

2021 PURPA Act Consideration Report
City Rock Hill, South Carolina

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INTRODUCTION

The Public Utility Regulatory Policies Act of 1978 as amended by the Infrastructure Investment and Jobs Act of 2021 (collectively, “PURPA” or “the Act”) is intended to establish a comprehensive, long-range energy policy for the nation. Among its many provisions is a requirement that municipal electric utilities with annual retail sales of 500 million kWh (which includes the City of Rock Hill) take actions to consider the following standards: (i) demand response and demand flexibility practices and (ii) electric vehicle charging programs. This 2021 PURPA Act Consideration Report outlines the procedural requirements followed for this consideration, the pertinent factors considered and makes a recommendation for City Council.

The Act does not mandate that non-regulated municipal utilities adopt the two standards described above. Rather, the Act directs utilities to undertake a “consideration” process and to reach a decision on whether to implement these standards. The City of Rock Hill (“City”) formed a group to fully consider and study these issues consisting of Jimmy Bagley, Deputy City Manager, Mike Jolly, Director of Electric Utilities, Marcelo Maruri, Electric Operations Manager, and Chaplin Spencer, City Attorney.

In addition to the statutory text of the Act, some of the summaries and explanations derive from the American Public Power Association course and materials titled *New PURPA “Shall Consider” Standards: A guide to Public Power Obligations* dated June 28, 2022 and some of the processes derive from the comprehensive *Reference Manual and Procedures for Implementation of the “PURPA Standards” in the Energy Independence and Security Act of 2007* sponsored by the American Public Power Association, Edison Electric Institute, National Association of Regulatory Utility Commissioners and National Rural Electric Cooperative Association.

**SPECIAL FACTORS RELEVANT TO
POWER AGENCY PARTICIPANTS**

Pre-Existing Contractual Obligations

The utility agreements in effect between the City and Piedmont Municipal Power Agency (PMPA) create an obligation for the City to purchase most of its power and energy needs from PMPA. The rate structures under which PMPA bills for service limit the likely usefulness to retail customers of time-based pricing. The AR rate schedule assesses capacity-related charges to the City based on the level of its demand during peak hours. Although PMPA attempts to forecast the peak hours in advance, the actual peak hours are determined on an annual basis (typically in the Fall). For that reason, it is impractical to reflect demand-related costs, on any sort of real-time or close-to-real-time basis, within a time-based rate for retail customers. The City's rate structure with PMPA is expected to change no later than 2029.

As to energy-related costs, a time-based rate schedule (and associated metering) would serve its purpose only to the extent that it reflects time-differentiated incremental energy costs. Here again, though, PMPA does not charge based upon its incremental cost of energy. In particular, PMPA does not provide information to the City (so that the City could provide to retail customers) about the cost of the next incremental unit of supplemental energy. Without such real-time energy cost information, a time-based metering scheme at the retail level would have only limited value in sending price signals that actually conserve resources at the production level (as PURPA aims to do). This factor thus would reduce the benefits to the City from fully adopting the PURPA standards and rate recovery mechanisms.

THE “CONSIDERATION” AND “DETERMINATION” REQUIREMENTS

The three primary goals of PURPA relevant to the standards for consideration are to encourage the conservation of energy, increase efficiency in the use of facilities and resources by electric utilities, and establish equitable retail rates for electric consumers. The Act sets forth the procedural steps necessary to meet the “consideration” and “determination” requirements imposed on (among others) non-regulated electric utilities such as the City. Broadly speaking, the City is required to consider the demand response and demand flexibility practices and electric vehicle charging programs. The “consideration” phase should be open to public comment and should include the other procedural safeguards described in more detail below. In addition, the City must make a determination as to whether it is appropriate to implement each standard for its system. 16 U.S.C. § 2621(a). The Act specifically notes that it *does not* prohibit a finding that adoption of a standard is inappropriate. 16 U.S.C. § 2621(a). The City may implement any of the standards referred to above or decline to implement any standard. 16 U.S.C. § 2621(c)(1). If the decision is made not to implement the standard, however, the reasons must be stated in writing and the written decision must be made available to the public. 16 U.S.C. § 2621(c)(2). A more detailed description of the “consideration” and “determination” requirements is provided below.

The “Consideration” Requirement

In essence, the “consideration” requirement of PURPA calls for a reasoned decision-making process in which interested parties are accorded basic due process rights. The “consideration” process phase includes public notice and a hearing. 16 U.S.C. § 2621(b)(1). Notice of the hearing should be advertised to the public pursuant to the City’s normal procedures (such as posting on the City’s website and advertisement in local papers). The Act further defines the requirements of a “hearing” as a proceeding which is open to the public, includes notice to interested parties, grants parties an opportunity to present direct and rebuttal evidence and to cross-examine witnesses, includes a written decision, is based upon evidence, and is subject to judicial review. 16 U.S.C. § 2602(6).

Beyond the basic “consideration” requirements described above, PURPA provides that the procedures for consideration and determination “shall be those established by the state regulatory authority or the nonregulated electric utility.” In order to comply with this requirement, the City will present this document and other relevant information by testimony regarding the various factors considered. The public will be properly notified and given an opportunity to ask questions of the witness(es), submit their own testimony or an opportunity at the hearing to make oral comments. In the event new information is revealed at the public hearing, City Staff may request that City Council defer its decision until another regularly scheduled meeting.

The “Determination” Requirement

Based on the evidence developed in the “consideration” phase, the City then issues a “determination” as to adoption of the PURPA standards. The “determination” must be in writing and include findings based on evidence presented at the hearing. 16 U.S.C. § 2621(b)(1). This is true for each of the two standards the City considers, as well as for each of the factors evaluated in connection with each standard. That is, for each factor, the City’s written determination should identify evidence that supports the determination reached. The written determination also must be made available to the public. The City has considerable discretion under the Act in making this finding. Notwithstanding that discretion, however, the City’s determination must state in writing, with references to testimony or other evidence, the reasons that it believes support the finding as to appropriateness. If the City were to determine that adoption of any standard is appropriate for its system, it then would be required to make additional findings as to the details of implementing the standard.

SECTION D

Pursuant to the Public Utility Regulatory Policies Act of 1978, 16 U.S.C. §§ 2601 *et seq.*, as amended, the City of Rock Hill, South Carolina has considered certain factors and made certain determinations regarding the implementation of the standards. With respect to each such consideration, the factors considered by the City and its determinations with respect to each are set forth below.

PART 1.

CONSIDERATIONS RELEVANT TO ADOPTION OF THE DEMAND RESPONSE AND DEMAND FLEXIBILITY STANDARD

I. Summary of Demand Response and Demand Flexibility.

PURPA sets forth the demand response and demand flexibility standard for electric utilities as follows: “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 . . . 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).” 16 U.S.C. § 2621(d)(20). Demand response and demand flexibility refers to a system that promotes time of use systems to reduce demands and conserve energy during peak energy usage times. Costs associated with promoting this standard may be recovered through rate mechanisms. City staff commenced the consideration process on demand response and demand flexibility in November 2022. City Council passed a resolution evidencing consideration and giving public notice of such consideration on November 28, 2022.

II. Whether it would be beneficial and advisable for the City to implement the PURPA demand response and demand flexibility standard.

Factors bearing on consideration: The following factors were evaluated by the City in this process:

Current Programs

- The City installs and maintains Load Management Devices on customer HVAC and water heater systems at no cost to the customer. These devices are managed remotely by PMPA to shed load during peak demands. To incentivize customers to enroll, the City draws for a \$50 bill credit at each City Council meeting.
- The City maintains strategically placed stand-by generators interconnected to the grid for emergency response and load shedding during high demands.

- The City offers an on-peak and off-peak rate schedule to all commercial customers with demand in excess of 750 kW.
- The City offers a net-billing program allowing residential, commercial, and industrial customers to generate electricity from customer-owned renewable generation systems. Allowing customers to generate their own electricity reduces the system's demand by alleviating the pressure from generation plants. Second, purchasing the customer's excess energy helps to power others in the community with clean energy, further reducing demand.
- The City offers a software tool called "Customer Connect" that helps customers use the data from the electric meter to manage their electricity usage. To incentivize customers to use the software, the City draws for a \$50 bill credit at each City Council meeting.
- The City offers a free online residential energy audit tool to help customers identify opportunities for improving energy efficiency in their homes.

Initiatives Under Consideration

- Demand response alerts via text messages to voluntarily reduce electricity during high demands.
- Initiate a program for customers with smart thermostats that can be programmed to work with time-of-use rates.
- The City is currently working with a consultant to develop a Time-Of-Use plan option for customers to encourage customers to operate during off-peak hours.
- Develop Volt/Var optimization program to better manage voltage levels to achieve more efficient grid operation.

General Considerations.

AMI and other technological advances are allowing greater information and flexibility with regards to energy use and rates. Further implementation of off-peak rates through time-of-use plans will become less burdensome (from a cost and administrative standpoint) as these advances continue.

Staff Recommendation

The City has a long history of promoting and being a leader in demand response and demand flexibility practices. As a result, many of the City's current practices and overall philosophy comply with the spirit and intent of the program standard. However, Staff does not recommend adopting rate design modifications at this time because of the current PMPA rate structure and limited information provided by PMPA, the Time-Of-Use plan option remains in the development stage, and implementation should be less burdensome with future technological advances. Staff recommends continuing the City's current practices and programs and studying further as these factors change. In the event City Council desires to implement additional standards, Staff will establish recommended additional standards and procedures.

PART 2.

CONSIDERATIONS RELEVANT TO ADOPTION OF THE ELECTRIC VEHICLE CHARGING PROGRAM STANDARD

I. Summary of Electric Vehicle Charging Program Standard

PURPA sets forth measure to promote electric vehicle charging programs as follows: “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.” 16 U.S.C. § 2621(d)(21). Electric vehicle charging programs basically encourage electric charging and appropriate recovery of marginal costs. City staff commenced the consideration process of electric vehicle charging program in November 2022, but has studied and implemented general electric charging programs for several years. City Council passed a resolution evidencing consideration and giving public notice of such consideration on November 28, 2022.

II. Whether it would be beneficial and advisable for the City to implement measures including through rate design modifications to promote the electric vehicle charging standard of PURPA considering the factors described below.

Factors bearing on consideration: The following factors were evaluated by the City in this process:

EV Committees

The City has an EV Committee comprised of ten (10) employees from various departments with a mission to guide future EV implementation in the City. Since April 2021, the EV Committee has:

- Held meetings to review and discuss the status of the current EV infrastructure.
- Discussed and compared EV implementation from a City and public use perspective
- Reviewed and compared the maintenance and fuel costs between an EV and a standard vehicle to determine potential cost savings over a seven-year period.
- Developed and implemented a combined parking and EV charging rate for University Center parking decks
- Developed a list of alternative scenarios for the use of existing EV infrastructure.

- Developed a list of objectives focused on future EV implementation.
- Reviewed potential funding opportunities through state and federal grants.

One of the City EV Committee members is on the EV Readiness Cohort Group of the International Mobility and Parking Institute which includes representatives from state and local governments and universities from across the county. Another EV Committee member serves on the South Carolina Electric Vehicle Stakeholder Initiative Advisory Committee which includes representatives from industry-leading professionals from the automotive industry, EV Charger Manufacturers, SC State Fleet Management, SCDOT, SCDHEC, Duke Energy and other energy groups, state universities and members of the South Carolina General Assembly.

EV Charging Infrastructure

The City of Rock Hill currently has numerous Level-2 EV chargers installed in the following locations (most with multiple charges): Rock Hill – York County Airport, Cherry Park, Operations Center, Riverwalk Velodrome, City Hall, Manchester Meadows Complex, Black Municipal Street Parking Deck, University Center Deck A and University Center Deck B. These chargers are provided free to the public except for those in the parking decks.

The City plans to install three (3) Level-2 Dual EV chargers in University Center Deck B Transit hub for City electric buses by the end of 2023. The City plans to place EV chargers in future parking decks.

City Owned EV Fleet

Current Fleet EV Vehicles and Related Infrastructure:

- 1- Chevrolet Volt (hybrid) Fleet Vehicle
- 12- Electric Transit Buses
- 7- 60 kW & 5 -120 kW Electric Bus Chargers at the Operations Center

EV Infrastructure

The City is covering 100% of the cost to upgrade system-wide electric service and transformers to help promote the transition to electric vehicles.

Utility Electric Engineering professionals are evaluating Automated Metering Infrastructure (AMI) interval data from the existing City-Owned EV chargers to analyze usage patterns, peak demand, and impacts on the end user’s energy consumption. This data will be utilized as a resource for future electric rate studies and capital infrastructure planning.

Rock Hill has its first DC fast chargers installed by a private entity. These chargers are located near I-77 in Rock Hill. Like the City-owned chargers, our Electric Engineering professionals will be able to utilize AMI interval data to analyze usage patterns, peak demand, and impacts to the end user’s energy bill. This data will be utilized as a resource for future electric rate studies and capital infrastructure planning.

Rock Hill is developing analytics in our Meter Data Management System (MDMS) to automatically identify overloaded transformers on our electric system. This technology will provide a vital tool to

identify new EV loads on our system, particularly for residential customers. Early detection will enable City engineers to perform transformer upgrades and system capital modifications to meet the EV charging needs of our customers.

Initiatives Under Consideration

- 2- 120 kW Electric Bus Chargers at the City's Operations Center
- The Police Department is considering replacing ten (10) of its standard vehicles with hybrid or electric vehicles when these vehicles become widely available.
- The City is working with a consultant to develop a Time-Of-Use plan option for residential customers to encourage customers to charge electric vehicles during off-peak hours.

General Considerations.

AMI and other technological advances are allowing greater information and flexibility with regards to energy use and rates. Further implementation of off-peak rates through time-of-use plans will become less burdensome (from a cost and administrative standpoint) as these advances continue.

Staff Recommendation Regarding Consideration 2:

The City has a long history of promoting and being a leader in taking measures to promote greater electrification of the transportation sector. As a result, many of the City's current practices and overall philosophy comply with the spirit and intent of the program standard. However, Staff does not recommend adopting rate design modifications at this time because of the current PMPA rate structure and limited information provided by PMPA, the Time-Of-Use plan option remains in the development stage, and implementation should be less burdensome with future technological advances. Staff recommends continuing the City's current practices and programs and studying further as these factors change. In the event City Council desires to implement additional standards, Staff will establish recommended additional standards and procedures.