407.22	806.0081	3	HS-ESP CS-ESP CS-ESP		SCR SCR SCR	6% 3% 3%	355.80	167.20	2.6986	0.0270	No SCR on unit 2-3 under CAMR Switch to Bit coal under CAMR	10% 36% 36%
GEORGE NEAL SOUTH	301.17	624	1	CS-ESP			3%	258.00	26.60	0.5893	0.0059	ACI installed under CAMR	90%
LANSING	104.10	294.0003	2	CS-ESP HS-ESP		Early Retirement	NA 10%	75.34	62.63	3.0685	0.0307	Hg coal content higher under CAIR	NA 10%
LOUISA	337.70	644	1	HS-ESP			6%	277.00	257.00	5.5362	0.0554	Hg coal content higher under CAIR	6%
MILTON L KAPP	70.06	217	1	CS-ESP			36%	44.28	47.71	2.6297	0.0263	Fuel use lower under CAIR	36%
MUSCATINE	164.59	263.0003	3	CS-ESP CS-ESP CS-ESP		Early Retirement	NA 36% 16%	83.00	38.80	1.9910	0.0199	Unit 3 switch to bit coal under CAMR	NA 36% 66%
OTTUMWA	260.27	714	1	HS-ESP	Wet Scrubber		10%	202.06	167.97	3.0685	0.0307	Hg coal content higher under CAIR	10%

Iowa, 2

Plant	2002 Hg Plant-Level Emissions (lbs)	Total Plant Capacity (MW)	No. of Units	Current PM Controls	Current NOx & SO2 Controls	CAIR Installations Planned by 2015 (Projected Installations by 2020)	Hg control after CAIR	2020 Hg (lbs) under CAIR	2020 Hg (lbs) under CAMR	Plant CAMR 2020 Hg (lb/TBtu)	Plant CAMR 2020 Hg (lb/GWh)	Additional CAMR Installations/ Modifications Projected (by 2020)	Hg control after CAMR
PRAIRIE CREEK	57.79	191	2	HS-ESP		(SCR)	10%	58.38	45.21	3.0819	0.0308	Fuel use higher under CAIR	10%
				HS-ESP			10%					No SCR onunit 2 under CAMR	10%
RIVERSIDE	46.39	130	1	CS-ESP			36%	25.32	27.29	2.6297	0.0263	Fuel use lower under CAIR	36%
STREETER STATION	3.16	37	1	HS-ESP			10%	10.00	8.20	3.0607	0.0306	Hg coal content higher under CAIR	10%
SUTHERLAND	70.93	142.0008	3	CS-ESP		SNCR	36%	31.20	31.20	2.6288	0.0263		36%
				CS-ESP			36%						36%
				CS-ESP			36%						36%
TOTAL	2287.15							1838.40	1067.80				

Kansas

How the federal mercury rule would look in Kansas:

- 2020 projected emissions are 208% higher than allocated budget of 570 pounds
- 2020 estimated emissions will be a 16% reduction from 2002 estimated emissions
- State will be a net buyer of mercury allowances.

Plant *	2002 Hg Plant-Level Emissions (lbs)	Total Plant Capacity (MW)	No. of Units	Current PM Controls	Current NOx & SO2 Controls	CAIR Installations Planned by 2015 (Projected Installations by 2020)	Hg control after CAIR	Plant 2020 Hg (lbs) under CAIR	Plant 2020 Hg (lbs) under CAMR	Plant CAMR 2020 Hg (lb/TBtu)	Plant CAMR 2020 Hg (lb/GWh)	Additional CAMR Installations/ Modifications Projected (by 2020)	Hg control after CAMR
HOLCOMB	88.54	331	1	FF	Dry Scrubber		25%	114.20	114.20	4.5107	0.0451		25%
Jeffrey Energy Center	1082.61	2136	3	CS-ESP	Wet Scrubber		16%	889.60	889.60	5.0479	0.0505		16%
				CS-ESP	Wet Scrubber		16%					16%	
				CS-ESP	Wet Scrubber		16%					16%	
KAW	NA	92	2	FF			89%	3.60	3.60	0.4529	0.0045		89%
				FF			89%					89%	
LA CYGNE	434.70	1350	2		Wet Scrubber		30%	515.60	356.20	3.1567	0.0316	Unit 2 switch to bit coal under CAMR	30%
				CS-ESP		3%	36%						
LAWRENCE	270.71	539	3	CS-ESP			3%	189.53	174.02	3.9524	0.0395	Unit 1 switch to bit coal under CAMR	36%
					Wet Scrubber		30%					30%	
					Wet Scrubber		30%					30%	
NEARMAN CREEK	65.97	235	1	CS-ESP			3%	103.00	103.00	5.7214	0.0572		3%
QUINDARO	43.84	208	2	CS-ESP			3%	99.54	45.76	2.6246	0.0262	Switch to bit coal under CAMR	36%
				CS-ESP			3%					36%	
RIVERTON	18.13	92	2	CS-ESP			3%	44.40	20.43	2.6293	0.0263	Switch to bit coal under CAMR	36%
				CS-ESP			3%					36%	
TECUMSEH	97.70	236	2	CS-ESP			3%	109.93	50.58	2.6278	0.0263	Switch to bit coal under CAMR	36%
				CS-ESP			3%					36%	
TOTAL	2102.20							2069.40	1757.40				

* Kansas was not covered by CAIR

Kentucky

How the federal mercury rule would look in Kentucky:

- 2020 projected emissions are 19% lower than allocated budget of 1,204 pounds
- 2020 estimated emissions will be a 72% reduction from 2002 estimated emissions
- State will be a net seller of mercury allowances.

Plant	2002 Hg Plant-Level Emissions (lbs)	Total Plant Capacity (MW)	No. of Units	Current PM Controls	Current NOx & SO2 Controls	CAIR Installations Planned by 2015 (Projected Installations by 2020)	Hg control after CAIR	Plant 2020 Hg (lbs) under CAIR	Plant 2020 Hg (lbs) under CAMR	Plant CAMR 2020 Hg (lb/TBtu)	Plant CAMR 2020 Hg (lb/GWh)	Additional CAMR Installations/ Modifications Projected (by 2020)	Hg control after CAMR
BIG SANDY	417.02	1,038	2	CS-ESP	SCR	SCR & Wet Scrubber	90%	217.00	80.20	0.9726	0.0097	Hg coal content higher under CAIR	90%
				CS-ESP		SCR	90%						90%
CANE RUN	49.47	563	3	CS-ESP	Wet Scrubber	SCR	90%	28.40	28.40	0.6107	0.0061		90%
				CS-ESP	Wet Scrubber	SCR	90%						90%
				CS-ESP	Wet Scrubber	SCR	90%						90%
COLEMAN	347.32	449	3	CS-ESP	SCR	SCR & Wet Scrubber	90%	22.94	22.94	0.6837	0.0068		90%
				CS-ESP		SCR & Wet Scrubber	90%						90%
				CS-ESP		SCR & Wet Scrubber	90%						90%
COOPER	154.95	341	2	CS-ESP	SCR	SCR	36%	35.80	33.00	1.3109	0.0131	No SCR unit 1 under CAMR Fuel use higher under CAIR	36%
				CS-ESP		(Wet Scrubber)	90%						90%
D B WILSON	23.14	416	1	CS-ESP	SCR & Wet Scrubber		90%	21.70	23.36	0.7199	0.0072	Hg coal content lower under CAIR	90%
DALE	38.87	141	2	CS-ESP	SCR		36%	29.68	29.68	3.3076	0.0331		36%
				CS-ESP			36%						36%
E W BROWN	215.84	655	3	CS-ESP	SCR	SCR	36%	49.26	47.26	0.9641	0.0096	No SCR unit 1 under CAMR Fuel use higher under CAIR	36%
				CS-ESP		SCR & Wet Scrubber	90%						90%
				CS-ESP		SCR & Wet Scrubber	90%						90%
EAST BEND	168.16	600	1	HS-ESP	SCR & Wet Scrubber		90%	37.60	37.60	0.8037	0.0080		90%
ELMER SMITH	66.79	390	2	CS-ESP	SCR & Wet Scrubber		90%	60.39	24.12	0.8022	0.0080	SCR on unit 2 under CAMR	90%
				CS-ESP	Wet Scrubber	66%	90%						
GHENT	466.86	1,947	4	CS-ESP	Wet Scrubber		66%	312.20	216.80	1.3787	0.0138	SCR on unit 1 under CAMR	90%
				HS-ESP		10%	10%						
				HS-ESP	SCR & Wet Scrubber	90%	90%						
				HS-ESP	SCR & Wet Scrubber	90%	90%						
GREEN RIVER	43.31	179	2	CS-ESP	SCR		36%	38.00	33.60	2.8913	0.0289	Hg coal content higher under CAIR	36%
				HS-ESP			10%						10%

Kentucky, 2

Plant	2002 Hg Plant-Level Emissions (lbs)	Total Plant Capacity (MW)	No. of Units	Current PM Controls	Current NOx & SO2 Controls	CAIR Installations Planned by 2015 (Projected Installations by 2020)	Hg control after CAIR	2020 Hg (lbs) under CAIR	2020 Hg (lbs) under CAMR	Plant CAMR 2020 Hg (lb/TBtu)	Plant CAMR 2020 Hg (lb/GWh)	Additional CAMR Installations/Modifications Projected (by 2020)	Hg control after CAMR
H L SPURLOCK	351.53	790	2	HS-ESP HS-ESP	SCR SCR	(Wet Scrubber) Wet Scrubber	90% 90%	43.40	43.00	0.6895	0.0069	Hg coal content higher under CAIR	90% 90%
HENDERSON I	0.72	26	1	CS-ESP		Plant idle	NA	0.00	0.00				NA
HMP&L STATION 2	24.83	309	2	CS-ESP CS-ESP	SCR & Wet Scrubber Wet Scrubber		90% 66%	39.58	17.55	0.7626	0.0076	SCR on unit 2 under CAMR	90% 90%
MILL CREEK	199.85	1,470	4	CS-ESP CS-ESP CS-ESP CS-ESP	Wet Scrubber Wet Scrubber SCR & Wet Scrubber SCR & Wet Scrubber		66% 66% 90% 90%	175.98	87.16	0.7552	0.0076	SCR on unit 1-2 under CAMR	90% 90% 90% 90%
PARADISE	734.75	2,190	3		SCR & Wet Scrubber SCR & Wet Scrubber CS-ESP		90% 90% 90%	118.60	118.60	0.6936	0.0069		90% 90% 90%
PINEVILLE		32	1	CS-ESP			36%	5.60	5.60	2.6187	0.0262		36%
R D GREEN	41.39	450	2	CS-ESP CS-ESP	Wet Scrubber Wet Scrubber		66% 66%	91.56	26.93	0.8037	0.0080	SCR on all units under CAMR	90% 90%
ROBERT REID	23.23	64	1	HS-ESP			10%	6.40	14.20	5.4511	0.0545	Fuel use lower under CAIR	10%
SHAWNEE	42.54	1,330	10	FF FF FF FF FF FF FF FF FF FF		SCR SCR SCR SCR SCR SCR SCR SCR SCR SCR	89% 89% 98% 89% 89% 89% 89% 89% 89% 89%	44.20	44.00	0.4235	0.0042	No SCR installed under CAMR	89% 89% 89% 89% 89% 89% 89% 89% 89% 89%
TRIMBLE COUNTY	89.65	435	1	CS-ESP	SCR & Wet Scrubber		90%	28.00	28.00	0.8037	0.0080		90%
TYRONE	9.61	72	1	CS-ESP			36%	15.12	15.12	3.3076	0.0331		36%
TOTAL	3509.86							1421.40	977.11				

Louisiana

How the federal mercury rule would look in Louisiana:

- 2020 projected emissions are 41% higher than allocated budget of 474 pounds
- 2020 estimated emissions will be a 43% reduction from 2002 estimated emissions
- State will be a net buyer of mercury allowances or user of banked allowances from excess emission reductions made in first phase of CAMR.

Plant	2002 Hg Plant-Level Emissions (lbs)	Total Plant Capacity (MW)	No. of Units	Current PM Controls	Current NOx & SO2 Controls	CAIR Installations Planned by 2015 (Projected Installations by 2020)	Hg control after CAIR	Plant 2020 Hg (lbs) under CAIR	Plant 2020 Hg (lbs) under CAMR	Plant CAMR 2020 Hg (lb/TBtu)	Plant CAMR 2020 Hg (lb/GWh)	Additional CAMR Installations/ Modifications Projected (by 2020)	Hg control after CAMR
BIG CAJUN 2	568.75	1,730	3	CS-ESP			36%	298.80	298.80	2.1825	0.0218		36%
				CS-ESP			36%						36%
				CS-ESP			36%						36%
DOLET HILLS	283.91	650	1	CS-ESP	Wet Scrubber	SCR	44%	276.40	221.60	4.2531	0.0425	Hg coal content higher under CAIR	44%
Nelson Coal	208.88	538	1	HS-ESP		Wet Scrubber	42%	124.60	124.60	3.0437	0.0304		42%
RODEMACHER	100.46	512	1	HS-ESP		Wet Scrubber	42%	123.40	21.20	0.5050	0.0050	SCR installed under CAMR	90%
TOTAL	1162.00							823.20	666.20				

Maine

How the federal mercury rule would look in Maine:

- 2020 projected emissions are 1460% higher than allocated budget of 2 pounds
- 2020 estimated emissions will be a 204% increase from 2002 estimated emissions
- State will be a net buyer of mercury allowances.

Plant *	2002 Hg Plant-Level Emissions (lbs)	Total Plant Capacity (MW)	No. of Units	Current PM Controls	Current NOx & SO2 Controls	CAIR Installations Planned by 2015 (Projected Installations by 2020)	Hg control after CAIR	Plant 2020 Hg (lbs) under CAIR	Plant 2020 Hg (lbs) under CAMR	Plant CAMR 2020 Hg (lb/ TBtu)	Plant CAMR 2020 Hg (lb/ GWh)	Additional CAMR Installations/ Modifications Projected (by 2020)	Hg control after CAMR
Rumford Cogeneration Company	10.27	76	1		FBC**	SNCR***	0%	75.6	31.2	5.171385	0.051714	Hg coal content higher under CAIR	0%
TOTAL	10.27							75.6	31.2				

* Maine not covered by CAIR

* In IPM FBC Hg emf may not reflect 1999 Hg ICR - unit should achieve high Hg removal

Projected emissions for Maine may not reflect actual Hg control being achieved.

*** Installation to meet Acid Raid or State rule requirements

Maryland

How the federal mercury rule would look in Maryland:

- 2020 projected emissions are 1% higher than allocated budget of 386 pounds
- 2020 estimated emissions will be a 78% reduction from 2002 estimated emissions
- State will be a net buyer of mercury allowances or user of banked allowances from excess emission reductions made in first phase of CAMR.

Maryland has enacted a state specific rule¹ that will alter mercury emissions from the projected mercury emissions under CAMR.

Plant	2002 Hg Plant-Level Emissions (lbs)	Total Plant Capacity (MW)	No. of Units	Current PM Controls	Current NOx & SO2 Controls	CAIR Installations Planned by 2015 (Projected Installations by 2020)	Hg control after CAIR	Plant 2020 Hg (lbs) under CAIR	Plant 2020 Hg (lbs) under CAMR	Plant CAMR 2020 Hg (lb/TBtu)	Plant CAMR 2020 Hg (lb/GWh)	Additional CAMR Installations/ Modifications Projected (by 2020)	Hg control after CAMR
AES Warrior Run Co-generation Facility*	21.19	200	1		SNCR - FBC	Wet Scrubber	0%	179.40	16.80	1.0378	0.0104	ACI Installed nder CAMR	90%
BRANDON SHORES	446.49	1,264	2	HS-ESP	SCR	Wet Scrubber	90%	110.40	110.40	1.1080	0.0111		90%
				HS-ESP	SCR	Wet Scrubber	90%						90%
C P CRANE	27.81	372	2	FF		SCR & Wet Scrubber	90%	31.20	31.20	1.1101	0.0111		90%
				FF		SCR & Wet Scrubber	90%						90%
CHALK POINT	399.44	669	2	CS-ESP		SCR & Wet Scrubber	90%	55.69	55.69	1.1076	0.0111		90%
				CS-ESP		SCR & Wet Scrubber	90%						90%
DICKERSON	279.77	535	3	CS-ESP/PM SCRUB		SCR & Wet Scrubber	90%	44.91	44.91	1.1074	0.0111		90%
				CS-ESP/PM SCRUB		SCR & Wet Scrubber	90%						90%
				CS-ESP/PM SCRUB		SCR & Wet Scrubber	90%						90%
HERBERT A WAGNER	127.56	449	2	CS-ESP		SCR & Wet Scrubber	90%	40.80	40.80	1.1087	0.0111		90%
				CS-ESP	SCR	Wet Scrubber	90%						90%
MORGANTOWN	406.98	1,140	2	CS-ESP		SCR & Wet Scrubber	90%	89.00	89.00	1.1080	0.0111		90%
				CS-ESP		SCR & Wet Scrubber	90%						90%
R P SMITH	48.65	114	2	CS-ESP		Early Retirement	NA	0.00	0.00				NA
				CS-ESP		Early Retirement	NA						NA
TOTAL	1757.87							551.40	388.80				

* In IPM FBC Hg emf may not reflect 1999 Hg ICR - unit should achieve high Hg removal

¹ SB 154. Available at: <http://mlis.state.md.us/2006rs/bills/sb/sb0154t.pdf>

Massachusetts

How the federal mercury rule would look in Massachusetts:

- 2020 projected emissions are 173% higher than allocated budget of 136 pounds
- 2020 estimated emissions will be a 26% increase from 2002 estimated emissions
- State will be a net buyer of mercury allowances.

Massachusetts has enacted a state specific rule¹ that will alter mercury emissions from the projected mercury emissions under CAMR.

Plant *	2002 Hg Plant-Level Emissions (lbs)	Total Plant Capacity (MW)	No. of Units	Current PM Controls	Current NOx & SO2 Controls	CAIR Installations Planned by 2015** (Projected Installations by 2020)	Hg control after CAIR	Plant 2020 Hg (lbs) under CAIR	Plant 2020 Hg (lbs) under CAMR	Plant CAMR 2020 Hg (lb/TBtu)	Plant CAMR 2020 Hg (lb/GWh)	Additional CAMR Installations/ Modifications Projected (by 2020)	Hg control after CAMR
BRAYTON POINT	241.70	1,025	3	CS-ESP		SCR & Wet Scrubber	90%	297.80	216.60	2.5928	0.0259	Hg coal content higher under CAIR	90%
				CS-ESP		SCR & Wet Scrubber	90%					90%	
				CS-ESP		SCR & Wet Scrubber	90%					90%	
MOUNT TOM	41.25	146	1	CS-ESP			36%	37.00	42.00	3.7657	0.0377	Hg coal content higher under CAIR	36%
SALEM HARBOR	9.15	293	3	CS-ESP	SNCR		36%	115.14	79.88	3.4227	0.0342	Fuel use higher under CAIR	36%
				CS-ESP	SNCR		36%					Hg coal content higher under CAIR	36%
				CS-ESP	SNCR	Wet Scrubber	66%					66%	
SOMERSET	2.68	109	1	CS-ESP	SNCR	Wet Scrubber	66%	58.46	32.12	3.5524	0.0355	Fuel use/Hg coal content higher under CAIR	66%
TOTAL	294.78							508.40	370.60				

* Massachusetts covered by the ozone portion of CAIR only.

** Installations due State Requirements, not CAIR

¹ Massachusetts Emissions Standards for Power Plants, 310 CMR 7.29. Available at: <http://www.mass.gov/dep/bwp/daqc/files/regs/hgreg.pdf>

Michigan

How the federal mercury rule would look in Michigan:

- 2020 projected emissions are 129% higher than allocated budget of 1,028 pounds
- 2020 estimated emissions will be a 32% reduction from 2002 estimated emissions
- State will be a net buyer of mercury allowances or user of banked allowances from excess emission reductions made in first phase of CAMR.

Plant	2002 Hg Plant-Level Emissions (lbs)	Total Plant Capacity (MW)	No. of Units	Current PM Controls	Current NOx & SO2 Controls	CAIR Installations Planned by 2015 (Projected Installations by 2020)	Hg control after CAIR	Plant 2020 Hg (lbs) under CAIR	Plant 2020 Hg (lbs) under CAMR	Plant CAMR 2020 Hg (lb/TBtu)	Plant CAMR 2020 Hg (lb/GWh)	Additional CAMR Installations/ Modifications Projected (by 2020)	Hg control after CAMR
B C COBB	130	320	2	CS-ESP			36%	76.10	76.10	2.6241	0.0262		36%
				CS-ESP			36%					36%	
BELLE RIVER	218	1,260	2	CS-ESP			3%	426.20	426.20	4.4128	0.0441		3%
				CS-ESP			3%					3%	
CONNERS CREEK	NA	236	2	CS-ESP			36%	52.00	52.00	2.6231	0.0262		36%
				CS-ESP			36%					36%	
DAN E KARN	219	515	2	CS-ESP			36%	144.32	90.32	2.0916	0.0209	Fuel use higher under CAIR Hg content of coal higher under CAIR	36%
				CS-ESP	SCR	(Wet Scrubber)	90%						90%
ECKERT STATION	161	363	6	CS-ESP			3%	150.20	69.00	2.6270	0.0263	Switch to bituminous coal under CAMR	36%
				CS-ESP			3%						36%
				CS-ESP			3%						36%
				CS-ESP			3%						36%
				CS-ESP			3%						36%
				CS-ESP			3%						36%
ENDICOTT	12	50	1	HS-ESP	Wet Scrubber		66%	15.40	14.40	2.9454	0.0295	Fuel use higher under CAIR	66%
ERICKSON	41	156	1	CS-ESP		SCR	3%	64.20	27.40	2.6276	0.0263	Switch to bituminous coal under CAMR	36%
HARBOR BEACH	9	103	1	CS-ESP			36%	18.40	18.40	2.6452	0.0265		36%
J B SIMS	5	65	1	CS-ESP	Wet Scrubber		66%	9.60	9.60	1.7059	0.0171		66%
J C WEADOCK	109	310	2	CS-ESP			36%	70.47	70.47	2.6241	0.0262		36%
				CS-ESP			36%					36%	
J H CAMPBELL	477	1,399	3	CS-ESP			36%	288.70	288.70	2.6241	0.0262		36%
				CS-ESP			36%					36%	
				CS-ESP			36%					36%	

Michigan, 2

Plant	2002 Hg Plant-Level Emissions (lbs)	Total Plant Capacity (MW)	No. of Units	Current PM Controls	Current NOx & SO2 Controls	CAIR Installations Planned by 2015 (Projected Installations by 2020)	Hg control after CAIR	2020 Hg (lbs) under CAIR	2020 Hg (lbs) under CAMR	Plant CAMR 2020 Hg (lb/TBtu)	Plant CAMR 2020 Hg (lb/GWh)	Additional CAMR Installations/Modifications Projected (by 2020)	Hg control after CAMR
J R WHITING	141	310	3	CS-ESP			36%	65.24	68.45	2.6253	0.0263	Fuel use lower under CAIR	36%
				CS-ESP			36%						36%
				CS-ESP			36%						36%
JAMES DE YOUNG	7	27	1	HS-ESP			36%	6.40	5.40	3.0649	0.0306	Hg content of coal higher under CAIR	36%
MARYSVILLE	NA	200	4	CS-ESP			36%	41.20	41.20	2.6275	0.0263		36%
				CS-ESP			36%						36%
				CS-ESP			36%						36%
				CS-ESP			36%						36%
MONROE	1,109	3,000	4	CS-ESP	SCR		36%	574.40	574.40	2.6240	0.0262		36%
				CS-ESP	SCR		36%						36%
				CS-ESP	SCR		36%						36%
				CS-ESP	SCR		36%						36%
PRESQUE ISLE	106	613	9	Cyclone		Plant idle	NA	39.80	40.60	1.2364	0.0124	Fuel use lower under CAIR	NA
				FF		Early Retirement	NA						NA
				FF		Plant idle	NA						NA
				FF		Plant idle	NA						NA
				CS-ESP		SNCR	36%						36%
				CS-ESP		SNCR	36%						36%
				HS-ESP/FF	ACI demo	SNCR	89%						89%
				HS-ESP/FF	ACI demo	SNCR	89%						89%
				HS-ESP/FF	ACI demo	SNCR	89%						89%
RIVER ROUGE	179	500	2	CS-ESP			36%	97.18	97.18	2.6249	0.0262		36%
				CS-ESP			36%						36%
SHIRAS	20	44	1	FF	Dry Scrubber		25%	13.20	1.00	0.2572	0.0026	Switch to bituminous coal under CAMR	95%
ST CLAIR	191	1,379	7	CS-ESP			36%	270.54	270.54	2.6245	0.0262		36%
				CS-ESP			36%						36%
				CS-ESP			36%						36%
				CS-ESP			36%						36%
				CS-ESP			36%						36%
				CS-ESP			36%						36%
TES Filer City Station	1	55	1		Dry Scrubber		40%	22.20	2.20	0.5039	0.0050	ACI installed under CAMR	90%

Michigan, 3

Plant	2002 Hg Plant-Level Emissions (lbs)	Total Plant Capacity (MW)	No. of Units	Current PM Controls	Current NOx & SO2 Controls	CAIR Installations Planned by 2015 (Projected Installations by 2020)	Hg control after CAIR	2020 Hg (lbs) under CAIR	2020 Hg (lbs) under CAMR	Plant CAMR 2020 Hg (lb/TBtu)	Plant CAMR 2020 Hg (lb/GWh)	Additional CAMR Installations/ Modifications Projected (by 2020)	Hg control after CAMR
TRENTON CHANNEL	342	620	5	CS-ESP			36%	110.65	112.25	2.6251	0.0263	Fuel use lower under CAIR	36%
				CS-ESP			36%						36%
				CS-ESP			36%						36%
				CS-ESP			36%						36%
				CS-ESP			36%						36%
TOTAL	3,477							2556.40	2355.80				

Minnesota

How the federal mercury rule would look in Minnesota:

- 2020 projected emissions are 130% higher than allocated budget of 548 pounds
- 2020 estimated emissions will be a 14% reduction from 2002 estimated emissions
- State will be a net buyer of mercury allowances or user of banked allowances from excess emission reductions made in first phase of CAMR.

Minnesota has enacted a state specific rule¹ that will alter mercury emissions from the projected mercury emissions under CAMR.

Plant*	2002 Hg Plant-Level Emissions (lbs)	Total Plant Capacity (MW)	No. of Units	Current PM Controls	Current NOx & SO2 Controls	CAIR Installations Planned by 2015 (Projected Installations by 2020)	Hg control after CAIR	Plant 2020 Hg (lbs) under CAIR	Plant 2020 Hg (lbs) under CAMR	Plant CAMR 2020 Hg (lb/TBtu)	Plant CAMR 2020 Hg (lb/GWh)	Additional CAMR Installations/ Modifications Projected (by 2020)	Hg control after CAMR
ALLEN S KING	103.43	571	1	CS-ESP/FF	SCR & Dry Scrubber		25%	163.20	163.20	4.3229	0.0432		25%
BLACK DOG	56.41	285	2	CS-ESP CS-ESP			36% 36%	60.60	60.60	2.6234	0.0262		36% 36%
CLAY BOSWELL	438.57	1,023	4	FF FF	Wet Scrubber		73% 73% 30% 6%	284.60	285.00	3.5332	0.0353		73% 73% 30% 6%
HIGH BRIDGE	47.35	454	2	CS-ESP CS-ESP		Repower to Combined Cycle	NA 3%	39.60	39.60	4.1098	0.0411		NA 3%
HOOT LAKE	56.28	149	2	CS-ESP CS-ESP			3% 3%	53.80	50.00	4.4221	0.0442	Fuel use higher under CAIR	3% 3%
M L HIBBARD	NA	37	1	CS-ESP			3%	10.80	10.80	4.4123	0.0441		3%
MINNESOTA VALLEY	0.02	46	1	CS-ESP			36%	9.40	9.40	2.6065	0.0261		36%
NORTHEAST STATION	10.00	29	1	CS-ESP			36%	5.00	5.40	2.6848	0.0268	Fuel use lower under CAIR	36%
RIVERSIDE	69.33	652	3	FF FF CS-ESP		Repower to Combined Cycle Repower to Combined Cycle	73% NA NA	7.20	7.80	1.2312	0.0123	Fuel use lower under CAIR	73% NA NA
SHERBURNE COUNTY	659.65	2,292	3	HS-ESP HS-ESP FF	Wet Scrubber Wet Scrubber Dry Scrubber		20% 20% 25%	614.40	614.40	3.5548	0.0355		20% 20% 20%

¹ Available at: <http://www.governor.state.mn.us/tpaw/ViewArticle.aspx?artid=1746>.

Minnesota, 2

Plant	2002 Hg Plant-Level Emissions (lbs)	Total Plant Capacity (MW)	No. of Units	Current PM Controls	Current NOx & SO2 Controls	CAIR Installations Planned by 2015 (Projected Installations by 2020)	Hg control after CAIR	2020 Hg (lbs) under CAIR	2020 Hg (lbs) under CAMR	Plant CAMR 2020 Hg (lb/TBtu)	Plant CAMR 2020 Hg (lb/GWh)	Additional CAMR Installations/ Modifications Projected (by 2020)	Hg control after CAMR
SILVER LAKE	3.52	60	1	HS-ESP			10%	14.80	12.20	3.0465	0.0305	Hg coal content higher under CAIR	10%
SYL LASKIN	27.96	110	2		Wet Scrubber Wet Scrubber	SNCR SNCR	42% 42%	35.00	4.00	0.4207	0.0042	Install ACI on all units under CAMR	90% 90%
TOTAL	1472.53							1298.40	1262.40				

* Note that Minnesota is cover by the PM requirements only of the CAIR rule

Mississippi

How the federal mercury rule would look in Mississippi:

- 2020 projected emissions are 33% lower than allocated budget of 230 pounds
- 2020 estimated emissions will be a 72% reduction from 2002 estimated emissions
- State will be a net seller of mercury allowances.

Plant	2002 Hg Plant-Level Emissions (lbs)	Total Plant Capacity (MW)	No. of Units	Current PM Controls	Current NOx & SO2 Controls	CAIR Installations Planned by 2015 (Projected Installations by 2020)	Hg control after CAIR	Plant 2020 Hg (lbs) under CAIR	Plant 2020 Hg (lbs) under CAMR	Plant CAMR 2020 Hg (lb/TBtu)	Plant CAMR 2020 Hg (lb/GWh)	Additional CAMR Installations/ Modifications Projected (by 2020)	Hg control after CAMR
JACK WATSON	201.47	761	2	CS-ESP CS-ESP		SCR (Wet Scrubber) SCR (Wet Scrubber)	90% 90%	47.42	46.06	0.8048	0.0080	Hg coal content higher under CAIR	90% 90%
R D MORROW	224.30	400	2	HS-ESP HS-ESP	Wet Scrubber Wet Scrubber		42% 42%	97.60	16.80	0.5064	0.0051	Install SCR on all units under CAMR	90% 90%
Red Hills Generating Facility	NA	440	1	CS-ESP	SCR & Wet Scrubber		90%	21.80	29.80	1.0468	0.0105	Hg coal content lower under CAIR	90%
VICTOR J DANIEL JR.	120.42	1,044	2	CS-ESP CS-ESP		SCR (Wet Scrubber) SCR (Wet Scrubber)	90% 90%	63.78	61.94	0.8048	0.0080	Hg coal content higher under CAIR	90% 90%
TOTAL	546.18							230.60	154.60				

Missouri

How the federal mercury rule would look in Missouri:

- 2020 projected emissions are 87% higher than allocated budget of 1,100 pounds
- 2020 estimated emissions will be a 46% reduction from 2002 estimated emissions
- State will be a net buyer of mercury allowances.

Plant	2002 Hg Plant-Level Emissions (lbs)	Total Plant Capacity (MW)	No. of Units	Current PM Controls	Current NOx & SO2 Controls	CAIR Installations Planned by 2015 (Projected Installations by 2020)	Hg control after CAIR	Plant 2020 Hg (lbs) under CAIR	Plant 2020 Hg (lbs) under CAMR	Plant CAMR 2020 Hg (lb/TBtu)	Plant CAMR 2020 Hg (lb/GWh)	Additional CAMR Installations/ Modifications Projected (by 2020)	Hg control after CAMR
ASBURY	44.45	211.0021	1	CS-ESP		SCR	3%	100.40	46.00	2.6201	0.0262	Switch to bit coal under CAMR	36%
BLUE VALLEY	2.96	51	1	CS-ESP			36%	10.00	10.00	2.6466	0.0265		36%
CHAMOIS	25.25	49	1	CS-ESP			3%	22.00	10.00	2.6031	0.0260	Switch to bit coal under CAMR	36%
COLUMBIA	NA	57	1	FF			89%	1.40	1.80	0.4463	0.0045	Fuel use lower under CAIR	89%
HAWTHORN	206.05	550	1	FF	SCR & Dry Scrubber		25%	190.60	190.60	4.5105	0.0451		25%
IATAN	165.45	670.0067	1	CS-ESP		SCR	3%	281.00	29.00	0.5896	0.0059	Install ACI under CAMR	90%
JAMES RIVER	54.98	193.0019	3	CS-ESP		SNCR	3%	91.80	42.20	2.6227	0.0262	Switch to bit coal under CAMR	36%
				CS-ESP		SNCR	3%						36%
				CS-ESP		SNCR	3%						36%
LABADIE	719.94	2300	4	CS-ESP			36%	467.80	467.80	2.6241	0.0262		36%
				CS-ESP			36%						36%
				CS-ESP			36%						36%
				CS-ESP			36%						36%
LAKE ROAD	19.67	97.001	1	CS-ESP		Early Retirement	NA	0.00	0.00				NA
MERAMEC	163.65	877	4	CS-ESP			36%	180.60	180.60	2.6232	0.0262		36%
				CS-ESP			36%						36%
				CS-ESP			36%						36%
				CS-ESP			36%						36%
MONTROSE	102.00	469	3	CS-ESP			3%	187.40	191.00	5.7137	0.0571	Fuel use lower under CAIR	3%
				CS-ESP			3%						3%
				CS-ESP			3%						3%
NEW MADRID	275.24	1160	2	CS-ESP	SCR		36%	230.00	230.00	2.6255	0.0263		36%
				CS-ESP	SCR		36%						36%
RUSH ISLAND	501.17	1158	2	CS-ESP			3%	521.40	53.60	0.5875	0.0059	Install ACI both units under CAMR	90%
				CS-ESP			3%						90%

Missouri, 2

Plant	2002 Hg Plant-Level Emissions (lbs)	Total Plant Capacity (MW)	No. of Units	Current PM Controls	Current NOx & SO2 Controls	CAIR Installations Planned by 2015 (Projected Installations by 2020)	Hg control after CAIR	2020 Hg (lbs) under CAIR	2020 Hg (lbs) under CAMR	Plant CAMR 2020 Hg (lb/TBtu)	Plant CAMR 2020 Hg (lb/GWh)	Additional CAMR Installations/Modifications Projected (by 2020)	Hg control after CAMR
SIBLEY	120.00	496.0049	3	CS-ESP		SNCR	3%	208.20	95.80	2.6262	0.0263	Switch to bit coal under CAMR	36%
				CS-ESP		SNCR	3%						36%
				CS-ESP		SCR	3%						36%
SIKESTON	83.36	222	1	CS-ESP	Wet Scrubber		16%	85.40	29.80	1.7295	0.0173	Switch to bit coal under CAMR	66%
SIOUX	264.22	952.0095	2	CS-ESP		SCR (Wet Scrubber)	16%	327.40	52.00	0.8018	0.0080	Switch to bit coal under CAMR	90%
				CS-ESP		SCR (Wet Scrubber)	16%						90%
SOUTHWEST	49.23	178	1	CS-ESP	Wet Scrubber		16%	68.60	52.20	3.7590	0.0376	Hg coal content higher under CAIR	16%
THOMAS HILL	569.81	1120.0045	3	CS-ESP		SCR	3%	483.40	152.20	1.7996	0.0180	Hg coal content higher under CAIR	3%
				CS-ESP		SCR	3%						3%
				CS-ESP			3%						3%
TOTAL	3367.41							3457.40	1834.60				

Montana

How the federal mercury rule would look in Montana:

- 2020 projected emissions are 101% higher than allocated budget of 298 pounds
- 2020 estimated emissions will be a 30% reduction from 2002 estimated emissions
- State will be a net buyer of mercury allowances or user of banked allowances from excess emission reductions made in first phase of CAMR.

Plant	2002 Hg Plant-Level Emissions (lbs)	Total Plant Capacity (MW)	No. of Units	Current PM Controls	Current NOx & SO2 Controls	CAIR Installations Planned by 2015 (Projected Installations by 2020)	Hg control after CAIR	Plant 2020 Hg (lbs) under CAIR	Plant 2020 Hg (lbs) under CAMR	Plant CAMR 2020 Hg (lb/TBtu)	Plant CAMR 2020 Hg (lb/GWh)	Additional CAMR Installations/ Modifications Projected (by 2020)	Hg control after CAMR
COLSTRIP	806	2,060	4		Wet Scrubber	not affected by CAIR	20%	513.00	515.00	3.1412	0.0314	Hg content of coal lower under CAIR	20%
					Wet Scrubber	not affected by CAIR	20%						20%
					Wet Scrubber	not affected by CAIR	20%						20%
					Wet Scrubber	not affected by CAIR	20%						20%
J E CORETTE	33	156	1	CS-ESP		not affected by CAIR	3%	56.40	56.40	4.4095	0.0441		3%
LEWIS & CLARK	24	44	1		Wet Scrubber	not affected by CAIR	20%	17.60	13.60	3.1788	0.0318	Hg content of coal higher under CAIR	20%
Yellowstone Energy Ltd Partnership	NA	55	1			not affected by CAIR	0%	18.20	15.20	3.4075	0.0341	Using bituminous coal under CAMR	0%
TOTAL	863							605.20	600.20				

Nebraska

How the federal mercury rule would look in Nebraska:

- 2020 projected emissions are 142% higher than allocated budget of 332 pounds
- 2020 estimated emissions will be a 27% increase from 2002 estimated emissions
- State will be a net buyer of mercury allowances.

Plant *	2002 Hg Plant-Level Emissions (lbs)	Total Plant Capacity (MW)	No. of Units	Current PM Controls	Current NOx & SO2 Controls	CAIR Installations Planned by 2015 (Projected Installations by 2020)	Hg control after CAIR	Plant 2020 Hg (lbs) under CAIR	Plant 2020 Hg (lbs) under CAMR	Plant CAMR 2020 Hg (lb/TBtu)	Plant CAMR 2020 Hg (lb/GWh)	Additional CAMR Installations/ Modifications Projected (by 2020)	Hg control after CAMR
GERALD GENTLEMAN	102.66	1,365	2	HS-ESP/FF HS-ESP			73% 6%	390.60	115.60	1.0724	0.0107	ACI installed on unit 2 under CAMR	73% 90%
LON WRIGHT	13.86	85	1	HS-ESP			6%	36.60	20.40	3.0764	0.0308	Switch to bit coal under CAMR	10%
NEBRASKA CITY	195.46	585	1	CS-ESP			3%	256.79	256.79	5.7115	0.0571		3%
NORTH OMAHA	183.50	645	5	CS-ESP			3%	304.41	304.41	5.7126	0.0571		3%
				CS-ESP			3%						
				CS-ESP			3%						
				CS-ESP			3%						
				CS-ESP			3%						
PLATTE	31.38	100	1	HS-ESP			6%	43.40	43.40	5.5256	0.0553		6%
SHELDON	81.62	225	2	FF			73%	29.80	29.80	1.5894	0.0159	Switch to bit coal under CAMR	89%
				FF			73%						89%
Whelan Energy Center	23.88	72	1	HS-ESP			6%	34.40	34.40	5.5203	0.0552		6%
TOTAL	632.36							1096.00	804.80				

* Nebraska not covered by CAIR

Nevada

How the federal mercury rule would look in Nevada:

- 2020 projected emissions are 135% higher than allocated budget of 224 pounds
- 2020 estimated emissions will be a 11% reduction from 2002 estimated emissions
- State will be a net buyer of mercury allowances or user of banked allowances from excess emission reductions made in first phase of CAMR.

Plant *	2002 Hg Plant-Level Emissions (lbs)	Total Plant Capacity (MW)	No. of Units	Current PM Controls	Current NOx & SO2 Controls	CAIR Installations Planned by 2015 (Projected Installations by 2020)	Hg control after CAIR	Plant 2020 Hg (lbs) under CAIR	Plant 2020 Hg (lbs) under CAMR	Plant CAMR 2020 Hg (lb/TBtu)	Plant CAMR 2020 Hg (lb/GWh)	Additional CAMR Installations/ Modifications Projected (by 2020)	Hg control after CAMR
MOHAVE	474.87	1,580	2	CS-ESP	Dry Scrubber		36%	431.00	431.00	3.2451	0.0325		36%
				CS-ESP	Dry Scrubber		36%						36%
NORTH VALMY	9.64	532	2	FF			89%	12.80	12.80	0.3160	0.0032		89%
				FF	Dry Scrubber		95%						95%
Pinon Pine	NA	100	1				0%	2.80	2.80	0.2579	0.0026		0%
REID GARDNER	110.88	605	4		Wet Scrubber		42%	80.40	80.40	1.8159	0.0182		42%
					Wet Scrubber		42%						42%
					Wet Scrubber		42%						42%
				FF	Wet Scrubber		90%						90%
TOTAL	595.38							527.00	527.00				
* Nevada not covered by CAIR													

New Hampshire

How the federal mercury rule would look in New Hampshire:

- 2020 projected emissions are 92% higher than allocated budget of 50 pounds
- 2020 estimated emissions will be a 108% increase from 2002 estimated emissions
- State will be a net buyer of mercury allowances or user of banked allowances from excess emission reductions made in first phase of CAMR.

New Hampshire has enacted a state specific rule¹ that will alter mercury emissions from the projected mercury emissions under CAMR.

Plant *	2002 Hg Plant-Level Emissions*** (lbs)	Total Plant Capacity (MW)	No. of Units	Current PM Controls	Current NOx & SO2 Controls	CAIR Installations Planned by 2015** (Projected Installations by 2020)	Hg control after CAIR	Plant 2020 Hg (lbs) under CAIR	Plant 2020 Hg (lbs) under CAMR	Plant CAMR 2020 Hg (lb/TBtu)	Plant CAMR 2020 Hg (lb/GWh)	Additional CAMR Installations/ Modifications Projected (by 2020)	Hg control after CAMR
MERRIMACK	17.08	424	2	CS-ESP	SCR	Wet Scrubber	90%	60.60	60.60	1.8437	0.0184		90%
				CS-ESP	SCR	Wet Scrubber	90%						90%
SCHILLER	29.09	145	3	CS-ESP	SNCR		36%	35.20	35.20	3.3135	0.0331		36%
				CS-ESP	SNCR		36%						36%
				CS-ESP	SNCR		36%						36%
TOTAL	46.17							95.80	95.80				

* New Hampshire not covered by CAIR

** Installations due State Requirements, not CAIR

***2002 data is not consistent with NH Department of Environmental Services emissions data for these plants. 2003 data from NH DES shows 125 lbs for Merrimack Station and 9 lbs for Schiller Station

¹ HB 1673. Available at: <http://www.gencourt.state.nh.us/legislation/2006/HB1673.html>

New Jersey

How the federal mercury rule would look in New Jersey:

- 2020 projected emissions are 159% higher than allocated budget of 120 pounds
- 2020 estimated emissions will be a 41% increase from 2002 estimated emissions
- State will be a net buyer of mercury allowances.

New Jersey has enacted a state specific rule¹ that will alter mercury emissions from the projected mercury emissions under CAMR.

Plant	2002 Hg Plant-Level Emissions (lbs)	Total Plant Capacity (MW)	No. of Units	Current PM Controls	Current NOx & SO2 Controls	CAIR Installations Planned by 2015 (Projected Installations by 2020)	Hg control after CAIR	Plant 2020 Hg (lbs) under CAIR	Plant 2020 Hg (lbs) under CAMR	Plant CAMR 2020 Hg (lb/TBtu)	Plant CAMR 2020 Hg (lb/GWh)	Additional CAMR Installations/ Modifications Projected (by 2020)	Hg control after CAMR
B L ENGLAND	62.36	284	2	CS-ESP	SNCR		36%	79.00	79.00	3.5323	0.0353		36%
				CS-ESP	SNCR & Wet Scrubber		66%						66%
Chambers Cogeneration Limited Partnership*	3.59	187	1		SCR & Dry Scrubber		40%	164.00	71.60	4.8232	0.0482	Hg coal content higher under CAIR	40%
DEEPWATER	4.51	80	1	FF			89%	4.00	9.40	1.3910	0.0139	Hg coal content lower under CAIR	89%
HUDSON	130.26	600	1	HS-ESP/FF	Dry Scrubber	SCR	95%	44.20	44.20	0.9229	0.0092		95%
Logan Generating Plant	4.03	200	1	FF	SCR & Dry Scrubber		95%	14.60	14.60	0.9196	0.0092		95%
MERCER	15.44	629	2	HS-ESP	SCR	Wet Scrubber	90%	343.80	92.40	1.8099	0.0181	Hg coal content higher under CAIR	90%
				HS-ESP	SCR	Wet Scrubber	90%						90%
TOTAL	220.19							649.60	311.20				

* This plant may be mis-characterized in IPM.

¹ N.J.A.C. 7:27. Available at: www.nj.gov/dep/rules/adoptions/mercury_rule7-27.pdf

New Mexico

How the federal mercury rule would look in New Mexico:

- 2020 projected emissions are 44% higher than allocated budget of 483 pounds²
- 2020 estimated emissions will be a 67% reduction from 2002 estimated emissions
- State will be a net buyer of mercury allowances.

Plant *	2002 Hg Plant-Level Emissions (lbs)	Total Plant Capacity (MW)	No. of Units	Current PM Controls	Current NOx & SO2 Controls	CAIR Installations Planned by 2015 (Projected Installations by 2020)	Hg control after CAIR	Plant 2020 Hg (lbs) under CAIR	Plant 2020 Hg (lbs) under CAMR	Plant CAMR 2020 Hg (lb/TBtu)	Plant CAMR 2020 Hg (lb/GWh)	Additional CAMR Installations/ Modifications Projected (by 2020)	Hg control after CAMR	
ESCALANTE	2.96	235	1	FF	Wet Scrubber		73%	37.40	37.40	1.9958	0.0200		73%	
FOUR CORNERS **	1015.77	2,040	5		Wet Scrubber		30%	453.00	316.20	2.0473	0.0205	ACI installed on units 4&5 under CAMR	30%	
					Wet Scrubber		30%						30%	
					Wet Scrubber		30%						30%	
					FF	Wet Scrubber							73%	90%
					FF	Wet Scrubber							73%	90%
SAN JUAN	1065.81	1,614	4		HS-ESP	Wet Scrubber		751.20	342.00	2.6912	0.0269	ACI installed on units 3&4 under CAMR	20%	
					HS-ESP	Wet Scrubber							20%	20%
					HS-ESP	Wet Scrubber							20%	90%
					HS-ESP	Wet Scrubber							20%	90%
TOTAL	2084.53							1241.60	695.60					

* Utah not covered by CAIR

** Four Corners plant part of Navajo Nation Budget

²For comparison, Four Corners portion of Navajo Nation Budget has been added to New Mexico state budget (246.56 lbs)

New York

How the federal mercury rule would look in New York:

- 2020 projected emissions are 68% higher than allocated budget of 310 pounds
- 2020 estimated emissions will be a 46% reduction from 2002 estimated emissions
- State will be a net buyer of mercury allowances.

Plant	2002 Hg Plant-Level Emissions (lbs)	Total Plant Capacity (MW)	No. of Units	Current PM Controls	Current NOx & SO2 Controls	CAIR Installations Planned by 2015 (Projected Installations by 2020)	Hg control after CAIR	Plant 2020 Hg (lbs) under CAIR	Plant 2020 Hg (lbs) under CAMR	Plant CAMR 2020 Hg (lb/TBtu)	Plant CAMR 2020 Hg (lb/GWh)	Additional CAMR Installations/Modifications Projected (by 2020)	Hg control after CAMR
C R HUNTLEY	175.98	741	6	CS-ESP		Early Retirement	NA	206.80	55.60	1.5735	0.0157	SCR added to units 68&69 under CAMR	NA
				CS-ESP		SNCR	36%						36%
				CS-ESP		Early Retirement	NA						NA
				CS-ESP		Early Retirement	NA						NA
				HS-ESP		Wet Scrubber	42%						90%
				HS-ESP		Wet Scrubber	42%						90%
DANSKAMMER	129.59	356	2	CS-ESP		Wet Scrubber	66%	167.60	49.20	1.8389	0.0184	SCR added to units 4&5 under CAMR	90%
				CS-ESP		Wet Scrubber	66%						90%
DUNKIRK	207.17	586	4	HS-ESP			10%	258.60	96.60	2.2414	0.0224	SCR added to units 3&4 under CAMR	10%
				HS-ESP			10%						10%
				HS-ESP		Wet Scrubber	42%						90%
				HS-ESP		Wet Scrubber	42%						90%
Fibertek Energy LLC	NA	80	1				0%	30.40	30.40	5.1574	0.0516		0%
Fort Drum H T W Co-generation Facility	7.68	44	1	FF	Dry Scrubber - FBC		95%	1.80	3.20	0.9327	0.0093	Hg coal content lower under CAIR	95%
GOUDEY	56.11	83	1	HS-ESP			10%	30.20	30.20	4.6412	0.0464		10%
GREENIDGE	69.53	160	3	CS-ESP		Early Retirement	NA	0.00	0.00			Coal Early Retirements	NA
				CS-ESP		Early Retirement	NA						NA
				CS-ESP		Early Retirement	NA						NA
KINTIGH	88.98	675	1	CS-ESP	SCR & Wet Scrubber		90%	87.20	87.20	1.8403	0.0184		90%
LOVETT	34.63	366	2	CS-ESP		Wet Scrubber	66%	114.40	54.00	1.8378	0.0184	SCR added to unit 4 under CAMR	90%
				CS-ESP		SCR & Wet Scrubber	90%						90%
MILLIKEN	105.54	306	2	CS-ESP	SCR & Wet Scrubber		90%	87.60	58.60	2.6784	0.0268	Hg coal content higher under CAIR	90%
				CS-ESP	Wet Scrubber		66%						66%

New York, 2

Plant	2002 Hg Plant-Level Emissions (lbs)	Total Plant Capacity (MW)	No. of Units	Current PM Controls	Current NOx & SO2 Controls	CAIR Installations Planned by 2015 (Projected Installations by 2020)	Hg control after CAIR	Plant 2020 Hg (lbs) under CAIR	Plant 2020 Hg (lbs) under CAMR	Plant CAMR 2020 Hg (lb/TBtu)	Plant CAMR 2020 Hg (lb/GWh)	Additional CAMR Installations/ Modifications Projected (by 2020)	Hg control after CAMR
ROCHESTER 7	84.50	257	4	CS-ESP	SNCR	Early Retirement	NA	53.00	53.00	3.3077	0.0331	Coal Early Retirements	NA
				CS-ESP	SNCR		36%						36%
				CS-ESP	SNCR		36%						36%
				CS-ESP	SNCR		36%						36%
UDG Niagara Falls Co-generation Facility	NA	50	1	FF	SNCR & Wet Scrubber - FBC	95%	3.60	3.60	0.8991	0.0090		95%	
TOTAL	959.70							1041.20	521.60				

North Carolina

How the federal mercury rule would look in North Carolina:

- 2020 projected emissions are 63% higher than allocated budget of 894 pounds
- 2020 estimated emissions will be a 56% reduction from 2002 estimated emissions
- State will be a net buyer of mercury allowances.

Plant	2002 Hg Plant-Level Emissions (lbs)	Total Plant Capacity (MW)	No. of Units	Current PM Controls	Current NOx & SO2 Controls	CAIR Installations Planned by 2015 (Projected Installations by 2020)	Hg control after CAIR	Plant 2020 Hg (lbs) under CAIR	Plant 2020 Hg (lbs) under CAMR	Plant CAMR 2020 Hg (lb/TBtu)	Plant CAMR 2020 Hg (lb/GWh)	Additional CAMR Installations/ Modifications Projected (by 2020)	Hg control after CAMR
ASHEVILLE	144	384	2	CS-ESP	SNCR	Wet Scrubber	66%	42.92	42.04	1.1405	0.0114	Hg coal content higher under CAIR	66%
				CS-ESP		SCR & Wet Scrubber	90%					90%	
BELEWS CREEK	591	2,193	2	CS-ESP	SCR	Wet Scrubber	90%	310.66	310.66	1.7785	0.0178		90%
				CS-ESP	SCR	Wet Scrubber	90%					90%	
BUCK	86	364	5	HS-ESP		SNCR	10%	41.55	41.79	1.3610	0.0136	Fuel use lower under CAIR	10%
				HS-ESP		SNCR	10%						10%
				HS-ESP		SNCR	10%						10%
				HS-ESP		SCR & Wet Scrubber	90%						90%
				HS-ESP		SCR & Wet Scrubber	90%						90%
CAPE FEAR	106	309	2	CS-ESP	SNCR	Wet Scrubber	66%	47.59	46.05	1.7271	0.0173	Hg coal content higher under CAIR	66%
				CS-ESP	SNCR	Wet Scrubber	66%						66%
CLIFFSIDE	77	748	5	HS-ESP		SNCR	10%	131.12	131.12	2.1942	0.0219		10%
				HS-ESP		SNCR	10%					10%	
				HS-ESP		SNCR	10%					10%	
				HS-ESP		SNCR	10%					10%	
				CS-ESP	SCR	Wet Scrubber	90%					90%	
Cogentrix Roxboro	NA	45	1	FF			89%	1.60	1.60	0.5961	0.0060		89%
Cogentrix Southport	NA	91	2	FF			89%	3.20	3.20	0.5895	0.0059		89%
				FF			89%					89%	
DAN RIVER	18	275	3	HS-ESP		SNCR	10%	42.57	42.69	1.8750	0.0187	Hg coal content lower under CAIR	10%
				HS-ESP		SNCR	10%						10%
				CS-ESP		SCR & Wet Scrubber	90%						90%
Dwayne Collier Battle Cogeneration Facil	4	108	2		Dry Scrubber		40%	69.00	4.40	0.5132	0.0051	ACI installed on both units under CAMR*	90%
					Dry Scrubber		40%						90%

North Carolina, 2

Plant	2002 Hg Plant-Level Emissions (lbs)	Total Plant Capacity (MW)	No. of Units	Current PM Controls	Current NOx & SO2 Controls	CAIR Installations Planned by 2015 (Projected Installations by 2020)	Hg control after CAIR	Plant 2020 Hg (lbs) under CAIR	Plant 2020 Hg (lbs) under CAMR	Plant CAMR 2020 Hg (lb/ TBtu)	Plant CAMR 2020 Hg (lb/ GWh)	Additional CAMR Installations/ Modifications Projected (by 2020)	Hg control after CAMR
G G ALLEN	204	1,122	5	CS-ESP		SCR & Wet Scrubber	90%	50.11	51.12	0.5454	0.0055	Hg coal content lower under CAIR	90%
				CS-ESP		SCR & Wet Scrubber	90%						90%
				HS-ESP		SCR & Wet Scrubber	90%						90%
				CS-ESP		SCR & Wet Scrubber	90%						90%
				HS-ESP		SCR & Wet Scrubber	90%						90%
L V SUTTON	168	604	3	HS-ESP		SNCR	10%	75.86	66.72	1.5043	0.0150	Fuel use higher under CAIR Hg coal content higher under CAIR	10%
				HS-ESP		SCR	10%						10%
				CS-ESP		SCR & Wet Scrubber	90%						90%
LEE	130	402	3	CS-ESP			36%	51.17	47.51	1.5224	0.0152	Fuel use higher under CAIR Hg coal content higher under CAIR	36%
				HS-ESP		SNCR	10%						10%
				CS-ESP		SCR & Wet Scrubber	90%						90%
MARSHALL	525	2,061	4	CS-ESP		SCR & Wet Scrubber	90%	229.66	230.63	1.3930	0.0139	SCR installed to unit 4 under CAMR	90%
				CS-ESP		SCR & Wet Scrubber	90%						90%
				CS-ESP		SCR & Wet Scrubber	90%						90%
				CS-ESP		Wet Scrubber	66%						90%
MAYO	300	729	2	HS-ESP		SCR & Wet Scrubber	90%	46.60	46.60	0.8025	0.0080		90%
				HS-ESP		SCR & Wet Scrubber	90%						90%
RIVERBEND	87	448	4	HS-ESP		SNCR	10%	62.13	62.38	1.6597	0.0166	Fuel use lower under CAIR	10%
				HS-ESP		SNCR	10%						10%
				HS-ESP		SCR & Wet Scrubber	90%						90%
				HS-ESP		SCR & Wet Scrubber	90%						90%
ROXBORO	796	2,422	6	CS-ESP	SCR	Scrubber	90%	247.40	247.40	1.2761	0.0128		90%
				CS-ESP		SCR & Wet Scrubber	90%						90%
				CS-ESP	SCR	Scrubber	90%						90%
				CS-ESP	SCR	Scrubber	90%						90%
				HS-ESP	SCR	Scrubber	90%						90%
				HS-ESP	SCR	Scrubber	90%						90%
Tobaccoville Utility Plant	NA	53	2				0% 0%	16.40	16.40	5.1876	0.0519		0% 0%
W H WEATHERSPOON	48	176	3	CS-ESP			36%	51.47	51.47	3.3164	0.0332		36%
				CS-ESP			36%						36%
				CS-ESP			36%						36%

North Carolina, 3

Plant	2002 Hg Plant-Level Emissions (lbs)	Total Plant Capacity (MW)	No. of Units	Current PM Controls	Current NOx & SO2 Controls	CAIR Installations Planned by 2015 (Projected Installations by 2020)	Hg control after CAIR	Plant 2020 Hg (lbs) under CAIR	Plant 2020 Hg (lbs) under CAMR	Plant CAMR 2020 Hg (lb/TBtu)	Plant CAMR 2020 Hg (lb/GWh)	Additional CAMR Installations/ Modifications Projected (by 2020)	Hg control after CAMR
Westmoreland LG&E Partners Roanoke Valle	0	167	1	FF	Dry Scrubber		95%	5.40	6.80	0.5129	0.0051	Hg coal content lower under CAIR	95%
Westmoreland LG&E Partners Roanoke Valle	1	52	1	FF	Dry Scrubber		95%	13.20	8.40	2.0349	0.0203	Hg coal content higher under CAIR	95%
TOTAL	3,283							1539.60	1459.00				

* Dwayne Cogen unit is stoker with FF/SDA according to 1999 Hg ICR achieving 93% control - IPM emf not reflect this control

North Dakota

How the federal mercury rule would look in North Dakota:

- 2020 projected emissions are 2% higher than allocated budget of 1,234 pounds
- 2020 estimated emissions will be a 45% reduction from 2002 estimated emissions
- State will be a net buyer of mercury allowances or user of banked allowances from excess emission reductions made in first phase of CAMR.

Plant *	2002 Hg Plant-Level Emissions (lbs)	Total Plant Capacity (MW)	No. of Units	Current PM Controls	Current NOx & SO2 Controls	CAIR Installations Planned by 2015 (Projected Installations by 2020)	Hg control after CAIR	Plant 2020 Hg (lbs) under CAIR	Plant 2020 Hg (lbs) under CAMR	Plant CAMR 2020 Hg (lb/TBtu)	Plant CAMR 2020 Hg (lb/GWh)	Additional CAMR Installations/ Modifications Projected (by 2020)	Hg control after CAMR
ANTELOPE VALLEY	367.40	900	2	FF	Dry Scrubber		0%	686.40	68.60	0.9784	0.0098	ACI installed under CAMR	90%
				FF	Dry Scrubber		0%						90%
COAL CREEK	584.28	604	2	CS-ESP	Wet Scrubber		44%	273.80	273.80	5.4850	0.0548		44%
				CS-ESP	Wet Scrubber		44%						44%
COYOTE	398.90	421	1	FF	Dry Scrubber		25%	201.20	155.40	4.3222	0.0432	Hg coal content higher under CAIR	25%
LELAND OLDS	339.92	641	2	CS-ESP		Wet Scrubber***	3%	311.12	288.12	5.2646	0.0526	Hg coal content higher under CAIR	3%
				CS-ESP		Wet Scrubber***	44%						44%
MILTON R YOUNG	439.62	665	2	CS-ESP		Wet Scrubber***	44%	324.28	324.28	5.6779	0.0568		44%
				CS-ESP	Wet Scrubber		44%						44%
R M HESKETT	28.79	102	2	CS-ESP			3%	41.20	31.60	3.3074	0.0331	Hg coal content higher under CAIR	3%
				CS-ESP	FBC		35%						35%
STANTON	126.03	237	2	CS-ESP			0%	157.20	119.80	6.7391	0.0674	Wet scrubber installed under CAMR	44%
				FF	Dry Scrubber		0%						0%
TOTAL	2284.94							1995.20	1261.60				

* North Dakota not covered by CAIR

** In IPM FBC Hg emf may not reflect 1999 Hg ICR - unit should achieve high Hg removal

*** Wet Scrubber projected to comply with Acid Rain requirements

Ohio

How the federal mercury rule would look in Ohio:

- 2020 projected emissions are 31% higher than allocated budget of 1,624 pounds
- 2020 estimated emissions will be a 71% reduction from 2002 estimated emissions
- State will be a net buyer of mercury allowances or user of banked allowances from excess emission reductions made in first phase of CAMR.

Plant	2002 Hg Plant-Level Emissions (lbs)	Total Plant Capacity (MW)	No. of Units	Current PM Controls	Current NOx & SO2 Controls	CAIR Installations Planned by 2015 (Projected Installations by 2020)	Hg control after CAIR	Plant 2020 Hg (lbs) under CAIR	Plant 2020 Hg (lbs) under CAMR	Plant CAMR 2020 Hg (lb/TBtu)	Plant CAMR 2020 Hg (lb/GWh)	Additional CAMR Installations/ Modifications Projected (by 2020)	Hg control after CAMR
ASHTABULA	175	243	1	CS-ESP		(SCR & Wet Scrubber)	90%	22.76	34.93	2.2645	0.0226	No SCR/scrubber under CAMR	36%
AVON LAKE	540	678	2	CS-ESP CS-ESP		SCR & Wet Scrubber	36% 90%	49.60	50.20	0.9646	0.0096	Hg coal content lower under CAIR	36% 90%
BAY SHORE	227	489	3	CS-ESP CS-ESP CS-ESP		SCR SCR (Wet Scrubber)	3% 3% 66%	176.94	66.19	1.7725	0.0177	SCR/Scrubber installed on all units under CAMR	90% 90% 90%
CARDINAL	575	1,777	3	CS-ESP CS-ESP HS-ESP	SCR SCR SCR	Wet Scrubber Wet Scrubber Wet Scrubber	90% 90% 90%	140.52	140.40	1.0375	0.0104		90% 90% 90%
CONESVILLE	1,061	1,905	6	CS-ESP CS-ESP CS-ESP CS-ESP CS-ESP CS-ESP		Early Retirement Early Retirement SCR & Wet Scrubber SCR & Wet Scrubber Wet Scrubber Wet Scrubber	NA NA 90% 90% 90% 90%	148.40	136.40	1.0799	0.0108	Hg coal content higher under CAIR	NA NA 90% 90% 90% 90%
EASTLAKE	521	1,209	5	CS-ESP CS-ESP CS-ESP CS-ESP CS-ESP		(SCR & Wet Scrubber) (SCR & Wet Scrubber) SNCR (SCR & Wet Scrubber) SNCR	90% 90% 36% 90% 66%	173.04	197.67	2.5165	0.0252	No SCR/scrubber on unit 1,2,&4 under CAMR Fuel use higher under CAIR	36% 36% 36% 36% 66%
GEN J M GAVIN	526	2,600	2	CS-ESP CS-ESP	SCR & Wet Scrubber SCR & Wet Scrubber		90% 90%	176.00	169.60	0.8848	0.0088	Hg coal content higher under CAIR	90% 90%
HAMILTON	2	82	2	HS-ESP FF	Hot-side ESP Dry Scrubber		10% 95%	7.65	7.85	1.3003	0.0130	Fuel use lower under CAIR	10% 95%

Ohio, 2

Plant	2002 Hg Plant-Level Emissions (lbs)	Total Plant Capacity (MW)	No. of Units	Current PM Controls	Current NOx & SO2 Controls	CAIR Installations Planned by 2015 (Projected Installations by 2020)	Hg control after CAIR	2020 Hg (lbs) under CAIR	2020 Hg (lbs) under CAMR	Plant CAMR 2020 Hg (lb/TBtu)	Plant CAMR 2020 Hg (lb/GWh)	Additional CAMR Installations/Modifications Projected (by 2020)	Hg control after CAMR
J M STUART	711	2,291	4	CS-ESP	SCR	Wet Scrubber	90%	158.80	182.20	1.0672	0.0107	Hg coal content lower under CAIR	90%
				CS-ESP	SCR	Wet Scrubber	90%						90%
				CS-ESP	SCR	Wet Scrubber	90%						90%
				CS-ESP	SCR	Wet Scrubber	90%						90%
KILLEN STATION	162	587	1	HS-ESP	SCR	Wet Scrubber	90%	45.80	47.80	1.0690	0.0107	Hg coal content lower under CAIR	90%
KYGER CREEK	460	1,003	5	CS-ESP	SCR	Wet Scrubber	90%	96.02	96.02	1.1094	0.0111		90%
				CS-ESP	SCR	Wet Scrubber	90%						90%
				CS-ESP	SCR	Wet Scrubber	90%						90%
				CS-ESP	SCR	Wet Scrubber	90%						90%
				CS-ESP	SCR	Wet Scrubber	90%						90%
LAKE SHORE	59	245	1	CS-ESP			3%	119.00	107.40	5.7129	0.0571	Fuel use higher under CAIR	3%
MIAMI FORT	71	1,222	5	CS-ESP		(Wet Scrubber)	66%	127.26	116.58	1.3083	0.0131	No scrubber on unit 6 under CAMR Fuel use higher for unit 6 under CAIR	36%
				CS-ESP	SCR	Wet Scrubber	90%						90%
				CS-ESP	SCR	Wet Scrubber	90%						90%
				CS-ESP		Early Retirement	NA						NA
				CS-ESP		Early Retirement	NA						NA
MUSKINGUM RIVER	425	1,336	5	CS-ESP		SCR & Wet Scrubber	90%	98.60	98.60	0.9857	0.0099		90%
				CS-ESP		SCR & Wet Scrubber	90%						90%
				CS-ESP		SCR & Wet Scrubber	90%						90%
				CS-ESP		SCR & Wet Scrubber	90%						90%
				CS-ESP	SCR	Wet Scrubber	90%						90%
NILES	147	138	2	CS-ESP	Wet Scrubber		66%	27.40	15.00	2.7950	0.0280	Hg coal content higher under CAIR	66%
				CS-ESP		Early Retirement	NA						NA
O H HUTCHINGS	61	365	6	HS-ESP			10%	62.15	62.15	3.0659	0.0307		10%
				HS-ESP			10%						10%
				HS-ESP			10%						10%
				HS-ESP			10%						10%
				HS-ESP			10%						10%
				HS-ESP			10%						10%
ORRVILLE	NA	62	2				0%	12.40	11.60	3.4113	0.0341	Fuel use higher under CAIR	0%
PICWAY	72	90	1	CS-ESP			36%	10.64	11.30	2.3123	0.0231	Hg coal content lower under CAIR	36%

Ohio, 3

Plant	2002 Hg Plant-Level Emissions (lbs)	Total Plant Capacity (MW)	No. of Units	Current PM Controls	Current NOx & SO2 Controls	CAIR Installations Planned by 2015 (Projected Installations by 2020)	Hg control after CAIR	2020 Hg (lbs) under CAIR	2020 Hg (lbs) under CAMR	Plant CAMR 2020 Hg (lb/TBtu)	Plant CAMR 2020 Hg (lb/GWh)	Additional CAMR Installations/ Modifications Projected (by 2020)	Hg control after CAMR
R E BURGER	150	399	4	CS-ESP			36%	40.76	41.50	1.3102	0.0131	Hg coal content lower under CAIR	36%
				CS-ESP			36%						35%
				CS-ESP		SCR & Wet Scrubber	90%						90%
				CS-ESP		SCR & Wet Scrubber	90%						90%
RICHARD GORSUCH	123	212	4	CS-ESP		Early Retirement	NA	0.00	0.00				NA
				CS-ESP		Early Retirement	NA						NA
				CS-ESP		Early Retirement	NA						NA
				CS-ESP		Early Retirement	NA						NA
W H SAMMIS	582	2,173	7	FF		SCR & Wet Scrubber	90%	366.20	302.60	1.8282	0.0183	No SCR on unit 3 installed under CAMR	90%
				FF	SNCR	Wet Scrubber	90%					Hg coal content higher under CAIR	90%
				FF		SCR & Wet Scrubber	90%						66%
				FF		SCR & Wet Scrubber	90%						90%
				CS-ESP		SCR & Wet Scrubber	90%						90%
				CS-ESP	SNCR	Wet Scrubber	66%						66%
				CS-ESP	SNCR	Wet Scrubber	66%						66%
W H ZIMMER	199	1,300	1	CS-ESP	SCR & Wet Scrubber		90%	88.40	93.40	1.0073	0.0101	Hg coal content lower under CAIR	90%
WALTER C BECKJORD	403	1,104	6	CS-ESP			36%	194.26	131.21	1.5611	0.0156	SCR/Scrubber on unit 3&4 under CAMR	36%
				CS-ESP			36%						36%
				CS-ESP		SCR	3%						90%
				CS-ESP		(Wet Scrubber)	66%						90%
				CS-ESP		SCR & Wet Scrubber	90%						90%
				CS-ESP		SCR & Wet Scrubber	90%						90%
TOTAL	7,253							2342.60	2120.60				

Oklahoma

How the federal mercury rule would look in Oklahoma:

- 2020 projected emissions are 216% higher than allocated budget of 570 pounds
- 2020 estimated emissions will be a 3% reduction from 2002 estimated emissions
- State will be a net buyer of mercury allowances.

Plant *	2002 Hg Plant-Level Emissions (lbs)	Total Plant Capacity (MW)	No. of Units	Current PM Controls	Current NOx & SO2 Controls	CAIR Installations Planned by 2015 (Projected Installations by 2020)	Hg control after CAIR	Plant 2020 Hg (lbs) under CAIR	Plant 2020 Hg (lbs) under CAMR	Plant CAMR 2020 Hg (lb/TBtu)	Plant CAMR 2020 Hg (lb/GWh)	Additional CAMR Installations/ Modifications Projected (by 2020)	Hg control after CAMR
AES Shady Point Incorporated**	391.06	307	2		Dry Scrubber - FBC Dry Scrubber - FBC		55% 55%	55.60	12.20	0.5006	0.0050	ACI installed under CAMR	90% 90%
GRDA	337.71	1,010	2	CS-ESP CS-ESP	Dry Scrubber		3% 35%	389.40	266.20	3.2416	0.0324	Unit 1 switch to bit coal under CAMR	36% 35%
HUGO	164.75	408	1	CS-ESP			3%	181.75	83.50	2.6246	0.0262	Switch to bit coal under CAMR	36%
MUSKOGEE	445.81	1,515	3	CS-ESP CS-ESP CS-ESP			3% 3% 3%	680.84	680.84	5.7127	0.0571		3% 3% 3%
NORTHEASTERN	232.29	910	2	CS-ESP CS-ESP			3% 3%	420.45	312.10	4.2400	0.0424	Unit 2 switch to bit coal under CAMR	3% 36%
SOONER	288.15	1,015	2	CS-ESP CS-ESP			3% 3%	445.96	445.96	5.7137	0.0571		3% 3%
TOTAL	1859.77							2174.00	1800.80				

* Oklahoma not covered by CAIR.

** In IPM FBC Hg EMF may not reflect 1999 Hg ICR - unit should achieve high Hg removal

Oregon

How the federal mercury rule would look in Oregon:

- 2020 projected emissions are 64% higher than allocated budget of 60 pounds
- 2020 estimated emissions will be a 41% reduction from 2002 estimated emissions
- State will be a net buyer of mercury allowances or user of banked allowances from excess emission reductions made in first phase of CAMR.

Plant *	2002 Hg Plant-Level Emissions (lbs)	Total Plant Capacity (MW)	No. of Units	Current PM Controls	Current NOx & SO2 Controls	CAIR Installations Planned by 2015 <i>(Projected Installations by 2020)</i>	Hg control after CAIR	Plant 2020 Hg (lbs) under CAIR	Plant 2020 Hg (lbs) under CAMR	Plant CAMR 2020 Hg (lb/TBtu)	Plant CAMR 2020 Hg (lb/GWh)	Additional CAMR Installations/ Modifications Projected (by 2020)	Hg control after CAMR
BOARDMAN	167.43	508	1	CS-ESP			36%	98.20	98.20	2.6228	0.0262		36%
TOTAL	167.43							98.20	98.20				

* Oregon not covered by CAIR

Pennsylvania

How the federal mercury rule would look in Pennsylvania:

- 2020 projected emissions are 45% higher than allocated budget of 1,404 pounds
- 2020 estimated emissions will be a 79% reduction from 2002 estimated emissions
- State will be a net buyer of mercury allowances or user of banked allowances from excess emission reductions made in first phase of CAMR.

Plant	2002 Hg Plant-Level Emissions (lbs)	Total Plant Capacity (MW)	No. of Units	Current PM Controls	Current NOx & SO2 Controls	CAIR Installations Planned by 2015 (Projected Installations by 2020)	Hg control after CAIR	Plant 2020 Hg (lbs) under CAIR	Plant 2020 Hg (lbs) under CAMR	Plant CAMR 2020 Hg (lb/TBtu)	Plant CAMR 2020 Hg (lb/GWh)	Additional CAMR Installations/ Modifications Projected (by 2020)	Hg control after CAMR
AES BV Partners Beaver Valley	28.15	127	2		wet scrubber wet scrubber	none none	66% 66%	107.60	57.00	5.6537	0.0565	Hg coal content higher under CAIR	66% 66%
ARMSTRONG	330.99	336	2	CS-ESP CS-ESP	SNCR SNCR	wet scrubber wet scrubber	66% 66%	96.97	96.97	3.7715	0.0377		66% 66%
BRUCE MANSFIELD	1,338.54	2,371	3	CS-ESP CS-ESP CS-ESP	SCR & Wet scrubber SCR & Wet scrubber wet scrubber	none none SCR	90% 90% 90%	176.65	170.45	1.0702	0.0107	Hg coal content higher under CAIR	90% 90% 90%
BRUNNER ISLAND	557.76	1,404	3	FF CS-ESP CS-ESP		SCR & wet scrubber SCR & wet scrubber SCR & wet scrubber	90% 90% 90%	115.11	187.17	1.8023	0.0180	Unit 1 installs Scrubber only under CAMR Hg coal content lower under CAIR	66% 90% 90%
Cambria CoGen	73.06	87	1	FF	SNCR - FBC	none	99%	73.06	73.06	1.2429	NA		99%
CHESWICK	293.04	550	1	CS-ESP	SCR	wet scrubber	90%	43.60	42.60	1.0046	0.0100	Hg coal content higher under CAIR	90%
Colver Power Project	77.15	114	1			none	0%	133.80	0.00		0.0000	plant idle under CAMR	0%
CONEMAUGH	510.29	1,700	2	CS-ESP CS-ESP	wet scrubber wet scrubber	SCR SCR	90% 90%	345.20	221.40	1.8426	0.0184	Hg coal content higher under CAIR	90% 90%
CROMBY	12.04	144	1		wet scrubber-SNCR	none	66%	120.80	49.00	4.6691	0.0467	Fuel use/Hg coal content higher under CAIR	66%
Ebensburg Power Company	0.48	51	1	FF	dry scrubber - FBC	none	99%	0.48	0.48	1.8662	NA		99%
EDDYSTONE	49.63	581	2	HS-ESP HS-ESP	wet scrubber wet scrubber	none none	42% 42%	497.60	85.80	1.8421	0.0184	SCR installed on units 1 & 2	90% 90%
ELRAMA	75.52	474	4	HS-ESP HS-ESP HS-ESP HS-ESP	wet scrubber-SNCR wet scrubber-SNCR wet scrubber-SNCR wet scrubber-SNCR	none none none none	42% 42% 42% 42%	250.20	116.40	2.9428	0.0294	Fuel use higher under CAIR Hg coal content higher under CAIR	42% 42% 42% 42%
Foster Wheeler Mt Carmel Incorporated	0.22	40	1		dry scrubber - FBC	none	99%	0.22	0.22	1.8550	NA		99%

Pennsylvania, 2

Plant	2002 Hg Plant-Level Emissions (lbs)	Total Plant Capacity (MW)	No. of Units	Current PM Controls	Current NOx & SO2 Controls	CAIR Installations Planned by 2015 (Projected Installations by 2020)	Hg control after CAIR	2020 Hg (lbs) under CAIR	2020 Hg (lbs) under CAMR	Plant CAMR 2020 Hg (lb/TBtu)	Plant CAMR 2020 Hg (lb/GWh)	Additional CAMR Installations/ Modifications Projected (by 2020)	Hg control after CAMR
HATFIELD'S FERRY	505.61	1,469	3	CS-ESP CS-ESP CS-ESP	SNCR	scrubber SCR & wet scrubber SCR & wet scrubber	66% 90% 90%	221.03	221.03	1.9948	0.0199		66% 90% 90%
HOMER CITY	688.77	1,858	3	CS-ESP CS-ESP CS-ESP	SCR SCR SCR & Wet scrubber	wet scrubber wet scrubber none	90% 90% 90%	201.31	201.31	1.4890	0.0149		90% 90% 90%
HUNLOCK PWR STATION	76.93	48	1	CS-ESP		early retirement	NA	0.00	0.00				NA
John B Rich Memorial Power Station	0.65	80	1		FBC	none	99%	0.65	0.65		NA		99%
Johnsonburg Mill	81.52					Plant not in EPA's IPM Parsed Output							
KEYSTONE	1,735.96	1,664	2	CS-ESP CS-ESP	SCR SCR	wet scrubber wet scrubber	90% 90%	153.25	153.25	1.2820	0.0128		90% 90%
Kline Township Cogen Facil	0.51	50	1	FF	dry scrubber - FBC	none	99%	0.51	0.51	1.2655	NA		99%
MARTINS CREEK	77.90	280	2	CS-ESP CS-ESP		early retirement early retirement	NA NA	0.00	0.00				NA NA
MITCHELL	26.24	275	1	CS-ESP	wet scrubber	SCR	90%	23.75	23.75	1.1090	0.0111		90%
MONTOUR	1,285.89	1,473	2	CS-ESP CS-ESP	SCR SCR	wet scrubber wet scrubber	90% 90%	129.04	129.04	1.2820	0.0128		90% 90%
NEW CASTLE	234.17	330	3	CS-ESP CS-ESP CS-ESP		none none SCR & wet scrubber	36% 36% 90%	44.80	44.80	2.0911	0.0209		36% 36% 90%
Northhampton Generating Company L P	0.81	102	1	FF	dry scrubber - FBC	none	99%	0.81	0.81	1.8435	NA		99%
Panther Creek Energy Facility	0.25	83	1	FF	dry scrubber - FBC	none	99%	0.25	0.25	1.8550	NA		99%
Piney Creek Project	0.18	32	1	FF	dry scrubber - FBC	none	99%	0.18	0.18	1.2655	NA		99%
PORTLAND	155.07	396	2	CS-ESP CS-ESP		early retirement wet scrubber	NA 66%	71.00	32.80	1.7384	0.0174	SCR installed on unit 2	NA 90%
Scrubgrass Generating Company L P	0.45	82	1		SNCR & dry scrubber - FBC	none	99%	0.45	0.45	1.2607	NA		99%
SEWARD	56.32	520	1		Fossil waste plant in IPM	none	NA	0.00	0.00	0.0000			NA
SHAWVILLE	824.16	590	4	CS-ESP CS-ESP CS-ESP CS-ESP		none wet scrubber SCR SCR & wet scrubber	36% 90% 90% 90%	63.73	93.13	2.0795	0.0208	higher fuel use for CAMR for unit 1 Hg coal content lower under CAIR	36% 90% 90% 90%
St Nicholas Cogeneration Project	0.68	99	1		FBC	none (wet scrubber)	99%	0.68	0.68	5.1695	NA		99%

Pennsylvania, 3

Plant	2002 Hg Plant-Level Emissions (lbs)	Total Plant Capacity (MW)	No. of Units	Current PM Controls	Current NOx & SO2 Controls	CAIR Installations Planned by 2015 (Projected Installations by 2020)	Hg control after CAIR	2020 Hg (lbs) under CAIR	2020 Hg (lbs) under CAMR	Plant CAMR 2020 Hg (lb/TBtu)	Plant CAMR 2020 Hg (lb/GWh)	Additional CAMR Installations/ Modifications Projected (by 2020)	Hg control after CAMR
SUNBURY	297.59	362	6	FF		early retirement	NA	21.56	25.71	3.3079	0.0331	Fuel use lower under CAIR	NA
				FF		early retirement	NA						NA
				FF		early retirement	NA						NA
				FF		early retirement	NA						NA
				CS-ESP		early retirement	NA						NA
				CS-ESP		none	36%						36%
TITUS	96.24	241	3	CS-ESP		early retirement	NA	0.00	0.00				NA
				CS-ESP		early retirement	NA						NA
				CS-ESP		early retirement	NA						NA
Wheeler Frackville Energy Company Inc	0.37	43	1	FF	dry scrubber - FBC	none	99%	0.37	0.37	1.2655	NA		99%
TOTAL	9,493.16	18,054						2894.68	2029.28				

In IPM FBC Hg may not reflect 1999 Hg ICR— unit should achieve high Hg removal; used 2002 emissions for FBC plants.

South Carolina

How the federal mercury rule would look in South Carolina:

- 2020 projected emissions are 4% higher than allocated budget of 458 pounds
- 2020 estimated emissions will be a 39% reduction from 2002 estimated emissions
- State will be a net buyer of mercury allowances or user of banked allowances from excess emission reductions made in first phase of CAMR.

Plant	2002 Hg Plant-Level Emissions (lbs)	Total Plant Capacity (MW)	No. of Units	Current PM Controls	Current NOx & SO2 Controls	CAIR Installations Planned by 2015 (Projected Installations by 2020)	Hg control after CAIR	Plant 2020 Hg (lbs) under CAIR	Plant 2020 Hg (lbs) under CAMR	Plant CAMR 2020 Hg (lb/TBtu)	Plant CAMR 2020 Hg (lb/GWh)	Additional CAMR Installations/ Modifications Projected (by 2020)	Hg control after CAMR
CANADYS STEAM	64.49	430	3	CS-ESP CS-ESP FF			36% 36% 89%	60.22	59.97	2.0307	0.0203	Fuel use lower under CAIR Hg coal content higher under CAIR	36% 36% 89%
Cogen South	NA	55	1		Dry Scrubber		40%	22.20	2.20	0.4995	0.0050	ACI installed under CAMR	90%
COPE	2.49	385	1	FF	Dry Scrubber		95%	6.80	14.00	0.5170	0.0052	Hg coal content lower under CAIR	95%
CROSS	129.14	1100	2	CS-ESP CS-ESP	SCR & Wet Scrubber SCR & Wet Scrubber		90% 90%	43.80	43.80	0.5037	0.0050		90% 90%
DOLPHUS M GRAINGER	63.74	170	2	CS-ESP CS-ESP			36% 36%	32.35	36.08	3.3021	0.0330	Fuel use lower under CAIR	36% 36%
H B ROBINSON	60.80	174	1	CS-ESP			36%	36.32	35.73	3.3097	0.0331	Fuel use higher under CAIR	36%
JEFFERIES	119.91	306.0015	2	CS-ESP CS-ESP		SCR	36% 36%	71.47	40.12	1.7946	0.0179	Scrubber installed unit 1 under CAMR	90% 36%
MCMEEKIN	9.56	252	2	FF FF			89% 89%	9.40	10.19	0.5672	0.0057	Fuel use lower under CAIR	89% 89%
URQUHART	27.56	100	1	CS-ESP			36%	17.85	19.92	3.3021	0.0330	Fuel use lower under CAIR	36%
USDOE SRS (D-Area)	NA	35	1				0%	11.00	11.00	5.2229	0.0522		0%
W S LEE	59.40	370	3	HS-ESP HS-ESP HS-ESP			10% 10% 10%	115.20	109.80	4.6582	0.0466	Fuel use higher under CAIR	10% 10% 10%
WATEREE	207.87	692.6535	2	CS-ESP/FF CS-ESP	SCR SCR	(Wet Scrubber) Wet Scrubber	95% 90%	29.01	28.61	0.5242	0.0052	Hg coal content higher under CAIR	95% 90%
WILLIAMS	95.57	548.2456	1	CS-ESP	SCR	Wet Scrubber	90%	20.79	20.79	0.5208	0.0052		90%

South Carolina, 2

Plant	2002 Hg Plant-Level Emissions (lbs)	Total Plant Capacity (MW)	No. of Units	Current PM Controls	Current NOx & SO2 Controls	CAIR Installations Planned by 2015 (Projected Installations by 2020)	Hg control after CAIR	Plant 2020 Hg (lbs) under CAIR	Plant 2020 Hg (lbs) under CAMR	Plant CAMR 2020 Hg (lb/TBtu)	Plant CAMR 2020 Hg (lb/GWh)	Additional CAMR Installations/ Modifications Projected (by 2020)	Hg control after CAMR
WINYAH	198.31	1068.6654	4	CS-ESP	SCR	Wet Scrubber	90%	44.00	44.00	0.5216	0.0052		90%
				CS-ESP	SCR	Wet Scrubber	90%						90%
				CS-ESP	SCR & Wet Scrubber		90%						90%
				CS-ESP	SCR & Wet Scrubber		90%						90%
BIG STONE	NA	452	1	CS-ESP			36%	152.60	152.60	4.4126	0.0441		36%
TOTAL	1038.84							673.00	628.80				

South Dakota

How the federal mercury rule would look in South Dakota:

- 2020 projected emissions are 163% higher than allocated budget of 58 pounds
- 2020 estimated emissions will be a 48% increase from 2002 estimated emissions
- State will be a net buyer of mercury allowances.

Plant *	2002 Hg Plant-Level Emissions (lbs)	Total Plant Capacity (MW)	No. of Units	Current PM Controls	Current NOx & SO2 Controls	CAIR Installations Planned by 2015 (Projected Installations by 2020)	Hg control after CAIR	Plant 2020 Hg (lbs) under CAIR	Plant 2020 Hg (lbs) under CAMR	Plant CAMR 2020 Hg (lb/TBtu)	Plant CAMR 2020 Hg (lb/GWh)	Additional CAMR Installations/ Modifications Projected (by 2020)	Hg control after CAMR
BIG STONE	103.18	452	1	CS-ESP			3%	152.60	152.60	4.4126	0.0441		3%
TOTAL	103.18							152.60	152.60				

* South Dakota not covered by CAIR

Tennessee

How the federal mercury rule would look in Tennessee:

- 2020 projected emissions are 16% lower than allocated budget of 746 pounds
- 2020 estimated emissions will be a 76% reduction from 2002 estimated emissions
- State will be a net seller of mercury allowances.

Plant	2002 Hg Plant-Level Emissions (lbs)	Total Plant Capacity (MW)	No. of Units	Current PM Controls	Current NOx & SO2 Controls	CAIR Installations Planned by 2015 (Projected Installations by 2020)	Hg control after CAIR	Plant 2020 Hg (lbs) under CAIR	Plant 2020 Hg (lbs) under CAMR	Plant CAMR 2020 Hg (lb/TBtu)	Plant CAMR 2020 Hg (lb/GWh)	Additional CAMR Installations/Modifications Projected (by 2020)	Hg control after CAMR
ALLEN	172.33	744	3	CS-ESP	SCR		36%	152.60	152.60	2.6278	0.0263		36%
				CS-ESP	SCR		36%						
				CS-ESP	SCR		36%						
BULL RUN	396.36	850	1	CS-ESP	SCR	Wet Scrubber	90%	55.60	55.60	0.8028	0.0080		90%
CUMBERLAND	256.26	2,462	2	CS-ESP	SCR & Wet Scrubber		90%	154.40	154.40	0.8039	0.0080		90%
				CS-ESP	SCR & Wet Scrubber		90%						
GALLATIN	634.21	956	4	CS-ESP		Wet Scrubber	66%	134.00	123.80	1.7221	0.0172	Hg coal content higher under CAIR	66%
				CS-ESP		Wet Scrubber	66%						
				CS-ESP		Wet Scrubber	66%						
				CS-ESP		Wet Scrubber	66%						
JOHN SEVIER	237.50	704	4	CS-ESP		SCR	36%	173.60	26.80	0.5108	0.0051	Scrubber on all units under CAMR	90%
				CS-ESP		SCR	36%						
				CS-ESP		SCR	36%						
				CS-ESP		SCR	36%						
JOHNSONVILLE	352.52	1,206	10	CS-ESP		Early Retirement	NA	66.80	54.20	2.6199	0.0262	Fuel use higher undr CAIR	NA
				CS-ESP		Early Retirement	NA						
				CS-ESP		Early Retirement	NA						
				CS-ESP		Early Retirement	NA						
				CS-ESP		Early Retirement	NA						
				CS-ESP		Early Retirement	NA						
				CS-ESP		Early Retirement	NA						
				CS-ESP		Early Retirement	NA						
				CS-ESP		Early Retirement	NA						
				CS-ESP		SCR	36%						
CS-ESP		SCR	36%										

Tennessee, 2

Plant **	2002 Hg Plant-Level Emissions (lbs)	Total Plant Capacity (MW)	No. of Units	Current PM Controls	Current NOx & SO2 Controls	CAIR Installations Planned by 2015 <i>(Projected Installations by 2020)</i>	Hg control after CAIR	Plant 2020 Hg (lbs) under CAIR	Plant 2020 Hg (lbs) under CAMR	Plant CAMR 2020 Hg (lb/TBtu)	Plant CAMR 2020 Hg (lb/GWh)	Additional CAMR Installations/ Modifications Projected (by 2020)	Hg control after CAMR
KINGSTON	551.82	1,434	9	CS-ESP	SCR	(Wet Scrubber)	90%	65.20	61.60	0.5087	0.0051	Hg coal content higher under CAIR	90%
				CS-ESP	SCR	(Wet Scrubber)	90%						90%
				CS-ESP	SCR	(Wet Scrubber)	90%						90%
				CS-ESP	SCR	(Wet Scrubber)	90%						90%
				CS-ESP	SCR	(Wet Scrubber)	90%						90%
				CS-ESP	SCR	(Wet Scrubber)	90%						90%
				CS-ESP	SCR	(Wet Scrubber)	90%						90%
				CS-ESP	SCR	(Wet Scrubber)	90%						90%
				CS-ESP	SCR	(Wet Scrubber)	90%						90%
TOTAL	2601.00							802.20	629.00				

Texas

How the federal mercury rule would look in Texas:

- 2020 projected emissions are 45% higher than allocated budget of 3,676 pounds
- 2020 estimated emissions will be a 42% reduction from 2002 estimated emissions
- State will be a net buyer of mercury allowances or user of banked allowances from excess emission reductions made in first phase of CAMR.

Plant **	2002 Hg Plant-Level Emissions (lbs)	Total Plant Capacity (MW)	No. of Units	Current PM Controls	Current NOx & SO2 Controls	CAIR Installations Planned by 2015 (Projected Installations by 2020)	Hg control after CAIR	Plant 2020 Hg (lbs) under CAIR	Plant 2020 Hg (lbs) under CAMR	Plant CAMR 2020 Hg (lb/TBtu)	Plant CAMR 2020 Hg (lb/GWh)	Additional CAMR Installations/ Modifications Projected (by 2020)	Hg control after CAMR
AES Deepwater Incorporated	NA	162	1				0%	158.40	158.40	20.8797	0.2088		0%
BIG BROWN	415.40	1,126	2	CS-ESP/FF		(Dry Scrubber)	25%	413.40	413.40	4.4194	0.0442		25%
				CS-ESP/FF		(Dry Scrubber)	25%						25%
Celanese	NA	26	1				0%	5.80	5.80	3.4273	0.0343		0%
COLETO CREEK	122.44	632	1	HS-ESP			10%	145.40	145.40	3.0706	0.0307		10%
GIBBONS CREEK	264.30	405	1	CS-ESP	Wet Scrubber		16%	158.12	158.12	4.9478	0.0495		16%
HARRINGTON STATION	292.33	1,066	3	CS-ESP			3%	235.10	235.10	2.9253	0.0293		3%
				FF			73%						73%
				FF			73%						73%
J K SPRUCE	8.76	530	1	FF	Wet Scrubber		73%	56.00	56.00	1.5893	0.0159		73%
J T DEELY	462.24	810	2	CS-ESP			36%	136.40	136.40	2.1825	0.0218		36%
				CS-ESP			36%						36%
LIMESTONE	886.72	1,440	2	CS-ESP	Wet Scrubber		44%	593.58	593.28	5.1992	0.0520		44%
				CS-ESP	Wet Scrubber		16%						16%
MARTIN LAKE	1219.99	2,250	3	CS-ESP	Wet Scrubber		44%	1025.51	1024.54	5.4453	0.0545		44%
				CS-ESP	Wet Scrubber		44%						44%
				CS-ESP	Wet Scrubber		44%						44%
MONTICELLO	2007.53	1,856	3	CS-ESP		(Dry Scrubber)	35%	638.43	638.11	4.5503	0.0455	Dry Scrubber on units 1&2 under CAMR	35%
				CS-ESP			3%					Hg coal content lower under CAIR	35%
				CS-ESP	Wet Scrubber		44%						44%
OKLAUNION	180.59	676	1	CS-ESP	Wet Scrubber		16%	261.20	261.20	4.9467	0.0495		16%
PIRKEY	868.33	580	1	CS-ESP	Wet Scrubber		44%	222.40	154.60	4.3711	0.0437	Fuel use higher under CAIR	44%

Texas, 2

Plant **	2002 Hg Plant-Level Emissions (lbs)	Total Plant Capacity (MW)	No. of Units	Current PM Controls	Current NOx & SO2 Controls	CAIR Installations Planned by 2015 (Projected Installations by 2020)	Hg control after CAIR	Plant 2020 Hg (lbs) under CAIR	Plant 2020 Hg (lbs) under CAMR	Plant CAMR 2020 Hg (lb/TBtu)	Plant CAMR 2020 Hg (lb/GWh)	Additional CAMR Installations/ Modifications Projected (by 2020)	Hg control after CAMR
SAM SEYMOUR	821.00	1,575	3	CS-ESP		(Dry Scrubber)	35%	501.00	459.80	3.7059	0.0371	Units 1&2 use bit coal under CAMR	35%
				CS-ESP		(Dry Scrubber)	35%						35%
				CS-ESP	Wet Scrubber		16%						16%
SAN MIGUEL	130.38	391	1	CS-ESP	Wet Scrubber		44%	188.00	187.82	5.4453	0.0545		44%
SANDOW	255.45	545	1	CS-ESP	Wet Scrubber		44%	241.36	241.13	5.4453	0.0545		44%
TNP ONE	30.15	300	2	FF	Dry Scrubber - FBC		57%	63.20	63.20	2.5294	0.0253		57%
				FF	Dry Scrubber - FBC		57%						57%
TOLK STATION	152.62	1,080	2	FF			73%	121.70	121.70	1.5904	0.0159		73%
				FF			73%						73%
W A PARISH	559.97	2,376	4	FF	SCR	Dry Scrubber	95%	105.40	105.40	0.5613	0.0056		95%
				FF	SCR	Dry Scrubber	95%						95%
				FF	SCR	Dry Scrubber	95%						95%
				FF	SCR & Wet Scrubber		73%						73%
WELSH	516.24	1,584	3	HS-ESP			6%	693.00	166.20	1.3285	0.0133	Wet scrubber on unit 1 under CAMR	66%
				HS-ESP			6%						90%
				HS-ESP			6%						90%
TOTAL	9194.43							5963.40	5325.60				

* In IPM FBC Hg emf may not reflect 1999 Hg ICR - unit should achieve high Hg removal

** Texas covered by the PM portion of CAIR only

Utah

How the federal mercury rule would look in Utah:

- 2020 projected emissions are 16% lower than allocated budget 447 pounds³
- 2020 estimated emissions will be a 41% increase from 2002 estimated emissions
- State will be a net seller of mercury allowances.

Plant *	2002 Hg Plant-Level Emissions (lbs)	Total Plant Capacity (MW)	No. of Units	Current PM Controls	Current NOx & SO2 Controls	CAIR Installations Planned by 2015 (Projected Installations by 2020)	Hg control after CAIR	Plant 2020 Hg (lbs) under CAIR	Plant 2020 Hg (lbs) under CAMR	Plant CAMR 2020 Hg (lb/TBtu)	Plant CAMR 2020 Hg (lb/GWh)	Additional CAMR Installations/ Modifications Projected (by 2020)	Hg control after CAMR
BONANZA***	4.36	425	1	FF	Wet Scrubber		90%	16.20	16.20	0.5059	0.0051		90%
CARBON	44.03	175	2	CS-ESP CS-ESP			36% 36%	38.40	38.40	2.6309	0.0263		36% 36%
HUNTER (EMERY)	79.87	1,225	3	CS-ESP CS-ESP FF	Wet Scrubber Wet Scrubber Wet Scrubber		66% 66% 90%	128.79	128.79	1.3297	0.0133		66% 66% 90%
HUNTINGTON	128.02	845	2	CS-ESP CS-ESP	Wet Scrubber	(Wet Scrubber**)	66% 66%	112.81	112.81	1.7244	0.0172		66% 66%
INTERMOUNTAIN	9.90	1,620	2	FF FF	Wet Scrubber Wet Scrubber		90% 90%	58.20	58.20	0.5063	0.0051		90% 90%
Sunnyside Cogeneration Associates	0.12	50	1				0%	22.20	20.60	4.1113	0.0411	Fuel use higher under CAIR	0%
TOTAL	266.32							376.60	375.00				

*Utah not covered by CAIR

** Wet Scrubber projected to comply with Acid Rain requirements

*** Bonanza plant part of Ute Indian Tribe Budget

³For comparison, Bonanza portion of Ute Indian Tribe Budget has been added to Utah state budget (47.25 lbs) -

Virginia

How the federal mercury rule would look in Virginia:

- 2020 projected emissions are 21% higher than allocated budget of 468 pounds
- 2020 estimated emissions will be a 59% reduction from 2002 estimated emissions
- State will be a net buyer of mercury allowances or user of banked allowances from excess emission reductions made in first phase of CAMR.

Virginia has enacted a state specific rule¹ that will alter mercury emissions from the projected mercury emissions under CAMR.

Plant	2002 Hg Plant-Level Emissions (lbs)	Total Plant Capacity (MW)	No. of Units	Current PM Controls	Current NOx & SO2 Controls	CAIR Installations Planned by 2015 (Projected Installations by 2020)	Hg control after CAIR	Plant 2020 Hg (lbs) under CAIR	Plant 2020 Hg (lbs) under CAMR	Plant CAMR 2020 Hg (lb/TBtu)	Plant CAMR 2020 Hg (lb/GWh)	Additional CAMR Installations/ Modifications Projected (by 2020)	Hg control after CAMR
BREMO POWER STATION	160.16	227	2	HS-ESP			10%	92.20	60.00	4.6503	0.0465	No scrubber under CAMR Fuel use and Hg coal content high under CAIR	10%
				HS-ESP	SNCR	(Wet Scrubber)	42%						10%
CHESAPEAKE	182.79	590	4	CS-ESP	SNCR		36%	76.60	76.00	1.8007	0.0180		36%
				CS-ESP	SNCR		36%						36%
				CS-ESP		SCR (Wet Scrubber)	90%						90%
				CS-ESP		SCR & Wet Scrubber	90%						90%
CHESTERFIELD	445.23	1285	4	CS-ESP			36%	121.80	121.80	1.2170	0.0122		36%
				CS-ESP		SCR (Wet Scrubber)	90%						90%
				CS-ESP		SCR & Wet Scrubber	90%						90%
				CS-ESP		SCR & Wet Scrubber	90%						90%
CLINCH RIVER	162.42	690	3	CS-ESP		SCR (Wet Scrubber)	90%	25.24	24.94	0.5097	0.0051		90%
				CS-ESP		SCR (Wet Scrubber)	90%						90%
				CS-ESP		SCR (Wet Scrubber)	90%						90%
CLOVER	11.99	882	2	FF	SNCR & Wet Scrubber		95%	15.20	15.20	0.2407	0.0024		95%
				FF	SNCR & Wet Scrubber		95%						95%
Cogentrix Hopewell	NA	78	2	FF	stoker		89%	2.60	2.60	0.5588	0.0056		89%
Cogentrix of Richmond Incorporated *	6.08	241	4		Dry Scrubber - stoker		0%	212.20	20.00	1.0454	0.0105	ACI installed all units under CAMR	90%
					Dry Scrubber - stoker		0%						90%
					Dry Scrubber - stoker		0%						90%
					Dry Scrubber - stoker		0%						90%
GLEN LYN	76.22	325	3	CS-ESP		SCR (Wet Scrubber)	90%	23.76	26.66	1.2017	0.0120	Fuel use lower under CAIR	90%
				CS-ESP		Early Retirement	NA						NA
				CS-ESP			36%						36%

¹ HB 1055ER. Available at: <http://leg1.state.va.us/cgi-bin/legp504.exe?061+sum+HB1055>.

Virginia, 2

Plant	2002 Hg Plant-Level Emissions (lbs)	Total Plant Capacity (MW)	No. of Units	Current PM Controls	Current NOx & SO2 Controls	CAIR Installations Planned by 2015 (Projected Installations by 2020)	Hg control after CAIR	2020 Hg (lbs) under CAIR	2020 Hg (lbs) under CAMR	Plant CAMR 2020 Hg (lb/TBtu)	Plant CAMR 2020 Hg (lb/GWh)	Additional CAMR Installations/Modifications Projected (by 2020)	Hg control after CAMR
LG&E Westmoreland Altavista	1.44	57	1	FF	SNCR & Dry Scrubber - stoker		90%	6.18	6.18	1.2393	0.0124		90%
LG&E Westmoreland Hopewell	NA	57	1	FF	SNCR & Dry Scrubber - stoker		90%	6.02	6.02	1.2393	0.0124		90%
LG&E Westmoreland Southampton	1.43	35	1	FF	Dry Scrubber - stoker		90%	3.20	3.60	1.2450	0.0125		90%
Mecklenburg Cogeneration Facility	0.65	122	2	FF FF	Dry Scrubber Dry Scrubber		90% 90%	5.40	5.40	0.5576	0.0056		90% 90%
POTOMAC RIVER	72.45	482	5	HS-ESP HS-ESP HS-ESP HS-ESP HS-ESP		Early Retirement Early Retirement	NA NA 10% 10% 10%	89.00	89.00	4.6548	0.0465		NA NA 10% 10% 10%
SEI Birchwood Power Facility	3.56	199	1		SCR & Dry Scrubber		40%	106.20	48.40	3.0370	0.0304	Hg coal content higher under CAIR	40%
YORKTOWN	120.97	326	2	CS-ESP CS-ESP	SNCR SNCR	(Wet Scrubber) (Wet Scrubber)	66% 66%	93.60	61.80	3.3084	0.0331	No scrubber under CAMR Fuel use and Hg coal content higher under CAIR	36% 36%
Possum Point	127.53	oil/gas unit in IPM											
TOTAL	1372.90							879.20	567.60				

* Stoker unit mischaracterized in IPM; should have FF and get over 90% Hg control according to 1999 Hg ICR

Washington

How the federal mercury rule would look in Washington:

- 2020 projected emissions are 242% higher than allocated budget of 156 pounds
- 2020 estimated emissions will be a 5% reduction from 2002 estimated emissions
- State will be a net buyer of mercury allowances.

Plant *	2002 Hg Plant-Level Emissions (lbs)	Total Plant Capacity (MW)	No. of Units	Current PM Controls	Current NOx & SO2 Controls	CAIR Installations Planned by 2015 (Projected Installations by 2020)	Hg control after CAIR	Plant 2020 Hg (lbs) under CAIR	Plant 2020 Hg (lbs) under CAMR	Plant CAMR 2020 Hg (lb/TBtu)	Plant CAMR 2020 Hg (lb/GWh)	Additional CAMR Installations/ Modifications Projected (by 2020)	Hg control after CAMR
CENTRALIA	564.62	1,404	2	CS-ESP	Wet Scrubber		16%	533.80	533.80	4.8734	0.0487		16%
CENTRALIA				CS-ESP	Wet Scrubber		16%						16%
TOTAL	564.62							533.80	533.80				

* Washington not covered by CAIR

West Virginia

How the federal mercury rule would look in West Virginia:

- 2020 projected emissions are 7% higher than allocated budget of 1,100 pounds
- 2020 estimated emissions will be a 77% reduction from 2002 estimated emissions
- State will be a net buyer of mercury allowances or user of banked allowances from excess emission reductions made in first phase of CAMR.

Plant	2002 Hg Plant-Level Emissions (lbs)	Total Plant Capacity (MW)	No. of Units	Current PM Controls	Current NOx & SO2 Controls	CAIR Installations Planned by 2015 (Projected Installations by 2020)	Hg control after CAIR	Plant 2020 Hg (lbs) under CAIR	Plant 2020 Hg (lbs) under CAMR	Plant CAMR 2020 Hg (lb/TBtu)	Plant CAMR 2020 Hg (lb/GWh)	Additional CAMR Installations/ Modifications Projected (by 2020)	Hg control after CAMR
ALBRIGHT	140.97	280	3	CS-ESP		Early Retirement	NA	11.80	11.80	1.1191	0.0112		NA
				CS-ESP		Early Retirement	NA						NA
				CS-ESP		SCR & Wet Scrubber	90%						90%
FORT MARTIN	444.56	1,084	2	CS-ESP		Wet Scrubber	66%	288.20	153.60	1.9257	0.0193	SCR added to unit 1	90%
				CS-ESP	SNCR	Wet Scrubber	66%						66%
Grant Town Power Plant	0.22	84	1	FF	Dry Scrubber - FBC		99%	0.22	0.22				99%
HARRISON	291.33	1,920	3	CS-ESP	SCR & Wet Scrubber		90%	120.60	120.60	0.8051	0.0081		90%
				CS-ESP	SCR & Wet Scrubber		90%						90%
				CS-ESP	SCR & Wet Scrubber		90%						90%
JOHN E AMOS	996.29	2,839	3	CS-ESP	SCR	Wet Scrubber	90%	238.60	238.60	1.0551	0.0106		90%
				CS-ESP	SCR	Wet Scrubber	90%						90%
				CS-ESP	SCR	Wet Scrubber	90%						90%
KAMMER	258.22	587	3	CS-ESP		SCR & Wet Scrubber	90%	47.40	47.40	1.1103	0.0111		90%
				CS-ESP		SCR & Wet Scrubber	90%						90%
				CS-ESP		SCR & Wet Scrubber	90%						90%
KANAWHA RIVER	163.66	382	2	CS-ESP		SCR & Wet Scrubber	90%	31.60	31.60	1.1081	0.0111		90%
				CS-ESP		SCR & Wet Scrubber	90%						90%
MITCHELL	446.77	1,600	2	CS-ESP	SCR & Wet Scrubber		90%	129.00	135.60	1.1750	0.0118	Hg coal content lower under CAIR	90%
				CS-ESP	SCR & Wet Scrubber		90%						90%
Morgantown Energy Facility	18.78	60	1	FF	Dry Scrubber - FBC		99%	18.78	18.78				99%
MOUNTAINEER	467.94	1,300	1	CS-ESP	SCR & Wet Scrubber		90%	113.60	117.20	1.1562	0.0116	Hg coal content lower under CAIR	90%
MT STORM	1082.34	1,587	3	CS-ESP	SCR & Wet Scrubber		90%	99.60	99.60	0.8028	0.0080		90%
				CS-ESP	SCR & Wet Scrubber		90%						90%
				CS-ESP	Wet Scrubber	SCR	90%						90%

West Virginia, 2

Plant	2002 Hg Plant-Level Emissions (lbs)	Total Plant Capacity (MW)	No. of Units	Current PM Controls	Current NOx & SO2 Controls	CAIR Installations Planned by 2015 (Projected Installations by 2020)	Hg control after CAIR	2020 Hg (lbs) under CAIR	2020 Hg (lbs) under CAMR	Plant CAMR 2020 Hg (lb/TBtu)	Plant CAMR 2020 Hg (lb/GWh)	Additional CAMR Installations/ Modifications Projected (by 2020)	Hg control after CAMR
NORTH BRANCH POWER STATION	23.79	74	2	FF	Dry Scrubber - FBC		99%	23.79	23.79				99%
				FF	Dry Scrubber - FBC		99%						99%
PHILIP SPORN	507.74	999	5	CS-ESP		SCR & Wet Scrubber	90%	82.80	82.80	1.1079	0.0111		90%
				CS-ESP		SCR & Wet Scrubber	90%						90%
				CS-ESP		SCR & Wet Scrubber	90%						90%
				CS-ESP		SCR & Wet Scrubber	90%						90%
				CS-ESP		SCR & Wet Scrubber	90%						90%
PLEASANTS	134.68	1,228	2	CS-ESP	Wet Scrubber	SCR	90%	95.40	93.40	1.0447	0.0104	Hg coal content higher under CAIR	90%
				CS-ESP	Wet Scrubber	SCR	90%						90%
RIVESVILLE	41.88	137	2	CS-ESP		Early Retirement	NA	0.00	0.00				NA
				CS-ESP		Early Retirement	NA						NA
WILLOW ISLAND	80.89	231	2	CS-ESP		Early Retirement	NA	15.40	15.40	1.0977	0.0110		NA
				CS-ESP		SCR & Wet Scrubber	90%						90%
TOTAL	5100.08							1316.79	1190.39				

Wisconsin

How the federal mercury rule would look in Wisconsin:

- 2020 projected emissions are 217% higher than allocated budget of 702 pounds
- 2020 estimated emissions will be a 3% increase from 2002 estimated emissions
- State will be a net buyer of mercury allowances.

Plant	2002 Hg Plant-Level Emissions (lbs)	Total Plant Capacity (MW)	No. of Units	Current PM Controls	Current NOx & SO2 Controls	CAIR Installations Planned by 2015 (Projected Installations by 2020)	Hg control after CAIR	Plant 2020 Hg (lbs) under CAIR	Plant 2020 Hg (lbs) under CAMR	Plant CAMR 2020 Hg (lb/TBtu)	Plant CAMR 2020 Hg (lb/GWh)	Additional CAMR Installations/Modifications Projected (by 2020)	Hg control after CAMR
ALMA	21.09	144	2	CS-ESP			3%	61.00	54.80	5.7079	0.0571	Fuel use higher under CAIR	3%
				CS-ESP			3%						3%
BAY FRONT	9.11	75	3	HS-ESP			6%	45.00	45.00	5.9917	0.0599		6%
				HS-ESP			6%						6%
				Other			0%						0%
BLOUNT STREET	9.91	98	2	CS-ESP			36%	17.60	17.60	2.6094	0.0261		36%
				CS-ESP			36%						36%
COLUMBIA	338.60	1,050	2	HS-ESP			6%	455.20	455.20	5.6252	0.0563		6%
				CS-ESP			3%						3%
EDGEWATER	205.02	818	3	CS-ESP		SNCR	3%	350.80	350.80	5.7111	0.0571		3%
				CS-ESP		3%	3%						
				CS-ESP		3%	3%						
GENOA	92.89	377	1	CS-ESP		SCR	36%	73.20	73.20	2.6207	0.0262		36%
J P MADGETT	131.17	377	1	HS-ESP		SCR	6%	161.80	158.40	5.5367	0.0554	No SCR under CAMR/Fuel use higher under CAIR	6%
NELSON DEWEY	70.90	226	2	HS-ESP		SCR	10%	62.60	47.00	3.0698	0.0307	No SCR under CAMR/Fuel use higher under CAIR	10%
				HS-ESP		SCR	10%						Hg content of coal higher under CAIR
PLEASANT PRAIRIE	807.28	1,189	2	CS-ESP	SCR & Wet Scrubber		16%	432.20	419.00	4.3351	0.0434	Hg content of coal higher under CAIR	16%
				CS-ESP	SCR		Dry Scrubber						35%
PULLIAM	79.87	407	6	CS-ESP			36%	86.40	86.40	2.6279	0.0263		36%
				CS-ESP			36%						36%
				CS-ESP			36%						36%
				CS-ESP			36%						36%
				CS-ESP			36%						36%
				CS-ESP			36%						36%

Wisconsin, 2

Plant	2002 Hg Plant-Level Emissions (lbs)	Total Plant Capacity (MW)	No. of Units	Current PM Controls	Current NOx & SO2 Controls	CAIR Installations Planned by 2015 (Projected Installations by 2020)	Hg control after CAIR	2020 Hg (lbs) under CAIR	2020 Hg (lbs) under CAMR	Plant CAMR 2020 Hg (lb/TBtu)	Plant CAMR 2020 Hg (lb/GWh)	Additional CAMR Installations/Modifications Projected (by 2020)	Hg control after CAMR
SOUTH OAK CREEK	259.93	1,119	4	CS-ESP		SCR & Wet Scrubber	16%	439.00	439.00	5.2011	0.0520		16%
				CS-ESP		SCR & Wet Scrubber	16%					16%	
				CS-ESP		SCR & Wet Scrubber	16%					16%	
				CS-ESP		SCR & Wet Scrubber	16%					16%	
VALLEY	6.59	280	4	FF			89%	8.60	9.40	0.4533	0.0045	Fuel use lower under CAIR	89%
				FF			89%						89%
				FF			89%						89%
				FF			89%						89%
WESTON	74.59	477	3	CS-ESP			36%	69.00	71.60	1.9186	0.0192	Fuel use lower under CAIR	36%
				CS-ESP			36%						36%
				HS-ESP/FF			89%						89%
Washington Station	45.33												
TOTAL	2152.30							2262.40	2227.40				

Wyoming

How the federal mercury rule would look in Wyoming:

- 2020 projected emissions are 65% higher than allocated budget of 752 pounds
- 2020 estimated emissions will be a 33% reduction from 2002 estimated emissions
- State will be a net buyer of mercury allowances or user of banked allowances from excess emission reductions made in first phase of CAMR.

Plant *	2002 Hg Plant-Level Emissions (lbs)	Total Plant Capacity (MW)	No. of Units	Current PM Controls	Current NOx & SO2 Controls	CAIR Installations Planned by 2015 (Projected Installations by 2020)	Hg control after CAIR	Plant 2020 Hg (lbs) under CAIR	Plant 2020 Hg (lbs) under CAMR	Plant CAMR 2020 Hg (lb/TBtu)	Plant CAMR 2020 Hg (lb/GWh)	Additional CAMR Installations/ Modifications Projected (by 2020)	Hg control after CAMR
DAVE JOHNSTON	325.76	772	4	CS-ESP			3%	249.40	249.40	3.8940	0.0389		3%
				CS-ESP			3%						3%
				CS-ESP			3%						3%
					Wet Scrubber		20%						20%
JIM BRIDGER	562.78	2,080	4	CS-ESP	Wet Scrubber		16%	803.28	279.72	1.7231	0.0172	Switch to bit coal under CAMR	66%
				CS-ESP	Wet Scrubber		16%						66%
				CS-ESP	Wet Scrubber		16%						66%
				CS-ESP	Wet Scrubber		16%						66%
LARAMIE RIVER	530.30	1,650	3	CS-ESP	Wet Scrubber		16%	494.40	490.40	3.7899	0.0379	Hg coal content higher under CAIR	16%
				CS-ESP	Wet Scrubber		16%						16%
				CS-ESP	Wet Scrubber		16%						16%
NAUGHTON	183.14	700	3	CS-ESP			36%	188.52	104.88	1.9180	0.0192	Unit 3 switch to bit coal under CAMR	36%
				CS-ESP		(Wet Scrubber**)	66%						66%
				CS-ESP	Wet Scrubber		16%						66%
NEIL SIMPSON 2	57.85	80	1	CS-ESP	Dry Scrubber		35%	27.00	27.00	3.8207	0.0382		35%
Wygen 1	NA	80	1	CS-ESP	SCR & Wet Scrubber		90%	2.60	2.60	0.5023	0.0050		90%
WYODAK	210.86	335	1	CS-ESP	Dry Scrubber		35%	89.00	89.00	2.9525	0.0295		35%
TOTAL	1870.69							1854.20	1243.00				

* Wyoming not covered by CAIR.

** Installation for Acid Rain requirements



The mission of the National Wildlife Federation is to inspire Americans to protect wildlife for our children's future.