BEFORE THE ADMINISTRATOR OF THE
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

In Re: Air Pollution Control – Transport of Emissions of Nitrogen Oxides (NOx) and Sulfur Dioxide (SO_2); Final Rule	)	RIN 2060-AM99 EPA Docket No. OAR-2004-0076

PETITION FOR RECONSIDERATION

I. INTRODUCTION

On April 28, 2006, the United States Environmental Protection Agency ("EPA") published the Final Rule regarding Air Pollution Control – Transport of Emissions of Nitrogen Oxides (NO_X) and Sulfur Dioxide (SO_2), commonly referred to as the "Clean Air Interstate Rule Federal Implementation Plan" or "CAIR FIP." See 71 Fed. Reg. 25328 (Apr. 28, 2006). Pursuant to Section 307(d)(7)(B) of the Clean Air Act ("CAA" or "Act"), 42 U.S.C. § 7607(d)(7)(B), and for the reasons outlined more fully below, ARIPPA hereby petitions the EPA for reconsideration of the CAIR FIP.

From the standpoint of its economic impact on waste coal-fired units operated by Independent Power Producers ("IPPs"), EPA's determination to rely on the Acid Rain program for allocation of SO2 allowances is neither legally nor factually justified. In the preamble to the Final Rule, EPA addressed for the first time its analysis of the economic impact of the CAIR FIP upon waste coal-fired units that are statutorily exempt from the Acid Rain program. EPA's analysis of these economic issues in the Final Rule is not accurate and is made on the basis of incomplete information. Accordingly, pursuant to section 307(d)(7)(B) of the Act, it is appropriate and necessary that EPA gather additional information regarding the specific question

of the economic burden imposed upon these facilities under the SO_2 allowance allocation and trading provisions of the FIP, and that it reconsider the economic burden of the Final Rule on this class of sources. Further, EPA has failed to provide a meaningful response to comments on its determination that the FIP would not have a significant impact on small entities, as required by section 307(d)(6)(B) of the Act. EPA must now reconsider the FIP to address these issues.

II. BACKGROUND

Petitioner, ARIPPA, is a trade association comprised of thirteen waste coal-fired electric generating plants located in both the anthracite and bituminous coal producing regions of Pennsylvania. Each of the ARIPPA facilities generates electricity for sale at a generation rate in excess of 25 MW and provides more than one-third of its electrical output to the power distribution grid. Accordingly, ARIPPA members meet the definition of Electric Generating Units ("EGUs") under CAIR.

ARIPPA facilities are part of the small waste coal power production industry, which is comprised of fourteen plants in Pennsylvania, three plants in West Virginia and one plant in Utah. Each ARIPPA plant burns waste coal as fuel and utilizes circulating fluidized bed ("CFB") technology. The ARIPPA facilities have been constructed recently (1988 through 2004) and, by virtue of the clean burning CFB technology, ARIPPA facilities currently emit SO2 at rates that are substantially cleaner than conventional coal-fired electric generating units.

These facilities produce energy while simultaneously addressing significant environmental problems posed by acid mine drainage and reclaiming hundreds of acres of abandoned mine lands. With the exception of one plant currently in start-up mode, waste coal plants range in size from 30 MW to about 110 MW.

ARIPPA facilities face unique constraints, both economic and technological. Specifically, the ARIPPA facilities were designed and constructed to burn waste coal

exclusively, and nearly all of them are subject to contractual provisions requiring that they burn waste coal and/or maintain their status as qualifying facilities under FERC regulations. These contractual provisions also prohibit the pass-through of increased costs to their wholesale customers. As a result of these factors, these facilities have limited operational flexibility and cannot, among other things, engage in fuel switching.

Further, SO2 emission control is achieved by these plants within the combustion zone through limestone injection and combustion practices. Because of the limitations in unit configuration, the facilities cannot simply add more limestone to increase SO2 emission reductions. The design and configuration of each CFB unit therefore imposes physical constraints on the ability of the ARIPPA facilities to secure further SO2 emission reductions.

Acknowledging the technical and economic constraints affecting the ability of waste coal-fired CFB units to further reduce SO_2 emissions, Congress exempted IPPs from the Acid Rain program under Title IV of the Act. Of particular relevance to the CAIR FIP, the statutory exemption from the Acid Rain Program expressly provided to the ARIPPA plants necessarily means that such plants receive no SO_2 allowance allocation under the Acid Rain Program. Not only does the CAIR FIP fail to adequately acknowledge the resultant impact upon these units, the CAIR FIP imposes upon waste coal-fired units inequitable, more onerous requirements than those imposed upon other affected units under the FIP.

CAIR establishes SO2 and NOx emission reduction requirements for affected states through the imposition of regional and state-specific budgets for SO_2 and NOx. The final CAIR FIP establishes the Federal implementation plans for all jurisdictions covered by CAIR to address interstate transport of emissions of NO_X and SO_2. The FIP is intended to regulate electric generating units ("EGUs") in the states covered by CAIR and to achieve the emissions

reduction requirements established by CAIR until the States have approved State implementation plans ("SIPs") to achieve the prescribed reductions.

Under the FIP, EPA allocates an SO2 budget to each state in an amount equal to the total number of Acid Rain program allowances for Acid Rain units in the state. The FIP does not include additional SO2 allowances for non-Acid Rain EGUs subject to CAIR, including waste coal-fired units such as ARIPPA member facilities. These units are required instead to obtain allowances in the marketplace in order to meet the FIP's compliance requirements and will accordingly be subjected to costs that will, in many instances, prevent them from remaining economically viable, and in all cases, exceed the compliance burden identified by EPA as relevant to its analysis of the impact of CAIR on small businesses. In concluding otherwise, EPA relied on inaccurate and incomplete information regarding the cost impacts of its determination to rely on the Acid Rain Program's SO_2 allocation program in the FIP.

III. GROUNDS FOR RECONSIDERATION

A. EPA Must Convene A Reconsideration Proceeding As Specified Statutory Criteria Are Met.

In this Petition for Reconsideration, ARIPPA raises objections to CAIR/the CAIR FIP that it could not have raised during the public comment period and that are of central relevance as to the outcome of the Rule. Pursuant to Section 307(d)(7)(B) of the Act, EPA is required to convene a reconsideration proceeding when a party was unable to raise certain objections during the public comment period on the rule. The Act states, in relevant part, that "the Administrator shall convene a proceeding for reconsideration of a rule and provide the same procedural rights as would have been afforded had the information been available at the time the rule was proposed" in either of two situations: 1) "if the person raising an objection can demonstrate to the Administrator that it was impracticable to raise such objection within [the public comment

period]" or 2) "if the grounds for such objection arose after the period for public comment (but within the time specified for judicial review) and if such objection is of central relevance to the outcome of the rule . . . ." 42 U.S.C. § 7607 (d)(7)(B). Against this standard, EPA should convene a reconsideration proceeding to address the economic implications for IPPs of its determination to rely on the Acid Rain Program's SO2 allocation program.

B. ARIPPA Did Not Have a Meaningful Opportunity to Review the Modeling and Data EPA Relied On In Concluding That the CAIR FIP Would Not Have A Significant Economic Impact on IPPs.

EPA's economic analysis of the impacts of the FIP on waste coal generating units appeared for the first time in the Final Rule, making it impracticable to raise objections during the period provided for public comment. Under the Administrative Procedure Act, an agency must "give interested persons an opportunity to participate in the rulemaking through submissions of written data, views, or arguments." 5 U.S.C. § 553(c). Section 307(d)(3) of the Clean Air Act, likewise requires EPA to provide adequate notice of and the opportunity to comment on the elements of its rulemakings. When an agency "relies on studies or data after the comment period has ended, no meaningful commentary on such data is possible."[1] Doe v. Rumsfeld, 341 F. Supp. 2d 1, 13 (D.C. Cir. 2004).

EPA's determination that the economic impact of the FIP on waste coal-fired units is insufficient to justify an exemption from CAIR compliance was first published in the Final Rule and is based in part on its "examin[ation of] the analysis presented by the commenters in support of their argument that CAIR compliance costs would threaten their economic viability" from which EPA concludes that the analysis provided overestimated the potential compliance costs of CAIR and the CAIR FIP." Id. The grounds for Petitioners' objections to the Final Rule thus

[1] Comments to the proposed FIP were due to EPA on or before October 24, 2005. 70 Fed. Reg. 49708.

"arose after the period for public comment" and are appropriately raised in this petition. 42 U.S.C. § 7607(d)(7)(B).

1. EPA's Analysis of the Cost to Revenue Ratio of CAIR Compliance for ARIPPA Facilities Was Based on Inaccurate and Incomplete Information.

In the preamble to the FIP, EPA notes that it "examined how the potential cost to operate a typical waste coal-fired CFB unit (in $/MWh) compares to the potential price it would receive on the electricity market." 71 Fed. Reg. 25350. EPA concluded that the potential cost of producing electricity for a waste coal-fired CFB (including the cost of complying with CAIR) would be "significantly less than the EPA projected wholesale price and the forecasted price of electricity." Id. In the Technical Support Document issued in conjunction with the FIP regarding waste coal-fired units in the CAIR and the CAIR FIP, EPA set forth for the first time the basis for its evaluation of the cost impacts of the FIP on waste coal-fired units. OAR-2004-0076-0224.

Because EPA failed to provide an opportunity for notice and comment on the economic impact of the FIP on waste coal-fired units, EPA's technical analysis relies on inaccurate and incomplete data. In fact, if ARIPPA had been given the opportunity to comment on EPA's economic analysis during the comment period, it would have shown that the average projected cost of CAIR compliance for its facilities is 6% during Phase 1 of CAIR and 11% during Phase 2,[2] not 1% and 2%, respectively, as was erroneously calculated by EPA in its Technical Support Document. OAR-2004-0076-0224, p.4. On an individual facility basis, the projected cost of

[2] ARIPPA's evaluation considers the facility-specific characteristics of capacity and annual SO2 emission rate (as reported for 2004). The analysis then considers EPA's estimations of control costs in each of the two phases of CAIR. Using EPA's projected estimates of the "retail" price of electricity for the mid-Atlantic region, the analysis then calculates compliance costs under CAIR as a percentage of projected gross revenue for each facility. See Exhibit 1.

control reaches a maximum of 12% of gross revenue during Phase 1, and 22% of gross revenue during Phase 2.

EPA's Technical Support Document notes that "inaccuracies" in ARIPPA's assumptions about EPA's projected cost per ton resulted in an overestimation of their cost compliance estimates. OAR-2004-0076-0224, p. 3. ARIPPA was not given an opportunity to respond to the purported inaccuracies. Had it been given an appropriate opportunity to respond to EPA's economic analysis or to otherwise comment on the Agency's analysis of waste coal-fired units in the Final Rule, as required by Section 307(d)(3) of the Act, ARIPPA would have addressed certain discrepancies in EPA's evaluation[3].

Further, EPA's own analysis, as presented in the preamble to the Final Rule, contains certain inconsistencies, and ultimately demonstrates that a calculation of economic burden imposed upon the Facilities, using EPA's own assumptions, significantly exceeds the burden upon small businesses that EPA otherwise identifies and justifies under the promulgation of the Final Rule and CAIR. ARIPPA has not been afforded the opportunity to comment upon this aspect of EPA's analysis, both as it relates to projected economic burden and as it relates to EPA's justification of the rule relevant to the impact upon small businesses.

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[3] ARIPPA's economic analysis demonstrates, using EPA's own assumptions and projections, that the cost of compliance imposed under CAIR on ARIPPA facilities would substantially exceed the 1% of gross revenue standard identified by EPA as relevant to the consideration of the Final Rule's impact on small businesses. In fact, however, the ARIPPA facilities all operate either under Power Purchase Agreements ("PPAs") or are market-based plants, competitively bidding into the PJM market. The facility operators cannot obtain "retail" prices for electricity, and otherwise have no opportunity to pass along the additional, significant costs of purchasing SO2 allowances. An analysis based upon the projected "wholesale" price of electricity in 2010 and 2015, as predicted by Cinergy within information made available by the Agency for the CAIR rulemaking would provide a more realistic projection of electricity prices. Utilizing this revised projection for gross revenues, the analysis of the impact to ARIPPA plants resulting from the SO2 requirements of CAIR projects average compliance costs, as a percentage of gross revenue, of 11% in 2010 and 24% in 2015, with individual facilities facing a projected cost of compliance of as much as 22% of gross revenue in 2010 and 48% of gross revenue in 2015. See Exhibit 2. Although reliance on the Cinergy projections of wholesale electricity prices is necessarily speculative, it is reasonable to project that the actual costs (as a percentage of gross revenue) incurred by ARIPPA plants would almost certainly exceed the values projected using EPA's "retail" electricity price projections, and would likely at least approach the values calculated by using Cinergy's "wholesale" rate estimates.

2. The Opt-In Provision Provided by the FIP Fails to Ensure that Waste Coal-Fired Units Will Remain Economically Viable.

While waste coal-fired units have a valid PPA, they may choose to opt-in to the Acid Rain program and receive SO2 allowances. In the preamble to the FIP, EPA specifically addressed the potential financial impacts of the FIP and the Title IV opt-in provisions for the first time. Accordingly, ARIPPA was denied its opportunity to comment on EPA's determination that the waste coal-fired units might receive significant SO2 allocations under the FIP through the opt-in program to ensure that the facilities could remain economically viable during the opt-in period.

To the extent that waste coal-fired units were to elect to opt-in to the Acid Rain program under the FIP and thereby receive an allocation of acid rain allowances as opt-in sources, the allocation would only provide a temporary source of relief from the inequities posed by the FIP. Under EPA's current interpretation of the Title IV Acid Rain regulations, which ARIPPA disputes, the opt-in allocation would terminate upon expiration of each facility's qualifying PPA.

Further, contrary to EPA's conclusions in the preamble to the FIP and in the Technical Support Document, the opt-in allocation will not provide a sufficient offset to the economic burden of the FIP to ensure that the waste coal-fired units will remain economically viable. Under the FIP, each facility must hold two allowances for each ton of SO2 emitted during Phase 1 of CAIR and 2.86 allowances per ton of SO2 emitted during Phase 2. Thus, even to the extent that waste coal-fired IPPs could secure an Acid Rain opt-in allocation, and to the further extent that such allocation approximated the annual SO_2 emissions of such sources[4], these facilities must still secure additional allowances in order to comply with the requirements of the FIP. ARIPPA's analysis demonstrates that even with the allowances, the units will be subjected to an

average compliance cost of 3% to 5.6% of gross revenues during Phase 1, and 7% to 16% of gross revenues during Phase 2, dependent upon the then-prevailing electricity rate. See Exhibit 3. These estimates substantially exceed EPA's evaluation of acceptable economic impacts.

Finally in this context, EPA's current Acid Rain regulations would not provide an opt-in allocation to the ARIPPA facilities that even approaches the typical annual SO_2 emission rate for these facilities. Specifically, pursuant to the opt-in provisions of EPA's Acid Rain regulations, an opt-in source will receive an allocation based upon its recorded heat input for the period of 1985 through 1987. If the facility was not then operating, the average heat input is determined for the first three years of operation of the source. All of the ARIPPA facilities were either not operating, or had just commenced operation, during 1985 through 1987. Therefore, in all cases, EPA's opt-in regulations provide for the calculation of an opt-in allowance allocation based on the initial years of operation of the sources. As with most coal-fired electric generating units, the ARIPPA facilities experienced various start-up conditions that limited operation during the initial years. Accordingly, these facilities exhibited a substantially reduced heat input during these years of operation. Under EPA's opt-in regulations, therefore, the ARIPPA facilities would not even secure an allocation of allowances under the opt-in provisions that approximate typical annual SO_2 emissions for these sources. In this context, EPA's economic evaluation, presented for the first time in the context of the FIP, incorrectly estimates the economic benefit that the Acid Rain opt-in provisions could provide to the ARIPPA facilities, relative to the cost of compliance with CAIR.

For these reasons, EPA should grant reconsideration of the Final Rule relative to its economic analysis of the compliance cost under CAIR for waste coal-fired IPPs.

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[4] As explained below, however, under EPA's opt-in regulations, these waste coal-fired IPPs would not receive an allowance allocation approximately equivalent to their typical SO_2 emission rates.

3. EPA's Conclusion That The FIP Would Not Have A Significant Economic Impact on Waste Coal-Fired Units Selling Electricity on the Wholesale Market is Based on Incomplete and Inaccurate Information.

EPA acknowledges that ARIPPA did not have an opportunity to comment during the comment period on the potential impacts of the FIP on waste coal-fired units following expiration of their PPAs. Because such circumstance is clearly relevant to the costs to the ARIPPA facilities of compliance with CAIR, as a result of EPA's current interpretation of its Acid Rain regulations, EPA's analysis in the preamble and in its Technical Support Document is necessarily based on incomplete and inaccurate information.

Instead of providing ARIPPA with an opportunity to comment on its analysis of the ratio of the estimated cost of compliance with CAIR to the projected revenue of facilities operating without the benefit of a PPA, EPA "conducted an analysis using generally available information to evaluate the potential impact of the cost of complying with CAIR for a typical CFB combusting waste coal." 71 Fed. Reg. 25349. EPA estimated that the cost of producing electricity for a typical waste coal-fired unit would be significantly less than the EPA-projected wholesale price and the forecasted price of electricity and that, therefore, waste coal-fired units will continue to operate and be profitable, even when factoring in the cost of CAIR compliance. OAR-20040997609224, p.6. ARIPPA was not given an opportunity to complete the record on this issue. EPA further notes in the preamble that "[c]ommenters did not provide any basis for changing EPA's treatment of waste coal-fired units in the modeling or for challenging EPA's modeling results." 71 Fed. Reg. 25349. ARIPPA asserts that EPA's failure to address this issue until promulgation of the Final Rule denied it the opportunity to provide precisely that information and, for that reason, it should be granted reconsideration of the Final Rule pursuant to Section 307(d)(7)(B) of the Act.

C. EPA Failed to Provide a Meaningful Response to ARIPPA's Comments Regarding the Significant Impact of the FIP on a Substantial Number of Small Entities.

EPA purports to have determined that the FIP would not have a significant economic impact on a substantial number of small entities. However, such determination clearly failed to consider and address ARIPPA's comments regarding the FIP's impact on small entities. Section 307(d)(6)(b) of the Act requires EPA to respond to significant comments. See also Sierra Club v. Gorsuch, 715 F.2d 653 (D.C. Cir. 1983).

In the preamble to the Final Rule, EPA noted that it received no significant comments on the proposed CAIR and its impact on small entities: "In the proposed rule, EPA took comment on all aspects of the proposed FIP and its impact on small entities. EPA did not receive significant comments in this regard." 71 Fed. Reg. 25367. In fact, ARIPPA specifically addressed EPA's failure to adequately evaluate or address the impact of CAIR and the FIP on small entities, including ARIPPA members, during the comment period for the FIP. OAR-2004-0076-0184, p. 11-13. ARIPPA noted that the Agency's decision to base the CAIR SO2 budgets and allocation methodology on Acid Rain Program allowances limited EPA's ability to provide regulatory flexibility for significantly affected small entities, and that EPA had erroneously concluded that small entities that are significantly impacted by CAIR would be able to pass on the costs of compliance to ratepayers. OAR-2004-0076-0184, p. 12, 13.

EPA did not meaningfully respond to these comments in the preamble to the Final Rule or in the preamble to CAIR. In the response to comments in the docket, EPA merely noted that its examination of the ARIPPA member facilities "concluded that all were owned by parent companies too large to qualify for consideration under the [Small Business Regulatory Enforcement Fairness Act]." Because EPA's determination regarding the exclusion of ARIPPA member facilities from consideration as small entities was not raised until after the period for

public comment, ARIPPA's objections to EPA's determination are appropriately raised in this petition. 42 U.S.C. § 7607(d)(7)(B).

EPA asserts that, "because the rule only affects sources with a capacity greater than 25 MW, the majority of potentially affected small entities are exempted. 71 Fed. Reg. 25367. This rationale neglects to address ARIPPA's assertion that its member facilities qualify as small entities. For purposes of the FIP Final Rule, the EPA defines "small entity" as an electric generating unit with an annual capacity of less than 4 million megawatt hours. In its preamble to the FIP Final Rule, EPA identified the existence of only 58 small entities that potentially may be affected by the FIP. EPA's analysis of small entity impacts was based on an earlier estimate of 75 affected small entities, and thus, it concluded that the impact analysis it conducted actually "overstates the maximum potential impact" of the FIP on small entities. Despite EPA's conclusion to the contrary, all ARIPPA members should qualify as "small entities" under the FIP and, ARIPPA asserts that EPA's impact analysis, in fact, understates the potential impact of the FIP on small entities such as its members.

EPA identified compliance costs in excess of one percent of revenues as a significant impact for this rulemaking. ARIPPA estimates that each of its small entity member facilities would experience compliance costs substantially in excess of one percent of revenues as the result of the FIP. In fact, the average ARIPPA plant will spend at least 6% of its revenue in 2010 to purchase SO2 allowances and 11% in 2015, with some plants required to spend up to 22% of their revenue to comply with the requirements of CAIR under the FIP. Therefore, the costs to ARIPPA plants to secure SO2 allowances in order to comply with CAIR seriously threatens the continued viability of these facilities.

In concluding its Regulatory Flexibility Act analysis in the preamble to the FIP, EPA concludes that "the use of cap-and-trade in general will limit impacts on small entities relative to a less flexible command-and-control program." 71 Fed. Reg. 25367. This justification fails to recognize that the use of this particular cap-and-trade program affirmatively disadvantages small entities relative to larger entities by providing valuable economic resources to the larger entities in the form of SO2 allocation allowances, while requiring the small entities to purchase the same resource in the marketplace. EPA's failure to address the disparate treatment of small and large entities is further reflective of its failure to consider, in a meaningful way, ARIPPA's comments regarding the substantial impact of the FIP on small entities. Accordingly, EPA should now grant reconsideration of the Final Rule as to this issue.

IV. RELIEF REQUESTED

For the foregoing reasons, ARIPPA respectfully requests that, pursuant to 42 U.S.C. § 7607(d)(7)(B), the Administrator convene a proceeding for reconsideration of the Final Rule and afford the interested public the procedural rights due them under 42 U.S.C. § 7607(d)(3)-(5). ARIPPA further requests that the effectiveness of the Final Rule be stayed during the pendency of the reconsideration for the maximum time allowed under the statute. See 42 U.S.C. § 7607(d)(7)(B).

Respectfully submitted,

Dated: June 26, 2006

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Projected Costs to ARIPPA Plants Resulting from CAIR SO_2 Provisions
(As Percent of Revenue)

	2010	2015
	$/MW[2]	$/MW[2]
	$ 64.00 RETAIL	$ 75.40 RETAIL

Assumed Capacity Factor: 90%

Plant	MW	MW-hrs[1]	2010 Revenue $MM	2010 Cost of control[3] $MM	2010 % of revenues	2015 Revenue $MM	2015 Cost of control[3] $MM	2015 % of revenues
Colver	102	804,168	$ 51.47	$ 3.82	7%	$ 60.63	$ 8.18	13%
Gilberton	80	630,720	$ 40.37	$ 2.56	6%	$ 47.56	$ 5.49	12%
Northampton	108	851,472	$ 54.49	$ 0.84	2%	$ 64.20	$ 1.80	3%
Panther Creek	80	630,720	$ 40.37	$ 0.86	2%	$ 47.56	$ 1.84	4%
Piney Creek	32	252,288	$ 16.15	$ 1.40	9%	$ 19.02	$ 3.01	16%
Scrubgrass	83	654,372	$ 41.88	$ 2.32	6%	$ 49.34	$ 4.96	10%
NEPCO	50	394,200	$ 25.23	$ 1.37	5%	$ 29.72	$ 2.93	10%
Ebensburg	50	394,200	$ 25.23	$ 3.06	12%	$ 29.72	$ 6.57	22%
Wheelabrator	42	331,128	$ 21.19	$ 0.69	3%	$ 24.97	$ 1.49	6%
Schuylkill Energy	80	630,720	$ 40.37	$ 2.65	7%	$ 47.56	$ 5.67	12%
Cambria	85	670,140	$ 42.89	$ 4.64	11%	$ 50.53	$ 9.95	20%
Westwood	30	236,520	$ 15.14	$ 0.58	4%	$ 17.83	$ 1.24	7%
				Average	**6%**		**Average**	**11%**

Notes:

[1]MW-hrs is the plant capacity in megawatts times 8760 times the capacity factor. This analysis asssumes a capacity factor of 90%.

[2]$/MW is the RETAIL price of electricity predicted in the MAAC region by EPA in the RIA for the CAIR rule. ARIPPA plants sell their power at wholesale which would result in much higher control costs in terms of percent of revenue.
Additionally some plants have a wheeling charge which further reduces revenue.
Furthermore the retail price includes transmission and local distribution charges which further reduce revenue

[3]The cost of control is based on the analysis EPA conducted and reported in the preamble to the CAIR rule.
It assumes a marginal cost of control of $800 in 2010 and $1,200 in 2015 with surrender ratios of 2:1 and 2.86:1 respectively.

Projected Costs to ARIPPA Plants Resulting from CAIR SO_2 Provisions
(As Percent of Revenue)

	2010	2015
	$/MW[2]	$/MW[2]
	$ 35.00 Wholesale	$35.00 Wholesale

Assumed Capacity Factor: 90%

Plant	MW	MW-hrs[1]	2010 Revenue $MM	2010 Cost of control[3] $MM	2010 % of revenues	2015 Revenue $MM	2015 Cost of control[3] $MM	2015 % of revenues
Colver	102	804,168	$ 28.15	$ 3.82	14%	$ 28.15	$ 8.18	29%
Gilberton	80	630,720	$ 22.08	$ 2.56	12%	$ 22.08	$ 5.49	25%
Northampton	108	851,472	$ 29.80	$ 0.84	3%	$ 29.80	$ 1.80	6%
Panther Creek	80	630,720	$ 22.08	$ 0.86	4%	$ 22.08	$ 1.84	8%
Piney Creek	32	252,288	$ 8.83	$ 1.40	16%	$ 8.83	$ 3.01	34%
Scrubgrass	83	654,372	$ 22.90	$ 2.32	10%	$ 22.90	$ 4.96	22%
NEPCO	50	394,200	$ 13.80	$ 1.37	10%	$ 13.80	$ 2.93	21%
Ebensburg	50	394,200	$ 13.80	$ 3.06	22%	$ 13.80	$ 6.57	48%
Wheelabrator	42	331,128	$ 11.59	$ 0.69	6%	$ 11.59	$ 1.49	13%
Schuylkill Energy	80	630,720	$ 22.08	$ 2.65	12%	$ 22.08	$ 5.67	26%
Cambria	85	670,140	$ 23.45	$ 4.64	20%	$ 23.45	$ 9.95	42%
Westwood	30	236,520	$ 8.28	$ 0.58	7%	$ 8.28	$ 1.24	15%
System Average					**11%**			**24%**

Notes:

[1]MW-hrs is the plant capacity in megawatts times 8760 times the capacity factor. This analysis asssumes a capacity factor of 90%.

[2]$/MW is the approximate wholesale price of electricity in 2010 and 2015 predicted by Cinergy in their analysis of the IARQ rule
Additionally some plants have a wheeling charge which further reduces revenue.

[3]The cost of control is based on the analysis EPA conducted and reported in the preamble to the CAIR rule.
It assumes a marginal cost of control of $800 in 2010 and $1,200 in 2015 with surrender ratios of 2:1 and 2.86:1 respectively.

Projected Costs to ARIPPA Plants Resulting from CAIR SO_2 Provisions
(As Percent of Revenue)

SO2 Opt-in Allocation

	2010 $/MW[2]	2015 $/MW[2]
	$ 64.00 RETAIL	$ 75.40 RETAIL

Assumed Capacity Factor: 90%

Plant	MW	MW-hrs[1]	Tons	2010 Revenue $MM	2010 Cost of control[3] $MM	2010 % of revenues	2015 Revenue $MM	2015 Cost of control[3] $MM	2015 % of revenues
Colver	102	804,168	2,385.9	$ 51.47	$ 1.91	4%	$ 60.63	$ 5.33	9%
Gilberton	80	630,720	1,601.4	$ 40.37	$ 1.28	3%	$ 47.56	$ 3.57	8%
Northampton	108	851,472	524.6	$ 54.49	$ 0.42	1%	$ 64.20	$ 1.17	2%
Panther Creek	80	630,720	536.7	$ 40.37	$ 0.43	1%	$ 47.56	$ 1.20	3%
Piney Creek	32	252,288	876.8	$ 16.15	$ 0.70	4%	$ 19.02	$ 1.96	10%
Scrubgrass	83	654,372	1,447.2	$ 41.88	$ 1.16	3%	$ 49.34	$ 3.23	7%
NEPCO	50	394,200	853.4	$ 25.23	$ 0.68	3%	$ 29.72	$ 1.90	6%
Ebensburg	50	394,200	1,914.9	$ 25.23	$ 1.53	6%	$ 29.72	$ 4.27	14%
Wheelabrator	42	331,128	434.3	$ 21.19	$ 0.35	2%	$ 24.97	$ 0.97	4%
Schuylkill Energy	80	630,720	1,655.1	$ 40.37	$ 1.32	3%	$ 47.56	$ 3.69	8%
Cambria	85	670,140	2,901.2	$ 42.89	$ 2.32	5%	$ 50.53	$ 6.48	13%
Westwood	30	236,520	362.7	$ 15.14	$ 0.29	2%	$ 17.83	$ 0.81	5%
					Average	**3%**		**Average**	**7%**

Notes:

[1]MW-hrs is the plant capacity in megawatts times 8760 times the capacity factor. This analysis asssumes a capacity factor of 90%.

[2]$/MW is the RETAIL price of electricity predicted in the MAAC region by EPA in the RIA for the CAIR rule. ARIPPA plants sell their power at wholesale which would result in much higher control costs in terms of percent of revenue. Additionally some plants have a wheeling charge which further reduces revenue. Furthermore the retail price includes transmission and local distribution charges which further reduce revenue

[3]The cost of control is based on the analysis EPA conducted and reported in the preamble to the CAIR rule. It assumes a marginal cost of control of $800 in 2010 and $1,200 in 2015 with surrender ratios of 2:1 and 2.86:1 respectively. It also assumes emissions equal to the 2004 SO2 emissions reported by each plant

Projected Costs to ARIPPA Plants Resulting from CAIR SO_2 Provisions
(As Percent of Revenue)

SO2 Opt-in Allocation

	2010	2015
	$/MW[2]	$/MW[2]
	$ 35.00 Wholesale	$35.00 Wholesale

Assumed Capacity Factor: 90%

Plant	MW	MW-hrs[1]	Tons	2010 Revenue $MM	2010 Cost of control[3] $MM	2010 % of revenues	2015 Revenue $MM	2015 Cost of control[3] $MM	2015 % of revenues
Colver	102	804,168	2,385.9	$ 28.15	$ 1.91	7%	$ 28.15	$ 5.33	18.9%
Gilberton	80	630,720	1,601.4	$ 22.08	$ 1.28	6%	$ 22.08	$ 3.57	16.2%
Northampton	108	851,472	524.6	$ 29.80	$ 0.42	1%	$ 29.80	$ 1.17	3.9%
Panther Creek	80	630,720	536.7	$ 22.08	$ 0.43	2%	$ 22.08	$ 1.20	5.4%
Piney Creek	32	252,288	876.8	$ 8.83	$ 0.70	8%	$ 8.83	$ 1.96	22.2%
Scrubgrass	83	654,372	1,447.2	$ 22.90	$ 1.16	5%	$ 22.90	$ 3.23	14.1%
NEPCO	50	394,200	853.4	$ 13.80	$ 0.68	5%	$ 13.80	$ 1.90	13.8%
Ebensburg	50	394,200	1,914.9	$ 13.80	$ 1.53	11%	$ 13.80	$ 4.27	31.0%
Wheelabrator	42	331,128	434.3	$ 11.59	$ 0.35	3%	$ 11.59	$ 0.97	8.4%
Schuylkill Energy	80	630,720	1,655.1	$ 22.08	$ 1.32	6%	$ 22.08	$ 3.69	16.7%
Cambria	85	670,140	2,901.2	$ 23.45	$ 2.32	10%	$ 23.45	$ 6.48	27.6%
Westwood	30	236,520	362.7	$ 8.28	$ 0.29	4%	$ 8.28	$ 0.81	9.8%
					Average	**5.6%**	**Average**		**16%**

Notes:

[1]MW-hrs is the plant capacity in megawatts times 8760 times the capacity factor. This analysis asssumes a capacity factor of 90%.

[2]$/MW is the approximate wholesale price of electricity in 2010 and 2015 predicted by Cinergy in their analysis of the IARQ rule
Additionally some plants have a wheeling charge which further reduces revenue.

[3]The cost of control is based on the analysis EPA conducted and reported in the preamble to the CAIR rule.
It assumes a marginal cost of control of $800 in 2010 and $1,200 in 2015 with surrender ratios of 2:1 and 2.86:1 respectively.
It also assumes emissions equal to the 2004 SO2 emissions reported by each plant