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May 1, 2020

VIA E-FILE & OVERNIGHT MAIL

Mr. Walter L. Thomas, Jr., Secretary
Alabama Public Service Commission
RSA Union Building
100 North Union Street, Suite 950
Montgomery, AL 36104

**RE: Alabama Power Company Petition for Certificate of Convenience and
Necessity; Docket No. 32953**

Dear Secretary Thomas:

On behalf of Intervenor Energy Alabama, Gasp and Sierra Club, please find a *Joint Motion for Supplemental Briefing and Request for a Briefing Schedule* enclosed for filing in the above referenced matter.

This filing is submitted to the Commission through its e-filing system, consistent with the rules and practices of the Commission. The original and one copy are being delivered to the Commission via overnight mail.

Please contact me if you have any questions or concerns regarding the enclosed.

Sincerely,



Keith Johnson

Southern Environmental Law Center

Encl.

**BEFORE THE
ALABAMA PUBLIC SERVICE COMMISSION**

**IN RE: Petition for a Certificate of
Convenience and Necessity by
Alabama Power Company**

Docket 32953

**JOINT MOTION FOR SUPPLEMENTAL BRIEFING
AND REQUEST FOR A BRIEFING SCHEDULE**

Energy Alabama, GasP and Sierra Club hereby jointly move for supplemental briefing in the above-referenced docket and request the issuance of a scheduling order to allow the parties the opportunity to fully brief the impact of the coronavirus pandemic on the need and timing of Alabama Power Company's ("Alabama Power") petition for a certificate of convenience and necessity ("Petition"), given the steep economic contraction and resulting collapse in energy demand as a result of the coronavirus pandemic. A Proposed Order is attached as Exhibit 1.

On September 6, 2019, Alabama Power filed a Petition with this Commission under Alabama Code § 37-4-28, seeking to add approximately 2,400 megawatts ("MW") of new generation resources to meet an asserted need for a 25.25% winter target reserve margin to address the potential for peak winter loads between the hours of six and eight a.m. on weekday mornings. Parties have pre-filed testimony and taken discovery, and on March 9-11, 2020, Administrative Law Judge Garner held a public evidentiary hearing in Montgomery, Alabama. Post hearing briefs fashioned as proposed orders in this proceeding were required to be filed by Friday, May 1, 2020. *Procedural Ruling Granting Extension of Time to File Post Hearing Briefs in the Form of Proposed Orders* ¶ 2 (April 14, 2020).

Since the initiation of this case, and end of the evidentiary hearing on March 11, a coronavirus pandemic has spread globally. Wide swaths of the United States, including Alabama, have implemented stay-at-home orders, closing many commercial and industrial facilities. Jiachuan Wu *et al.*, *Stay-at-Home Orders Across the Country*, NBC News (Apr. 29, 2020), <http://www.nbcnews.com/health/health-news/here-are-stay-home-orders-across-country-n1168736>. And, in the United States, over 30 million people have filed for unemployment in the past six weeks. Katia Dmitrieva, *Job Losses Deepen in Pandemic With U.S. Tally Topping 30 Million*, Bloomberg (Apr. 30, 2020), <http://www.bloomberg.com/news/articles/2020-04-30/another-3-8-million-in-u-s-filed-for-jobless-benefits-last-week>.

The United States as a whole has experienced significant economic disruption, with the U.S. Bureau of Economic Analysis reporting that the economy has contracted by 4.8% in the first quarter of 2020. *Gross Domestic Product, 1st Quarter 2020 (Advance Estimate)*, U.S. Bureau of Economic Analysis (Apr. 29, 2020), <http://www.bea.gov/news/2020/gross-domestic-product-1st-quarter-2020-advance-estimate>.

As a result of the coronavirus-induced economic contraction, numerous studies have documented a collapse in energy demand in the United States. For example, on March 27, 2020, early in the pandemic's spread in the United States, the Electric Power Research Institute issued an analysis documenting the collapse in demand for electricity and reductions in peak demand of up to 7% in the states that were hit first by the coronavirus. *See Elec. Power Res. Inst., COVID-19 Bulk System Impacts* (Mar. 27, 2020), <http://mydocs.epri.com/docs/public/covid19/3002018602R2.pdf>. As the pandemic has spread throughout the United States, so has economic disruption and a reduction in energy demand. For example, the Edison Electric Institute issued a report that electricity demand has now fallen 5.7 percent to date, to its lowest level in sixteen years.

Scott DiSavino, *COVID-19: America Hasn't Used This Little Energy in 16 Years*, World Economic Forum (Apr. 14, 2020), <http://www.weforum.org/agenda/2020/04/united-states-energy-electricity-power-coronavirus-covid19/>.


The U.S. Energy Information Administration is forecasting sharp contractions in commercial and industrial retail sales of between 4-5%, and an overall reduction in electricity demand. *Short-Term Energy Outlook*, U.S. Energy Information Administration (Apr. 7, 2020), <http://www.eia.gov/outlooks/steo/>. This echoes the International Energy Agency's forecast of a 5% decline in demand. *Global Energy Review 2020*, International Energy Agency (Apr. 2020), <http://www.iea.org/reports/global-energy-review-2020/electricity#abstract>. Moreover, research to date indicates the contraction in demand specifically impacts morning peaks in demand, which is what Alabama Power cites as the need that is driving its request for 2400 MWs of capacity resource acquisitions. McGara Dewan, *See How Coronavirus Is Transforming Power Demand in MISO and the Northeast*, GTM (Apr. 8, 2020), <http://www.greentechmedia.com/articles/read/hourly-data-from-miso-and-the-northeast-shows-coronavirus-impact-on-demand> (“[T]he rate of increase in load from 5 a.m. to 9 a.m. has declined”). Wood Mackenzie forecasts the loss of demand will be significant and will last through 2021, as the economy enters a sharp recession. Rob Whaley & Paul Taube, *WoodMac: Coronavirus Will Undercut North American Power Demand Through 2021*, GTM (Apr. 7, 2020), <http://www.greentechmedia.com/articles/read/coronavirus-will-undercut-power-demand-from-east-to-wecc>. In ERCOT, for example, Wood Mackenzie is predicting a loss of 4.6 gigawatts of demand in 2020, and 2.1 gigawatts in 2021. *Id.*

Also, as recent history indicates, Alabama Power's plans and need for new capacity may change due to an economic recession. In its 2013 Integrated Resource Plan (IRP), Alabama Power cited the Great Recession of 2008-2009 as the reason why its capacity needs shifted to years later:

“[T]he indicated need for new capacity as early as 2022 in the 2010 IRP has moved out to later years due to the impacts of the Great Recession on the load forecast.” Ex. 2, at 1. The U.S. Federal Reserve has already indicated that the U.S. economy may well be in a recession. Nick Timiraos, *Powell Says Economy May be in Recession, Virus will Dictate Timetable* (March 26, 2020), <https://www.wsj.com/articles/powell-says-economy-may-be-in-recession-virus-will-dictate-timetable-11585222769>.

Given Alabama Power’s request in its Petition for an unprecedented increase in its overall capacity resources, at a time of significant upheaval in the industry and in electricity demand, Intervenor respectfully request that the Commission allow supplemental briefs and issue a scheduling order, consistent with the attached Proposed Order, attached as Exhibit 1, that allows the parties to more fully brief the potential for the coronavirus pandemic to impact Alabama Power’s perceived need for an additional 2,400 MW of capacity resources.

Respectfully submitted this 1st day of May, 2020.


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CERTIFICATE OF SERVICE

I hereby certify that on May 1, 2020, I served the foregoing *Joint Motion for Supplemental Briefing and Request for a Briefing Schedule* via electronic mail to the parties below:

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Keith Johnston

Exhibit 1

**BEFORE THE
ALABAMA PUBLIC SERVICE COMMISSION**

**IN RE: Petition for a Certificate of
Convenience and Necessity by
Alabama Power Company**

Docket 32953

PROPOSED ORDER

At issue in Docket No. 32953 is the Alabama Power Company's petition for a certificate of convenience and necessity ("Petition") with this Commission under section 37-4-28, Code of Alabama, seeking to add approximately 2,400 megawatts ("MW") of new generation resources to meet an asserted need for a 25.25 percent winter target reserve margin to address the potential for peak winter loads between the hours of six and eight a.m. on weekday mornings. Since the inception of Docket No. 32953, the nationwide demand for energy has been greatly impacted by the coronavirus pandemic. The pandemic will likely affect the volume of demand on Alabama Power's grid, and the timing of that demand.

IT IS, THEREFORE, ORDERED BY THE COMMISSION, that the parties shall file briefs on the pandemic's potential impact on the timing and scope of demand, and the resulting need for capacity resources, as reflected in Alabama Power's Petition, as follows:

On June 1, 2020, Alabama Power shall file a brief identifying the potential impact of the pandemic on the timing and scope of its demand, and its resulting need for capacity resources, as reflected in its Petition;

On July 1, 2020, Intervenors may file briefs in response to Alabama Power's brief, addressing the potential impact of the pandemic on the timing and scope of Alabama Power's demand, and its resulting need for capacity resources, as reflected in its Petition; and

On August 1, 2020, Alabama Power may file a reply brief.

DONE at Montgomery, Alabama, this ____ day of _____, 2020.

Exhibit 2

ALABAMA POWER COMPANY

2013 INTEGRATED RESOURCE PLAN

PUBLIC SUMMARY REPORT

Executive Summary

As identified in the 2010 IRP and continuing as key elements of the 2013 Integrated Resource Plan, the Company included the return of 1,220 MW of UPS capacity to the system in 2010, the continuing environmental de-rating of coal units between 2010 and 2017 (68 MW), the expiration of the Harris PPA in 2010 (627 MW), the extension of the Calhoun PPA through the end of 2022 (632 MW), and the procurement of renewable resources between 2011 and 2015 (25 MW). Also, the indicated need for new capacity as early as 2022 in the 2010 IRP has moved out to later years due to the impacts of the Great Recession on the load forecast. In the 2013 IRP, the Alabama Power Company fleet will continue to operate throughout the 20 year planning horizon. The additional generation capacity required to maintain an appropriate minimum planning reserve margin to meet customers' projected electrical demand throughout the remainder of the planning horizon will now be added beginning in 2030.

Since the IRP is a dynamic process by which the Company is continuously re-evaluating the optimal mix of supply-side and demand-side resources, subsequent IRPs may reflect changes in the scheduling and technology type for both supply-side and demand-side resource additions beyond 2013.

I. INTRODUCTION

Alabama Power Company ("Alabama Power" or "Company") is an investor-owned electric utility, organized and existing under the laws of the State of Alabama. It is primarily engaged in generating, transmitting and distributing electricity to the public in a large section of the State of Alabama, and its retail rates and services are regulated by the Alabama Public Service Commission ("APSC").

The purpose of this document is to present Alabama Power's 2013 Integrated Resource Plan ("IRP") and to describe the process used in its development. The IRP is a schedule that, based on the best information reasonably available to the Company, reflects the optimal mix of supply-side and demand-side resources needed to meet the expected electrical requirements of its customers, consistent with its duties and obligations to the public as a regulated public utility. The process used by Alabama Power to develop the IRP comports with the provisions of the Public Utility Regulatory Policies Act of 1978, as amended, which contemplates the use of appropriate integrated resource planning by electric utilities.

The Company has approximately 1.4 million customers, of which approximately 86% (1.24 million) are residential; 13% (196,000) are commercial; and 0.5% (6000 industrial and 500 other) are industrial and other. Alabama Power has approximately 1.5 million transmission and distribution poles, and approximately 83,000 miles of wire. The Company is committed to providing cost-effective and reliable service to its customers. For the years 2010 – 2012, the Company had a service reliability of 99.97%. Alabama Power has a diverse fleet of generation resources which includes: hydro, natural gas, nuclear, coal, demand-side programs, combined heat and power, purchase power agreements and other resources.

The Company participates in a pooled operation of generating resources along with the other Operating Companies of the Southern electric system (Georgia Power, Gulf Power, Mississippi Power, and Southern Power). There are well-recognized advantages to be gained from operating in such a manner. In order to maximize these benefits, the planning of additional resource facilities is done on a coordinated basis. Although Alabama Power participates in this coordinated planning process, the Company remains the final decision-maker on any resource additions that it may require.

Cogeneration / Combined Heat and Power ("CHP")

Throughout its history, Alabama Power has always focused on listening to and working with its customers in the development of its plans to reliably and cost-effectively meet the load obligations of all its customers under the state's regulatory rules and processes. For the Company's large commercial and industrial customers, these plans include efforts directed toward the management of rates and loads, and in some cases, the consideration of cogeneration/CHP

options. For such options to be viable, however, they must offer positive benefits, not only to the individual customer, but all customers in general. Alabama Power, its customers, and the APSC have successfully worked together to meet this objective.

Currently, the Alabama Power system includes approximately 1500 MW of customer-owned generation and more than 500 MW of Company owned CHP generation. The customer-owned generation has allowed Alabama Power to avoid the need and the associated costs of adding approximately 1700 MW of new generation. Cogeneration and CHP have been options for the Company for many years.

During the 1990's, when the Company needed to add new generation to reliably meet the load obligations of its customers, Alabama Power was able to develop new generation resources near certain customer facilities. These new generating facilities provided cost-effective capacity and energy to all of its customers while providing steam to the specific customers at the locations. More recently, the Company has used a program authorized by the APSC to certify two PPAs for rights to capacity and energy from two customer-owned CHP facilities.

The Company's success in identifying CHP projects that are expected to bring benefits to all customers in part is attributable to the recognition by the APSC that resource and capacity additions do not follow a one-size-fits-all approach. This is particularly so with CHPs, where a good working arrangement between all parties is essential for these projects to be developed, and where an adaptive regulatory process is critical to the project's success.

Environmental Matters

Compliance costs related to federal and state environmental statutes and regulations could affect earnings if such costs cannot continue to be fully recovered in rates on a timely basis. Environmental compliance spending over the next several years may differ materially from the amounts estimated. The timing, specific requirements, and estimated costs could change as environmental statutes and regulations are adopted or modified. Further, higher costs that are recovered through regulated rates could contribute to reduced demand for electricity and impact the Company's forecast of customer loads.

The Company's operations are subject to extensive regulation by state and federal environmental agencies under a variety of statutes and regulations governing environmental media, including air, water, and land resources. Applicable statutes include the Clean Air Act; the Clean Water Act; the Comprehensive Environmental Response, Compensation, and Liability Act; the Resource Conservation and Recovery Act; the Toxic Substances Control Act; the Emergency Planning and Community Right-to-Know Act; the Endangered Species Act; and related federal and state regulations. Compliance with these environmental requirements involves significant capital and operating costs, a major portion of which is expected to be recovered through existing ratemaking provisions. Through 2012, the Company had invested approximately \$3.0 billion in environmental capital retrofit projects to comply with these requirements, with

annual totals of approximately \$62 million, \$34 million, and \$130 million for 2012, 2011, and 2010, respectively. The Company expects base level capital expenditures to comply with existing statutes and regulations, including capital expenditures and compliance costs associated with the EPA's final Mercury and Air Toxics Standards (MATS) rule, will total approximately \$1.0 billion from 2013 through 2015, with annual totals of approximately \$195 million, \$424 million, and \$411 million for 2013, 2014, and 2015, respectively.

Compliance with any new federal or state legislation or regulations relating to air quality, water, coal combustion byproducts, global climate change, or other environmental and health concerns could significantly affect the Company and its need for resource additions. Additionally, many of the Company's commercial and industrial customers may also be affected by existing and future environmental requirements, which for some may have the potential to ultimately affect their demand for electricity.

Compliance with the Clean Air Act and resulting regulations has been and will continue to be a significant focus for the Company. Since 1990, the Company has spent approximately \$2.7 billion in reducing and monitoring emissions pursuant to the Clean Air Act. Additional controls are currently planned or under consideration to further reduce air emissions, maintain compliance with existing regulations, and meet new requirements.

On February 16, 2012, the EPA published the final MATS rule, which imposes stringent emissions limits for acid gases, mercury, and particulate matter on coal- and oil-fired electric utility steam generating units. Compliance for existing sources is required by April 16, 2015, unless a one-year compliance extension is granted by the state or local air permitting agency.

The Company has developed and continuously updates a comprehensive environmental compliance strategy to assess compliance obligations associated with the existing and new environmental requirements discussed above. As part of this strategy, the Company has developed a compliance plan for the MATS rule which includes the construction of baghouses to provide an additional level of control on the emissions of mercury and particulates from certain generating units, the use of additives or other injection technology, and the use of existing or additional natural gas capability. Additionally, certain transmission system upgrades may be required.

In January 2013, the EPA released its revised RICE/NESHAP rules pertaining to customer-owned generation. These new rules impact customers who participate in Alabama Power's Stand-by Generator program. This program, which has been in service for 20 years, has allowed the Company to utilize these stand-by generators in times of critical peak operations. The limited use of these customer-owned generators has allowed the Company to avoid building its own resources, which has helped to avoid higher rates for all customers. Unfortunately, the new EPA rules have put significant restrictions on the customers' use of their generators. In response to these new rules, Alabama Power has worked with the APSC to revise the related Stand-by Generator tariff to give participating customers additional flexibility. The ongoing impact to this

program is not known at this time, but the Company expects a reduction in the growth of this demand-side option.

Integrated Resource Plan (IRP)

In order to anticipate future energy requirements and electrical demands of the customers served by Alabama Power, a load forecast is developed which includes a 20-year projection of the expected growth in customer requirements. Alabama Power then develops an IRP that reflects, using the best information reasonably available to the Company, the optimal mix of supply-side and demand-side resources to meet this projected load growth in a cost effective manner that benefits the Company's customers and the state as a whole.

The IRP is updated on a triennial basis, although from time to time circumstances may prompt the development of an interim IRP. The IRP and its underlying details are reviewed with the APSC staff. This review keeps the APSC informed as to the Company's plans and helps to ensure that the process serves its ultimate goals of minimizing rates and providing the desired level of service reliability. These goals are important because they allow the Company to be competitive with other energy providers and promote economic development within the State of Alabama.

This report summarizes information and results on the Integrated Resource Planning process at Alabama Power. It includes a brief overview of the process and an executive summary of the results.

II. INTEGRATED RESOURCE PLAN SUMMARY

II.A. Overview

Alabama Power Company's integrated resource planning process is designed to meet the long-term projection of the expected growth of its customers' energy and demand requirements. The goal of the IRP is to have an effective plan and strategy in place that provide for reliable service that meets or exceeds legal requirements and accounts for risk at the lowest practical cost.

The IRP, which has a 20-year planning horizon, is a tool used by the Company to inform management when a reliability based resource addition appears to be needed and the indicated optimal mix of resources that meets the customers' future load requirements. Using the best information currently available at the time of its development, the IRP provides the basis for estimating potential capital expenditures that may be required for future generating capacity additions. In the IRP, both supply-side and demand-side options are evaluated and integrated on a consistent basis through the use of marginal cost analysis. This approach ensures that both supply-side and demand-side options are included in the IRP when it is economic to do so.

As shown in Figure 1, integrated resource planning is a dynamic process that continuously evaluates existing and potential resources in an effort to identify the best combination, in terms of reliability and expected total cost for serving customers. The principal components in the process are as follows:

Update Marginal Cost Projections Based on Latest IRP

Marginal cost projections are derived using the previous IRP. These projections are then updated to recognize any significant changes in costs such as fuel, technology and regulatory compliance.

Load Forecast

A forecast of future energy and demand requirements for the next 20 years is developed. This forecast incorporates the Company's best estimate of future economic conditions and trends in customer energy usage.

Marginal Cost Demand-Side Evaluations

Demand-side options (DSOs) are evaluated on a marginal cost basis. This procedure establishes a set of cost-effective DSOs for inclusion in the IRP.

Marginal Cost Supply-Side Evaluations

Marginal cost evaluations are performed to determine if modifications to existing resources, new self-build resources and/or power purchases from other suppliers are economically viable.

Resource Mix Analysis and Benchmark Evaluations

This part of the IRP process involves the development of an optimum resource mix. The resource mix is a flexible, iterative analysis that allows for integration of the appropriate combination of resources that meet the projected load at the lowest expected total cost (both fixed and variable), while maintaining a minimum target reliability guideline. This step includes sensitivity analyses to establish boundaries within which the conclusions of a benchmark plan remain valid.

The resource mix analysis incorporates the impacts of existing and projected DSOs, revised load information, and updated cost information (including fuel, capital, operation and maintenance). It also incorporates the most recent information on the characteristics of existing resources, both supply-side and demand-side.

The flexibility of the IRP process allows insertion of marginal cost results from the supply-side or demand-side options in any sequence. The result is a benchmark plan from which the most cost-effective Integrated Resource Plan can be determined in an integration step.

In planning future resource additions, consideration is given to uncertainties associated with unforeseen unit outages, weather and load forecast deviations. In order to minimize the effects of these uncertainties, criteria are established that qualify and quantify an appropriate minimum level of capacity reserves. These reserves are planned to be available so as to account for the potential inability to meet load requirements due to generation shortfalls resulting from uncertainties associated with resource planning. The criteria are called reserve criteria and are specified as margins. The minimum long-term target reserve margin guideline, which is periodically reviewed and re-evaluated, is based on economic analyses, operating experience and system operation input, and seeks to minimize the combined cost of new generating capacity and the customers' cost of outages. The Operating Companies of the Southern electric system currently use a minimum long-term target planning reserve margin guideline of 15% for resource planning. The most recent target reliability reserve margin study was completed in 2012.

By virtue of load diversity across the Southern electric system, the minimum long-term 15% target reserve margin can be met if each Operating Company maintains a minimum long-term reserve margin of at least 13.5%. In other words, Alabama Power's participation in pooled operations enables it to maintain a lower reserve margin than would be required if it operated on a stand-alone basis. Thus, the Company has the same level of reliability to meet its customers' load requirements while avoiding the cost of building or purchasing additional generation resources. Maintaining the appropriate level of generation reserves minimizes the combined cost of new generating capacity, reliability energy purchases and the customers' cost of outages. These capacity savings represent one of the recognized benefits of operating as a pool.

Integration

Demand-side and supply-side options identified as cost-effective choices for resource additions, but not previously reflected in a benchmark plan, are incorporated into the IRP in the integration phase. This phase consists of determining the Company's best alternative for meeting the resource needs identified in the benchmark plan, coordinating resource additions with those of other system companies, and performing a financial assessment of the plan.

The process described above is not necessarily set forth in chronological order. Many evaluations are performed concurrently. Marginal cost evaluations can be performed or updated at several points in the process. Figure 2 describes a typical progression of the IRP process.

II.B. SUMMARY OF RESULTS

This section presents a summary of the results of the 2013 integrated resource planning process, with the output being the 2013 Integrated Resource Plan. Key elements of the plan for the Company include the following:

- A significant change to the 2013 IRP is the delay of the next resource addition from 2022 to 2030. In the 2010 IRP, the Company showed a need for new peaking resources in 2022 and a need for intermediate resources in 2025. In the 2013 IRP, the peaking need is delayed until 2030 and the new intermediate resource need is beyond the planning horizon. There are no resource needs for baseload generating technologies in the scope of this 20 year planning study. These delays were in most part due to (1) the effects of the Great Recession on the economy in lower forecasted loads, (2) the return of the Miller UPS capacity in 2010 (1220 MW), and (3) the extension of the Calhoun purchase power agreement. The latter two items were identified in the 2010 IRP.

- The significant resource additions to the 2013 IRP from the 2010 IRP are (1) the certification of the AbiBow PPA (15 MW), (2) the certification of the Westervelt PPA (7.5 MW), (3) the certification of the Chisholm View PPA (202 MW), and (4) the certification of the Buffalo Dunes PPA (202 MW). The AbiBow PPA started on 6/1/2011 and ends on 6/30/2016. The Westervelt PPA started on 12/7/2011 and ends on 12/31/2021. The Chisholm View PPA started on 12/7/2012 and ends on 12/31/2032. The Buffalo Dunes PPA is scheduled to start on 1/1/2014 and end on 12/31/2033. The AbiBow PPA and Westervelt PPA involve capacity and energy from a biomass resource; the Chisholm View and Buffalo Dunes PPAs entitle the Company to up to 202 MW from each wind project. Under the PPAs, the Company has obtained the environmental attributes, including Renewable Energy Credits (RECs) associated with the energy. For these and other projects that provide Alabama Power with the right to RECs, Alabama Power Company retains the flexibility to retire RECs and serve its customers with renewable energy, or to sell RECs, either bundled with energy or separately, to third parties.
- As seen in the 2010 IRP, the 2013 IRP reflects certain unit de-ratings for environmental measures (scrubbers and SCRs). This causes the Company's coal fleet to be derated a total of 9 MW between 2013 and 2017.
- As seen in the 2010 IRP, the Plan had 25 MW of Renewable Resources identified, which was largely filled by the Westervelt and AbiBow PPAs as part of the Modified Block Process approved by the Commission. The 2013 IRP continues to incorporate a strategy to proactively pursue acquisition of economically viable renewable resources as a cost-effective hedge for environmental concerns, compliance and other customer-driven needs. The 2013 IRP has a total of 25 MW of unidentified renewable resources being added by 2017. Should any of these unidentified renewable resources develop into PPAs, the Company anticipates seeking the appropriate level of Commission approval.
- Other significant changes are the termination of the Harris PPA in 2010 (627 MW), and the Farley 1 and 2 nuclear unit uprates in 2011 (24 MW) and 2012 (24 MW).
- There were no other significant additions / decreases to the Alabama Power Company system expansion since the 2010 IRP.

Based on the Company's current load forecast and target minimum planning reserve margin guideline, additional resources will be needed to meet expected customer requirements beginning in 2030.

The remainder of this section will provide more details on the resource additions shown by the plan and the customer requirements that drive them.

Load Forecast

The Load Forecast is developed using complex models based on near-term and long-term economic indicators and expected electrical usage of the Company's customers. The historical and forecasted peak demands and growth rates are changing very little for the next 20 years. Accordingly, the expected average annual demand growth will continue to be very small.

Reserve Margin

At the present time, the Operating Companies of the Southern electric system have established a collective minimum long-term target planning reserve margin guideline of 15%. As noted above, peak load diversity enables the system to meet the 15% target reserve margin guideline if each Operating Company maintains a reserve margin of at least 13.5%. These planning reserves protect against a shortfall in capacity and a loss of load due to unforeseen future events, such as machine outages, greater than expected load growth or unusual weather. Maintaining an appropriate level of generation reserves also minimizes the combined cost of new generating capacity, reliability energy purchases and the customers' cost of outages.

Based on the current load forecast, the Company has sufficient resources to provide an appropriate level of reserves to meet customers' electrical needs through 2029. Given the projected reserve margin levels, the Company expects to be able to manage any capacity concerns associated with uncertainties surrounding environmental issues. Beginning in 2029, the Company's reserve margin is projected to fall below the diversified minimum target planning reserve margin (13.5%). The projected capacity deficit below target in 2029 is not large enough to result in a resource addition. By 2030, however, Alabama Power is projected to have a need to add new resources to maintain an appropriate minimum level of planning reserves.

In sum, the 2013 IRP indicates that, through 2029, the Company will have generation resources sufficient to maintain the minimum target planning reserve margin required to meet customers' electrical needs in a reliable and cost-effective manner.

IRP Description

The process that led to the development of the 2013 IRP included consideration of demand-side and supply-side options. Detailed analyses were performed on viable options to ensure that cost-effective resource options were chosen to meet projected load growth and satisfy the appropriate reliability criteria.

The resources identified for the 2013 IRP are summarized below:

Demand-Side Options

The 2013 IRP includes approximately 1640 MW of existing demand-side programs that have allowed the deferral of 1323 MW of supply-side resource capacity. The difference between the nominal values shown for the demand-side programs and the associated supply-side resource capacity deferrals is due to the lower availability of a demand-side option, as compared to a supply-side resource. The capacity deferral megawatts are directly controllable, in terms of ability to operate, by the Company (e.g., non-residential interruptible load) and are called "Active DSOs". The DSOs associated with customer energy use patterns (e.g., equipment SEER efficiency increases, insulation/infiltration upgrades) are called "Passive DSOs." The Passive DSOs serve to reduce expected peak load and consequently are embedded in the Company's load forecast. Existing passive DSO programs have resulted in a peak load reduction of 272 MW. Therefore, the total amount of existing DSOs in the IRP is 1640 MW plus 272 MW, for a total of 1912 MW.

Purchased Power

Purchase power contracts are evaluated along with supply-side and demand-side generating resource options to determine the most economic and reliable resource to meet our customers' energy needs. Short-term power purchases are used when appropriate to meet short-term capacity needs.

Renewable Resources

In the 2013 IRP, a small amount (25 MW) of additional Renewable Resources has been included as a resource expansion option. These resources have been placed in the plan as placeholders to address potential environmental concerns, compliance, and contingencies rather than reliability margins. As these resource options materialize, either through a Company RFP or by other means, a determination is made to their economic viability as compared to other options for Alabama ratepayers. The opportunity for 25 MW of Renewable Resources has been represented between years 2013 and 2017 in the 2013 IRP.

Future Generation

Long term purchase power contracts are evaluated and compared to other generation options so that the most cost-effective and reliable generation resources are selected to meet our customers' electrical needs. This process, for example, resulted in the selection of the Harris PPA and the Calhoun PPA for certification by the APSC. Alabama Power will continue to evaluate purchase

power options as a part of its IRP process, with the goal being to provide customers with reliable energy at the lowest practical cost.

Based on the current load forecast, increases in customer electrical demand through 2029 can be met with the Company's existing generation and demand-side resources. Beginning in 2030, the 2013 IRP indicates that additional generation capacity will be required to meet forecast increases in customer electrical demand throughout the remainder of the planning horizon.

Since the IRP is a dynamic process by which the Company is continually re-evaluating the optimal mix of supply-side and demand-side resources, subsequent IRPs may reflect changes in the scheduling and technology type for both supply-side and demand-side resource additions beyond 2013.

Uncommitted Resource Options

Assumptions for cost, performance, design maturity, regulatory approval, and other parameters for uncommitted resource options continue to change. The following list represents, but is not all-inclusive of, resource technology options that may be selected in the future.

Peaking

- Demand-Side Options
- Power Purchases
- Combustion Turbine
- Diesel Generator
- Photovoltaic
- Wind Turbine
- Advanced Battery
- Cogeneration / CHP
- Superconducting Magnetic Energy Storage

Intermediate

- Demand-Side Options
- Power Purchases
- Combined Cycle
- Cycling Coal
- Pumped Storage Hydro
- Cogeneration / CHP
- Repowering
- Compressed Air Energy Storage

Base

- Demand-Side Options
- Power Purchases
- Nuclear
- Conventional Pulverized Coal – Super Critical and Ultra Super Critical
- Conventional Pulverized Coal – Super Critical and Ultra Super Critical w/CCS
- Integrated Gasification Combined Cycle
- Fuel Cells
- Landfill Gas
- Wood
- Cogeneration / CHP
- Repowering

Conclusion

Based on the load forecast used for this IRP, customers' electrical requirements through 2029 can be met reliably with the Company's existing generation and demand-side resources. With the exception of a small amount of renewable resources discussed above, no new generating resources are planned through 2029. The Company will have some existing coal capacity derated for environmental measures through 2017, but those derates should not trigger any near-term resource additions. Beginning in 2030, the IRP indicates that additional resources will be needed to meet projected customer electrical requirements for the remainder of the planning horizon.

FIGURE 1
ALABAMA POWER COMPANY
INTEGRATED RESOURCE PLANNING PROCESS

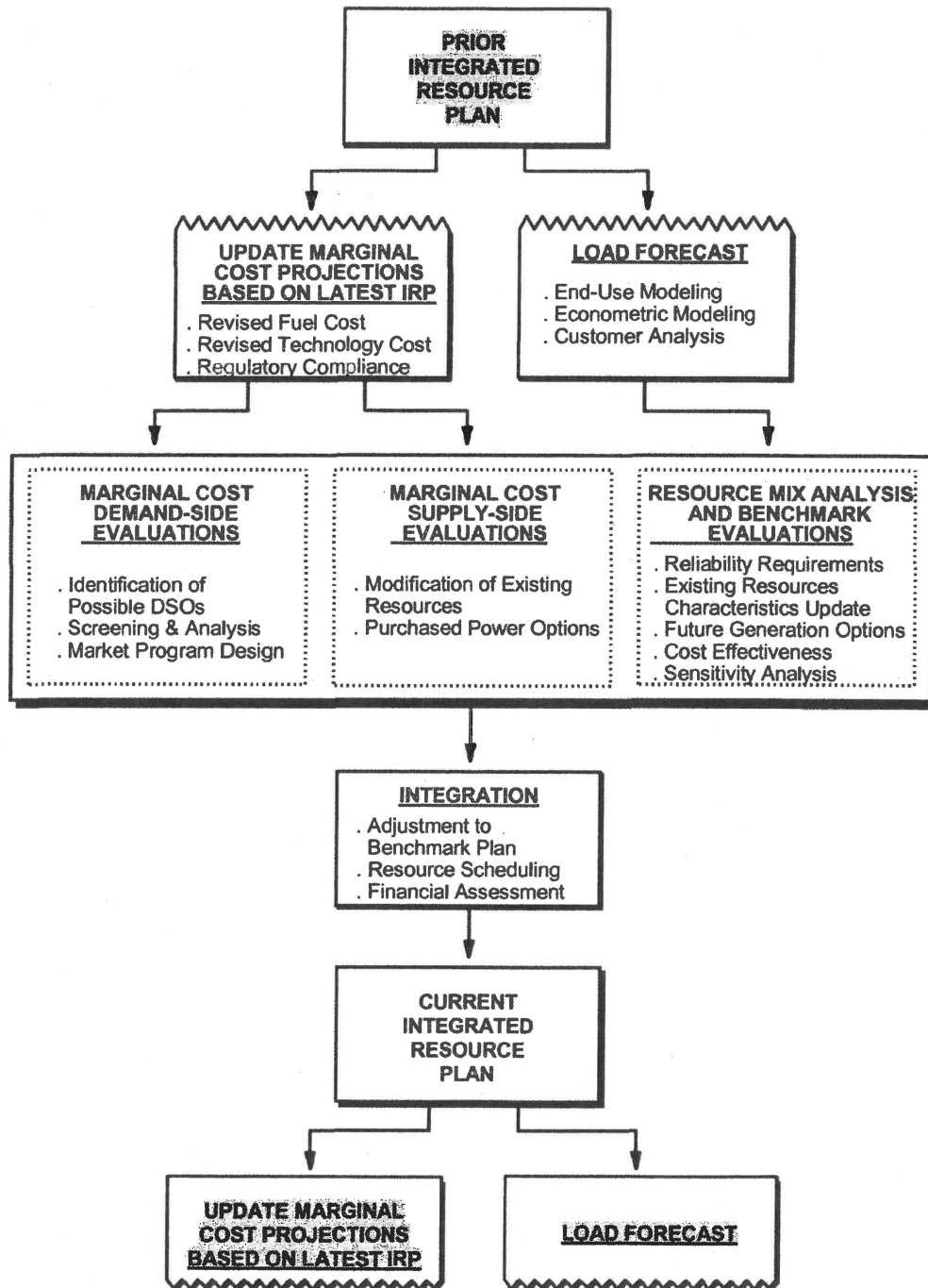


FIGURE 2

**TYPICAL PROGRESSION OF KEY ACTIVITIES
RELATED TO THE DEVELOPMENT OF THE
INTEGRATED RESOURCE PLAN**

Marginal Cost Projection Update

Preliminary System-Wide Fuel Price Workshop

Supply-Side Technology Issues Reviewed

Demand-Side Option Screening and Analysis

Planning Issues Identified

Preliminary Planning Assumptions Established

Preliminary System-Wide Fuel Forecasts

Technology Panel Review

Candidate Unit Assumptions Established

Load Forecast Finalized

Demand-Side Option Forecast Finalized

Planning Assumptions Reviewed and Finalized

Resource Mix Analysis Process

Preliminary IRP Review

Benchmark Plan Completed

Financial Assessment

IRP Approval