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ALABAMA POWER
A SOUTHERN COMPANY

December 10, 2013

Mr. Walter L. Thomas, Secretary
Alabama Public Service Commission
RSA Union Building
100 North Union Street, Suite 850
Montgomery, Alabama 36130

Re: Final Version of Environmental Compliance Plan Associated with Rate CNP; Docket Nos. 18117 and 18416

Dear Mr. Thomas:

We are enclosing for filing an original and ten (10) copies of the final version of Alabama Power's environmental compliance plan. Included in this plan are the following:

- A report on legislative and regulatory matters relevant to Alabama Power's environmental compliance activities;
- A discussion of Alabama Power's five-year projections on capital and O&M expenditures related to environmental compliance activities; and
- A detailed summary of Alabama Power's capital and O&M expenditures scheduled for the upcoming environmental cost year.

If the Commission or its Staff has any questions concerning this information, please do not hesitate to contact the undersigned or Mr. Nick Sellers at (205) 257-3111, who is the designated Company individual under Rule 10 of the Special Rules.

Sincerely,

Enclosures

cc: Commissioner Twinkle Andress Cavanaugh
Commissioner Jeremy H. Oden
Commissioner Terry L. Dunn

Secretary of the Alabama Public Service Commission
Mr. Walter L. Thomas, Jr. (11)

Executive Director and Chief Administrative Law Judge
The Honorable John A. Garner

Director, Electricity Policy Division
Mr. John D. Free

Office of the Attorney General
Ms. Olivia W. Martin

December 10, 2013

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REGULATORY AND LEGISLATIVE UPDATE

The following discussion provides a regulatory and legislative update on environmental issues affecting Alabama Power Company, including acid rain, ambient air quality standards, regional haze (visibility), hazardous air pollutants, climate change, water initiatives, toxics release inventory, and coal combustion products. Environmental compliance requirements affecting Alabama Power are administered by the U.S. Environmental Protection Agency (EPA), the Alabama Department of Environmental Management (ADEM), and other state and local authorities. In addition to the updates provided, Alabama Power has included, as it customarily does, background information on a number of regulatory and legislative programs that have given and continue to give rise to the environmental compliance strategies employed by the Company.

ACID RAIN REQUIREMENTS

The Acid Rain Program was implemented under Title IV of the Clean Air Act Amendments (CAAA) of 1990. This program required significant reductions in the emissions of sulfur dioxide (SO_2) and nitrogen oxides (NO_x), which can lead to the formation of acid rain. For SO_2, the Acid Rain Program ushered in a new and innovative "cap and trade" concept that established a permanent nationwide cap on the total amount of SO_2 that may be emitted by electric power plants. The program set a specific number of SO_2 "allowances" (one allowance being equivalent to one ton of emitted SO_2) that achieves the national goal for SO_2 reductions. Allowances can be banked, traded and sold. This market-based program allows affected sources to design and implement compliance strategies at lower costs while achieving the desired environmental goals. Each generating plant affected by the Acid Rain Program must have sufficient allowances to cover its annual SO_2 emissions. The program requires rigorous emissions monitoring and

reporting protocols to ensure accuracy and accountability, to support the allowance trading element, and to achieve the desired program results. Alabama Power's compliance strategies for the Acid Rain Program have included switching to lower sulfur coals, purchasing, trading and banking SO_2 allowances, as well as installing emissions control equipment. Every year, Alabama Power has maintained adequate SO_2 allowances in its accounts to comply with the Acid Rain Program.

The requirements of the Acid Rain Program have been implemented in two phases. Phase I requirements became effective for SO_2 on January 1, 1995. EPA allocated SO_2 allowances to Phase I units using a historical fuel consumption (i.e., heat input) baseline and a specific emission rate of 2.5 lbs. of SO_2 per million Btus of heat input. Due to litigation involving the final rules, the effective date for Phase I NO_x compliance was delayed until January 1, 1996. The Phase I limits for NO_x were 0.50 and 0.45 lbs. of NO_x per million Btus of heat input for dry-bottom wall-fired and tangentially-fired boilers, respectively. Alabama Power's coal-burning units have complied with the Acid Rain Program annual NO_x emission rate limits since those limits became effective in 1996.

The Acid Rain Program's Phase II requirements for both SO_2 and NO_x became effective on January 1, 2000. The limits for Phase II affect more units and are more stringent than those under Phase I. EPA allocated SO_2 emission allowances (again based upon specific formulas) to all affected units above 25 megawatts in size with an allocation factor of 1.2 lbs. of SO_2 per million Btus of heat input. The final Phase II NO_x rules set the limits for the three general boiler and burner types and designs owned and operated by Alabama Power at 0.46 lbs. of NO_x per million Btus of heat input for wall-fired boilers, 0.40 lbs. of NO_x per million Btus of heat input for tangentially-fired boilers, and 0.68 lbs. of NO_x per million Btus of heat input for the more

difficult to control cell burner-fired boilers. Alabama Power's compliance strategies for the Acid Rain Program NO_x limitations have included installing low-NO_x burner and combustion control technologies and selective catalytic reduction systems in conjunction with system-wide NO_x emission rate averaging plans.

AMBIENT AIR QUALITY STANDARDS

The major United States law driving federal air regulations is the Clean Air Act (CAA or "the Act"). The cornerstone of the CAA is the establishment and attainment of the National Ambient Air Quality Standards (NAAQS or "standards") for the following six pollutants: ozone, particulate matter, sulfur dioxide, lead, carbon monoxide and nitrogen dioxide. The CAA requires that EPA determine what concentration of each of these six specific pollutants in the ambient (i.e., outside) air is protective of human health within a margin of safety. Fossil-fired power plants emit some of these air pollutants directly, while some of these pollutants can also combine with other substances in the atmosphere to form "secondary" pollutants such as "fine" particulate matter and ozone.

Geographic areas where ambient levels of any of these pollutants exceed the NAAQS are designated as "nonattainment" areas. States that have nonattainment areas are required by the CAA to develop and implement State Implementation Plans (SIPs) that include emission control strategies designed to bring these areas into attainment with the NAAQS that are not being met. EPA must approve these SIPs, and if a state fails to adopt a SIP, EPA must promulgate a Federal Implementation Plan (FIP) in lieu of the SIP. While the CAA itself has not been altered since the CAAA of 1990, multiple new regulations continue to be promulgated in order to implement various provisions of the Act. Major EPA regulations for the electric utility industry often

undergo judicial review, and courts play an increasingly significant role in the final outcome of regulations through their interpretation of the Act as well as their review of the regulations implementing the Act.

Once EPA sets a NAAQS for a pollutant, the CAA requires EPA to review the NAAQS every five years to determine if a revision is necessary. Since 1997, these reviews have resulted in multiple, significant changes to the ozone, lead, particulate matter, nitrogen dioxide, and sulfur dioxide NAAQS. The vast majority of costs for emission controls incurred by Alabama Power are attributable to the implementation of these increasingly stringent air quality standards.

1-Hour Ozone Standard

Historically, the most pervasive and difficult ambient air pollutant to reduce has been ozone, with many major urban areas across the country (including Birmingham) failing to meet the 1-hour ozone standard (0.12 ppm) for many years. As discussed below, EPA established a more stringent 8-hour ozone standard in 1997, (a.k.a. the 1997 8-hour ozone standard) and eventually revoked the 1-hour standard in June 2005 (the terms "1-hour" and "8-hour" refer to the time period over which the air quality monitor data is averaged). However, emission reduction regulations addressing the 1-hour ozone standard remain effective under the Alabama SIP for Birmingham ozone and affect two Alabama Power plants.

By way of background, Jefferson and Shelby Counties were originally classified as a 1-hour ozone nonattainment area by EPA on March 3, 1978. The CAAA of 1990 required most states with then existing 1-hour ozone nonattainment areas to submit by November 1994 revised SIPs that demonstrated attainment of the standard by their designated attainment year. Most affected states were unable to demonstrate attainment and could not submit revised SIPs by the deadline. EPA thus allowed states to delay the SIP submittals for approximately two years, provided states

finalized plans for certain emission reduction mandates and agreed to participate in a collaborative effort to evaluate regional controls for NO_x emissions that could contribute to attainment of the ozone standard across an entire region, in this case the eastern United States.

The collaborative effort led to the formation of the Ozone Transport Assessment Group (OTAG), an organization of 37 states east of and bordering the Mississippi River, plus Texas, Kansas, Nebraska, Oklahoma and the Dakotas. OTAG evaluated certain regional NO_x and volatile organic compounds (VOC) controls and their potential for reducing ozone in the eastern United States. OTAG presented its final recommendations to EPA in June 1997. The final recommendations presaged the Regional NO_x SIP Call rule, which required additional NO_x emission reductions for utilities and large industrial sources as a measure to address regional transport of this ozone precursor.

The CAAA of 1990 prescribed a 1-hour ozone standard attainment date of 1993 for the Birmingham ozone nonattainment area (Jefferson and Shelby Counties). Birmingham recorded air quality data that demonstrated attainment of the standard in 1993, and ADEM submitted a request to EPA in March 1995 to redesignate Birmingham to attainment for the 1-hour ozone NAAQS. However, before EPA acted on ADEM's request, Birmingham-area ozone monitors recorded ozone air quality data that violated the 1-hour standard. EPA subsequently denied ADEM's redesignation request in September 1997, and later in 2000 issued a "SIP Call" requiring Alabama to submit a plan that would provide for attainment of the 1-hour ozone standard in Birmingham. ADEM submitted a 1-hour ozone SIP in November 2000, and EPA approved the plan in November 2001. EPA allowed Alabama until May 2003 to enforce the SIP requirements needed to attain this ozone standard.

ADEM's rules addressing the 1-hour ozone standard require Alabama Power's Plants Gorgas and Miller to achieve a 0.21 lbs. of NO_x per million Btus of heat input 30-day rolling average limit during the ozone season. To meet this mandate, Alabama Power installed, in addition to previously-installed controls, selective catalytic reduction (SCR) technology at Gorgas 10 and Miller 3-4, and combustion controls at other Gorgas units. (In 2005, SCRs were installed at Miller 1-2 for compliance with the NO_x Budget Trading Program, but these controls also were expected to assist with compliance with the 1-hour ozone Alabama SIP requirements.)

On March 12, 2004, EPA approved the redesignation of the Birmingham ozone nonattainment area to 1-hour ozone attainment based on the air quality data recorded for the area from 2001-2003. Prior to this approval, the Sierra Club had initiated litigation in the United States Circuit Court of Appeals for the District of Columbia (D.C. Circuit) seeking higher (i.e., more punitive) nonattainment status for some areas across the country, including Birmingham. The D.C. Circuit concluded that EPA failed to exercise its duty to make a final ozone determination for classifying Birmingham (and other areas) by May 15, 1994, as prescribed by the CAAA of 1990. In November 2002, in response to the court's order, EPA determined that Birmingham did, in fact, attain the 1-hour ozone standard by November 15, 1993, the date required by the CAAA of 1990. In summary, Birmingham in 2002 retroactively met the 1-hour standard in 1993, and again achieved (and officially redesignated to attainment) the 1-hour standard in March 2004. Unfortunately, attainment was short lived, as in April 2004 Birmingham was designated ozone nonattainment for the more stringent 1997 8-hour ozone standard (discussed later).

NO_x Budget Trading Program

In September 1998, EPA issued the Regional NO_x SIP Call rule, which required 22 states (including Alabama) and the District of Columbia to submit SIPs addressing regional transport of the ozone precursor NO_x. The Regional NO_x SIP Call rule was a cap and trade program and

was also referred to as the NO_x Budget Trading Program (NBP). The NBP required NO_x emission reductions sufficient to meet unique NO_x emission budgets specified for each affected state. The utility budgets were based upon projected electricity generation for 2007 (using EPA assumptions that underpredicted actual growth in some cases) and NO_x emissions at approximately 0.15 lbs. of NO_x per million Btus of heat input for coal-fired units.

Final NBP SIPs were originally required by September 1999, with the final compliance deadline for utilities and large industrial sources set for May 1, 2003. However, the rule was challenged and in May 1999, the D.C. Circuit issued an order staying the September 1999 SIP submittal deadline until "further order of the court." In March 2000, the court largely upheld the Regional NO_x SIP Call rule and cleared the way for EPA to implement the program. Even so, the court vacated the rule for Georgia, Missouri and Wisconsin, and EPA was required to submit a revised rule for the northern two-thirds of Georgia and the eastern half of Missouri. As part of its February 2002 proposal, EPA excluded the southern one-third of Alabama, along with the southern one-third of Georgia, because modeling results did not show an impact on any out-of-state nonattainment area from sources in these regions. As a result of further litigation and its final rule reconsiderations, EPA eventually rescinded the Regional NO_x SIP Call rule as applied to all of Georgia in April 2008.

The litigation before the D.C. Circuit resulted in an extension of the compliance date for utilities and large industrial sources from May 1, 2003 to May 31, 2004, for all remaining affected states. The Alabama NBP SIP rules were finalized in February 2001 and approved by EPA in July 2001. In addition to the SCRs installed to meet the ADEM 1-hour ozone standard requirements, Alabama Power installed SCRs at Miller 1-2 and Gaston 5 as well as combustion controls at

Greene County 1-2 for compliance with the NBP. With the promulgation of the Clean Air Interstate Rule (discussed later), the NBP ended in 2008.

1997 and 2008 8-Hour Ozone Standards

On July 18, 1997, EPA promulgated new ambient air quality standards for ozone. Compared with the original 1-hour ozone standard, the 1997 8-hour ozone standard has a lower ozone concentration level (0.08 ppm vs. 0.12 ppm) and a longer averaging period (8 hours vs. 1 hour). The two standards also use different calculation methodologies to determine attainment. Attainment of the 8-hour standard is determined by the average of the fourth-highest concentration of each year measured over a 3-year period. The net effect of these changes is that the 1997 8-hour standard is significantly more stringent than the 1-hour standard.

On May 14, 1999, the D.C. Circuit remanded the 1997 8-hour ozone and particulate matter standards to EPA for reasons involving constitutionality, the nonattainment classification scheme, and ultraviolet-B (UVB) health "disbenefits." EPA appealed the first of these two rulings to the United States Supreme Court. On February 27, 2001, the Supreme Court upheld the constitutionality of the standards, but rejected EPA's implementation plan for the 1997 8-hour ozone standard and remanded the standard to the D.C. Circuit for further review. On March 26, 2002, the lower court dismissed all remaining challenges to the standard. On January 6, 2003, EPA published a final rule that responded to the court remands related to the beneficial effects of ozone in preventing UVB-induced skin cancers and cataracts. EPA determined that these effects were too uncertain to warrant a change to the standard.

In April 2004, EPA designated the Birmingham area (Jefferson and Shelby Counties) nonattainment for the 1997 8-hour ozone standard. The Birmingham nonattainment area was classified as a "Basic" nonattainment area, with an attainment deadline of June 15, 2009. The

Alabama SIP containing 1997 8-hour ozone attainment demonstrations and control requirements for Birmingham was due June 15, 2007. However, ozone monitoring data for 2003-2005 showed that Birmingham was achieving the 1997 8-hour standard. ADEM requested that EPA redesignate the Birmingham area to ozone attainment based upon the most current air quality data. EPA approved the request, and the Birmingham area became attainment for the 1997 8-hour ozone standard effective June 12, 2006. This action eliminated the need for an 8-hour attainment SIP for Birmingham, but a Maintenance Plan was required under the CAA, and one was approved as part of the redesignation process. The Maintenance Plan demonstrates that the standard will continue to be met after attainment designation.

Subsequent to the EPA ozone attainment redesignation, a Birmingham area air quality monitor began recording violations of the 1997 8-hour standard. This event required ADEM to activate the Maintenance Plan in order to address the ozone monitor violations (i.e., ADEM must take actions to ensure the standard would again be attained). ADEM revised air permits for two industrial facilities, requiring additional NO_x emission reductions in order to satisfy Maintenance Plan provisions.

While many areas in the United States were still struggling to meet the 1997 8-hour ozone standard, EPA lowered the ozone standard once again. On March 27, 2008, EPA established the 2008 8-hour ozone standard, which increased the stringency of the 8-hour ozone standard from 0.08 ppm (effectively 0.084 ppm due to rounding) to 0.075 ppm. Legal challenges were filed by industry groups as well as the State of Mississippi, charging that the 2008 standard was overly stringent. On the other hand, numerous other states and environmental groups claimed that the 2008 standard was not stringent enough. The cases were consolidated as *Mississippi v. EPA* in the D.C. Circuit. The State of Alabama filed a motion to intervene in support of the petitioner

State of Mississippi. Shortly after a change in the Administration, EPA requested the D.C. Circuit suspend briefing pending an EPA decision whether to reconsider the 2008 standard. The court granted this request in March 2009. In September 2009, EPA announced that it would reconsider the 2008 ozone standard. In January 2010, EPA proposed to increase the stringency of the standard by lowering the level from 0.075 ppm to a level in the range of 0.060 to 0.070 ppm. Such a revision would be expected to result in a large number of new nonattainment areas throughout the United States. Based on ozone monitoring data at the time, a level of 0.070 ppm was projected to result in 75 percent of monitored counties across the country being nonattainment, and a level of 0.060 ppm was projected to result in 96 percent of monitored counties being nonattainment. A more stringent ozone standard is likely to be a continuing driver for NO_x and VOC emission reductions in many areas of the country.

Area designations for the 2008 ozone standard were initially slated for March 2010. However, with the Administration's decision to reconsider the standard, EPA announced its intention to stay that process and finalize designations for a potentially revised ozone standard. On September 2, 2011, after numerous delays finalizing a revision, the President instructed EPA to withdraw its reconsideration of the 2008 ozone standard. EPA subsequently resumed implementation of the 2008 ozone standard of 75 ppb and finalized initial designations on April 30, 2012. No areas in Alabama were designated as nonattainment for the 2008 standard. Litigation of the 2008 standard, which had been held in abeyance, resumed as well. On July 23, 2013, the D.C. Circuit Court issued its opinion in the matter and denied the petitions for review by industry, state and environmental groups challenging the standard. The court did not require EPA to change the 2008 ozone standard.

EPA is continuing its next review of the ozone standard. Although EPA has announced plans to propose any appropriate revision to the standard by December 2013 and finalize any revisions by September 2014, it is unlikely EPA will meet these dates.

As indicated above, a more stringent ozone standard will likely result in more nonattainment areas in Alabama. In that event, ADEM would be required to develop SIPs that give reasonable assurance that the standard will be achieved in nonattainment areas. As in the past, the courts are expected to continue to play a significant role in the establishment of any new ozone standard and its implementation.

1997 and 2006 Fine Particle Standards

On July 18, 1997, EPA also promulgated new ambient air quality standards for fine particulate matter. Fine particulate matter is a general term used for a mixture of solid particles and liquid droplets in the air that have aerodynamic diameters less than 2.5 micrometers (PM2.5). The 1997 standards established 24-hour and annual standards for PM2.5. The 1997 PM2.5 standards were delayed by challenges in various courts, but were ultimately largely upheld. Specifically, as with the 1997 8-hour ozone standard, the D.C. Circuit remanded, on constitutional grounds, the 1997 PM2.5 standards to EPA for redevelopment. EPA appealed the decision to the Supreme Court, which upheld the constitutionality of the PM2.5 standards and returned the case to the D.C. Circuit for consideration of whether the levels of the standards properly reflect what is requisite (i.e., "sufficient, but not more than necessary") to protect public health. On March 26, 2002, the lower court dismissed all remaining challenges to the PM2.5 standards.

In February 2004, ADEM recommended to EPA annual PM2.5 nonattainment areas in Alabama. After considering additional data, ADEM later amended its annual PM2.5 nonattainment area recommendation to include only Jefferson County, where air quality data showed the PM2.5

annual standard of 15 micrograms per cubic meter was not being met by only two of the county's eight PM2.5 monitors (all areas in the state were meeting the 1997 24-hour standard). EPA disregarded ADEM's recommendation and included all of Jefferson and Shelby Counties in the final nonattainment designations, which became effective April 5, 2005. Small areas of Walker and Jackson Counties that contain electric power generating plants were also designated nonattainment for the annual PM2.5 standard (Jackson County is part of the larger Chattanooga, Tennessee nonattainment area).

After extensive analysis, ADEM developed an annual PM2.5 attainment SIP for the Birmingham area and submitted it to EPA in May 2009. Primarily, ADEM's SIP requires PM2.5 emission reductions from local facilities in the vicinity of the Birmingham air quality monitors that are violating the standard, and relies on utility emission reductions realized from the Clean Air Interstate Rule (discussed below).

On September 21, 2006, EPA issued a revision to the PM2.5 standards. With this action, EPA retained the current annual standard, while lowering the 24-hour PM2.5 standard by nearly 50 percent (from 65 to 35 micrograms per cubic meter). On October 8, 2009, EPA issued final area designations for the 2006 24-hour PM2.5 standard. The Birmingham area was designated nonattainment for this standard with the geographic footprint identical to the annual PM2.5 standard nonattainment area (i.e., Jefferson, Shelby and part of Walker Counties). ADEM's SIP, which was designed to bring the area into attainment with the 2006 24-hour PM2.5 standard, was expected to be due to EPA by December 2012. However, air quality data from 2007-2009 showed attainment of the 24-hour standard of 35 micrograms per cubic meter. Accordingly, ADEM prepared and submitted to EPA in April 2010 a 24-hour PM2.5 Redesignation Request and Maintenance Demonstration for Birmingham. In a final action in September 2010, EPA

determined that the Birmingham area had indeed attained the 2006 24-hour PM2.5 standard; however, EPA did not officially redesignate Birmingham to attainment or approve the Maintenance Plan. Similarly, air quality data for the 2008–2010 period showed that the Birmingham area was also meeting the 1997 annual PM2.5 standard of 15 microgram per cubic meter. ADEM requested redesignation for that standard in March 2011. On June 29, 2011, EPA determined that the Birmingham area had attained the 1997 annual PM2.5 standard, but similar to its action in September 2010, the agency did not redesignate Birmingham to attainment. These EPA determinations suspend the requirements for ADEM to submit an attainment demonstration and other SIP elements as long as Birmingham continues to meet the standard. However, the most burdensome and punitive requirements of nonattainment are not relieved for regulated sources until redesignation to attainment is finalized by EPA. On November 10, 2011, EPA proposed to redesignate the Birmingham area to attainment for both the 24-hour and the annual PM2.5 standards. On January 22, 2013, EPA published the final rule redesignating the Birmingham area to attainment for the 1997 annual PM2.5 NAAQS. And on January 25, 2013, EPA published the final rule redesignating the Birmingham area to attainment for the 2006 24-hour PM2.5 NAAQS.

Litigation of the 2006 PM2.5 standards was initiated in the D.C. Circuit. Numerous states and environmental groups challenged the levels of the standard, specifically claiming that EPA should have increased the stringency of the annual standard. In February 2009, the court found that EPA inadequately explained its actions concerning the 2006 PM2.5 standard and remanded to EPA its decision to retain the annual standard. EPA announced plans to accelerate the typical five year NAAQS review cycle for the PM standards. Subsequently, on June 29, 2012, EPA proposed to revise the annual PM2.5 standard with a more stringent standard. On December 14,

2012, EPA finalized revisions to the NAAQS for PM2.5, lowering the annual standard to 12 micrograms per cubic meter while leaving 24-hour standard unchanged.

In March 2013, several industries filed petitions for judicial review of the new 2012 PM2.5 standards, signaling potential litigation of that rule. In an April 16, 2013 memorandum, EPA informed states that their recommendations for areas that do not meet the new 2012 PM2.5 standard are due to EPA by December 13, 2013, and EPA intends to finalize the designations by December 13, 2014. EPA also indicated that areas not meeting the standard will have six years after designation to come into attainment.

Clean Air Interstate Rule

EPA signed the Clean Air Interstate Rule (CAIR) on March 10, 2005. The rule required major reductions – far beyond those required by the Acid Rain Program – of SO_2 and NO_x emissions to address the transport of emissions in the eastern United States that significantly interfere with attainment of the PM2.5 and ozone standards in downwind states.

Implementation of the emission reductions from CAIR involved two phases. The first phase of NO_x compliance began on January 1, 2009, and called for an approximate 50 percent reduction from 2003 NO_x emissions in CAIR affected states. The first phase of SO_2 compliance began on January 1, 2010, requiring an approximate 50 percent further reduction in SO_2 emissions. The second phase of NO_x and SO_2 compliance is set to begin in 2015 and requires an approximate 65 percent reduction in NO_x and 70 percent reduction in SO_2 from 2003 emissions or allocations. For affected states, CAIR set permanent caps on emissions and provided for annual SO_2, annual NO_x, and seasonal NO_x allowance trading programs. CAIR leveraged off of the Acid Rain Program by discounting SO_2 allowances for sources in CAIR affected states to achieve the desired reductions. Further, each affected State was given a NO_x "budget" to meet. The State

determines whether to allow participation in the allowance trading programs for NO_x and the method for allocating its NO_x allowances to its affected sources. ADEM initially submitted the Alabama CAIR SIP rules to EPA for approval in September 2006. ADEM submitted CAIR SIP updates in November 2006 and March 2007 to comply with EPA revisions to the federal rule. EPA approved Alabama's CAIR SIP in October 2007.

Various states and regulated industries filed petitions challenging particular aspects of CAIR in the D.C. Circuit. In July 2008, the court vacated CAIR in its entirety, and remanded it to EPA for further action consistent with its opinion. The court stated that EPA's CAIR approach "is fundamentally flawed" and directed EPA to redo its analysis "from the ground up" citing foundational problems with basic aspects of the rule such as trading, maintenance of NAAQS, compliance deadlines, and leveraging off of Acid Rain Program allowances.

In response to an EPA petition for rehearing of the CAIR vacatur, the court requested briefs from petitioners and EPA regarding harms to the public health that would be caused by vacatur of CAIR. In December 2009, upon consideration of these briefs, the court decided to remand CAIR without vacatur, thereby leaving the rule and its compliance obligations in place until replaced by a new rule developed under remand. Therefore, compliance with the NO_x and SO_2 elements of CAIR began on January 1, 2009, and January 1, 2010, respectively, as specified in the original EPA rule. Subsequent to the remand decision, EPA stated that it intended to propose a CAIR replacement rule in early 2010 and finalize that rule in early 2011. The "on, off, and back on again" CAIR, coupled with an unknown (at the time) CAIR replacement rule, was a significant complicating factor for Alabama Power in compliance planning – especially considering the long lead times that many emission control projects require. In addition, emission reductions realized

from CAIR were being relied on by ADEM in the Birmingham annual and 24-hour PM2.5 SIPs and the Clean Air Visibility Rule (discussed in the next section).

CAIR was also the basis for EPA's denial of North Carolina's CAA Section 126 petition, which called for EPA to require thirteen states to reduce NO_x and SO_2 emissions to assist North Carolina in achieving and maintaining ozone and PM2.5 standards. Section 126 of the CAA allows for a state that believes it is significantly impacted by emissions from other states to have EPA require emission reductions from sources in those impacting states. North Carolina's Section 126 petition is being litigated in a separate proceeding in the D.C. Circuit with Alabama being one of the named states alleged to impact North Carolina's air quality. The absence of CAIR could have a major bearing on this litigation. In fact, the D.C. Circuit specifically pointed out the Section 126 option for states in its CAIR decision. Conceding that the court's decisions regarding CAIR have eliminated or fundamentally changed the legal basis for EPA's denial of North Carolina's petition, EPA asked the court to allow it to reconsider its denial. In March 2009, the court agreed that a remand to EPA for reconsideration was in order in light of the remand of CAIR. The court did not set a deadline for EPA to act, but stated that EPA's reconsideration should be "expeditious." There has been no further action from EPA to date, and this issue has not been completely resolved.

The Company has installed scrubbers at Plants Barry, Gaston, Gorgas and Miller, with the SO_2 emission reductions from these scrubbers intended to not only meet CAIR (and its replacement) and other programs (such as the Acid Rain Program), but also to address local attainment of the PM2.5 standards. The Company has also installed SCRs on its largest coal-fired units. Future requirements will dictate if or when additional scrubbers and/or SCRs will be installed.

Cross-State Air Pollution Rule

On July 6, 2010, EPA signed the proposed Transport Rule – the replacement rule for CAIR. EPA anticipated finalizing this rule in mid-2011. EPA proposed one approach and received comments on two alternatives. All three approaches set an emissions limit (or budget) for each affected state and sought to obtain SO_2 and NO_x emission reductions from power plants in 31 eastern states. Compliance would begin in 2012 and become more stringent in 2014. Under EPA's "preferred" approach, unlimited interstate trading (for three allowance programs: annual SO_2, annual NO_x and seasonal NO_x) would be allowed in 2012 and 2013, but would become limited in 2014. EPA intended to propose a second Transport Rule in 2011 to address new, more stringent NAAQS.

On July 7, 2011, EPA finalized the Transport Rule with a new name, the Cross-State Air Pollution Rule (CSAPR). CSAPR was designed to reduce PM2.5 and ozone levels in ambient air across a wide region. SO_2 and NO_x react in the atmosphere to form PM2.5, and NO_x and VOCs react in the atmosphere to form ozone. These compounds can be transported long distances, thereby impacting downwind areas' ability to meet these NAAQS.

CSAPR replaced CAIR in its entirety in response to the 2008 remand of the CAIR rule by the D.C. Circuit. CSAPR affected 3,642 electric generating units at 1,081 coal-, gas-, and oil-fired facilities in 27 eastern states. CSAPR set state budgets (i.e., emission limits) and allowed intrastate allowance trading, but only very limited interstate trading (although EPA delayed restrictions on interstate trading until 2014). As in the case with CAIR, there were three separate allowance programs affecting Alabama: annual SO_2, annual NO_x and seasonal NO_x. (Not all states are affected by all allowance programs.) Compliance with the first phase of CSAPR was scheduled to begin on January 1, 2012. However, on December 30, 2011, less than 48 hours

before compliance was set to begin, the D.C. Circuit issued a stay of CSAPR and ordered EPA to continue to administer CAIR while CSAPR was stayed. On August 21, 2012, the D.C. Circuit vacated CSAPR, holding that CSAPR exceeded EPA's statutory authority by requiring upwind states to reduce emissions by more than their own significant contribution to nonattainment in other states and failing to allow states the initial opportunity to implement, through SIPs, the emission reductions required by EPA in CSAPR. The court directed EPA to continue to administer CAIR pending completion of a rulemaking to replace CSAPR with a valid rule. Litigation on the rule remains pending in the D.C. Circuit, as EPA petitioned the court on October 5, 2012 for rehearing en banc (consideration of the case by the full D.C. Circuit, rather than a three-judge panel). On January 24, 2013, the D.C. Circuit Court denied petitions for rehearing of the August 21, 2012 vacatur decision. On March 29, 2013, EPA filed a petition to the U.S. Supreme Court requesting review of the vacatur. On June 24, 2013, the U.S. Supreme Court granted petitions seeking review of the D.C. Circuit's August 21, 2012 decision vacating and remanding CSAPR. In the meantime, EPA stated on July 30, 2013, that it is working on a replacement for CSAPR/CAIR and expects to propose a new transport rule in mid-2014.

The installation by Alabama Power of SCRs and scrubbers has helped to ensure compliance with the continued administration of CAIR and will help ensure compliance with any subsequent transport rule EPA promulgates to replace CAIR and CSAPR. Although somewhat hampered by the regulatory uncertainty associated with multiple overlapping and rapidly evolving regulations, along with the protracted litigation, the Company has continued to evaluate its remaining smaller fossil fuel-fired electric generating units for possible additional emission controls, conversion to other fuels, and/or retirement/replacement.

NO_2 Standards

In February 2010, EPA issued a final rule that revises the NAAQS for Nitrogen Dioxide (NO_2). EPA retained the existing annual standard of 53 ppb and added a new 1-hour standard of 100 ppb. The rule requires new roadside ambient air quality monitoring in urban areas with populations greater than 500,000. While EPA's intention is to focus on mobile source emissions near major roadways, the new standard could also affect other sources of emissions. In June 2010, EPA provided guidance for air quality modeling assessments associated with the new standard. This guidance specifies the use of unusually conservative (stringent) procedures, particularly in the permitting of new or modified sources. In February 2012, EPA designated all areas of the country as "unclassifiable/attainment." Petitions for reconsideration and legal challenges of the final rule were filed in the D.C. Circuit. On July 17, 2012, the D.C. Circuit upheld the revised NO_2 standards and more recently, the Supreme Court denied review of the decision, effectively ending litigation. On March 7, 2013, EPA finalized a rule revising the deadlines by which states are required to establish near-road air quality monitors.

SO_2 Standards

In June 2010, EPA issued another final rule that revises the NAAQS for Sulfur Dioxide (SO_2). EPA established a new 1-hour standard of 75 ppb and revoked the existing 24-hour and annual standards (effective one year after final area designations for the new standard). The new standard will be implemented through a combination of air quality monitoring and computer modeling, deviating from the traditional method of establishing attainment based only on air monitoring data. In June 2011, ADEM recommended to EPA that all areas in Alabama be designated "unclassifiable" with respect to this standard. EPA has taken stakeholder input on a provision of the rule that requires major SO_2 sources (including all Alabama Power coal-fired power plants) to be modeled and has delayed attainment designations. This new standard will

make it increasingly difficult to operate coal-fired electric generating units without low sulfur coal or scrubbers that reduce SO_2 emissions. Numerous states, industries and groups challenged the SO_2 NAAQS rule, but on July 20, 2012, the D.C. Circuit upheld the revised SO_2 standard. On July 25, 2013, EPA designated 29 areas in 16 states as "nonattainment" for the 2010 SO_2 standard. No areas in Alabama were designated in this round of designations. EPA intends to make additional designations for all other areas in future actions over the next several years.

CLEAN AIR VISIBILITY RULE

The Clean Air Visibility Rule (CAVR) (formerly called the Regional Haze Rule) was finalized in July 2005. The goal of this rule is to restore natural visibility conditions in specified "Class I" areas (primarily national parks and wilderness areas) by 2064. The rule involves (1) the application of Best Available Retrofit Technology (BART) to certain sources built between 1962 and 1977, and (2) the application of any additional emissions reductions that may be deemed necessary for each designated area to achieve "reasonable progress" toward the goal of natural conditions. Progress toward the natural visibility goal is assessed every ten years. For each of these ten-year planning periods, additional emissions reductions will be required for continuing progress in each Class I area during that period unless states demonstrate that additional measures are not needed or are not reasonable.

The BART application of CAVR is an element of the first planning period only. Among other criteria, a BART analysis and determination must consider the costs to the source and the source-specific visibility benefits from the application of BART. Under CAVR, states have the regulatory prerogative to determine whether CAIR is equivalent to BART for SO_2 and NO_x for electric generating units. In other words, CAIR-affected units would potentially not have to go

through a BART analysis for SO_2 and NO_x for visibility impairment as it pertains to this rule. ADEM made the decision that CAIR is equivalent to BART for CAIR-affected units in Alabama. Therefore, for its named units, Alabama Power submitted BART analyses for particulate matter – the remaining visibility impairing pollutant in addition to NO_x and SO_2.

Under the rules, ten Alabama Power coal-fired units were named to be BART-eligible and required to undergo a BART analysis. The named units are Barry 4-5, Gaston 5, Gorgas 10, Greene County 1-2 and Miller 1-4. Alabama Power performed the required extensive BART analyses for particulate matter and submitted the analyses to regulatory agencies in August 2006. The results showed that none of the Alabama Power units meet the thresholds for causing or contributing to visibility impairment from particulate matter emissions in any Class I area. If the results are ultimately approved, these units would not be required to install additional controls due to BART under CAVR.

In 2008, ADEM submitted to EPA Alabama's first CAVR SIP, with subsequent SIPs scheduled for 2018, 2028, 2038, 2048 and 2058 to EPA. In July 2013, ADEM submitted to EPA a five-year progress review which concluded no revisions to the Alabama CAVR SIP are necessary at this time. As noted above, the D.C. Circuit decision vacating CAIR put Alabama's CAVR SIP in jeopardy since it relied in important ways on the implementation of CAIR. In 2012, EPA partially approved Alabama's SIP and disapproved the parts that rely on the vacated CAIR rule. Now that CSAPR has also been vacated and CAIR continues to be implemented, it is expected that ADEM will work with EPA to address the parts of the SIP that rely on CAIR.

HAZARDOUS AIR POLLUTANTS / MERCURY

The CAAA of 1990 directed EPA to conduct the following two studies addressing hazardous air pollutants (HAPs) related to power plants:

- Emissions and health and environmental effects of mercury releases from all sources ("mercury study")
- Hazards to public health resulting from utility emissions of HAPs ("utility study")

EPA released the results of the mercury study and the utility study on December 19, 1997, and February 25, 1998, respectively. In both studies, EPA found that mercury from electric power plants is the HAP of greatest concern. While the science of mercury emissions, transport and health effects is still uncertain, EPA found that coal-fired power plants are the largest remaining unregulated man-made source of mercury in the United States, even though these power plants contribute about only one percent to global mercury emissions.

The Clean Air Mercury Rule (CAMR) was issued by EPA on March 15, 2005. The rule was issued as a cap-and-trade program for the reduction of mercury emissions from coal-fired power plants. CAMR was to be implemented in two phases – 2010 and 2018 – and provided for an emissions allowance trading market. In the first phase, the national cap on utility industry mercury emissions would be set at 38 tons (approximately a 30% reduction); in the second phase, the cap would be lowered to 15 tons (approximately a 70% reduction). The majority of reductions required for the first phase were expected to be met through co-benefits from the implementation of scrubber and SCR systems for the control of SO_2 and NO_x under CAIR. ADEM submitted Alabama's CAMR SIP in November 2006, which EPA approved in October 2007.

A number of states and environmental groups filed petitions, primarily challenging the proper source of EPA's authority to regulate mercury under the CAA. The petitioners alleged that mercury should be regulated under the "maximum achievable control technology" (MACT) provision of the CAA. EPA reconsidered this issue and in October 2005 decided MACT-based regulation for mercury is not "appropriate and necessary." Compliance under MACT requirements would be much more onerous for Alabama Power than with CAMR's cap-and-trade program. In February 2008, the D.C. Circuit vacated CAMR and EPA's concurrent rule to "delist" electric generating units (EGUs) from those CAA provisions requiring application of MACT. The vacatur became effective with the issuance of the court's mandate in March 2008, thus nullifying CAMR mercury emission control obligations and monitoring requirements. EPA and the industry petitions for rehearing were denied in May 2008. Petitions for Supreme Court review were filed by industry groups and EPA in September and October 2008, respectively. EPA withdrew its petition on February 6, 2009, and the Court denied the industry petition on February 23, 2009. EPA settled that litigation and entered a consent decree to sign a proposed rule by March 16, 2011 and a final rule by November 16, 2011 to determine MACT requirements for EGUs. The consent decree deadline for a final rule was subsequently extended to December 16, 2011.

In January 2010, Alabama Power received an Information Collection Request (ICR) from EPA that was intended to help develop MACT emission limits for HAPs under the new rule. Alabama Power submitted its ICR response and emission test results in 2010. EPA analyzed the ICR responses from all utilities during the remainder of 2010 and proposed the Utility MACT rule on March 16, 2011. On December 16, 2011, EPA signed the final Utility MACT rule known as the Mercury and Air Toxics Standards (MATS). The MATS rule establishes stringent emission limits for mercury, filterable particulate matter as a surrogate for non-mercury metallic

HAPs, and hydrochloric acid (HCl) as a surrogate for acid gas HAPs. For organics, the MATS rule establishes a work practice standard requiring the implementation of a periodic tune-up and inspection program. Compliance with the rule requires the utilization of a variety of control technologies (e.g., SCRs, scrubbers, electrostatic precipitators, baghouses, dry sorbent injection, activated carbon and/or other chemical additives) in order to meet the required limits. Compliance with the rule for existing sources would begin three years from the effective date of the final rule (April 16, 2015), unless a compliance extension is granted. EPA has received several petitions to reconsider aspects of the rule, and litigation challenging the final rule is pending in the D.C. Circuit. A decision in the case is anticipated in 2014.

Alabama Power has installed and now operates continuous mercury monitoring systems. Completion of these installations has enabled Alabama Power to gain useful experience with this new monitoring technology. This experience allowed the Company to gather valuable information on actual mercury emissions in order to participate meaningfully in the Utility MACT rulemaking, as well as to plan effectively for future mercury control projects.

Alabama Power has conducted research on mercury control technologies, such as the activated carbon injection with compact hybrid particulate collector (COHPAC) demonstration at Plant Gaston. Long term tests of this technology are continuing, and other technologies are also being evaluated. In addition, Southern Company has established the Mercury Research Center in Pensacola, Florida, whose goal is to advance the development of technologies that reduce mercury emissions from coal-fired power boilers.

CLIMATE CHANGE

Over the past several years, the U.S. Congress has considered many legislative proposals that would reduce emissions of greenhouse gases (GHG) and/or mandate generation of electricity from renewable energy sources. Analysis of these congressional bills has shown that they would be very costly to Alabama Power and its customers.

In 2011, Congress proposed several bills that would suspend or remove EPA's authority to regulate GHGs under the CAA. For example, the Energy Tax Prevention Act of 2011, introduced in both the House and the Senate, would remove EPA's authority to regulate GHGs under the CAA. The EPA Stationary Source Regulations Suspension Act would delay stationary source permitting for two years. It is uncertain whether any such bills that have been introduced in Congress will be enacted.

In April 2007, the Supreme Court ruled that EPA has authority under the current CAA to regulate GHG emissions from new motor vehicles. In response to this decision, EPA finalized an endangerment finding (a prerequisite for regulation) for GHG emissions from mobile sources in December 2009. The finding concluded that six GHGs in the atmosphere (carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride) threaten both public health and welfare. It also found that emissions from new motor vehicles and motor vehicle engines contribute to the atmospheric concentrations of these GHGs and thus to the threat of climate change. In March 2010, EPA finalized an interpretation of its stationary source rules which specified that once GHGs are regulated under any part of the CAA, then GHG emissions from new and modified sources will become "regulated pollutants" under the CAA. In April 2010, EPA (in a joint rulemaking with the National Highway Traffic Safety Administration) finalized new motor vehicle emission standards for the following GHGs: carbon

dioxide, methane, nitrous oxide, and hydrofluorocarbons. These standards became effective on January 2, 2011, the first date that 2012 model-year vehicles could be sold. Accordingly, GHGs became "regulated pollutants" under the CAA on January 2, 2011, subjecting new and significantly modified stationary sources that emit certain quantities of GHGs are required to undergo a Best Available Control Technology (BACT) review for control of GHG. In an attempt to reduce the number of sources that would be required to obtain permits and the administrative burden that would ensue if Prevention of Significant Deterioration (PSD) permitting and Title V requirements were triggered for GHGs at the current program thresholds of 100/250 tons per year, EPA finalized a GHG "tailoring rule" on May 13, 2010. The tailoring rule increased the major source emission thresholds for the PSD and Title V programs to 100,000 tons of CO_2 equivalent per year. The rule also increased the significance level for major modifications under the PSD program to 75,000 tons of CO_2 equivalent per year. In July 2011, EPA finalized a rule that deferred, for a period of three years, GHG permitting requirements for CO_2 emissions from biomass and other biogenic sources under the PSD and Title V programs. On July 12, 2013, the D.C. Circuit Court vacated this three-year deferral, but on October 15, 2013 the Supreme Court agreed to hear argument on the basic question of whether new GHGs rules for mobile sources could trigger permitting requirements for stationary sources.

On April 13, 2012, EPA published its proposed Standards of Performance for Greenhouse Gas Emissions for New Stationary Sources: Electric Utility Generating Units in the *Federal Register*. Had this rule been finalized as proposed, it would have effectively eliminated the development of any new coal-fired electric generating units without carbon capture and storage capability. Although this rule was not going to apply directly to existing units, EPA was planning to issue guidance to states to develop GHG standards for existing sources. However, states or courts

could determine that the standard for new sources is relevant when establishing BACT for permitting modifications to existing sources.

On June 25, 2013, the President released a memorandum for the Administrator of the EPA, "Power Sector Carbon Pollution Standards," detailing a new regulatory timeline for GHG regulations. The President's memorandum directed EPA to take the following actions:

- Re-propose the GHG performance standards for new sources by September 20, 2013 (a deadline that EPA met), and finalize these standards in a "timely fashion." The Clean Air Act requires EPA to finalize such regulations within one year after the proposal date.

- Propose GHG standards, regulations, or guidelines for modified, reconstructed, and existing sources by June 1, 2014 and finalize these requirements by June 1, 2015.

- Include in the guidelines addressing existing sources a requirement that States submit to EPA implementation plans by June 30, 2016.

The ultimate impact of these regulations will depend on the scope and specific requirements of the final rules and the outcome of any legal challenges, and thus cannot be determined at this time.

In addition to these GHG regulations, EPA finalized its GHG Reporting Program on September 22, 2009, which requires annual reporting of GHGs. Alabama Power is fulfilling all monitoring, recordkeeping, and reporting requirements necessary to comply with this new rule.

WATER INITIATIVES

Steam Electric Effluent Guidelines Revisions

In October 2009, EPA announced its plans to commence a rulemaking to revise the technology-based rules for steam electric plants. There is high probability that revisions in the guidelines will result in new compliance obligations and requirements, and possibly additional capital expenditures, particularly regarding the SCR/SNCR and scrubber contributions to effluent discharges. On October 15, 2010, Alabama Power submitted a response to the EPA's Steam Electric Power Generating Effluent Guidelines ICR for all Alabama Power coal and combined cycle gas plants.

In May 2013, EPA issued draft effluent guidelines for comment. The rules were difficult to discern, as EPA proposed eight "options" but designated four as "preferred options." As expected, EPA proposed changes that would have substantial impacts to Alabama Power plants. Most of the options would require dry ash handling, high levels of treatment for flue gas desulfurization wastewater, treatment of non-chemical metal cleaning wastes, and restrictions on the flow and reuse of plant water. On September 20, 2013, Alabama Power filed extensive comments on the draft guidelines with EPA.

Municipal water suppliers have to meet very low levels of halide compounds in drinking water. Studies are now underway to evaluate the levels of residual bromine (which is a halide compound) following its use in wet scrubbers for purposes of enhancing mercury capture.

Potential Changes to Wet Ash Sluicing

Currently, most contaminated water at coal-fired plants is treated and discharged from the ash ponds. If proposed ash regulations change the way these ponds may be used, there will be significant costs associated with new water treatment systems.

Clean Water Act (CWA) Section 316(a)

A focus on thermal issues has arisen due to EPA's renewed aggressive involvement in the permitting process. Several Alabama Power fossil plants have thermal discharge limits for the months of June through September, and Plants Barry and Gadsden have year-round thermal limits. In the past, state regulators have accepted thermal studies conducted in the 1970s based on the fact that thermal operations have not changed since the initial studies and those studies indicated no appreciable harm. However, EPA is now requiring the states to have permitees conduct additional studies during the five year permit cycle to substantiate that no changes have occurred. Alabama Power has updated thermal studies at all of its impacted plants and submitted them to ADEM along with requests for National Pollutant Discharge Elimination System (NPDES) permit renewals. ADEM has reviewed these studies and has indicated that the Company meets the tests for a continuation of its variances under 316(a). Accordingly, Alabama Power expects to continue to operate its plants in their current configuration.

CWA Section 303(d)

On July 13, 2000, a rule was issued to revise regulations under CWA Section 303(d) addressing total maximum daily loads (TMDLs) for certain pollutants. The TMDL rule requires the states to:

- Reduce pollutant loadings to impaired waters.
- Manage new pollutant loadings.

- Maintain a cap on the pollutant loadings that will allow the impaired water to meet water quality standards.

Economic growth and site selection of new power generation facilities in areas surrounding impaired waters may be limited as a result of TMDL development and implementation. With respect to existing facilities, evaluations of the implications of these TMDLs are underway. Regulatory agencies are continuing to propose a number of other initiatives related to water quality standards, sediments, analytical procedures, and wetlands, as well as NPDES permitting procedural issues. These proposals have the potential to impose additional restrictions on Company operations.

To date, several TMDLs have been implemented that may impact Company operations. These include the Weiss Reservoir (in December 2004), and the Logan Martin, Neely Henry, Lay and Mitchell Reservoirs in October 2008. The TMDL for Lay Reservoir includes a limit for phosphorous that caused ADEM to lower the NPDES permit for Plant Gaston. The new lower limit is not expected to impact plant operations at the current time. The proposed TMDL for mercury in a segment of the Mobile River downstream of Plant Barry is increasing Alabama Power's permit monitoring requirement and may impact the cost of treatment there. Where streams are TMDL listed for siltation (such as the Cahaba River in portions of Jefferson County), ADEM registration of nearby construction stormwater projects is more stringent and may slow or increase the cost of constructing company facilities. There is the possibility other future TMDLs will have impacts on Company facilities.

CWA Section 316(b)

Section 316(b) requires that "the location, design, construction and capacity of cooling water intake structures reflect the best technology available for minimizing adverse environmental impact." In 1976, EPA published a final regulation implementing this requirement. Industry

groups challenged the regulation, and the U.S. Court of Appeals for the Fourth Circuit remanded on the basis of certain procedural errors made in 1977. In 1995, EPA entered into a consent decree with the Hudson Riverkeeper and a coalition of other individuals and environmental groups and committed to complete a Section 316(b) rule by August 2001.

Initially, EPA intended to develop the regulations in three phases. The final rule for new water intakes, Phase I, was issued on November 9, 2001. The existing facilities rule, Phase II, became effective in July 2004. The Phase III rule, which does not apply to power producers, was finalized with an effective date of July 17, 2006. As the result of a U.S. Court of Appeals for the Second Circuit decision in 2007, Phase II (for power plant intakes) and Phase III (for manufacturing and industrial facility intakes) were combined into a Cooling Water Intake Structure Existing Facility Rule.

Phase I/New-Facilities Rule

The new-facilities rule requires either the use of minimum intake screen technology or the completion of biological studies indicating such screens are unnecessary. This rule applies to new facilities that commenced construction after its effective date. The new facilities rule will have significant implications for site selections and new-facility permits; however, the restoration compliance alternatives, associated monitoring, and demonstration requirements have been removed under the most recent rulemaking.

Existing-Facilities Rule – (Formerly Phase II and III rules)

After a series of rulemakings and court cases extending all the way to the Supreme Court, the EPA proposed a rule for existing power plant intakes on April 20, 2011. Under a consent decree, EPA had been required to publish a final rule on July 27, 2012, but that date has been postponed until January 14, 2014. The possible scope of the new rule includes increased biological

monitoring requirements as well as the replacement of screens. New or major modification to intake structures also could be required. In short, EPA's revised Existing Facilities and Phase I rule potentially could require costly environmental controls.

CWA Sections 301(a) & 402

The U.S. Court of Appeals for the Ninth Circuit ruled September 18, 2008 that EPA must promulgate effluent limitation guidelines and new source performance standards for stormwater pollution discharges caused by the construction and development industry. EPA published final regulations in December 2009. The addition of numeric performance standards has the potential to dramatically increase the engineering and subsequent compliance costs of installing pollution prevention measures to meet these new standards.

In 2009, ADEM changed the requirements for construction stormwater registration to include a greatly expanded application with before-and-after-construction storm water runoff computations. ADEM also expanded the monitoring requirements for permits issued within the coastal zone when associated with an Army Corps of Engineers CWA Section 404 permit (discussed in further detail below).

Pesticide Application Permits

On January 7, 2009, the Sixth Circuit Court of Appeals struck down a rule issued by EPA in 2006 regarding the application of aquatic pesticides. The court held that CWA permits are required for pesticide applications "in, over, or near" waters of the United States. For purposes of this ruling, pesticides include herbicides used in vegetation control. Alabama Power holds a permit to cover the application of hydro reservoir vector and nuisance vegetation control. Other pesticide spraying, primarily for transmission rights of way, will be performed by contract applicators that hold their own permits.

CWA Section 404

Section 404 gives the Secretary of the Army, through the Army Corps of Engineers, authority to permit the dredging from or filling of material into wetlands deemed waters of the United States. This authorization may be received through Nationwide General Permits or the issuance of Individual Permits. Construction of transmission lines, substations, power plants and environmental control facilities may require the dredging or filling in of wetlands. Significant impacts to wetlands must be mitigated in kind. A "mitigation bank" is a wetland, stream, or other aquatic resource area that has been restored, established, enhanced, or (in certain circumstances) preserved for the purpose of providing compensation for unavoidable impacts to aquatic resources permitted under Section 404. In order to accomplish this, Alabama Power is actively pursuing the creation of a wetland mitigation bank system within the state to more economically handle mitigation requirements.

In 2011 the Corps of Engineers indicated to Alabama Power that the practice of "lop and drop", which is used to clear transmission line rights of way in wetlands, no longer will be an acceptable practice. In the view of the Corps of Engineers, the felling of large diameter trees in a wetland that are left undisturbed constitutes a fill. The practical impact of this determination will be the need to construct many more roads in wetlands in order to remove timber and to mitigate for those roads, either through the Company's own wetlands banks or through purchased credits at commercial mitigation banks.

Hydro Licensing

The Federal Energy Regulatory Commission (FERC) issued a new hydro license for the Coosa projects on June 20, 2013. Unfortunately a number of provisions in the license are not properly based on the FERC licensing record or are problematic operationally. As a result, Alabama

Power has filed a request for a re-hearing of certain provisions in the new license and a delay in implementing these provisions until the rehearing process is complete. Articles governing CWA Section 401 water quality certifications are among the disputed provisions. FERC misinterpreted ADEM's water quality certification to require a 4 parts per million (ppm) dissolved oxygen standard at all times instead of requiring Alabama Power to maintain this dissolved oxygen standard only when the project is generating as provided in ADEM's certification and water quality regulations. If FERC grants the rehearing request and requires Alabama Power to comply with the state water quality certificate as issued by ADEM, Alabama Power will be required to maintain 4 ppm dissolved oxygen in the tailrace at all projects during periods of generation. In order to meet this requirement, new and upgraded turbine aeration systems will be installed at several facilities, followed by three years of monitoring and reporting at all facilities to ensure water quality requirements are met or exceeded. If FERC does not correct its misinterpretation of the Coosa water quality certification, it is unknown at this time how Alabama Power will comply with a 4 ppm dissolved oxygen standard during periods of generation and non-generation. In addition to Section 401 certifications, new licenses for the Coosa and Warrior projects include many other terms and conditions that will result in significant additional capital and operational expenditures over the life of the new licenses, which are based on proposals Alabama Power included in its application for these projects.

The Georgia Environmental Protection Division, the Atlanta Regional Commission, Alabama Rivers Alliance and American Rivers have all filed for rehearing of the Coosa License. Alabama Rivers Alliance and American Rivers has also submitted a letter to FERC indicating their intent to sue FERC over violations of the Endangered Species Act.

On March 31, 2010, FERC issued a new 30-year license for the Lewis Smith and Bankhead developments on the Warrior River. Though the Smith Lake Improvement and Stakeholder Association (SLISA) has petitioned the D.C. Circuit for review of the FERC licensing order, Alabama Power is currently complying with and implementing the terms and conditions of this new Warrior River license.

On June 8, 2011 Alabama Power submitted the application to FERC for relicensing Martin Dam on the Tallapoosa River. The application proposed a 3 foot increase in the winter elevation of the reservoir and a conditional extension of the summer level into the fall months. FERC issued its draft Environmental Impact Statement (EIS) on June 6, 2013, in which the staff rejected the change to the water levels at Lake Martin. FERC conducted a public meeting in Alexander City on July 17, 2013, which was attended by over 600 members of the public, the vast majority of which supported the pool elevation changes. In addition, Alabama Power and over 800 stakeholders submitted written comments to FERC in support of the change.

Municipal and County Regulations

Under pressure from EPA and environmental advocates, many local governments are passing ordinances to control construction stormwater. As a statewide entity, Alabama Power must abide by these varied and more stringent laws when constructing transmission facilities. These laws will increase the time required to plan and construct projects as well as the overall cost.

Endangered Species

Alabama is home to a growing list of threatened and endangered (T&E) species. On September 9, 2011, the Fish and Wildlife Service (FWS) announced its intent to study the expansion of the critical habitat for the Gopher Tortoise from the extreme southwestern counties to what is now all of south Alabama. This species can occur on potential new transmission line rights-of-way

and must be avoided or relocated. The outcome of the study by FWS remains undetermined at this time.

Alabama Power continues to work with FWS as T&E species are encountered in our construction, maintenance and operations activities. On July 8, 2013, FWS issued a recovery plan for the Alabama Sturgeon, which called for water flows in the range of previously agreed to releases. On September 19, 2013, the National Marine Fishery Service announced a 90-day finding on a petition to list Alabama shad as threatened or endangered under the Endangered Species Act and to designate critical habitat concurrent with the listing. During the summer of 2013, Alabama Power became aware that the Indiana Bat could impact projects in north Alabama. Suitable accommodations were made with FWS, including clearing in months when the bats are not migrating in the area.

TOXICS RELEASE INVENTORY

As part of the Emergency Planning and Community Right-to-Know Act (EPCRA), coal- and oil-fired electric power plants began in 1999 to provide EPA with data relative to specific chemicals released in the burning of fossil fuels. The report is part of a provision of the act known as the Toxics Release Inventory (TRI). A number of other industries have been reporting under this provision since 1987. While TRI neither sets emission limits nor establishes discharge requirements, the information in the inventory is made public. Currently, EPA and EPRI studies on power plants show that chemical emissions of TRI substances from coal and oil-fired plants are not present in the air at levels that should pose a concern to public health. The largest TRI releases from coal-fired power plants consist of acid gases such as:

- Hydrochloric acid

- Sulfuric acid
- Hydrogen fluoride

With the installation and operation of scrubbers at several plants, Alabama Power has reduced the release of these aerosols by 73 percent.

COAL COMBUSTION PRODUCTS

Fossil fuel combustion products, including coal combustion ash and gypsum, are currently exempt from EPA hazardous waste regulations by virtue of the Bevill Amendment to the Resource Conservation and Recovery Act (RCRA). The RCRA statute also directs EPA to conduct studies of the exempted "Bevill wastes" to determine whether hazardous waste regulation is warranted.

Based upon approximately 20 years of scientific studies, EPA confirmed in April 2000 that fossil fuel combustion products do not warrant regulation as a hazardous waste. In December 2008, a breach occurred in an ash impoundment at a TVA facility in Kingston, Tennessee. The breach resulted in over 500 million gallons of ash and water being released from the impoundment into the adjoining river and properties. There was no loss of life, but the event caused significant property damage. Cleanup costs of this event are estimated at over $1 billion. As a result, EPA is now re-evaluating its position on all Coal Combustion Byproducts (CCBs).

On June 21, 2010, EPA issued a proposed rule concerning CCBs. Although the science concerning coal ash has not changed, EPA is considering regulation of CCBs as a hazardous waste in order to have more direct control of the process. EPA asked for comments on two primary options being considered for regulation of CCBs: a version that regulates this material

as a Subtitle C hazardous waste and a version that regulates it as a Subtitle D non-hazardous waste. Both primary options require groundwater monitoring, lined facilities, strenuous siting requirements, and strict dam inspection requirements. Another version, referred to as "D prime," requires regulation under Subtitle D but allows for continued use of existing surface impoundments. Currently, between 30 and 40% of CCBs are recycled for some beneficial use such as a cement additive or wallboard manufacture. This beneficial use most likely would not continue under a Subtitle C option. While both options would significantly increase operational and capital expenses associated with CCBs, the Subtitle C option poses compliance costs far greater than those projected under a Subtitle D scenario. EPA estimates the costs of a Subtitle C regulation to exceed $21 billion for the utility industry. An independent consultant, however, estimated just the conversion from wet to dry handling of ash and gypsum, as required by a Subtitle C regulation, would cost the utility industry approximately $39 billion. Southern Company submitted over 400 pages of comments on the proposed rule on November 21, 2010. The utility industry is advocating the D Prime version of the regulation, with administration to be handled at the state level. A final rule is anticipated in 2014. In the meantime, in August, 2013, EPA solicited comments from the public through a NODA (Notice of Data Availability). EPA asked for more information concerning, among other things, the proposed closure period for existing ash ponds, building an ash landfill over a closed ash pond, and some groundwater models. Alabama Power submitted comments as part of Southern Company, in which it re-emphasized support of the D prime option and the continued use of existing ponds with proper groundwater monitoring in place.

At the state level, CCBs have traditionally been exempt from regulation in Alabama. As of May, 2011, the state exemption was removed. While ash ponds already regulated by an NPDES water discharge permit are exempt from this new rule, it has prompted the need for a solid waste

landfill permit for any new dry ash or gypsum storage facilities. As a result, Alabama Power is currently obtaining an ADEM solid waste landfill permit at two locations.

EPA has completed a campaign to inspect all CCB impoundment structures across the country. Since 1972, Alabama Power has performed its own annual inspections on each structure using best engineering practices. However, in response to the TVA event, EPA is also formalizing a dam safety program for these impoundments. EPA has inspected all six Alabama Power plant ash pond dams as of early 2011 All six received the highest ranking given under the program, which is a "Satisfactory" rating.

ESTIMATED ENVIRONMENTAL CAPITAL EXPENDITURES FOR 2014 – 2018

GENERATION

Table 1 – Summary of Generation Environmental Capital Expenditures for 2014–2018

Official 2014 Capital Budget ($000)

	2014	2015	2016	2017	2018
Total Nox Projects	8,856	15,700	12,666	12,020	12,946
Total SO2 Projects	14,791	12,364	5,146	850	4,670
Total Effluent Guidelines/NPDES	1,225	-	75	500	-
Total MATS	340,931	330,772	63,540	-	-
Total Particulate Matter Projects	52,633	29,372	53,905	690	2,744
Total Ash/Gypsum Pond Projects	27,449	33,885	16,011	12,500	11,065
Total Hydro Aeration and Minimum Flow Projects	5,650	500	1,100	1,550	10,000
Total CEMS Projects	9,373	5,765	886	700	1,500
Total Sewage Treatment	204	300	-	-	-
Total Cooling Towers and Intake Structures	2,161	1,105	12,393	350	3,780
Total Other Projects	185	190	190	195	195
Total Ecological Projects	463,458	429,953	165,912	29,355	46,900
Total Air Projects	426,584	393,973	136,143	14,260	21,860
Total Land & Water Projects	36,689	35,790	29,579	14,900	24,845
Total Miscellaneous Projects	185	190	190	195	195
Total Ecological Projects	463,458	429,953	165,912	29,355	46,900

Table 2 – Summary by Plant of Environmental Capital Expenditures for 2014–2018

Official 2014 Capital Budget ($000)

	2014	2015	2016	2017	2018
Total Barry	28,081	68,710	5,935	2,700	11,800
Barry Nox Projects	-	4,400	-	2,200	-
Barry SO2 Projects	2,875	4,330	-	-	300
Barry MATS	22,707	55,510	3,809	-	-
Barry Particulate Matter Projects	850	1,900	1,950	-	1,000
Barry Ash/Gypsum Pond Projects	-	-	-	-	10,000
Barry CEMS Projects	1,649	2,570	176	500	500
Barry Other Projects	-	-	-	-	-
Total Gadsden	1,500	-	-	-	-
Gadsden Particulate Matter Projects	1,000	-	-	-	-
Gadsden Effluent Guidelines/NPDES	500	-	-	-	-
Gadsden CEMS Projects	-	-	-	-	-
Total Gaston	129,389	174,815	74,753	14,450	6,900
Gaston Nox Projects	3,450	500	2,750	500	3,000
Gaston SO2 Projects	9,050	1,200	3,250	850	3,300
Gaston Effluent Guidelines/NPDES	-	-	-	500	-
Gaston MATS	111,159	138,412	51,742	-	-
Gaston Particulate Matter Projects	-	1,000	-	-	-
Gaston Ash/Gypsum Pond Projects	3,566	32,663	16,011	12,500	-
Gaston CEMS Projects	1,360	440	400	-	-
Gaston Sewage Treatment	204	-	-	-	-
Gaston Cooling Towers and Intake Structures	600	600	600	100	600
Total Gorgas	191,681	120,499	14,689	3,200	4,700
Gorgas Nox Projects	2,500	2,500	3,000	3,000	3,200
Gorgas SO2 Projects	2,720	4,440	500	-	500
Gorgas MATS	160,688	110,059	7,989	-	-
Gorgas Particulate Matter Projects	-	2,500	3,000	-	-
Gorgas Ash/Gypsum Pond Projects	23,883	50	-	-	1,000
Gorgas CEMS Projects	1,890	950	200	200	-
Total Greene	46,116	24,720	300	-	1,230
Greene MATS	45,418	21,995	-	-	-
Greene Particulate Matter Projects	118	1,900	300	-	630
Greene CEMS Projects	580	525	-	-	600
Greene Sewage Treatment	-	300	-	-	-
Total Miller	59,581	38,519	67,561	6,760	7,246
Miller Nox Projects	2,906	6,300	5,716	6,070	5,496
Miller SO2 Projects	146	2,394	1,396	-	570
Miller Effluent Guidelines/NPDES	725	-	-	-	-
Miller MATS	959	4,796	-	-	-
Miller Particulate Matter Projects	50,665	22,072	48,655	690	1,114
Miller Ash/Gypsum Pond Projects	-	1,172	-	-	65
Miller CEMS Projects	3,894	1,280	-	-	-
Miller Cooling Towers and Intake Structures	286	505	11,793	-	-
Total - Other	1,460	2,190	1,575	695	5,025
Total Hydro	5,650	500	1,100	1,550	10,000

Table 3(a) – Plant Barry Environmental Capital Expenditures for 2014–2018

Official 2014 Capital Budget ($000)

DESCRIPTION	PE	2014	2015	2016	2017	2018
Unit 1 - CEMS	011506	-	270	-	-	-
Unit 1 - Gas Capability	012707	2,729	9,047	640	-	-
Unit 2 - Gas Capability	017404	2,769	9,146	649	-	-
Unit 3 - CEMS	022505	270	-	-	-	-
Unit 3 - Gas Capability	026106	2,990	11,935	701	-	-
Unit 3 - CEMS-MATS	022506	7	21	10	-	-
Unit 4 - Replace 4A Hydrovacator Tank & Ejector	029303	-	-	-	-	-
Unit 4 - Replace 4C Hydrovacator Tank & Ejector	029304	-	-	-	-	-
Unit 4 - Replace CEMS	032102	-	-	-	500	-
Unit 4 - Precipitator Replacement Project	034501	-	-	-	-	-
Unit 4 - CEMS-MATS	034918	710	1,541	166	-	-
Unit 4 - Dry Sorbent Injection	034916	4,880	8,947	615	-	-
Unit 4 - Activated Carbon Injection	034917	3,904	6,990	435	-	-
Unit 4 - Precip Fly Ash Carrier Line Replacement	028305	600	-	-	-	-
Unit 5 - Precipitator Outlet Ductwork A&B	039103	-	1,200	-	-	-
Unit 5 - Sulfur Burner Catalyst	039105	-	-	-	-	-
Unit 5 - Sulfur Burner Controls	039106	250	-	-	-	-
Unit 5 - SCR Elevator	039519	-	-	-	-	-
Unit 5 - Scrubber Elevator	039520	-	-	-	-	-
Unit 5 - SCR Catalyst Replacement	039905	-	4,400	-	2,200	-
Unit 5 - Scrubber Mist Eliminator	039906A	800	-	-	-	-
Unit 5 - Replace CEMS	039910	-	-	-	-	500
Unit 5 - Additional Gypsum Pond Cell Construction	039920	-	-	-	-	10,000
Unit 5 - Scrubber Seal Air System	039921	-	200	-	-	-
Unit 5 - JBR Gearbox Replacement	039922	-	-	-	-	275
Unit 5 - Air Compressor Replacement (Scrubber)	039923	-	-	-	-	75
Unit 5 - JBR Sump Pump Discharge Line	039924	-	80	-	-	-
Unit 5 - Gypsum Pile Dust Suppression	039925	-	-	300	-	-
Unit 5 - DCS System Replacement (Scrubber)	039926	-	1,500	-	-	-
Unit 5 - Replace 5 Hydrovacator Tank & Ejector	040001	-	150	-	-	-
Unit 5 - Bromine Injection	039913	2,155	2,327	-	-	-
Unit 5 - Precipitator Hoists	035406	-	-	-	-	1,000
Unit 5 - CEMS-MATS	039928	662	738	-	-	-
Unit 5 Scrubber Teflon Expansion Joints Replacement	039929	550	-	-	-	-
Unit 5 Scrubber JBR Vessel Access Door	039930	175	-	-	-	-
Unit 5 Scrubber Make-Up Water Filter	039931	200	-	-	-	-
Unit 5 Scrubber Gas Cooling Pumps Monorail System	039932	100	-	-	-	-
Unit 5 Scrubber JBR Alignment Grid Replacement	039933	1,000	2,200	-	-	-
Unit 5 Scrubber Viton Expansion Joint Replacement	039934	50	350	-	-	-
Unit 5 Scrubber MATS Compliance	039935	-	-	-	-	-
Common - Gas Line	045902	3,280	7,118	769	-	-
Full Body Treatment Application Sys. Reclaim 4&5-Fuel Dusting Control	049802C	-	550	-	-	-
Wet Dust Extraction- Fuel Dusting Control	049802D	-	-	1,650	-	-
Total Barry		28,081	68,710	5,935	2,700	11,800
Barry Nox Projects		-	4,400	-	2,200	-
Barry SO2 Projects		2,875	4,330	-	-	300
Barry MATS		22,707	55,510	3,809	-	-
Barry Particulate Matter Projects		850	1,900	1,950	-	1,000
Barry Ash/Gypsum Pond Projects		-	-	-	-	10,000
Barry CEMS Projects		1,649	2,570	176	500	500
Barry Other Projects		-	-	-	-	-

Table 3(b) – Plant Gadsden Environmental Capital Expenditures for 2014–2018

Official 2014 Capital Budget ($000)

DESCRIPTION	PE	2014	2015	2016	2017	2018
Unit 1 - Replace TR Controls	057302	350	-	-	-	-
Unit 2 - Replace TR Controls	059604	350	-	-	-	-
Install Yard Drain Collection Basin (NPDES)	064303	500	-	-	-	-
Replace Stack Inlet Expansion Joint	064617	200	-	-	-	-
Install Conveyor Dust Suppression System	064802	100	-	-	-	-
Total Gadsden		1,500	-	-	-	-
Gadsden Particulate Matter Projects		1,000	-	-	-	-
Gadsden Effluent Guidelines/NPDES		500				
Gadsden CEMS Projects		-	-	-	-	-

Table 3(c) – Plant Gaston Environmental Capital Expenditures for 2014–2018

Official 2014 Capital Budget ($000)

DESCRIPTION	PE	2014	2015	2016	2017	2018
Unit 5 - Cooling Tower Fill (one cell per year)	066501	500	500	500	-	500
Unit 5 - Catalyst Replacement	069904	3,000	500	2,750	500	3,000
Unit 5 - Baghouse	069925	107,835	134,791	50,795	-	-
Unit 5 - Baghouse - Sewage Treatment Plant	084901	204	-	-	-	
Unit 5 - Baghouse - Activated Carbon Injection	069921	1,214	1,938	468	-	-
Unit 5 - Baghouse - By-Product Disposal Cell	069931	3,146	32,243	3,511	-	-
Unit 5 - Baghouse - SAMC	069922	1,256	1,683	479	-	-
Unit 5 - CEMS MATS	069926	1,360	440	-	-	-
Unit 5 - Ammonia Storage Transfer System	069927	581	-	-	-	-
Unit 5 - Cooling Tower Fans (remaining 9)	070301	100	100	100	100	100
Unit 5 - Replace Dry Ash Lines	070603	420	420	-	-	-
Unit 5 - Replace CEMS	070901	-	-	400	-	-
Install New SO3 Probes (3)	074303	200	-	-	-	-
Unit 5 - Slurry Pumps for Scrubber	075201	100	100	100	100	100
Unit 5 - Replace Power Feed to Precipitator	075301	-	1,000	-	-	-
Unit 5 - Install Phase 2 Gypsum Slurry Pond	075501	-	-	12,500	12,500	-
Unit 5 - FGD Additive	069930	273	-	-	-	-
Unit 5 - SCR Ammonia Slip Monitoring System	069913	450	-	-	-	-
Unit 5 - Scrubber Sparger Tubes	069910	1,750	50	-	100	1,800
Unit 5 - Scrubber Mist Eliminator	069939	-	500	2,250	150	-
Unit 5 - Scrubber Agitator	069911	250	-	500	-	500
Unit 5 - Scrubber Piping	069917	-	-	300	-	800
Unit 5 - Scrubber DCS UPS	069918	500	-	-	-	-
Unit 5 - Scrubber Valves	069919	-	-	100	-	100
Unit 5 - Scrubber Alignment Grid	069923	5,000	350	-	-	-
Unit 5 - Scrubber Agitator Gearbox	069912	250	-	-	300	-
Unit 5 - Scrubber Limestone Blowers	069932	-	-	-	-	-
Unit 5 - Scrubber Oxidation Air Blower	069933	-	-	-	-	-
Unit 5 - Scrubber Gas Cooling Pump	069934	-	-	-	-	-
Unit 5 - Scrubber Gas Cooling Pump Strainers	069935	-	-	-	-	-
Unit 5 - Scrubber Sump Pump	069936	-	100	-	100	-
Unit 5 - Scrubber Motors	069924	-	100	-	100	-
Unit 5 - Scrubber Nozzles	069937	-	-	-	-	-
Unit 5 - Scrubber Rotary Air Spargers	069938	-	-	-	-	-
Unit 5 - Scrubber Gas System Expansion Joints	069940	1,000	-	-	-	-
Install New Retention Pond and Parking Lot Drain System	082104	-	-	-	500	-
Total Gaston		129,389	174,815	74,753	14,450	6,900
Gaston Nox Projects		3,450	500	2,750	500	3,000
Gaston SO2 Projects		9,050	1,200	3,250	850	3,300
Gaston Effluent Guidelines/NPDES		-	-	-	500	-
Gaston MATS		111,159	138,412	51,742	-	-
Gaston Particulate Matter Projects		-	1,000	-	-	-
Gaston Ash/Gypsum Pond Projects		3,566	32,663	16,011	12,500	-
Gaston CEMS Projects		1,360	440	400	-	-
Gaston Sewage Treatment		204	-	-	-	-
Gaston Cooling Towers and Intake Structures		600	600	600	100	600

Table 3(d) – Plant Gorgas Environmental Capital Expenditures for 2014–2018

Official 2014 Capital Budget ($000)

DESCRIPTION	PE	2014	2015	2016	2017	2018
Unit 6 - Activated Carbon Injection	088601	749	71	-	-	-
Unit 6 - Dry Sorbent Injection	088602	2,996	283	-	-	-
Unit 7 - Activated Carbon Injection	094801	749	71	-	-	-
Unit 7 - Dry Sorbent Injection	094802	2,996	283	-	-	-
Unit 8 - CEMS	096902	-	-	-	100	-
Unit 9 - CEMS	101402	-	-	-	100	-
Unit 10 - Replace Precipitator Dust Boxes	107301	-	2,000	-	-	-
Unit 10 - Install Title 1 Clean Air SCR Catalyst	108903	2,500	2,500	3,000	3,000	3,000
Unit 10 - CEMS	108904	-	-	200	-	-
Unit 10 - SCR Inlet Duct Additions	108905	-	-	-	-	100
Unit 10 - Ammonia Forwarding Pumps	108916	-	-	-	-	-
Unit 10 - Ammonia Unloading Compressors	108917	-	-	-	-	100
Unit 10 - Ammonia Vaporizers	108918	-	-	-	-	-
Unit 10 - Replace Flue Gas Conditioning System	109001	-	500	3,000	-	-
Ash Pumping Station 600 V and 4160 V MCC	111307	5,500	50	-	-	-
Gypsum Storage Addition	111716	-	-	-	-	1,000
Replace Scrubber Stack Mercury Monitor Umbilical's	111718	-	-	-	-	-
Baghouse	111725	153,198	109,351	7,989	-	-
Scrubber Limestone Feeders	111727	-	1,500	-	-	-
Scrubber Booster Fans	111733	900	-	-	-	-
Scrubber Limestone Sump Pumps	111734	-	-	-	-	500
Scrubber Recycle Pumps/Motors	111735	-	500	500	-	-
Scrubber ARS Gearboxes	111736	-	2,300	-	-	-
Scrubber Duct Expansion Joints	111737	320	-	-	-	-
Scrubber Inlet Joint	111738	1,500	-	-	-	-
By Product Disposal Cell	111741	14,783	-	-	-	-
CEMS - MATS 8,9,10	111742	1,050	530	-	-	-
CEMS - MATS 6,7	111743	840	420	-	-	-
Gypsum Dry Stacking Transfer Pumps	111744	3,600	-	-	-	-
Scrubber Oxidation Air Blower Motor	111745	-	90	-	-	-
Scrubber Makeup & Gypsum Water Pump Motors	111746	-	50	-	-	-
Total Gorgas		191,681	120,499	14,689	3,200	4,700
Gorgas Nox Projects		2,500	2,500	3,000	3,000	3,200
Gorgas SO2 Projects		2,720	4,440	500	-	500
Gorgas MATS		160,688	110,059	7,989	-	-
Gorgas Particulate Matter Projects		-	2,500	3,000	-	-
Gorgas Ash/Gypsum Pond Projects		23,883	50	-	-	1,000
Gorgas CEMS Projects		1,890	950	200	200	-

Table 3(e) – Plant Greene Co. Environmental Capital Expenditures for 2014–2018

Official 2014 Capital Budget ($000)

DESCRIPTION	PE	2014	2015	2016	2017	2018
Unit 1 - Precipitator Hopper Replacement	115005	-	-	-	-	-
Unit 1 - Precipitator Internals	115104	-	-	-	-	-
Unit 1 - Carbon Injection System	119916	4,949	2,080	-	-	-
Unit 1 - Dry Sorbent Injection	119911	7,101	996	-	-	-
Unit 1 - Cold Side Precipitator Conversion	119910	7,617	4,895	-	-	-
Unit 1 - Precipitator Voltage and Rapper Controls	119917	2,927	1,880	-	-	-
Unit 1 - Gas Capability	119502	1,637	546	-	-	-
Unit 2 - Precipitator Internals	120503	-	-	-	-	150
Unit 2 - Precipitator Hopper Replacement	120505	-	300	-	-	-
Unit 2 - Precipitator Expansion Joints	120506	-	-	-	-	-
Unit 2 - Carbon Injection System	124904	4,902	2,060	-	-	-
Unit 2 - Dry Sorbent Injection	124911	6,190	868	-	-	-
Unit 2 - Cold Side Precipitator Conversion	124910	7,169	4,607	-	-	-
Unit 2 - Precipitator Voltage and Rapper Controls	124917	2,926	1,880	-	-	-
Unit 2 - Economizer Dust Hoppers	120909	-	186	-	-	-
Unit 2 - Gas Capability	124202	-	2,183	-	-	-
Fuel Handling Sewage Lift Tank	127006	-	300	-	-	-
Dust Suppression System	127705	-	-	300	-	-
Sodium Sulfate Tank	128201	-	-	-	-	300
Flue Gas Duct Expansion Joints	128501	-	-	-	-	180
Wet Dust Collectors(s) (Combustible Dust)	119806	58	960	-	-	-
Full Body Treatment Application System	119807	60	454	-	-	-
CEMS	129910	-	300	-	-	600
CEMS - MATS	129915	580	225	-	-	-
Total Greene		46,116	24,720	300	-	1,230
Greene MATS		45,418	21,995	-	-	-
Greene Particulate Matter Projects		118	1,900	300	-	630
Greene CEMS Projects		580	525	-	-	600
Greene Sewage Treatment		-	300	-	-	-

Table 3(f) – Plant Miller Environmental Capital Expenditures for 2014–2018

Official 2014 Capital Budget ($000)

DESCRIPTION	PE	2014	2015	2016	2017	2018
Unit 1 - Install Clean Air Catalyst	131403	-	955	1,708	955	1,708
Unit 1 - Booster Fan A Blade Replacement	131410					
Unit 1 - Booster Fan B Blade Replacement	131411					
Unit 1 - Precipitator Plates & Wires	134001	46,403	-	-	-	-
Unit 1 - Replace Economizer Line from Hoppers to Air Separator	135901	-	-	-	105	38
Unit 1 - Replace Dry Ash Transfer Vessel	136502	-	-	-	-	124
Unit 1 - F Gas Controls/Analyzer Replacement	136805	358	-	-	-	-
Unit 1 - Absorber Inlet Expansion Joint	131417			413		
Unit 1 - CEMS-MATS	131419	1,097	225	-	-	-
Unit 1 - Booster Fan Hub Replacement (A&B)	131420					570
Unit 1 - Dust Valve Replacement	133204	-	250	250	250	-
Unit 2 - F Gas Controls/Analyzer Replacement	139604	358	-	-	-	-
Unit 2 - Replace Dry Ash Transfer Vessel	139802	-	-	-	-	124
Unit 2 - Booster Fan A Blade Replacement	141810					
Unit 2 - Booster Fan B Blade Replacement	141811					
Unit 2 - Replace Precipitator Internals	143301	3,916	19,904	46,403	-	-
Unit 2 - Replace Economizer Line from Hoppers	143602	-	-	-	105	38
Unit 2 - Install SCR Catalyst	143701	-	955	1,708	955	1,708
Unit 2 - Absorber Inlet Expansion Joint	141817			413		
Unit 2 - CEMS-MATS	141818	1,097	225	-	-	-
Unit 2 - Booster Fan Hub Replacement (A&B)	141819	-		570	-	-
Unit 2 - Dust Valve Replacement	142004	-	-	2,002	-	-
Units 1 & 2 - Cooling Tower Fill	145101		455	11,710		-
Units 1 & 2 - Cooling Tower Battery System	145802		46	81		
Units 1 & 2 - Sulfur Package Boiler	149910	106				
Gypsum Dewatering System Main Filter Belt A Replacement	150316	-	120	-	-	-
Gypsum Dewatering System Main Filter Belt B Replacement	150317	-	120	-	-	-
Dedicated Air Compressor At Dry Ash Silos	150318	240	-	-	-	-
Piping from Retention Pond to Booster Station Replacement	151104	725	-	-	-	-
Fuel Handling Chemical Dust Suppression System	151703	-	1,818	-	-	-
Replace Dry Ash Line from Units 1-4 to Silos	154305	-	-	-	-	-
Bromine Injection	150320	959	4,796	-	-	-
C Ash Discharge Line to Lake	153709	-	932	-	-	-
A Fly Ash Booster Pump Discharge Valve	152902	-	-	-	-	-
B Fly Ash Booster Pump Discharge Valve	152903	-	-	-	-	65
C Fly Ash Booster Pump Discharge Valve	152904	-	-	-	-	-
Dry Limestone Feed System Moisture Isolation Valve	150321	96	-	-	-	
Unit 3 - Replace Economizer Line from Hoppers to Air Separator	155802	-	-	-	114	47
Unit 3 - Booster Fan A Blade Replacement	157516					
Unit 3 - Booster Fan B Blade Replacement	157517					
Unit 3 - Precipitators-Install Inlet Sonic Horns	158101	-	-	-	-	350
Unit 3 - Replace SCR Catalyst	159501	1,040	1,860	1,040	1,860	1,040
Unit 3 - PLC to DCS Conversion for Vaporization Skid Controls	161001	-	-	110	220	-
Unit 3 - F Gas Controls/Analyzer Replacement	161002	55	335	-	-	-
Unit 3 - Bromine Injection	157518	-	-	-	-	-
Unit 3 - Absorber Inlet Expansion Joint	157519	25	425	-	-	-
Unit 3 - CEMS-MATS	157520	850	415	-	-	-
Unit 3 - Booster Fan Hub Replacement (A&B)	157521	-	923	-	-	-
Unit 4 - Replace SCR Catalyst	164503	1,040	1,860	1,040	1,860	1,040
Unit 4 - Booster Fan A Blade Replacement	164516	-	-	-	-	-
Unit 4 - Booster Fan B Blade Replacement	164517	-	-	-	-	-
Unit 4 - Replace Economizer Line from Hoppers to Air Separator	164802	-	-	-	114	44
Unit 4 - PLC to DCS Conversion for Vaporizer Skid Controls	168001	-	-	110	220	-
Unit 4 - F Gas Controls/Analyzer Replacement	168002	55	335	-	-	-
Unit 4 - Install Sonic Horns on Precipitator	165401	-	-	-	-	350
Unit 4 - CEMS-MATS	164520	850	415	-	-	-
Unit 4 - Absorber Inlet Expansion Joint	164519	25	425	-	-	-
Unit 4 - Booster Fan Hub Replacement (A&B)	164522	-	821	-	-	-
Units 3 & 4 - Cooling Tower Chlorination Skid	170502	200	-	-	-	-
Units 3 & 4 - Dry Ash Transfer Vessel	174903	-	-	-	-	-
Total Miller		59,581	38,519	67,560	6,758	7,246
Miller Nox Projects		2,906	6,300	5,716	6,070	5,496
Miller SO2 Projects		146	2,394	1,366		570
Miller Effluent Guidelines/NPDES		725	-	-	-	-
Miller MATS		959	4,796	-	-	-
Miller Particulate Matter Projects		50,665	22,072	48,655	688	1,115
Miller Ash/Gypsum Pond Projects		-	1,172	-	-	65
Miller CEMS Projects		3,894	1,280	-	-	-
Miller Cooling Towers and Intake Structures		206	505	11,703		

Table 4 – Other Generation Environmental Capital Expenditures for 2014–2018

Official 2014 Capital Budget ($000)

	DESCRIPTION	PE	2014	2015	2016	2017	2018
Barry CC	Environmental Misc Additions & Improvements	185602	185	190	190	195	195
Barry CC	Unit 6 - Replace SCR Catalyst	186801	-	1,000	600	-	-
Barry CC	Unit 7 - Replace SCR Catalyst	186802	-	1,000	600	-	-
Barry CC	Unit 6 - Replace CEMS Monitoring Equipment	187109	-	-	-	-	-
Barry CC	Unit 7 - Replace CEMS Monitoring Equipment	187110	-	-	-	-	-
Barry CC	Unit 6 - Cooling Tower Media Replacement	187135	-	-	-	-	1,500
Barry CC	Unit 7 - Cooling Tower Media Replacement	187136	-	-	-	-	1,500
Barry CC	Unit 6 - Cooling Tower Fans	187139	200	-	-	-	-
Barry CC	Unit 7 - Cooling Tower Fans	187140	200	-	-	-	-
Barry CC	Unit 6 - Cooling Tower Drift Eliminator Media Replacement	187146	-	-	-	-	-
Barry CC	Unit 7 - Cooling Tower Drift Eliminator Media Replacement	187147	250	-	-	-	-
Wash	Package Boiler 201 CEMS	182307	-	-	110	-	-
Wash	Cooling Tower Media Replacement	182401	250	-	-	250	-
Wash	Replace Waste Water Cooling Tower	182403	300	-	-	-	-
Wash	HRSG CEMS	181504	-	-	-	-	400
Wash	Cooling Tower Drift Eliminator Media Replacement	182406	75	-	-	-	-
Wash	Side Stream Filtration System for Cooling Tower	182407	-	-	-	-	-
Theodore	Replace SCR Catalyst	182901	-	-	-	250	1,250
Theodore	Cooling Tower Media Replacement	183208	-	-	-	-	-
Theodore	HRSG & PB CEMS Replacement	183210	-	-	-	-	-
Theodore	Cooling Tower Fans	183218	-	-	-	-	80
Theodore	Cooling Tower Drift Eliminator Media	183223	-	-	-	-	100
Theodore	Neutralization Tank Pumps (Waste water)	183224	-	-	75	-	-
	Total - Other		1,460	2,190	1,575	695	5,025
	Other Power Other Projects		185	190	190	195	195
	Other Power NOX Projects		0	2,000	1,200	250	1,250
	Other Power Effluent Guidelines/NPDES		-	-	75	-	-
	Other Power CEMS Projects		0	0	110	0	400
	Other Power Cooling Tower Projects		1,275	0	0	250	3,180

Table 5 – Hydro Generation Environmental Capital Expenditures for 2014–2018

Official 2014 Capital Budget ($000)

DESCRIPTION	PE	2014	2015	2016	2017	2018
Harris - Minimum Flow Project	200701	-	-	1,100	1,300	-
Weiss - Install Oxygenation System	246101	1,700	-	-	-	5,000
Weiss - Install Spillway Oxygenation	251801	-	-	-	250	-
Henry - Install Oxygenation System	253101	2,250	-	-	-	-
Logan Martin - Install Oxygenation System	259901	1,700	500	-	-	5,000
Total Hydro		5,650	500	1,100	1,550	10,000

ESTIMATED ENVIRONMENTAL CAPITAL EXPENDITURES FOR 2014 – 2018

TRANSMISSION

Table 6 – Summary of Transmission Environmental Capital Expenditures for 2014–2018

Official 2014 Capital Budget ($000)

DESCRIPTION	2014	2015	2016	2017	2018
115 KV Transmission Line	3,355	1,150	-	-	-
230 KV Transmission Line	32,266	10,302	-	-	-
230 KV Transmission Land	700	-	-	-	-
Transmission Substation	707	1,777	-	-	-
Distribution Substation 115 KV	1,041	40	-	-	-
Total Transmission Projects	38,069	13,269	-	-	-

Table 7 – Transmission Capital Expenditures for 2014–2018

Official 2014 Capital Budget ($000)

DESCRIPTION	PE	DISP	2014	2015	2016	2017	2018
Westbury-Leeds 115 KV TL-Survey for Upgrade	44021A	T115E	25	-	-	-	-
Leeds-Westbury 115 KV TL- Survey	44021C	T115E	430	1,150	-	-	-
Gaston Upgrade East Pelham 230 KV Terminal to 2000 Amps.	44323C	TSE	30	65	-	-	-
Gaston - East Pelham Upgrade to 110 deg C	44323D	T230E	500	1,300	-	-	-
County Line Rd - Montgomery SS Reconductor	46302B	T230E	5,500	925	-	-	-
Montgomery Switching Station	46382C	TSE	30	80	-	-	-
Thruway Opel Union Springs 115	46471B	T115E	2,980	-	-	-	-
Blakeley Island DS-Upgrade Kimberly Clark Terminal 2000 Amps.	48431C	DS115E	201	-	-	-	-
Kimberly Clark Cust Sub-Upgrade Blakeley Island Terminal	48431D	DS115E	280	-	-	-	-
Rush Upgrade 15	48731C	TSE	641	1,642	-	-	-
Future 230 KV Transmission Line-Mobile	48732B	T230LE	700	-	-	-	-
Future 230 KV Transmission Line-Mobile	48732C	T230E	26,200	8,177	-	-	-
Yacht Club DS	6807GC	DS115E	560	46	-	-	-
Total Transmission Projects			38,069	13,269	-	-	-

ESTIMATED ENVIRONMENTAL O&M EXPENSE FOR 2014 – 2018

Table 8 – Environmental O&M Expense for 2014-2018

2014 O&M Budget and Forecast

Activity	Environmental Activities	2014	2015	2016	2017	2018
E316A	316A REGULATION	170,536	175,652	180,921	186,349	191,939
E316B	316B REGULATION	219,761	226,353	233,144	240,138	247,343
EDISP	ENVIRO DISPOSAL ACTIVITY-ENVIRO AFFAIRS COMPLIANC	234,852	241,897	249,154	256,629	264,328
EHYDR1	ENVIRO ARCHEOLOGICAL STUDIES-HYDRO PROJECTS	565,000	540,000	465,000	440,000	415,000
EHYDR11	ENVIRO FISH CULTURE FACILITY	450,000	285,000	225,000	175,000	175,000
EHYDR12	ENVIRO FISHERIES HABITAT ENHANCEMENT	340,000	225,000	225,000	225,000	225,000
EHYDR6	ENVIRO TROUT STOCKING-SMITH TAILRACE	29,000	30,000	30,500	32,000	32,500
EHYDR9	ENVIRO WILDLIFE HABITAT ENHANCEMENT&RESTORATION	810,000	180,000	280,000	50,000	50,000
EMERC	ENVIRONMENTAL MERCURY RATA TESTING	1,325,376	1,365,138	1,406,090	1,448,274	1,491,722
F34	COMPLIANCE-ENVIRONMENTAL	19,703,224	20,843,916	21,128,900	21,696,197	22,735,676
F86	SCRUBBER	1,473,418	1,321,002	1,366,775	1,406,466	1,451,282
F8A	ASH SALES	(2,033,504)	(2,094,509)	(2,157,344)	(2,222,064)	(2,288,727)
F8E	OTHER ENVIRONMENTAL	696,096	1,081,364	84,027	86,317	763,903
F8G	GYPSUM SALES	(486,593)	(503,251)	(518,349)	(533,899)	(549,916)
FAAE	ASH SLUICE-ENVIRONMENTAL	845,562	791,703	999,419	1,110,977	1,170,762
FAC	FLY ASH	1,871,918	1,980,176	2,237,315	2,383,096	2,454,835
FAD	NPDES TREATMENT	5,635,012	5,801,072	6,149,831	6,363,251	6,574,284
FAE	ASH DISPOSAL	4,526,801	4,988,866	5,157,759	5,195,890	5,332,564
FAF	PRECIPITATOR	8,066,047	5,803,795	8,501,471	8,066,985	9,949,891
FAFE	PRECIP. FLUE GAS CONDITIONING	-	-	672,115	855,664	881,334
FAG	BAG HOUSE	24,207	312,759	9,534,776	12,693,029	13,073,886
FAY	ASH HANDLING SYSTEM	1,144,426	1,137,122	1,192,224	1,184,429	1,488,423
FBF	STACK	255,370	219,470	219,919	282,056	233,324
FBH	CEMS-ALL ASSOC. DEVICES	2,511,526	2,724,517	2,708,694	2,564,485	3,307,223
FBKA	ACTIVATED CARBON INJECTION (ACI)	-	3,013,890	3,534,960	4,164,782	4,303,882
FBKC	DRY SORBENT INJECTION (DSI)	-	8,641,592	10,068,028	11,790,958	10,422,089
FDA	DUST SUPPRESSION	4,591,006	4,722,011	5,540,003	5,801,441	5,978,546
FHK	COOLING TOWERS	2,712,151	2,280,818	2,768,407	2,292,760	3,015,162
FNF	WASTE WATER	764,516	686,892	688,120	1,856,909	2,734,601
FTE	ENVIRONMENTAL PROJECTS (HYDRO)	3,036,686	3,261,141	3,304,082	3,385,688	3,501,113
FVK	WATER/STEAM INJECTION SYSTEM	85,054	95,060	89,346	85,305	85,727
FXA	FLUE GAS HANDLING	2,894,435	2,698,553	3,137,061	3,346,269	3,635,614
FXB	LIMESTONE HANDLING	21,406,519	21,353,291	26,706,925	30,593,043	33,809,982
FXC	SCRUBBER VESSEL	4,390,290	4,360,578	3,316,964	4,334,609	3,252,239
FXD	GYPSUM HANDLING	4,524,717	4,636,281	4,586,152	4,696,599	4,956,320
FXE	RETURN WATER	40,000	42,000	21,500	21,500	11,500
FXF	MAKE-UP WATER	172,625	248,962	175,717	157,787	162,280
FXG	SUBSTATION/SWITCHYARD	12,482	9,727	12,482	12,982	12,582
FXJ	GAS COOLING/RECYCLE SPRAY	223,888	176,806	214,048	219,869	193,259
FXK	STATION SERVICE	350,752	303,684	305,792	329,467	309,409
FXL	GYPSUM DRAW-OFF	66,837	72,931	75,118	77,371	79,692
FXM	OXIDATION AIR	56,000	55,000	30,000	30,000	30,900
FXP	SERVICE FACILITIES-SCRUBBER SYS	465,986	517,526	519,593	533,481	562,390
FXR	FIRE PROTECTION-SCRUBBER SYS	30,095	25,950	29,310	28,310	28,515
FXS	AIR SYSTEM-SCRUBBER SYS	179,505	219,016	204,269	201,180	210,535
FXY	SCRUBBER SYSTEM	10,735,657	8,928,911	11,960,593	7,324,754	11,999,592
FYA	AMMONIA UNLOADING/STORAGE AREA	11,448,607	11,514,978	11,770,080	12,199,691	12,526,314
FYB	AMMONIA FORWARDING SYSTEM	37,165	47,698	48,755	49,843	66,465
FYC	AMMONIA VAPORIZATION SKID	74,370	76,604	83,401	81,270	83,703
FYD	AMMONIA INJECTION GRID	264,070	270,660	276,812	283,823	264,353
FYE	REACTOR BOXES	716,618	854,550	639,313	695,168	648,852
FYF	AUXILIARY SYSTEMS	172,590	176,720	171,865	188,143	183,295
FYH	SNCR	808,040	814,771	870,629	873,401	890,322
FYY	SELECTIVE CATALYTIC REDUCTION	3,620,526	3,627,478	3,959,367	3,908,922	4,076,630
Grand Total		122,256,222	131,411,121	155,681,033	163,751,594	177,707,439

ENVIRONMENTAL CAPITAL PLACED IN SERVICE FOR 2014

GENERATION

Table 9 – Environmental Generation Capital Placed In Service for 2014

Alabama Power Company
2014 Environmental Projects Placed in Service
Generation
$000

Plant	DESCRIPTION	PE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	P13 Total
Barry	Unit 3 - CEMS	022505	-	-	-	270	-	-	-	-	-	-	-	-	270
Barry	U4 Precip Fly Ash Carrier Line	028305	-	-	-	-	-	-	-	-	-	-	-	600	600
Barry	Unit 5 Sulfur Burner Controls	039106	-	-	-	250	-	-	-	-	-	-	-	-	250
Barry	Unit 5-Scrubber Mist Eliminator	039906	-	-	-	800	-	-	-	-	-	-	-	-	800
Barry	Scrubber Teflon Expansion Joints	039929	-	-	550	-	-	-	-	-	-	-	-	-	550
Barry	U5 Scrubber JBR Vessel Access Door	039930	-	-	175	-	-	-	-	-	-	-	-	-	175
Barry	U5 Scrubber Make-up Water Filter	039931	-	-	200	-	-	-	-	-	-	-	-	-	200
Barry	U5 Scrubber Gas Cooling Pumps Monorail System	039932	-	-	100	-	-	-	-	-	-	-	-	-	100
	Total Barry		-	-	1,025	1,320	-	-	-	-	-	-	-	600	2,945
	Accumulated Barry		-	-	1,025	2,345	2,345	2,345	2,345	2,345	2,345	2,345	2,345	2,945	
Gadsden	Unit 1- Install Tr Controls	057302	-	-	-	-	-	-	-	-	-	-	-	350	350
Gadsden	Unit 2- Install Tr Controls	059808	-	-	-	-	-	-	-	-	-	-	-	350	350
Gadsden	Install Yard Drain Collection Basin	064303	-	-	-	-	-	-	-	-	-	-	-	1,400	1,400
Gadsden	Replace Stack Expansion Joint	064619	-	-	-	-	-	-	-	-	-	-	-	200	200
Gadsden	Install Conveyor Dust Suppression System	064802	-	-	-	-	-	-	-	-	-	-	-	100	100
	Total Gadsden		-	-	-	-	-	-	-	-	-	-	-	2,400	2,400
	Accumulated Gadsden		-	-	-	-	-	-	-	-	-	-	-	2,400	
Gaston	Unit 5 - Cooling Tower Fill	069501	-	-	-	-	500	-	-	-	-	-	-	-	500
Gaston	Replace SCR Catalyst	069904	-	-	-	-	-	-	-	-	-	-	-	3,000	3,000
Gaston	Scrubber Sparger Tubes	069910	-	-	-	-	-	-	-	-	-	-	-	1,750	1,750
Gaston	Scrubber Agitator	069911	-	-	-	-	-	-	-	-	-	-	-	250	250
Gaston	Scrubber Agitator Gearbox	069912	-	-	-	-	-	-	-	-	-	-	-	250	250
Gaston	U5 Scr Ammonia Slip Monitoring System	069913	-	-	-	-	-	-	-	-	-	-	-	450	450
Gaston	Scrubber DCS UPS	069918	-	-	-	-	-	-	-	-	-	-	-	500	500
Gaston	Scrubber Alignment Grid	069923	-	-	-	-	-	-	-	-	-	-	-	4,650	4,650
Gaston	Ammonia Transfer System	069927	246	234	101	-	-	-	-	-	-	-	-	-	581
Gaston	Scrubber Gas Expansion Joints	069940	-	-	-	-	-	-	-	-	-	-	-	1,000	1,000
Gaston	Unit 5 - Cooling Tower Fans (Remaining 9)	070301	-	-	-	-	-	-	-	-	-	-	-	100	100
Gaston	Unit 5 - Install New SO3 Probes	074303	-	-	-	-	-	-	-	-	-	-	200	-	200
Gaston	U5 Install Slurry Pumps For Scrubber	075201	-	-	-	-	-	-	-	-	-	-	-	100	100
Gaston	Replace Sewage Treatment Plant	084901	72	69	63	-	-	-	-	-	-	-	-	-	204
	Total Gaston		318	303	164	-	500	-	-	-	-	-	200	12,050	13,535
	Accumulated Gaston		318	621	785	785	1,285	1,285	1,285	1,285	1,285	1,285	1,485	13,535	
Gorgas	Title 1 Clean Air Projects - Catalyst	108903	-	-	-	-	-	-	-	-	-	-	-	2,500	2,500
Gorgas	Controls For Ash Pumping Station	111307	-	-	-	-	-	-	5,600	-	-	-	-	-	5,600
Gorgas	Scrubber Booster Fans	111733	-	-	-	-	-	-	900	-	-	-	-	-	900
Gorgas	Scrubber Duct Expansion Joints	111737	-	-	-	-	-	-	-	-	-	-	-	320	320
Gorgas	Scrubber Inlet Joint	111738	-	-	-	-	-	-	-	-	-	-	-	1,500	1,500
Gorgas	By-Product Disposal	111741	-	-	-	-	-	16,518	907	2,128	748	5,713	18	9	26,041
Gorgas	Gypsum Dry Stacking Transfer Pumps	111744	-	-	-	-	3,600	-	-	-	-	-	-	-	3,600
	Total Gorgas		-	-	-	-	3,600	16,518	7,407	2,128	748	5,713	18	4,329	40,461
	Accumulated Gorgas		-	-	-	-	3,600	20,118	27,525	29,653	30,401	36,114	36,132	40,461	
Miller	Install SCR Catalyst Layer	131403	-	-	-	2,367	-	-	-	-	-	-	-	-	2,367
Miller	Replace Precipitator Plates And Wires	134001	-	-	-	67,389	-	-	-	-	-	-	-	-	67,389
Miller	Replace F Gas Controls/Analyzer	136805	-	-	-	358	-	-	-	-	-	-	-	-	358
Miller	F Gas Controls/Analyzer Replacement	139604	-	-	358	-	-	-	-	-	-	-	-	-	358
Miller	Sulfur Package Boiler	140910	-	-	106	-	-	-	-	-	-	-	-	-	106
Miller	Dedicated Air Compressor at Dry Ash Silos	150318	-	-	-	-	-	-	-	-	-	-	-	240	240
Miller	Dry Limestone Feed System Moisture Isolation Valve	150321	-	-	-	-	-	-	-	-	-	-	-	96	96
Miller	Piping From Retention Pond To Booster Station	151104	-	-	-	-	-	-	-	-	-	-	-	725	725
Miller	Cooling Tower Chlorination Skid Units 1&2	170502	-	-	-	-	286	-	-	-	-	-	-	-	286
	Total Miller		-	-	464	70,114	286	-	-	-	-	-	-	1,061	71,925
	Accumulated Miller		-	-	464	70,578	70,864	70,864	70,864	70,864	70,864	70,864	70,864	71,925	
Washington County	WCC - Replace Cooling Tower Media	182401	250	-	-	-	-	-	-	-	-	-	-	-	250
Washington County	Replace Waste Water Cooling Tower	182403	-	-	-	300	-	-	-	-	-	-	-	-	300
Washington County	Cooling Tower Drift Media	182406	-	-	-	75	-	-	-	-	-	-	-	-	75
	Total Washington County		250	-	-	375	-	-	-	-	-	-	-	-	625
	Accumulated Washington County		250	250	250	625	625	625	625	625	625	625	625	625	
Barry CC	Miscellaneous Environmental Capital Projects	185602	-	-	-	-	-	-	-	-	-	-	-	185	185
Barry CC	Unit 6 - Cooling Tower Fans	187139	-	-	200	-	-	-	-	-	-	-	-	-	200
Barry CC	Unit 7 - Cooling Tower Fans	187140	-	-	200	-	-	-	-	-	-	-	-	-	200
Barry CC	U7 Cooling Tower Drift Eliminator Media Replacement	187147	-	-	-	-	-	-	-	-	-	125	63	62	250
	Total Barry CC		-	-	400	-	-	-	-	-	-	125	63	247	835
	Accumulated Barry CC		-	-	400	400	400	400	400	400	400	525	588	835	
Weiss	Install Oxygenation System	246101	-	-	-	-	-	-	-	-	-	-	-	1,700	1,700
	Total Weiss		-	-	-	-	-	-	-	-	-	-	-	1,700	1,700
	Accumulated Weiss		-	-	-	-	-	-	-	-	-	-	-	1,700	
Henry	Install Oxygenation System	253101	-	-	-	-	-	-	-	-	-	-	-	3,153	3,153
	Total Henry		-	-	-	-	-	-	-	-	-	-	-	3,153	3,153
	Accumulated Henry		-	-	-	-	-	-	-	-	-	-	-	3,153	
	Total Expenditures/ Placed in Service		568	303	2,053	71,809	4,386	16,518	7,407	2,128	748	5,838	281	25,540	137,579
	Retirements		4,114	94	2,337	21,761	157	8	132	8	8	568	8	2,774	
	Cumulative Placed in Service 2014 Budget Process		3,194,635	3,196,141	3,194,857	3,244,886	3,249,114	3,266,624	3,273,899	3,275,919	3,276,759	3,281,929	3,281,302	3,304,068	

ENVIRONMENTAL CAPITAL PLACED IN SERVICE FOR 2014

TRANSMISSION

Table 10 – Environmental Transmission Capital Placed In Service for 2014

Alabama Power Company
2014 Environmental Projects Placed in Service
Transmission and Distribution
$000

	DESCRIPTION	PE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	PIS Total
Transmission	Westbury-Leeds 115KV TL-Survey For Upgrade	44021A	-	-	-	-	125	-	-	-	-	-	-	-	125
Transmission	ECO Thurlow Dam-Union Spring	46471C	15	-	-	-	-	-	-	-	-	-	-	-	15
Transmission	North Brewton-Crist 230KV TL	48732E	-	-	-	-	-	-	-	-	-	3,500	-	-	3,500
Distribution	Blakeley Island DS-Upgrade Kimberly Clark Terminal 2000 A	48431C	201	-	-	-	-	-	-	-	-	-	-	-	201
Distribution	Kimberly Clark Cust Sub-Upgrade Blakeley Island Terminal	48431D	280	-	-	-	-	-	-	-	-	-	-	-	280
Distribution	Yacht Club DS	6007GC	-	-	-	-	-	-	-	-	-	-	-	560	560
	Total Transmission and Distribution		496	-	-	-	125	-	-	-	-	3,500	-	560	4,681
	Accumulated Transmission and Distribution		496	496	496	496	621	621	621	621	621	4,121	4,121	4,681	
	Total Expenditures/ Placed in Service		496	-	-	-	125	-	-	-	-	3,500	-	560	4,681
	Retirements		-	-	-	-	-	-	-	-	-	-	-	-	
	Cumulative Placed in Service 2014 Budget Process		999	999	999	999	1,124	1,124	1,124	1,124	1,124	4,624	4,624	5,184	

ENVIRONMENTAL O&M EXPENSE FOR 2014

Table 11 – Environmental O&M Expense for 2014

2014 O&M Budget and Forecast

Activity	Environmental Activities	2014
E316A	316A REGULATION	170,536
E316B	316B REGULATION	219,761
EDISP	ENVIRO DISPOSAL ACTIVITY-ENVIRO AFFAIRS COMPLIANC	234,852
EHYDR1	ENVIRO ARCHEOLOGICAL STUDIES-HYDRO PROJECTS	565,000
EHYDR11	ENVIRO FISH CULTURE FACILITY	450,000
EHYDR12	ENVIRO FISHERIES HABITAT ENHANCEMENT	340,000
EHYDR6	ENVIRO TROUT STOCKING-SMITH TAILRACE	29,000
EHYDR9	ENVIRO WILDLIFE HABITAT ENHANCEMENT&RESTORATION	810,000
EMERC	ENVIRONMENTAL MERCURY RATA TESTING	1,325,376
F34	COMPLIANCE-ENVIRONMENTAL	19,703,224
F86	SCRUBBER	1,473,418
F8A	ASH SALES	(2,033,504)
F8E	OTHER ENVIRONMENTAL	696,096
F8G	GYPSUM SALES	(488,593)
FAAE	ASH SLUICE-ENVIRONMENTAL	845,562
FAC	FLY ASH	1,871,918
FAD	NPDES TREATMENT	5,635,012
FAE	ASH DISPOSAL	4,526,801
FAF	PRECIPITATOR	8,066,047
FAFE	PRECIP. FLUE GAS CONDITIONING	-
FAG	BAG HOUSE	24,207
FAY	ASH HANDLING SYSTEM	1,144,426
FBF	STACK	255,370
FBH	CEMS-ALL ASSOC. DEVICES	2,511,526
FBKA	ACTIVATED CARBON INJECTION (ACI)	-
FBKC	DRY SORBENT INJECTION (DSI)	-
FDA	DUST SUPPRESSION	4,591,006
FHK	COOLING TOWERS	2,712,151
FNF	WASTE WATER	764,516
FTE	ENVIRONMENTAL PROJECTS (HYDRO)	3,036,686
FVK	WATER/STEAM INJECTION SYSTEM	85,054
FXA	FLUE GAS HANDLING	2,894,435
FXB	LIMESTONE HANDLING	21,406,519
FXC	SCRUBBER VESSEL	4,390,290
FXD	GYPSUM HANDLING	4,524,717
FXE	RETURN WATER	40,000
FXF	MAKE-UP WATER	172,625
FXG	SUBSTATION/SWITCHYARD	12,482
FXJ	GAS COOLING/RECYCLE SPRAY	223,888
FXK	STATION SERVICE	350,752
FXL	GYPSUM DRAW-OFF	66,837
FXM	OXIDATION AIR	55,000
FXP	SERVICE FACILITIES-SCRUBBER SYS	465,986
FXR	FIRE PROTECTION-SCRUBBER SYS	30,095
FXS	AIR SYSTEM-SCRUBBER SYS	179,505
FXY	SCRUBBER SYSTEM	10,735,657
FYA	AMMONIA UNLOADING/STORAGE AREA	11,448,607
FYB	AMMONIA FORWARDING SYSTEM	37,165
FYC	AMMONIA VAPORIZATION SKID	74,370
FYD	AMMONIA INJECTION GRID	264,070
FYE	REACTOR BOXES	716,618
FYF	AUXILIARY SYSTEMS	172,590
FYH	SNCR	808,040
FYY	SELECTIVE CATALYTIC REDUCTION	3,620,526
Grand Total		122,256,222

APPENDIX A

ACRONYMS AND ABBREVIATIONS

ACI	Activated Carbon Injection
ADEM	Alabama Department of Environmental Management
ADROP	Alabama Drought Response Operating Proposal
APC	Alabama Power Company
APEA	Applicant Prepared Environmental Assessment
ARP	Acid Rain Program
BA	Biological Assessment
BACT	Best Available Control Technology
BART	Best Available Retrofit Technology
BO	Biological Opinion
BTU	British Thermal Unit
CAA	Clean Air Act
CAAA	Clean Air Act Amendments of 1990
CAIR	Clean Air Interstate Rule
CAM	Compliance Assurance Monitoring
CAMR	Clean Air Mercury Rule
CAVR	Clean Air Visibility Rule
CCPs	Coal Combustion Products
CEMS	Continuous Emissions Monitoring System
CMMS	Continuous Mercury Monitoring System
CFR	Code of Federal Regulations
CO	Carbon Monoxide
CO_2	Carbon Dioxide

COHPAC	Compact Hybrid Particulate Collector
CSAPR	Cross-State Air Pollution Rule
CWA	Clean Water Act
EGU	Electric Generating Unit
EPA	Environmental Protection Agency
EPRI	Electric Power Research Institute
EPCRA	Emergency Planning and Community Right-to-Know Act
ESP	Electrostatic Precipitator
FERC	Federal Energy Regulatory Commission
FGD	Flue Gas Desulfurization
FIP	Federal Implementation Plan
FPA	Federal Power Act
FR	Federal Register
FWS	Fish and Wildlife Service – Department of Interior
GHG	Greenhouse Gases
HAP	Hazardous Air Pollutant
Hg	Mercury
LAER	Lowest Achievable Emission Rate
LNB	Low-NOx Burner
MACT	Maximum Achievable Control Technology
MATS	Mercury and Air Toxics Standards
NAAQS	National Ambient Air Quality Standards
NBP	NO_x Budget Trading Program
NH3	Ammonia
NO_2	Nitrogen Dioxide

NO_x	Nitrogen Oxides
NPDES	National Pollution Discharge Elimination System
NSPS	New Source Performance Standards
OFA	Overfire Air
OTAG	Ozone Transport Assessment Group
O&M	Operation and Maintenance
PM	Particulate Matter
PM-2.5	Particulate Matter less than 2.5 micrometers in size
PM-10	Particulate Matter less than 10 micrometers in size
PME	Protection Mitigation and Enhancement
PPM	Parts per million
PPT	Parts per trillion
PRB	Powder River Basin
PSD	Prevention of Significant Deterioration
RACT	Reasonably Available Control Technology
RCRA	Resource Conservation and Recovery Act
RES	Renewable Electricity Standard
SCR	Selective Catalytic Reduction
SIP	State Implementation Plan
SNCR	Selective Noncatalytic Reduction
SO_2	Sulfur Dioxide
SO_3	Sulfur Trioxide
T-Fired	Tangential or tangentially fired
TMDL	Total Maximum Daily Load
TR	Transformer/Rectifier

TRI	Toxics Release Inventory
UARG	Utility Air Regulatory Group
UPS	Unit Power Sales
USWAG	Utility Solid Waste Activities Group
UWAG	Utility Water Act Group
UVB	Ultraviolet-B
VOC	Volatile Organic Compounds