

GREENIDGE MULTI-POLLUTANT CONTROL PROJECT

U.S. DOE Cooperative Agreement No. DE-FC26-06NT41426

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**QUARTERLY PROGRESS REPORT
FOR WORK PERFORMED DURING THE PERIOD
July 1, 2006 to September 30, 2006**

October 25, 2006

1.0 Executive Summary

As part of the Greenidge Multi-Pollutant Control Project, CONSOL Energy Inc. (CONSOL), AES Greenidge LLC (AESG), and Babcock Power Environmental Inc. (BPEI) are installing and testing an integrated multi-pollutant control system on one of the nation's smaller existing coal-fired power plants - the 107-MWe AES Greenidge Unit 4 (Boiler 6). The overall goal of this approximately 2.5-year project, which is being conducted as part of the U.S. Department of Energy's (DOE's) Power Plant Improvement Initiative (PPII), is to demonstrate that the multi-pollutant control system being installed, which includes a hybrid selective non-catalytic reduction / selective catalytic reduction (SNCR/SCR) system and a Turbosorp circulating fluidized bed dry scrubbing system with recycled baghouse ash and activated carbon injection, can cost-effectively reduce emissions of NO_x, SO₂, Hg, acid gases (SO₃, HCl, HF), and particulate matter from coal-fired electric generating units with capacities of 50 MWe to 600 MWe. Smaller coal-fired units, which constitute a significant portion of the nation's existing generating capacity, are increasingly vulnerable to retirement or fuel switching as a result of increasingly stringent state and federal environmental regulations. The Greenidge Project will demonstrate the commercial readiness of an emissions control system that is particularly suited, because of its low capital and maintenance costs and small space demands, to meet the requirements of this large group of existing electric generating units.

The multi-pollutant control system is depicted in Figure 1. The NO_x control system consists of commercially available combustion modifications (installed outside of the scope of the DOE project), a urea storage system, a urea dilution and injection system (SNCR), and a single-bed, in-duct SCR reactor that is fed by ammonia slip from the SNCR process. The Turbosorp system for SO₂, SO₃ (visible emissions control), mercury, HCl, HF, and particulate matter control consists of a hydrator and hydrated lime feed system, a process water system, the Turbosorp vessel, a baghouse for particulate control, an ash recirculation system to recycle solids collected in the baghouse to the Turbosorp vessel, and an activated carbon injection system for mercury control. A booster fan is also being installed to overcome the pressure drop resulting from the installation of the SCR catalyst, Turbosorp, and baghouse.

Specific objectives of the project are as follows:

- Demonstrate that the hybrid SNCR/SCR system, in combination with combustion modifications, can reduce high-load NO_x emissions from the 107-MWe Greenidge Unit 4 to ≤0.10 lb/mmBtu (a reduction of ≥60% following the combustion modifications) while the unit is firing >2%-sulfur coal and co-firing up to 10% biomass.
- Demonstrate that the Turbosorp circulating fluidized bed dry scrubber can remove ≥95% of the SO₂ emissions from Greenidge Unit No. 4 while the unit is firing >2%-sulfur coal and co-firing up to 10% biomass.

- Demonstrate 90% mercury removal via the co-benefits achieved by the SNCR/SCR and Turbosorp circulating fluidized bed dry scrubber (with baghouse) systems and, as required, carbon or other sorbent injection.
- Demonstrate up to 95% removal of acid gases (SO_3 , HF, and HCl) by the Turbosorp circulating fluidized bed dry scrubber.
- Evaluate process economics and performance to demonstrate the commercial readiness of an emission control system that is suitable for meeting the emission reduction requirements of boilers with capacities of 50 MWe to 600 MWe.

This quarterly report, the second to be submitted for the Greenidge Multi-Pollutant Control Project, summarizes work performed on the project between July 1 and September 30, 2006. During the period, a project kickoff meeting was held at the National Energy Technology Laboratory in Pittsburgh, and the major project subcontracts between CONSOL and AESG and between AESG and BPEI were executed. Process design was completed, and procurement and construction of the multi-pollutant control system progressed substantially. All major equipment items for the SNCR system, lime hydration system, ash recirculation system, booster fan, and electrical installation were delivered to the AES Greenidge site. Mechanical installation of the Turbosorp system, lime hydration system, baghouse, ash recirculation system, and booster fan was largely completed by the end of the period. Installation of the SNCR system and electrical equipment commenced, as did planning for start-up and commissioning of the multi-pollutant control system. The AES Greenidge Unit 4 tie-in outage began on September 29, according to schedule. The project is on track for start-up to occur by the beginning of 2007.

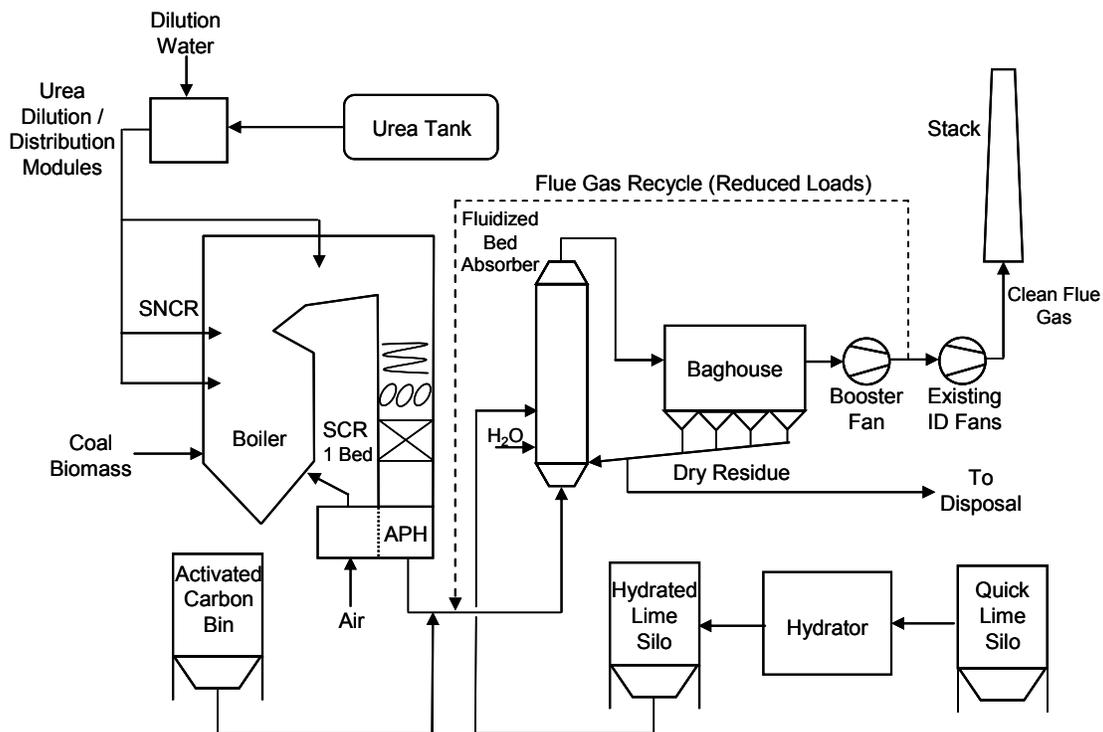


Figure 1. Schematic of the multi-pollutant control system being demonstrated at AES Greenidge.

2.0 Work Performed and Results Obtained During the Reporting Period

Highlights of the Greenidge Multi-Pollutant Control Project during the period from July 2006 through September 2006 included the execution of major project subcontracts, completion of project kickoff activities, and substantial progress in procurement and construction of the multi-pollutant control facility at AES Greenidge. The period culminated with the commencement of AES Greenidge's major fall outage, one of the project's critical path milestones, during which tie-in of the multi-pollutant control system will occur. Work performed and results obtained between July 1, 2006, and September 30, 2006, are described below by Statement of Project Objectives task number.

Tasks 1.1 and 2.1 – Project Management

Progress was made in a number of administrative areas during the reporting period. Project kickoff activities were completed in July 2006. The National Energy Technology Laboratory in Pittsburgh hosted a kickoff meeting on July 27, which was attended by DOE, CONSOL, AESG, and BPEI and included presentations regarding the Greenidge Multi-Pollutant Control Project and Power Plant Improvement Initiative, as well as a meeting among the project team members concerning various contracting and administrative topics. In addition, CONSOL, AESG, and BPEI each issued press releases announcing the project near the end of July. Copies of these press releases are included in Appendix A to this report. The project team fielded questions from several interested power producers that were prompted by these releases.

DOE approved the Project Agreement between CONSOL and AESG and the Engineering, Procurement, and Construction (EPC) Agreement between AESG and BPEI in August 2006, and these agreements were executed. All major project subcontracts are now in place. On September 29, we finished assembling our first invoice to DOE and began the submittal process. (Because of problems encountered with transmitting the invoice via the VIPERS system, submittal was not completed until early October). The invoice covered project costs totaling \$17,020,190 that were incurred between January 2002 and July 2006. The federal share of these costs is \$7,454,843 (43.8%); the non-federal share is \$9,565,347 (56.2%).

In July, CONSOL established a baseline and methodology for the earned value management calculations that are required by the DOE cooperative agreement. Monthly earned value management calculations were performed retrospectively from September 2005 through June 2006, and data are now being updated and reviewed routinely on a monthly basis.

Wolfe Huber (DOE-NETL) and Dan Connell (CONSOL) visited the AES Greenidge station on September 12, 2006, to review construction progress and meet with the AESG project team (including Bill Rady, Chuck Sjoberg, and Mike McCarthy) regarding the project schedule, current project risks, and various other administrative topics.

Abstracts on the project were submitted to three conferences focusing on the electric power generation industry. An abstract titled “Design of an Integrated Multi-Pollutant Control System for Reducing Emissions of SO₂, NO_x, Hg, Acid Gases, and Particulate Matter from Smaller Coal-Fired Power Plants” was submitted to the American Filtration and Separations Society for presentation at their 2006 fall conference on Separations Processes for the Power Generation Industry (October 16-18, 2006, Pittsburgh, PA). In addition, an abstract titled “Initial Cost and Performance Results from the Greenidge Multi-Pollutant Control Project” was submitted to the organizers of the 2007 Electric Power Conference & Exhibition (May 1-3, 2007, Chicago, IL), and an abstract titled “The Greenidge Multi-Pollutant Control Project: Key Technical and Economic Features of a New Approach for Reducing Emissions from Smaller Coal-Fired Units” was submitted to the Air & Waste Management Association for presentation at their 100th Annual Conference & Exhibition (June 26-29, 2007, Pittsburgh, PA). These abstracts are included in Appendix B to this report.

Finally, a substantial portion of the Preliminary Public Design Report for the project has been drafted. This report will be issued during the next reporting period.

Task 1.2 – Total Process Definition and Design

During the reporting period, all major remaining milestones under Task 1.2, including AESG’s witness of the SCR flow and dust model and their review of process control logic, were accomplished. Task 1.2 is now complete.

Task 1.3 – Procurement

Procurement activities during July-September, 2006, included deliveries of a number of major pieces of equipment to the AES Greenidge site. All major equipment items for the SNCR system were shipped during the reporting period. These include the multiple nozzle lances and urea distribution skids, which were delivered in July, and the urea storage tank, which was delivered in late August. Figure 2 below presents a picture of delivery of one of the multiple nozzle lances, and Figure 3 presents a picture of the urea storage tank.

All major pieces of the quicklime and hydrated lime system arrived on site during July. These include the lime hydrator, shown in Figure 4, and the quicklime and hydrated lime silos. Deliveries of auxiliary equipment items were also completed during the reporting period. Structural steel for erection of the system was delivered in July.

Early in the reporting period, delays in the delivery of electrical equipment were a source of concern because of their potential to adversely affect the overall project schedule. However, these concerns were dispelled by the end of August, as the 480V motor control center was delivered to site in late July, and the 2300V motor control center was delivered in late August.



Figure 2. Photograph showing the delivery of a multiple nozzle lance for the SNCR system on July 6, 2006.



Figure 3. Photograph showing the urea storage tank being set in place after its delivery on August 31, 2006.



Figure 4. Photograph showing the lime hydrator at the AES Greenidge site in July, prior to its installation.

Other major deliveries between July and September 2006 included the booster fan and the recirculation slides and air slide blowers that will be used to recycle solids from the baghouse to the Turbosorp vessel. The booster fan and air slide blowers were shipped in late July, and the recirculation slides were delivered by mid-August. Finally, as of the end of August, all ductwork and expansion joints required for installation of the multi-pollutant control system had been delivered to the Greenidge site.

BPEI reported that procurement of the multi-pollutant control system was 96% complete as of the end of September 2006. Task 1.3 is expected to be finished during the next quarterly reporting period. Procurement activities scheduled for the upcoming quarter primarily include deliveries of a few remaining items for the in-duct SCR system. The SCR catalyst modules have been fabricated and are scheduled to arrive at AES Greenidge on November 1, 2006.

Task 1.4 – Environmental/Regulatory/Permitting

As discussed in the last quarterly progress report, all permits and clearances required for construction of the multi-pollutant control facility have been obtained. However, AESG must amend its Title V air permit as part of the regularly scheduled renewal process for this permit in order to reflect the emission requirements set forth in its consent decree with the State of New York. This renewal process is in progress. AES Greenidge is also working to modify water discharge and solid waste permits as required to reflect changes resulting from the installation of the multi-pollutant control system.

Task 1.5 – Environmental Information Volume

As discussed in the last quarterly progress report, this task is complete.

Task 1.6 – Baseline Testing

As discussed in the last quarterly progress report, this task is complete.

Tasks 2.2 and 2.3 – General Civil/Structural and Process System Construction

At the end of September 2006, mechanical installation of the Turbosorp system, lime hydration system, baghouse, and ash recirculation system was largely complete. Figure 5 depicts construction progress for these systems as of September 22.

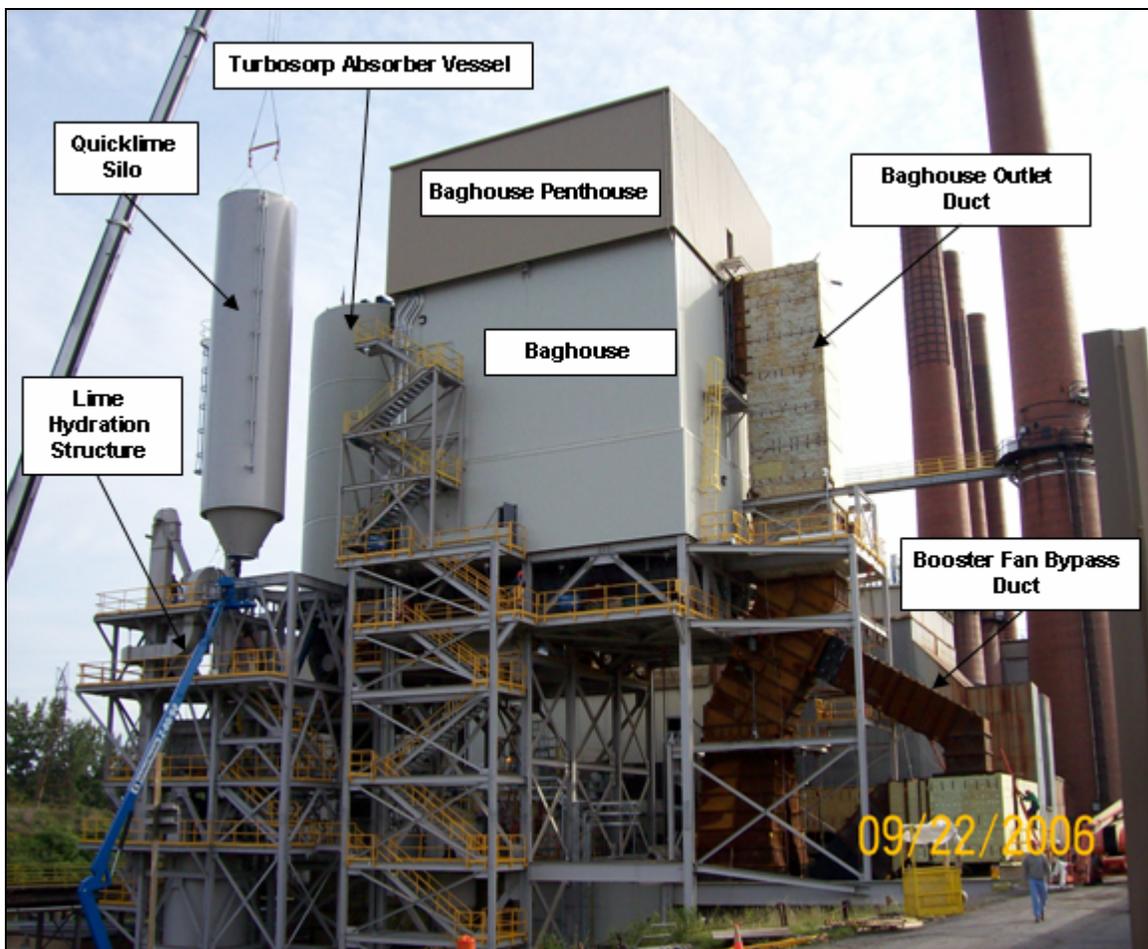


Figure 5. Photograph showing construction progress at the AES Greenidge site as of September 22, 2006.

Contractors installed the roof of the Turbosorp absorber vessel during the first week of July, and they finished insulating and cladding the upper section of the vessel in late August. The expansion joint at the absorber outlet was installed during the week ending July 14; the absorber inlet duct was rigged into place during the following week, and the

flue gas recirculation duct for the Turbosorp system was lifted into place on August 1. In addition, the water injection pump skid was set in place in mid-August, and pipefitters installed water and air lines to the absorber vessel during the reporting period.

The quicklime and hydrated lime system is being constructed beside the Turbosorp absorber vessel. First-tier structural steel for the system was erected in July, and the hydrated lime silo and ball mill were set in place during that month. Second-tier steel erection for the system continued into August. The lime hydrator was lifted into place during the week ending August 4, and the quicklime silo was lifted into place on September 22, as shown in Figure 5. Other work in the quicklime and hydrated lime structure during September included the installation of auxiliary equipment (e.g., bucket elevator, screw conveyor, etc.), grating, and handrails.

Installation of the baghouse modules was completed during the last quarterly reporting period; however, a substantial amount of work on the baghouse continued into the current quarter. Structural steel for the baghouse penthouse was erected in July, and ironworkers finished siding and roofing the penthouse in early September. Later in September, contractors completed the installation of all of the approximately 3,200 baghouse bags and cages, as well as the installation of poppet valve actuators and cleaning air headers in the baghouse. The baghouse outlet duct was lifted into place during the week ending September 22.

Both air slides for the ash recirculation system were lifted into place between August 18 and August 25, and the three air slide blowers were also installed in August. Figure 6 presents a photograph showing the installation of one of the ash recirculation slides. Other work on the ash handling and recirculation system during the reporting period included installation of large-bore piping and insulation of the two ash silos.

Contractors worked throughout August and early September on assembling the booster fan that is being installed as part of the multi-pollutant control system. Alignment of the fan and motor is complete. Various sections of ductwork have also been installed around the booster fan. These include pieces of ductwork at the booster fan outlet, as well as the booster fan bypass duct, which was set in place during the week ending September 15. Figure 7 presents a picture of the booster fan as it was being assembled in mid-August.

Elsewhere in the plant, several pre-outage construction tasks for the SNCR system were completed. Structural steel was installed for the six SNCR skid-mounted modules, and these modules were set in place in the boiler building. Installation of piping for the SNCR system (e.g., stainless steel tubing from the distribution modules, condensate cooling water line to the multiple nozzle lances) also commenced. Outside of the boiler building, the urea storage tank and urea circulation module were set in place during late August and early September (Figure 3).

Finally, substantial progress was made with the installation of electrical equipment. The 2300V / 480V transformer and the 480V and 2300V motor control centers were

assembled and set in place in the plant by the beginning of September. During September, electricians finished installing cable tray in the plant and began pulling cable, including the feeder cables for the 2300V transformer and 480V motor control center and the cables for the booster fan motor. Electricians also worked throughout the quarter on installing conduit, junction boxes, and lighting, especially in the baghouse structure. Ironworkers completed the erection of structural steel for the pipe and cable bridge in mid-August.



Figure 6. Photograph showing one of the air slides being lifted into place on August 16, 2006.

As discussed above, the quarterly reporting period concluded with the commencement of AES Greenidge's major fall outage at about 7:00 p.m. on Friday, September 29. During this outage, which is expected to last through mid-November, tie-in of the multi-pollutant control system to Unit 4 (Boiler 6) will be completed. Structural and process system construction work in the upcoming quarter will occur largely during the outage period. This work includes installation of the urea injectors and multiple nozzle lances into Boiler 6, installation of the in-duct SCR reactor between the plant's existing economizer and air heaters, and tie-in of the Turbosorp system, baghouse, ash recirculation system, and booster fan to the existing plant. In addition, electrical installation (especially in the lime hydration structure, where electrical work is just beginning) and installation of insulation and lagging must be completed. Work on Tasks 2.2 and 2.3 is expected to be finished by the end of the next quarterly reporting period.



Figure 7. Photograph from mid-August 2006 showing assembly of the booster fan at AES Greenidge.

Task 2.4 – Plant Start-Up and Commissioning

Work on Task 2.4 commenced during the reporting period. AESG and BPEI met during the week ending August 18 to begin working on plans for start-up and commissioning of the multi-pollutant control system. BPEI's start-up and commissioning manager has been on site since late August to prepare the turnover and training packages. Several activities under Task 2.4 were behind schedule as of the end of September 2006, including the preparation of instruction and operating manuals and completion of training at AES Greenidge. However, these activities are expected to be finished during the next quarterly reporting period with no impact on the overall project schedule. Training at AES Greenidge is currently planned for November 2-3 and 6-7. Actual start-up and commissioning of the multi-pollutant control system is scheduled to occur largely during the second half of the upcoming quarter, following the completion of process system construction.

3.0 Status Reporting

3.1 Cost Status

Table 1 summarizes the cost status of the Greenidge Multi-Pollutant Control Project through the end of the third calendar quarter of 2006. In order to allow for consistency between the cost status reported in our quarterly progress reports and the cost performance index reported as part of our monthly earned value management calculations, we have adjusted the cost baseline presented in Table 1 to match the baseline that we developed in July for our earned value management calculations (per Dan Connell's discussion with Wolfe Huber on September 12, 2006). Moreover, for purposes of Table 1, unsupported costs totaling \$359,077 that were identified in DOE's September 18, 2006, letter to CONSOL have been removed from the baseline costs for

the second quarter of 2006 so that the computed variances would not be incorrectly affected by these unsupported costs. This modified baseline will be used in all future quarterly progress reports. Finally, when we assembled our first invoice for submittal to DOE, actual costs for the January 2002-July 2006 time period were slightly less than the estimated amount shown in our last quarterly progress report. Hence, we have restated the actual costs for the second quarter of 2006 in Table 1 to reflect the invoiced amount.

As shown in Table 1, actual incurred costs for the third quarter of calendar year 2006 were \$162,904 greater than baseline planned costs for that quarter. This variance does not mean that the project is running over budget; rather, it reflects the fact that BPEI succeeded in catching up on behind-schedule activities (e.g., finalization of the SCR flow/dust model, deliveries of the SNCR equipment and lime hydration system) during the reporting period, so that the costs associated with these activities were incurred during the current quarter rather than during the previous quarter. (Per Table 1, actual incurred costs for the second calendar quarter of 2006 were \$1,520,905 less than planned costs for that quarter, largely because of these behind-schedule items). Cumulative incurred costs were still \$1,358,001 less than cumulative planned costs at the end of September 2006, though. This arose largely because activities related to the preparation of operating and training manuals, training of plant staff, and completion of baghouse and lime hydration system construction were behind schedule as of the end of September, and hence, payments for milestones associated with these activities did not occur during the reporting period as anticipated. These activities are expected to be completed and the associated payments made during the upcoming reporting period. Cumulative project administration costs were also less than budgeted through the end of September, largely because the Cooperative Agreement for the project was signed later than anticipated, contributing to the variance shown in Table 1.

3.2 Milestone Status

The critical path project milestone plan (from the Statement of Project Objectives for the project) and status for the Greenidge Multi-Pollutant Control Project are presented in Table 2. As shown in the Table and discussed in the last quarterly progress report for the project, the first of the project's six critical path project milestones ("Initiate scrubber system installation"), which was planned for the current quarterly reporting period, was actually achieved ahead of schedule during the last reporting period (second quarter of calendar year 2006). During the current quarter, the project's second critical path milestone ("Commence tie-in outage") was accomplished. As discussed in Section 2.0 above, AES Greenidge Unit 4 was taken off line at approximately 7:00 p.m. on Friday, September 29, to begin the outage. Hence, the milestone was met slightly before the start of the quarter in which it was scheduled to be achieved (fourth quarter of calendar year 2006), consistent with the overall project being approximately on schedule. The next critical path project milestone calls for guarantee and performance testing of the multi-pollutant control system to begin during the first quarter of calendar year 2007. We do not anticipate that any changes in the project schedule will be required to complete this critical path milestone.

Table 1. Cost plan/status for the Greenidge Multi-Pollutant Control Project.

Baseline Reporting Quarter	YEAR 1 Start: 1/1/2006 End: 12/31/2006				YEAR 2 Start: 1/1/2007 End: 12/31/2007				YEAR 3 Start: 1/1/2008 End: 12/31/2008			
	Q1	Q2 ^a	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
<u>Baseline Cost Plan By Calendar Quarter</u>												
Federal Share		\$7,287,214	\$1,806,841	\$2,135,468	\$1,581,828	\$365,626	\$239,208	\$228,040	\$235,068	\$292,521	\$176,448	\$4,170
Non-Federal Share		\$9,350,262	\$2,318,366	\$2,740,030	\$2,029,651	\$469,137	\$306,930	\$292,599	\$301,617	\$375,335	\$226,402	\$5,351
Total Planned (Federal and Non-Federal)		\$16,637,476	\$4,125,207	\$4,875,498	\$3,611,479	\$834,763	\$546,138	\$520,639	\$536,685	\$667,856	\$402,850	\$9,521
Cumulative Baseline Cost		\$16,637,476	\$20,762,683	\$25,638,182	\$29,249,660	\$30,084,423	\$30,630,561	\$31,151,200	\$31,687,885	\$32,355,741	\$32,758,591	\$32,768,111
<u>Actual Incurred Costs^b</u>												
Federal Share		\$6,621,058	\$1,878,193									
Non-Federal Share		\$8,495,513	\$2,409,918									
Total Incurred Costs-Quarterly (Federal and Non-Federal)		\$15,116,571	\$4,288,111									
Cumulative Incurred Costs		\$15,116,571	\$19,404,682									
<u>Variance^c</u>												
Federal Share		(\$666,156)	\$71,352									
Non-Federal Share		(\$854,749)	\$91,552									
Total Variance-Quarterly (Federal and Non-Federal)		(\$1,520,905)	\$162,904									
Cumulative Variance		(\$1,520,905)	(\$1,358,001)									

Notes: Some numbers may not add perfectly because of rounding. ^aCosts for Q2 2006 include costs for that quarter as well as pre-award costs incurred beginning in January 2002. Unallowable costs totaling \$359,077 that were identified in DOE's 9/18/06 letter to CONSOL have been removed from the baseline costs for Q2 2006. ^bActual incurred costs are all costs incurred by the project during the quarter, regardless of whether these costs were invoiced to DOE as of the end of the quarter. ^cNegative variance, (), means that actual incurred costs are less than baseline planned costs.

Table 2. Milestone plan / status report.

Critical Path Project Milestone Description	Project Duration - Start: 5/19/06 End: 10/18/08												Planned Start Date	Planned End Date	Actual Start Date	Actual End Date	Comments (notes, explanation of deviation from baseline plan)
	2006				2007				2008								
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4					
Initiate scrubber system installation		A	P										9/30/06	9/30/06	5/30/06	5/30/06	See text under Section 3.2.
Commence tie-in outage			A	P									12/31/06	12/31/06	9/29/06	9/29/06	See text under Section 3.2.
Begin guarantee/performance testing					P								3/31/07	3/31/07			
Begin routine plant operation and data collection for long-term testing						P							6/30/07	6/30/07			
Begin follow-up testing										P			6/30/08	6/30/08			
Complete analyses of process performance and economics											P		9/30/08	9/30/08			

NOTE: "A" indicates actual completion; "P" indicates planned completion.

4.0 Significant Accomplishments during the Reporting Period

Because the project is still in its design, procurement, and construction phases, no results concerning the performance of the multi-pollutant control facility are yet available. Significant progress-related accomplishments during the reporting period, which are described more fully in Section 2.0 above, are as follows:

- Completion of the project kickoff meeting at DOE-NETL
- Execution of the Project Agreement between CONSOL and AESG and of the EPC Agreement between AESG and BPEI
- Completion of Task 1.2 – Total Process Definition and Design
- Delivery of all major equipment items for the SNCR system and commencement of SNCR installation
- Completion of the Turbosorp absorber installation
- Delivery and erection of all major equipment items for the lime hydration system
- Construction of the baghouse penthouse and installation most of the baghouse internals
- Delivery and installation of the ash recirculation system
- Delivery and assembly of the booster fan
- Commencement of the AES Greenidge Unit 4 tie-in outage

5.0 Problems/Delays and Actions Taken/Planned to Resolve Them

No event occurred during the reporting period that is expected to cause significant schedule slippage or cost growth or to adversely impact important performance objectives.

6.0 Products Produced and Technology Transfer Activities Accomplished During the Reporting Period

As discussed in Section 2.0 above, CONSOL, AESG, and BPEI each issued press releases on the project in late July 2006. Moreover, abstracts on the project were submitted to three technical conferences that are being held in late 2006 or 2007 and include sessions focusing on air pollution controls for electric power plants. Copies of these press releases and abstracts are included in Appendices A and B, respectively, of this report.

APPENDIX A
PRESS RELEASES



For Immediate Release:

Contact: Joseph A. Cerenzia
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**CONSOL ENERGY INC. TO DEMONSTRATE
NEW RETROFIT EMISSIONS CONTROL TECHNOLOGY EXPECTED
TO AID MANY U.S. COAL-FIRED GENERATORS**

PITTSBURGH (July 26, 2006) – CONSOL Energy Inc. (NYSE:CNX) CONSOL Energy Inc. (NYSE:CNX) has been awarded a contract by the U.S. Department of Energy (DOE) to demonstrate an innovative, multi-pollutant control technology at the coal-fired, electricity-generating AES Greenidge station in Dresden, NY.

The purpose of the test project is to illustrate that the combination of various emissions-control devices can cost-effectively be added to a multitude of similar units nationwide. Greenidge is located about 12 miles south of Geneva, NY, on Seneca Lake.

The \$33 million project will be partially funded by a \$14.5 million cooperative agreement from the DOE through its National Energy Technology Laboratory, and includes design and installation of the multi-pollutant control facility, followed by more than a year of testing. The remainder of the costs will be funded by AES. Along with CONSOL Energy, major participants in the test project include AES Greenidge LLC and Babcock Power Environmental Inc.

“As a small coal-fired unit, AES’s 104-MW Greenidge Unit 4 was selected for the test because it is representative of the more than 500 small-to-medium-sized generators in use, nationwide,” said Doug Roll, AES’s Plant Manager. “Many of these units currently are not equipped with emissions-control devices sufficient to meet upcoming air emissions regulation. The combination of technologies being implemented at AES Greenidge provides a new solution for smaller plants to reduce emissions in an economically viable way.”

Central to the concept is the use of a hybrid selective non-catalytic reduction / selective catalytic reduction system and the Turbosorp® system (a circulating fluidized-bed dry scrubber). Testing and use of the retrofit, multi-pollutant control units will be the first to demonstrate that this technology combination will:

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- * reduce nitrogen oxides emissions to about 0.10 lbs. per million Btu (about a 60% reduction) with the hybrid selective non-catalytic reduction /selective catalytic reduction system.
- * remove 95 percent of sulfur dioxide emissions using the Turbosorp® dry scrubber.
- * achieve a 90 percent reduction in mercury emissions by adding activated carbon into the Turbosorp® system.
- * remove more than 95 percent of acid gases with the Turbosorp® system.

“It is expected that the proposed project will demonstrate the commercial readiness of this emissions control system to meet the requirements of a large group of existing electricity generating units,” said Steven E. Winberg, CONSOL Energy’s general manager of Research & Development. “This system is particularly suited, because of its low capital and maintenance costs, to retrofitting smaller, older coal-fired power plants.”

Pittsburgh-based CONSOL Energy is the prime contractor under the DOE Cooperative Agreement and will be responsible for project administration, performance testing, and reporting. AES Greenidge, responsible for operating the multi-pollutant control facility, is a subcontractor to CONSOL Energy. Babcock Power Environmental Inc. is responsible for designing and constructing the facility and is a subcontractor to AES Greenidge.

“Because of the novel combination of these emissions-control technologies, the hybrid system offers considerable operational flexibility, especially in terms of sulfur dioxide, nitrogen oxide, and mercury reduction,” said Richard A. Winschel, CONSOL Energy’s director – research services. “Compared to other sulfur dioxide emissions reduction technologies, there is a substantial cost savings and enhanced emissions reduction by using the Turbosorp® system.”

Actual operation of the facility will get underway in late 2006. It is anticipated that initial performance test results will be available in mid-2007.

“The concept merited DOE’s financial support because the goal of the proposed project is to demonstrate a novel technology combination that can substantially reduce emissions of mercury, sulfur dioxide, nitrogen oxide, and fine particulates at a cost that is attractive for smaller, older units,” said CONSOL’s Winberg. “Ultimately, the successful completion of the demonstration of these technologies will help to ensure the future availability of low-cost electricity from a significant fraction of the nation’s coal-fired generating fleet.”

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CONSOL Energy Inc., through its subsidiaries, is the largest producer of high-Btu bituminous coal in the United States. CONSOL Energy has 17 bituminous coal mining complexes in six states. In addition, the company is a majority shareholder in one of the largest U.S. producers of coalbed methane, CNX Gas Corporation. In 2005, CONSOL Energy Inc. had total revenues of \$3.8 billion. The company was named one of America's most admired companies in 2005 by *Fortune* magazine. It received the U.S. Department of the Interior's Office of Surface Mining National Award for Excellence in Surface Mining for the company's innovative reclamation practices in 2002, 2003 and 2004. Also in 2003, the company was listed in Information Week magazine's "Information Week 500" list for its information technology operations. In 2002, the company received a U.S. Environmental Protection Agency Climate Protection Award.

Additional information about the company can be found at its web site:
www.consolenergy.com.

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The Global Power Company

NEWS RELEASE

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**AES TO INSTALL CLEAN-COAL TECHNOLOGY
AS PART OF US DEPARTMENT OF ENERGY PROGRAM
Retrofit To Demonstrate Viability of Technology
for Small-Scale Facilities**

ARLINGTON, VA, July 27, 2006 – The AES Corporation (NYSE: AES) today announced it will install state-of-the-art clean-coal technology at AES Greenidge, its 161 MW power plant in Dresden, New York. The AES Greenidge facility will be the first coal-fired plant in the US to implement a new approach to multi-pollutant control technology that reduces SO₂, NO_x and mercury and to demonstrate its economic viability for the 500 smaller, coal-fired plants around the United States.

The demonstration project, funded in part by a \$14.5 million Clean Coal Technology Cooperative Agreement from the US Department of Energy's National Energy Technology Laboratory, will help significantly reduce SO₂, NO_x, particulate matter and mercury emissions at the plant's 107 MW Unit #4. The total cost of the project is \$39 million and is expected to be completed by the end of 2006.

"This project is expected to significantly improve the air quality for the people and environment of New York State and demonstrate how smaller facilities can cost-effectively implement emission reduction technologies," said Douglas Roll, Plant Manager at AES Greenidge. "We are pleased that the US Department of Energy has selected AES Greenidge to test this innovative multi-pollutant control project."

This technology is a blend of methods designed to meet the needs of smaller coal-fired plants. Substantially less capital intensive than conventional equipment, the technology is expected to significantly decrease the costs associated with utilizing conventional emissions reduction systems, making the implementation of clean-coal technology

- more -

economically feasible for smaller facilities. Because AES Greenidge also utilizes biomass for fuel, this project will demonstrate that this technology can also be used in conjunction with co-firing biomass.

“The success of the AES Greenidge project will be instrumental in promoting the future viability of coal as a clean and low-cost fuel for electric generation,” said, Pete Norgeot, Vice President, AES Eastern Energy. “AES has long taken a leadership role in improving air quality in New York State and, since 1999, AES has invested more than \$100 million in pollution control projects in upstate New York. AES was the first company in New York State to voluntarily install cutting edge air pollution control equipment at its AES Somerset facility in 1999 and at our Cayuga 1 facility in 2001. We are proud to continue this cooperative approach in New York today with the Department of Energy.”

Since 1999, AES has reduced SO₂ and NO_x emissions by 70% at its AES Somerset and AES Cayuga facilities in New York State, and has significantly reduced mercury emissions at both plants. Today, these facilities are equipped with enhanced, state-of-the-art multi-pollutant emission control equipment including Electrostatic Precipitators, Flue Gas Desulfurization (FGD) and Selective Catalytic Reduction (SCR) technology. In 2002, the AES Westover plant also voluntarily implemented technologies to reduce NO_x emissions in the state.

CONSOL Energy, Inc. will be responsible for the project administration with the US Department of Energy and for monitoring the project implementation at AES Greenidge. Other team members will be Babcock Power Environmental and Fuel Tech.

About AES

AES is one of the world's largest global power companies, with 2005 revenues of \$11.1 billion. With operations in 26 countries on five continents, AES's generation and distribution facilities have the capacity to serve 100 million people worldwide. Our 14 regulated utilities amassed 2005 annual sales of over 82,000 GWh and our 127 generation facilities have the capacity to generate over 44,000 megawatts. Our global workforce of 30,000 people is committed to operational excellence and meeting the world's growing power needs. To learn more about AES, please visit www.aes.com or contact AES media relations at media@aes.com.

Safe Harbor Disclosure

This news release contains forward-looking statements within the meaning of the Securities Act of 1933 and of the Securities Exchange Act of 1934. Such forward-looking

statements include, but are not limited to, those related to future earnings, growth and financial and operating performance. Forward-looking statements are not intended to be a guarantee of future results, but instead constitute AES's current expectations based on reasonable assumptions. Forecasted financial information is based on certain material assumptions. These assumptions include, but are not limited to, continued normal levels of operating performance and electricity demand at our distribution companies and operational performance at our contract generation businesses consistent with historical levels, as well as achievements of planned productivity improvements and incremental growth investments at normalized investment levels and rates of return consistent with prior experience. Actual results could differ materially from those projected in our forward-looking statements due to risks, uncertainties and other factors. Important factors that could affect actual results are discussed in AES's filings with the Securities and Exchange Commission, including, but not limited to, the risks discussed under Item 1A "Risk Factors" in AES's 2005 Annual Report on Form 10-K. Readers are encouraged to read AES's filings to learn more about the risk factors associated with AES's business. AES undertakes no obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.

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PRESS RELEASE

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July 24, 2006

FOR IMMEDIATE RELEASE

Babcock Power to Supply Multi-pollutant Control System for AES's Greenidge Station

Danvers, MA – Babcock Power Environmental Inc. (BPEI), located in Worcester, MA, a subsidiary of Babcock Power Inc., based in Danvers, MA, announced today that it has recently received a contract from AES for the design and supply of an innovative multi-pollutant control system for Unit #4 at AES' Greenidge Station power plant located near Dresden, New York. This project is sponsored by the Department of Energy's (DOE) Power Plant Improvement Initiative with a goal of demonstrating a multi-pollutant control system to reduce emissions from smaller coal-fired plants for less money than it costs to control NO_x and SO₂ separately. Pittsburgh-based CONSOL Energy is the prime contractor under the DOE Cooperative Agreement and will be responsible for project administration, performance testing, and reporting.

The multi-pollutant control system offered by BPEI will reduce nitrogen oxide (NO_x) emissions, sulfur dioxide (SO_x) emissions, particulate matter (PM), mercury (Hg) and acid gases (SO₃, HCl, and HF). Included in the scope are: low NO_x burner upgrades to the existing tangential firing system and separate overfire air system, a combined Selective Non-Catalytic Reduction/Selective Catalytic Reduction (SNCR/SCR) system for further NO_x removal, and a Dry Circulating Bed Flue Gas Desulfurization (DFGD) scrubber for SO_x reduction, as well as mercury removal through carbon injection directly into the scrubber. Riley Power Inc., a subsidiary of Babcock Power Inc., will provide the low NO_x burner upgrades and the SCR⁽¹⁾, while BPEI will utilize licensed Turbosorp® technology from Austrian Energy & Environment AG for the DFGD. BPEI will also collaborate with Fuel-Tech N.V., a leader in post-combustion SNCR control systems, on that portion of the hybrid NO_x reduction system.

This innovative combination of environmental control technologies will result in lower initial capital cost, lower operating and maintenance costs, and improved reliability due to the simplified mechanical complexity of the overall system compared to other systems being offered today. Jim Dougherty, President of BPEI, stated that, "Greenidge Unit #4 is one of about 500 coal-fired units in the U.S. with capacities in the 50-600 MW range that are not currently equipped with FGD, SCR, SNCR or mercury control systems. These small-to-medium size units are increasingly vulnerable to fuel switching or retirement as a result of more stringent environmental regulations. This project will demonstrate the commercial readiness of this multi-

pollutant emissions control system that is particularly suited, because of its low capital and maintenance costs, to meet the requirements of this large group of existing generating units.”

AES is a leading global power company, with 2004 revenues of \$9.5 billion. AES operates in 27 countries, generating 44,000 megawatts of electricity through 124 power facilities and delivers electricity through 15 distribution companies. Their 30,000 employees are committed to operational excellence and meeting the world's growing power needs.

Babcock Power Inc., through its subsidiaries, is one of the world’s leading suppliers of technology, equipment, and services to the power generation industry. Babcock Power subsidiary companies include; Vogt Power International (Louisville, KY), Thermal Engineering International (USA) Inc. (Santa Fe Springs, CA), Babcock Power Environmental, Riley Power Inc. and Babcock Power Services (Worcester, MA), Boiler Tube Company of America (Lyman, SC), TEi Construction Services, Inc. (Greer, SC) and TEi-Struthers Wells (Warren, PA).

⁽¹⁾ SCR systems furnished utilize technology under an exclusive license from Balcke-Durr GmbH and from other Babcock Power Inc. proprietary sources. ###

APPENDIX B

ABSTRACTS

Submitted to the American Filtration and Separations Society's 2006 Fall Conference on Separations Processes for the Power Generation Industry, October 16-18, 2006, Pittsburgh, PA

Design of an Integrated Multi-Pollutant Control System for Reducing Emissions of SO₂, NO_x, Hg, Acid Gases, and Particulate Matter from Smaller Coal-Fired Power Plants

Daniel P. Connell*

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Richard F. Abrams

Babcock Power Environmental Inc., Worcester, MA

The Greenidge Multi-Pollutant Control Project is being conducted as part of the U.S. Department of Energy's Power Plant Improvement Initiative to demonstrate an innovative combination of air pollution control technologies that can cost-effectively reduce emissions of SO₂, NO_x, Hg, acid gases (SO₃, HCl, and HF), and particulate matter from coal-fired electrical generating units with capacities of 50 - 300 MWe. The multi-pollutant control system is being installed and tested on the AES Greenidge Unit 4 (Boiler 6), a 107 MWe, 1950s vintage, tangentially-fired, reheat unit that burns mid-to-high sulfur eastern bituminous coal and co-fires up to 10% biomass. The Greenidge Project aims to confirm the commercial readiness of an emissions control system that is particularly suited, because of its relatively low capital and maintenance costs and small space requirements, to meet the requirements of smaller coal-fired units such as Greenidge Unit 4, which constitute a valuable asset base of existing electrical generating capacity but are becoming more susceptible to retirement or fuel switching as a result of increasingly stringent air emission regulations.

Construction and supply of the multi-pollutant control system by Babcock Power Environmental Inc. is underway at AES Greenidge, and startup is scheduled to commence by the end of 2006. This presentation focuses on the process design and performance targets of the system. The design seeks to reduce NO_x emissions to ≤ 0.10 lb/MMBtu at full load via a hybrid system consisting of combustion modifications, urea-based in-furnace selective non-catalytic reduction (SNCR), and a single-bed selective catalytic reduction (SCR) reactor that is being installed in the ductwork between the plant's economizer and air heaters and will be fed by ammonia slip generated by the urea-based SNCR system. Emissions of SO₂ and other acid gases will be reduced by $\geq 95\%$ using a Turbosorp[®] circulating fluidized bed dry scrubber system. In the Turbosorp[®] scrubber system, water and dry hydrated lime, which will be supplied from a hydrator being installed on site at Greenidge, are injected separately into a fluidized bed absorber, where the flue gas is evaporatively cooled and brought into intimate contact with the hydrated lime reagent. The hydrated lime reacts with the acidic constituents of the flue gas (i.e., SO₂, SO₃, HCl, and HF) to form solid products, which are separated from the flue gas in a baghouse and recycled to the absorber at a high ratio to the inlet solids in order to maximize pollutant removal and lime utilization. Mercury removal of $\geq 90\%$ in the multi-pollutant control system will be accomplished via the co-benefits afforded by the in-duct SCR, Turbosorp[®] scrubber system, and baghouse, as well as by injection of activated carbon into the Turbosorp[®] scrubber system as required. The design includes turndown capabilities for the SNCR and Turbosorp[®] scrubber systems, enabling operational flexibility and continued emissions reduction at reduced loads. The multi-pollutant control system is projected to cost about \$330/kW and occupy an approximately 0.5-acre footprint for the AES Greenidge application, both substantially less than would have been required to retrofit a conventional stand-alone SCR and wet scrubber on a unit of this size.

Submitted to the 2007 Electric Power Conference & Exhibition, May 1-3, 2007, Chicago, IL

Initial Cost and Performance Results from the Greenidge Multi-Pollutant Control Project

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Coal-fired electrical generating units smaller than 300 MWe are increasingly vulnerable to retirement or fuel switching as a result of progressively more stringent federal and state air emissions regulations and the challenges of large capital costs and space limitations associated with retrofitting these units using conventional control technologies such as SCRs and wet scrubbers. These units are a major part of the valuable asset base of existing coal-fired generating capacity in the United States and abroad. The Greenidge Multi-Pollutant Control Project is being conducted under the U.S. Department of Energy's Power Plant Improvement Initiative to demonstrate that emissions from these smaller units can be controlled cost-effectively via an innovative, integrated combination of technologies. The multi-pollutant control system, which is being installed on the 107 MWe AES Greenidge Unit 4 and supplied by Babcock Power Environmental, includes combustion modifications, a hybrid SNCR / in-duct SCR, and a Turbosorp circulating fluidized bed dry scrubber with activated carbon injection and baghouse ash recycling. The objective of the project is to demonstrate that this approach to multi-pollutant control, which costs about \$330/kW and requires an approximately 0.5-acre footprint for the Greenidge application, can reduce NO_x emissions to ≤0.10 lb/MMBtu; SO₂, SO₃, HCl, and HF emissions by ≥95%; and mercury emissions by ≥90%, while the unit is firing a 2-4% sulfur coal and co-firing up to 10% biomass.

The DOE demonstration project includes design, construction, and start-up of the multi-pollutant control system in 2006, followed by more than 1.5 years of operation and performance testing. This presentation summarizes the key design features, capital costs, and projected operating costs of the system, and is the first to convey actual performance data from the Greenidge demonstration facility. These data are valuable for informing the decision making of generators seeking low-capital-cost retrofit options for their smaller coal-fired units.

Submitted to the Air & Waste Management Association's 100th Annual Conference & Exhibition, June 26-29, 2007, Pittsburgh, PA

The Greenidge Multi-Pollutant Control Project: Key Technical and Economic Features of a New Approach for Reducing Emissions from Smaller Coal-Fired Units

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An innovative approach to multi-pollutant control is being demonstrated at the coal-fired, 107 MWe AES Greenidge Unit 4 in Dresden, NY, as part of the U.S. Department of Energy's Power Plant Improvement Initiative. The multi-pollutant control system, which was installed in 2006 and is being tested while the unit fires 2-4% sulfur eastern bituminous coal and co-fires up to 10% biomass, includes combustion modifications and a hybrid selective noncatalytic reduction (SNCR) / in-duct selective catalytic reduction (SCR) system to control NO_x to ≤ 0.10 lb/MMBtu, followed by a Turbosorp[®] circulating fluidized bed dry scrubber system with baghouse ash recycling to reduce emissions of SO₂, SO₃, HCl, and HF by $\geq 95\%$. Mercury removal of $\geq 90\%$ is also targeted via the co-benefits afforded by the in-duct SCR, dry scrubber, and baghouse and by injection of activated carbon into the scrubber as required. The objective of the project is to substantiate that this combination of technologies can cost-effectively provide deep emissions reductions when retrofitted on existing coal-fired electrical generating units smaller than 300 MWe, allowing these units to continue to operate while complying with progressively more rigorous environmental regulations.

This presentation highlights important technical and economic differences between the multi-pollutant control system being demonstrated at AES Greenidge and more conventional air pollution control retrofit options (e.g., full-scale SCR, stand-alone SNCR, wet limestone forced oxidation scrubber, spray dryer) as applied to smaller coal-fired units. Key features of the Greenidge system are its relatively low capital cost (approximately \$330/kW), small space requirements (less than 0.5 acre), operational flexibility, and mechanical simplicity. Performance data from the first several months of operation of the multi-pollutant control facility at AES Greenidge will also be presented.