

**BEFORE
THE PUBLIC UTILITIES COMMISSION OF OHIO**

In the Matter of the Application of Ohio)	
Power Company for Authority to)	Case No. 23-23-EL-SSO
Establish a Standard Service Offer)	
Pursuant to 4928.143, Ohio Rev. Code, in)	
the Form of an Electric Security Plan.)	
)	Case No. 23-24-EL-AAM
In the Matter of the Application of Ohio)	
Power Company for Approval of Certain)	
Accounting Authority.)	

**DIRECT TESTIMONY OF RYAN S. SCHUESSLER
ON BEHALF OF
THE OHIO MANUFACTURERS' ASSOCIATION ENERGY GROUP**

June 9, 2023

1 **I. INTRODUCTION**

2 **Q1. Please state your name and business address.**

3 A1. My name is Ryan S. Schuessler. My principal place of business is at 130 W. 2nd
4 St., Suite 1850, Dayton, OH 45402.

5 **Q2. By whom are you employed and in what capacity?**

6 A2. I am an analyst at RunnerStone, LLC (RunnerStone) working on energy regulatory,
7 policy, and market matters. I am also an analyst at Go Sustainable Energy, LLC
8 (Go Sustainable Energy), a consultancy that provides technical assistance on
9 energy technology and energy management matters to the industrial, commercial,
10 residential, and utility sectors. Runnerstone is a wholly owned subsidiary of Go
11 Sustainable Energy.

12 **Q3. On whose behalf are you testifying in this proceeding?**

13 A3. My testimony is being sponsored by the Ohio Manufacturers' Association Energy
14 Group (OMAEG). OMAEG is a non-profit entity that strives to improve business
15 conditions in Ohio and drive down the cost of doing business for Ohio
16 manufacturers. OMAEG members take service under transmission, sub-
17 transmission, primary, and secondary electric rate schedules in the Ohio Power
18 Company's (AEP Ohio) service territory.

19 **Q4. Please describe your professional experience and qualifications.**

20 A4. I received a Bachelor of Mechanical Engineering cum laude and a Master of
21 Science in Renewable and Clean Energy summa cum laude from the University of
22 Dayton. I have worked extensively on energy matters in Ohio for over 8 years. My
23 experience includes fieldwork at industrial, commercial, and residential buildings,
24 identifying energy savings opportunities and quantifying any energy and dollar

savings achieved. I have been primary or co-author of four papers, including a relevant paper on transmission pricing presented at the Proceedings of the 2021ACEEE Summer Study on Industry and the Industrial Energy and Technology Conference.¹ For approximately the past six years, I have worked as an expert on industrial energy issues at Go Sustainable Energy. I have assisted OMAEG member manufacturers with participation in AEP Ohio's Basic Transmission Cost Rider (BTCR) Pilot Program since 2019 by leading cost analysis and educating manufacturers on the importance of the network service peak load (NSPL). I have also performed similar analyses for clients in the service territories of Dayton Power and Light Company d/b/a AES Ohio (AES Ohio) and the Ohio Edison Company, The Cleveland Illuminating Company, and The Toledo Edison Company (collectively, the FirstEnergy Utilities).

Q5. Have you testified in proceedings before the Public Utilities Commission of Ohio (PUCO) previously?

A5. No, I have not previously testified before the PUCO. However, in my capacity with RunnerStone and Go Sustainable Energy, I have provided analysis and consultation to clients in numerous PUCO proceedings.

II. OVERVIEW AND CONCLUSIONS

Q6. What is the purpose of your testimony in this proceeding?

A6. I am testifying that several components of AEP Ohio's Fifth Electric Security Plan (ESP V) are, among other things, anticompetitive, unreasonable, imprudent, and not in the best interests of ratepayers. Therefore, I recommend that the PUCO reject

¹ *A Transmission Critical Peak Pricing Pilot for Manufacturers in Ohio*. Schuessler, R. and Seryak, J., Proceedings of the 2021 ACEEE Summer Study on Industry, July 2021, Virtual.

1 or significantly modify certain components of AEP Ohio's ESP V. Specifically, I
2 recommend that the PUCO find that AEP Ohio's proposed BTCR and BTCR Pilot
3 are unreasonable and discriminatory. The PUCO should significantly modify the
4 BTCR Pilot to be available to any AEP Ohio commercial customer and switch
5 transmission billing from monthly peak demand to the NSPL for commercial and
6 industrial customers that have advanced metering capabilities.

7 **III. BASIC TRANSMISSION COST RIDER AND PILOT PROGRAM**

8 **Q7. Can you explain, generally, the purpose of the Basic Transmission Cost Rider?**

9 A7. Yes. At a high level, electricity costs incurred by the generation, transmission, and
10 distribution of electricity are charged to the end user: the BTCR Rider recovers
11 various charges associated with the transmission of electricity.

12 **Q8. Is the BTCR Rider revenue neutral for AEP Ohio?**

13 A8. Yes. The revenues collected through the BTCR Rider are used to pay the AEP
14 Transmission charges assessed to AEP Ohio.

15 **Q9. What charges are currently recovered through the BTCR Rider?**

16 A9. The BTCR Rider recovers non-market-based transmission costs, including costs for
17 Network Integration Transmission Service (NITS), Transmission Enhancement
18 Charges (TEC), Transmission Owner Scheduling, Reactive Supply Charges,
19 Generation Deactivation Charges, and credits for Firm and Non-Firm Point-to-
20 Point Transmission Service.

21 Of these charges, NITS and TEC combined account for 99% of the total
22 BTCR revenue requirement, before reconciliation and carrying costs. The
23 magnitude of each line item is shown in Figure 1 below.

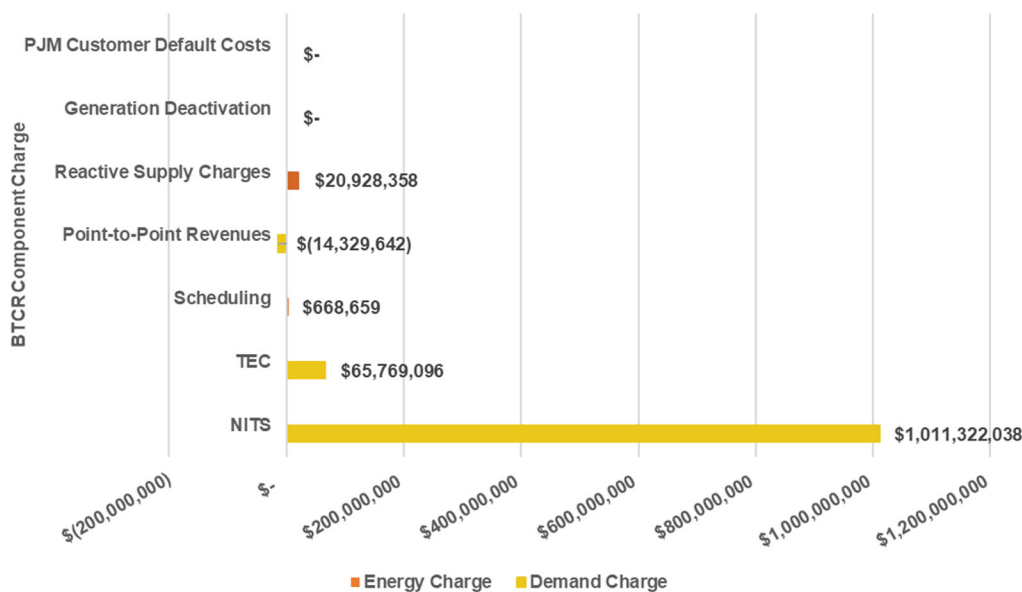


Figure 1: BTCR Rider 2023 Component Charges²

TEC charges are derived from PJM’s Regional Transmission Expansion Plan (RTEP), which “identifies transmission system additions and improvements needed to serve more than 65 million people throughout 12 states and the District of Columbia.”³ NITS charges are derived from formula rates filed by transmission owners with the Federal Energy Regulatory Commission (FERC), which are generally adjusted on an annual basis and include charges associated with operating costs, system loads, or cost recovery requirements for new transmission projects. NITS includes supplemental upgrades that are not necessarily required for electric grid reliability.

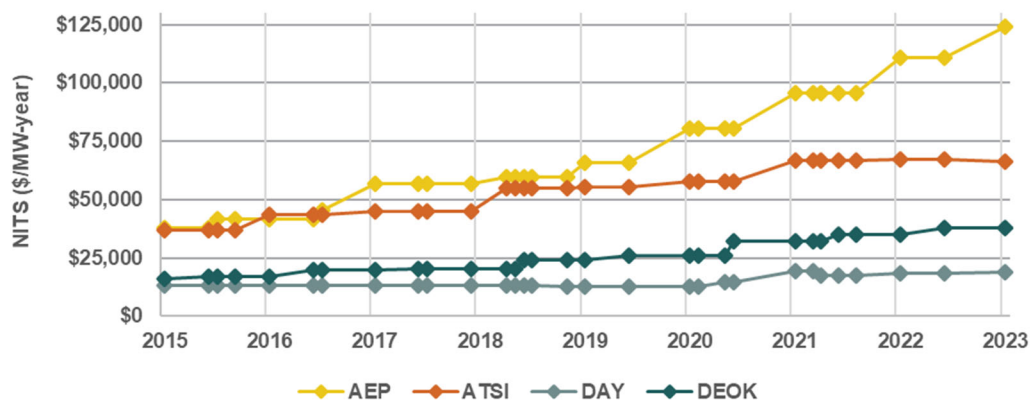
² *In the Matter of the Application of Ohio Power Company to Update Its Basic Transmission Cost Rider*, Case No. 23-0057-EL-RDR, Application at Schedule B-1 (Mar. 7, 2023).

³ RTEP 2022, Regional Transmission Expansion Plan, PJM (Mar. 14, 2023), available at <https://www.pjm.com/-/media/library/reports-notice/2022-rtep/2022-rtep-report.ashx>.

1 **Q10. Is the BTCR Rider a significant component of a manufacturing customer's**
2 **bill?**

3 A10. Yes. The BTCR Rider is the single largest rider charge paid for by manufacturers
4 who are shopping for their supply in the AEP Ohio service territory. As an
5 example, secondary, primary, and transmission voltage manufacturers could expect
6 the BTCR Rider to account for more than 50% of their total AEP Ohio electric bill
7 based on AEP Ohio's filed rates.⁴ For each electric service level, the BTCR Rider
8 charges exceed base distribution charges.

9 As I described above, NITS constitutes the largest component of the BTCR.
10 This cost has more than tripled since 2015. Notably, AEP Ohio's NITS charge has
11 increased at a much greater rate than other transmission utility costs, shown below
12 in Figure 2.



13
14 **Figure 2: NITS Charges by Transmission Zone**

15 Thus, not only is the BTCR the single greatest component of a
16 manufacturer's AEP Ohio bill who chooses to shop for its supply, but the BTCR,

⁴ See AEP Ohio Rate Calculation Sheet – "OPRATE05012023," available at:
<https://www.aepohio.com/company/about/rates/>.

1 and transmission costs in general, are quickly becoming overly burdensome and
2 threatening the competitiveness of Ohio manufacturing. OMAEG has raised red
3 flags about ballooning, unfettered transmission spending in previous cases.⁵

4 **Q11. How does the BTCR Rider assess customers for transmission costs?**

5 A11. The BTCR Rider revenue requirement is split between demand and energy charges
6 to customers; the bulk of which are demand charges. The demand-based charges
7 are billed to customers based on their “monthly billing demand,” which typically is
8 the “single highest 30-minute integrated peak in kW as registered during the month
9 by a 30-minute integrating demand meter.”⁶

10 The monthly billing demand billing determinant does not consider whether
11 the customer’s peak demand is coincident with the hour of the electric grid’s peak
12 demand. For example, a customer could be charged for transmission on its monthly
13 billing demand even if that demand occurs at a time of low transmission system
14 load. This causes certain customers, including manufacturers, to pay more than
15 their fair share of the costs associated with the electric grid’s peak demand and the
16 customer’s contribution to the system.

17

⁵ See, e.g., *In the Matter of the Ohio Power Siting Board’s Review of Ohio Adm. Code Chapters 4906-1, 4906-2, 4906-3, 4906-4, 4906-5, 4906-6, and 4906-7*, Case No. 21-902-GE-BRO, Petition to Intervene, Memorandum in Support, and Comments of The Ohio Manufacturers’ Association Energy Group (Aug. 5, 2022); *Id.*, Reply Comments of The Ohio Manufacturers’ Association Energy Group (Sept. 2, 2022); *Id.*, Supplemental Comments of The Ohio Manufacturers’ Association Energy Group (Jan. 30, 2023); *Id.*, Supplemental Reply Comments of The Ohio Manufacturers’ Association Energy Group (Feb. 6, 2023); *In the Matter of the Ohio Power Siting Board’s Report to the General Assembly Regarding the Power Transmission System*, Case No. 21-796-EL-UNC, Comments of The Ohio Manufacturers’ Association Energy Group (Oct. 8, 2021); *Id.*, Reply Comments of The Ohio Manufacturers’ Association Energy Group (Oct. 15, 2021).

⁶ Ohio Power Company Tariff – Schedule GS (General Service) – 1st Revised Sheet No. 220-3.

1 **Q12. What is the BTCR Pilot Program?**

2 A12. The BTCR Pilot Program is a voluntary program offered to 34 customers in AEP
3 Ohio’s service territory. Enrolling in the BTCR Pilot changes the facility’s billing
4 determinant for the BTCR from the 30-minute monthly peak demand to their NSPL.
5 The NSPL represents a customer’s contribution to the transmission zonal grid peak
6 for a given year starting November 1st and ending October 31st, and is equal to the
7 facility’s metered load at the hour of the zonal grid peak multiplied by loss factors.

8 **Q13. Is the difference in billing determinants between the BTCR Rider and BTCR**
9 **Pilot Program consequential for manufacturers?**

10 A13. Yes. This change in method of billing is critical. AEP Energy, a certified
11 competitive retail energy supplier that is affiliated with AEP Ohio, sums this up
12 nicely: “Unlike the PJM auction process which gives customers a general idea of
13 their capacity costs three years in advance, there is little customers can do to prepare
14 for the potential year-over-year change in transmission rates.”⁷ AEP Energy further
15 notes that billing customers for transmission on the customer’s monthly peak
16 demand, “makes it challenging for customers to manage their transmission costs.”⁸

17 In stark contrast, the BTCR Pilot Program allows manufacturers to manage
18 their transmission costs by managing their NSPL. Manufacturers can choose to
19 manage their NSPL through curtailment, changes in scheduling, on-site generation,
20 or a combination of these. Manufacturers actively managing their NSPL often
21 monitor their facility’s electric load during times of zonal grid peak usage, which

⁷ Transmission Cost Management, AEP Energy (Mar. 8, 2018), available at:
<https://www.aepenergy.com/blog/february-2018-edition/>.

⁸ *Id.*

1 often correlates with hot afternoon summer days, or cold winter mornings.
2 Enabling manufacturers to control their transmission costs by managing their NSPL
3 will help customers lower one of the largest components of their energy costs.
4 Allowing manufacturers to lower transmission costs will make them more cost-
5 effective and will facilitate Ohio's competitiveness in the global economy.

6 **Q14. Does the BTCR Pilot Program provide grid benefits?**

7 A14. Absolutely, and expanding access to the BTCR Pilot Program would increase these
8 benefits. The BTCR Pilot Program provides a price signal for manufacturers to
9 respond to. Thus, for example, manufacturers with large, controllable electric loads
10 are incentivized to respond by curtailing load during periods of extreme grid usage
11 or stress on the system. Customer curtailment is critically important as it can
12 mitigate the need for involuntary curtailment, where entire residential
13 neighborhoods can be de-energized to prevent transmission facilities from
14 overloading. Additionally, incentivizing customers to reduce their load during grid
15 peaks ensures that a grid can be designed that is both reliable and not prohibitively
16 expensive. Finally, the BTCR Pilot Program encourages further adoption of
17 distributed energy resources by valuing their contributions in reducing load during
18 periods of grid stress, which would further reduce the need for additional
19 transmission build out or upgrades, ultimately lowering the costs for customers.

20

1 **Q15. How long has the BTCR Pilot Program existed?**

2 A15. The BTCR Pilot Program was first established in 2017.⁹ There has been strong
3 interest in the program year-after-year. In my experience, participating
4 manufacturers understand the importance of managing their NSPL in order to
5 reduce grid stress and costs.

6 **Q16. Has demand for participation in the BTCR Pilot Program grown?**

7 A16. In our experience, yes. OMAEG has more members interested in participating in
8 the BTCR Pilot Program than there are spots available. And, with customer-sited
9 distributed energy resources proliferating, we expect interest in NSPL-based
10 transmission billing to continuously increase.

11 **Q17. Is access to the BTCR Pilot Program equitable?**

12 A17. No. Access to the BTCR Pilot Program is currently limited to 34 accounts: ten for
13 OMAEG members, ten for Ohio Energy Group (OEG) members; nine for Industrial
14 Energy Users-Ohio (IEU-Ohio) members; three for public school customers of
15 Direct Energy; and two for IGS customers. Demand for access to the BTCR Pilot
16 Program greatly exceeds the number of spots available. The BTCR Pilot Program
17 should become a permanent program, access and capacity limits should be
18 eliminated, and the program should be expanded and made available to all
19 commercial and industrial customers regardless of membership in an intervening
20 group. Alternatively, all commercial and industrial customers with advanced

⁹ See *In the Matter of the Commission Review of the Capacity Charges of Ohio Power Company and Columbus Southern Power Company*, Case Nos. 10- 2929-EL-UNC, et al., Order on Global Settlement Stipulation at ¶¶ 98, 134 (Feb. 23, 2017).

1 metering capabilities should be billed based upon their NSPL as other Ohio utilities
2 are doing.¹⁰

3 **Q18. Do you have any concerns with AEP Ohio's proposed BTCR Rider and BTCR**
4 **Pilot Program in its ESP V?**

5 A18. Yes. AEP Ohio has not proposed substantial changes to the BTCR Pilot in their
6 ESP V filing. This means that the BTCR Pilot Program would retain discriminatory
7 access limits and capacity caps. This is unreasonable and anticompetitive, as the
8 BTCR Pilot Program represents the only mechanism for commercial and industrial
9 customers to manage large and rapidly increasing transmission costs.

10 **Q19. You reference other Ohio utilities, have other Ohio utilities approached**
11 **transmission billing differently in recent ESPs?**

12 A19. Yes. Recently, AES Ohio agreed to NPSL-based billing for eligible customers.¹¹
13 Under the filed settlement agreement, all non-residential customers taking service
14 at primary voltage and above, and any non-residential secondary customers taking
15 service at secondary voltage that opt-in, will receive NSPL-based billing for all
16 Transmission Cost Recovery Rider demand charges.

17 Additionally, the FirstEnergy Utilities recently proposed to charge
18 commercial and industrial customers for NITS and other non-market-based
19 transmission charges based on their NSPL.¹² The FirstEnergy Utilities stated that

¹⁰ See *In the Matter of the Application of The Dayton Power and Light Company d/b/a AES Ohio for Approval of Its Electric Security Plan*, Case Nos. 22-900-EL-SSO, et al., Stipulation and Recommendation at 29 (Apr. 10, 2023) and *In the Matter of the Application of Ohio Edison Company, The Cleveland Electric Illuminating Company and The Toledo Edison Company for Authority to Provide for a Standard Service Offer Pursuant to R.C. § 4928.143 in the Form of an Electric Security Plan*, Case No. 23-301-EL-SSO, Application at 10-11 (Apr. 5, 2023).

¹¹ *In the Matter of the Application of The Dayton Power and Light Company d/b/a AES Ohio for Approval of Its Electric Security Plan*, Case Nos. 22-900-EL-SSO, et al., Stipulation and Recommendation at 29 (Apr. 10, 2023).

¹² *In the Matter of the Application of Ohio Edison Company, The Cleveland Electric Illuminating Company and The Toledo Edison Company for Authority to Provide for a Standard Service Offer Pursuant to R.C. §*

1 doing so will “allow customers to better control their individual [transmission]
2 charges by managing their individual NSPL, consistent with the current Rider NMB
3 Pilot.”¹³

4 **Q20. What is your alternative proposal to AEP Ohio’s proposal?**

5 A20. AEP Ohio should charge the demand-based components of the BTCR Rider to non-
6 residential customers based on their NSPL, rather than 30-minute monthly peak
7 demand. NSPL-based billing for the demand components of the BTCR should be
8 accessible to all commercial and industrial customers within AEP Ohio’s territory.

9 **Q21. Would your alternative proposal further Ohio’s stated policy goals?**

10 A21. Yes. In my expert opinion, expanding access to NSPL billing for the BTCR Rider
11 to all commercial and industrial customers would clearly benefit Ohio’s policy
12 objectives. From my regulatory experience, I believe my alternative proposal
13 would further the following policy objectives contained in Ohio Revised Code
14 4928.02:

15 (A) Ensure the availability to consumers of adequate, safe,
16 efficient, nondiscriminatory, and reasonably priced electric
17 service.

18 * * *

19 (D) Encourage innovation and market access for cost-effective
20 supply- and demand-side retail electric service including, but not
21 limited to, demand-side management, time-differentiated
22 pricing, waste energy recovery systems, smart grid programs,
23 and implementation of advanced metering infrastructure.

24 * * *

25 (N) Facilitate the state’s effectiveness in the global economy.
26
27

4928.143 in the Form of an Electric Security Plan, Case No. 23-301-EL-SSO, Application at 10-11 (Apr. 5, 2023).

¹³ *Id.*

1 **Q22. Would this proposal improve reliability within AEP Ohio’s grid?**

2 A22. Yes. NSPL-based billing would provide an incentive for commercial and industrial
3 customers to reduce their loads during grid peaks, which can improve reliability by
4 reducing electric power demand and preventing electric systems from becoming
5 overloaded and failing. If an electric facility is exceeding its rated power capacity,
6 called its thermal rating, then it is in danger of failing. Reducing load on these
7 circuits can bring the line power back down within its thermal capacity rating, thus
8 improving reliability by preventing electric facility failures.

9 **Q23. Does this conclude your direct testimony?**

10 A23. Yes, but I reserve the right to modify or supplement it with any new information
11 that becomes available through discovery or otherwise.

CERTIFICATE OF SERVICE

The Public Utilities Commission of Ohio's e-filing system will electronically serve notice of the filing of this document on the parties referenced on the service list of the docket card who have electronically subscribed to the case. In addition, the undersigned hereby certifies that a copy of the foregoing document also is being served via electronic mail on June 9, 2023 upon the parties listed below.

/s/ Kimberly W. Bojko
Kimberly W. Bojko

*Counsel for the Ohio Manufacturers'
Association Energy Group*

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Summary: Testimony Direct Testimony of Ryan Schuessler On Behalf Of The Ohio Manufacturers' Association Energy Group electronically filed by Ms. Cheryl A. Smith on behalf of The Ohio Manufacturers' Association Energy Group.