Baldwin Electric Membership Corporation

Summerdale, Alabama

Initial Comments Regarding The Two PURPA Standards In The Infrastructure Investment and Jobs Act Of 2021

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On Behalf Of
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Introduction

The Infrastructure Investment and Jobs Act of 2021 ("IIJA 2021") that was enacted November 15, 2021, contains two new federal standards that must be considered for implementation by all electric utilities with annual retail sales greater than 500 million kilowatt-hours during calendar years 2020 or 2021. Those new standards are in addition to the six standards set forth in the Public Utility Regulatory Policies Act of 1978 ("PURPA"), the four standards contained in the Energy Policy Act of 1992 ("EPAct 1992"), the five standards contained in the Energy Policy Act of 2005 ("EPAct 2005"), and the four standards contained in the Energy Independence and Security Act of 2007 ("EISA 2007"). The relevant sections of IIJA 2021 are shown in Appendix A hereto. IIJA 2021 adds two new Federal standards to PURPA Section 111(d):

(1) Demand-Response Practices, 26 U.S.C. § 2621(d)(20),

(2) Electric Vehicle Charging Programs, 26 U.S.C. § 2621(d)(21).

The requirements of IIJA 2021 do not mandate that the affected electric utilities implement those new standards; instead, PURPA states that "[e]ach state regulatory authority (with respect to each electric utility for which it has ratemaking authority) and each nonregulated electric utility shall consider each standard" and then "make a determination concerning whether or not it is appropriate to implement such standard." 26 U.S.C. 2621(a). Further, "[n]othing in this subsection prohibits any State regulatory authority or nonregulated electric utility from making any determination that it is not appropriate to implement any such standard." Id.

The "baseline years" for the 500 million kilowatt-hour sales applicability threshold are the one and two calendar years prior to calendar year 2022 during which the standards are being considered. Baldwin Electric Membership Corporation ("BEMC") had annual retail sales of

1,441,005,803 kilowatt-hours during calendar year 2020 and 1,510,633,743 kilowatt-hours during calendar year 2021, both well above the threshold of 500 million kilowatt-hours that identifies which electric utilities must consider implementation of the PURPA standards.

BEMC is a nonregulated electric utility, which PURPA defines as "any electric utility other than a State regulated electric utility." 16 U.S.C. § 2602(9). Thus, it is the responsibility of BEMC's Board of Trustees ("Board") to make its own independent determination regarding whether to implement each of the new PURPA standards. That determination must follow an appropriate consideration of the standards that includes evidence presented during the course of a public hearing.

The purpose of these initial comments is to contribute to the body of evidence used by the Board to make their determination on each of the two new standards based upon findings that are appropriate for the members of BEMC. The federal legislation anticipates that state regulatory authorities and nonregulated electric utilities would need to consider utility-specific conditions and circumstances during their evaluation of the PURPA standards and determine the ability of each utility to accomplish the goals of PURPA via the implementation of the two new PURPA standards. For that reason, with respect to each of the two PURPA standards, the Board may decide to implement the standard as stated in IIJA 2021, implement a modification of the standard, or decline to implement the standard. Subject to the receipt and review of additional evidence, if any, the following comments and recommendations address general considerations regarding each of the two standards and specific issues and circumstances applicable to BEMC that the Management and Staff of BEMC believe should be a part of the Board's deliberations.

PURPA Goals

The goals of PURPA continue to be the same as those stated in the original Public Utilities

Regulatory Policy Act of 1978, that is, to encourage (1) conservation of energy supplied by electric utilities, (2) optimal efficiency of electric utility facilities and resources, and (3) equitable rates for electric consumers. The first goal focuses on retail energy users and promotes conservation by end-use consumers. The second goal applies to electric utilities, their use of energy, and the facilities they utilize to deliver energy. The third goal recognizes the need for proper development and administration of retail rates, providing a check and balance relative to the other two goals, so that the programs, policies, and rates employed by electric utilities to achieve the first two goals reflect their associated costs and are not arbitrary, unfair, or unduly discriminatory.

BEMC's Board should make its determination regarding each PURPA standard based on whether, given BEMC's particular circumstances, that standard will accomplish any one or more of those three goals, without harming BEMC's ability to accomplish the others(s). Thus, if implementation of a standard adversely impacts even one of the three goals, BEMC's Board may decline to implement that standard.

Baldwin Electric Membership Corporation

BEMC has several organizational and operational characteristics that should materially influence the Board's consideration of the PURPA standards. First, BEMC is member-owned and thus self-regulated. BEMC's members elect the Board that establishes and oversees BEMC's policies, rates, service rules, and regulations. Unlike investor-owned electric utilities, BEMC has no third-party investors to satisfy. Thus, there is no conflict of interest between the utility's owners and members regarding profitability. In fact, BEMC is a not-for-profit organization. Revenues collected in excess of operating expenses (such difference referred to as "margins") are assigned back to BEMC's members as capital credits. Under this form of organization, all costs associated with the programs, policies, and rates adopted to implement the PURPA standards will be borne

in full by BEMC's members.

BEMC owns and operates an electric distribution utility. Unlike vertically integrated electric utilities that also own and operate electric generation facilities and transmission lines (together commonly called "bulk power systems"), BEMC does not make decisions independently regarding the generation and transmission functions and the related costs incurred to furnish electric energy to BEMC's members. Instead, such bulk power system services are planned and coordinated by BEMC and nineteen other electric distribution cooperatives and municipalities in Alabama and Florida through a generation and transmission electric cooperative, PowerSouth Energy Cooperative ("PowerSouth"). PowerSouth is governed by a Board of Trustees comprised of representatives from each of those electric distribution cooperatives and municipalities. It is through that participation on PowerSouth's Board of Trustees, as a "Member" and owner of PowerSouth, that BEMC has direct input to and an active role in decisions made affecting generation and transmission issues.

BEMC and the other Members of PowerSouth executed a long-term "all requirements" Wholesale Power Service contract with PowerSouth. Under the terms of that wholesale contract, BEMC is required to purchase from PowerSouth all of its power requirements through December 31, 2060.

As later discussed herein, BEMC's status as a Member of PowerSouth and its wholesale power contract with PowerSouth are significant contributing factors in BEMC's consideration of the PURPA standards and impact BEMC's ability to implement the standards. Attached hereto in Appendix B are comments prepared by PowerSouth that reflect PowerSouth's input regarding BEMC's consideration of the two PURPA standards in IIJA 2021. Additional references to PowerSouth's comments contained in Appendix B are made herein, where appropriate.

Demand-Response Practices Standard

The first of the two new PURPA standards that BEMC's Board must decide whether to implement is the Demand-Response Practices standard, which states:

> (A) In general. Each electric utility shall promote the use of demand-response and demand flexibility practices by commercial, residential, and industrial consumers to reduce electricity consumption during periods of unusually high demand.
> (B) Rate recovery.
> (i) In general. Each State regulatory authority shall consider establishing rate mechanisms allowing an electric utility with respect to which the State regulatory authority has ratemaking authority to timely recover the costs of promoting demand-response and demand flexibility practices in accordance with subparagraph (A).
> (ii) Nonregulated electric utilities. A nonregulated electric utility may establish rate mechanisms for the timely recovery of the costs of promoting demand-response and demand flexibility practices in accordance with subparagraph (A).

26 U.S.C. § 2621(d)(20).

The Board should view Part (A) of this PURPA standard in the context of the role it plays in PowerSouth's Power Supply Study ("Study") activities. That Study is summarized beginning on page 4 of its comments contained in Appendix B hereto. The Study consists of several steps, starting with a load forecast to determine the current and future power requirements. The load forecast includes the impacts of embedded energy efficiency load reductions. To meet the forecasted power requirements, the Study's process considers not only "supply-side" resources, but "demand-side" resources" as well.

Supply-side resources for PowerSouth and its Members were recently enhanced by PowerSouth entering into a Coordinated Planning & Operations Agreement ("CPO") that provides many benefits, as described on page 4 of Appendix B. Demand-side resources for PowerSouth and its Members include various energy efficiency and load control programs pertaining to

manufactured homes, HVAC systems, lighting fixtures, water heaters, and interruptible load price signals.

Demand-response and demand flexibility practices by consumers are facets of demand-side management. Electric utilities have promoted *demand-response practices* for many years, including the examples of both active and passive load management of consumers' electric loads. By comparison, *demand flexibility practices* are relatively new and, as described by the Alliance to Save Energy, focus on "[t]he use of communication and control technologies to shift electricity use across time of day while maintaining (in some cases improving) the quality and value of end-use services." In that regard, according to The Brattle Group, demand flexibility includes demand-response, but "also more broadly includes new opportunities for managing load to provide a wider range of grid services following the rapid emergence of consumer-oriented energy technologies such as AMI, smart appliances, electric vehicles, behind-the-meter battery storage, behavioral tools, and automated load control for large buildings."

The PURPA standard specifies promoting practices by commercial, residential, and industrial consumers to reduce electricity consumption during periods of unusually high demand, which BEMC is actively doing through several long-standing and new programs:

- Time-of-use rate schedule options are offered to several classes of BEMC's members to promote reduction of electricity consumption during periods of unusually high demand. BEMC's ability to offer these time-based rate alternatives is due in part to PowerSouth's wholesale rate structure that bills approximately 30% of BEMC's demand-related wholesale power cost on an Excess Demand Charge that is driven by BEMC's demand during PowerSouth's defined On-Peak Hours. Rate schedules with time-based price signals include:
    - Interconnection Rate TOU SB3
    - Commercial/Industrial Service Three Phase TOU Rate C5
    - Farm/Non-Residential TOU Rate F5
    - Public Service TOU Rate P5
    - Public Service Athletic Lighting/Park Lighting TOU Rate PA5

- Water/Sewer Pump Service TOU Rate WS5

- BEMC's commercial and industrial members that meet a load size criterion of 2,000 kVA or more may receive a demand response price signal in the form of an Interruptible Demand Credit under PowerSouth's Interruptible Power Service Rider that is based on the member's response to peak load interruption notifications.
- Member rebate programs pertaining to installation of high efficiency heat pumps are available that promote reduction in peak demand and energy conservation.
- BEMC promotes the use of LED fixtures and has sold or provided 1,000s of such fixtures.
- BEMC will replace existing electric tankless water heaters with a storage tank water heater at no cost to the member with installation included, or will bill a credit if the member prefers to self-install. Total installations have reached 54 units resulting in a peak demand reduction of approximately 1,130 kW, or 21 kW per unit.

Additionally, BEMC uses a wide range of ways to educate their members on the benefits of energy efficiency, which, in turn, promotes reductions in energy consumption during periods of unusually high demand. For example, the "Products" item on BEMC's website homepage contains links to "LED Bulbs", "Kill A Watt" and "Heat Pump" information. The "Programs" item on the website homepage contains links to "Tankless Water Heaters", Home Energy Loan Program", "Heat Pump Rebate", and "Electric Vehicles". The "Energy Savings" item on the website homepage contains "DIY Energy Savings Tools", Energy Saving Measures", and "Energy Savings Videos". Many of these energy efficiency promotions are done together with other Members of PowerSouth to develop and implement energy efficiency programs to lower growth in peak demand, as described in Appendix B.

Subpart (ii) is the portion of Part (B) of the Demand-Response Practices standard that applies to BEMC. It permits the establishment of "rate mechanisms" that provide the "timely recovery" of costs for promoting the practices described in Part (A). Rate mechanisms can take many forms, including base rates, fees, surcharges, discounts, riders, cost adjustment factors, and

so on. The form of the rate mechanism for timely cost recovery will vary depending on the practice being promoted. It should not unreasonably hinder the intended response from the member, but it should reflect proper price signals that are aligned with costs, particularly PowerSouth's wholesale power costs. If these tenants are followed, along with the other generally accepted principles of retail ratemaking, then demand-response and demand flexibility practices can be promoted in a way that benefits the members participating in those practices, while not adversely impacting (and perhaps even benefiting) the non-participants.

Impact on PURPA Goals

Regarding the three stated goals of PURPA, and in particular as to their application to BEMC, Part (A) of the Demand-Response Practices standard is consistent with accomplishing the first two goals of conservation of energy and efficient use of facilities and resources, and Part (B) is consistent with accomplishing the third goal of equitable rates. Furthermore, neither Part (A) nor Part (B) adversely impacts any of the three PURPA goals, and there are no known inconsistencies between that standard and State law.

Summary

In light of BEMC's current and planned demand-response and demand flexibility programs, coupled with BEMC's continued participation in PowerSouth's demand-response and demand flexibility programs, the Board should find in its determination of the Demand-Response Practices standard that BEMC, to the extent it is able to do so as an electric distribution utility, has already adopted programs that promote demand-response and demand flexibility practices by commercial, residential, and industrial members to reduce electricity consumption during periods of unusually high demand. The Board should adopt a finding to that effect.

Electric Vehicle Charging Programs Standard

The second of the two new PURPA standards that BEMC's Board must decide whether to implement is the Electric Vehicle Charging Programs standard, which states:

> Each State shall consider measures to promote greater electrification of the transportation sector, including the establishment of rates that—
>
> (A) promote affordable and equitable electric vehicle charging options for residential, commercial, and public electric vehicle charging infrastructure;
>
> (B) improve the customer experience associated with electric vehicle charging, including by reducing charging times for light-, medium-, and heavy-duty vehicles;
>
> (C) accelerate third-party investment in electric vehicle charging for light-, medium-, and heavy- duty vehicles; and
>
> (D) appropriately recover the marginal costs of delivering electricity to electric vehicles and electric vehicle charging infrastructure.
>
> 26 U.S.C. § 2621(d)(21).

Notwithstanding the specific wording that directs each "State" rather than each *utility* to consider the standard, BEMC is including this standard in its IIJA 2021 PURPA compliance process, with the caveat that BEMC's ability to implement this standard is limited to its own electric distribution system grid and service area.

To consider this standard, the Board must understand what is meant by "electrification of the transportation sector." "Electrification" in general is the switching (entirely or in part) from technologies that use fossil fuels to those that use electricity with the primary goal of reducing greenhouse gas ("GHG") emissions. In regard to the transportation sector, electrification includes replacing fossil fuels with electricity as the means of powering light-, medium-, and heavy-duty vehicles. Electrification of the transportation sector may also provide benefits to electric utilities by improving electric grid stability and providing opportunities for demand flexibility.

Unlike the first PURPA standard addressed in these Initial Comments that specifies action ("shall promote"), this standard is more passive ("consider measures to promote") in its

implementation. Perhaps the standard's wording is intended to reflect the uncertain and fast-evolving nature of the electrification of the transportation sector, such that if adopted, this standard could mean an ongoing, or periodic, effort to "consider measures." In that regard, BEMC's Board could make a determination to implement the second PURPA standard and then, after considering several measures to promote greater electrification of the transportation sector, decide only certain of the measures are feasible at the present time.

There are many types of "measures" that could be considered, including member education (website, presentations, demonstrations), participation in activities as a Member of PowerSouth (programs, feasibility studies), partnerships with third parties (businesses, dealerships), incentives (rebates, loans), and as identified in the standard, rates. Since Parts (A) through (D) pertain specifically to the establishment of rates, the following comments will mostly address that measure. It should be noted that the standard contains several broad terms that may lead to conflicting, or at least competing, objectives. Thus, implementation of the standard might necessitate establishment of priorities for the various objectives therein.

Part (A): Promote affordable and equitable electric vehicle charging options for residential, commercial, and public electric vehicle charging infrastructure.

Part (A) contains the dual objectives of promoting affordable and equitable options for electric vehicle charging. These objectives emphasize making electric vehicle charging available throughout BEMC's service area by employing rates that do not deter members from acquiring and operating electric vehicles. Obviously, simply establishing lower rates will promote affordability. To also be equitable, however, rates must still appropriately recover costs, as noted in Part (D) of this PURPA standard.

The dual objectives can be attained by establishing rates that encourage the use of electric service for electric vehicle charging in a manner that is beneficial to both the member and BEMC.

PowerSouth's wholesale rate structure that includes a charge based on an on-peak peak billing demand provides opportunities to its Members for the establishment of lower retail rates for energy sold to their members during off-peak periods. This time-of-use pricing is particularly applicable to residential members since most electric vehicle charging occurs at homes during the evening hours.

Although BEMC does not currently offer a time-of-use rate to residential members, the cost-based Basic Service Charge of $44.95 per month enables the billing of a lower KWH Charge, thus making electric vehicle charging more affordable and equitable than would be the case if the KWH Charge was required to recover more of BEMC's distribution system fixed costs. BEMC may consider a time-of-use residential rate option in the future, since PowerSouth is presently conducting studies to determine appropriate time-of-use rates that would encourage charging electric vehicles during off-peak periods.

Time-of-use pricing is found in many of BEMC's non-residential rates and promotes charging options for those classes of members. Some of BEMC's commercial and large power rate schedules that do not contain time-based demand or energy charges nonetheless do utilize demand charges based on the member's monthly peak load. Since those demand charges recover a portion of the cost of service to the member, the energy charges are lower than they would be without the use of demand charges. The lower energy charges promote affordable and equitable electric vehicle charging options for commercial and large power member able to charge vehicles at times other than when their own monthly peak load occurs.

Establishing affordable and equitable rates for public electric vehicle charging infrastructure is more difficult because the power requirements are greater and the energy consumption characteristics are difficult to predict. In particular, electric vehicle fast charging

stations typically have a high peak demand that requires a significant electric facilities investment but a low energy consumption due to infrequent use. Further, that infrequent use might occur during high cost peak periods. Those electric load characteristics create a high marginal cost of electric service delivery that challenges the establishment of affordable rates for electric vehicle fast charging stations that are also equitable in terms of cost recovery. BEMC is using the same rate for charging stations as it does for any other commercial account.

Part (B): Improve the customer experience associated with electric vehicle charging, including by reducing charging times for light-, medium-, and heavy-duty vehicles.

Consideration of Part (B) of the standard must begin with recognizing some of the significant aspects of the present customer experience associated with electric vehicle charging, including the cost of charging, managing charging, range anxiety, and charging time. BEMC's role with respect to charging cost and management were addressed above in Part (A).

As a Member of PowerSouth, BEMC is helping improve the member experience regarding range anxiety and charging time through PowerSouth's research in conjunction with Alabama Power Company and the Electric Power Research Institute in regard to electric vehicle charging patterns and power requirements. PowerSouth is considering a pilot program with an electric vehicle telematics company that would gather hourly data from electric vehicle owners in the Members' service areas to be used in future electric vehicle impact studies. These research efforts will lead to more informed and appropriate policies and programs for electric vehicle charging options. Also, PowerSouth has worked closely with both the states of Alabama and Florida on drafting their electric vehicle infrastructure plans.

BEMC is currently improving the customer experience associated with electric vehicle charging via the "Public Charging" link in the "Electric Vehicles" section on its website that

identifies charging locations, specifies their capabilities, and indicates the costs of charging when available.

Part (C): Accelerate third party investment in electric vehicle charging for light-, medium-, and heavy-duty vehicles.

As previously stated, PowerSouth is actively participating in the states of Alabama and Florida with entities to draft their respective electric vehicle charging infrastructure plans, with a focus on such infrastructure in the service areas of its Members.

Also, BEMC currently serves a large capacity electric vehicle charging station. BEMC worked with this member to quickly establish service for the charging station. BEMC is in discussions with a third party regarding adding additional large capacity electric vehicle charging stations in its service territory.

Part (D): Appropriately recover the marginal costs of delivering electricity to electric vehicles and electric vehicle charging infrastructure.

This final part of the standard provides a safeguard to ensure the rates established to meet the objectives of the other three parts are sustainable and do not result in adverse financial impacts. The *marginal* costs of delivering electricity to electric vehicles and electric vehicle charging infrastructure might be higher or lower than the *embedded* costs that electric rates are typically designed to recover. That is why any retail rates established by BEMC to promote greater electrification should contain charges that are reasonably aligned with PowerSouth's wholesale rates and will recover distribution system costs based on the estimated load characteristics. It should be acknowledged that in some cases appropriate recovery of marginal costs may result in rates that lessen to some extent the affordability of electric vehicle charging and hamper the acceleration of third-party investment in electric vehicle charging.

Impact on PURPA Goals

The Electric Vehicle Charging Programs standard that aims to "promote greater electrification of the transportation sector" does not specifically meet the first stated goal of PURPA, which is to encourage "conservation of energy supplied by electric utilities". However, 'electrification" views energy conservation from a broader perspective than merely reduced kilowatt-hours supplied by electric utilities. According to the Electric Power Research Institute, "economy-wide electrification leads to a reduction in energy consumption, spurs steady growth in the electric load, and reduces GHG emissions—even in scenarios with no assumed climate policy." Thus, given the many benefits of electrification, the Board's consideration of this standard may include looking beyond the strict meaning of the first goal stated in the original Public Utilities Regulatory Policy Act of 1978.

PURPA's second goal of optimal efficiency of electric utility facilities and resources can be achieved by the Electric Vehicle Charging Programs standard if the measures are considered and implemented with that goal in mind, and not forsaking that goal when addressing specific objectives stated in the standard such as improving the customer experience associated with electric vehicle charging and accelerating third-party investment in electric vehicle charging. Electric utilities have an opportunity to influence how the growing and evolving power requirements of electric vehicles can be met in ways that make more efficient use of electric utility facilities and resources. For example, the efficiency of existing facilities and resources can be enhanced by measures promoting electric vehicle charging that is controlled during peak periods or encouraged during off-peak periods.

The third PURPA goal of equitable rates for electric consumers is contemplated by Part (D) of the standard that states the rates used to promote greater electrification of the transportation

sector should appropriately recover marginal costs. This facet of the standard is important in two respects. First, rates that recover marginal costs provide reasonable and meaningful price signals to influence consumer behavior in ways that support the first two PURPA goals. Secondly, recovery of marginal costs precludes the measures implemented to promote greater electrification of the transportation sector from being subsidized by utility consumers through rates that are thereby inequitable.

Summary

The subject matter of the second PURPA standard has been discussed for many years, as evidenced by an Edison Electric report in 2014 regarding electric vehicles and utilities that concluded "The bottom line is that the electric utility industry needs the electrification of the transportation sector to remain viable and sustainable in the long run." Both BEMC and PowerSouth have already considered measures to promote greater electrification of the transportation sector in their service area. Going forward, adoption of the Electric Vehicle Charging Programs standard does not require a specific action by BEMC's Board, other than to *consider measures* to promote greater electrification of the transportation sector. Such potential measures as the Board deems worthy of consideration may take many forms, including the application of rates that appropriately recover marginal costs. In that manner, cost-based measures can provide benefits to both members of electric service and electric utilities. Thus, to the limited extent that BEMC is able to do so as an electric distribution utility and Member of PowerSouth, the Board should adopt a finding to that effect.

Conclusion

Based on the foregoing, BEMC's Board should consider taking the following action on the two new PURPA standards set forth in IIJA 2021:

Demand-Response Practices Standard—The Board should find in its determination of the Demand-Response Practices standard that BEMC, to the extent it is able to do so as an electric distribution utility, has already adopted programs that promote demand-response and demand flexibility practices by commercial, residential, and industrial members to reduce electricity consumption during periods of unusually high demand.

Electric Vehicle Charging Programs Standard—The Board should find in its determination of the Electric Vehicle Charging Programs standard that BEMC, to the extent it is able to do so as an electric distribution utility, BEMC itself or as a Member of PowerSouth, will consider measures to promote greater electrification of the transportation sector, subject to such measures appropriately recovering the marginal costs of delivering electricity to electric vehicles and electric vehicle charging infrastructure.

APPENDICES

APPENDIX A

Excerpts from The Infrastructure Investment and Jobs Act of 2021

PURPA 111(d) STANDARDS
in the
INFRASTRUCTURE INVESTMENT AND JOBS ACT OF 2021

Demand-response practices (26 U.S.C. § 2621(d)(20))

(A) In general

Each electric utility shall promote the use of demand-response and demand flexibility practices by commercial, residential, and industrial consumers to reduce electricity consumption during periods of unusually high demand.

(B) Rate recovery

(i) In general

Each State regulatory authority shall consider establishing rate mechanisms allowing an electric utility with respect to which the State regulatory authority has ratemaking authority to timely recover the costs of promoting demand-response and demand flexibility practices in accordance with subparagraph (A).

(ii) Nonregulated electric utilities

A nonregulated electric utility may establish rate mechanisms for the timely recovery of the costs of promoting demand-response and demand flexibility practices in accordance with subparagraph (A).

Electric vehicle charging programs (26 U.S.C. § 2621(d)(21))

Each State shall consider measures to promote greater electrification of the transportation sector, including the establishment of rates that—

(A) promote affordable and equitable electric vehicle charging options for residential, commercial, and public electric vehicle charging infrastructure;

(B) improve the customer experience associated with electric vehicle charging, including by reducing charging times for light-, medium-, and heavy-duty vehicles;

(C) accelerate third-party investment in electric vehicle charging for light-, medium-, and heavy-duty vehicles; and

(D) appropriately recover the marginal costs of delivering electricity to electric vehicles and electric vehicle charging infrastructure.

APPENDIX B

PowerSouth's Comments to Baldwin Electric Membership Corporation Regarding Their Determination of Implementing the PURPA Standards Under the Infrastructure Investment and Jobs Act of 2021

Comments to PowerSouth Energy Cooperative's Members
Regarding Their Determination of Implementing the PURPA Standards
Under the Infrastructure Investment and Jobs Act of 2021

Introduction

Baldwin Electric Membership Corporation (the "Cooperative") is a member-owned, not-for-profit electric cooperative headquartered in Summerdale, Alabama which provides retail electric service in the counties of Baldwin and Monroe in the State of Alabama. Cooperative, along with nineteen other cooperatives and municipalities, is a member-owner of PowerSouth Energy Cooperative ("PowerSouth"). PowerSouth is a member-owned, not-for-profit electric generation and transmission cooperative providing wholesale electric service in Alabama and northwest Florida. Cooperative receives all of its electric energy from PowerSouth and has by contract placed all wholesale power supply responsibilities with PowerSouth through December 31, 2060.

In 1978, the Public Utility Regulatory Policies Act ("PURPA"; 16 U.S.C. Ch. 46, Sections 2601, et seq.) was enacted into law to encourage energy conservation, efficiency in the use of electric utility facilities and resources, and equitable rates for electric consumers. PURPA identifies energy policy standards for electric utilities to consider and determine whether it is appropriate to implement such standard(s). These standards are set forth in PURPA Section 111(d) (as codified at 16 U.S.C. Ch. 46, Section 2621(d)).

Most recently, the 2021 Infrastructure Investment and Jobs Act (IIJA) requires non-regulated cooperatives, municipal utilities, and state regulators (for regulated utilities) to consider adopting two new standards under Section 111(d) of PURPA. The two new PURPA 111 (d) Standards under IIJA to consider are:

1. *Demand-Response Practices*.
   (A) In general
   Each electric utility shall promote the use of demand-response and demand flexibility practices by commercial, residential, and industrial consumers to reduce electricity consumption during periods of unusually high demand.
   (B) Rate Recovery
   A nonregulated electric utility may establish rate mechanisms for the timely recovery of the costs of promoting demand-response and demand flexibility practices in accordance with subparagraph (A).

2. *Electric Vehicle Charging Programs.*
Each State shall consider measures to promote greater electrification of the transportation sector, including the establishment of rates that:
(A) promote affordable and equitable electric vehicle charging options for residential, commercial, and public electric vehicle charging infrastructure;
(B) improve the customer experience associated with electric vehicle charging, including by reducing charging times for light-, medium-, and heavy-duty vehicles;
(C) accelerate third-party investment in electric vehicle charging for light-, medium-, and heavy-duty vehicles; and
(D) appropriately recover the marginal costs of delivering electricity to electric vehicles and electric vehicle charging infrastructure.

The IIJA requires that affected utilities consider adopting standards on utility demand response (Sec. 40104) and promoting greater transportation electrification (SEC. 40431). The IIJA does not require adoption of any of the two new standards. Instead, the IIJA requires affected utilities **to consider** each standard and make a determination concerning whether or not it is appropriate to implement such standard.

Relationship Between Cooperative and PowerSouth

Cooperative is a member-owner ("Member") of PowerSouth, along with nineteen other entities which are electric distribution cooperatives and municipalities located in central and south Alabama and northwest Florida. Cooperative became a Member of PowerSouth in 1960. In addition to being a member-owner of PowerSouth, Cooperative has entered into a Contract for Wholesale Power Service with PowerSouth which requires that the Cooperative purchase all of its electric power and energy from PowerSouth until December 31, 2060. It is the long-standing intent of both Cooperative and PowerSouth that all wholesale power supply responsibilities be placed upon PowerSouth. Those wholesale power supply responsibilities include comprehensive planning to consider and determine appropriate supply and demand resources to meet current and future load requirements within the context of local, state and federal policy goals and objectives.

PowerSouth is a not-for-profit membership corporation which operates on a cooperative basis. Cooperative, being one Member among PowerSouth's twenty, has only limited effect upon the practices of PowerSouth without the majority participation of PowerSouth's remaining Members.

Demand Response Component of PowerSouth's Power Supply Study

PowerSouth is an unregulated utility that does not have any formal requirements imposed on it by the state or local governments. However, PowerSouth is required by the Rural Utilities Service ("RUS"), as PowerSouth's lender, to perform a Power Supply Study detailing the operations of its generation and transmission assets and facilities in order to qualify for financing of any new generation projects. This Study is based on the most recently RUS-approved load forecast. The historical load data used in the development of the forecast includes embedded energy efficiency load reductions.

On a periodic basis PowerSouth performs a "least cost" Power Supply Study to produce a generation expansion plan. As a part of this Study, PowerSouth considers various demand response/management programs in an effort to establish a more energy efficient and cost-effective generation and transmission system. Pursuant to this Study, PowerSouth examines and considers the various demand-side energy efficiency and load control programs it promotes including the:

- manufactured home program,
- dual fuel heat pump program,
- mini split heat pump program,
- light-emitting diode (LED) program,
- H20 Plus water heater load control program,
- interruptible pricing program, and
- economic development incentive rider program.

These programs are designed to lower demand growth, improve load factor and increase consumer confidence in member-owner cooperatives and to add value to the consumer's energy dollar. As new technologies supporting energy efficiency enter the market, PowerSouth also ensures to evaluate those technologies in their Power Supply Study to identify new, cost-effective demand-side programs and opportunities.

Each "least cost" Power Supply Study incorporates load reductions from energy efficiency and demand response programs into PowerSouth's forecast load impact. Furthermore, PowerSouth promotes and emphasizes cost effective energy efficiency as a priority through its normal operations and programs. More specifically, through its maintenance functions,

PowerSouth is constantly striving to achieve energy efficiency by improving generation heat rates and reducing losses on its power grid.

PowerSouth understands and recognizes the potential benefits of integrating energy efficiency and demand response programs into its resource planning activities. These benefits are realized directly by PowerSouth's Members through the reduction in forecasted and actual Member electric power loads resulting in decreased costs from avoided new generation capacity, reduced investments in new transmission and distribution infrastructure, reduced fuel use in power plants, and lower market energy purchases. In fact, PowerSouth intends to continue implementing and integrating such programs into its future system resources planning models.

Power Supply Planning

PowerSouth strives to provide Cooperative, as well as its other Members, with long-term price stability. PowerSouth also seeks to minimize Cooperative's exposure to the volatility of the wholesale power markets. PowerSouth recently entered into the Coordinated Planning & Operations Agreement ("CPO") with Alabama Power/Southern Co., as of September 1, 2021. Upon entering the CPO, PowerSouth relinquished its balancing authority role, but gained varied benefits including: capacity reserve sharing, greater reliability support, access to broader energy markets for its surplus sales, ability to maximize renewable additions, and enhanced long-term power supply planning.

PowerSouth's Wholesale Rates to Members

PowerSouth provides generation, transmission and ancillary service to its Members under its Rate Schedule P-2023-C. The rate is designed with a flat year-around energy charge and monthly coincident demand charges established during PowerSouth's seasonal peak periods. PowerSouth's winter peak period is typically from 5:00 AM through 9 AM Central Standard Time or Central Daylight Time daily during the months November through April. The summer peak periods are typically from 2:00 PM through 7:00 PM Central Standard Time or Central Daylight Time daily during the months of May through October.

This rate design with defined peak periods by season for establishing capacity charges provides time-based price signals to PowerSouth's Members. With these price signals, PowerSouth's Members have developed time-based rates and demand response programs.

PowerSouth also has a demand response program through an interruptible rate rider which provides a 40% discount on the interruptible demand each month.

In 2022, PowerSouth's Board of Trustees ("Board") approved a new economic development incentive (EDI) rider. The goal of this rider is to grow load and improve load factor. The EDI rider is applicable to new or expansion loads of 1 MW or greater with a minimum of 50% load factor or greater. The EDI rider provides discounts on demand charges during the initial five years of service, starting with 55% in year 1, 50% in year 2, 45% in year 3, 40% in year 4 and 35% in year 5.

PowerSouth's Programs

Community Solar Program

PowerSouth's Board and its Corporate Planning and Power Supply Committee ("Committee") recognize the importance of assisting Members with the promotion of renewable energy. At the request of a Member, PowerSouth will construct, install, own, maintain and operate community solar generation project(s) of approximately 100 kW on the premises of the participating Member's systems or at another location as designated by the Member. Project costs will be pooled with PowerSouth's other solar resources under the Wholesale Power Contract and paid through the pooling wholesale energy rate.

Energy Efficiency Programs

Energy efficiency programs ensure long-term viability of the electric cooperative system. Expected benefits of this proactive energy efficiency program include lower demand growth, improved load factor, increased Member confidence and added value for the Member's energy dollar.

The programs are intended to be a system-wide effort, with expected benefits occurring both with the Members and their retail consumers. These programs are designed to invest rebates and incentives through promotion of energy-efficient electric products and services in the following areas/ways:

- LED Lighting –

PowerSouth issues a blanket purchase order for the purchase of LEDs, enabling Members to benefit from joint purchasing while maintaining uniformity in product selection, advertising and promotion. Members may place orders through PowerSouth's Member portal via the online ordering system. Orders are shipped directly to Member.

- The Residential Energy Efficiency Rebate Program –

The Energy Efficiency Rebate Program encourages single-family residential consumers to purchase high-efficiency heat pumps. High-efficiency HVAC equipment helps consumers achieve lower energy costs and helps delay construction of power supply resources. Manual J calculation must be completed by the Member's representative or HVAC contractor. The Manual J load calculation is a formula used to identify a building's HVAC capacity and the size of the equipment needed for heating and cooling a residence.

Multi-family residences are not eligible to participate in this program.

REBATES	
Dual-Fuel Heath Pumps:	
Minimum +1 SEER Minimum +2 or more SEER	$300/ton $350/ton
Mini-Split Heat Pumps:	
Minimum +1 SEER Minimum +2 or more SEER	$300/ton $350/ton
Manufactured Homes* (effective July 2, 2018):	
New Manufactured Homes: Pay actual invoice cost differential electric furnace to heat pump (to dealer) 2.0 - 2.5 ton 3.0 - 4.0 ton 5 ton Manufactured home dealer incentive **Existing Manufactured Homes:** Air Source Heat Pumps Rebate to homeowner HVAC dealer incentive	 Not to exceed $400 Not to exceed $600 Not to exceed $700 $100 per home $400/ton $100 per home

*Applicable to existing manufactured homes replacing electric furnaces and new manufactured homes in lieu of electric furnaces

- Water Heater Program –

PowerSouth issues a blanket purchase order for Members that purchase water heaters. This service enables Members to benefit from economies of scale while maintaining uniformity in product selection, advertising and promotion.

Participating Members provide high-efficiency electric water heaters to end-users or builder/contractors participating in the energy efficiency program.

PowerSouth also assists in the development of promotional materials for the water heater program.

H20 Plus Program

H2O Plus is a demand-side management program that targets electric water heaters. Storage electric water heaters are equipped with devices that allow system operators to control the appliances' usage during peak demand periods. Participating H2O Plus water heaters may be interrupted for up to four hours during periods of high demand, high wholesale energy prices and system emergencies.

Winter control periods are scheduled from November to March between the hours of 5 a.m. and 9 a.m. When scheduled, summer control periods occur from May to September between the hours of 2 p.m. and 6 p.m.

PowerSouth's Electric Vehicle Program

Electric vehicle (EV) technology and market share is continually evolving and growing. Some industry estimates show EV market share will be between 30-50% by 2030. To assist with its Members and address the changing transportation sector landscape, PowerSouth has developed an EV program. This program is multi-faceted, with the goals of: (1) determining the EV saturation within the PowerSouth footprint; (2) analyzing load impacts by ascertaining EV charging patterns; (3) developing a consistent EV marketing and education strategy; and (4) staying apprised of third-party charging providers.

The EV program consists of:

- EV Registration Rebate – utilizing match-marketing dollars, Members provide a $100 rebate to EV owners who register their vehicles.
- EV TOU Rates - PowerSouth supports EV adoption by assisting our Members with the analysis and development of EV Time-Of-Use (TOU) rates.

- EV Telematics – PowerSouth is currently negotiating a contract with an EV telematics firm to gather charging and driving data of EV owners within the PowerSouth Member's service territory.
- EV Marketing – To promote a unified message, PowerSouth has signed a licensing agreement with CHARGE EV, LLC (a company owned by a network of electric cooperatives). This provides a branding logo as well as educational and marketing materials.
- EV adoption data – To assist with discovering EV saturation, PowerSouth is utilizing EV registration data from the University of Alabama's Mobility and Power Center (AMP) as well as monthly data provided by the Electric Power Research Institute (EPRI) for the PowerSouth Member's service territories.
- EV Educational Materials – PowerSouth has contracted with ChooseEV to provide digital EV educational information for use on our Members' websites. This platform provides information including EV FAQs, commute calculators, a database of current EV cars and chargers, and general information on EVs to assist consumers in deciding if EVs are the right transportation choice for them.

APPENDIX C

GDS Associates, Inc. Qualifications and Experience

STATEMENT OF QUALIFICATIONS

GDS Associates, Inc. is a multi-service consulting and engineering firm with extensive engineering, project management, and consulting experience. The firm was formed in 1986 and employs a staff of approximately 180 professionals and support personnel. GDS Associates' broad range of expertise focuses on clients associated with, or affected by, electric, gas, water and wastewater utilities. In addition, services regarding electric distribution and transmission design, information technology, market research, and statistical analyses are provided to a diverse client base. GDS Associates is headquartered in Marietta, Georgia, with offices in Austin, Texas; Auburn, Alabama; Manchester, New Hampshire; Madison, Wisconsin; Orlando, Florida; Augusta, Maine; and Redmond, Washington, and serves clients throughout the United States.

J. Steven Shurbutt is a founding Principal of GDS Associates and for more than 30 years held the position of Vice-President for Distribution Services, in which capacity Mr. Shurbutt oversaw most of the financial services performed by GDS Associates on behalf of electric distribution utilities. During the past 45 years, he has conducted retail rate studies, cost allocation studies, financial forecasts, and other financial and rate design services for more than 150 electric utility clients. He has appeared as an expert witness before regulatory authorities in 13 states and has also been involved in technical analyses associated with wholesale rate cases before the Federal Energy Regulatory Commission. Mr. Shurbutt has participated in member/pooling rate studies and rate design on behalf of generation and transmission electric cooperative utilities. He has advised wholesale rate customers on issues regarding interpretation of wholesale rate provisions and price signals, and the incorporation of same into retail rates. His retail rate assignments have included developing innovative rates for various classes of utility service customers and numerous successful power supply contract negotiations with large industrial customers on behalf of utility clients. He assisted more than 20 electric utilities in Florida, Georgia, Texas, South Carolina and Virginia with evaluating the PURPA Standards set forth in the Energy Policy Act of 2005 ("EPAct 2005") and the PURPA Standards set forth in the Energy Independence and Security Act of 2007. Mr. Shurbutt holds an MBA in Finance from Georgia State University and a Bachelor of Industrial Engineering from the Georgia Institute of Technology. He is a registered Professional Engineer and Senior Member of the Institute of Industrial Engineers.