

**PROPOSED BOARD RESOLUTION**  
(Determination on PURPA Standards)

WHEREAS TVA, pursuant to the provisions of the Infrastructure Investment and Jobs Act of 2021 (IIJA) amending the Public Utility Regulatory Policies Act of 1978 (PURPA), is required to consider and make determinations concerning the adoption of two new standards promulgated by the IIJA; and

WHEREAS the standards being considered were set out in a notice published in the Federal Register on November 15, 2022, which notice solicited public input on the standards; and

WHEREAS TVA has received various comments from the public, including comments from the Tennessee Valley Public Power Association (TVPPA), the Tennessee Valley Industrial Committee (TVIC), local power companies that distribute TVA power, and EV Charging Companies; and

WHEREAS the Board has considered the standards in light of the record developed during proceedings on the standards, including public input and TVA staff recommendations, as well as the requirements of PURPA and the TVA Act;

BE IT RESOLVED, That the Board hereby makes the determinations as set forth in Attachment A to the memorandum from the Vice President of Contracts and Rates Strategy dated October 4, 2023 (Memorandum) a copy of which is filed with the records of the Board as Exhibit 11/09/23I.

RESOLVED further, That the Vice President of Contracts and Rates Strategy shall cause a notice of the Board's determinations to be published in the Federal Register.

**Approved by TVA Board of  
Directors**

**November 9, 2023**

**KAB**

**Assistant Secretary**

EXHIBIT 11/09/23I

October 4, 2023  
Financial Services

Board of Directors

**SUBJECT**

It is requested that the Board make determinations on standards enacted by the Infrastructure Investment and Jobs Act of 2021 (IIJA) amending the Public Utility Regulatory Policies Act of 1978 (PURPA). The proposed determinations on these new PURPA standards, for Federal Register publication, are set out in Attachment A.

**BACKGROUND**

Congress enacted PURPA in 1978 to promote conservation of energy, efficient use of facilities and resources, and equitable rates to consumers. Under the IIJA amendment to PURPA, TVA is required to consider, for itself and for the distributors of TVA power, two new standards created by IIJA.

The process TVA has followed for considering the new standards was set out in a notice published in the Federal Register on November 15, 2022. The process solicited public input on both standards.

**ALTERNATIVES CONSIDERED**

The official record supporting the recommendations for each standard contained in this memorandum consists of the Federal Register notice, TVA staff comments, all written and electronic comments submitted through the process described above, and materials from the Regional Energy Resource Council public meeting. Attachment B is a summary of public comments; Attachment C contains the complete official record.

**RECOMMENDED ACTION AND POTENTIAL IMPACTS**

The recommended determinations set forth in Attachment A take into account the objectives and purposes of the TVA Act and are based on the official record. They recognize the diverse conditions affecting TVA and the distributors of TVA power in the TVA region. No adverse impact is anticipated as the proposed determinations are consistent with both the policies and programs that TVA has been developing for application in the TVA region.

**ATTACHMENTS**

Attachment A: Proposed Board Determinations on the PURPA Standards Set Forth in the Infrastructure Investment and Jobs Act of 2021

Attachment B: Summary of Public Comments Received on the PURPA Standards Set Forth in the Infrastructure Investment and Jobs Act of 2021

Attachment C: Official Record Developed Pursuant to the Notice Published in the Federal Register on November 15, 2022



Cass Larson  
Vice President,  
Contracts & Rates Strategy



10/19/2023

David Fountain  
Executive Vice President and  
General Counsel

Date



10/19/2023

Jeffrey J. Lyash  
President and Chief Executive Officer

Date

## Attachment A

**Board Determinations on the PURPA Standards  
Set Forth in the Infrastructure Investment and Jobs Act of 2021**

The Public Utility Regulatory Policies Act of 1978 (Pub. L. 95-617) (PURPA), as amended by the Infrastructure Investment and Jobs Act of 2021 (Pub. L. 117- 58) (IIJA) requires TVA to consider adopting for itself and the distributors of TVA power two new PURPA standards. These two standards are identified as Demand-Response Practices and Electric Vehicle Charging Programs. The TVA Board is charged with considering and making determinations on whether or not it is appropriate to implement each standard.

Data, views, and comments were requested from the public as to the need and desirability of adopting the standards. In addition to posting a notice in the Federal Register on November 15, 2022, which described the standards and solicited public input on the standards, TVA also provided a PURPA website ([www.tva.com/purpa](http://www.tva.com/purpa)) for purposes of educating the public on the standards and soliciting public input. TVA also provided an overview of the Demand Response and Electric Vehicle standards to the Regional Energy Resource Council (RERC), an advisory committee established under the authority of the TVA in accordance with the provisions of the Federal Advisory Committee Act. All public input received on the standards has been included in the official record and made available to the public through the website.

TVA's process for considering and making determinations on the new PURPA standards was carried out pursuant to the provisions of (a) PURPA, under which TVA is identified as the regulatory authority for electric utilities over which TVA has ratemaking authority, and (b) the Tennessee Valley Authority Act of 1933 (TVA Act), 48 Stat. 58, as amended, 16 U.S.C. §§ 831831dd (2007) (TVA Act). After consideration of the initial comments and materials received, TVA staff developed recommendations on each of the standards. All comments from the public, as well as the TVA staff recommendations, have been made a part of the official record and have been made available to the public through the website.

The TVA Board considered these standards on the basis of the PURPA purposes, which are the 1) conservation of energy, 2) efficient use of facilities and resources, and 3) equity among electric consumers, and the objectives and requirements of the TVA Act. The Board took into account these considerations as well as the official record developed during the consideration process in reaching the determinations below.

The Board's determinations are as follows.

**STANDARD 20: DEMAND-RESPONSE PRACTICES**

**I. Standard under consideration:**

**(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 in accordance with subparagraph (A).

## **II. Observations:**

Demand response (DR) focuses on reduction of peak demand. To reduce peak demand, TVA contracts with local power companies (LPCs) that distribute TVA power, TVA directly served customers, and LPC end-use customers to reduce energy use to specific levels when dispatched by TVA Operations. Through broad internal and external collaboration, TVA has developed a portfolio of program offerings that are designed to benefit TVA's resource planning resources as well as the growing energy needs and reserve requirements. These resources currently provide up to 1,700 MW of carbon-free, dispatchable capacity achieved by three programs: Interruptible Power, Peak Power Partners, and Voltage Optimization. The programs help manage system demand load during peak hours.

Current programs achieve demand reduction targets identified by TVA's long-range planning and annual power supply plans, and demand response is an essential component of the Integrated Resource Plan (IRP), which is a comprehensive study of how TVA can best deliver clean, reliable, and low-cost energy for the Valley's future. These plans each recommend continuing to add capacity to TVA's existing DR programs and to develop new DR programs.

Existing demand response programs, and others that TVA may develop in the future, will continue to be an integral part of TVA's resource planning and system operations. TVA's existing approach to demand response is consistent with the intent of the standard that is under consideration. TVA has a process for LPCs to request cost recovery, which can include the costs associated with promoting demand response. LPC rate requests are reviewed and, where appropriate, approved through a TVA Board-approved rate review procedure. Costs associated with participating in a TVA program would generally be considered appropriate costs for recovery. TVA also factors its own demand response costs into its long-term financial planning.

Because TVA's approach to DR depends upon collaboration with customers and encouraging participation in DR programs, the proposed demand-response practices standard under consideration was revised to build upon historical success and reflect the importance of this collaborative approach.

## **III. Determination by the TVA Board:**

The standard under consideration is revised and adopted as follows:

TVA will leverage the public power model and its decades of experience in offering demand response programs to maximize demand response benefits for its power system, local power companies that distribute TVA power, and directly served customers. TVA will consider adding capacity to its existing demand response programs and developing additional demand response programs, when economic, reliability, and decarbonization needs merit changes to the demand response portfolio. As the nation's largest public power producer with a mission to deliver affordable and reliable power, TVA will continue to work with local power companies, directly served customers, federal customers, and end-use customers to ensure demand response programs are effective and meet the needs of the Valley.

## **STANDARD 21: ELECTRIC VEHICLE CHARGING PROGRAMS**

### **I. Standard under consideration:**

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.

### **II. Observations:**

The importance of electricity and TVA power has had a profound impact on the region. Today, the electrification of transportation offers similar transformative growth with environmental and economic benefits for the region. TVA is partnering with state agencies, local power companies (LPCs) that distribute TVA power, automotive manufacturers and other stakeholders to promote the adoption of electric vehicles (EVs) by addressing the major market barriers facing consumers: improving charging infrastructure availability, setting innovative and supportive policies, expanding EV availability and offerings, and increasing consumer awareness.

TVA is heavily involved in promoting the adoption of EVs, including leading a collaboration with LPCs and other regional partners to develop one of the nation's most comprehensive publicly accessible EV fast charging networks. TVA also works with LPCs to offer affordable rate options for public EV fast charging that remove demand charges and are designed to accelerate public and private investment in EV infrastructure. Additionally, TVA is focused on increasing awareness and education of electric transportation through resources to educate and support residents with their residential, commercial, and public charging needs.

EV programs are executed in conjunction with and support from LPCs based on the unique relationship between TVA and its wholesale customers and because EV charging deployment occurs at the distribution level. TVA will continue to promote EV adoption in a manner that is consistent with TVA's obligations under the TVA Act. The proposed electric vehicle charging programs standard under consideration was revised to build on existing efforts of TVA and LPCs and to account for the respective roles of TVA and LPCs. TVA will also continue to examine and develop other programs that promote adoption of EVs, including consideration in future rate actions and various energy programs.

### **III. Determination by the TVA Board:**

The standard under consideration is revised and adopted as follows:

TVA will continue to leverage its role as a leader in innovation and economic development for the benefit of the Tennessee Valley region. As the wholesale provider of electric power to local power companies (LPCs) that distribute TVA power, TVA will serve as a catalyst for electric vehicle adoption. TVA will also continue to collaborate with LPCs to ensure that affordable energy is available

for residential, commercial, and public customers consistent with the requirements of the TVA Act. The public power model will provide the foundation for an improved customer charging experience and competitive charging market to expand electric vehicle adoption in the Tennessee Valley.

## Attachment B

### **Summary of Public Comments Received on the PURPA Standards**

#### **Set Forth in the Infrastructure Investment and Jobs Act of 2021**

Data, views, and comments were requested from the public as to the need and desirability of adopting the standards. Interested parties could submit comments directly to TVA by mail or electronic mail. In addition to posting a notice in the Federal Register on November 15, 2022, which described the standards and solicited public input on the standards, TVA also provided a PURPA website ([www.tva.com/purpa](http://www.tva.com/purpa)) for purposes of educating the public on the standards and soliciting public input. TVA also provided an overview of the Demand Response and Electric Vehicle standards to the Regional Energy Resource Council (RERC), an advisory committee established under the authority of the TVA in accordance with the provisions of the Federal Advisory Committee Act. All public input received on the standards has been included in the official record and made available to the public through the website.

Below is a summary of the comments submitted.

#### **Comments Pertaining to Standard 20 – Demand-Response Practices**

TVA received four comments from TVPPA, TVIC, and two Local Power Companies (LPCs). There was an emphasis on existing DR programs, including interruptible products and industrial rate design. Additionally, the comments emphasized collaboration over prescription. TVA implements demand response programs by contract, and the consensus view is that this implementation works. TVPPA specifically highlighted the utility of a collaborative process among TVA, LPCs, and TVPPA for future product design and promotion.

#### **Comments Pertaining to Standard 21 – Electric Vehicle Charging Programs**

TVA received seven comments from TVPPA, TVIC, LPCs, and EV charging companies. LPCs focused on local control and collaboration, with an emphasis on conforming any standard to the requirements of the TVA Act. TVIC believes that no standard is necessary. EV charging companies want to see more pressure from TVA on LPCs—emphasizing the desire for energy-only rates, wider adoption across all LPCs, and a “level playing field” where LPC-owned charging is concerned.

Attachment C

**Official Record Developed Pursuant to the Notice**

**Published in the Federal Register on November 15, 2022**

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abandonment and discontinuance of service shall be protected under *Oregon Short Line Railroad—Abandonment Portion Goshen Branch Between Firth & Ammon, in Bingham & Bonneville Counties, Idaho*, 360 L.C.C. 91 (1979). To address whether this condition adequately protects affected employees, a petition for partial revocation under 49 U.S.C. 10502(d) must be filed.

Provided no formal expression of intent to file an offer of financial assistance (OFA) has been received,<sup>2</sup> the exemptions will be effective on December 15, 2022, unless stayed pending reconsideration. Petitions to stay that do not involve environmental issues,<sup>3</sup> formal expressions of intent to file an OFA under 49 CFR 1152.27(c)(2), and interim trail use/rail banking requests under 49 CFR 1152.29 must be filed by November 25, 2022.<sup>4</sup> Petitions to reopen and requests for public use conditions under 49 CFR 1152.28 must be filed by December 5, 2022.

All pleadings, referring to Docket Nos. AB 1320X and AB 1325X, must be filed with the Surface Transportation Board either via e-filing on the Board's website or in writing addressed to 395 E Street SW, Washington, DC 20423-0001. In addition, a copy of each pleading must be served on GROW's representative, Brian S. Duff, Owlett & Lewis, P.C., One Charles Street, P.O. Box 878, Wellsboro, PA 16901, and WCOR's representative, Eric M. Hocky, Clark Hill PLC, 2001 Market Street, Suite 2620, Philadelphia, PA 19103.

If the verified notice contains false or misleading information, the exemptions are void ab initio.

GROW has filed a combined environmental and historic report that addresses the potential effects, if any, of the abandonment on the environment and historic resources. OEA will issue a Draft Environmental Assessment (Draft EA) by November 16, 2022. The Draft EA will be available to interested persons on the Board's website, by writing to OEA, or by calling OEA at

(202) 245-0294. Assistance for the hearing impaired is available through the Federal Relay Service at (800) 877-8339. Comments on environmental and historic preservation matters must be filed within 15 days after the Draft EA becomes available to the public.

Environmental, historic preservation, public use, or interim trail use/rail banking conditions will be imposed, where appropriate, in a subsequent decision.

Pursuant to the provisions of 49 CFR 1152.29(e)(2), GROW shall file a notice of consummation with the Board to signify that it has exercised the abandonment authority granted and fully abandoned the Line. If consummation has not been effected by GROW's filing of a notice of consummation by November 15, 2023, and there are no legal or regulatory barriers to consummation, the authority to abandon will automatically expire.

Board decisions and notices are available at [www.stb.gov](http://www.stb.gov).

Decided: November 9, 2022.

By the Board, Mai T. Dinh, Director, Office of Proceedings.

Aretha Laws-Byrum,

Clearance Clerk.

[FR Doc. 2022-24846 Filed 11-14-22; 8:45 am]

BILLING CODE 4915-01-P

## TENNESSEE VALLEY AUTHORITY

### Notice of Consideration of Demand Response and Electric Vehicle Standards

**AGENCY:** Tennessee Valley Authority.

**ACTION:** Notice with request for comments.

**SUMMARY:** The Tennessee Valley Authority (TVA) is considering adopting for itself and the distributors of TVA power certain demand response and electric vehicle standards. The standards being considered are the Demand Response Practices (hereinafter "Demand Response") and Electric Vehicle Charging Programs standards (hereinafter "Electric Vehicles") listed in the Public Utility Regulatory Act of 1978, as amended by the Infrastructure Investment and Jobs Act. The standards will be considered on the basis of their effect on conservation of energy, efficient use of facilities and resources, equity among electric consumers, TVA's existing demand response and electric vehicle programs, and the objectives of the Tennessee Valley Authority Act. Comments are requested from the public on whether TVA should adopt these standards or any variations on them.

**DATES:** All comments on these standards must be received by March 31, 2023. Written comments may be mailed to:

**ADDRESSES:** Troy Eichenberger, Tennessee Valley Authority, 1101 Market Street, BR 5B-C, Chattanooga, TN 37402, (423) 751-6187 (Demand Response) or Andrew Frye, Tennessee Valley Authority, 1101 Market Street, BR 5A-C, Chattanooga, TN 37402, (423) 751-7060 (Electric Vehicles). Information about submitting comments electronically is available at <https://www.tva.com/purpa>.

**FOR FURTHER INFORMATION CONTACT:** Troy Eichenberger (Demand Response), (423) 751-6187, or Andrew Frye (Electric Vehicles), (423) 751-7060, Tennessee Valley Authority.

**SUPPLEMENTARY INFORMATION:** Written data, views, and comments on the standards or variations of the standards, as well as views for or against their adoption are requested from the public. All material relating to the standards must be received by 5 p.m. EST on March 31, 2023. Materials received by TVA before this designated time will be considered by TVA. Written statements of TVA staff concerning the standards will be made part of the official record at least 30 days before the date the record closes, at which time they will be made available to the public on request. In order to assist interested consumers in preparing written data, views, and comments for the record, TVA will operate a website (<https://www.tva.com/purpa>) on which interested parties can be informed about the standards set out in this notice, on which interested parties can obtain information about submitting comments and materials on the standards electronically, and on which TVA will make available background information regarding TVA's demand response and electric vehicle programs. Following the end of the public comment period, TVA staff will provide an update on its review of the Demand Response and Electric Vehicle standards to the Regional Energy Resource Council, an advisory committee established under the authority of the TVA in accordance with the provisions of the Federal Advisory Committee Act. Meetings of the council are open to the public and typically include a public listening session. The TVA staff presentation will include a summary of public and TVA staff comments. The official record will include comments and materials submitted electronically and written materials submitted within the time set forth above. The record will be used by the Board in making its determinations, in compliance with the Public Utility

<sup>2</sup> Persons interested in submitting an OFA must first file a formal expression of intent to file an offer, indicating the type of financial assistance they wish to provide (i.e., subsidy or purchase) and demonstrating that they are preliminarily financially responsible. See 49 CFR 1152.27(c)(2)(i).

<sup>3</sup> The Board will grant a stay if an informed decision on environmental issues (whether raised by a party or by the Board's Office of Environmental Analysts (OEA) in its Independent Investigation) cannot be made before the exemptions' effective date. See *Exemption of Out-of-Serv. Rail Lines*, 5 L.C.C.2d 377 (1989). Any request for a stay should be filed as soon as possible so that the Board may take appropriate action before the exemptions' effective date.

<sup>4</sup> Filing fees for OFAs and trail use requests can be found at 49 CFR 1002.2(i)(25) and (27), respectively.



Regulatory Policies Act of 1978 (Authority: Sec. 111(d), Pub. L. 95-617, 92 Stat. 3117) as amended by the Infrastructure Investment and Jobs Act (Authority: Sec. 111(d), Pub. L. 117-58, 135 Stat. 429) and the Board's obligations under the Tennessee Valley Authority Act. Individual copies of the record will be available to the public at the cost of reproduction. Copies will also be kept on file for public inspection at the following locations: Tennessee Valley Authority, 400 W Summit Hill Drive, WT 6C-K, Knoxville, TN 37902, and on the web at <https://www.tva.com/purpa>.

**Standards:** The standards about which a determination will be made 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. (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).

(2) Electric Vehicle Charging Programs. Each State shall consider measures to promote greater electrification of the transportation sector, including the establishment of rules 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. Authority: Sec. 111(d), Public Law 117-58, 135 Stat. 429.

David Fountain, Executive Vice President and General Counsel of the Tennessee Valley Authority, hereby

delegates to the undersigned the authority to sign this notice on behalf of the Tennessee Valley Authority.

Dated: November 8, 2022.

**Christopher C. Chandler,**  
Senior Counsel.

[FR Doc. 2022-24857 Filed 11-14-22; 8:45 am]

BILLING CODE 8120-01-P

## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

[Docket No. FAA-2022-1502]

#### Agency Information Collection Activities: Requests for Comments; Clearance of Renewed Approval of Information Collection: Renewal, Maintenance, Preventive Maintenance, Rebuilding, and Alteration

**AGENCY:** Federal Aviation Administration (FAA), Department of Transportation (DOT).

**ACTION:** Notice and request for comments.

**SUMMARY:** In accordance with the Paperwork Reduction Act of 1995, FAA invites public comments about our intention to request the Office of Management and Budget (OMB) approval to renew an information collection. The Information to be collected is necessary to insure the safety of the flying public.

Documentation of maintenance repair actions record who, what, when, where and how of the task performed. This collection focuses on the Form 337 which is collected by the FAA. Other records for preventative maintenance, and logbook entries are not collected by the FAA serve as a responsibility of the owner to maintain in case of verification of airworthiness when seeking approvals or sale of the aircraft. This insures proper certification of personnel; proper tooling is utilized and accurate measures to insure safety. Total form 337s submitted in 2017 is 54,237. Total aircraft registrations on file is 289,490. It is estimated by the numbers collected one in every five aircraft have a 337 form submitted for major alteration and repairs performed. Each 337 takes approximately 1 hour.

**DATES:** Written comments should be submitted by January 17, 2023.

**ADDRESSES:** Please send written comments:

By Electronic Docket: [www.regulations.gov](http://www.regulations.gov) (Enter docket number into search field) By email: Jude Sellers, [jude.sellers@faa.gov](mailto:jude.sellers@faa.gov).

**SUPPLEMENTARY INFORMATION:** All maintenance actions as well as

documentation are required by 14 CFR part 43.

**Public Comments Invited:** You are asked to comment on any aspect of this information collection, including (a) Whether the proposed collection of information is necessary for FAA's performance; (b) the accuracy of the estimated burden; (c) ways for FAA to enhance the quality, utility and clarity of the information collection; and (d) ways that the burden could be minimized without reducing the quality of the collected information. The agency will summarize and/or include your comments in the request for OMB's clearance of this information collection.

OMB Control Number: 2120-0020.

Title: Maintenance, Preventive Maintenance, Rebuilding, and Alteration.

Form Numbers: Aircraft maintenance logbooks and form 337.

Type of Review: Renewal of information collection.

Background: Title 14 CFR part 43 mandates information to be provided when an alteration or major repair is performed on an aircraft of United States registry. Submission of Form 337 is required for capture in the aircraft permanent records for current and future owners to substantiate the requirements of the regulations, prior to operation of the aircraft. Aircraft owners have the responsibility of documentation and submission of all maintenance records performed to their aircraft.

Respondents: 289,490 Aircraft owners.

Frequency: On occasion.

Estimated Average Burden per Response: 1 hour.

Estimated Total Annual Burden: Industry Annual burden 54,237 man hours.

Issued in Washington, DC, on November 7, 2022.

Jude Sellers,

Aviation Safety Inspector, AFS-340 General Aviation Maintenance Branch.

[FR Doc. 2022-24795 Filed 11-14-22; 8:45 am]

BILLING CODE 4910-15-P

## DEPARTMENT OF TRANSPORTATION

### Federal Highway Administration

[Docket No. FHWA-2022-0031]

#### Agency Information Collection Activities: Request for Comments for a New Information Collection

**AGENCY:** Federal Highway Administration (FHWA), DOT.

**ACTION:** Notice and request for comments.

Comment from Benton Electric on Demand Response Practices

**From:** Scott W. Owens <scott.owens@bcestn.org>  
**Sent:** Tuesday, March 21, 2023 9:33 AM  
**To:** Smith, Brian N <bnsmith2@tva.gov>  
**Subject:** RE: TVA Seeking Comments on PURPA Standards

As Benton County is a distressed county demand response would not be feasible for any potential ROI for its customers or for BCES. The energy efficiency programs are the best avenues to improve demand response in high times. It was proven with the rolling blackouts that demand was highest ever set on our system due to electric heating and the outages. Even with demand response, the adoption would be very small. The adoption for these programs would be incredibly low for our service territory, and the rate modifications to incentives would benefit very few compared to the masses. I would rather see higher efficient heating cooling/ water heaters etc.

Comment from Dyersburg Electric on Demand Response Practices

**From:** Stephen Lane <smlane@despower.com>  
**Sent:** Wednesday, February 8, 2023 11:22 AM  
**To:** Demand Response PURPA  
**Subject:** Comment

TVA should adopt some variant of the PURPA standard to encourage LPC Demand Response programs. TVA should not attempt to mandate any such program.

Comment from TVIC Electric on Demand Response Practices

**From:** Rob Hoskins

**To:** Demand Response PURPA

**Subject:** Comments of the Tennessee Valley Industrial Committee ("TVIC") in response to notice with request for comments regarding proposed demand response programs standards

**Date:** Friday, March 31, 2023 3:26:20 PM

March 31, 2023

Troy Eichenberger

Tennessee Valley Authority

1101 Market Street, BR 5B-C

Chattanooga, TN 37402

[DemandResponsePURPA@tva.gov](mailto:DemandResponsePURPA@tva.gov)

**RE: Comments of the Tennessee Valley Industrial Committee ("TVIC") in response to notice with request for comments regarding proposed demand response programs standards**

Dear Mr. Eichenberger:

Pursuant to provisions of the Infrastructure Investment and Jobs Act ("IIJA"), the Tennessee Valley Authority ("TVA") is considering adopting for itself and the distributors of TVA power certain demand response standards. Section 40104(a) of the IIJA amends PURPA to require states and utilities to consider standards that "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." The Tennessee Valley Industrial Committee ("TVIC") submits these comments in response to the Notice with request for comments published in the Federal Register on November 15, 2022.<sup>1</sup> TVIC suggests that because TVA already promotes demand response through its industrial rate design and interruptible programs, and because TVA's rates already permit full recovery of industrial demand response-related costs, adoption of demand response-related standards, at least with respect to industrial rates, is unnecessary.

TVIC serves as the voice of large, energy-intensive industries in the TVA service area that purchase electricity directly from TVA. TVIC's primary mission is to seek and maintain competitive electric rates from TVA in order to preserve and expand jobs in the region. TVIC members provide approximately 26,000 jobs across the Tennessee Valley, principally in "building block" industries such as chemicals, primary metals, industrial gases, and forest products. TVA's directly-served industrial customers purchased approximately 12% of TVA's electricity in FY22 at a cost of more than \$920 million.<sup>2</sup>

TVA has a history of promoting demand response in the Valley to reduce the need for investment in generation and energy resources and to help reduce system load during periods of high demand. TVA offers standard end-use retail rates to its and the LPCs largest customers, which are designed to provide those customers with a strong incentive to reduce load during times of peak demand. These "B/C/D" rates, available to customers with loads above 5 MW/15 MW/25 MW respectively, charge customers more to use power during peak hours, thus encouraging those customers to reduce peak loads and/or shift usage to lower-cost off-peak periods.

<sup>1</sup> Tennessee Valley Authority, *Notice with request for comments*, 87 FR 68569 (Nov. 15, 2022).

<sup>2</sup> TVA, *Annual 10-K Report to the SEC* (Nov. 15, 2022), available at <https://tva.g4ir.com/financial-information/sec-filings/sec-filings-details/default.aspx?FilingId=100117062415>.



In addition to rates designed to promote industrial demand response, TVA has offered interruptible power options to its industrial customers for many years, and many TVIC members as well as large industrial customers served by LPCs participate in these programs. The interruptible power programs are important to both TVA and the participating customers, by: (1) making TVA's rates more competitive for participating customers through the interruptible credits; (2) reducing rates to all other TVA customers by permitting TVA to avoid capacity additions; (3) providing TVA with the ability to reduce energy costs for all customers during high cost periods; and (4) providing critical capacity during emergency system conditions. This reduces the amount of capacity and energy that would otherwise need to be maintained/acquired and reduces the need for and amount of emergency reductions to firm load. TVA should continue to build on its existing interruptible program to ensure it retains and grows this needed capacity, as the predicted need for demand response is only growing.

Through the interruptible program, participating customers agree to allow TVA to call for a suspension of a portion of their energy load during times when the power system is constrained in exchange for a monthly demand credit.<sup>3</sup> There are three current programs based on the required notice for the customers: IP30, where customers curtail with thirty minutes notice, IP5, where customers reduce load with five minutes notice, and an Instantaneous Response program where a portion of a customer's load may be reduced by TVA without notice to the customer. IP30 participants receive a higher monthly demand credit in exchange for allowing TVA to curtail load when TVA determines that targeted interruptions provide economic benefits to the entire system. In addition, TVA periodically offers additional demand response opportunities, as circumstances warrant.

TVA's demand response programs provide clear benefits to all TVA customers. Interruptible power has repeatedly proven to be among the most reliable forms of capacity in the TVA region. During Winter Storm Elliott, participants in TVA's Interruptible Power programs provided more than 1,600 MW of load relief. The capacity provided by the Interruptible Power program allowed TVA to balance its system and minimize the rolling blackouts that were implemented on December 23-24, 2022. Additionally, last summer, TVA sought and obtained additional hours of interruption from participating customers to provide additional benefits to the system beyond the existing programs.<sup>4</sup> Partially through this program, TVA was able to meet demand during its multiple record-setting peak and daily energy records in May and June 2022.<sup>5</sup>

The use of industrial rate designs that promote demand response, coupled with TVA's interruptible power programs will provide even greater value during the coming years, as TVA projects higher-than-expected load growth. After a decade of largely flat load, TVA experienced nearly 3% demand growth from 2019 to 2022.<sup>6</sup> TVA continues to predict moderate load growth

<sup>3</sup> TVA, EnergyRight: Demand Response, <https://energyright.com/business-industry/demand-response/>.

<sup>4</sup> See TVA, *Building the Future Together: FY 2022 Annual Report* at 35-36, available at <https://www.tva.com/annual-report-5/22>.

<sup>5</sup> TVA, *Annual 10-K Report to the SEC* (Nov. 15, 2022), available at <https://tva.cflr.com/financial-information/sec-filings/sec-filings-details/default.aspx?FilingId=100117062415>.

<sup>6</sup> Madalyn Torres, WBER, *Here's why TVA said there were rolling blackouts before Christmas* (Jan. 19, 2023), available at <https://www.wber.com/article/news/local/tva-says-rolling-blackouts-sant-tamasso/51-9fac437b-5ccc-40eb-a0ce-630ba783b1de#:~:text=TVA%20said%20it%20has%20experienced%20nearly%203%25%20demand%20year%20demand%20growth%20over%20the%20next%20three%20years>.

of approximately 1% per year for at least the next three years.<sup>7</sup> As TVA builds new generation to serve this increased load, power rates that encourage demand response and continued promotion of and improvement to the interruptible power program will become even more important to TVA, and will enable TVA to plan for lower overall system demands than would otherwise be the case.

Historically the industrial rate designs and interruptible programs have been developed through discussions between TVA and customers in order to ensure that rates and programs are designed to meet both customer and TVA needs and objectives. The industrial rates and interruptible programs are highly complex, and directly and significantly influence both TVA and customer operations. TVA's industrial rate competitiveness, on which TVIC members are dependent, is a function of its rate options, and rate design and rate programs are therefore critical components of that competitiveness. As a consequence, TVIC believes that development of rate design and rate options through discussions between TVA and its customers is more appropriate and effective than attempting to develop standards to dictate program details and goals. This is particularly true in a fluid and complicated environment such as the evolving state of the electricity market.

As to the recovery of costs associated with demand response, if appropriately developed, an interruptible program does not require a separate cost recovery mechanism. TVA's interruptible program credits are based on estimated cost savings associated with the service. In other words, so long as the credits provided to participating customers reflect an amount not greater than the value being provided by giving TVA the right to curtail power, there is no additional cost to be recovered associated with the credits, and all customers are benefitted from the program. Similarly, so long as rates that provide price signals that encourage demand response are based on cost causation principles, and appropriately reflect the cost of the power being sold, no separate rate mechanism is necessary or appropriate. Program administration costs for both interruptible rates and demand responsive rates are subsumed within the overhead costs associated with the administration of all of TVA's rate programs and thereby recovered through rates. As a consequence, standards addressing rate mechanisms to recover demand response-related costs associated with industrial rates and interruptible programs are unnecessary.

For the reasons stated above, TVIC suggests that because TVA already promotes demand response through its industrial rate design and interruptible programs, and because properly designed rates and programs render the need for special rate recovery mechanisms unnecessary, TVA's adoption of standards related to the recovery of industrial customer demand response-related costs is unnecessary.

Respectfully submitted,

Peter J. Mattheis

<sup>7</sup> TVA Board Meeting Presentation, slide 37 ("Load forecast projecting moderate growth (1.0% CAGR FY22-25, 0.7% 10-year CAGR)"), available at [https://s25.q4cdn.com/191816265/files/doc\\_presentations/2022/22-5240-Aug-2022-Board-Dock-FNL-Website.pdf](https://s25.q4cdn.com/191816265/files/doc_presentations/2022/22-5240-Aug-2022-Board-Dock-FNL-Website.pdf)

Peter J. Mattheis  
Chairman, Tennessee Valley Industrial  
Committee

Comment from TVPPA on Demand Response Practices

**From:** Carrie Buddin on behalf of Doug Peters  
**To:** Demand Response PURPA; Electric Vehicles PURPA  
**Subject:** TVPPA Comments on PURPA Standards  
**Date:** Friday, March 31, 2023 11:45:03 AM



March 31, 2023

Troy Eichenberger  
Via email: [DemandResponsePURPA@tva.gov](mailto:DemandResponsePURPA@tva.gov)  
Tennessee Valley Authority  
1101 Market Street, BR 5B-C  
Chattanooga, TN 37402

Andrew Frye  
Via email: [ElectricVehiclesPURPA@tva.gov](mailto:ElectricVehiclesPURPA@tva.gov)  
Tennessee Valley Authority,  
1101 Market Street, BR 5A-C  
Chattanooga, TN 37402

Re: PURPA / Proposed Standards on Demand Response Practices and Electric Vehicle Charging Programs

Dear Mr. Eichenberger and Mr. Frye:

The Tennessee Valley Public Power Association, Inc. ("TVPPA") files these comments in response to a notice in the *Federal Register* dated November 15, 2022 and requests that the Tennessee Valley Authority ("TVA") include these comments as a part of the record in this proceeding.

TVPPA is an association representing the interest of 153 municipally-owned and cooperatively organized local power companies ("LPCs") that distribute power purchased at wholesale from the TVA to their retail customers. TVPPA and its members have a vital interest in the outcome of this proceeding.

While TVPPA believes that the positions presented here by TVPPA reflect, to the best of our knowledge, the general consensus of the members of TVPPA, should any member of TVPPA differ in its views and file its own statement as part of these proceedings, then TVPPA's comments should not be deemed to represent that particular member's views. Additionally, under the Public Utility Regulatory Policies Act ("PURPA"), and specifically 26 U.S.C. § 2612, TVA, as the state regulatory authority, has jurisdiction under PURPA to consider these

1206 Broad Street, Chattanooga, TN 37402 // 423.756.6511 // [tvppa.com](http://tvppa.com)

standards with respect to any electric utility which has total sales of electric energy, other than for resale, exceeding 500,000,000 kilowatt-hours during any calendar year after 1975, and before the immediately preceding calendar year. Several TVPPA member systems do not meet this threshold. Any comments made by TVPPA in this proceeding are not a waiver of any right of any TVPPA member to claim that any standard that is implemented is not effective as to it because that TVPPA member is excluded from the requirements of PURPA or any regulatory action under the authority of PURPA.

Subject to those important limitations, TVPPA submits the following comments on the two standards presently under consideration: (1) Demand Response Practices; and (2) Electric Vehicle Charging Programs:

#### Demand Response Practices

The standard under consideration is:

##### **(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).

Comments: TVPPA members systems have worked with TVA to develop demand response programs for many years. These programs are developed in collaboration with TVA and are a component of the integrated resource planning process. In practice, many of these programs are implemented through contracts with LPCs and with contracts with LPC retail customers.

TVPPA agrees with the importance of promoting the use of demand response programs to reduce electricity consumption during periods of unusually high demand, and TVPPA further agrees that LPCs should be permitted to recover their costs associated with demand response





programs. TVPPA values its collaborative working relationship with TVA on these issues and submits that the standard, if adopted, should be modified to include a collaborative process between TVA, TVPPA and LPCs in the development of and promotion of further demand response programs that will be made available to LPCs and their retail customers.

#### Electric Vehicle Charging Programs

The standard under consideration is:

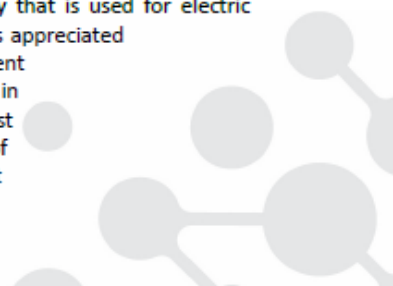
Each State shall consider measures to promote greater electrification of the transportation sector, including the establishment of rates that —

- (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.

Comments: This standard addresses two aspects of electric vehicle charging programs: programs to facilitate the development of electric vehicle charging infrastructure and rate structures for electricity that is used for electric vehicle charging services.

With respect to the development of electric vehicle charging infrastructure, TVPPA recognizes the role that TVA has played in the development of publicly accessible fast charging networks. TVPPA appreciates that these programs have been developed in collaboration with TVPPA member systems. TVPPA believes that this collaborative approach is very important, because these charging networks operate within the various LPCs' service areas and involve a service delivered to end use customers within those LPCs' service areas. TVPPA submits that the standard, if adopted, should be modified to reflect the respective roles of TVA and TVPPA in the delivery of charging services to end use customers.

With respect to the rate structures for electricity that is used for electric vehicle charging services, TVPPA and its member systems appreciated the opportunity to collaborate with TVA on the development of an optional wholesale rate that LPCs could use in developing retail electric rates for public electric vehicle fast charging stations. TVPPA recognizes the importance of developing rate structures in a manner that is consistent





with the requirements and purposes of the TVA Act and the provisions of each LPC's wholesale power contract with TVA. TVPPA submits that the standard, if adopted, should be modified to incorporate the requirements and principles of the TVA Act in the development of rate structures for electricity that will be used for electric vehicle charging services.

\* \* \* \* \*

TVPPA appreciates the opportunity to submit these comments for the TVA Board's consideration in this proceeding. TVPPA and TVA have a strong record of working together on demand response practices and with initiatives that promote the development of electric vehicle charging programs in the Tennessee Valley, and TVPPA submits that any standards adopted by the Board should reflect the collaborative process that has served the Valley well. TVPPA stands ready to provide such information as the TVA Board and TVA management team may need as this proceeding continues.

Sincerely,

A handwritten signature in blue ink, appearing to read "Doug Peters", is positioned above the printed name.

Doug Peters  
President & Chief Executive Officer



Comment from Dyersburg Electric on Electric Vehicle Charging Programs

**From:** Stephen Lane <smlane@despower.com>  
**Sent:** Wednesday, February 8, 2023 11:31 AM  
**To:** Electric Vehicles PURPA  
**Subject:** PURPA comment

TVA should reject this PURPA standard at this time until the true future of EV acceptance is revealed. Individual distributors can, of course, pursue their own plans based on their version of reality.

Comment from Benton Electric on Electric Vehicle Charging Programs

**From:** Scott W. Owens <scott.owens@bcestn.org>  
**Sent:** Tuesday, March 21, 2023 9:33 AM  
**To:** Smith, Brian N <bnsmith2@tva.gov>  
**Subject:** RE: TVA Seeking Comments on PURPA Standards

As a personal EV Owner most charging will occur at home. In order to move, incentive, or alter when consumer's wish to charge, will have to have proper price signals across the entire residential meter, not just a special model for EV Charging. The cost of electricity is not energy but demand from start to finish, and the rates should reflect the true cost of power, as we as LPCs need to educate and adjust our rates slowly and steadily to be more transparent in our cost to power. The technology is here for this evolution and should be handled in small incremental steps.

Comment from Charge Ahead Partnership on Electric Vehicle Charging Programs

**From:** Jay Smith  
**To:** Electric Vehicles PURPA  
**Subject:** CAP Comments PURPA EV  
**Date:** Friday, March 31, 2023 4:56:35 PM



March 31, 2023

Andrew Frye  
Tennessee Valley Authority,  
1101 Market Street, BR 5A-C  
Chattanooga, TN 37402

**RE: Charge Ahead Partnership comments on the Tennessee Valley Authority's consideration of the Public Utility Regulatory Policies Act of 1978 (PURPA) electric vehicle charging standards**

**I. Introduction:**

In November 2021, President Biden signed into law the Infrastructure Investment and Jobs Act ("IIJA"), which amended several provisions of the Public Utilities Regulatory Policies Act of 1978 ("PURPA"). In particular, Section 40431 of the IIJA directed state utility regulatory authorities across the country to consider measures that "promote greater electrification of the transportation sector." The Tennessee Valley Authority ("TVA") is the party authorized to make the final determinations on the adoption and implementation of the standards laid out in the IIJA. Section 40431, directs regulatory authorities to 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.

Charge Ahead Partnership ("CAP") thanks TVA for the opportunity to provide comments on this important issue. We firmly believe that the following issues should be considered as TVA considers adoption of the PURPA standards:

- TVA should ensure that electric vehicle ("EV") charging providers have access to rates that utilize alternatives to traditional demand-based rate structures and supports a level playing field for competition in the Tennessee Valley's ("the Valley") EV fast charging market.
- TVA should develop strategies to support increased consumer choices and private capital investment in EV charging stations, particularly direct current fast charging

("DCFC") stations. These strategies should include utility-owned make-ready programs that support customer-owned investments in EV charging stations.

- TVA should coordinate with the private sector and National Electric Vehicle Infrastructure ("NEVI") formula planning to effectively catalyze a competitive EV charging market in the Valley.
- TVA should ensure that all EV charging providers in the Valley can resell electricity by the kilowatt hour.
- TVA should develop and implement strategies to ensure the deployment of EV charging stations does not unnecessarily burden ratepayers.

## II. About Charge Ahead Partnership

CAP's membership is comprised of businesses, organizations and individuals that share the common goal of expanding the EV charging market and ensuring the Valley is positioned to meet EV drivers' expectations of quality service, safety and the affordable, competitive pricing to which they have grown accustomed with the established refueling network. Our corporate members, from big box retailers, to grocery stores and restaurants, to existing fuel retailers, own the real estate that is best suited for DCFC infrastructure. Many of these businesses are located along highway corridors, and all of them offer the amenities that drivers will demand while refueling.

The biggest challenge to widespread EV adoption in the Valley is the lack of a robust, statewide EV fast charging network that is co-located with the services and amenities, such as food vendors, restrooms, lighting and security, that consumers have come to expect when they refuel. CAP believes that a competitive, market-based approach is the most efficient and economical way to build the Valley's EV charging network so that it promotes fair competition and encourages private investment in the EV charging business.

Retailers, including gas stations, convenience stores and grocery stores, can be found in every community across the country, including small, disadvantaged and rural communities. In many instances, these businesses are the largest employers and largest taxpayers in their communities and the only location where local residents can buy groceries. If TVA sends the necessary policy signals to these businesses, they will invest in EV charging infrastructure to meet the demand of their customers.

Included below is an overview of CAP's perspective on EV charging policies that would address the standards laid out in Section 40431 of the IIJA as well as encourage robust free market competition in the Valley. We encourage you to consider these issues as you implement policy that will shape the future of the Valley's EV fast charging network. Doing so will position the Valley to create a competitive and consumer-centric approach to building a robust EV fast charging network across the state.

## III. Considerations for building an EV fast charging network

- A. Electricity tariffs for EV charging stations and compliance with Section 40431 of the Federal Infrastructure Investment and Jobs Act of 2021.

Congress intended for the IIIA to foster a competitive, private market for DCFC stations. In order to achieve this, systemic challenges associated with distribution and delivery of electricity to EV charging providers must be addressed. Specifically, DCFC stations have unique power needs that require high power capacity for charging but consume relatively low amounts of energy per charge. This high demand over short periods of time subjects EV fast chargers to costly demand charges. Demand charges are a key barrier to private investment in EV charging services.

Demand charges were created to compensate electric utilities for their investment in the capacity needed to meet spikes in demand, largely caused by industrial customers. These charges pre-date EVs and are incompatible with the realities of owning and operating a DCFC station. The single use of a DCFC station can incur a demand charge that doubles or triples the electric bill of the operator. In the early stages of EV adoption, there are not enough EV drivers to offset these demand charges, making the cost to charge prohibitively expensive.

In IIIA Section 40431,<sup>1</sup> Congress explicitly calls for state regulators to implement rate structures that mitigate the impact of demand charges on the private sector's ability to generate a return on EV charging investments. Section 40431's primary author, Senator John Hickenlooper (D-CO), noted in explaining the need for this provision.

*Public EV charging stations, particularly high-powered DC fast charging stations designed for highway corridors and for heavier duty EVs like buses and trucks, face a distinct set of hurdles imposed by the current regulatory system and traditional, demand-based electricity rates. Most prominent among barriers to deploying commercial EV charging are demand charges, which are ... designed to capture the marginal costs imposed on the grid by high-capacity, high-utilization infrastructure such as factories. However, when demand charges are levied upon high-capacity, low-utilization infrastructure such as EV charging stations, they can place a disproportionate cost burden on the station owners. The high-powered, fast-charging stations our Nation needs to serve the EV driving public ... have different load profiles than most commercial entities, with periods of dormancy punctuated by spikes in activity. And unlike most commercial operations, their demand profile is driven by real-time customer activity. So it is difficult for these stations to optimize their load profiles.<sup>2</sup>*

CAP appreciates TVA's efforts to create a wholesale public EV charging rate structure that does not include demand charges. To promote private investment and fair competition in the Valley's EV charging business, it is imperative that the rates, terms and conditions for DCFC

<sup>1</sup> IIIA Section 40431 amended the Public Utilities Regulatory Policies Act (PURPA).

<sup>2</sup> 167 Congressional Record 140 ed. (August 3, 2021) at S3927 available at <https://www.congress.gov/117/crec/2021/08/03/167/140/CREC-2021-08-03-senate.pdf>

of service own and operate publicly available DCFC stations. This will encourage private investment and increase consumer choices in the Valley's EV charging market.

### C. Coordination with the private sector and NEVI formula planning

The NEVI formula program, which awarded over \$88 million to the Valley over five years, is an opportunity to develop a burgeoning industry. This funding, however, is only a small down payment. Removing barriers for private businesses to install EV charging stations is essential to support the development of a long-term EV charging market in the Valley, which will continue to thrive long after the NEVI funds are completely expended.<sup>6</sup> The Commission should ensure that electric utilities are planning to engage with the NEVI formula program in a way that sparks significant private investment in the EV charging business. This will grow the Valley's EV charging industry for decades to come rather than simply distributing money to stranded assets such as broken, poorly maintained EV chargers that currently hinder EV adoption throughout the United States.<sup>7</sup>

Notably, the IIIA did not incorporate provisions that would allow states to unfairly compete with the private sector by installing publicly available EV charging stations on government property such as Interstate rest areas. This assurance protects the investments private businesses have made (or are considering making) in EV charging infrastructure along the Interstate. Government owned property typically does not provide the secondary amenities and security retailers provide to customers, which will inevitably mean that chargers sited on government property would not be utilized and would risk becoming a stranded asset. In fact, many publicly available chargers not offered by businesses such as convenience or grocery stores are in isolated, poorly-lit locations. As it can take up to one hour to recharge an EV using DCFC chargers, it is imperative that customer safety be at the forefront of public policy decisions.<sup>8</sup> To this end, retailers offer a safe place to recharge along with secondary services customers can utilize during the charging period.

<sup>6</sup> See, e.g., Watters, David, "To ensure Biden's EV evolution, states must allow private sector to participate," *The Hill*, (10/09/2022) available at <https://thehill.com/opinion/congress-blog/3680430-to-ensure-biden-s-ev-evolution-states-must-allow-private-sector-to-participate/>

<sup>7</sup> See, e.g., Niraj Chokshi, "A Frustrating Hassle Holding Electric Cars Back: Broken Chargers," *The New York Times*, (Aug. 16, 2022) available at <https://www.nytimes.com/2022/08/16/business/energy-environment/electric-vehicles-broken-chargers.html> ("Many [chargers] sit in parking lots or in front of retail stores where there is often no one to turn to for help when something goes wrong..."); see also Andrew J. Hawkins, "Electric Vehicle Owners Are Fed up with Broken EV Chargers and Janky Software," *The Verge*, (Aug. 17, 2022), available at <https://www.theverge.com/2022/8/17/23308612/ev-charging-broken-unreliable-survey-jd-power> ("Finding a public charger has never been easier, but finding one that works remains a serious problem. According to [a JD Power survey from August 2022], one out of every five respondents ended up not charging their vehicle after locating a public charger. And of those who didn't charge, 72 percent indicated that it was due to the station malfunctioning or being out of service.")

<sup>8</sup> See, e.g., U.S. Department of Transportation, EV Charging Speeds, available at [Electric Vehicle Charging Speeds | US Department of Transportation](https://www.transportation.gov/electric-vehicle-charging-speeds)



D. Allow charging station owners to resell electricity

It is CAP's understanding that TVA's LPCs can amend their wholesale power contract or adopt the wholesale rate created in November 2020 by the TBA Board in order to allow charging station owners to provide EV charging services by the kilowatt hour. In order to effectively create a competitive marketplace, TVA should encourage all LPCs to take the necessary actions to allow kilowatt hour sales. This is essential to encourage private investment, and it is a key component for state NEVI funding eligibility.<sup>9</sup>

E. Strategies to mitigate ratepayer cost burden

EV charging services and the ownership and operation of charging stations should be left to private companies that compete on price and quality of services. This approach will ensure that the current fuel transition does not unnecessarily burden utility ratepayers. Private investment will be essential to create a more positive customer experience for EV drivers, which will support the growth of the Valley's EV fast charging network. CAP firmly believes that without an emphasis on quality consumer service as well as charging availability, EV adoption rates will lag.

As previously mentioned, electric utilities are increasingly seeking to underwrite their investments in owning and operating DCFC stations by recovering their costs in their customer's electric bills. Electric utilities rate-basing costs associated with building, owning, and operating networks of DCFC fast chargers will adversely affect the entire rate base, regardless of how many customers actually drive an electric vehicle. This would have the largest impact on individuals in low-income and fixed-income communities who are more sensitive to price fluctuations and are less likely to own EVs. In this sense, rate-basing the costs of EV chargers operates like a regressive tax, particularly on those least able to afford it or directly benefit from it.

Ensuring that the Valley's EV charging market is based on fair competition and transparency for all EV charging providers will mitigate financial impacts on ratepayers by encouraging private investment. However, private businesses need certainty that their investments in EV charging services will not be competed with unfairly by electric utility owned charging stations. To address this uncertainty, CAP believes that electric utilities that choose to own EV charging stations should do so through a separate, unregulated entity that cannot be cross subsidized with their regulated business as such, they can compete fairly with other private sector entities in the free market.

**IV. Conclusion**

For the reasons previously stated, CAP urges TVA to implement regulatory policy and rate structures that will support private investment in transportation electrification. Thank you for your consideration of CAP's comments. As TVA studies this issue, CAP is prepared to be a resource and welcomes all future opportunities to participate in this process. We look forward to working with TVA on this important issue.

<sup>9</sup> See, e.g. U.S. Department of Transportation, NEVI Standards and Requirements, Final Rule, available at <https://www.govinfo.gov/content/pkg/FR-2023-02-28/pdf/2023-03500.pdf>

Sincerely,

/s/ Jay Smith  
Jay Smith  
Executive Director  
Charge Ahead Partnership  
[jay@chargeaheadpartnership.com](mailto:jay@chargeaheadpartnership.com)

Comment from Electrify America on Electric Vehicle Charging Programs

**From:** jamie@energytariffexperts.com <jamie@energytariffexperts.com>  
**Sent:** Friday, March 31, 2023 5:05 PM  
**To:** ElectricVehiclesPURPA@tva.gov  
**Subject:** PURPA EV Standards



March 31<sup>st</sup>, 2023

Via Electronic Filing

Andrew Frye  
Tennessee Valley Authority,  
1101 Market Street, BR 5A-C

**Re: Electric Vehicle Charging Amendments to the Public Utility Regulatory Policies Act of 1978**

Dear Mr. Frye,

Electrify America, LLC ("Electrify America") appreciates the opportunity to provide comments regarding the Tennessee Valley Authority's ("TVA") consideration of the electric vehicle ("EV") standards reflected in recent amendments to the Public Utility Regulatory Policies Act ("PURPA") of 1978 made by the Federal Infrastructure Investment and Jobs Act ("IIJA") of 2021.<sup>1</sup> TVA will consider the adoption of the EV standards based on their effect on conservation of energy, efficient use of facilities and resources, equity among electric customers, TVA's existing EV programs, and the objectives of the Tennessee Valley Authority Act.<sup>2</sup> Electrify America now submits these comments to encourage the TVA to take additional steps necessary to capture transportation electric benefits for the residents of the Tennessee Valley. Specifically, Electrify America requests that the TVA consider the adoption of additional measures to increase the Local Power Companies ("LPC") participation in TVA's optional, wholesale public EV charging rate.

As the largest open Direct Current Fast Charging ("DCFC") network in the U.S., Electrify America holds a direct interest in TVA's consideration of the EV standard for public charging stations and the LPC's participation in the TVA's optional wholesale public EV charging rate. Electrify America is investing more than \$2 billion over 10 years in Zero Emission Vehicle infrastructure, education and access in the U.S., and this investment will enable millions of Americans to discover the benefits of electric driving and support the build-out of a nationwide network of ultra-fast community and highway chargers that are convenient and reliable. To date, Electrify America has built a coast-to-coast network of DCFC stations across over 800 locations and with almost 3,500 individual DC fast chargers in total. Electrify America currently operates 13 DCFC stations with 60 chargers in the TVA region that are open to the public. Electrify America is currently expanding its investments in the TVA region with an addition of 11 more DCFC stations which are currently in development.

**A. PURPA EV Standard**

As a threshold matter, Electrify America commends the TVA for establishing this process to solicit stakeholder input on whether the TVA should adopt PURPA's EV standard, and for its role in the LPCs adoption of TVA's optional wholesale public EV charging rate and corresponding retail electric rates for public EV charging stations. As TVA knows, the PURPA amendments require

<sup>1</sup> Pub. L. No. 117-58, 135 Stat 429.

<sup>2</sup> Notice of Consideration of Demand Response and Electric Vehicle Standards, *Federal Register*, 87 Fed. Reg. 68,569 (Nov. 15, 2022).





regulatory authorities to consider the establishment of new, EV-specific rates such as alternatives to demand charges that meets several objectives:

1. Promote affordable and equitable EV charging options for residential, commercial, and public EV charging infrastructure;
2. Improve the customer experience and reduce charging times;
3. Accelerate private investment in charging infrastructure; and
4. Appropriately recover the marginal costs of delivering electricity for vehicle charging.<sup>3</sup>

Senator John Hickenlooper, one of the sponsors of this provision, stated succinctly that, "Our intention is to ensure that alternatives to traditional, demand-based electricity rates are made available to EV charging station owners with appropriate oversight by State public utility commissions."<sup>4</sup>

#### **B. Benefits to the Tennessee Valley**

Addressing rate design for public DCFC charging stations to improve the availability of those stations will advance transportation electrification, and the TVA's overall mission and EV goals. TVA's EV vision is to work with its partnering LPCs, governments, automakers and other stakeholders to spur over 200,000 EVs in the Tennessee Valley region by 2028.<sup>5</sup> In taking steps towards electrification, TVA is advancing its mission "to make life better for the people of the Tennessee Valley through the integrated management of the region's resources."<sup>6</sup>

Increased transportation electrification will result in an increase in the amount of electric load served by the TVA and its LPCs. Tennessee Valley residents will benefit from lower priced electricity because the costs to serve them will be spread across this increased load. Rates for EV charging that recover the marginal cost of service are in accordance with the fourth prong of the IIIA 111(d) amendments to PURPA, and any costs recovered above that make a positive contribution to the system and will therefore help reduce rates for Tennessee Valley residents. Increased transportation electrification will not only grow revenue, but also reduce greenhouse gas emissions and other air pollutants from internal combustion engines resulting in an overall improvement in the environment within the Tennessee Valley. Lastly, the transition to EVs brings business development opportunities related to EV manufacturing and related suppliers in the Tennessee Valley region.

#### **C. Benefits of the TVA's Optional Wholesale Public EV Charging Rate**

Making public DCFC charging services available to current and future EV drivers residing in the Tennessee Valley at prices that are competitive with gasoline (on a number of miles driven basis) is necessary in order to achieve and sustain the important transition to EVs and capture the associated

<sup>3</sup> 16 United States Code 2621(d)(21); 16 U.S.C. 2622(a),(b)(8)).

<sup>4</sup> Congressional Record, August 5, 2021, S.5926-5927

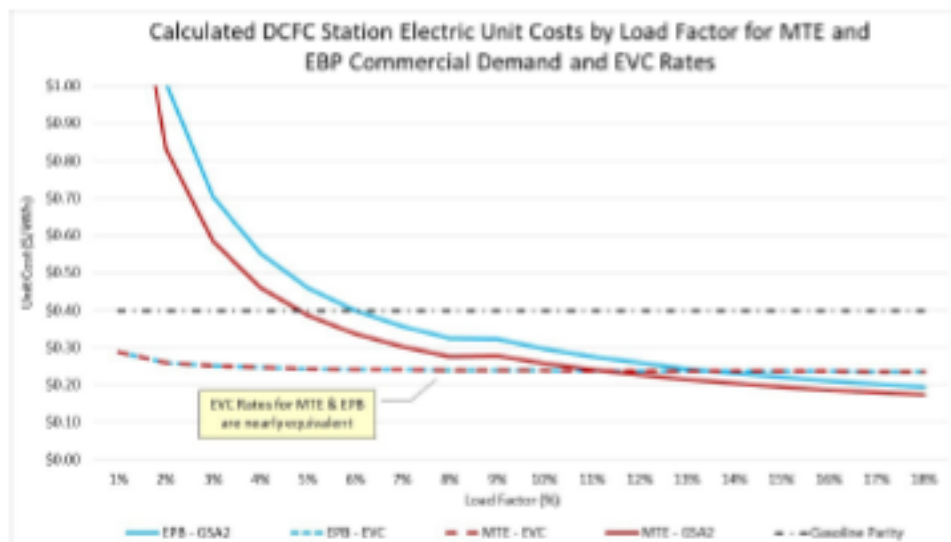
<sup>5</sup> Tennessee Valley Authority Webpage, Electric Vehicles at <https://www.tva.com/energy-system-of-the-future/electric-vehicles>

<sup>6</sup> Tennessee Valley Authority Webpage, TVA at a Glance at <https://www.tva.com/about-tva/tva-at-a-glance#:~:text=Our%20mission,management%20of%20the%20region's%20resources.>



benefits for the residents of the Tennessee Valley. The TVA's optional wholesale public EV charging rate is an important first step in this transition. LPCs that have opted into the TVA wholesale EV rate and have developed corresponding retail rates have eliminated the demand charge barrier for low load factor DCFC stations with an energy-only retail rate.<sup>7</sup>

The TVA reports that, "To date, more than 50 LPCs have adopted the wholesale EV charging rate."<sup>8</sup> This is roughly one third of the LPCs served by the TVA. As illustrated in the following graphic, the demand charge barrier for low load factor DCFC stations is addressed by the LPCs adoption of an energy-only retail rate ("EVC Rate"), as a result of their opting into the TVA's wholesale EV rate. The Middle Tennessee Electric ("MTE") Cooperative and the Electric Power Board ("EPB") of Chattanooga both implemented their respective EVC Rates in 2022. As the chart illustrates, the EVC rates provide stable and predictable unit costs for public DCFC stations over a range of load factors. Importantly, the EVC Rate designs are extremely helpful in reducing the risk of uneconomic operations for new DCFC stations and helps provide the certainty required to commit capital investment to new DCFC infrastructure.



They are also helpful to ensure parity in EV charging and gasoline costs. These rates fall below the equivalent cost of gasoline, which is made using the Department of Energy's E-Gallon

<sup>7</sup> Tennessee Valley Authority Webpage, PURPA ("TVA-PURPA Webpage") at <https://www.tva.com/public-utility-regulatory-policies-act-purpa>.

<sup>8</sup> *Id.*



methodology.<sup>9,10</sup> As helpful as the energy-only rates are, they must be provided in a stable and predictable manner in order to ensure that a third-party station provider can rely on their continued availability when making capital investment decisions.

Further, the chart also illustrates that standard demand-based rate designs (shown as EPB-GSA2 and MTE-GSAT) result in unit costs of electricity from the grid can exceed \$1/kWh, which is extremely challenging for DCFC station operator business models. Several of Electrify America's stations are on the standard demand-based rate of several LPCs that do not have an EVC Rate available. These LPCs include: Nashville Electric Service, Memphis Light, Gas, and Water Division,<sup>11</sup> City of Cookeville, Clarksville Department of Electricity, and Duck River Electric Membership Corp.

Demand-based rates are a critical barrier to the widespread electrification of the transportation sector in TVA's service territory and across the nation. These rates, which assess charges on peak energy consumption during a billing period rather than quantity of electricity used, pose a special economic challenge for high-power, low-utilization uses such as DC fast charging. Research from the Great Plains Institute found that demand charges can account for over 90% of electricity costs for DC fast charging, and "lead to operating costs that far exceed the revenue these chargers can receive from customer payments,"<sup>12</sup> a finding echoed in a 2021 U.S. Department of Energy ("DOE") report.<sup>13</sup> This circumstance manifests in areas served by LPCs within the TVA service territory that have not adopted the EVC Rate design for public EV charging. This phenomenon discourages EV charging infrastructure investment in these areas and delays the build-out of new stations, particularly in rural areas and disadvantaged communities where near-term utilization may be lower.<sup>14</sup>

The challenge posed to DCFC station operator business models by demand-based rates is not simply a matter of increasing station utilization. The increased charging capacity of new EV models and related power demands is exacerbating demand exposure at DCFC stations, especially at ultra-fast charging stations (up to 150 kW) and hyper-fast charger stations (up to 350 kW). New vehicles coming to market have average charging speeds that range from 50kW to 200kW.<sup>15</sup> As a result, while overall DCFC station kWh sales are growing, demand is growing too due to increased simultaneous

<sup>9</sup> US DOE E-Gallon methodology available at <https://www.energy.gov/eere/vehicles/e-gallon-methodology>

<sup>10</sup> AAA reports that as of 3/28/2023, the average cost of gasoline in Tennessee is \$3.13/gal. The average car gets 27.5 mi/gal which translates to  $\$3.13/27.5 = \$0.114/\text{mi}$ . If the average EV gets 3.5 mi/kWh, then the price of electricity required to be equivalent with gasoline is  $\$0.398$  ( $\$0.114/\text{mi} \times 3.5 = \$0.398/\text{kWh}$ ).

<sup>11</sup> Reportedly Memphis Light, Gas, and Water is considering opting into the EVC rate in the coming months.

<sup>12</sup> McFarlane, D., et al. "Overcoming Barriers to Expanding Fast Charging Infrastructure in the Midcontinent Region," Great Plains Institute, available at [https://www.betterenergy.org/wp-content/uploads/2019/08/GPI\\_DCFC-Analysis.pdf](https://www.betterenergy.org/wp-content/uploads/2019/08/GPI_DCFC-Analysis.pdf) (July 2019).

<sup>13</sup> U.S. Department of Energy, "An EV Future: Navigating the Transition," available at [https://8b9a2972-f6bd-463f-ab0e-7b2ba71ee2f1.filesusr.com/ugd/1c0235\\_965967cd2bf6b94924c05637398fda3.pdf](https://8b9a2972-f6bd-463f-ab0e-7b2ba71ee2f1.filesusr.com/ugd/1c0235_965967cd2bf6b94924c05637398fda3.pdf) (October 2021).

<sup>14</sup> High demand charges can also become a de-facto energy storage mandate for DCFC station development. Adding storage to DCFC station designs greatly increases capital costs, which in turn reduces the number of stations developed due to the higher cost per station or reallocation of capital budgets to more favorable jurisdictions. It can also result in longer development timelines due to the need for interconnection studies that may be triggered by the presence of storage. Real estate constraints may limit the size of battery storage systems or preclude their placement altogether. As a result, rate reform to reduce or eliminate demand charges is the best policy option to ensure widespread deployment of EV charging infrastructure.

<sup>15</sup> Atlas Public Policy analysis of data from U.S. Environmental Protection Agency and various industry sources.





charging sessions of new high power EV models. As a result, alternative rate designs such as the EVC Rate are needed for new and existing DCFC stations.

Increased public DCFC station adoption would benefit from more LPCs opting into the TVA's wholesale EV rate throughout the TVA service territory. Therefore, Electrify America requests that the TVA consider the adoption of additional measures to encourage its LPCs to opt into its wholesale EV charging rate, which would enable them to adopt a corresponding energy-only retail rate for public DCFC charging stations. More widespread adoption of the EVC Rate will help ensure greater access to and investment in public DCFC charging throughout the TVA service territory. Measures could include the provision of assistance to EV charging providers who find themselves in the position of requesting that an LPC adopt the wholesale EV rate design. Assistance to LPCs could include education and outreach to LPC staff and the provision of load research data to help educate them about the experiences of other LPCs with DCFC station loads in their service areas. This type of support would equip LPC staff in responding to inquiries from EV charging station operators who are interested in constructing charging stations in their service areas.

#### **D. Additional Considerations**

##### **Public DCFC Station's Role in Providing Equitable Access to EV Charging:**

The TVA should consider the positive impact that access to public DCFC charging stations has on equitable access to EV charging. Access to DCFC stations is crucial to the successful and equitable transition to clean transportation for drivers in the Tennessee Valley's urban areas who may not have consistent access to home charging. The IJA amendments to PURPA Section 111(d) clearly state the objective to "promote affordable and equitable EV charging options for residential, commercial, and public EV charging infrastructure". To fully realize this objective, the needs of EV drivers residing in apartments, townhouses, and other multi-unit dwellings ("MUDs") must be fully considered. For these drivers, public DC fast charging often serves as the primary means of recharging their vehicles.

Recent research from UCLA's Luskin Center shows that 43% of MUD residents rely on DC fast charging as their primary means of charging, nearly three times the percentage of non-MUD residents.<sup>16</sup> While more than 80% of all charging sessions happen at home,<sup>17</sup> in urban areas there is greater difficulty charging because urban households are more than twice as likely as suburban households to be located in MUDs.<sup>18</sup> To that point, a recent study by DOE's National Renewable Energy Lab indicates that only "33% of the current light duty vehicle stock in the United States is

<sup>16</sup> DeShazo and Di Filippo, "Evaluating Multi-Unit Resident Charging Behavior at Direct Current Fast Chargers," UCLA Luskin Center for Innovation, pp. 3, 13, available at <https://innovation.luskin.ucla.edu/wp-content/uploads/2021/03/Evaluating-Multi-Unit-Resident-Charging-Behavior-at-Direct-Charging-Behavior-at-Direct-Current-Fast-Chargers/Current-Fast-Chargers.pdf> (February 2021).

<sup>17</sup> Huifut D., et al., "Electric Vehicle Charging Implications for Utility Ratemaking in Colorado," National Renewable Energy Laboratory, available at <https://www.nrel.gov/docs/fy19osti/73303.pdf>, accessed on May 19, 2021.

<sup>18</sup> In fact, 37% of urban households and 16% of suburban households reside in MUDs. See Mortgage Bankers Association, "MBA Chart of Week: Distribution of Housing Types, Race and Ethnicity (Urban Areas and U.S.)," available at <https://www.mba.com/mba-chart-of-week-distribution-of-housing-types-race-and-ethnicity-urban-areas-and-u-s/> (Oct. 2, 2017). Furthermore, 86% of the 31.4 million MUDs in the US are rented, and these residents have the greatest difficulty charging at home. See Neal N., Goodman, L., and Young, C., "Housing Supply Chartbook," Urban Institute (January 2020).



parked close to electrical access.”<sup>19</sup> In many instances, these drivers may rely on public stations where they can charge quickly and affordably. Demand charges are the largest differentiating factor between effective electricity rates billed by the utility to residential customers and to commercial EV customer accounts. As a result, rate designs that are aligned with DCFC station operator business models are critically important to ensure sufficient capital investment in public charging infrastructure that is needed to ensure broadly accessible availability of public charging.

#### Positive Impacts on NEVI Investments:

The TVA should also consider the positive impact that energy-only rates can have on privately owned charging stations deployed as a result of investments made through the National Electric Vehicle Infrastructure Formula Program (“NEVI”). The TVA now has an opportunity to enhance the impact of funds that Tennessee Valley states will receive through the NEVI Program.<sup>20</sup> Specifically, by complying with the PURPA amendment’s directive to evaluate EV-specific rates, the TVA can help ensure that the investments in charging infrastructure made by state transportation entities through NEVI will be economically sustainable for the long term and attract private sector investment.

#### Competitive Investment in Public DCFC Charging Stations:

TVA should consider the impact that its programs have on competitive investment in public DCFC charging stations to help ensure that pricing to EV drivers reflects station operating cost. TVA’s webpage on the PURPA EV standard explains that TVA “works with state agencies and LPCs through its Fast Charge Network program to develop a foundational network of EV fast chargers located at least every 50 miles along interstates and major highways.”<sup>21</sup> TVA further explains that the “program reimburses LPCs for 80% of eligible costs associated with siting, purchasing, installing, and operating EV fast charges along major travel corridors.”<sup>22</sup> This program may expand applicant eligibility to include local governmental entities, private companies, and/or non-profits in the future.<sup>23</sup> It is important that these Fast Charge Network sites operate on a level playing field with third party owned and operated public DCFC stations.

It is also important that prices for LPC owned public charging reflect the costs of station operation so that competitive DCFC networks can invest in the region with the confidence that all market participants have rational cost-based pricing strategies. The third prong of the IJA 111(d) amendments to PURPA is to “accelerate private investment in charging infrastructure” and therefore it is important to ensure that TVA activities to expand access to charging infrastructure are not inadvertently at cross purposes with this goal.

<sup>19</sup> Ge, Y., Simeone, C., Duvall A., and Wood E., “There’s No Place Like Home: Residential Parking, Electrical Access, and Implications for the Future of Electric Vehicle Charging Infrastructure,” National Renewable Energy Laboratory, available at <https://www.nrel.gov/docs/fy22osti/81065.pdf> (October 2021).

<sup>20</sup> The downloadable Tennessee Electric Vehicle Infrastructure Formula Program Deployment Plan can be accessed at [https://www.fhwa.dot.gov/environment/nevi/ev\\_deployment\\_plans/tn\\_nevi\\_plan.pdf](https://www.fhwa.dot.gov/environment/nevi/ev_deployment_plans/tn_nevi_plan.pdf).

<sup>21</sup> TVA-PURPA Webpage at [https://www.tva.com/public-utility-regulatory-policies-act-\(purpa\)](https://www.tva.com/public-utility-regulatory-policies-act-(purpa)).

<sup>22</sup> *Id.*

<sup>23</sup> Department of Environment & Conservation Webpage, Fast Charging Network at <https://www.tn.gov/environment/transportation-nevi/energy/state-energy-office-2020-transportation-projects/transportation-and-alternative-fuels/sustainable-transportation-and-alternative-fuels/transportation-electrification-in-tennessee/tdec-and-tva-moa.html>



### E. Conclusion

The TVA's wholesale EV rate meets the objectives of the 111(d) standard as it has resulted in the adoption of energy-only rates at the retail level by LPCs. Increased public DCFC station adoption would benefit from more LPCs opting into the TVA's wholesale EV rates in a stable and predictable manner. Access to public DCFC charging stations will help promote electrification, bringing benefits to the Tennessee Valley residents.

Therefore, Electrify America requests that the TVA consider the adoption of additional measures to encourage its LPCs to opt into its wholesale EV charging rate. Measures could include the provision of assistance to EV charging providers who find themselves in the position of requesting that an LPC adopt the TVA's wholesale EV rate. Assistance to LPCs could include education and outreach to LPC staff and the provision of load research data to help educate them about the experiences of other LPCs with DCFC station loads in their service areas. Electrify America also recommends that TVA consider the impact that its public charging programs have on competitive investment in public DCFC charging stations to help ensure that pricing to EV drivers reflects station operating cost.

We appreciate the opportunity to submit these comments and would be happy to discuss this matter further and answer any questions the TVA may have.

Respectfully submitted,

/s/ Anthony Willingham  
Government Affairs & Public Policy Lead—State Government  
Electrify America  
2003 Edmund Halley Drive  
2nd Floor, Suite 200  
Reston, VA 20191  
[Anthony.Willingham@electrifyamerica.com](mailto:Anthony.Willingham@electrifyamerica.com)  
(571) 786-9934



Comment from EVgo on Electric Vehicle Charging Programs

**From:** Lindsey Stegall  
**To:** Electric Vehicles PURPA  
**Subject:** EVgo's PURPA EV Comments  
**Date:** Friday, March 31, 2023 12:04:50 PM



dedicated to supporting EV deployments to reduce timelines and soft costs associated with utility energization processes.

I. TVA should encourage rapid adoption of its volumetric rate for EV charging facilities by local power providers.

As TVA has recognized, effective commercial rate design is critical to enabling transportation electrification. Public DCFC infrastructure has a unique load profile that makes it distinct from other commercial customers. The demand charge component of traditional commercial rates can lead to disproportionately high effective dollar per kilowatt-hour (kWh) costs to operate DCFC, which creates a significant barrier to third-party investment in charging infrastructure. The availability of commercial EV rates that account for the unique loads of fast charging stations is essential to achieve transportation electrification at scale.

EVgo applauds TVA for being a leader in addressing this issue and adopting a volumetric rate for EV charging facilities that will increase the viability of third-party investment in EV charging infrastructure in Tennessee. However, widespread implementation of this rate across the state requires that each local power provider adopt the rate in their territory. While many local power providers have adopted this rate, some have not, including utilities serving some of the largest metro areas of the state.

EVgo recommends TVA encourage wider adoption of this rate and support local power providers through this process. Widespread adoption of this rate, particularly in the more populous areas of Tennessee, will be vital for accelerating deployment of public fast-charging infrastructure. TVA should work closely with the local power providers to stress the urgency of adopting the EV rate, especially with private sector interest in Tennessee set to take off with the National Electric Vehicle Incentive Program (NEVI) and the Inflation Reduction Act (IRA).

II. To drive third-party investment in EV charging, EV supply equipment (EVSE) programs must be open to third-party entities.

Complementary to EV rate design, utility make-ready and rebate programs can accelerate the adoption of EVs by incenting private investment in charging infrastructure. Under this approach, utilities invest in "make-ready" infrastructure, which refers to the electrical equipment necessary to operate a charging station on both the customer- and utility-side of the meter, while leaving charger installation, ownership, operations and maintenance to experienced electric vehicle service providers (EVSPs). Another program model that is helpful in spurring private market development is an incentive or rebate program for make-ready infrastructure or EV chargers, which covers a portion of the costs of this equipment. Such programs continue to receive utility regulators' approval across the country and have spurred third-party participation in EV charging markets in states such as Colorado,<sup>3</sup> New Mexico,<sup>4</sup>

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<sup>3</sup> Colorado Public Utilities Commission, Proceeding No. 20A-0204E, Commission Decision Granting Application with Modifications (January 11, 2021).



Michigan,<sup>5</sup> and many others.<sup>6</sup> Given the success of these types of programs, EVgo recommends TVA work with local power providers and stakeholders to support the development of utility make-ready and/or rebate programs in Tennessee. Further, any future make-ready or rebate programs should be open to applications from third-party providers.

While the preceding recommendation applies to new utility make-ready and/or rebate programs, TVA should also reexamine the opportunity to fund privately-owned DCFC through the State's Volkswagen Diesel Settlement Environmental Mitigation Trust ("VW Settlement"). Through this program in 2021, TVA issued a request for project proposals from TVA-served Local Power Companies and other local utilities. The website noted that "later rounds of funding may expand applicant eligibility to include local governmental entities, private companies, and/or non-profits." With almost 18 months since this solicitation, EVgo encourages TVA to consider issuing a new solicitation for DCFC with expanded eligibility in the near future.

### III. TVA should convene a workshop to amplify best practices to streamline charging deployments in Tennessee.

EVgo offers additional charging ecosystem best practices that may facilitate utilities' efforts to enable public charging deployment for TVA's consideration. Through its Connect the Watts<sup>TM</sup> initiative, EVgo has identified five areas on which to focus utility efforts to support EV charger project deployment,<sup>8</sup>

<sup>4</sup> New Mexico Public Regulation Commission, Case No. 20-00237-UT, Final Order Adopting Recommended Decision, at 3-4 (November 12, 2021).

<sup>5</sup> See DTE Charging Forward, available at <https://newlook.dteenergy.com/wps/wcm/connect/dte-web/home/servicerequest/business/electric/electric-vehicles/pev-biz-charge-frwd>.

<sup>6</sup> Additional examples include but are not limited to: California (Pacific Gas & Electric) [https://www.pge.com/en\\_US/large-business/solar-and-vehicles/clean-vehicles/ev-charge-network/evfastcharge.page](https://www.pge.com/en_US/large-business/solar-and-vehicles/clean-vehicles/ev-charge-network/evfastcharge.page); Connecticut (Eversource and United Illuminating) Public Utilities Regulatory Authority Docket No. 17-12-03RE04, Investigation into Distribution System Planning of the Electric Distribution Companies – Zero Emission Vehicles, Decision, dated July 2021; Illinois (Ameren) <https://www.ameren.com//media/rates/files/illinois/aie121rdevcp.ashx>; New Jersey (Atlantic City Electric, Public Service Electric & Gas Company, Jersey Central Power & Light) Board of Public Utilities Docket No. Q020050357, Order Adopting the Minimum Filing Requirements for Light-Duty, Publicly Accessible Electric Vehicle Charging, dated September 2020; New York (Central Hudson, Con Ed, National Grid, New York State Electric & Gas, Rochester Gas & Electric, Orange & Rockland Utilities) <https://jointutilitiesofny.org/ev/make-ready>; Rhode Island (National Grid) <https://www.nationalgridus.com/RI-Business/Energy-Saving-Programs/ElectricVehicle-Charging-Station-Program>; Massachusetts (National Grid) <https://www.nationalgridus.com/MABusiness/Energy-Saving-Programs/ElectricVehicle-Charging-Station-Program>, and (Eversource) <https://www.eversource.com/content/ema-c/residential/savemoney-energy/clean-energy-options/electricvehicles/charging-stations>.

<sup>7</sup> See <https://www.evgo.com/connect-the-watts/>.

<sup>8</sup> See Best Practices for Charging Infrastructure Program Design: Utilities, [https://siteassets.evgo.com/f/78437/x/dfe30bb392/071122\\_best-practices\\_utilities.pdf](https://siteassets.evgo.com/f/78437/x/dfe30bb392/071122_best-practices_utilities.pdf).





including: 1) easement process streamlining, 2) utility equipment inventory maintenance, 3) design and construction staffing, 4) study phase streamlining, and 5) utility design approvals streamlining.<sup>9</sup>

Proactively addressing inventory management and proper attention to workforce development opportunities in utility new service and engineering may help Tennessee utilities be best positioned to support deployment of chargers from the funding made available by the IIJA. For example, EVgo has witnessed prolonged development timelines in certain jurisdictions in Tennessee due to long lead times for grid equipment such as transformers. TVA should host a workshop to discuss best practice incorporation on a number of topics, such as this one, with the goal of expediting third-party EV charging deployment across Tennessee.

#### IV. Conclusion

In sum, as TVA seeks to better understand ways to incent third-party investment in EV charging infrastructure, EVgo recommends TVA support wider adoption of TVA's volumetric EV charging rate, support the development of utility make-ready and rebate programs, issue a new VW Settlement funding solicitation for DCFC with expanded eligibility, and initiate proactive conversations around best practices for utilities to address EV charger energization timelines, inventory management, workforce development opportunities, and other issues that may impact the rapid deployment of EV charging infrastructure across Tennessee.

EVgo appreciates the opportunity to participate in this process and share its input with TVA in service of the shared goal of greater electrification of Tennessee's transportation sector. Please do not hesitate to be in touch if we can be a resource.

Sincerely,

Lindsey Stegall  
Manager, Market Development and Public Policy  
EVgo  
[lindsey.stegall@evgo.com](mailto:lindsey.stegall@evgo.com)

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<sup>9</sup> On December 16, 2022, the California Public Utilities Commission issued a Final Resolution establishing clear deadlines for utilities to complete the steps within their control needed to energize EV charging infrastructure. The utilities must also post on their websites the service energization steps that are within the control of the utility, the customer, and the authorities having jurisdiction. Additionally, utilities must collect data on service requests that exceed the Commission deadlines to inform future energization process improvements and hold a workshop in 2023 to develop a new energization timeline standard based on empirical data. See Resolution E-5427, California Public Utilities Commission, issued December 16, 2022.

Comment from TVIC on Electric Vehicle Charging Programs

**From:** Rob Hoskins

**To:** Electric Vehicles PURPA

**Subject:** Comments of the Tennessee Valley Industrial Committee ("TVIC") in response to notice with request for comments regarding proposed electric vehicle standards

**Date:** March 31, 2023

March 31, 2023

Andrew Frye  
Tennessee Valley Authority  
1101 Market Street, BR 5A-C  
Chattanooga, TN 37402  
ElectricVehiclesPURPA@tva.gov

**RE: Comments of the Tennessee Valley Industrial Committee ("TVIC") in response to notice with request for comments regarding proposed electric vehicle standards**

Dear Mr. Frye:

Pursuant to provisions of the Infrastructure Investment and Jobs Act ("IIJA"), the Tennessee Valley Authority ("TVA") is considering adopting for itself and the distributors of TVA power certain electric vehicle ("EV") standards. Section 40431 of the IIJA amends PURPA to require states to "consider measures to promote greater electrification of the transportation sector, including the establishment of rates that" do several things, including promoting affordable and equitable charging options, reducing charging times, accelerating third-party investment, and appropriately recovering the marginal costs of electric vehicle charging infrastructure. The Tennessee Valley Industrial Committee ("TVIC") submits these comments in response to the Notice with request for comments published in the Federal Register on November 15, 2022.<sup>1</sup> TVIC suggests that adoption of the standard is not necessary, as TVA and the Local Power Company (LPC) distributors of TVA power are already supporting EV adoption in the Valley through several initiatives. Even if TVA elects to adopt EV standards, TVA should not establish standards that would alter the path which TVA and the LPCs have undertaken to promote electrification of the transportation sector or the manner in which TVA and the LPCs work collaboratively to develop programs in this area tailored to the LPCs and their customers. Any standards would also need to ensure that the costs associated with the promotion of transportation electrification are properly allocated to the parties that cause those costs to be incurred, and that any rates TVA creates to promote or enable vehicle charging are designed to recover those costs.

TVA is already promoting the adoption of electric vehicles in the Valley through several programs. In 2021, the TVA Board approved new policies and an optional wholesale EV rate aimed at encouraging the development of charging infrastructure in the Valley. The updated policies enable LPC investment in public charging infrastructure and allow for the conditional resale of electricity, for transportation purposes only, by any charging developer on a \$/kWh basis.<sup>2</sup> TVA is also working with LPCs, state agencies, and third-party charging developers to create the Fast Charge Network, a network of public fast charging stations at least every 50 miles along major highways across its service area.<sup>3</sup> As of September 30, 2022, four sites were complete and

<sup>1</sup> Tennessee Valley Authority, *Notice with request for comments*, 87 FR 68569 (Nov. 15, 2022).

<sup>2</sup> See Board Item 20-04-06, *Electric Vehicle Charging Regulation and Pricing*, available at <https://www.tva.com/about-tva/our-leadership/board-of-directors/meetings-archive/2020/11/13/default-calendar/tva-board-meeting--november-13-2020>.

<sup>3</sup> TVA, *EnergyRight: Electric Vehicles – EV Fast Charge Network*, <https://energyright.com/ev/fast-charger-program/>. TVA has worked with the State of Tennessee for additional funding for the Fast Charge Network in Tennessee. TVA,

operational with 28 additional sites under contract for development.<sup>4</sup> TVA also plans to electrify 100% of its light-duty fleet and 50% of its medium-duty vehicles.<sup>5</sup> TVA's current programs appropriately work in concert with the LPCs to develop and promote electric vehicles in the Valley.

In addition, the LPCs, through Seven States Power Corporation (Seven States), a nonprofit cooperative owned by the LPCs, have also been pursuing their own EV initiatives beyond TVA's efforts. Seven States has installed more than 110 EV chargers throughout the Valley since 2019, with an average of one new installation each week.<sup>6</sup> Additionally, Seven States has partnered with several universities to install chargers throughout the region as part of U.S. Department of Energy-funded projects.<sup>7</sup> The LPCs are already therefore implementing their own programs and projects, including through third-party investment, to fund and promote EV charging in the Valley. TVA's role should be to support the LPC's programs through cost-effective measures, taking care not to override LPC or private initiatives.

While TVIC supports TVA's and the LPC's current efforts to promote transportation electrification in the Valley, TVIC believes that TVA needs to carefully consider the cost impact of efforts to promote electrification as well as the cost of providing service to charging stations. TVA should ensure that the costs associated with the promotion of transportation electrification are properly allocated to the parties that caused those costs to be incurred, and that any rates TVA creates to promote or enable vehicle charging are designed to recover those costs.

For the reasons stated above, TVIC suggests that EV standards are not needed in regions served by TVA, as TVA and the LPCs are currently undertaking the efforts described in the IJA and need no additional motivation to achieve the stated goals. However, if TVA does adopt EV standards, TVIC urges TVA to incorporate the cost and rate design considerations discussed herein and to permit additional customer input prior to finalization.

Respectfully submitted,

Peter J. Mattheis

Peter J. Mattheis  
Chairman, Tennessee Valley Industrial  
Committee

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*EnergyRight: Electric Vehicles – Fast Charge TN Network Program Overview*, <https://energyright.com/en/fast-charger-program/tn/>.

<sup>4</sup> See TVA, *Building the Future Together: FY 2022 Annual Report* at 40-43, available at <https://www.tva.com/annual-report-fy22>.

<sup>5</sup> *Id.* at 43.

<sup>6</sup> See Seven States Power Corporation, *Electric Vehicles & Chargers*, <https://www.sevenstatespower.com/portfolio/active-projects-services/#4>.

<sup>7</sup> See, e.g., Seven States Power Corporation, *Tennessee Technological University*, <https://www.sevenstatespower.com/portfolio/research-innovation/#38>

Comment from TVPPA on Electric Vehicle Charging Programs

**From:** Doug Peters  
**To:** Electric Vehicles PURPA  
**Subject:** TVPPA Comments on PURPA Standards  
**Date:** Friday, March 31, 2023



March 31, 2023

Troy Eichenberger  
Via email: [DemandResponsePURPA@tva.gov](mailto:DemandResponsePURPA@tva.gov)  
Tennessee Valley Authority  
1101 Market Street, BR 5B-C  
Chattanooga, TN 37402

Andrew Frye  
Via email: [ElectricVehiclesPURPA@tva.gov](mailto:ElectricVehiclesPURPA@tva.gov)  
Tennessee Valley Authority,  
1101 Market Street, BR 5A-C  
Chattanooga, TN 37402

Re: PURPA / Proposed Standards on Demand Response Practices and Electric Vehicle Charging Programs

Dear Mr. Eichenberger and Mr. Frye:

The Tennessee Valley Public Power Association, Inc. ("TVPPA") files these comments in response to a notice in the *Federal Register* dated November 15, 2022 and requests that the Tennessee Valley Authority ("TVA") include these comments as a part of the record in this proceeding.

TVPPA is an association representing the interest of 153 municipally-owned and cooperatively organized local power companies ("LPCs") that distribute power purchased at wholesale from the TVA to their retail customers. TVPPA and its members have a vital interest in the outcome of this proceeding.

While TVPPA believes that the positions presented here by TVPPA reflect, to the best of our knowledge, the general consensus of the members of TVPPA, should any member of TVPPA differ in its views and file its own statement as part of these proceedings, then TVPPA's comments should not be deemed to represent that particular member's views. Additionally, under the Public Utility Regulatory Policies Act ("PURPA"), and specifically 26 U.S.C. § 2612, TVA, as the state regulatory authority, has jurisdiction under PURPA to consider these

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standards with respect to any electric utility which has total sales of electric energy, other than for resale, exceeding 500,000,000 kilowatt-hours during any calendar year after 1975, and before the immediately preceding calendar year. Several TVPPA member systems do not meet this threshold. Any comments made by TVPPA in this proceeding are not a waiver of any right of any TVPPA member to claim that any standard that is implemented is not effective as to it because that TVPPA member is excluded from the requirements of PURPA or any regulatory action under the authority of PURPA.

Subject to those important limitations, TVPPA submits the following comments on the two standards presently under consideration: (1) Demand Response Practices; and (2) Electric Vehicle Charging Programs:

#### Demand Response Practices

The standard under consideration is:

##### **(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).

Comments: TVPPA members systems have worked with TVA to develop demand response programs for many years. These programs are developed in collaboration with TVA and are a component of the integrated resource planning process. In practice, many of these programs are implemented through contracts with LPCs and with contracts with LPC retail customers.

TVPPA agrees with the importance of promoting the use of demand response programs to reduce electricity consumption during periods of unusually high demand, and TVPPA further agrees that LPCs should be permitted to recover their costs associated with demand response





programs. TVPPA values its collaborative working relationship with TVA on these issues and submits that the standard, if adopted, should be modified to include a collaborative process between TVA, TVPPA and LPCs in the development of and promotion of further demand response programs that will be made available to LPCs and their retail customers.

#### Electric Vehicle Charging Programs

The standard under consideration is:

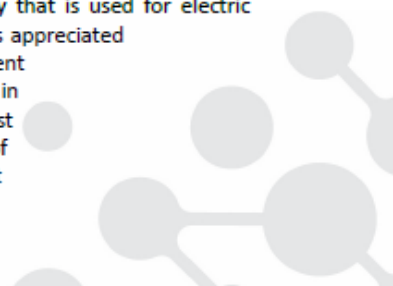
Each State shall consider measures to promote greater electrification of the transportation sector, including the establishment of rates that —

- (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.

Comments: This standard addresses two aspects of electric vehicle charging programs: programs to facilitate the development of electric vehicle charging infrastructure and rate structures for electricity that is used for electric vehicle charging services.

With respect to the development of electric vehicle charging infrastructure, TVPPA recognizes the role that TVA has played in the development of publicly accessible fast charging networks. TVPPA appreciates that these programs have been developed in collaboration with TVPPA member systems. TVPPA believes that this collaborative approach is very important, because these charging networks operate within the various LPCs' service areas and involve a service delivered to end use customers within those LPCs' service areas. TVPPA submits that the standard, if adopted, should be modified to reflect the respective roles of TVA and TVPPA in the delivery of charging services to end use customers.

With respect to the rate structures for electricity that is used for electric vehicle charging services, TVPPA and its member systems appreciated the opportunity to collaborate with TVA on the development of an optional wholesale rate that LPCs could use in developing retail electric rates for public electric vehicle fast charging stations. TVPPA recognizes the importance of developing rate structures in a manner that is consistent



with the requirements and purposes of the TVA Act and the provisions of each LPC's wholesale power contract with TVA. TVPPA submits that the standard, if adopted, should be modified to incorporate the requirements and principles of the TVA Act in the development of rate structures for electricity that will be used for electric vehicle charging services.

\* \* \* \* \*

TVPPA appreciates the opportunity to submit these comments for the TVA Board's consideration in this proceeding. TVPPA and TVA have a strong record of working together on demand response practices and with initiatives that promote the development of electric vehicle charging programs in the Tennessee Valley, and TVPPA submits that any standards adopted by the Board should reflect the collaborative process that has served the Valley well. TVPPA stands ready to provide such information as the TVA Board and TVA management team may need as this proceeding continues.

Sincerely,

A handwritten signature in blue ink, appearing to read "Doug Peters", is positioned above the printed name.

Doug Peters  
President & Chief Executive Officer



Relevant RERC Minutes and Presentation Materials**TVA Demand Response** (presentation can be found at [www.tva.gov/rerc](http://www.tva.gov/rerc)) – **Ray Knotts, Director, Energy Services & Programs**

Ray Knotts explained that TVA's EnergyRight® program includes energy efficiency, demand response, electric vehicles (EVs) – essentially, products and services consumers use related to energy. His presentation highlighted demand response, because TVA currently is addressing two new standards in the Public Utility Regulatory Policies Act of 1978 (PURPA), one of which relates to demand response. Within its Demand Response Program, TVA contracts with thousands of end-users to reduce their power use to the agreed-upon level when TVA needs to lower its load, either for economic reasons (when cost of procured energy is high) or for reliability reasons (when demand exceeds TVA's load capacity). When TVA determines that demand response is needed, it sends a notification to participants, asking them to curtail power within the agreed-upon period of time for the contracted amount of power reduction. TVA's Demand Response portfolio includes:

- Interruptible Power (IP), which suspends a portion of participating industrial or commercial customers' load, upon 5- or 30-minutes notice, during time of power system need.
- Peak Power Partners, a TVA-managed program that enables smaller customers such as schools or large retail stores to provide economic load reduction through an aggregator that manages the portfolio.
- Voltage Optimization, which enables LPCs to operate distribution feeder voltages in the lower half of the standard voltage range to lower peak demand.

Knotts said given the industrial and residential growth in the region, TVA is considering ways to grow its Demand Response Program. It is recruiting new participants, with goals of adding 400 megawatts of additional demand response by summer and up to 1,000 megawatts by winter. He said demand response has worked well for TVA's system, performing over 100%. He said TVA system operators count on the load reduction in their planning.

**QUESTIONS/ANSWERS**

- Asked by Erin Gill if there is potential for demand response growth, Knotts said TVA is assessing the depth of the potential. There was a decade of no growth, but now TVA is seeing growth. He said TVA has had a good response to its Demand Response Program. During Winter Storm Elliott, demand response was about 5% of the peak, which is significant. He said he suspects it will stay in that range, maybe a little more.
- Mike Butler asked about the macroeconomic impact of demand response and if it is a recruiting hindrance. Knotts said most potential customers ask if TVA has a Demand Response Program, because the payments are beneficial to them. He said companies with operational flexibility participate, and those that find it too costly don't sign up.
- In response to a comment by Chrissy Heard that Maryland has offered a residential demand response program for years, Knotts said TVA is conducting a small residential pilot in Knoxville with KUB. It is just a few hundred thermostats, and they are testing if it works in all seasons on a residential level.
- Lloyd Webb said TVA does a good job working with industrial customers. He said demand response provides critical capacity to the system, and it is important to look at five or 10 years down the road and how the capacity will be worked in. Knotts said TVA



thinks of demand response as a resource, and it is integrated into operational procedures and power supply planning.

**TVA Electric Vehicle Programs** (presentation can be found at [www.tva.gov/rerc](http://www.tva.gov/rerc)) – **Ray Knotts, Senior Manager, Energy Services and Programs**

Ray Knotts said TVA is often asked why it wants to be involved with electric vehicles (EVs). The answer is that: the value proposition is really clear for TVA, its communities and drivers. TVA estimates that by 2028, there will be about 200,000 EVs in the region. That number of vehicles is about half a percentage of energy growth for TVA, and the grid is ready to handle that. There are environmental benefits, with 200,000 EVs saving about 1 million metric tons of CO<sub>2</sub> per year. It would save about \$120 million that would have been sent outside the Valley, and consumers save at least \$200 million on fuel per year. TVA is working to eliminate four barriers: charging infrastructure availability, EV availability and offerings, innovative and supportive policies, and consumer awareness. Related to rates, the first thing TVA needed to do was set up a regulatory environment that allowed for the resale of electricity for electric vehicle charging. In the Tennessee Valley, only LPCs can resell electricity. TVA changed its regulatory policy so EV charging is not considered a violation of the resale of electricity. It created a flat wholesale rate that incorporates the demand charge into an all-energy charge. Then, the LPC can set the retail rate. TVA has worked heavily on consumer awareness and has created a consumer-friendly website ([www.energyright/EV](http://www.energyright/EV)), a video series, social media and community charging campaigns. TVA is partnering with local power companies and regional state agencies to develop the foundational charging network with fast charging stations along interstates and major highways at least every 50 miles. TVA and states provide 80% of the funding, and the LPCs provide 20%. The LPCs own the fast chargers for five years. To date, the system has been very successful. As of April 2023, 112 LPCs have expressed interest in program, and 60 sites have been contracted or completed with 51 LPCs and six states. The network is expected to be completed by 2026.

**QUESTIONS/ANSWERS**

- In response to a question from Mike Butler about why TVA does not follow the rate structure adopted a few years ago so TVA has continued investment in the grid, Mike Hynes, TVA's Director of Rate Design and Administration, said TVA has tried to eliminate the demand charge requirement. TVA did studies to determine costs, and converted that into a kilowatt per hour charge, which the consumer understands. The charge incorporates costs and allows for investment in the grid.
- Asked by Erin Gill if the Fast Charge Network is locked in with the larger networks, Knotts said TVA ensures all of the chargers are on the broad database that apps use. • Jonathan Levenshus asked about the cost share and whether any of the funding is coming from the National Electric Vehicle Infrastructure (NEVI) Formula Program. Knotts said the cost share is split between VW settlement dollars that are state dollars and TVA dollars. There are not NEVI dollars yet, but TVA is working with states on that.
- Alexa Voytek said TDEC is using VW settlement funding, so it was before NEVI. It came out with Fast Charge before NEVI was even contemplated. It is very similar. They have talked about NEVI coming in and complementing what Fast Charge has done. So, it is almost like a Phase 2 that will be built. Levenshus asked if LPCs can apply for NEVI dollars, and Knotts said TVA is helping coordinate so there isn't duplication.
- Asked by Dan Miller if the current plan for charging stations will offer enough chargers as the number of EVs increases, Knotts said not at the moment. He said TVA helped start

the foundational network, and then a third-party will come in to complete the network. He also noted that 80% of charging occurs at home, not at charging stations.

- Erin Gill asked how renters in multi-family buildings will be able to use chargers. Knotts said the industry expects that, at some point, codes and standards will change to accommodate that. It is not TVA's role. Over time, chargers may be installed as rental properties are constructed. He said renters can ask for a 220-plug. Voytek said TDEC is considering this now.

**Demand Response (DR), Electric Vehicles (EVs) & Rates** (presentation can be found at [www.tva.gov/rrerc](http://www.tva.gov/rrerc)) – **Mike Hynes, Director, Rate Design and Administration**

Mike Hynes said when TVA considers rate actions, it considers its relevance to the TVA mission – energy, environment and economic development. TVA sells to 153 LPCs, and they resell on a retail basis, and it also serves 60 directly served customers. In order to not create a competitive advantage, TVA tries to equalize its rates from a TVA and distributor perspective. Hynes described TVA's history with EVs and demand response, explaining that in 2018, TVA introduced a series of pilot rates to residential and commercial customers for charging purposes. In October 2021, TVA introduced a wholesale rate that LPCs could opt into and offer to their customers. In addition to that, LPCs became less concerned with the risk associated with the charging of the EVs and asked TVA to allow them to sell to the EVs using the standard rates, and TVA agreed to do that. All of that has significant implications to capacity, energy, transmission and distribution. It's all related, and TVA is trying to find the best possible way to provide solutions to its customers to electrify the transportation industry. Hynes reviewed the rate setting process, explaining that TVA has a four-step process for determining rates. The process includes determining the cost to provide the service, perform a cost-of-service study to determine the consumers using the service, target revenues to be recovered from customers, and then it gets wrapped up in rate design. TVA uses the guiding principles to inform its wholesale and retail rate changes, including that rates must cover costs, track cost of service, send pricing signals so the system is put together in the most economical fashion, is stable, balances precision with simplicity, and is competitive and affordable. Hynes said TVA refers to its pricing principles when considering whether to adopt, modify or reject the PURPA standards.

**PURPA / IIJA “Shall Consider” Standards** (presentation can be found at [www.tva.gov/rrerc](http://www.tva.gov/rrerc)) – **Christopher Chandler, Senior Counsel, TVA**

Congress enacted the Public Utility Regulatory Policies Act of 1978 (PURPA) in an effort to address energy issues facing the country at the time. From time to time, Congress will update PURPA “Shall Consider” standards. TVA is required to consider PURPA standards on its own behalf as a non-regulated utility and also as the state regulatory authority that sets rates for LPCs. Agencies are required to formally decide whether to adopt PURPA standards as written, adopt a modified version or decline the standard. In 2021, Congress included two new “Shall Consider” standards related to demand response and electric vehicle charging programs. TVA commenced the process in the fall of 2022 with a notice published in the Federal Register. The first step has been a public comment period, which closed on March 31, 2023. TVA engaged with wholesale customers and, customer organizations and maintained a website. The comments will form part of the record. The process must be completed by Nov. 15, 2023. Its final determinations will be reviewed by the Board and will be published in the Federal Register. The presentation Chandler gave relayed the views of the staff working group. At the time of the presentation, the positions had not been vetted through senior TVA management or the Board of Directors, so the staff's recommendations are subject to change. Regarding the proposed standard for demand response practices, the intent is to promote the use of demand response

programs and rate recovery for promoting demand response. In the public comments TVA received (and there was not a high volume), there was a heavy focus on TVA's existing Demand Response Program, which is fairly extensive. Second, there was an emphasis among the commenters on collaboration over imposing prescriptive requirements. TVA implements demand response by contracts, and there is a view that this implementation works. There is not an appetite for TVA to impose a set of regulatory requirements that all of its customers would be required to follow. The theme of the comments is around collaboration. Chandler said TVA staff's recommendation is to adopt a modified version of the demand response standard that would acknowledge the collaborative approach, which offers a great deal of flexibility among TVA's directly served customers and wholesale customers. It also gives TVA the ability to design programs and products to meet ongoing system needs.

#### QUESTIONS/ANSWERS

- Erin Gill asked, when you think about advertising and lock-in rate, is it an inclusive term that includes payment for capacity received, or is that covered under a separate regulatory statute? Chandler said that is not covered separately. The terminology of the statute includes both. When asked if TVA has chosen to create the per megawatt hour price structure, Chandler said yes, because in the view of the people working on the project, it is best to take an expansive view of what could be covered and make adjustments accordingly. It is written with low rates in mind, and TVA does demand response a little differently. Chandler said the EV standard covers a wider range of program aspects than the demand response standard does, and many aspects of the EV standard are focused on the customer-based aspects of EV programs and EV development. The small number of comments TVA received emphasized respecting local control and the fact that a one-size-fits-all approach won't work, given the number and diversity of local power companies. There are 112 LPCs that are interested. Especially among companies in the EV sector, there was a strong theme around energy-only rates being critical to the success of EV deployment. TVA staff's recommendation will be to adopt a modified version of the standard that builds on the work TVA already does to promote EV deployment but acknowledges that TVA and the LPCs have different roles to play in the EV ecosystem. It wants to adopt a standard that balances the fact that LPCs find themselves in different situations. TVA is going to continue to promote EVs, but it prefers to take a collaborative approach. It wants to apply consumer choice to this standard. Playing a role as a catalyst is probably a better fit for TVA.

#### QUESTIONS/ANSWERS

- Lloyd Webb asked if a pilot program with a charging station has a rate they have to keep as they supply power? Knotts said TVA is not regulating consumer price, and neither is the LPC. They have the autonomy to set the price. They need to pay the wholesale rate that the LPC charges, and they can put on the margin they see fit. He said to ensure Fast Charge Network chargers are well-maintained, TVA has built operation and maintenance contracts into its program.
- Erin Gill asked if the PURPA standard defines affordable and equitable? Chandler said it does not. He said that is something that TVA has spent time talking about as a team and one of the things TVA needs to square with the requirements of the TVA Act.

### **Public Comment Period**

Members of the public are invited to speak at RERC meetings. TVA asks that people register to speak, and comments can be made virtually or in person.

Nancy Muse, from Florence, Alabama, offered public comments. She expressed concern about TVA's use of nuclear power, citing, in particular, concerns about nuclear waste and how it is stored. She also stated concerns about how TVA handles notifications, noting that the public has a right to know what small modular reactor (SMR) development entails. She said she believes the nuclear industry omits points from its marketing, and expressed concerns that the nuclear fuel cycle is not carbon free, that SMRs are not as safe or affordable as the industry implies, and that communities will be impacted by potential SMRs built nearby. She encouraged TVA to make the Nuclear Regulatory Commission (NRC) hydrology study at the Clinch River Nuclear Site easily available to assure the ratepayers that this is a suitable geological site for a nuclear facility. She also encouraged TVA to consider renewable energy programs, some of which she says were discontinued and should be reinstated, like the TVA Generation Partners program with rooftop solar.

## Demand Response Portfolio

### INTERRUPTIBLE POWER (IP)

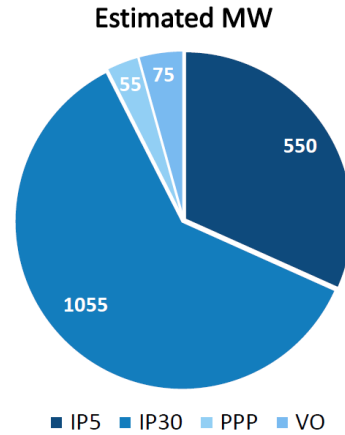
Suspends a portion of participating customers' load, upon 5 or 30-minutes notice, during time of power system need. Total impact: 1,605 MW

### PEAK POWER PARTNERS

TVA-managed program to provide economic load reduction through program delivery partners. Total impact: 55 MW

### VOLTAGE OPTIMIZATION

Enables LPCs to operate distribution feeder voltages in the lower half of the standard voltage range to lower peak demand. Total impact: 75 MW



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TVA Restricted Information - Deliberative and Pre-Decisional Privileged



## IP Goals

- New capacity: 400 MW by summer and 1,000 MW by winter
- Obtain additional hours from participants for summer 2023 (IP Special Offer 800+MW)



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TVA Restricted Information - Deliberative and Pre-Decisional Privileged





## Interruptible Power (IP) 5



### TARGET & DURATION

C&I customers with over 1 MW of load and 0.5 MW of dispatchable peak load reduction for unlimited reliability calls with 5-minute notice



### COMPENSATION STRUCTURE

Participants receive capacity payments



### CAPACITY PAYMENT

**Non-event month:** average on-peak interruptible

**Event month:** > average on-peak interruptible or event demand reduction

**Range:** \$5.20 – \$5.65/kW



### IMPACT

550 MW

### CONTRACT TERM

5 years (notice period varies from 1-5 years)



## Interruptible Power (IP) 30



### TARGET & DURATION

C&I customers with over 5 MW of load and dispatchable peak load reduction of 0.5 MW for up to 12 economic hours and unlimited reliability calls with 30-minute notice



### COMPENSATION STRUCTURE

Participants receive capacity and energy payments based on event performance



### CAPACITY PAYMENT

**Non-event month:** average on-peak interruptible

**Event month:** > average on-peak interruptible or event demand reduction

**Range:** \$5.25 – \$5.75/kW



### IMPACT

1055 MW

### CONTRACT TERM

5 years (notice period varies from 3-5 years)

### ENERGY PAYMENT

Henry Hub Natural Gas for month x 10 heat rate



## Peak Power Partner: Enel X Aggregated Demand Response



### TARGET & DURATION

C&I customers with dispatchable peak load reduction for economic calls and unlimited reliability calls with 30-minute notice



### COMPENSATION STRUCTURE

Participants receive monthly capacity payments and energy payments based on event performance



### CAPACITY PAYMENT

Based on nomination

### ENERGY PAYMENT

Henry Hub Natural Gas for month x 10 heat rate



### IMPACT

55 MW

### CONTRACT TERM

3 years initial then rolling

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## Dispatchable Voltage Regulation



### TARGET & DURATION

Local Power Companies optimize distribution-level voltage to reduce peak demand – dispatched with day-ahead notice



### COMPENSATION STRUCTURE

Participants received one-time capacity payments pending project completion milestones and energy payments for subsequent events



### ENERGY PAYMENT

Henry Hub Natural Gas for previous day prompt month x 10 heat rate



### IMPACT

75 MW

### CONTRACT TERM

10 years






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## TVA Electric Vehicle Programs

## Impacts of Electric Vehicles

Electric vehicles have benefits for the environment, local economies, and residents.

	<b>Electric Vehicle Goal</b>	<b>2%</b>	200,000 EVs in the Tennessee Valley by 2028
	<b>Electric Grid Ready</b>	<b>0.5%</b>	Off-peak growth to TVA's Power System; GWs of energy storage potential
	<b>Benefits to the Environment</b>	<b>~1 mil</b>	Metric tons of CO <sub>2</sub> saved per year
	<b>Benefits to Local Economies</b>	<b>\$120 mil</b>	Reinvested into local economies per year
	<b>Benefits to Consumers</b>	<b>\$200 mil</b>	Consumer fuel savings per year

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## TVA EV Initiatives

## TVA's Approach to Electric Vehicles



## Charging Infrastructure Availability

- Remove "range anxiety"
- Foundational EV charging network
- Partner with Local Power Companies (LPCs)



## EV Availability and Offerings

- Partner with automakers and fleets
- Support making a wide range of EVs available



## Innovative and Supportive Policies

- Remove utility policy or pricing barriers
- Craft policies and pricing that encourage investment and enable a market



## Consumer Awareness

- Help consumers make sound choices
- Educate, inform, and promote while lifting TVA and LPC brands

## Removing market barriers in key areas

TVA is working with stakeholders to make these initiatives available throughout the Valley

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## TVA EV Initiatives

## Internal TVA Electrification

TVA's industry leading plans to electrify its vehicle fleet. More than 1,400 EVs will be added to fully electrify light duty vehicles by 2030.

## TVA Fleet Electrification

- In 2022, TVA announced plans to electrify **100% of light duty and 50% of medium duty vehicles by 2030**
- These targets put TVA among the top tier of announced utility fleet electrification plans nationally
  - Largest electric Fleet in Tennessee
- TVA currently has ~100 EVs for business use including "ValleyRide" car share for employees
  - Nissan, GM, Volkswagen, Hyundai, Mitsubishi, Kia, Ford 150 Lightning pickups
  - 200+ EV chargers installed at TVA work locations



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More than just cars



## Commercial Fleets

TVA is partnering with electrification specialists to test a consulting service for commercial customers, cities, schools and others that are considering how to electrify their Fleet of vehicles

## Testing with Various Use Cases

- Light duty, medium duty, transit, school buses, trucks
- Non-profits, cities, transit, schools, utilities, federal, etc.

## EV Fleet Advisor

- Meeting commercial customers where they are in their fleet electrification process (start, middle, end)
- Connecting commercial customers to third-party consulting services
  - Educational resources
  - Vehicle conversion assessment
  - Business case development
  - Deployment planning

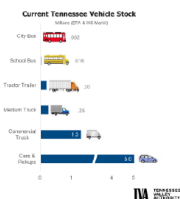
## Corporate Sustainability and Electrification Mandates

TVA is preparing to work with major fleet owners as they rapidly seek to electrify vehicle fleets. Recent announcements underscore the scale of this trend

- amazon** Amazon will have 10,000 electric delivery vehicles on the road by 2022. It has committed to purchasing 100,000 from Startup Rivian by 2030
- FedEx** FedEx announced an agreement with GM's BrightDrop subsidiary that provides fleet services. FedEx will take delivery of 800 of GM's EV600 delivery vans
- DHL** DHL has set a target of operating 70 percent of first- and last-mile delivery services with clean transport modes by 2025

## TVA, LPC and Consumer Benefits

- Of the ~7 million vehicles on Tennessee roads, ~2 million are fleet (commercial) vehicles
- High use fleet vehicles account for 2-3x the energy use and carbon emissions per vehicle
- "Rational consumers" willing to convert based on EV Total Cost of Ownership rather than personal preferences (more rapid adoption)
- Larger O&M savings potentials can make local businesses more competitive
- More predictable and price sensitive charging behavior can lead to advantageous load shapes
- Additional touchpoint for LPCs to be viewed as trusted energy advisor by commercial customers



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## TVA EV Initiatives

## Consumer Awareness

EV programs including social media and community charging campaigns are designed to educate, inform and promote the many benefits of electric transportation

### EV Awareness Videos

- *In Charge - Life with an EV* video series highlights EV awareness throughout the Valley
- [www.energyright.com/EV](http://www.energyright.com/EV)
- 8 episodes receiving millions of impressions



Bristol – Performance



Nashville – A Day in the Life



Chattanooga – Adventure



Huntsville – Battery &amp; Tech



Knoxville – Economy



Memphis – Range



Florence – Clean Energy



Oxford – Lifestyle

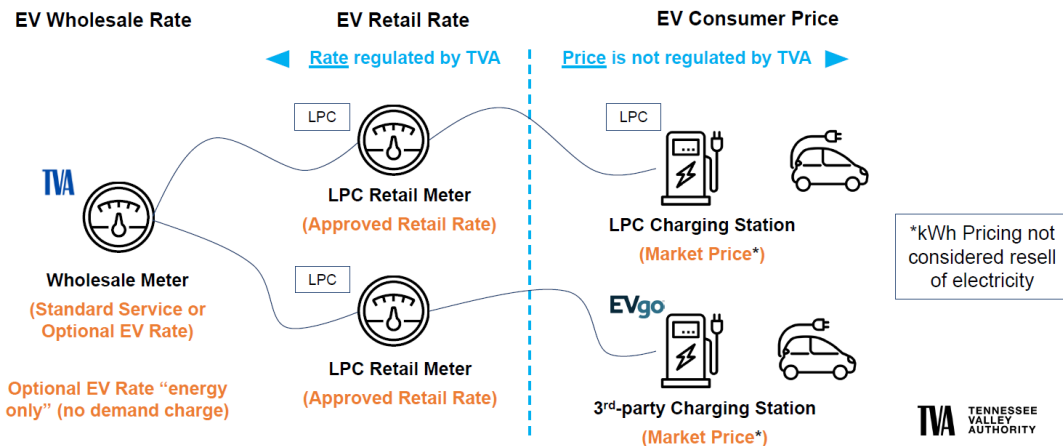


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## TVA EV Initiatives

## Innovative & Supportive Policies: Fast Charge Rates & Policies

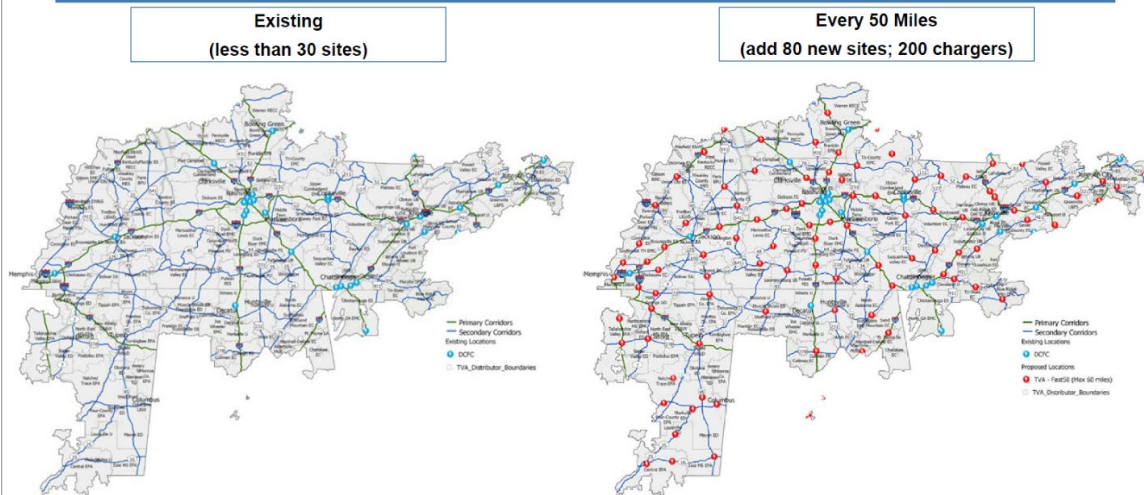
TVA offers an energy only fast charge rate option to support investment in public charging.  
EV rates are TVA regulated to the charging station meter. Station owners set the price for charging services.



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## Charging Infrastructure



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## Charging Infrastructure

### Public Charging Infrastructure Availability

TVA is partnering with local power companies and regional state agencies to develop the foundational charging network with fast charging stations along interstates and major highways at least every 50 miles

#### Eliminate Range Anxiety

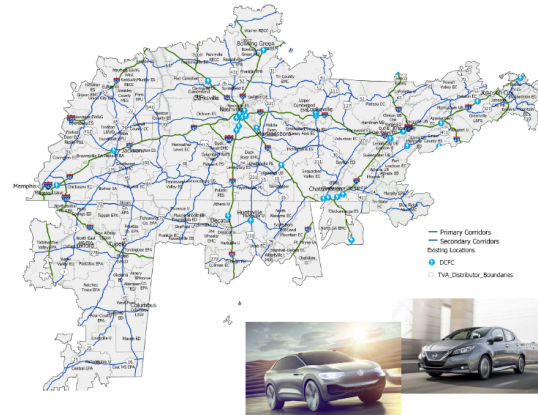
- Network of fast charging stations across seven states
- Ensure drivers can charge at least every 50 miles

#### LPCs will Install, Own and Operate

- LPCs will secure the charging station site, design and install the station, operate and maintain equipment
- TVA will provide technical specifications and site development guidelines

#### TVA and Partners Provide 80% Funding

- Programs provide **80% reimbursement** of eligible costs
- LPCs will provide at least 20% share of the total project cost



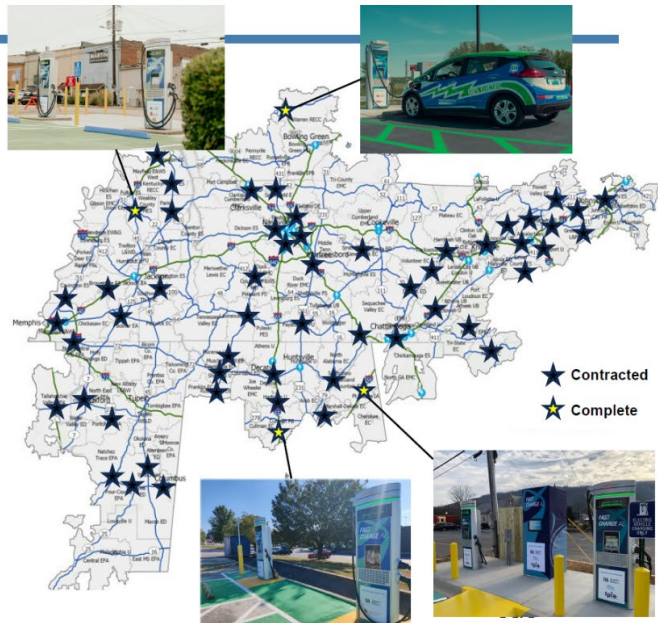
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## Charging Infrastructure

## Fast Charge Network Update

- 112 Local Power Companies have expressed interest in program
- Partnerships with state agencies (TDEC)
- 60 sites have been contracted or completed with
  - 51 local power companies
  - 6 states
- 4 sites opened in 2022
- Complete by 2026



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## What are PURPA and the IIJA?

- The Public Utility Regulatory Policies Act of 1978 (16 USC §§ 2601-2645)
- Infrastructure Investment and Jobs Act (IIJA)
- The IIJA added two new standards under Title I of PURPA for consideration:
  - Demand-response practices
  - Electric vehicle charging programs
- Title I of PURPA requires certain state and Federal agencies and non-regulated electric utilities to consider adopting certain standards.
- PURPA requires TVA to consider standards for its wholesale power customers (the LPCs) because of its rate-making authority.
- PURPA also requires TVA to consider standards for itself as a nonregulated electric utility under PURPA.
- These standards are the so-called “shall consider” standards.

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**TVA** TENNESSEE  
VALLEY  
AUTHORITY

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## What is required?

- TVA must complete its determination of whether to adopt the standards no later than November 15, 2023
- Title I of PURPA gives TVA the flexibility to adopt standards as written, adopted a modified standard, or decline to adopt a standard
- TVA undertook this same “shall consider” process following legislation in 1978, 2005, and 2007
- TVA practice is to submit its final determinations for Board approval and publish them in the Federal Register

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## Overview of Standards and Staff Positions

- General notes:
  - These slides do not contain a summary of public comments, because the public comment period did not close until after the deadline for these slides. We will provide an oral summary of comments received.
  - The staff positions espoused in these slides represents the preliminary views of the TVA working group. The final determinations, and text of any standard, if adopted, is subject to the review and approval of senior TVA leadership and the Board of Directors, and is subject to change.

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## 2021 Proposed Standard Demand-Response Practices 16 USC 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).

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## 2021 Proposed Standard Demand-Response Practices 16 USC 2621(d)(20)

### TVA Staff Views

- TVA staff's recommendation is to **adopt a modified version of the standard**
- TVA maintains programs to promote demand response, targeting LPCs, directly-served customers, and LPC end-use customers
- TVA also has a process for LPCs to request cost recovery, which could include the costs associated with promoting demand response, and TVA factors its own demand response costs into its long-term financial planning.

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## 2021 Proposed Standard Electric Vehicle Charging Programs 16 USC 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.

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## 2021 Proposed Standard Electric Vehicle Charging Programs 16 USC 2621(d)(21)

### TVA Staff Views

- TVA staff's recommendation is to **adopt a modified version of the standard**
- TVA is involved in promoting the adoption of EVs and will be for the foreseeable future. Major initiatives include developing one of the nation's most comprehensive publicly accessible EV fast charging networks, offering affordable rate options for public EV fast charging and creation of resources to educate and support residents with their residential, commercial, and public charging needs.
- TVA will consider modifications to the proposed standard that are consistent with the requirements of the TVA Act, including regulating the disposal of TVA power through the wholesale power contract, ensuring low rates and nondiscrimination.
- Because EV charging deployment occurs at the distribution level, and these programs are executed in conjunction with and supported by LPCs, TVA will also consider whether modifications to the standard are necessary to account for the respective roles of TVA and distributors of TVA power.

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Staff Recommendations

**Infrastructure Investment and Jobs Act  
PURPA Standards  
Electric Vehicle Charging Programs**

**Staff Comments**

**NOTE: The staff position espoused in this document is preliminary and subject to change. TVA's final determination on this standard requires the approval of the TVA Board.**

**Standard Under Consideration:**

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.

**Observations:**

The importance of electricity and TVA power has had a profound impact on the region. Today, the electrification of transportation offers similar transformative growth with environmental and economic benefits for the region. TVA is partnering with state agencies, local power companies, automotive manufacturers and other stakeholders to promote the adoption of electric vehicles (EVs) by addressing the major market barriers facing consumers: improving charging infrastructure availability, setting innovative and supportive policies, expanding EV availability and offerings, and increasing consumer awareness.

TVA is leading a collaboration with local power companies and other regional partners to develop one of the nation's most comprehensive publicly accessible EV fast charging networks. Once completed, the Fast Charge Network will include approximately 80 locations, 200 fast chargers aimed at improving and standardizing the customer experience by reducing charging times, with multiple station owners and site hosts across TVA's seven-state service area. Once fully implemented, drivers will never be more than 25 miles from a Fast Charge Network charging location while traveling the interstates and major highways that connect our rural and metro communities.

TVA also offers an optional EV fast charge rate option to LPCs that eliminates the electric demand component from the cost of public charging. This option provides charging station developers with a stable, affordable rate option. In November 2020, the Board also approved a

new policy that allows the option for charging station operators to set \$/kWh pricing for consumers using public EV charging stations. This pricing structure, which is similar to gasoline pricing (\$/gallon), is the most equitable pricing structure for station users. TVA's innovative rate option and updated EV policy are designed to accelerate the public and private investment in EV infrastructure needed to spur widespread adoption of electric vehicles.

TVA's internal fleet electrification program is among the most advanced in the electric utility industry and represents a broad commitment to electrifying transportation throughout the region. By 2030, TVA will transition 100% of its light-duty vehicles and 50% of medium-duty vehicles to electric.

TVA is also focused on increased awareness and education of electric transportation options. TVA's [In Charge: Life with an Electric Vehicle video series](#) provides engaging videos that address common myths and explore how EVs can fit any lifestyle, while TVA's other online resources help residents prepare for EV adoption and their charging needs.

**Staff view:** TVA's initial position is that adopting a modified version of the standard is appropriate.

#### **Basis for the Position:**

TVA is heavily involved in promoting the adoption of EVs, including a continued commitment to developing one of the nation's most comprehensive publicly accessible EV fast charging networks, offering affordable rate options for public EV fast charging and creation of resources to educate and support residents with their residential, commercial, and public charging needs. When necessary or otherwise appropriate, these programs are executed in conjunction with and support from LPCs based on our unique relationship with our wholesale customers and because EV charging deployment occurs at the distribution level. TVA will continue to promote EV adoption for the foreseeable future, and will consider modifications to the proposed standard that are consistent with the requirements of the TVA Act. These include regulating the disposal of TVA power through the wholesale power contract, ensuring low rates and nondiscrimination. TVA's mission is to serve the people of the Tennessee Valley to make life better, and achieves this mission by focusing on energy, environmental leadership, and economic development. TVA will also consider whether modifications to the standard are necessary to account for the respective roles of TVA and distributors of TVA power. TVA will also continue to examine and develop other programs that promote adoption of EVs, including consideration in future rate actions and various energy programs.

Staff Recommendations

**Infrastructure Investment and Jobs Act  
PURPA Standards  
Demand Response Practices**

**Staff Comments**

**NOTE: The staff position espoused in this document is preliminary and subject to change. TVA's final determination on this standard requires the approval of the TVA Board.**

**Standard Under Consideration:**

**(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).

**Observations:**

Demand response (DR) focuses on reduction of peak demand. To reduce peak demand, TVA contracts with local power companies (LPCs), TVA directly served customers, and LPC end-use customers to reduce energy use to specific levels when dispatched by TVA Operations. Through discussions among individual customers, trade associations, TVA's specialists across the enterprise, and other stakeholders, TVA has designed programs to benefit TVA's resource planning resources as well as the growing energy needs and reserve requirements. This resource has been offered for many years and currently provides up to 1,700 MW of carbon-free, dispatchable capacity achieved by three programs: Interruptible Power, Peak Power Partners, and Voltage Optimization. These programs achieve demand reduction targets identified by TVA's long-range planning. Event performance consistently performs greater than expected. Demand Response remains an essential component of the Integrated Resource Plan (IRP), which is a comprehensive study of how TVA can best deliver clean, reliable, and low-cost energy for the Valley's future. The IRP details key elements of TVA's DR programs and recommends continuing to add capacity.

Interruptible Power suspends a portion of participating customers' load, upon 5 or 30-minutes notice, during time of power system need. Peak Power Partners is a TVA-managed program to provide economic load reduction through program delivery partners. Voltage Optimization

enables LPCs to operate distribution feeder voltages in the lower half of the standard voltage range to lower peak demand. There is potential to grow DR programs that benefit TVA's system while also lowering participants' bills.

**Staff view:** TVA's initial position is that adopting a modified version of the standard is appropriate.

**Basis for the Position:**

TVA maintains a variety of DR programs to manage system demand load during peak hours. These programs, and others that TVA may develop in the future, will continue to be an integral part of TVA's resource planning and system operations. Given the unique characteristics of TVA's system operations and its relationship with its customers, TVA implements its DR programs by entering into contracts with LPCs that distribute TVA power, LPC end-use customers, and TVA's directly served customers. Paragraph (A) of the standard describes TVA's existing approach to demand response. TVA has a process for LPCs to request cost recovery, consistent with paragraph (B), which could include the costs associated with promoting demand response, and TVA factors its own demand response costs into its long-term financial planning. Consistent with paragraph (B), LPCs can request changes in their rate recovery. These requests are reviewed and, where appropriate, approved through a TVA Board-approved rate review procedure. Costs associated with participating in a TVA program would generally be considered appropriate costs for recovery.

However, TVA's approach to demand response depends upon collaboration with customers and encouraging participation in demand response programs, and so TVA will propose modifications to the standard that address this collaborative effort.