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**Alabama Power Company,
Petitioner**

Petition: For a certificate of convenience and necessity for: (i) the construction and installation of combined cycle generating capacity at the site of Petitioner's Barry Steam Plant located in Mobile County, Alabama; (ii) the acquisition of existing combined cycle generating capacity in Autauga County, Alabama; (iii) the acquisition of rights and the assumption of payment obligations under a power purchase agreement for the output of combined cycle generating capacity operated in Mobile County, Alabama; and (iv) the acquisition of rights and the assumption of payment obligations under power purchase agreements for the output from five solar photovoltaic and battery energy storage systems, located in Calhoun, Chambers, Dallas, Houston and Talladega Counties; together with all transmission arrangements, structures, substations, and facilities, environmental control measures, facilities or arrangements for the handling, treatment, transportation, delivery and processing of fuel, and any and all other appliances, appurtenances, facilities, rights, equipment, acquisitions, commitments and accounting authorizations necessary for or incident thereto.

Docket 32953

ORDER

BY THE COMMISSION:

This matter comes before the Commission by virtue of the petition for a certificate of convenience and necessity (the "Petition") filed by Alabama Power Company ("Alabama Power" or "the Company") under Section 37-4-28, Code of Alabama. By the Petition, Alabama Power seeks authorization to secure rights to approximately 2,400 megawatts ("MW") of electric generation capacity, through a portfolio of resources that includes the construction of a new combined cycle unit at Plant Barry ("Barry Unit 8"); the acquisition of an existing combined cycle unit known as the Central Alabama Generation Station ("Central Alabama"); the entry into power purchase agreements ("PPAs") that afford the Company entitlement to the capacity and energy output from one existing combined cycle unit known as the Hog Bayou Energy Center ("Hog Bayou") and from five planned solar photovoltaic and battery energy storage systems ("Solar/BESS"), located in Calhoun, Chambers, Dallas, Houston and Talladega Counties; and the pursuit of approximately 200 MW of demand-side management and distributed energy resource programs.

The filing was duly noticed and, in accordance with statutory requirements, a public hearing involving all interested parties was held, following the allotment of time for written and document discovery by intervening parties, a cycle of responsive and rebuttal testimony by the intervening parties and Alabama Power, and the deposing of all Company witnesses and certain intervenor witnesses.

On the basis of the record compiled in this case, including said testimonial submissions, the written and document discovery provided to the Commission Staff, properly designated deposition transcript excerpts, and the testimony and exhibits received at the hearing, along with other information available to the Commission, we find the Petition to be substantially supported by the evidence and in furtherance of Alabama Power's duties to its customers as a public utility operating within the State of

Alabama and under the jurisdiction of this Commission. Accordingly, we conclude that Alabama Power Company has demonstrated a need for additional capacity and presented evidence demonstrating that certain resources proposed by the Company represent a reasonable means by which the Company can meet this need in a reliable and economic manner.

Accordingly, the Commission approves the issuance of a certificate of convenience and necessity for: the construction of Barry Unit 8; the acquisition of Central Alabama Generating Station located in Autauga County; the PPA for Hog Bayou located in Mobile County; and the authority to pursue up to 200 MW of demand-side management and distributed energy resource programs. The Commission further approves that the cost of Barry Unit 8 shall be capped at no more than 5 percent above its projected cost.¹ While declining to certify the Solar/BESS projects proposed in this proceeding as reliability resources, the Commission recommends that the Company go forward with an evaluation of those projects under Docket 32382 (Renewable Generation Certificate or "RGC"), subject to the criteria set forth therein.²

I. PROCEDURAL HISTORY

On September 6, 2019, Alabama Power filed the Petition requesting the issuance of a certificate of convenience and necessity for the construction of a new combined cycle unit at the site of the Barry Steam Plant; the acquisition of the Central Alabama Generating Station, an existing combined cycle unit

¹ More specifically, the cost of Barry Unit 8 shall be capped at no more than 5 percent above the estimated in-service cost of the Barry Unit 8 project. It is understood, however, that unforeseen circumstances can arise with any project of the magnitude of Barry Unit 8. Therefore, the Company may, if necessary, submit documentation of costs incurred for Barry Unit 8 above the 5 percent cap for review by the Commission Staff and seek authorization from the Commission to incur costs above the 5 percent cap. The recovery of such additional costs will be allowed only if it is demonstrated that such additional costs were necessary and prudently incurred, which is the customary legal standard for such assessments.

² Specifically, if they desire to do so, the counter-parties to these projects should be allowed to submit their proposals (including any revised pricing or other modifications) for evaluation as part of the 2020 request for proposals process under Docket 32382. We note that the Renewable Generation Certificate evaluation criteria includes an assessment of avoided capacity cost. Given our concerns over the reliability and dispatchability limitations of these Solar/BESS projects, the Company should exercise an appropriate level of due diligence when assigning any such capacity value to these or similar projects in any future RGC evaluations.

in Autauga County; a PPA for the output of the Hog Bayou Energy Center, a combined cycle unit in Mobile County; several PPAs for the output of solar photovoltaic and energy storage facilities; and the authority to pursue up to 200 MW of demand-side management and distributed energy resource programs. Together, the proposed resources comprise approximately 2,400 MW of new capacity. In support of its Petition, the Company submitted the testimonies and exhibits of Mr. John Kelley, Mr. Jeffrey Weathers, Mr. Michael Bush, Mr. Brandon Looney and Ms. Christine Baker, which are detailed in the sections that follow. As contemplated under Section 37-4-28 of the Code of Alabama, Alabama Power also requested that the Commission hold a public hearing to consider the Petition. The Petition was duly noticed on September 9, 2019.

Petitions to intervene in this matter were timely filed by the following entities: the Office of the Alabama Attorney General (“Attorney General”), Alabama Solar Industry Association (“AlaSIA”), Alabama Industrial Energy Consumers (“AIEC”), Alabama Coal Association (“ACA”), American Senior Alliance, Energy Fairness.org, Southern Renewable Energy Association (“SREA”), Manufacture Alabama, Sierra Club, and Energy Alabama and Gasp (jointly, “Energy Alabama/Gasp”). Alabama Power challenged SREA’s petition on standing grounds, and SREA’s petition was denied by the Commission on November 13, 2019.³ The remaining petitions were granted in the Commission’s October 9, 2019 *Ruling Establishing Procedural Schedule* (“October 9 Ruling”).

The *October 9 Ruling* also instituted deadlines for the filing of intervenor testimony and Alabama Power’s rebuttal testimony, set a date for the requested public hearing, set a deadline for the filing of

³ On November 25, 2019, SREA filed a Petition for Reconsideration regarding its motion to intervene, alleging that SREA was being singled out relative to other intervening parties for its failure to identify any members with a direct interest in this proceeding. On December 18, 2019, the Commission issued a procedural ruling requiring the American Senior Alliance, Energy Fairness.org and Manufacture Alabama to identify members that are customers of Alabama Power or are otherwise impacted by the matters under consideration. All three of the aforementioned organizations made supplemental filings in compliance with the procedural ruling. Given SREA’s failure to establish standing (despite multiple opportunities to do so), its Petition for Reconsideration was denied on February 3, 2020.

post-hearing briefs and provided parameters for the undertaking of discovery. Beginning in late October and continuing into February, the parties engaged in a robust discovery process, encompassing multiple sets of interrogatories and document production requests (the overwhelming majority being directed to the Company), as well as depositions of all of Alabama Power's witnesses and three intervenor witnesses. As reflected by the record of filings in this proceeding, the parties appear to have conducted themselves professionally throughout the discovery process, as no motions to compel or other disputes were presented to the Commission for resolution by the Chief Administrative Law Judge. In addition, and consistent with past practice, the Company provided copies of its responses to the interrogatories and document production requests to Commission Staff for its review and consideration along with the testimonial record and exhibits in this case.

On November 25, 2019, Sierra Club filed an unopposed motion to extend by seven days the dates established for intervenor testimony, the Company's rebuttal testimony, the public hearing and post-hearing briefs. On November 26, 2019, the Commission entered an order modifying the testimony deadlines as requested. Thereafter, on December 13, 2019, the Commission issued an order rescheduling the hearing for February 18, 2020, and providing that the deadline for submission of post-hearing briefs would be addressed at the conclusion of the public hearing.

In December, the following intervenors submitted pre-filed testimony: AIEC (Mr. Jeffrey Pollock), AlaSIA (Ms. Maggie Clark), Energy Alabama/Gasp (Mr. John Howat, Mr. Karl Rábago and Mr. James Wilson), Manufacture Alabama (Mr. George Clark), and Sierra Club (Mr. Mark Detsky, Ms. Rachel Wilson and several witnesses to establish Sierra Club's standing to participate). On January 14, 2020, Alabama Power moved for a three-business-day extension of time for the submission of rebuttal testimony to January 27, 2020, and on January 21, 2020, the Commission granted its motion. On January

27, 2020, the Company filed rebuttal testimony, which included the testimonies of two additional witnesses, Ms. Maria Burke and Mr. Kevin Carden.

On January 22, 2020, Energy Alabama/Gasp and Sierra Club submitted a joint motion to request a prehearing conference to clarify hearing procedures, logistics and timing. On January 29, 2020, the Commission issued a procedural ruling granting the motion and setting the prehearing conference for January 30, 2020. During the conference, AIEC and Sierra Club requested that the public hearing be delayed, and on February 12, 2020, the Commission issued a *Ruling Rescheduling Hearing and Establishing Hearing Procedures* ("*February 12 Ruling*"), which rescheduled the hearing to begin on March 9, 2020. The *February 12 Ruling* also set deadlines for the conclusion of discovery and prehearing motions, and provided guidance for the conduct of the hearing. Finally, it required the submittal of certain information to the Commission regarding the use of confidential information at the hearing.

On March 2, 2020, Energy Alabama/Gasp submitted a motion seeking guidance concerning the admission of deposition testimony and requesting a prehearing conference call to discuss this matter. The same day, Energy Alabama/Gasp submitted a motion to amend the *February 12 Ruling* to allow for the narrowing of provisions restricting the use of social media. Also on March 2, 2020, Alabama Power and Sierra Club filed with the Commission a stipulation providing that Alabama Power would not oppose the entry of the above-referenced testimonies into the hearing record for the purpose of establishing Sierra Club's standing to participate and waiving cross-examination.⁴

On March 4, 2020, Sierra Club moved for the entry of an order denying Alabama Power's Petition at the conclusion of the public hearing. In its motion, Sierra Club argued that Alabama Power

⁴ Pursuant to this stipulation, these six testimonies were admitted into the record for this limited purpose. See Hearing Tr., page 1185.

failed to carry its burden of proof under Alabama Code § 37-4-28 in demonstrating that its proposed capacity additions are necessary and that the proposed expansion is the least-cost option for meeting its customers' needs.⁵ Sierra Club argued that the Company could continue to rely on the resources of its sister operating companies under the terms of the Southern Company System Intercompany Interchange Contract (the "IIC", sometimes referred to as the "Pool"), rather than pursuing new resources.⁶ In addition, Sierra Club contended that the resources proposed by the Company carry significant risks that the Company failed to analyze and that the Company did not consider other lower-cost, lower-risk options.⁷ On March 5, 2020, Alabama Power filed a notice deferring its response to Sierra Club's motion until the filing of post-hearing briefs.

In response to Energy Alabama/Gasp's request, also on March 4, 2020, the Commission issued a procedural ruling scheduling a pre-hearing conference call on March 5. Following the call, on March 6, 2020, the Commission issued an additional procedural ruling setting forth a process for the parties to designate deposition selections for entry into the record, among other matters.

A public hearing was held in the Commission's Main Hearing Room in Montgomery from March 9, 2020 through March 11, 2020. At the conclusion of the hearing, the Chief Administrative Law Judge directed the parties to submit their post-hearing briefs, in the form of proposed orders, by April 17, 2020. Following the hearing, as directed by the Commission, the parties engaged in a process to designate portions of deposition transcripts for entry into the record. On April 10, 2020, Energy Alabama/Gasp and Sierra Club filed a joint motion for a thirty-day extension in the briefing schedule, citing a delay in the posting of the hearing transcript and logistical restrictions attributable to the coronavirus pandemic

⁵ *Sierra Club's Motion to Deny Petition*, Docket No. 32953 (Mar. 4, 2020), at p. 2.

⁶ *Id.* pp. 3-5.

⁷ *Id.* pp. 5-9.

(or "COVID-19"). Alabama Power responded that same day, contending that a one-week extension was more reasonable. On April 14, 2020, the Commission granted the joint motion in part, extending the deadline for post-hearing briefs to May 1, 2020. Alabama Power, Sierra Club, Energy Alabama/Gasp, AlaSIA and AIEC each submitted post-hearing briefs in the form of proposed orders. The Attorney General of Alabama submitted a Response to Alabama Power Company's Petition.

On May 1, 2020, shortly after post-hearing briefs were filed, Energy Alabama/Gasp and Sierra Club filed a joint request for an extended supplemental briefing schedule to address possible impacts of COVID-19 on the Company's Petition. The Company opposed that request and the movants replied thereto. A procedural ruling was issued on May 28, 2020 partially granting the motion to permit limited supplemental briefs. Energy Alabama/Gasp and Sierra Club filed supplemental briefs on June 4, 2020. Alabama Power filed a response to those supplemental briefs on June 5, 2020. Energy Alabama/Gasp objected to this response on June 6, 2020. On June 22, 2020, Energy Alabama/Gasp filed a motion to supplement the record with certain additional materials. Alabama Power replied on June 23, 2020, providing context regarding those materials. The Commission has considered, and will include in the record, all of the materials proffered by intervenors subsequent to the submission of post-hearing briefs, as well as Alabama Power's replies thereto.

II. GOVERNING LEGAL STANDARDS

As this Commission has long recognized, one of the most fundamental obligations of a utility under our jurisdiction is the duty to render adequate service and maintain its facilities.⁸ The Legislature set forth this duty in Alabama Code § 37-1-49:

⁸ See, e.g., *In re Certificate of Convenience and Necessity (Barry Steam Plant)*, APSC Docket No. 26115, at page 2 (Dec. 31, 1997); *In re Certificate of Convenience and Necessity (Greene Co. Steam Plant)*, APSC Docket No. 21887, at page 2 (Jan. 24, 1992).

Every utility shall maintain its plant, facilities and equipment in good operating condition and shall set up and maintain proper reserves for renewals, replacements and reasonable contingencies. Every utility shall render adequate service to the public and shall make such reasonable improvements, extensions and enlargements of its plants, facilities and equipment as may be necessary to meet the growth and demand of the territory which it is under the duty to serve.⁹

This Legislative mandate is an integral part of Alabama Power's public utility function and is neither optional nor delegable.¹⁰

The Legislature requires Alabama Power to obtain a certificate of convenience and necessity prior to the construction of a new plant (except for ordinary extensions of existing systems in the usual course of business).¹¹ We are authorized to issue such a certificate in our discretion, with such conditions as we deem advisable. When exercising this authority, however, we are not to interfere with the proper operation of the utility as a business by usurping managerial prerogatives.¹² Moreover, management is presumed to act in good faith, and it is incumbent on those challenging a decision of management to

⁹ Ala. Code § 37-1-49; *see also* Ala. Code § 37-1-80(a) (requiring that the Commission, as part of its fixing rates that are just and reasonable both to the utility and the public, "give due consideration among other things to ... the necessity, under honest, efficient and economical management of such utility, of enlarging plants, facilities and equipment of the utility under consideration, in order to provide that portion of the public served thereby with adequate service."); *cf.* *APSC v. Southern Bell Tel. & Tel. Co.*, 42 So. 2d 655, 665 (Ala. 1949) (recognizing the Legislative mandate in section 52, Title 48, Code of 1940—what is now Ala. Code § 37-1-80(a)—is that "the utility is at all times required to furnish adequate service to the public and to construct plant and facilities for enlargement and improvement of its service."); *see also* *General Tel. Co. of Southeast v. APSC*, 335 So. 2d 151, 155 (Ala. 1976) (citing *Southern Bell*, *supra*, and stating "the plain holding of that case is that the law of this state ... [is] that the utility is at all times required to furnish adequate service to the public and to construct plant and facilities for enlargement and improvement of its service.").

¹⁰ *See In re Certificate of Convenience and Necessity (Barry Steam Plant)*, at page 2; *see also* *General Tel. Co. of Southeast*, *supra*, at 155.

¹¹ *See* Ala. Code § 37-4-28. Under our precedent, a certificate of convenience and necessity also is required for the acquisition of an existing generation facility such as Central Alabama. *See, e.g., In re Escambia Community Utils., LLC*, APSC Docket No. 32193 (Nov. 9, 2015). Similarly, Rate CNP and our precedent contemplate the issuance of a certificate of convenience and necessity for power purchase agreements. *See* Rate CNP, Explanatory Statement, page 1 of 11. Lastly, we would note that Alabama Power and Central Alabama's owners were required to obtain authorization from the Federal Energy Regulatory Commission ("FERC") for the transfer of the plant to Alabama Power. FERC issued that authorization on April 22, 2020. *See In re Tenaska Alabama II Ptrs., L.P., et al.*, FERC Docket No. EC20-4-000 (April 22, 2020).

¹² *See Alabama Power v. APSC*, 359 So. 2d 776, 780 (Ala. 1978); *see also* *South Central Bell Tel. Co. v. APSC*, 425 So. 2d 1093, 1096 (Ala. 1983) ("A commission is not empowered to substitute its judgment for that of the owners, who are responsible for the rendition of service, unless the owners have abused their discretion.").

overcome this presumption through substantial, affirmative evidence demonstrating that the decision is not in proper furtherance of the utility's duty.¹³

A decision of this Commission must be supported by substantial evidence, and may not contain prejudicial error in its application of the law to the facts.¹⁴ In evaluating the matter before us, we are not "rigidly bound to the recommendation of any particular witness", but instead sit "as an expert administrative body analyzing the evidence and exercising [our] own expert judgment thereon."¹⁵ The Commission may receive and consider evidence shedding some light on an issue, even if not traditionally "admissible" in a court of law.¹⁶ We also may take notice of our own orders and may rely upon our expert knowledge of factors and information known and available to us.¹⁷

III. FUNDAMENTAL ISSUES

In a certificate proceeding such as this, the Commission must make two fundamental determinations before it can lawfully grant Alabama Power's Petition. First, the Commission must be satisfied that the Company has shown a need for additional capacity. If the evidence supports this showing, the Commission must also determine that the evidence demonstrates that the resources proposed by the Company represent a reasonable means by which to satisfy the identified need. These fundamental issues, and the arguments and evidence of the parties relevant to each, are addressed below.

¹³ See *In re Certificate of Convenience and Necessity (Barry Steam Plant)*, at page 3; see also *Southern Bell Tel. & Tel. Co.*, *supra*, at 674.

¹⁴ See Ala. Code § 37-1-124; see also *APSC v. Cooper Transfer Co.*, 326 So. 2d 283, 287 (Ala. 1975); *Illinois Cent. R. Co. v. Thomas Alabama Kaolin Co.*, 153 So. 2d 794, 795 (Ala. 1963).

¹⁵ *Ala. Gas Corp. v. APSC*, 425 So. 2d 430, 435 (Ala. 1982).

¹⁶ See, e.g., *Alabama Power Co. v. APSC*, 179 So. 2d 725, 730 (Ala. 1965).

¹⁷ See *Illinois Cent. R. Co.*, *supra*, at 796-97; see also *Marshall Durbin & Co. of Jasper, Inc. v. Env'tl Mgmt. Comm'n*, 519 So. 2d 962, 965 (Ala. Civ. App. 1987) ("A decision of an administrative agency is not arbitrary or capricious where there is a reasonable justification for the decision or where it is founded upon adequate principles or fixed standards."); *In re Ala. Gas Corp.*, APSC Docket Nos. 18046 and 18328, 1990 WL 10091984 (APSC 1990) ("Even so, the Commission takes administrative notice of the fact that the rate increases called for by the RSE formula have never exceeded the 4% annual cap.").

Before we reach these issues, we first revisit a renewed accusation by Sierra Club that this Commission prejudged a portion of the Petition when it acted on Alabama Power's request for certain accounting treatment in Docket No. U-5316.¹⁸ In our order regarding the Company's request for accounting treatment related to preliminary expenditures at Barry Unit 8, and inherent in our denial of Sierra Club's Petition for Reconsideration of that order, this Commission expressly stated that such action would have no effect on our assessment of the merits of the Company's Petition relating to that proposed generating resource.¹⁹ In furtherance of this statement, we outlined certain considerations relating to applicable expenditures should the Petition for Barry Unit 8 be denied. Despite such clear expressions of Commission intent, Sierra Club has repeatedly argued that we adjudicated the proposal back in October 2019. We again affirmatively state that we did not, leaving it to Alabama Power to support its Petition through the submission of substantial, credible evidence in this proceeding.

As we observed at the outset, our decision here is predicated on the basis of an extensive record, including pre-filed testimony, discovery, designated deposition transcripts, and the testimony and exhibits received at the hearing. Our limited action on accounting matters in Docket No. U-5316 did not influence our assessment of this comprehensive record—nor could it have, given its entry months before the vast majority of this information was developed and presented. Rather, that earlier accounting order stands on its merits and only as to the discrete actions described therein. Accordingly, Sierra Club's position to the contrary was and remains wholly without merit.

¹⁸ See *Sierra Club's Motion to Deny Petition*, APSC Docket No. 32953 (Mar. 4, 2020), at p. 2 and n.7 (claiming it was error for the Commission to make a "guarantee of payment for Barry 8"); see also *Sierra Club's Petition for Reconsideration*, APSC Docket No. U-5316 (Oct. 31, 2019). The petition for accounting treatment by Alabama Power addressed in that docket concerned certain preliminary expenditures that Alabama Power viewed as necessary to ensure that Barry Unit 8 would be positioned to meet its targeted in-service date, should the Commission determine to grant a certificate of convenience and necessity for the unit.

¹⁹ See *In re Petition for Accounting Authorizations*, APSC Docket No. U-5316 (Oct. 1, 2019), pp. 3-4. In denying the Petition for Reconsideration, we rejected Sierra Club's claim that we had acted in contravention of Ala. Code §§ 37-4-28 and 37-1-96, or otherwise denied due process.

A. Need and Timing for Additional Capacity

In order to meet its statutory obligation to serve territorial customers in a reliable, efficient and economic manner, the Company must have sufficient generating resources both to meet the expected requirements of those customers and to provide an adequate margin of reserves.²⁰ Unlike prior needs-based requests for authority to secure additional generating resources, Alabama Power's reliability planning is no longer limited to the summer period, as reliability risk has arisen in the winter period as well, for reasons including changes in customer usage. Accordingly, the Company is proposing to transition to seasonal planning—*i.e.*, planning to target reserve margins of 16.25 percent for the summer peak season and 26 percent for the winter peak season.²¹ As of the winter of 2021, Alabama Power's winter reserve margin levels are projected to be approximately 10.1 percent, declining to as low as 5.2 percent by the winter of 2023.²²

1. Seasonal Planning and Alabama Power's Proposed Winter Target Reserve Margin

In further support of its reliability-based capacity need, Alabama Power presented evidence regarding the appropriateness of adopting seasonal planning and for targeting a 26 percent winter reserve margin. With respect to seasonal planning, Mr. Kelley confirmed that in recent years Alabama Power's winter peak demand has exceeded its summer peak demand, and that it is projected to continue to do so.²³ Mr. Kelley and Mr. Weathers explained in detail the circumstances prompting Alabama Power and the Southern system to focus on winter reliability risks. Mr. Kelley recounted the rolling winter

²⁰ Cf. Ala. Code § 37-1-49 ("Every utility shall maintain its plant, facilities and equipment in good operating condition and shall set up and maintain proper reserves for renewals, replacements and reasonable contingencies.").

²¹ As we have recognized in prior proceedings, and as the record here continues to support, Alabama Power benefits from load diversity through its participation in the Southern Pool. *See In re Certificate of Convenience and Necessity (Barry Steam Plant)*, at page 3. As a result, the Southern system target reserve margins can be met if Alabama Power maintains a 14.89 percent summer target reserve margin and a 25.25 percent winter target reserve margin. *See Direct Testimony of John Kelley*, page 9, lines 19-21.

²² *See Direct Testimony of John Kelley*, page 10, line 18 through page 11, line 3.

²³ *See id.*, page 8, line 18 through page 9, line 4.

blackouts in the ERCOT region in 2011 and the subsequent winter readiness guidelines promulgated by NERC.²⁴ Both he and Mr. Weathers also observed how the January 2014 Polar Vortex resulted in the further evaluation of winter reliability risks as part of the 2015 and 2018 Reserve Margin Studies.²⁵

Mr. Weathers provided the Company's primary substantiation for targeting a 26 percent winter reserve margin. Through both his direct and rebuttal testimony, Mr. Weathers explained the manner by which the 2018 Reserve Margin Study was performed and the purpose behind the analytical techniques employed. Among other topics, he elaborated on the components of the reserve margin study (as discussed in the study itself), including the economic optimum reserve margin ("EORM"), the appropriateness of applying a Value at Risk ("VaR") analysis to the EORM, and the importance of considering the reliability criteria of the 1:10 loss of load expectation ("LOLE").²⁶ Mr. Weathers also observed that, apart from the seasonal planning feature of the 2018 Reserve Margin Study, the fundamental methodology underlying the study remained consistent with that employed for the 2015 and the 2012 studies.²⁷

As part of its rebuttal case, Alabama Power also included testimony from Mr. Carden, a recognized independent expert in the area of reliability studies and Director of Astrapé Consulting. Mr. Carden's professional services focus on the performance of resource adequacy analyses for large utilities, regulatory agencies, and structured markets in North America. Mr. Carden uses the same modeling software as that used for the performance of the 2018 Reserve Margin Study (and previous ones): the

²⁴ See Rebuttal Testimony of John Kelley, page 5, lines 11-21.

²⁵ See *id.*, page 6, lines 1-8; see also Direct Testimony of Jeffrey Weathers, page 6, line 8 through page 8, line 13, and APC Ex. 1.

²⁶ See, e.g., Direct Testimony of Jeffrey Weathers, page 9, line 14 through page 10, line 18; Rebuttal Testimony of Jeffrey Weathers, page 6, line 1 through page 7, line 16; page 16, lines 7-16.

²⁷ See Direct Testimony of Jeffrey Weathers, page 10, lines 5-18.

Strategic Energy and Risk Valuation Model (“SERVM”).²⁸ Mr. Carden offered testimony on a number of topics relevant to the proceeding. For example, he underscored the importance for Alabama Power planning to reliability targets that satisfy both a summer and a winter 1:10 LOLE.²⁹ His principal and overarching conclusion, however, was that the 2018 Reserve Margin Study was performed consistent with industry standards and did not contain biased or unreasonable assumptions.³⁰

2. Capacity Need

In addition to the evidentiary support for use of seasonal planning and a winter target reserve margin, Alabama Power also provided evidence in support of its Petition for 2,400 MW of additional generating capacity. Specifically, Mr. Kelley presented testimony regarding the results of the Company’s integrated resource plan (“IRP”), which included the effects of coordinated planning with the other Southern retail operating companies. Those results indicated the need for Alabama Power to add resources to address winter reliability deficits across the 2023-2028 time horizon—1,200 MW by 2025 and another 1,170 MW over the years 2027 and 2028.³¹ Mr. Kelley further testified as to Alabama Power’s conclusion to accelerate action on the 1,170 MW need indicated for 2027 and 2028.³² He explained that the largest electric utility on the Southern system, Georgia Power Company, does not experience its peak load in the winter season and that some of its capacity can help Alabama Power

²⁸ See Rebuttal Testimony of Kevin Carden, page 2, lines 1-13.

²⁹ See *id.*, page 8, lines 4-11. At hearing, Mr. Carden testified that 95 percent of all load represented in the United States uses the 1:10 LOLE standard. See Hearing Tr., page 206, lines 14-23.

³⁰ See Rebuttal Testimony of Kevin Carden, page 3, line 22 through page 4, line 9; page 22, line 16 through page 23, line 11. Mr. Carden identified certain items for which the Company might have employed a different technique. In his opinion, however, the method used by the Company tended to understate risk, and thus these different techniques would be expected to produce similar, if not higher, reserve margin targets relative to those established under the 2018 Reserve Margin Study sponsored by Mr. Weathers. See, e.g., *id.*, page 15, line 4 through page 18, line 6.

³¹ See Direct Testimony of John Kelley, page 10, line 18 through page 12, line 4; see also Rebuttal Testimony of John Kelley, page 12, line 3 through page 13, line 7.

³² In addition to capacity needs based on the IRP, the selection of Barry Unit 8 creates an additional 200 MW need due to transmission-related impacts on Greene County Units 1 and 2. See Rebuttal Testimony of John Kelley, page 12, line 3 through page 13, line 7.

address its winter deficit on a temporary basis. The Company cannot, however, rely on that capacity for an extended period, as Georgia Power and the other Southern Company electric utilities have no obligation to maintain that capacity for the benefit of affiliates.³³ Moreover, such reliance would be at odds both with the IIC, a federally-regulated tariff governing the Southern Company electric utilities' operation as an integrated power Pool, as well as Alabama Power's obligation under state law to maintain its system to meet the needs of its customers in Alabama.³⁴

Mr. Kelley also provided testimony as to the Company's load forecast, which is one of the primary components of the IRP.³⁵ As discussed above, Mr. Kelley explained how Alabama Power's system peak loads had in recent years transitioned from the summer season to the winter season, and that the load forecast incorporated into the IRP continues to indicate a winter peak demand higher than the Company's summer peak demand.³⁶ In its rebuttal case, Alabama Power included testimony from Ms. Burke, who is the Company representative directly responsible for the preparation of the load forecast. Ms. Burke explained in detail the methodology employed by the Company to forecast its winter peak, including specific reasons why the Company implemented new techniques in recent years so that it could project more confidently the demands of its customers in the winter season.³⁷ As part of this discussion, Ms. Burke testified how actual system load levels in January 2018 helped illustrate the deficiencies of the existing model when forecasting winter demand and informed the corrective adjustments required to

³³ See Direct Testimony of John Kelley, page 12, line 5 through page 14, line 11.

³⁴ See *id.*, page 4, line 14 through page 5, line 17; page 14, lines 8-11; and Rebuttal Testimony of John Kelley, page 8, line 4 through page 10, line 3. This Commission is quite familiar with the IIC, as Alabama Power has been a party to that arrangement for decades.

³⁵ See Direct Testimony of John Kelley, page 7, lines 11-17.

³⁶ See *id.*, page 8 line 18 through page 9, line 4.

³⁷ See Rebuttal Testimony of Maria Burke, page 11, line 13 through page 15, line 6.

derive results consistent with Alabama Power's actual experience in the winter.³⁸ Ms. Burke also testified how Alabama Power took the additional measure of validating the load forecast used in the IRP by comparing it to the results of another load forecasting model.³⁹

3. *Intervenor Positions*

Mr. George Clark, President and CEO of Manufacture Alabama, endorsed the adoption of a 26 percent winter target reserve margin and supported the portfolio of resources proposed by the Company to meet the indicated need. According to Mr. Clark, reserve margins are a critical metric for Manufacture Alabama's membership, who depend on reliable, around-the-clock electricity to support energy-intensive operations that employ thousands and serve as a foundation for Alabama's economy.⁴⁰ In contrast, two intervenors presented opposition to Alabama Power's proposed winter target reserve margin: AIEC through its witness Mr. Pollock, and Energy Alabama/Gasp through its witness Mr. Wilson (and to a lesser extent Mr. Rábago).

Mr. Pollock did not oppose a winter target reserve margin outright, but expressed concern that the 2018 Reserve Margin Study may overstate the requisite reserve margin.⁴¹ In support of this opinion, he testified that the proposed winter reserve margin of 26 percent significantly exceeded the reserve margins of other investor-owned utilities in the Southeast.⁴² Mr. Pollock also expressed apprehension over the historical data and assumptions utilized in the 2018 Reserve Margin Study. For example, he questioned the appropriateness of using 54 years of weather data, expressing concerns that some of the extreme cold events in the 1980s may not be indicative of future weather patterns. He also challenged

³⁸ See *id.*, page 13, lines 1-21.

³⁹ See *id.*, page 14, line 16 through page 15, line 6.

⁴⁰ See Direct Testimony of George Clark, page 2, lines 10-11 and page 3, lines 11-20.

⁴¹ See Direct Testimony of Jeffry Pollock, page 15, lines 9-16.

⁴² See *id.*, page 16, line 8 through page 17, line 9.

outage assumptions on the belief that system operators' familiarity with system operations during cold conditions should translate into greater resiliency in the future.⁴³ A final point made by Mr. Pollock concerned a recent Georgia Public Service Commission ("GPSC") proceeding involving Georgia Power's IRP. According to Mr. Pollock, the GPSC "deferred approving" a winter target reserve margin of 26 percent for Georgia Power, and he recommended this Commission take a similar course with respect to Alabama Power's long-term diversified winter target reserve margin.⁴⁴

Turning to Energy Alabama/Gasp,⁴⁵ its witness Mr. Wilson challenged the 2018 Reserve Margin Study on several fronts. First, he rejected the VaR adjustment to the EORM discussed earlier, reasoning that the adjustment is improper if Alabama Power's customers are perceived as being risk neutral, not risk averse.⁴⁶ Next, he testified why he thought the Value of Lost Load ("VOLL") assumption was too high, particularly as compared to a value used in a Texas market that does not perform integrated resource planning.⁴⁷ Mr. Wilson also took issue with the Reserve Margin Study's calculation of the 1:10 LOLE metric. Mr. Wilson testified as to what he viewed as deficiencies in the study's load forecast uncertainty assumptions, including the duration of uncertainty used in the study (four years, as opposed to one year) and the study's reliance on national economic growth data, instead of state-level information.⁴⁸ Mr. Wilson also identified several assumptions that in his view caused winter risk to be

⁴³ See *id.*, page 19, line 6 through page 21, line 2.

⁴⁴ See *id.*, page 23, line 9 through page 24, line 20.

⁴⁵ As for Mr. Rábago, he acknowledged the conclusions of the 2015 and 2018 Reserve Margin Studies regarding winter reliability, but criticized the Company for its slowness to act. See Direct Testimony of Karl Rábago, page 12, lines 7-9. And like Mr. Pollock, Mr. Rábago noted that the Company's proposed winter target reserve margin is higher than other southeastern utilities. See *id.*, page 14, line 28 through page 15, line 3. Mr. Rábago also criticized the Company for seeking to add resources that he viewed as a contributing factor to the need for higher reserve margins, and thus exacerbating that dependency further. See *id.*, page 16, line 5 through page 17, line 11.

⁴⁶ See Direct Testimony of James Wilson, page 37, line 5 through page 39, line 10.

⁴⁷ See *id.*, page 39, line 17 through page 40, line 10.

⁴⁸ See *id.*, page 40, line 16 through page 46, line 15.

overstated, such as the winter load shapes employed in the study, the use of weather data back to 1962, and assumptions regarding plant outages in extreme cold conditions.⁴⁹

Intervenors challenged the basis for Alabama Power's proposed capacity need in other ways as well. For example, AIEC witness Mr. Pollock and Sierra Club witness Ms. Wilson both testified that the Company can and should rely on capacity owned by other Southern Company electric utilities.⁵⁰ Ms. Wilson also observed that a portion of the Company's identified need appeared linked to wholesale load obligations that were scheduled to expire in the mid-2020s.⁵¹ Finally, Energy Alabama/Gasp witness Mr. Wilson challenged several aspects of Alabama Power's load forecast. Specifically, Mr. Wilson questioned the appropriateness of the adjustments that Alabama Power made to the model used to develop the load forecast, and also claimed that Alabama Power's industrial class forecast likely overstates future sales.⁵²

4. Commission Findings and Conclusions

In prior proceedings, the existence of a future capacity deficit relative to Alabama Power's target reserve margin, such as that shown by the Company in this case, has been found to constitute a prima facie demonstration of a reliability-based need by the Company.⁵³ The fact that the Company has been able to serve its customers reliably to this point in time is of no consequence, as the purpose of the Petition is to position the Company to continue to do so going forward. For this reason, and those

⁴⁹ See *id.*, page 46, line 16 through page 47, line 12 (summarizing assumptions that overstate reliability risk); see *id.*, page 47, line 13 through page 63, line 19 (explaining Mr. Wilson's conclusions regarding assumptions that overstate reliability risk).

⁵⁰ See Direct Testimony of Jeffry Pollock, page 13, line 14 through page 15, line 3; see Direct Testimony of Rachel Wilson, page 9, lines 1-14.

⁵¹ See Direct Testimony of Rachel Wilson, page 9, line 15 through page 11, line 3.

⁵² See Direct Testimony of James Wilson, page 21, line 11 through page 25, line 2; page 28, line 1 through page 30, line 20.

⁵³ See *In re Certificate of Convenience and Necessity (Barry Steam Plant)*, at page 4; *In re Certificate of Convenience and Necessity (Greene Co. Steam Plant)*, at page 3.

discussed further in this section, Sierra Club's motion to deny the Petition on the basis that Alabama Power has not shown a "need" must fail. Alabama Power holds a non-delegable obligation under the law to meet the needs of its customers, and that obligation includes maintaining an adequate level of reserves in connection with such service.⁵⁴ Accordingly, unless undermined through substantial evidence advanced by intervenors, the Company's demonstration of a projected capacity deficit in its reserves is sufficient to satisfy the Company's first burden in this certificate proceeding.

As a threshold matter, we would observe that the Company's IRP process—of which the reserve margin is a key component—has long served as the basis for petitions to this Commission for certification of new resources required for reliability. Accordingly, we are familiar with that process and the manner in which it is conducted, having reviewed and endorsed its use for this purpose on a number of occasions.⁵⁵ Unlike prior proceedings, however, the demonstrated capacity deficit arises from the transition of the Company's peak demand from the summer season to the winter season and the corresponding need to adopt seasonal planning. The capacity deficit is further pronounced by the results of the 2018 Reserve Margin Study which suggest a system winter reserve margin target of 26 percent.⁵⁶ Importantly, no one disputed that Alabama Power has become a winter peaking utility, nor was there any challenge to the Company's decision to adopt seasonal planning.⁵⁷ Indeed, intervenors are in agreement on the fundamental premise that the Company must maintain reliable service in all seasons.

⁵⁴ See Ala. Code § 37-1-49.

⁵⁵ See, e.g., *In re Certificate of Convenience and Necessity (Barry Steam Plant)*, at pages 5-6; *In re Certificate of Convenience and Necessity (Greene Co. Steam Plant)*, at page 3.

⁵⁶ As noted earlier, Alabama Power's participation in the Southern Pool enables it and the other Pool participants to maintain an individual "diversified" winter target reserve margin of 25.25 percent, which together cause the system to have a reserve margin of 26 percent.

⁵⁷ We share the view of Alabama Power that modifications to the declining block structure of Rate FD are unlikely to effect a dramatic change in usage, based on our history and ongoing practice of monitoring and oversight of the Company and its rates. Nevertheless, adjustments to Rate FD and other rates may be appropriate in due course, so that cost recovery remains aligned with the seasonal nature of the Company's operations.

AIEC and Energy Alabama/Gasp disagreed with the 2018 Reserve Margin Study and questioned some of the inputs utilized to develop the 26 percent winter target. However, many of their stated concerns with the winter target and the study giving rise to it seem to be somewhat speculative. For example, Mr. Pollock and Mr. Wilson expressed skepticism over the potential for future recurrence of some of the extreme cold temperatures utilized in the study.⁵⁸ Yet neither presented any analysis that such temperatures will not recur, and Mr. Wilson actually acknowledged at hearing that he expects to see such events in the future.⁵⁹ With respect to the uncertainties of future winter conditions, we agree with the assessment of Mr. Weathers that historical temperatures provide a reasonable basis from which to plan for what might happen on the system in the future.⁶⁰

Intervenors also expressed concern over the numerical level of the winter target reserve margin, with Mr. Pollock and Mr. Rábago noting lower levels employed by other utilities in the Southeast.⁶¹ To this we would first observe that reserve margins and system reliability for utilities located in the same region may be worth due consideration. However, Alabama Power's target winter reserve margin cannot legitimately be established through an averaging exercise involving the margins adopted by others, as these intervenor witnesses seemed to suggest. Rather, the development of such planning margins requires comprehensive modeling and utility-specific analysis. Putting that aside, however, we further note that Mr. Pollock acknowledged at hearing that the Tennessee Valley Authority and PowerSouth

⁵⁸ See Direct Testimony of Jeffry Pollock, page 19, lines 6-17; Direct Testimony of James Wilson, page 55, lines 1-17.

⁵⁹ See Hearing Tr., page 1199, lines 4-6.

⁶⁰ See Hearing Tr., page 79, line 11 through page 81, line 20.

⁶¹ If properly established, other entities' reserve levels should reflect the particular characteristics of their own systems. For this reason, we agree with Mr. Weathers that determining an appropriate reserve level for the Southern system (which includes Alabama Power) necessarily requires a comprehensive, system-specific evaluation of customers, their energy and reliability needs and the resources available to serve them. See Rebuttal Testimony of Jeffrey Weathers, page 17, lines 1-13; Rebuttal Testimony of John Kelley, page 7, line 18 through page 8, line 3. The 2018 Reserve Margin Study (APC Ex. 1), as fully supported by Mr. Weathers and Mr. Carden, reflects the requisite system-specific analysis, and it is the only such analysis in the record.

Energy Cooperative—two electricity suppliers with obligations in Alabama—both utilize winter target reserve margins comparable to the level Alabama Power proposed in this Petition.⁶² In addition, Mr. Wilson agreed at hearing that several regional reliability entities projected virtually no chance of a reliability event in January 2018—carrying actual reserve levels ranging from 32 percent to well over 60 percent—and yet nearly suffered outages (a “near miss”) when a polar vortex type event occurred that month.⁶³

The other criticisms of the 2018 Reserve Margin Study raised by Mr. Wilson do not change our view as to the appropriateness of Alabama Power’s adoption of a winter target reserve margin. As an initial matter, we reject Mr. Wilson’s opinion that Alabama Power should assume that its customers are “risk neutral” when the reliable supply of electric service is concerned. Such a view is wholly at odds with the statutory expectations our Legislature holds for the Company in its discharge of this paramount responsibility. As for Mr. Wilson’s remaining observations as to what he viewed as flaws in the study, we find those to have been convincingly addressed and rebutted by the Company through the testimony provided by Mr. Weathers, Mr. Carden, and Ms. Burke.⁶⁴

As a final point on the 2018 Reserve Margin Study, we would observe that the GPSC recently had occasion to consider that study in connection with Georgia Power’s 2019 IRP. While the GPSC did not approve a target winter reserve margin for Georgia Power in that proceeding, it did approve Georgia

⁶² See Hearing Tr., page 1006, lines 6-19.

⁶³ See *id.*, page 1210, line 4 through page 1215, line 14; and APC Ex. 51 and 52.

⁶⁴ See Rebuttal Testimony of Jeffrey Weathers, page 6, line 1 through page 14, line 22; Rebuttal Testimony of Kevin Carden, page 4, line 18 through page 21, line 10; Rebuttal Testimony of Maria Burke, page 2, line 17 through page 19, line 10. While not dispositive of our conclusion here, we note that Energy Alabama/Gasp witness Mr. Rábago previously recognized Mr. Carden and his firm Astrapé as an authority in the field of reliability studies in connection with a 2015-16 Florida Public Service Commission proceeding regarding Florida Power & Light’s request for authority to construct an approximately 1,600 MW natural gas combined cycle facility. See Hearing Tr., page 1237, line 3 through page 1239, line 13; see also APC Ex. 55.

Power's use of seasonal planning and authorized it to use the system winter target reserve margin for planning purposes until such time as one is approved by the GPSC.⁶⁵

In conclusion, we believe Alabama Power has presented substantial evidence regarding the appropriateness of a winter target reserve margin, and on the basis of that evidence, we find a target of approximately 25.25 percent is suitable for purposes of establishing the Company's reliability-based need for additional resources. We further find that application of this target demonstrates a need for additional capacity to provide reliable electric service to Alabama Power's territorial customers.

The question now turns to the amount and timing of the capacity additions needed by the Company. As discussed above, the utilization of a winter target reserve margin, along with other pertinent factors analyzed in the Company's IRP, resulted in identified winter reliability deficits across the 2023-2028 time horizon. In this regard, we find that the record contains substantial evidence supporting Alabama Power's requested authorization for additional resources.

A primary argument raised by Sierra Club and AIEC in opposition to the Petition is that Alabama Power should rely on the capacity of other Southern Company electric utilities to meet the long-term needs of its customers. Alabama Power has correctly recognized that such a course conflicts with its duty to serve under Alabama law. Moreover, based on our longstanding familiarity with the IIC, we agree with the Company's evidence that such reliance does not comport with the "fundamental premise" under the IIC that each participant must maintain "adequate resources to reliably serve its own obligations"⁶⁶, and that the Company may rely on the surpluses held by other operating companies only on a temporary basis—not to meet long-term needs.⁶⁷ To the extent Ms. Wilson and Mr. Pollock

⁶⁵ See Sierra Club Ex. 11, pages 25-26 (stipulation pages 3-4). Still a summer peaking utility, Georgia Power was not seeking authorization in its 2019 IRP to certify a resource or take any action predicated on a winter reliability need.

⁶⁶ See APC Ex. 30, Original Sheet No. 10, Section 7.1.

⁶⁷ See *id.*

advocated to the contrary, their testimony was belied by their respective lack of knowledge and direct administrative experience with that system operating agreement.⁶⁸ Their unsupported views as to the meaning and intent of the IIC, already refuted by the direct and rebuttal testimony of Mr. Kelley,⁶⁹ were further invalidated at hearing by Alabama Power witness Mr. Weathers, who possesses firsthand experience with the IIC and the manner of its operation and administration.⁷⁰

We also find unpersuasive Mr. Wilson's challenges to Alabama Power's load forecast. In the Company's rebuttal case, Ms. Burke thoroughly examined and responded to each of the criticisms raised by Mr. Wilson.⁷¹ Notably, Ms. Burke recounted the system events that occurred in January 2018 and how the Company's unadjusted load forecast would have significantly under-predicted the actual demand experienced.⁷² Ms. Burke also observed that the load forecast used in the IRP was later vetted through a separate load forecasting tool, yielding results consistent with those initially developed by Alabama Power.⁷³ At hearing, intervenors did nothing to impeach this testimony, or otherwise cause us undue concern with the Company's approach to forecasting its winter peak loads.⁷⁴ Accordingly,

⁶⁸ See Hearing Tr., page 1023, line 2 through page 1028, line 18 (Wilson); page 1005, line 19 through page 1006, line 5 (Pollock). We also note the inconsistency of Ms. Wilson's suggestion that the Company could and should rely on some of the same "excess capacity" that she had challenged through testimony in regulatory proceedings in Georgia (Plant Bowen) and Mississippi (Plant Daniel), arguing that such capacity was not economic and should be retired. See *id.*, page 1031, line 23 through page 1037, line 5.

⁶⁹ See Direct Testimony of John Kelley, page 13, line 1 through page 14, line 11; Rebuttal Testimony of John Kelley, Page 8, line 4 through page 12, line 2.

⁷⁰ See *id.*, page 140, line 17 through page 141, line 10; page 175, line 11 through page 179, line 6.

⁷¹ See Rebuttal Testimony of Maria Burke, page 4, line 1 through page 19, line 10.

⁷² See *id.*, page 11, line 14 through page 14, line 9.

⁷³ See *id.*, page 14, line 16 through page 15, line 6.

⁷⁴ Much of intervenors' cross examination of Ms. Burke explored minor discrepancies in the final calculations used to weather normalize the Company's historical loads. See Hearing Tr., page 245, line 1 through page 283, line 12. However, the normalized historical loads are used only to help the Company understand underlying trends in customer behavior—trends unaffected by the identified discrepancies. As a general proposition, the weather-normal historical loads are not used in the development of the peak load forecast and thus, discrepancies or not, have no effect on the Company's identified need. See Hearing Tr., page 281, lines 2-5 and page 299, line 7 through page 300, line 2. The only exception in this regard is an adjustment described in the Rebuttal Testimony of Ms. Burke, which had an insubstantial impact to the

intervenors have not presented us with a valid basis to reject the load forecast used in the IRP, in whole or in part.

Finally, we do not believe the anticipated expiration of certain wholesale contracts warrants a conclusion different than the one we reach. As Mr. Kelley explained, the status of those contracts is unclear, as the Company is actively competing for these wholesale customers.⁷⁵ Even if one or more of the contracts do expire without replacement, having a margin of capacity somewhat above the planning target simply affords the Company more flexibility to optimize its resource fleet as a whole, particularly as new opportunities in the wholesale markets arise or as aging units reach the end of their depreciable lives.⁷⁶ In addition, as Alabama Power correctly observed, it is not uncommon for a utility with significant retail service responsibilities to find itself with reserve levels temporarily above a planning target.⁷⁷

This observation flows into a recent matter that we also must consider in conjunction with Alabama Power's Petition. Shortly after completion of the hearing, the novel coronavirus and the ensuing COVID-19 pandemic confronted the United States and virtually the entire world. The gravity of this tragedy in terms of loss of life is in no way lost on this Commission. But we would be remiss in our responsibility as a regulatory authority if our analysis here did not consider the potential for prolonged economic effects flowing from the pandemic, and specifically, whether potential impacts to the state, national and global economies are likely to cause a material change in the amount of capacity needed by Alabama Power.

forecasted peak load relative to the corresponding actual peak load observed. See Rebuttal Testimony of Maria Burke, page 13, lines 7-14.

⁷⁵ See Rebuttal Testimony of John Kelley, page 14, lines 10-22.

⁷⁶ See *id.*, page 13, line 18 through page 14, line 22.

⁷⁷ See *id.*, page 14, lines 18-20.

All information available to this Commission, including the record in this case, the data our Staff gathers as part of its routine regulation and oversight of Alabama Power, and materials our Staff customarily relies on to remain informed of such matters, and our administrative judgment and performance of the statutory duties prescribed by the Legislature, suggests that the long-term impacts of the pandemic are not knowable with any reasonable degree of certainty. We would observe, however, that measured steps are being taken to resume more normal economic activity, leading to increased optimism in that regard. Even prior to these steps, some sources of publicly available information were forecasting an economic rebound by the end of 2021, if not sooner.⁷⁸ Certainly that is the desire of everyone affected by this pandemic. In any case, Alabama Power's duty to provide reliable electric service is not suspended by COVID-19 or the temporary economic slowdown that has transpired. If anything, the assurance of reliable electric service is even more important now, as public officials, health care providers and consumers of all types focus on safely navigating through this event.

As discussed in the following section of this order, the generation portfolio proposed by the Company comprises a suite of resources, most of which do not begin to support Alabama Power customer needs until mid - to late 2023. Likewise, the rate pressures associated with these resources are not expected to impact customer bills until that same timeframe.⁷⁹ Although certainly not the Company's intention when developed and filed, the proposed portfolio and the timing of its implementation across a multi-year period is particularly well-suited for current events. In fact, this timing gives the Commission confidence that Alabama Power has positioned itself to meet the needs of

⁷⁸ See, e.g., Morgan Stanley Research, *Coronavirus: Recession, Response, Recovery*, <https://www.morganstanley.com/ideas/coronavirus-impact-on-global-growth>.

⁷⁹ The Hog Bayou PPA is the sole exception, as it is expected to begin serving customers relatively soon after issuance of a certificate by this Commission. The availability of this resource is actually quite timely, for in addition to Alabama Power's significant ongoing winter capacity deficit, the Southern Pool also reflects a winter capacity shortfall in the 2020-2021 timeframe. See Direct Testimony of John Kelley, page 11, line 4 through page 12, line 4. Moreover, as Ms. Baker testified at the hearing, the expected fuel savings associated with that resource will effectively offset the costs of the PPA through 2021. See Hearing Tr., page 899, lines 5-15.

all its customers when daily routines return to a pre-pandemic state of normalcy, and in a way that avoids added cost pressures during the near-term period of economic recovery.

In addition, were the Commission to deny components of the Petition based solely on uncertainties surrounding COVID-19, we would be concerned that cost-competitive resource options comparable to those reflected in the proposed portfolio would no longer be available. Intervenor would have this Commission believe that a lower cost option is just around the corner, if only the Company is directed to perform another request for proposals ("RFP"). The problems with this theory are several.

First, neither Alabama Power nor its customers can count on the existing portfolio options to stand by as the Company "tests" the market, given the presence of contractual deadlines (which due to the number of extensions granted in this case, are approaching) that permit the counter-party to walk away if regulatory certainty has not been obtained by a date certain. Second, the market now knows (because of this proceeding) that Alabama Power has a significant winter capacity need. Thus, we think it is equally (if not more) likely that an informed market would come to the table with different proposals in hand, resulting in a portfolio that is less beneficial for customers.⁸⁰ Finally, there is no assurance as to when resource options emanating from another market solicitation might be available to meet the needs of Alabama Power customers, given the time required to conduct an RFP, perform the requisite evaluations, negotiate contracts and seek the necessary regulatory approvals.⁸¹ In any event, should Alabama Power find itself with actual reserve margins somewhat greater than those currently projected,

⁸⁰ See Rebuttal Testimony of John Kelley, page 13, lines 16-17; *see also* Hearing Tr. page 426, line 23 through page 428, line 9.

⁸¹ In this regard, the Commission notes that most of the proposals for which certification is requested emanated from RFPs that the Company initiated in November 2018, while the turnkey contract for the construction of Barry Unit 8 resulted from a solicitation that was issued in January 2018. Indeed, the proceedings before this Commission concerning the resulting portfolio have been ongoing since early September 2019.

due to coronavirus-related impacts to customer demand, the Company will still have the same ability to optimize its fleet, as discussed above.

Accordingly, we find that the record before us reflects substantial evidence that supports Alabama Power's need for additional capacity during the 2021 – 2028 period, as discussed above. Further, we see no legitimate reason to discount that showing on the basis of uncertainty created by the coronavirus pandemic.⁸² Instead, and based on the foregoing, the Commission concludes that the Company has satisfied the first fundamental requirement in this certificate proceeding, which is to show the requisite need for new capacity to continue to provide reliable service to its territorial customers.

B. Reasonable Means to Satisfy the Need

1. *The IRP*

As we stated earlier, Alabama Power has long utilized the IRP to inform decisions regarding future resource additions. The IRP facilitates the Company's ability to identify resource additions that are expected to provide reliable service at the lowest practicable total cost, considering both capacity and energy, over the long run. It is a proven, sound process for guiding these determinations, and we have frequently endorsed its use by the Company.⁸³ In this proceeding, Alabama Power has adhered to that IRP process as part of its identification of resources to meet the long-term energy and demand requirements of its customers, as discussed in the prior section.⁸⁴

⁸² Cf. *In re Certificate of Convenience and Necessity (Barry Steam Plant)*, at page 5 (“[N]either this Commission nor the Company can ignore the Company’s existing statutory duty to provide reliable service because of what might happen in the future.”) (emphasis in original).

⁸³ See *id.*, page 5-6 (“This Commission has previously reviewed and approved the Company’s IRP process on three separate occasions, and we again endorse that approach as the appropriate means of determining resource additions for the Company.”); see also *In re Certificate of Convenience and Necessity (Amendment to Calhoun PPA)*, APSC Docket No. 27785, at page 2 (April 22, 2009).

⁸⁴ See Direct Testimony of John Kelley, page 5, line 19 through page 7, line 10 and page 10, lines 1-17.

2. Intervenor Positions Regarding the IRP

In their testimony, Energy Alabama/Gasp and Sierra Club offered several generalized complaints about the IRP. Energy Alabama/Gasp witness Mr. Rábago stated that the IRP documents lack transparency.⁸⁵ While acknowledging that the Company produced “voluminous data” in response to intervenor discovery requests, Mr. Rábago nonetheless complained that the data was unorganized and unsupported by details.⁸⁶ He also declared that the Company’s assertion of confidentiality over much of the information provided on the IRP prevents public input and precludes this Commission from “hold[ing] the Company responsible and accountable for its planning process.”⁸⁷ Mr. Rábago further criticized the IRP as being oriented toward selecting gas-fired resources, noting among other things that renewable resources were not included in the IRP’s benchmark analysis.⁸⁸ Finally, Mr. Rábago recommended the Commission develop and adopt IRP planning rules, in light of the “obvious” bias the Company has for “exaggerating the need for excess capacity in order to enrich its shareholders.”⁸⁹

Sierra Club witness Mr. Detsky made points similar to those of Mr. Rábago insofar as the Company’s IRP is concerned. Principally, he claimed that the IRP’s development of the indicative benchmark plan should not have excluded renewable resources from the candidate technologies.⁹⁰ He also asserted that this decision impacted Alabama Power’s resource selection because it resulted in Alabama Power holding a capacity RFP for only gas units.⁹¹

⁸⁵ See Direct Testimony of Karl Rábago, page 17, lines 16-21.

⁸⁶ See *id.*, page 17, line 21 through page 18, line 1.

⁸⁷ See *id.*, page 18, lines 1-8.

⁸⁸ See *id.*, page 20, line 1 through page 21, line 7.

⁸⁹ See *id.*, page 29, line 15 through page 30, line 9.

⁹⁰ See Direct Testimony of Mark Detsky, page 18, line 11 and page 21, lines 6-14.

⁹¹ See *id.*, page 15, lines 19-21.

3. *Commission Findings and Conclusions Regarding the IRP*

The complaints of these witnesses do not undermine our confidence in Alabama Power's IRP process. As observed above, the IRP process employed by the Company here has been in use for decades, and over that time, it has supported decisions by the Company regarding the identification and development or procurement of all types of resources—from new construction, to PPAs, to co-generation facilities.⁹² As Mr. Kelley explained in his testimony, and as this Commission is aware, the IRP is not limited to the summary report⁹³ for which Mr. Rábago held disdain. Rather, it is a comprehensive, data-intensive process—a fact evidenced by the voluminous data generated in response to the intervenors' inquiries directed to it.⁹⁴ Given our longstanding familiarity with the IRP and its consistent use by the Company over that time, this Commission, as the expert agency exclusively authorized to regulate the Company's provision of retail electric service, can and does hold the Company responsible and accountable for its planning process. That much of the IRP process and its underlying data requires confidentiality is hardly surprising, nor does it foreclose public input when action is proposed by the Company in reliance on the IRP. This fact is evidenced most clearly by the instant proceeding, with public interest groups covering a wide spectrum actively participating on behalf of their constituents, and with the interests of the using and consuming general public fully represented through participation by the Office of the Attorney General.⁹⁵

⁹² See, e.g., *In re Certificate of Convenience and Necessity (Barry Steam Plant)*; see also *In re Certificate of Convenience and Necessity (Purchased Power Arrangements for CT Capacity in Calhoun County and CC Capacity in Autauga County)*, APSC Docket No. 27785, at pages 1-3 (Nov. 7, 2000); *In re Certificate of Convenience and Necessity (General Electric Company Cogeneration Capacity)*, APSC Docket No. 25834, at pages 1-2 (April 21, 1997).

⁹³ See APC Ex. 20.

⁹⁴ See Direct Testimony of John Kelley, page 6, lines 7-13.

⁹⁵ See Ala. Code § 37-1-16.

In addition, we disagree with both Mr. Rábago and Mr. Detsky that the indicative benchmark plan generated through the IRP in any way biased the resource procurement decisions ultimately proposed by the Company. As discussed in greater detail below, Alabama Power relied on the market to inform its analysis of what resource options were available to it and evaluated all of those options against one another to develop a least cost portfolio.⁹⁶ The fact that the Company chose to screen out variable renewable technologies during the development of the benchmark plan is entirely reasonable, given that such resources do not provide dependable capacity during winter peak hours.⁹⁷ More to the point, however, that screening decision did not prevent the Company from evaluating the relative merits of renewable resources as part of the development of the proposed portfolio, as evidenced by the inclusion of five Solar/BESS projects as part of the final portfolio submitted for certification.⁹⁸

We also affirmatively reject Mr. Rábago's unsubstantiated claim that the Company has crafted a portfolio for the purpose of enriching shareholders. The evidence clearly shows that the portfolio was the product of a comprehensive economic evaluation of all viable offerings that was in no way reflective

⁹⁶ See Rebuttal Testimony of John Kelley, page 15, lines 3-15. The benchmark plan is just that—a “benchmark” of deployable options that serves as the starting point for evaluating the cost-effectiveness of competing alternatives. Had the market offerings been at a higher cost, the Company presumably would have acted on the benchmark plan. In this case, however, there were significant amounts of more cost-effective capacity offerings, enabling the Company to choose for its portfolio those proposals from the market that provide the best value for customers.

⁹⁷ See Hearing Tr. page 150, lines 10-18. Moreover, such renewable resources are generally non-dispatchable, which presents yet another limitation to their value from a reliability perspective. See Hearing Tr., Page 127, line 3 through page 128, line 9.

⁹⁸ As to this, we would note that Mr. Detsky's testimony contradicts itself. At first, he testified that the Capacity RFP was limited to gas-fired generation. See Direct Testimony of Mark Detsky, page 15, lines 19-21. Subsequently, however, he acknowledged that the capacity RFP included instructions to potential bidders regarding the acceptability of bids for renewable resources paired with storage. See *id.*, page 24, lines 14-22. At hearing, Mr. Detsky conceded this fact, but suggested that the limited reference likely was overlooked by the market and affected the response received by the Company. See Hearing Tr., page 1162, lines 5-17 and page 1176, line 18 through page 1177, line 5. We do not share Mr. Detsky's concern regarding the market's ability to read and understand the capacity RFP document, particularly given that the first page of the introduction states in no uncertain terms “Proposals may encompass any type of energy source.” See APC Ex. 21, page 3.

of improper motive.⁹⁹ As discussed in the Governing Legal Standards section above, Alabama Power's management is presumed to act in good faith. Moreover, Alabama law expects a utility's management to act honestly, efficiently and economically, particularly when incurring costs that will be recovered through customers' rates for service.¹⁰⁰ Accordingly, those who would challenge a decision of management must do far more than cast aspersions, like Mr. Rábago, or offer insinuations, as Sierra Club was presumably attempting to do at the hearing, when it unremarkably confirmed that most of Alabama Power's witnesses hold varying amounts of shares of stock in the parent Southern Company.¹⁰¹ Rather, an intervenor must affirmatively show through substantial evidence that a decision is not in proper furtherance of the utility's duty. No intervenor has made any such showing here.

In conclusion, we endorse the Company's IRP process as the appropriate vehicle to inform decisions regarding future resource additions. The use of that process, as summarized in the 2019 Summary Report¹⁰² and discussed in the Company's testimony,¹⁰³ continues to benefit customers, leading to the selection of reliable and cost-effective resources to satisfy their electricity needs.

4. The Proposed Portfolio

As we have recited, the Company's Petition seeks authority for a portfolio of projects: a new combined cycle unit at Plant Barry (Barry Unit 8); the acquisition of an existing combined cycle unit

⁹⁹ See Direct Testimony of Brandon Looney, page 3, line 16 through page 8, line 10 and APC Ex. 36; see also Rebuttal Testimony of John Kelley, page 4, 13-22.

¹⁰⁰ See Ala. Code § 37-1-80(a).

¹⁰¹ As Mr. Bush testified at hearing, Southern Company utilizes a Code of Ethics. That document is publicly available, and in reviewing it for ourselves, we note that the principles and policies articulated apply to all employees, officers and board members of Southern Company, its subsidiaries and affiliates, including Alabama Power and Southern Company Services. See Southern Co., *Code of Ethics*, https://s2.q4cdn.com/471677839/files/doc_downloads/Governance/2017/code-of-ethics.pdf. Nowhere in this record is there any evidence to even suggest, let alone show, that Alabama Power and its witnesses are acting in contravention of this code through the proposal set forth in the Petition.

¹⁰² See APC Ex. 20.

¹⁰³ See, e.g., Direct Testimony of John Kelley, page 5, line 19 through page 7, line 17 and page 10, lines 1-17.

(Central Alabama); and six PPAs, one for the capacity and energy output from an existing combined cycle unit (Hog Bayou) and five associated with proposed solar photovoltaic and two-hour battery energy storage systems (Solar/BESS). The Hog Bayou PPA is the only PPA slated to commence immediately following certification. The Solar/BESS PPAs commence upon the commercial operation of the associated resource, with one expected in 2022, one in 2023 and the remaining three in 2024. Central Alabama does not begin serving retail customers until mid-2023, due to its existing commitment pursuant to a third-party wholesale contract. Barry Unit 8 is targeted for substantial completion by November 2023.

The Company arrived at this portfolio through an economic analysis of the costs and benefits of proposals received by the Company through various market solicitation efforts.¹⁰⁴ Included in this evaluation were all expected generation-related costs over the life of the proposed resource, such as capacity costs, fixed operations and maintenance (“O&M”) costs, natural gas transportation charges, commodity fuel and variable O&M costs, as well as any expected production cost benefits (*i.e.*, energy savings) associated with the proposal.¹⁰⁵ The Company also assessed the costs and operational impacts to the transmission system arising from each proposal.¹⁰⁶ Finally, the Company accounted for future uncertainties regarding fuel prices and carbon costs by evaluating proposals under a “low gas” and a

¹⁰⁴ See Direct Testimony of John Kelley, page 15, line 13 through page 17, line 35; Direct Testimony of Michael Bush, page 13, line 18 through page 17, line 5; Direct Testimony of Brandon Looney, page 3, line 7 through page 8, line 10.

¹⁰⁵ See Direct Testimony of Brandon Looney, page 4, line 4 through page 5, line 10. Energy savings result to the extent the resource under study is expected to displace generation from existing resources that produce energy at a higher cost.

¹⁰⁶ See *id.*, page 6, lines 16-20; see also Rebuttal Testimony of John Kelley, page 17, line 15 through page 18, line 13; Brandon Looney Deposition Designations, page 26, lines 15-23; page 27, line 1 and lines 8-23; page 28, lines 1-22; page 29, lines 5-15 and lines 18-23; page 30, lines 1-8 and lines 16-23; page 31, line 1; and Looney Deposition Ex. 2.

“moderate gas” scenario and by applying carbon cost assumptions of \$0 and \$20 per ton that escalate over time.¹⁰⁷

5. *Intervenor Positions Regarding the Portfolio*

Through their pre-filed testimony, certain intervenors challenged the portfolio in various (and somewhat inconsistent) ways.¹⁰⁸ AIEC witness Mr. Pollock supported certification for Barry Unit 8, but did not endorse the remainder of the portfolio.¹⁰⁹ AlaSIA witness Ms. Clark made no recommendation regarding the portfolio, but instead lauded the benefits of solar, with and without storage.¹¹⁰ Energy Alabama/Gasp’s position was slightly less clear. Self-proclaimed clean energy advocate Mr. Rábago supported certification for all five of the Solar/BESS projects but called for rejection of all aspects of the portfolio that rely on natural gas. Mr. Rábago asserted that continued reliance on large “chunky” generators exacerbates the need for winter reserves and exposes the Company to greater risk of outages.¹¹¹ Mr. Rábago and fellow Energy Alabama/Gasp witness Mr. Howat also called for greater consideration of demand-side measures (among other things),¹¹² but Mr. Howat recommended that the Commission reject the portfolio in its entirety, including the Solar/BESS projects that Mr. Rábago supported. Instead, Mr. Howat would have the Commission order the Company to

¹⁰⁷ See Direct Testimony of Brandon Looney, page 7, line 19 through page 8, line 4; see also Rebuttal Testimony of Brandon Looney, page 10, lines 1-13.

¹⁰⁸ As noted earlier, Manufacture Alabama, through the testimony of Mr. Clark, affirmatively supported the portfolio of resources proposed by the Company to meet the indicated need.

¹⁰⁹ See Direct Testimony of Jeffry Pollock page 24, lines 1-5.

¹¹⁰ See Direct Testimony of Maggie Clark, page 4, line 3 through page 5, line 7.

¹¹¹ See Direct Testimony of Karl Rábago, page 16, line 5 through page 17, line 11.

¹¹² See *id.*, page 29, lines 11-14 and Direct Testimony of John Howat, page 16, lines 1-5. Mr. Wilson makes no outright recommendation regarding the portfolio, instead offering opinions directed to the target winter reserve margin and his view that it is overstated by approximately 1,400 MW. See Direct Testimony of James Wilson, page 66, lines 13-15.

evaluate the “rate, bill, and resource need impacts stemming from annual investment in energy efficiency equivalent to 2.7 percent of the Company’s revenues from sales”.¹¹³

The positions of Sierra Club’s witnesses concerning the proposed portfolio were more consistent with one another.¹¹⁴ Mr. Detsky recommended that the Commission approve all five of the Solar/BESS projects (rejecting all gas-fired proposals), and then direct the Company to conduct a new “all-source” RFP¹¹⁵ in connection with the forthcoming 2020 RFP required under the Commission’s order in Docket No. 32382.¹¹⁶ In his opinion, such a course is likely to yield new projects that are more cost effective than the Central Alabama resource.¹¹⁷ Ms. Wilson also recommended the Commission approve each of the five Solar/BESS projects. In lieu of the gas-fired resources, she would have the Commission, among other things, direct Alabama Power to “obtain capacity from the other Southern Company operating companies, to the extent it can”; undertake a new demand-side management potential study; and then pursue the new RFP recommended by Mr. Detsky.¹¹⁸ In Ms. Wilson’s opinion, reliance on gas-fired

¹¹³ See Direct Testimony of John Howat, page 4, line 18 through page 5, line 3; page 17, lines 3-6. Although not quantified in his prepared testimony, Mr. Howat agreed at hearing that his recommendation translates into a proposed annual expenditure of approximately \$150 million. See Hearing Tr., page 1277, lines 11-19. If this Commission were to adopt Mr. Howat’s recommendation, this amount would have to be recovered each year through rates charged to retail customers, while still failing to resolve the Company’s reliability need. See Rebuttal Testimony of John Kelley, page 26, line 22 through page 27, line 17.

¹¹⁴ That said, and as discussed earlier, shortly before the hearing Sierra Club filed a motion to deny the Petition in its entirety. Sierra Club did not attempt to reconcile its arguments there with the prior testimony and recommendations of its witnesses, just as it neglected to observe our prior precedent regarding the Company’s obligation to carry an adequate amount of reserves commensurate with a showing of need. In any case, we have considered the testimony of Sierra Club’s witnesses as part of our evaluation of all the evidence in this proceeding and independent of the motion, which we find to be without merit for the reasons set forth in this order.

¹¹⁵ See Direct Testimony of Mark Detsky, page 26, lines 12-13. In performing this “all-source” RFP, Mr. Detsky urged that certain features of the modeling software used by the Company be employed so that all resources be evaluated contemporaneously with one another, rather than on the individualized basis employed in Mr. Looney’s analysis.

¹¹⁶ See *id.*, page 6, lines 1-15 and page 31, line 17 through page 32, line 3.

¹¹⁷ See *id.*, page 28, lines 3-5.

¹¹⁸ See Direct Testimony of Rachel Wilson, page 5, lines 1-14.

resources is too risky, in that it presents hazards regarding supply, stranded costs, and carbon dioxide emissions.¹¹⁹

At hearing, the positions of Sierra Club, Energy Alabama/Gasp and AlaSIA as to the proposed portfolio effectively coalesced around one central theme: the Company did not carry its burden of demonstrating that the portfolio represents the least cost set of options for customers. Underpinning this argument was a "Clean Energy Portfolio" ("CEP") sponsored by Sierra Club witness Ms. Wilson, comprising an assortment of renewable and demand-side measures that she derived using a tool developed by the Rocky Mountain Institute ("RMI").¹²⁰ According to Ms. Wilson, her CEP would be more cost effective than Barry Unit 8 and would "save customers money."¹²¹ To further advance their theme, counsel for intervenors attempted to establish that Alabama Power failed to fully consider and analyze all material factors that could bear on the life cycle cost of the portfolio. Supposed uncertainties surrounding the cost and availability of natural gas frequently received attention, as did the prospect for future regulations impacting costs associated with natural gas production and transportation, and greenhouse gas emissions. Intervenors also observed the tendency of technologies to decline in cost, as well as the fact that the Company is slated, consistent with our order in Docket 32382, to perform another renewable RFP later this year. In connection with this upcoming issuance, Company personnel were questioned regarding the cost effectiveness of renewable resources and the feasibility for such resources to replace other aspects of the portfolio. Lastly, intervenors (Sierra Club in particular) explored the reliance of Alabama Power witnesses on supporting work and analyses of others (such as transmission

¹¹⁹ See *id.*, page 19, line 13 through page 32, line 2.

¹²⁰ See *id.*, page 3, lines 4-9; page 4, lines 4-9; page 16, line 5 through page 18, line 14; Sierra Club Ex. 15.

¹²¹ See, e.g., *id.*, page 17, lines 3-5 and 11-13; page 18, lines 9-12.

planners and fuel procurement personnel), implying that each and every one of those individuals needed to appear as witnesses at hearing.

6. Commission Findings and Conclusions

We find the substantial weight of the evidence supports the selection of Barry Unit 8, the Hog Bayou PPA, the Central Alabama acquisition, and the pursuit of 200 MW of demand side management and distributed energy resource programs. As reflected in the Company's case, the natural gas-fired combined cycle units represent the most reliable and fully dispatchable resources submitted as part of the Company's proposal.¹²² Barry Unit 8 is especially notable, in that the resource effectively pays for itself under the carbon cost scenarios modeled by Alabama Power.¹²³ In addition, Barry Unit 8 will be located at the site of the Company's existing Plant Barry, where the Company has reliably operated two combined cycle units for nearly 20 years and which affords the unit the enhanced benefit of existing infrastructure, as well as access to numerous gas supply options.¹²⁴

Intervenors have failed to prove the legitimacy of their concerns that the Company is creating undue risk for its customers by adding additional natural gas-fired resources to its generating fleet. In this regard, we note the advocacy of witnesses like Mr. Rábago against Alabama Power's historical reliance on coal and natural gas-fired resources. The evidence at hearing, however, showed that the Company's fleet of resources—of which fossil-fired generation is a significant part—has since the 1970s continuously enabled the Company to meet its service obligations to customers and avoid shedding firm

¹²² See, e.g., APC Ex. 36.

¹²³ See id.

¹²⁴ See Direct Testimony of Michael Bush, page 5, lines 19-23; Hearing Tr., page 574, line 21 through page 575, line 9.

load.¹²⁵ There is no logical reason for this Commission to conclude that resources of this type, with such a long and consistent operational history, will suddenly cease to be reliable sources of electricity.

As noted earlier, intervenors made much of perceived risks associated with generation fueled by natural gas. But the evidence shows that no form of generation is immune to risk, only that the risks may be different or apply to a different degree.¹²⁶ Most assuredly, all resources are exposed to the risk of outage or delivery interruption. Solar resources may be more efficient in cold temperatures, but no solar resource will produce electricity in the absence of sunlight, making it the one resource that is most dependent on favorable weather conditions. In fact, the inherent intermittency and corresponding lack of dispatchability of renewable resources are limiting factors that have a corresponding impact on the reserve margin.¹²⁷ Characteristics of natural gas-fired resources—such as outage rates and transportation risk—also bear on that margin, but such risks can be (and are) mitigated, as shown in the record.¹²⁸ As Mr. Bush testified at hearing, Barry Unit 8 has a winter design temperature of zero degrees.¹²⁹ This fact, along with the Company's winter weatherization practices, lessens our concerns over potential unit outages in extremely cold temperatures.¹³⁰ Similarly, the proposed natural gas resources will adhere to the Southern Company Fuel Policy and possess firm transportation contracts,

¹²⁵ The last firm load shedding event on the Southern Company system occurred in 1977. *See* Hearing Tr., page 82, lines 9-12.

¹²⁶ *See* Hearing Tr., page 1122, line 8 through page 1134, line 18 (discussing risks associated with renewable resources).

¹²⁷ *See* Direct Testimony of Jeffrey Weathers, page 7, lines 15-19, and Ex. JBW-1, pages A-9 through A-11; *See also* Hearing Tr., page 629, lines 2-6.

¹²⁸ *See* Rebuttal Testimony of Jeffrey Weathers, page 11, line 11 through page 12, line 12; *See also* Direct Testimony of James Wilson, page 33, lines 11-14 and 18-19.

¹²⁹ *See* Hearing Tr., page 679, line 20 through page 680, line 13.

¹³⁰ *See* Rebuttal Testimony of John Kelley, page 5, lines 11-21; Rebuttal Testimony of Jeffrey Weathers, page 9, line 5 through page 10, line 3.

which addresses the risk of gas delivery interruption.¹³¹ Comparable mitigation techniques do not exist for non-dispatchable renewables, save perhaps for the utilization of storage. Storage deployment, however, has its limitations.

Intervenors' speculative uncertainties with regard to the availability and cost of natural gas likewise do not constitute substantial evidence warranting a rejection of the Company's proposed natural gas-fired resources. As a threshold matter, we are not surprised that Alabama Power has yet to secure transportation and commodity contracts for its gas-fired resources, particularly Barry Unit 8 and Central Alabama. Those units do not commence retail service until 2023, which affords the Company ample time to enter into the requisite natural gas contracts. In addition, as Mr. Bush testified, the eventual departure of Gulf Power from the Southern Pool is expected to free-up certain contracted transportation capacity for use at Barry Unit 8.¹³²

We also find the evidence to strongly favor ongoing reliance by the Company on natural gas. Notably, a number of intervenors' own exhibits forecast natural gas-fired generation as playing a central role in the reliable supply of electricity. Even the RMI study, which Sierra Club and Mr. Rabago touted as indicative of the superiority of so-called clean energy portfolios, underscores continued reliance on substantial amounts of natural gas-fired generation as part of the country's electricity supply for decades to come.¹³³ Although Sierra Club witness Ms. Wilson would have us believe that utilities are moving away from natural gas in favor of renewable-storage facilities,¹³⁴ the same utility she referenced in her

¹³¹ See Rebuttal Testimony of Jeffrey Weathers, page 11, line 11 through page 12, line 12; *See also* Hearing Tr., page 100, lines 17-23.

¹³² See Hearing Tr., page 683, line 15 through page 684, line 18.

¹³³ See Rebuttal Testimony of Michael Bush, page 3, lines 14-21.

¹³⁴ See Direct Testimony of Rachel Wilson, page 24, lines 6-11.

pre-filed testimony to support this implication recently decided to meet the ongoing needs of its customers through the construction of more than 2,800 MW of gas-fired generation.¹³⁵

In like manner, Sierra Club witness Mr. Detsky admitted at hearing that the United States Energy Information Administration (“EIA”) projects continued reliance on coal-fired and natural gas-fired resources through 2050, with electric generation from natural gas resources increasing over that time frame. This increase corresponds with natural gas production projected to outpace consumption of the commodity, with prices remaining comparatively low through 2050. This and other such information further support a conclusion that there is no legitimate reason for concern regarding either the availability or the price of natural gas for the foreseeable future.¹³⁶

Nor do we find intervenors’ concerns regarding the potential effects of future environmental regulations on the operating costs of the gas resources to undercut the evidentiary basis for the proposed portfolio. We previously have dismissed reliance on unsupported “what ifs” as not providing any reasonable basis upon which to predicate a decision.¹³⁷ Here, the anxieties are equally speculative—that elected officials might broaden already restrictive environmental regulations and foreclose the ability of energy producers and suppliers to access an abundant and low cost natural resource beneath

¹³⁵ See Rebuttal Testimony of Michael Bush, page 5, lines 1-9; see also *In re: Petition for Determination of Need for Okeechobee Clean Energy Center Unit 1*, by Florida Power & Light Company, Florida Public Service Commission Docket No. 150196-EI (Jan. 19, 2016) and *In re: Petition for Determination of Need for Dania Beach Clean Energy Center Unit 7*, by Florida Power & Light Company, Florida Public Service Commission Docket No. 20170225-EI (Mar. 19, 2018). Interestingly, Energy Alabama/Gasp witness Mr. Rábago participated in the Okeechobee proceeding, albeit on behalf of another entity. He was not retained in connection with the Dania Beach proceeding, but Sierra Club participated in opposition to that natural gas-fired generation. Sierra Club and its witnesses neglected to mention that the Florida Public Service Commission approved the construction of both gas-fired projects.

¹³⁶ Moreover, we would note that, under EIA’s higher cost sensitivity, the price of natural gas climbs to just above \$8 per MMBtu. See Hearing Tr., page 1174, lines 1-15. In contrast, we have seen instances in the past where the price of natural gas has exceeded \$11 per MMBtu. In any case, the evidence shows that Alabama Power’s natural gas price forecast is in line with other industry forecasts. See Hearing Tr., page 835, line 13 through page 838, line 1.

¹³⁷ See *In re Certificate of Convenience and Necessity (Barry Steam Plant)*, at page 5 (“[N]either this Commission nor the Company can ignore the Company’s existing statutory duty to provide reliable service because of what might happen in the future.”) (emphasis in original).

the nation's very feet, with no regard for the economic consequences. Considering the evidence adduced at hearing, we fail to see why it is not equally (if not more) probable that foreign nations might seek to leverage their control over the materials required to develop renewable resources, thereby limiting availability and driving up costs.¹³⁸ As well, it would seem that technological advancements, comparable to those touted by intervenors with regard to renewables, could likewise provide solutions to concerns over greenhouse gas emissions, facilitating energy producers and suppliers' continued use of the abundant domestic natural resources available to them.

Whatever may be the likelihood of this future environmental risk, we do not agree that the Company's assessment was inadequate under prevailing circumstances.¹³⁹ Rather, Alabama Power analyzed the cost impact of a carbon price proxy on the relative value of the portfolio, which yielded a more comprehensive understanding of what costs might arise in the event some action is taken in the future in that regard.¹⁴⁰ As Mr. Bush recognized at hearing, the Company in theory could have performed any number of other different analyses, but such analyses predicated on speculative assumptions generally are not performed given their inherently limited value.¹⁴¹ In any case, we have never required Alabama Power to support a certification request with perfect knowledge of future events, and decline to do so now. The requisite standard has been, and continues to be, that the resources for which the Company seeks authorization must be reliable and represent the least cost, practical means by

¹³⁸ See Hearing Tr., page 1125, line 9 through page 1126, line 11.

¹³⁹ It is not for this Commission to impose "environmental policy" of any kind, let alone the kind Sierra Club and Energy Alabama/Gasp seek. While we do have exclusive and comprehensive jurisdiction over the utilities we regulate, we are a creature of statute and our authority is limited to that granted us by the Legislature. See, e.g., *BellSouth Telecomms., Inc. v. APSC*, 987 So. 2d 1079, 1085 (Ala. 2007) ("The APSC is a statutory creature and, as such, can assume and exercise only those powers clearly granted to it by the legislature."). Pursuit of these intervenors' agendas is not within the scope of that authority.

¹⁴⁰ See Direct Testimony of Brandon Looney, page 7, line 19 through page 8, line 4 and APC Ex. 36; see also Rebuttal Testimony of Brandon Looney, page 10, lines 1-13.

¹⁴¹ See Hearing Tr., page 669, line 5 through page 670, line 4.

which it can meet its customers' needs, based on the best information available to it. The natural gas-fired combined cycle units satisfy this standard.

In reaching this conclusion, we turn to four final assertions by intervenors. The first we referenced earlier—Sierra Club's contention, based on the testimony of Ms. Wilson, that the Company should forego Barry Unit 8 (and, by extension, the other gas-fired resources as well) and instead pursue a so-called clean energy portfolio, or CEP.¹⁴² Ms. Wilson claimed that her CEP, developed by applying RMI's methodology and using the RMI tool, is more cost effective than Barry Unit 8 and would "save customers money".¹⁴³ Ms. Wilson also contended that Barry Unit 8 could at some point become "stranded".¹⁴⁴ For these and other reasons,¹⁴⁵ Ms. Wilson recommended the Commission deny or defer certification of the gas-fired resources in the portfolio so that her CEP could be pursued or, failing that, condition approval upon (among other things) shareholders assuming all future stranded cost risk related to those resources.¹⁴⁶ As evidenced in Mr. Bush's rebuttal testimony and Ms. Wilson's testimony at

¹⁴² As discussed, Mr. Rábago and Mr. Detsky both referenced favorably the RMI clean energy portfolio. Neither of these witnesses, however, advanced opinions to the degree Ms. Wilson did.

¹⁴³ See Direct Testimony of Rachel Wilson, page 16, line 5 through page 18, line 14; Sierra Club Ex. 15. Although suggesting that she followed RMI's report and methodology, the LCOE results displayed in Ms. Wilson's testimony do not, in fact, reflect the RMI approach. See Hearing Tr., page 1104, line 16 through page 1105, line 16.

¹⁴⁴ See Direct Testimony of Rachel Wilson, page 23, line 1 through page 24, line 5. As with her claim regarding cost-effectiveness, this contention about Barry Unit 8's "stranded cost" risk was stretched to include all of the gas-fired resources in the portfolio. Compare *id.*, page 24, lines 3-5 with page 26, lines 1-6. At hearing, however, Ms. Wilson admitted that she did not look at those other two resources (Hog Bayou and Central Alabama) and performed no analysis respecting either of them. See Hearing Tr., page 1057, line 9 through page 1058, line 20.

¹⁴⁵ For example, in pre-filed testimony, Ms. Wilson discussed what she viewed as the ramifications of the proposed portfolio in terms of "social" costs. See Direct Testimony of Rachel Wilson, page 4, lines 18-22. The basis for her testimony stemmed from a value developed by the Interagency Working Group on the Social Cost of Greenhouse Gases, which was disbanded by the current administration. See Rebuttal Testimony of Brandon Looney, page 10, line 14 through page 11, line 3. At hearing, Ms. Wilson conceded she was aware of this when she submitted her testimony, and also that the value generated by the disbanded group (which she used to perform certain calculations) no longer reflected government policy as of March 2017. See Hearing Tr., page 1047, lines 6-23. In any event, such policy-based contentions are beyond the ambit of relevant considerations for this agency, in accordance with Title 37 of the Alabama Code.

¹⁴⁶ See Direct Testimony of Rachel Wilson, page 32, lines 17-21. In support of this recommendation, she cited as "precedent" the Company's commitment in Docket 26115 that the costs associated with Barry Units 6 and 7 would not be included in any calculation of retail stranded costs. See *id.*, page 26, lines 7-13. This offer was made (and accepted by this Commission) in the context of ongoing discussions involving possible electric industry restructuring and related concerns

hearing, neither the RMI study (including the related modeling “tool”) nor Ms. Wilson’s opinions provide credible support for the conclusions the Sierra Club would have this Commission reach.¹⁴⁷

The RMI tool employs a simplistic methodology that derives a levelized cost of energy (“LCOE”). As explained by Mr. Bush and Mr. Looney, LCOE is useful only for screening purposes and, unlike the production cost modeling used by the Company to evaluate the portfolio, does not capture important system-specific attributes such as energy value and capacity value (both of which can vary greatly from hour to hour).¹⁴⁸ Accordingly, LCOE results provide no meaningful basis upon which to make final resource decisions.¹⁴⁹

Additionally, the evidence before us demonstrates an analysis riddled with problems.¹⁵⁰ For example, the Company’s capacity deficit arises from a winter reliability need, but Ms. Wilson’s CEP included almost 1,200 MW of stand-alone solar resources that provide little (if any) capacity benefit to meet a winter peak.¹⁵¹ Equally (if not more) concerning is the fact that the top 50 load hours that her CEP purported to address for reliability purposes are all in the summer.¹⁵² Further, the evidence shows

that generation costs might be “stranded” to the extent they could not be recovered at prevailing prices in a competitive market. *See* Sierra Club Ex. 21, page 12, line 16 through page 13, line 5.

¹⁴⁷ *See* Rebuttal Testimony of Michael Bush, page 7, line 9 through page 16, line 2; *see also* Hearing Tr., page 1078 through page 1120.

¹⁴⁸ *See* Rebuttal Testimony of Brandon Looney, page 9, lines 5-22; Rebuttal Testimony of Michael Bush, page 5, line 10 through page 7, line 8.

¹⁴⁹ At hearing, Ms. Wilson acknowledged this fact. *See* Hearing Tr., page 1059, line 8 through page 1060, line 1; page 1062, lines 15-22; page 1074, lines 6-15. In light of Ms. Wilson’s concessions in this regard, the limited purpose of an LCOE-based analysis renders her testimony and the conclusions surrounding her CEP of minimal probative value, if any, particularly when compared to the Company’s robust portfolio analysis based on production cost modeling.

¹⁵⁰ Ms. Wilson admitted that this was her first experience using the RMI tool and that the only training she received concerning its use was from an employee of the Sierra Club. *See* Hearing Tr., page 1068, line 6 through page 1069, line 18. The many problems with her analysis are largely obscured by her filed testimony and exhibits, and are revealed only through an examination of her underlying workpapers. *See* APC Exhibit 45.

¹⁵¹ *See* Hearing Tr., page 1113, line 8 through page 1114, line 1.

¹⁵² *See* Hearing Tr., page 1118, line 9 through page 1119, line 23. This may be due to Ms. Wilson’s unexplained inability to input current load information from FERC Form 714, requiring her instead to use information from a 2011 publication called “Reinventing Fire”. *See* Hearing Tr., page 1099, lines 3-22; page 1119, line 23 through page 1120, line 3.

that the RMI tool, and Ms. Wilson's analysis using it, reflects a number of inputs and assumptions that, by design, disadvantaged the economic performance of Barry Unit 8 relative to the "clean energy" portfolio.¹⁵³

Even if one were to ignore these and other issues and errors related to Ms. Wilson's analysis, her own results (taken at face value) refute her conclusion that the CEP is "less expensive" and would "save customers money".¹⁵⁴ Specifically, the CEP comprised over 2,600 MW, which is what the RMI tool suggested would be "equivalent" to the 748 MW Barry Unit 8.¹⁵⁵ The total cost of the CEP is also *higher* than that of Barry Unit 8 in every one of her study scenarios—in some instances by as much as 25 percent.¹⁵⁶ Focusing only on capital cost, Ms. Wilson's CEP is again *more costly* than Barry Unit 8 in every scenario, generally by a factor of three.¹⁵⁷

¹⁵³ By way of example, the 40-year useful life of Barry Unit 8 is compressed to only 20 years, but without a corresponding adjustment to its cost. Such modeling of Barry Unit 8 is patently inconsistent with the favorable treatment afforded solar resources. *See* Hearing Tr., page 1083, lines 11-22; page 1085, line 7 through page 1087, line 7. Compounding this flaw, Ms. Wilson's LCOE analysis reflects incorrect (overstated) cost inputs for Barry Unit 8. *See* Rebuttal Testimony of Michael Bush, page 13, lines 9-11; *See also* Hearing Tr., page 1084, line 12 through page 1185, line 6. *See also* Rebuttal Testimony of Michael Bush, page 11, lines 1-12.

Another example is Ms. Wilson's selective change to one of RMI's stated LCOE inputs, favoring her CEP with an unsubstantiated 33 percent increase in the assumed value of its "excess energy" (which value was then applied as an offset to its cost). *See* Hearing Tr., page 1092, line 10 through page 1094, line 2. In contrast, she made no effort to recognize the fact that Barry Unit 8 also would have the ability to make wholesale sales of excess energy, thereby producing revenue to offset some of its cost as well. Indeed, and unlike non-dispatchable renewable resources that can produce excess energy in periods that actually *impose* a cost, the dispatchability of Barry Unit 8 would enable it to do so only in periods when positive margins could be expected. *See* Hearing Tr., page 1094, line 13 through page 1097, line 10.

¹⁵⁴ *See* Direct Testimony of Rachel Wilson, page 17, lines 3-5 and 11-13. To be clear, the Commission is not suggesting that correcting these and other aspects of the RMI tool (as well as Ms. Wilson's application of it) would somehow render a LCOE-based analysis probative for purposes of a proceeding such as the one at hand. To the contrary, resource decisions are properly made on the basis of production cost modeling of the kind presented by the Company in support of the proposed portfolio.

¹⁵⁵ The evidence does not support a conclusion that the CEP would be "equivalent" to Barry Unit 8, but rather shows to the contrary. *See* Rebuttal Testimony of Michael Bush, page 11, line 13 through page 12, line 3; *see also* Hearing Tr., page 1070, line 13 through page 1074, line 12. Moreover, the size of Ms. Wilson's CEP—nearly 2,000 MW greater than Barry Unit 8—belies intervenors' claims that Alabama Power is "overbuilding." *Compare* Direct Testimony of Karl Rábago, page 10, lines 8-13 (endorsing the CEP) *with id.*, page 30, lines 1-9 (chastising the Company for "mindless overbuilding").

¹⁵⁶ *See* Hearing Tr., page 1109, lines 7-16.

¹⁵⁷ *See* Hearing Tr., page 1109, line 17 through page 1110, line 3.

Equally unpersuasive was Ms. Wilson's reliance on the RMI report to support the claim that Barry Unit 8 poses a significant stranded cost risk by the year 2040.¹⁵⁸ In her testimony, she replicated a chart reflecting RMI's analysis of then-proposed combined cycle gas plants,¹⁵⁹ which did not include Barry Unit 8.¹⁶⁰ Included or not, RMI's views concerning the viability of gas-fired resources beyond 2040 were based on the same LCOE methodology and flawed assumptions discussed above,¹⁶¹ which we find impugn the credibility of the indicated results. Finally, we would observe that Ms. Wilson relied on this portion of the RMI report to support her testimony, but did so without mentioning that her own analysis using the RMI tool yielded contrary results.¹⁶²

In light of the above, we reject Ms. Wilson's recommendation that Alabama Power be required to bear the risk of any of the gas units becoming stranded. We recognize the prior commitment made by the Company in connection with the requested certification of Barry Units 6 and 7, but that choice by Alabama Power occurred under circumstances far different than those present today. As noted above, at that time the entire electric utility industry was experiencing a period of transformation, with a number of states exploring restructuring whereby non-utility generators and other retail providers were allowed to assume electric service roles historically performed by the traditional supplier. Ultimately, no federal or Alabama legislation directed the adoption of such a course in this state, but the near-term potential for such to occur was quite real as of the time of Alabama Power's request to this Commission.

¹⁵⁸ See Direct Testimony of Rachel Wilson, page 23, line 1 through page 24, line 5.

¹⁵⁹ See Sierra Club Ex. 15, p. 9 (Fig. ES3), p. 20 (Fig. 3) and p. 35 (Fig. 10).

¹⁶⁰ See Sierra Club Ex. 15, page 20, Figure 3.

¹⁶¹ See, e.g., Sierra Club Ex. 15, page 9 fn. 3, referencing the artificially shortened 20-year life for a combined cycle unit.

¹⁶² Once again, it is necessary to find this information in Ms. Wilson's workpapers. See APC Ex. 45. As shown on Attachment H.(RMI Outputs), Tab 1 of 9 (Summary Outputs), page 2 of 3, Column AR, line 6, Barry Unit 8 is purportedly "stranded" in only one of her five study scenarios ("high gas price"), and even then not until 2042 (which coincides with the end of the 20-year life assumed for the unit).

In contrast, neither the record in this case nor any information otherwise available to us indicates a near-term prospect that the resources requested here will suddenly become unnecessary, or incapable of being dispatched by Alabama Power to meet customer demand reliably and cost-effectively. There is ample evidence in this record showing that natural gas-fired generation has played and will continue to play an important role in electric generation well into the future. The natural gas resources identified by the Company were selected as the best choices among the proposals received through competitive solicitations for such resources, with appropriate consideration given to future risks and mitigation measures. For these reasons, we decline to condition our approval on Alabama Power's shareholders assuming cost responsibility for some future event that is both unknown and unknowable. To do so, based on the record in this case, would be inequitable and would violate our statutory obligations.¹⁶³

The second matter concerns the claims of Sierra Club witness Mr. Detsky (and echoed by Ms. Wilson) that the Commission should decline to certificate the gas resources in the portfolio, and instead reject those resources or direct Alabama Power to defer action on them until after the 2020 RFP scheduled in accordance with this Commission's order in Docket 32382.¹⁶⁴ In Mr. Detsky's opinion, the Company should hold the RFP as early in 2020 as possible, in order to take advantage of expiring federal tax credits and have the resources in-service to meet the Company's capacity deficit.¹⁶⁵ He further opined that a 2020 RFP would not cost Alabama Power more relative to the Central Alabama acquisition, if the RFP were held in the first half of the year.¹⁶⁶ Rather, he predicted a potential for

¹⁶³ See Ala. Code § 37-1-80; *see also* Ala. Code § 37-4-28.

¹⁶⁴ See Direct Testimony of Mark Detsky, page 6, lines 3 through page 7, line 7; *see also* Direct Testimony of Rachel Wilson, page 32, lines 12-16.

¹⁶⁵ See Direct Testimony of Mark Detsky, page 6, line 16 through page 7, line 2.

¹⁶⁶ See *id.*, page 29, lines 10-13.

significant savings if Alabama Power issued a solicitation for solar-storage resources through the 2020 RFP in an amount equivalent to the capacity of the Central Alabama and Hog Bayou resources.¹⁶⁷

We are not persuaded by Mr. Detsky's opinions, which reflect little more than speculation and conjecture. Both Mr. Detsky and Ms. Wilson ignored the practical impediments associated with a "deferral" of the gas resources.¹⁶⁸ The Commission does not have jurisdiction over the counter-parties to the Central Alabama acquisition, the Hog Bayou PPA, and the consortium with which Alabama Power has entered into the EPC Agreement for the construction of Barry Unit 8. As discussed earlier in this order, the arrangements supporting the different resources in the portfolio all include approaching contractual deadlines that permit the counter-party to walk away if regulatory certainty has not been achieved by a date certain. Thus, there is certainly no guarantee that these parties will stand by while Alabama Power conducts another market solicitation to see if the outcome warrants a different course. To the contrary, it would seem rather unlikely they would be willing to forego pursuing other opportunities and instead remain bound by their original commitments to Alabama Power to accommodate a delay that would take many months, if not more than a year.¹⁶⁹

In addition, the multiple extension requests that we have accommodated (with the commensurate delay in the issuance of a decision), coupled with the time that would be required for Alabama Power to prepare and issue an RFP, seem to push matters beyond the schedule presupposed by Mr. Detsky. Even were that not the case, we would still find Mr. Detsky's approach ill-advised. We recognize that Mr. Detsky comes to this proceeding as a lawyer from Colorado with relevant experience seemingly limited to his representation of independent power producers west of the Mississippi, along with service as a

¹⁶⁷ See *id.*, page 28, lines 3-10 and page 34, lines 14-21.

¹⁶⁸ See Hearing Tr., page 771, lines 15-16.

¹⁶⁹ See footnote 78, *supra*.

hired witness in the Georgia IRP proceeding referenced earlier.¹⁷⁰ But we think even Mr. Detsky's clients would be troubled by a regulator who refuses to accept the results of an RFP—let alone three of them—as indicative of market pricing for generation options. Indeed, under Sierra Club's view of least cost resource procurement, the utility would never make a decision, as its theory of perpetually declining costs means there will always be something cheaper down the road that must be explored.¹⁷¹ Such a course is not a workable approach for reliable utility operations, and we refuse to embrace it.

Finally, Mr. Detsky's suggested approach ignores the limitations that Alabama Power encountered when integrating storage systems beyond an identified threshold amount.¹⁷² Mr. Detsky's claims were also refuted by Mr. Looney's testimony that the costs of larger storage resources simply did not prove competitive with the selected resources, and such economics were not expected to change in time for a 2020 RFP.¹⁷³ In addition, and as discussed above, we do not believe the evidence in the proceeding demonstrates the presence of any material flaws in these RFPs that affected market response.¹⁷⁴ At the risk of stating the obvious, we feel compelled to point out that the 2020 RFP was required by the Commission as part of the Company's renewable generation certificate, which by its terms does not involve resources procured for purposes of reliability.¹⁷⁵ Moreover, as recognized by several Company witnesses, the renewable generation certificate carries with it certain expectations

¹⁷⁰ See Hearing Tr., page 1148, line 23 through page 1155, line 3.

¹⁷¹ See Hearing Tr., page 983, lines 2-14; *but see* Hearing Tr. page 999, line 21 through page 1001, line 4 (Mr. Pollock confirming a "flattening out" in solar cost reductions).

¹⁷² See Direct Testimony of Brandon Looney, page 6, line 21 through page 7, line 18. Mr. Detsky's omission here perhaps is to be expected. As Mr. Looney explained in his Rebuttal Testimony, one of the limitations of using Strategist in the manner supported by Mr. Detsky is that Strategist does not resolve all issues that must be considered as part of the evaluation of a resource portfolio, such as transmission issues. See Rebuttal Testimony of Brandon Looney, page 4, line 17 through page 5, line 17. See also Hearing Tr., page 1159, lines 7-13.

¹⁷³ See Rebuttal Testimony of Brandon Looney, page 7, lines 11-15; *see also* Hearing Tr., page 780, lines 5-17.

¹⁷⁴ See *supra* page 30 and n.95; *see also* Hearing Tr. page 1160, lines 1-19; Hearing Tr. page 1165, line 17 through page 1166, line 8.

¹⁷⁵ See AlaSIA Ex. 1.

regarding customer involvement and economic benefits.¹⁷⁶ While Alabama Power appropriately employed the 2018 RFP as it canvassed the market for potential options to its resource needs, doing so did not transform the 2020 RFP into something it was never intended to be—a recurring obligation that the Company formally solicit the market for new capacity resources and perpetually postpone resource decisions to await the results. In summary, and for the foregoing reasons, we do not find the evidence in this proceeding to support deferral or rejection of the gas resources in order for Alabama Power to perform yet another RFP.

The third matter concerns claims by intervenors that Alabama Power has not adequately considered demand-side options and efficiency programs (collectively, “DSM”) in connection with its proposal. Here too, intervenors offered generalized claims and criticisms, as opposed to substantial evidence that might support a decision by this Commission to reject all or some of the proposed portfolio. Specifically, intervenors have not identified any viable capacity reduction, in terms of megawatt equivalence, that Alabama Power could achieve through the deployment of cost-effective DSM measures. Nor have they shown that their unidentified (but nonetheless preferred) DSM programs provide greater benefits to Alabama Power customers than any particular resource they seek to supplant.

Mr. Rábago and Mr. Howat pointed to recent studies by the American Council for an Energy-Efficient Economy (“ACEEE”) affording Alabama Power and the state of Alabama low marks in the area of DSM-related accomplishments tracked by that organization. The upshot of the testimony from these witnesses was that the ACEEE studies “prove” the Company has the ability to achieve capacity reductions through the deployment of additional DSM measures.¹⁷⁷ Mr. Howat in fact recommended, based on data reported in one such study, that the Commission should direct Alabama Power to explore

¹⁷⁶ See Hearing Tr., page 536, lines 6-20.

¹⁷⁷ See Direct Testimony of Karl Rábago, page 24, lines 1-17; Testimony of John Howat, page 16, line 8 through page 17, line 6.

spending 2.7 percent of its annual revenues on DSM-related measures.¹⁷⁸ As previously noted, this would cost customers approximately \$150 million annually, but would not materially address the reliability need.¹⁷⁹

Mr. Rábago also pointed to a prior study performed for the Alabama Power service territory that reported the potential for the Company to realize more than 400 MW in demand reductions through the deployment of DSM measures.¹⁸⁰ Mr. Rábago acknowledged that the projection is based on an economic measure known as the Total Resource Cost test, and not the Ratepayer Impact Measure ("RIM") test long used by the Company, but argued that the Company should abandon its test because it constrains the deployment of DSM programs.¹⁸¹ Mr. Rábago (as well as Mr. Detsky) further claimed that the Company did not subject the resources in the portfolio to the RIM test, implying that Alabama Power holds DSM programs to a more rigorous standard than it does supply-side resources.¹⁸²

Alabama Power responded to these assertions principally through the testimony of Mr. Kelley. Mr. Kelley first stated that Alabama Power has one of the largest DSM programs in the country, with the active DSM options comprising more than 1,200 MW.¹⁸³ Mr. Kelley then testified that ACEEE's analytical methodologies do not provide a meaningful measure of DSM programs. For example, Mr. Kelley observed how the ACEEE organization excludes a number of categories from its reports. Mr. Kelley also presented a chart of EIA data showing residential usage trends over the last nine years. Importantly, the declining trend in usage shown for Alabama Power customers sits atop all regions of

¹⁷⁸ See Direct Testimony of John Howat, page 16, lines 13-19 and page 17, lines 3-6.

¹⁷⁹ See footnote 110, *supra*.

¹⁸⁰ See Direct Testimony of Karl Rábago, page 28, lines 6-14.

¹⁸¹ See *id.*, page 26, line 7 through page 27, line 8.

¹⁸² See *id.*, page 26, line 13 through page 27, line 2.

¹⁸³ See Rebuttal Testimony of John Kelley, page 21, line 16 through page 22, line 3.

the country, except the Pacific Northwest.¹⁸⁴ Moreover, Mr. Kelley demonstrated that states at the top of the ACEEE rankings do not have a correspondingly low cost of electricity.¹⁸⁵

As for use of the RIM test to assess the appropriateness of DSM programs, Mr. Kelley testified why the Company considers the RIM test to be the appropriate measure. Mr. Kelley explained that the fundamental feature of the RIM test is that a viable program yields net benefits to *all* customers over the useful life of the program, thereby preventing cross-subsidization of program participants by non-participants.¹⁸⁶ The RIM test does so primarily by accounting for lost revenues associated with the implementation of a program.¹⁸⁷ Mr. Kelley also disagreed with claims by intervenors that the resources included in the proposed portfolio were not subject to a RIM analysis, explaining that a program can pass the RIM test even if it does not result in a rate decrease. The critical point, which intervenors seem to ignore, is that in situations where capacity is required, a DSM program or resource option, as the case may be, can give rise to a rate increase and nonetheless pass RIM if it puts more downward pressure on rates (*i.e.*, results in less of an increase) relative to other viable alternatives.¹⁸⁸

We find the substantial weight of the evidence validates the Company's ongoing approach to the utilization of DSM measures to address the peak demands of its customers. Particularly compelling is the testimony of Mr. Kelley regarding ACEEE, the higher electricity costs borne by states in which ACEEE top performers operate, and the usage reductions that Alabama Power has witnessed relative to

¹⁸⁴ See *id.*, page 25, line 5 (chart).

¹⁸⁵ See *id.*, page 23, line 20 through page 21, line 6.

¹⁸⁶ *Id.*, page 26, line 21 through page 27, line 3.

¹⁸⁷ *Id.*, page 28, lines 1-9 and page 29, lines 1-9.

¹⁸⁸ See *id.*, page 29, lines 13-14. Mr. Kelley made a related observation here when he observed that Mr. Howat's recommendation that the Company explore spending 2.7 percent of its revenues annually contradicted his recommendation that the Commission reject the entire portfolio because it placed upward pressure on rates. See *id.*, page 30, lines 3-5.

other parts of the country.¹⁸⁹ This evidence stands in stark contrast to the inferences intervenors would have us draw from the ACEEE studies, yet no intervenor challenged Mr. Kelley's responsive assertions at hearing, or presented us with any other basis on which to predicate a reasonable conclusion that significant and cost-effective demand reductions can be accomplished through DSM programs (beyond those the Company would otherwise pursue) that would obviate the need for some or all of the proposed portfolio.¹⁹⁰ As discussed above, Mr. Rábago was the only witness to advance a potential capacity reduction figure using DSM measures; however, at hearing he conceded that this potential amount was the product of a somewhat dated analysis and, in addition, was predicated on the Total Resource Cost test, rather than the RIM test. Mr. Rábago also admitted at hearing that the authors of the report he cited caveated the certainty of the Company's ability to achieve any such reduction.¹⁹¹

¹⁸⁹ We would pause here to acknowledge, and reject, the arguments of intervenors regarding "energy burdens" and the bills paid by customers. This Commission regulates a number of different utilities—not just Alabama Power. Thus, we fully understand and are sensitive to the impact to consumers that utility payment obligations can cause. This case is not the first time, however, that an advocacy group has attempted to conflate high bills with high rates through a generalized suggestion of "high cost". As Alabama Power's witnesses correctly observed, an appropriate examination of utility costs, or more specifically "energy costs", requires consideration of all forms of energy, so that a true measure of the burden to a consumer can be determined. *See* Rebuttal Testimony of Maria Burke, page 20, line 8 through page 21, line 3; Hearing Tr., page 876, line 20 through page 877, line 18. Piecemeal looks at just the cost of electricity, which intervenors call for, paint an incomplete and misleading picture. Such arguments fail to inform regarding a consumer's overall energy burden, which is more properly assessed through an examination of energy efficiency. In that regard, the record shows that customers in Alabama are very energy efficient, ranking 4th best (lowest) in the country in terms of per capita energy usage. *See* Rebuttal Testimony of Maria Burke, page 22, line 1 through page 23, line 2.

¹⁹⁰ To this end, Ms. Wilson cited a Lawrence Berkeley National Laboratory report for the proposition that DSM represents a least-cost solution for electricity. *See* Direct Testimony of Rachel Wilson, Ex. RW-3. That report, however, draws its conclusions from data over much of the early parts of the 2010s, and focuses on lighting retrofits as a major opportunity for savings in the efficiency area. *Id.* As Mr. Kelley explained, however, changing federal standards, along with Alabama Power's efforts to educate its customers on the application of efficient energy usage practices, seem to have captured most, if not all, of the lowest-cost opportunities Ms. Wilson would have us find still available. *See* Rebuttal Testimony of John Kelley, page 24, line 7, through page 25, line 10; *see also* Hearing Tr., page 1087, line 8 through page 1088, line 9. Moreover, as Mr. Kelley testified, the report referenced by Ms. Wilson does not account for lost revenues, as is properly done through a RIM test assessment. *See* Rebuttal Testimony of John Kelley, page 30, lines 12-18.

¹⁹¹ *See* Hearing Tr., page 1223, line 14 through page 1224, line 7. While Mr. Rábago dismissed this caveat on redirect as classic "legal disclaimer" language, we decline to be so readily dismissive, given that the ultimate issue before us concerns the ability of Alabama Power to find the practical, least cost solution for meeting the reliability needs of its customers. *See id.*, page 1245, line 2 through page 1246, line 19.

We also reaffirm Alabama Power's ongoing use of the RIM test as the appropriate measure for cost-effectiveness. The RIM test has informed the Company's supply-side and demand-side resource procurement decisions for decades. During that time, we have considered challenges to its use.¹⁹² The underlying goal of minimizing rate pressure for the benefit of all customers has led us to retain it, thereby ensuring that certain segments of Alabama Power's customers do not subsidize others. Claims that more programs could be realized through the use of a different test do not offer a legitimate basis for abandoning the RIM test. "More" does not always mean better, particularly when the additional DSM measures would cause cross-subsidization. Moreover, as evidenced by Mr. Kelley's testimony, Alabama Power's residential usage has declined due to energy efficiency at a pace better than most, while the Company's average retail rate remains below the national average.¹⁹³

Finally, we would note that Alabama Power has proposed through its portfolio to *pursue* 200 MW of DSM and distributed energy resource programs in service of its retail needs. The Commission recognizes that until final development and implementation, pursuit of such programs presents a degree of uncertainty as to their contribution to future resource adequacy. Also, as the Company's pre-filed testimony and the evidence at hearing reflects,¹⁹⁴ the precise details regarding the types of programs that will be pursued remain in development. Accordingly, there is no reason at this time for the Commission to prescribe any parameters regarding the processes for justification and approval of the programs, beyond the standard conditions that apply to any such activities of the Company. Those would include the Company working under the ongoing oversight of Commission Staff, and as circumstances require, filing formal requests for approval of new and modified rates and rate riders, as well as for authorization

¹⁹² See *In re Certificate of Convenience and Necessity (Greene Co. Steam Plant)*, at pages 6-7.

¹⁹³ See Rebuttal Testimony of John Kelley, page 24, line 7, through page 25, line 10.

¹⁹⁴ See Hearing Tr., page 519, line 18 through page 520, line 8.

of any DER program or opportunities. This customary process will afford us, and the public, with an opportunity to monitor the Company's efforts and validate its ongoing commitment to finding the most reliable solutions to meeting the needs of its customers at the lowest practical costs.

The fourth and final matter addresses the Company's total body of evidence, which is neither refuted nor rendered insubstantial or inadequate merely because the persons responsible for the analyses underlying the witnesses' testimony did not themselves also testify. For decades we have relied on the competency of Company witnesses to address matters not necessarily within their direct scope of responsibility, but nonetheless performed at their direction in order to inform their decisions and corresponding testimony. Given the size of the Company and the complexity of the issues presented to the Commission, this has proven a highly workable and practical approach. We have not been given a reason in this proceeding to question this historical practice.

The Commission likewise rejects the notion that every piece of analysis that might have informed Alabama Power's decision should have been included as an exhibit to the Company's pre-filed testimony. To be sure, it is incumbent on any utility under our jurisdiction to adequately support a request to this Commission, with the extent of support required inevitably dependent on the facts and circumstances of the request.¹⁹⁵ But an intervenor does not undermine the Company's case merely by questioning a witness's sworn statements or otherwise expressing dissatisfaction with the level of information provided. An intervenor instead must demonstrate error in the Company's claims, which is typically done through the introduction of affirmative evidence.¹⁹⁶ Intervenors have not done so.

¹⁹⁵ Here, the scope of the portfolio and the level of participation by outside parties led to the compilation of a large volume of information for our consideration, including pre-filed testimonies, discovery responses, designated excerpts from depositions and hearing transcripts. By any objective measure, the record before us is fully developed and has certainly afforded us a more than adequate basis for a reasoned decision.

¹⁹⁶ To illustrate, Energy Alabama/Gasp offered testimony from Mr. Wilson attacking the Company's load forecast. Once that occurred, the Company had to decide whether or to what extent such arguments merited response. While the Company might have elected to have Mr. Kelley respond to Mr. Wilson's claims, it chose instead to present

After extensive review of the pre-filed testimony, the discovery produced by the parties, the transcript of the hearing and the post-hearing briefs in the form of proposed orders, the Commission has determined that Alabama Power Company has demonstrated a need for additional capacity and presented evidence demonstrating that certain resources proposed by the Company represent a reasonable means by which the Company can meet this need in a reliable and economic manner.

Accordingly, the Commission approves the issuance of a certificate of convenience and necessity for: the construction of a new combined cycle unit at the site of Alabama Power Company's Barry Steam Plant ("Barry Unit 8"); the acquisition of the Central Alabama Generating Station located in Autauga County; a Power Purchase Agreement for the output of the Hog Bayou Energy Center located in Mobile County; and the authority to pursue up to 200 MW of demand-side management and distributed energy resource programs. The Commission further approves that the cost of Barry Unit 8 shall be capped at no more than 5 percent above its projected cost, subject to a showing of reasonableness if the Company seeks to recover any actual costs that exceed the capped amount. While declining to certify the Solar/BESS projects proposed in this proceeding as reliability resources, the Commission recommends that the Company go forward with an evaluation of those projects under Docket 32382, subject to the criteria set forth therein.¹⁹⁷

In arriving at this conclusion, the Commission finds that the primary consideration in this proceeding is "reliability". The natural gas-fired combined cycle units recommended for approval meet this predicate, in that they are reliable and dispatchable for *all hours* of the year. In addition, combined-

rebuttal testimony by the Company employee most familiar with that process (Ms. Burke), so that she could explain in more detail the aspects of the load forecast challenged by Mr. Wilson.

¹⁹⁷ Specifically, if they desire to do so, the counter-parties to these projects should be allowed to submit their proposals (including any revised pricing or other modifications) for evaluation as part of the 2020 request for proposals process under Docket 32382. We note that the Renewable Generation Certificate evaluation criteria includes an assessment of avoided capacity cost. Given our concerns over the reliability and dispatchability limitations of these Solar/BESS projects, the Company should exercise an appropriate level of due diligence when assigning any such capacity value to these or similar projects in any future RGC evaluations.

cycle units are very flexible. They have a wide range of operating parameters and have ramping capabilities that allow for load following and support of intermittent renewable energy. The combined cycle units can also provide additional flexibility regarding fleet maintenance schedules. Moreover, having the combined cycle units in service by the 2023-2024 timeframe will avoid impermissible reliance on the pool for the Company's reliability needs and may facilitate decisions regarding future unit retirements.

As it relates to the five Solar/BESS projects, the Commission is concerned that the reliability and dispatchability of such projects are very limited by the nature of the proposed two-hour batteries. The Commission also has concerns with some of the contractual terms included in the associated PPAs, which further limited the dispatchability of those resources. Given the fact that the Solar/BESS projects would, at best, have limited dispatchability during the winter, it is also the Commission's view that the lack of operational experience with battery storage systems on the Southern System further compounds the risk of the Solar/BESS projects for reliability purposes.

Even so, the Commission does recognize that utility scale solar systems have the potential to provide energy cost savings to all customers as well as provide additional generation diversity. Accordingly, the Commission recommends that proposals of this kind should be evaluated under Docket 32382. In so doing, the Commission recognizes that future facts and circumstances may change such that Solar/BESS projects could at some point be found suitable from a reliability perspective. At this juncture, however, the Commission declines to include them among these certified resources.

For the winter critical peak period, the Commission recommends that Alabama Power continue its long-standing focus on expanding its industrial, non-firm interruptible program. At the same time, the Company should consider enhancing the application (reliability-based or economics-based) of its industrial interruptible program while seeking to improve the promotion of and participation in

residential Demand Side Options (or "DSOs") such as direct load control and Critical Peak Pricing. The Company should also consider the development of new DSO programs associated with smart thermostats, hot water heaters, and energy efficient heat pumps. Finally, the Company should continue its weatherization efforts to improve forced outage rates during extreme winter conditions.

The Commission recognizes that the resources certified here leave Alabama Power somewhat short of its proposed winter target reserve margin. Under the circumstances presented, we do not believe the differential will impair its ability to provide reliable service to customers pending further evaluation of its needs in that regard. We expect the Company to continue its ongoing processes and practices to assess future capacity requirements for reliability purposes, taking into account any changes in relevant facts and circumstances. When the Company determines a material capacity need exists, it should file an appropriate petition for certification for consideration by the Commission.

C. Rate Treatment for the Portfolio

A final matter that requires discussion is the applicable rate treatments for the resources in the proposed portfolio. Alabama Power witness Ms. Baker testified in detail on this subject, explaining the reasons for the various requests and the relevant provisions of the Company's rates implicated thereby. For Barry Unit 8, Ms. Baker explained that the Company would expect cost recovery to be initiated through the CNP Plant Factor in Rate CNP, Part A, except for those compliance-related costs and expenses properly recoverable through the CNP Compliance Factor in Rate CNP, Part C, or energy-related costs recoverable under Rate ECR. The Plant Factor would be effective with the second calendar month following commercial operation of the facility, which as discussed above is expected in late 2023. Ms. Baker requested that the Commission direct the Company to use the Revenue Allocation formula,

consistent with paragraph (8) of Rate CNP Part A, given that the primary purpose for Barry Unit 8 is to meet Alabama Power's capacity needs.¹⁹⁸

The Central Alabama acquisition presents additional considerations. As explained above, upon closing Alabama Power will assume an existing power sales agreement under which the full output of the facility remains committed to a third party through May 2023. Rather than have Rate CNP, Part A operate in a manner comparable to that described above for Barry Unit 8, Ms. Baker explained that the Company desired to flow the costs of the acquisition and revenues associated with the existing power sales agreement through Rate RSE for an interim period. Doing so would result in customers benefitting from the downward pressure on rates created by the excess revenues from the power sales agreement. After the interim period, the Company would expect the Rate CNP Plant Factor to operate in accordance with the terms and conditions of the rate. As with Barry Unit 8, all properly recovered costs subsequent to the interim period would be reflected in the Plant Factor, except for those compliance-related costs and expenses recoverable through Rate CNP, Part C, or energy-related costs recoverable under Rate ECR. Similarly, the Revenue Allocation formula would be applied. Finally, Ms. Baker described the Company's request for authorization to depreciate or amortize, as appropriate, the total cost associated with the acquisition over the remaining life (approximately 23 years) of the facility and establish any required regulatory assets. According to Ms. Baker, this accounting treatment would better align the entire cost of the acquisition with the full benefits realized by customers over the life of the asset.¹⁹⁹

With regard to the Hog Bayou PPA, Ms. Baker explained that Alabama Power sought direction from the Commission to recover capacity-and energy-related costs through the Purchase Factor of Rate CNP, Part B, and Rate ECR, respectively. Finally, Alabama Power requests that the Commission

¹⁹⁸ See Direct Testimony of Christine Baker, page 3, line 16 through page 5, line 8.

¹⁹⁹ See *id.*, page 6, lines 1-8; see also Rebuttal Testimony of Christine Baker, page 5, line 12 through page 6, line

confirm the recovery of any equity costs arising out of the Hog Bayou PPA due to its characterization as an operating lease.²⁰⁰

1. Intervenor Positions Regarding Rate Treatment

Of the intervenors, only AIEC witness Mr. Pollock raised questions concerning the Company's proposed rate treatment in pre-filed testimony; however, many of these items were withdrawn through an errata offered at hearing.²⁰¹ Of those that remained, Mr. Pollock challenged the recovery of what he described as imputed equity costs, stating that it is not an out-of-pocket expense.²⁰² Mr. Pollock also stated that Alabama Power should forego any utilization of Rate CNP, Part A, and instead recover through Rate RSE all costs associated with Barry Unit 8 and Central Alabama. In his opinion, Rate CNP, Part A is a vestige of prior times and the design of Rate RSE obviates the need for its employment.²⁰³ Finally, Mr. Pollock questioned recovery of a portion of the Central Alabama acquisition price, in light of the fact that the book value of the plant is significantly less than the overall purchase price. He encouraged the Commission to require additional evidence of the reasonableness of the purchase price in order for the Company to recover the entire amount.²⁰⁴

Ms. Baker responded to each of these items in her Rebuttal Testimony. With respect to the appropriateness of capturing equity costs, she explained that the costs for which Alabama Power seeks authorization to recover are real costs, incurred to mitigate impacts to the Company's capital structure as a result of operating leases (e.g., the Hog Bayou PPA) being treated as liabilities on the Company's

²⁰⁰ See Direct Testimony of Christine Baker, page 7, line 16 through page 9, line 22.

²⁰¹ See Hearing Tr., page 969, lines 2-17.

²⁰² See Direct Testimony of Jeffry Pollock, page 28, line 5 through page 29, line 3.

²⁰³ See *id.*, page 29, line 4 through page 30, line 4.

²⁰⁴ See *id.*, page 30, line 5 through page 31, line 2.

balance sheet and correspondingly as debt by credit rating agencies.²⁰⁵ Ms. Baker also disputed Mr. Pollock's opinions on the ongoing usefulness of Rate CNP, Part A. She observed that Rate RSE assumed its current form many years ago, and since that time, Rate CNP, Part A has been reaffirmed through amendment. In addition, she reiterated the reasoning for postponing its operation in connection with the Central Alabama acquisition, including the benefit to customers of downward pressure resulting from the inclusion of the revenues from the existing power sales agreement in Rate RSE.²⁰⁶ Finally, she rebutted his criticisms regarding the lack of evidence supporting the reasonableness of the Central Alabama acquisition price, noting that the Company's economic analysis fully validated the competitiveness of that proposal.²⁰⁷

2. Commission Findings and Conclusions

We find the Company's requested rate treatment, as summarized above and more fully detailed in Ms. Baker's testimony, to be well supported and not undermined by the testimony from Mr. Pollock or any probative examination at hearing. With regard to the question of equity costs, this Commission has recognized on many occasions the importance of the Company's strong credit quality and the resulting benefits to customers (*e.g.*, lower interest costs; consistent access to the financial markets, especially in times of economic stress). Indeed, the Company presently is implementing a course to increase the equity percentage of its capital structure to a desired target.²⁰⁸ Thus, should Alabama Power incur actual equity-related costs associated with the Hog Bayou PPA—costs we would emphasize, that were included as part of the economic evaluation of the resource—those costs are properly recoverable.

²⁰⁵ See Rebuttal Testimony of Christine Baker, page 6, line 14 through page 8, line 7.

²⁰⁶ See *id.*, page 4, line 10 through page 6, line 5.

²⁰⁷ See *id.*, page 6, lines 6-13.

²⁰⁸ See *In re Petition for Revisions to Rate RSE*, Docket Nos. 18117 and 18416 (May 7, 2018).

In this vein, we find Alabama Power to have sufficiently supported recovery of the entire acquisition cost of the Central Alabama facility. As explored in more detail earlier in this order, the identification of that resource as an option to meet the Company's capacity need stemmed from a competitive solicitation of the market and an economic evaluation of the costs and benefits of adding that resource to Alabama Power's fleet for the duration of its operating life.²⁰⁹ The fact that the market price for the resource is above its book value is not surprising, given its age and the fact that it carries with it nearly three years of revenues associated with an existing third party power sales agreement. It is unclear what additional evidence Mr. Pollock would have Alabama Power present beyond what is already in the record. Suffice it to say, however, that if Mr. Pollock had concerns over the price being paid for the facility, it was incumbent on him, or AIEC through some other means, to bring forward that evidence to this Commission for consideration.

Lastly, we believe the course the Company has proposed for the recovery of costs relating to Central Alabama and Barry Unit 8 to be reasonable and appropriate. First, we do not agree with Mr. Pollock as to the obsolescence of Rate CNP, Part A. Had this Commission viewed this cost recovery mechanism unnecessary, we would have taken a different course than we did in 2017, when we approved revisions to the rate for the first time since its adoption in 1982.²¹⁰ Moreover, we agree with Ms. Baker that the forward-looking nature of Rate RSE could, if applied to projects such as Barry Unit 8 and Central Alabama, lead to undesired outcomes. As to the former, it presupposes that a large-scale construction project is immune to delays—which could be very impactful in terms of cost recovery for Barry Unit 8,

²⁰⁹ As an aside, we note here a line of examination by Sierra Club at hearing of Ms. Baker, rather than the more logical witness Mr. Kelley, concerning whether Alabama Power had explored an extension of an existing PPA from the Calhoun facility. See Hearing Tr., page 901, line 21 through page 904, line 17. While Ms. Baker was not aware of what, if any, consideration had been given that option, the underlying data produced in discovery reveals that the Calhoun facility was one of the resource options being considered. Based on the economic rankings, the proposal from its owners did not justify inclusion in the final portfolio.

²¹⁰ See *In re Petition for Revisions to Parts A and B of Rate CNP*, Docket Nos. 18117 and 18416 (March 3, 2017).

given that the unit's target in-service date is at year's end. Similarly, for an acquisition, Mr. Pollock's approach would require the Company to assume favorable action by the Commission as part of any annual Rate RSE filing, when neither the Company nor its customers can be assured that an evidentiary record will develop to confirm that assumption.²¹¹

As discussed earlier, the staggered arrival of the resources in the portfolio to retail service is somewhat serendipitous, given the COVID-19 pandemic and near-term economic uncertainty it has wrought. We find this to be yet another reason to accept the Company's recommendations regarding the postponement of the operation of the Rate CNP, Part A Plant Factor, until the expiration of an interim period corresponding with the remaining term of the existing power sales agreement. With the costs of this portfolio recovered in the manner proposed by Alabama Power, upward pressure on rates will not occur in earnest until 2022, and then only with respect to the Hog Bayou PPA. Costs associated with Central Alabama and Barry Unit 8 will not impact rates until mid-2023 and early 2024, under current projections. Such a degree of distance from current conditions provides us comfort that Alabama Power will be able to carry out its statutory duties of service, and in a manner that promotes the ongoing economic well-being of this state, without being unduly burdensome to any of its customer classes.

In conclusion, we find Alabama Power's recommendations regarding the capturing of costs and benefits associated with the resources in the portfolio to be well supported, and we approve them as follows.

²¹¹ As noted earlier, Sierra Club already has accused the Company of jumping the gun, and this Commission of pre-determining the outcome of this certificate proceeding, as a result of the accounting order issued in Docket No. U-5316. As we stated there, and again here, our actions with regard to the Company's incurrence of preliminary costs at Barry Unit 8 did not represent any pre-decision of the merits of this case. Rather, that decision recognized the practical realities associated with the Company prudently positioning itself to meet the needs of its customers, and in a practical, least cost manner, by the end of 2023. We raise this point again here, however, because it would seem that Mr. Pollock's recommendation regarding the use of Rate RSE in lieu of Rate CNP, Part A invites future accusations from Sierra Club, and perhaps others, that we are acting in advance of an evidentiary record, even when we are not.

For Barry Unit 8, costs and benefits will be captured by the respective rate mechanisms discussed in greater detail above. The Rate CNP, Part A Plant Factor shall operate using the Revenue Allocation formula, consistent with paragraph (8) of the rate schedule and the fact that the certificate authority being granted for Barry Unit 8 is for the primary purpose of meeting capacity needs.

For the Central Alabama acquisition, we direct Alabama Power to amortize the value allocated to the power sales agreement over the remaining useful life of the plant, so that the entire cost of the acquisition will remain aligned with the full benefits realized from the addition of the capacity and its service to customers. The Commission also directs the Company to establish an associated regulatory asset equivalent to the difference between the amortization of the value of the power sales agreement over the remaining life of the facility, and the amortization of the value of said agreement calculated using its remaining term (*i.e.*, through May 2023) as required under Generally Accepted Accounting Principles. Consistent with the FERC Uniform System of Accounts, Alabama Power also shall record the difference between the original cost of the facility and the acquisition costs for Central Alabama as an electric acquisition adjustment in FERC Account 114. The Commission authorizes the Company to amortize the amounts recorded in FERC Account 114 to FERC Account 406 over the remaining life of the facility (which at this time is estimated to be approximately 23 years).

We further direct Alabama Power to reflect all associated costs and revenues from the time of its closing of the Central Alabama acquisition through May 2023 in the Company's annual calculations and submissions under Rate RSE.²¹² Consistent with this directive, the effectiveness of the Rate CNP, Part A Plant Factor for billings shall be postponed until June 2023 (*i.e.*, until the existing power sales term

²¹² To be clear, we are not directing the Company to take any action respecting its 2020 Rate RSE filing (as filed November 27, 2019). While that filing appropriately did not include any projection of costs and revenues arising during calendar year 2020, the Company's submission in 2021 reflecting actual results for 2020, in accordance with Rate RSE, will capture the costs and revenues associated with the acquisition in 2020.

ends in May 2023).²¹³ Upon its effectiveness for billings, the Plant Factor shall include the retail revenue requirement on the average acquisition cost, net of amortization, depreciation and other allowed adjustments, and net of changes to plant assets, determined in accordance with the rate but reflective of a June 2023 effectiveness. Reasonably identifiable costs and attributes related to compliance with governmental mandates, such as expenditures associated with plant assets, operating and maintenance expenses, and accumulated depreciation and deferred income taxes, shall be excluded from the Plant Factor, but shall be recoverable through the Rate CNP, Part C Compliance Factor effective June 2023. Likewise, all associated energy costs, as defined by Rate ECR, shall be recoverable in accordance with that rate effective June 2023. Finally, the total retail revenue requirement reflected in the Plant Factor for the upcoming 12-month period, including operation, maintenance and depreciation expenses, shall be allocated based on the Revenue Allocation formula.

For the Hog Bayou PPA, Alabama Power shall recover all capacity-related costs in accordance with the Rate CNP, Part B Purchase Factor. The Company shall recover all energy related costs (including energy payments, variable operations and maintenance expenses and fuel costs) in accordance with Rate ECR. As discussed above, the Commission also confirms the appropriateness of recovering any additional equity costs directly resulting from the Hog Bayou PPA (or any other arrangement that is treated as a finance (capital) or operating lease). To effectuate such recovery, the Company shall make a compliance filing within sixty (60) days of this order for the limited purpose of implementing the modifications to its existing rate schedules necessary for recovery.

²¹³ As such, we direct the Company to file the Rate CNP, Part A Plant Factor not later than sixty (60) days prior to its effectiveness.

After consideration of the record compiled in this case, including the testimonial submissions, the written and document discovery provided to the Commission Staff, properly designated deposition transcript excerpts, and the testimony and exhibits received at the hearing, along with other information available to the Commission, the adequacy and reliability of the Company's system, and the necessity and desirability of the proposed resources related thereto, the Commission **FINDS** that it is in the interest of the Company and of the public served by it that the natural gas-fired combined cycle resources proposed in the portfolio, together with all transmission facilities, transmission arrangements, structures, substations, and facilities, environmental control measures, facilities or arrangements for the handling, treatment, transportation, delivery and processing of fuel, and any and all other appliances, appurtenances, facilities, rights, equipment, acquisitions, commitments and accounting authorizations necessary for or incident thereto, be obtained as proposed and described by the Company in this proceeding. The Commission **FURTHER FINDS** that the Company has complied with all of the laws of the State of Alabama with the administration of which the Commission is charged applicable to the certificate of convenience and necessity herein sought.

IT IS, THEREFORE, ORDERED BY THE COMMISSION that a Certificate of Convenience and Necessity, is hereby issued to Alabama Power Company, and its successors and assigns, which grants and confers all the rights, power and authority that, under the laws of the State of Alabama, the Commission is authorized to confer for the purpose of enabling the Company to (i) construct and install the combined cycle generating facility referred to herein as Barry Unit 8, at the site of the Company's Barry Steam Plant located in Mobile County, Alabama; (ii) acquire the existing combined cycle generating capacity in Autauga County, Alabama referred to herein as the Central Alabama plant; and (iii) acquire rights and assume payment obligations under a PPA for the output of the Hog Bayou

combined cycle generating facility operated in Mobile County, Alabama; together with all transmission arrangements, structures, substations, and facilities, environmental control measures, facilities or arrangements for the handling, treatment, transportation, delivery and processing of fuel, and any and all other appliances, appurtenances, facilities, rights, equipment, acquisitions, commitments and accounting authorizations necessary for or incident thereto.

IT IS FURTHER ORDERED that Alabama Power Company's proposal to acquire rights and assume payment obligations for the output from five planned Solar/BESS projects, located in Calhoun, Chambers, Dallas, Houston and Talladega Counties, together with all transmission arrangements, structures, substations, and facilities, environmental control measures, facilities or arrangements for the handling, treatment, transportation, delivery and processing of fuel, and any and all other appliances, appurtenances, facilities, rights, equipment, acquisitions, commitments and accounting authorizations necessary for or incident thereto, is denied.

IT IS FURTHER ORDERED BY THE COMMISSION that a copy of this instrument be retained in the records of this Commission and that the original, under the seal of the Commission, be furnished to the Company as a Certificate of Convenience and Necessity authorized and required under the provisions of Alabama Code § 37-4-28.

IT IS FURTHER ORDERED BY THE COMMISSION that the March 4, 2020 motion of Sierra Club to deny Alabama Power's Petition for a Certificate of Convenience and Necessity is denied.

IT IS FURTHER ORDERED BY THE COMMISSION that the Company reflect the costs and benefits arising from the resource portfolio authorized by this Certificate of Convenience and Necessity in accordance with the discussion provided in the body of this Order.

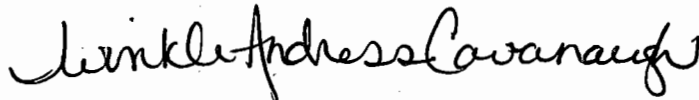
IT IS FURTHER ORDERED BY THE COMMISSION that the Company implement the regulatory accounting treatments and otherwise tender all necessary filings and submissions to this Commission in accordance with the discussion provided in the body of this Order.

IT IS FURTHER ORDERED BY THE COMMISSION that jurisdiction in this cause is, hereby, retained for any further order or orders that this Commission may find just and reasonable under the circumstances.

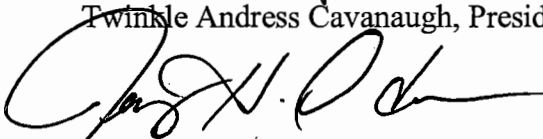
IT IS FURTHER ORDERED BY THE COMMISSION that this Order shall be effective as of the date hereof.

DONE at Montgomery, Alabama, this ^{14th} day of *August, 2020*.

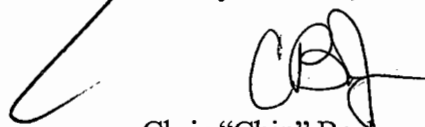
ALABAMA PUBLIC SERVICE COMMISSION



Twinkle Andress Cavanaugh, President

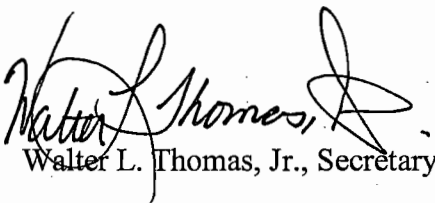


Jeremy H. Oden, Commissioner



Chris "Chip" Becker, Jr., Commissioner

ATTEST: A True Copy


Walter L. Thomas, Jr., Secretary