

BakerHostetler

28th ANNUAL OHIO
Energy Savings & Management
C O N F E R E N C E

Wednesday, February 28, 2024

10:30 a.m. to 11:30 a.m.

6 Interactive & Concurrent Workshops

BB. AEP Ohio (Ohio Power Company): Significant Developments Impacting Electric Rates and Smart Grid Technology

Priceless insights into developments impacting retail electric rates in AEP Ohio's service territory, including its current or future electric security plans; rate-related updates; the present and future state of SSO load auctions and SSO rates; and Smart Grid Technology.

Jaime Mayhan, *Director – Regulatory Services*, Rich Williamson, *Regulatory Pricing & Analysis Manager*; Curt Heitkamp, *Regulatory Case Manager*, and Michael McCulty, *Regulatory Consultant Principal*, **American Electric Power/AEP Ohio**, Columbus; Katie Emling, *Engineer*, **Brakey Energy**, Chagrin Falls; and David F. Proaño, *Regulatory Counsel*, **Ohio Energy Leadership Council (OELC)** and *Partner*, **BakerHostetler LLP**, Cleveland



A BRIGHTER
FUTURE
TOGETHER



An **AEP** Company

**28th Annual Ohio Energy
Savings & Management
Conference**
February 2024



An AEP Company

BOUNDLESS ENERGY™

AEP Ohio Overview

- AEP Ohio is engaged in the transmission and distribution of electric power to approximately 1.5 million customers in Ohio.
- AEP Ohio purchases energy and capacity to serve generation service customers who have not switched to a competitive generation supplier.
- AEP Ohio is a member of PJM.
- AEP Ohio Quick Facts
 - Total AEP Ohio Employees 1,713
 - Total Transmission Miles 7,397
 - Total Distribution Miles 47,156
 - Counties Served 61 of 88





BOUNDLESS ENERGY™

Ohio Rates Key Points

Ohio Rates Impacts

- **Base rate case**
 - In March 2021, AEP Ohio and 13 other parties reached a settlement in the rate case that addressed issues of reliability, affordability, and continued investments in providing electric service to our customers
 - Commission Ordered November 17, 2021, and effective December 1, 2021
 - AEP Ohio's previous base rate case was in 2011

- **Electric Security Plan (ESP) Case Number 23-23-EL-SSO**
 - In September 2023, AEP Ohio filed with the Public Utilities Commission of Ohio (PUCO) a settlement agreement addressing the company's ESP filed in January 2023. The Company is awaiting a final Commission order.
 - The proposed term of ESP V will be effective on June 1, 2024 and ends May 31, 2028



BOUNDLESS ENERGY™

ESP V Settlement

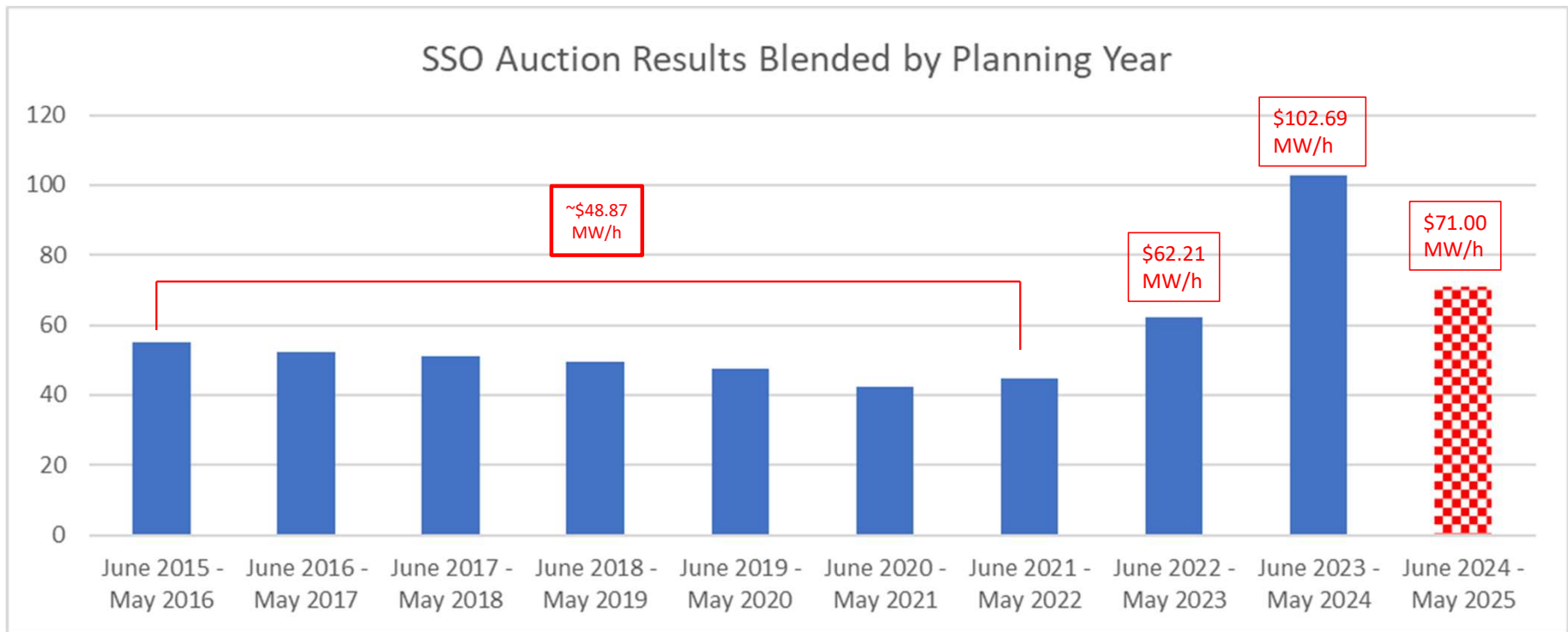
- Includes enhancements to its Standard Service Offer (SSO) auction process designed to produce more stable SSO generation rates
- Base Rate Case Commitment to file a base distribution rate case by June 1, 2026, with a date certain of no later than December 31, 2025
- Continue Distribution Investment Rider and Vegetation management under ESRR
 - Allows the Company to invest in critical distribution system equipment to address aging infrastructure, serve new customers, and help reduce outages from vegetation from both inside and outside of the right-of-way.
- Allows the Company to convert an outdated CIS system to a modern and efficient billing/settlement system
- Supports economic development
- Continuation and expansion of our Interruptible power (IRP), Distributed Generation, and Transmission 1CP (BPCR) tariffs
- New Transmission 6CP tariff for customers utilizing battery storage as well as public transit EV fleets



An AEP Company

BOUNDLESS ENERGY™

Standard Service Offer (SSO)





An AEP Company

BOUNDLESS ENERGY™

Transmission Rider: BTCR Pilot Program

- **BTCR 1CP Pilot Program:**
 - Program allows enrolled customers to be billed based on their previously established single highest coincident peak (“1CP”) in PJM.
 - Pending ESP V Approval - Increase MW participation cap by 100 MW per year
 - New timing and commitments for the program
 - The Company will establish a customer portal to create the customer queue of interested customers, which process will be made available on the Company’s website and notice of the portal being activated will be transmitted to all parties in the ESP V proceeding
- **New BTCR 6CP Pilot Program:**
 - Available to all non-residential demand-metered customers with more than 1 MW and less than 20 MW of BESS capacity or public transit EV load connected to their facility
 - 100 MW participation limit for BESS and 50 MW participation limit for public transit electric vehicle loads



An AEP Company

BOUNDLESS ENERGY™

Interruptible Power Rider (IRP) - Discretionary

- IRP-Legacy and IRP-Expanded:
 - Requires participants to curtail their usage at times when the grid is stressed, thus enhancing reliability
 - Service pursuant to this rider is available to customers that have provided reasonable evidence to the Company that their electric service can be interrupted in accordance with this rider and is limited to the inclusion of agreed upon customers and load limitations established in Case No. 23-23-EL-SSO
- IRP-L credit will be reduced \$8/Kw month on the effective date of the new ESP then to \$7/Kw month in the second year of the ESP, and \$6/Kw month in the third and fourth years of the ESP
 - Minimum demand credit of 70% of the PJM Base Residual Auction price during the entire ESP term.
- IRP-E minimum demand credit will be \$5.6/Kw month in the first year of the ESP, \$4.9/Kw month in the second year, and \$4.2/Kw month in the third and fourth years of the ESP term (i.e., 70% of the corresponding IRP-L demand credit)
 - IRP-E will not contain a dollar cap.



AEP Distribution



AEP Charges

- AES Ohio bills contain 3 primary line-item charges:
 - Customer Charge
 - Distribution Service
 - Transmission Service
- Generation Service (Supply)
 - For customers that do not competitively source generation service

Current Base Distribution Charges

Schedule Code	Service Voltage	Demand Charge (\$/kW)	Excess Reactive Demand (\$/kVA)	Customer Charge (\$)
208,215,231,265,770,840,842,845	Secondary	7.01	1.25	9.40
217,218,232,266,322,774,841,843,846,861	Primary Ohio Power Rate Zone Columbus Southern Power Rate Zone	6.46	1.21	138.50
		6.17	1.21	138.50

Schedule Code	Service Voltage	Demands Up To 2,000 kW Customer Charge	Excess Reactive Demand* (\$/kVAR)	Demands Over 2,000 kW Customer Charge (\$)
238,239,258,259,270,275,779,790,826,827,858,853	Transmission	825	0.70	3,600

*For each KVAR of reactive demand, leading or lagging, in excess of 50% of the KW metered demand.

Source: Ohio Power Company Tariff

AEP's Demand Ratchet

- For non-residential customers, AES Ohio defines billed demand as the greatest of either:
 - the single highest 30-minute integrated peak in kW for the billing period or
 - 60% of the greater of:
 - The customer's contract capacity in excess of 100 KW, or
 - The customer's highest previously established monthly billing demand during the past 11 months in excess of 100 KW.

January 1, 2024 USF Rates

- AEP Universal Service Fund (USF) Tier 1 rider rate decreased on January 1, 2024.
 - The USF provides funding for the state's Percentage of Income Payment Plan (PIPP) program and low-income customer energy efficiency programs.
 - Established under Section 4928.51 of the Ohio Revised Code

<u>Previous USF Rates ¢/kWh</u>		<u>2024 USF Rates ¢/kWh</u>		% CHANGE IN TIER 1 RATES
FIRST 833,000 KWH	ALL KWH OVER 833,000	FIRST 833,000 KWH	ALL KWH OVER 833,000	
0.62781	0.01756	0.59216	0.01756	-6%

January 1, 2024 LGR and SGF Rates

- Legacy Generation Rider (LGR) and Solar Generation Fund (SGF) rider rates for first 833,000 kWh were updated on January 1, 2024
- LGR is updated semi-annually
 - Ohio Revised Code Section 4928.148 (House Bill 6)

<i>Legacy Generation Rider</i>		
July 1, 2023	January 1, 2024	Change
\$ 0.0003030	\$ 0.0017830	488%

- SGF is updated annually
 - Ohio Revised Code Section 4928.148 (House Bill 6) and 3706.46 (House Bill 128)

<i>Solar Generation Fund Rider</i>		
January 1, 2023	January 1, 2024	Change
\$ 0.0002850	\$ 0.0002905	2%

DIR, ESR, EDCR Rider Rates

- Distribution Investment Rider (DIR)
 - Current rate is 19.88343% of base distribution charges
 - Rate has been in place since January 29, 2023
- Enhanced Service Reliability (ESR)
 - Current rate is 6.69857% of base distribution charges
 - Rate has been in place since August 29, 2023
- Economic Development Cost Recovery (EDCR)
 - Current rate is 2.25159% of base distribution charges
 - Rate has been in place since October 27, 2023



AEP Transmission

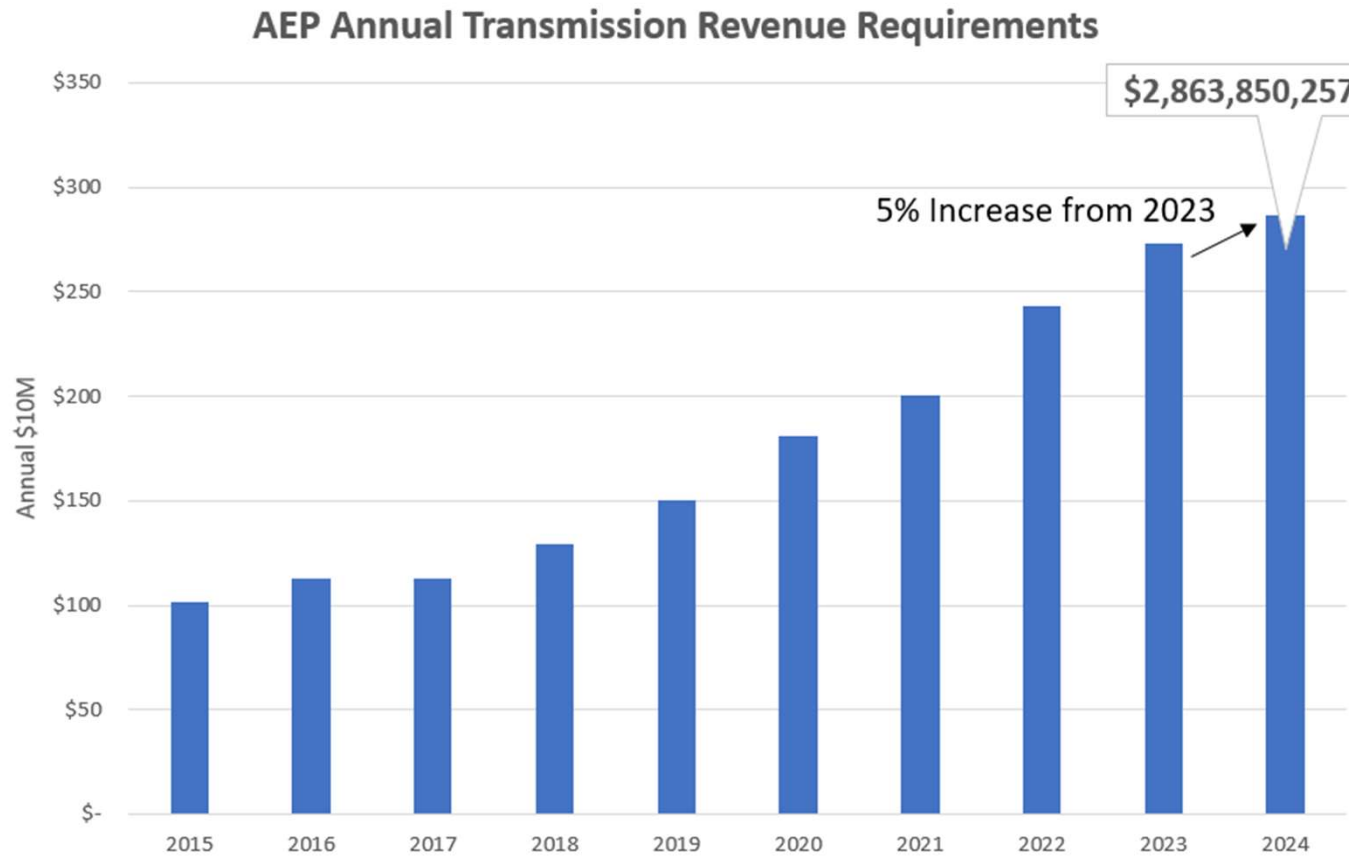


2024 ATRR and NITS Rates for Ohio EDUs

- PJM released 2024 Annual Transmission Revenue Requirement (ATRR) projections in January
- Network Integration Transmission Service (NITS) is the largest component of transmission cost recovery

Zone	2023		2024 Projected		% Change in NITS Rates
	Revenue Requirement	NITS Rate \$/MW-Yr	Revenue Requirement	NITS Rate \$/MW-Yr	
AEP	\$ 2,729,168,055	\$ 125,669.06	\$ 2,863,850,257	\$ 125,466.60	-0.2%
ATSI	\$ 849,013,862	\$ 66,479.30	\$ 1,048,034,708	\$ 87,624.38	31.8%
DAY	\$ 62,816,282	\$ 18,687.35	\$ 106,244,982	\$ 32,781.54	75.4%
DEOK	\$ 200,020,318	\$ 37,718.00	\$ 210,262,707	\$ 40,717.00	8.0%

Historical AEP Zone ATRR



AEP's Basic Transmission Cost Rider (BTCR)

Table 1: Current and Proposed April 1, 2024 BTCR Rates for AEP-Ohio Customers

RATE SCHEDULE	CURRENT RATES		PROPOSED APRIL 1, 2024 RATES		% CHANGE	
	¢/KWH	\$/KW	¢/KWH	\$/KW	¢/KWH	\$/KW
Residential	3.31659¢	N/A	4.38391¢	N/A	32%	N/A
Secondary, Non-demand metered	2.70381¢	N/A	2.34685¢	N/A	-13%	N/A
Secondary, Demand metered	0.04909¢	\$8.84	0.06008¢	\$6.72	22%	-24%
Primary	0.04744¢	\$8.55	0.05807¢	\$6.74	22%	-21%
Transmission	0.04658¢	\$8.64	0.05702¢	\$7.75	22%	-10%

Table 2: Current and Proposed April 1, 2024 for AEP-Ohio Customers Participating in the Transmission Pilot Program

RATE SCHEDULE	CURRENT RATES		PROPOSED APRIL 1, 2024 RATES		% CHANGE	
	¢/KWH	\$/KW	¢/KWH	\$/KW	¢/KWH	\$/KW
Secondary, Demand metered	0.04909¢	\$10.02	0.06008¢	\$12.24	22%	22%
Primary	0.04744¢	\$10.02	0.05807¢	\$12.24	22%	22%
Transmission	0.04658¢	\$10.02	0.05702¢	\$12.24	22%	22%



AEP Generation



AEP Standard Service Offer

- The Standard Service Offer (SSO) rate is the default rate charged by AEP for generation service to customers that do not contract with an alternative supplier.
- Current SSO rates shown below:

Rate Schedule	January 2024 SSO Rate (\$/kWh)
RS	\$ 0.1131728
GS-1	\$ 0.1126028
GS-Secondary	\$ 0.1123828
GS-Primary	\$ 0.1079172
GS-Transmission	\$ 0.1053620

Recent SSO Auction Results

- One tranche equals 1% of the overall SSO load for the Delivery Year (DY).
- Next and final auction for the 2024/2025 DY will take place on March 5.

AEP SSO Auction Results for 2024/2025 DY

Auction Date	Term (Months)	Tranches	Price (\$/kWh)
11/28/23	12	50	\$0.07100
3/5/24	12	50	TBD

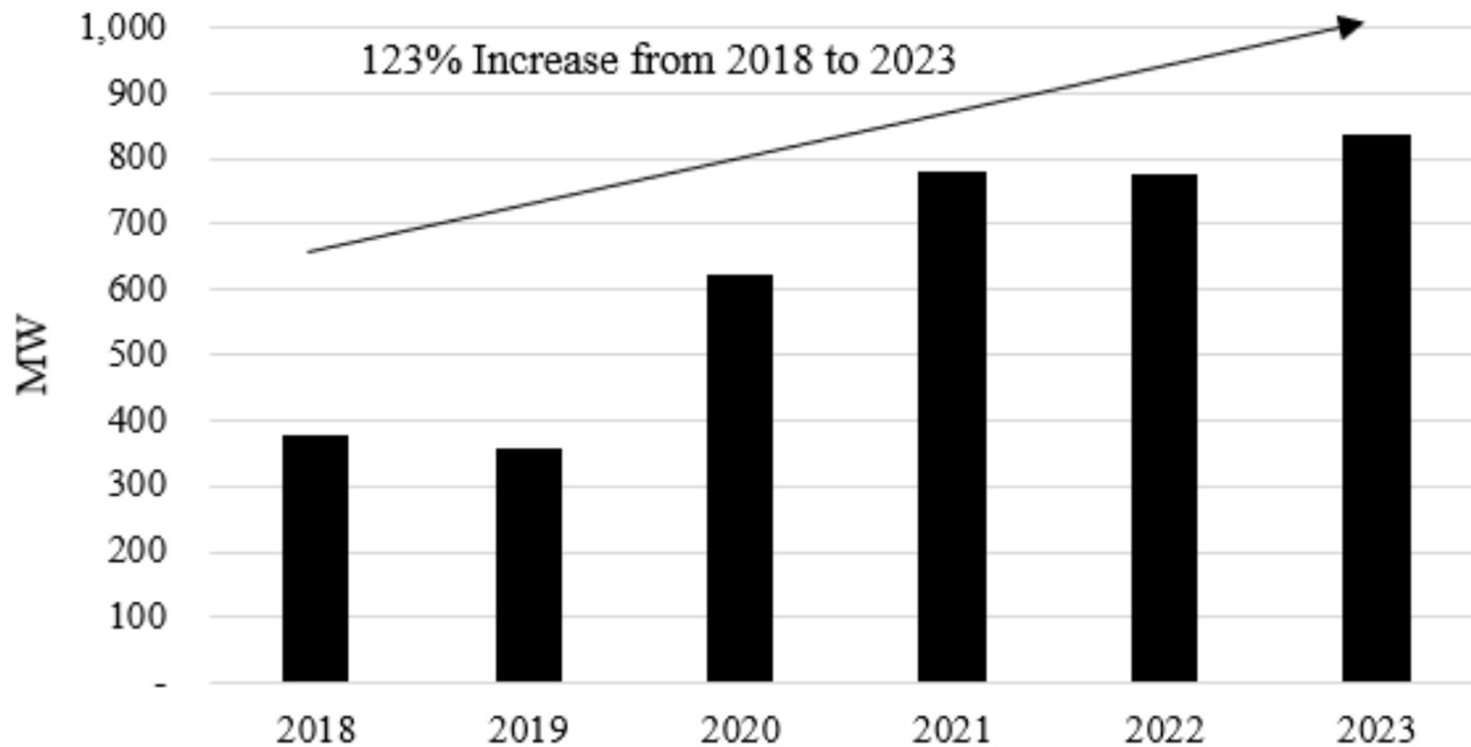
- Average weighted auction price for the 2023/2024 DY is \$0.10269/kWh.

AEP OHIO – BTCR PILOT & PEAK LOAD SHAVING

- BTCR Pilot originated in global settlement approved by the Commission on February 23, 2017. AEP Ohio agreed to continue the BTCR Pilot as a part of a settlement reached with numerous signatory parties in AEP Ohio's ESP IV, approved by the Commission on April 25, 2018.
- More recently, AEP Ohio agreed to continue BTCR Pilot as a part of a settlement reached on March 12, 2021, in AEP Ohio's most recent distribution rate case, approved by the Commission on November 17, 2021.
- ESP V settlement, if approved, would continue the BTCR Pilot through at least May 31, 2028 – Reasonable arrangement always at option as well.
- Pilot participants billed for BTCR on Network Service Peak Load (NSPL) value, which is a customer's load in kW at which a customer consumes power during the AEP Zone's 1CP between the 12-month measurement period spanning November 1 and October 31, with the value effective the following calendar year.

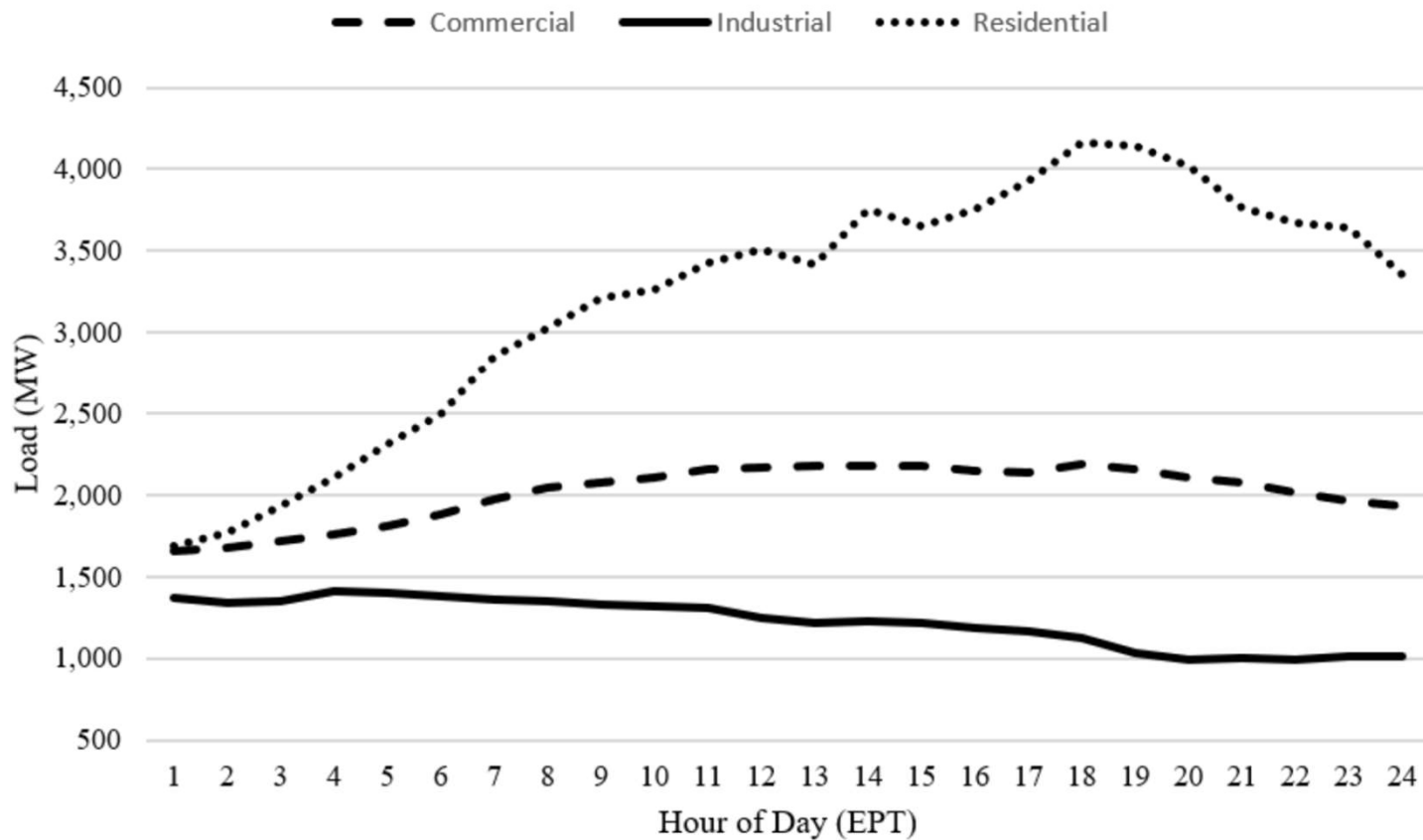
AEP OHIO – BTCR PILOT & PEAK LOAD SHAVING

Load Enrolled in BTCR Pilot Program Over Term of AEP
Ohio's ESP IV

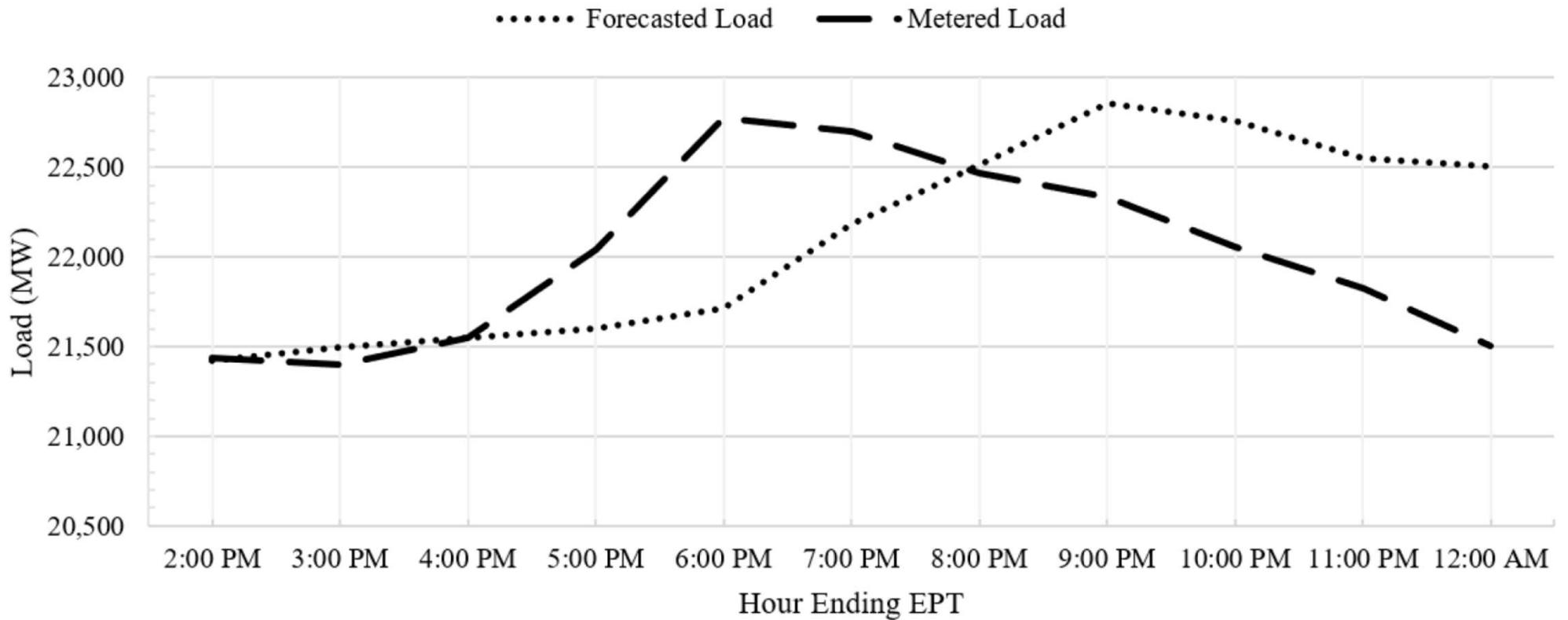


PEAK LOAD SHAVING & SYSTEM-WIDE BENEFITS

December 23, 2022 AEP Ohio Load by Customer Class



PEAK LOAD SHAVING & SYSTEM-WIDE BENEFITS



CONCLUSION OF AEP OHIO WORKSHOP

BakerHostetler
bakerlaw.com

Atlanta | Chicago | Cincinnati | Cleveland | Columbus | Costa Mesa

Dallas | Denver | Houston | Los Angeles | New York | Orlando

Philadelphia | San Francisco | Seattle | Washington, D.C. | Wilmington

These materials have been prepared by Baker & Hostetler LLP for informational purposes only and are not legal advice. The information is not intended to create, and receipt of it does not constitute, a lawyer-client relationship. Readers should not act upon this information without seeking professional counsel. You should consult a lawyer for individual advice regarding your own situation.

© 2022 BakerHostetler®