Issues Associated with SO2 Provisions Under an OTC CAIR Plus EGU Program

Implementation methods for obtaining additional SO2 emission reductions from Electric Generating Units (EGUs) contemplated under a possible CAIR Plus program could have significant implications on the equity of the program. The OTC is encouraged to adopt a CAIR Plus program design that does not result in inappropriate, significant, and disproportionate financial impacts on a unique subset of regulated sources. Specifically, any rule should factor in the unique circumstances for the following types of EGUs:

- EGUs that were low emitters during the Title IV baseline period, and as such were allocated Title IV allowances based on an emission rate of 0.72 lbs/MMBtu instead of the standard 1.2 lbs/MMBtu used across the rest of the industry.
- EGUs that were exempt from Title IV that do not have any Title IV allowances.

AES has a number of units in the region that fall within these two categories, and would inappropriately and unnecessarily suffer significant economic harm unless these issues are factored into the CAIR Plus program implementation decisions.

AES Overview

AES has seven operating coal-fired plants within the OTR that could be affected by a CAIR Plus program as follows:

Operating AES Coal-Fired Plants in the OTR *(italicized plants are the subject of this memo)**

	State	SO2 Technology	2002 - 2005 avg. SO2 Emission Rate (lbs/MMBtu)
Somerset	*NY*	*Flue Gas Desulfurization*	*0.17*
Cayuga	NY	Flue Gas Desulfurization	0.33
Greenidge	NY	None, but FGD under construction Unit 4***	3.24 (0.19)**
Westover	NY	None, but FGD, repower or shut down by 2010	2.84 (0.17)**
Thames	*CT*	*Circulating Fluidized Bed*	*0.28*
Beaver Valley	*PA*	*Flue Gas Desulfurization*	*0.48*
Warrior Run	*MD*	*Circulating Fluidized Bed*	*0.15*
Coal-fired Fleet			**0.65 (0.24)****

* AES also has two new gas-fired combined cycle plants, in NJ and PA

** The parenthetical emission rates are what is anticipated with FGDs

*** Greenidge Unit 3 will have FGD, be repowered or shut down by 2010

As indicated in the table, most of our coal-fired generation in the region is currently either by plants with inherently low emission technology (i.e., circulating fluidized bed with sorbent injection) or have FGD controls. By the end of 2009 the remaining uncontrolled units will either have FGD installed, be repowered or shut down. In addition, AES has two new gas-fired combined cycle plants in NJ and PA, which further reduces our emission profile. From 2003 – 2005, the average SO2 emission rate of our

coal-fired plants in the OTR was 0.65 lbs/MMBtu. As of 2010, our coal-fired fleet SO2 emission rate should be reduced to approximately 0.24 lbs/MMBtu, a 37% reduction. As such, the AES fleet of plants should be considered the standard against which others are judged, not penalized as an artifact of an inequitable mechanism chosen to implement region wide CAIR Plus requirements.

Issue Description

1) Units whose Title IV allocation was based on a low emission rate.

AES Somerset, which went online in 1984, was built with FGD, at significant cost. Additionally, an SCR was added in 2000 to help reduce NOx emissions. Due to the fact that its SO2 emission rate was less than 0.6 lbs/MMBtu during the 1985 baseline period, the emission rate used as the basis for its Title IV allowance allocation was 0.72 lbs/MMBtu (0.6 x 120%), as opposed to 1.2 lbs/MMBtu, which was the basis for high emitting coal-fired units across the nation. This allocation was adequate for compliance with the Clean Air Act Acid Rain Program. However, this situation is reversed under CAIR, where the allowance surrender ratio is increased to 2:1 under Phase 1, and 2.86:1 under Phase 2. The resulting equivalent compliance emission rates are as follows:

		Equivalent Compliance Emission Rate Under CAIR*	
	OTC CAIR Plus Strawman **	Standard, 1985 High Emitter	1985 Low Emitter (e.g., AES Somerset)
Phase 1	0.41 lbs/mmBtu	0.60 lbs/mmBtu	0.36 lbs/mmBtu
Phase 2	0.28 lbs/mmBtu	0.42 lbs/mmBtu	0.25 lbs/mmBtu

* The equivalent compliance emission rate is the SO2 emission rate that is equivalent to the allowances that will need to be surrendered under CAIR. Consider, for example. a plant that received its Title IV allocation based on the standard 1.2 lbs/MMBtu (i.e., the High Emitter). Under CAIR Phase 1 it will be required to surrender two allowances for each ton emitted. Therefore, its equivalent compliance emission rate would be 1.2 lbs/MMBtu divided by 2 = 0.60 lbs/MMBtu.

** Strawman as reported in 6/19/06 Air Daily

As such, the equivalent emission rate of a 1985 low emitting plant (AES Somerset) is already at or below the strawman emission rates reportedly being considered by the OTC as the basis for a CAIR Plus program. A CAIR Plus program that is implemented by basically expanding the increased surrender ratio approach unnecessarily exacerbates this penalty to historically clean plants.

2) Units that were exempt from Title IV, and therefore do not have any Title IV allowances.

Traditional regulated utility plants that were in operation in the mid-1980's received an initial allocation of SO2 allowances into perpetuity. However, under the Acid Rain Program IPP and cogeneration plants that were already under contract for their power were exempt from the Title IV program, and as such did not get an allocation of SO2 allowances. The congressional basis for the IPP exemption was that, unlike utility plants that could recover the cost of allowances that need to be purchased to comply with the Title IV Acid Rain Program, IPP plants do not have the luxury of rate recovery, and during the term of their contracts do not have a mechanism for any compliance cost pass through. (New contracted plants also do not get an allocation under Title IV. However, these plants include the cost of acquiring SO2 allowances into their cost structure/power contracts). Ironically, the newer plants that did not receive allowance allocation include the cleanest units in the region. These plants have been controlling SO2 to low levels for many years. This required additional capital (for scrubbers or CFB technology) and continued operating expenses (for limestone purchasing and processing). Since they were not in the Title IV program they have received no economic benefit for sale of excess SO2 allowances to offset these costs. For the sake of economic fairness, which should be a foundation principle of an equitable trading system, if they are included in the trading program they should be granted at least the required number of allowances to hold them harmless financially. AES has three such contracted coal-fired plants in the OTR:

Plant	**State**	**Contract Expiration**	**SO2 Emission Rate**
Warrior Run	Maryland	2030	0.15 lbs/MMBtu
Beaver Valley	Pennsylvania	2016	0.48 lbs/MMBtu
Thames	Connecticut	2015	0.28 lbs/MMBtu

As enacted, CAIR brings Warrior Run and Beaver Valley into the Title IV trading program with no allowances (although they may be able to be allocated a relatively minimal number of allowances by opting into the Title IV program). AES has taken legal action against this provision of CAIR, which we believe is both inequitable and contrary to clear congressional intent, but is working with EPA to try to develop an equitable solution. Since Connecticut is not a CAIR-affected state, Thames is exempt from CAIR.

Contracted IPP EGUs do not have a compliance cost pass through mechanism, unlike regulated or merchant plants in the region. Requiring additional Title IV allowances to be surrendered under a CAIR Plus program places a hugely disproportionate financial impact on these plants.

Alternative Implementation Mechanisms Which Address the Problem

1) CAIR Plus Program Implemented Using Existing Title IV Allowances.

Exempt the subject units from the CAIR Plus program requirements under an implementation approach which is based on existing Title IV allocations where "a certain proportion of each facilities' allowances could be directed to the retirement account," (6/19/06 Air Daily) or any other program which uses existing Title IV allowances as the basis for compliance. As noted, these are low emitting units. The collective 2003 – 2005 SO2 emission rate of the four subject AES plants was 0.23 lbs/MMBtu, well below the reported strawman CAIR Plus emission rates being considered by the OTC. The units would still be required to comply with any CAIR requirements.

2) CAIR Plus Implemented Through Establishment of a Separate Interstate Trading Program.

Under this approach a new, separate regional SO2 trading program would be created, layered over and in operation in parallel with EPA's CAIR SO2 trading program. Allowances under the two programs would not be fungible. Allowances under the regional trading program would be allocated to all coal-fired plants based on a common emission rate, putting all plants on a level playing field.

Either of these approaches would not impact achievement of the goals of a CAIR Plus program, and would prevent inequitable, unnecessary, and unwarranted severe financial impact on the subject subset of already clean units. However, we suggest that the second alternative (establishment of a separate interstate trading program) would provide the most equitable approach to an OTR CAIR Plus program.