











FirstEnergy: Significant Developments Impacting Electric Rates

Workshop Outline

1. Distribution service

- a) Base Distribution Charges
- b) Rider Updates
- c) Economic Load Response Program
- d) Smart Meter Deployment

2. Transmission service

- a) 2023 Network Integration Transmission System rate
- b) Nonmarket-Based Services Rider update
- c) Transmission pilot program and five coincident peaks (5 CPs)

3. Default generation service

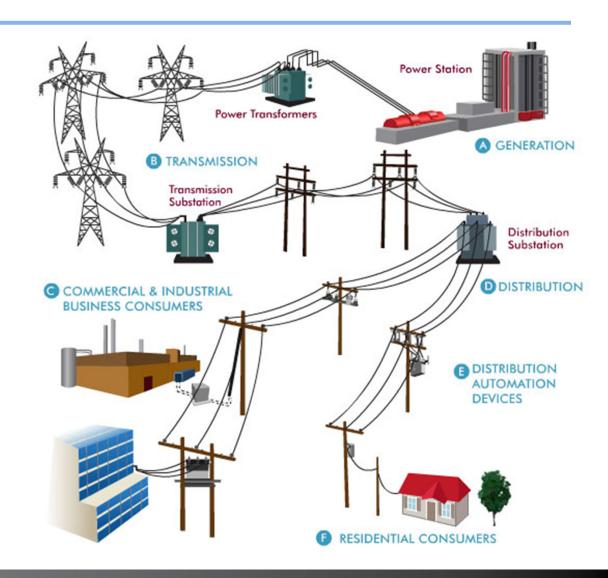
- a) Recent Standard Service Offer (SSO) Auction Results
- b) SSO Rates
- 4. Capacity and Capacity 5 CPs

Components of Your Electric Bill

1. Generation

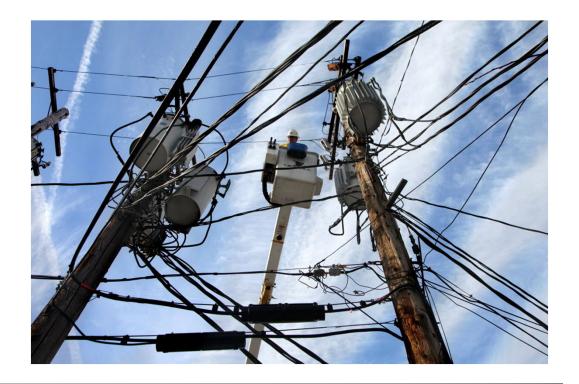
2. Transmission

3. Distribution





Distribution



How Charges Appear on Your FirstEnergy Distribution Bill

- FirstEnergy bills contain 3 primary line-item charges:
 - Customer Charge
 - Distribution Related Component
 - Cost Recovery Charges
- New lines items dating back to 2022:
 - Economic Development Component
 - Consumer Rate Credit
- For customers that do not competitively source generation service, monthly bills will also include:
 - Bypassable Generation and Transmission Related Component charge.

Example of FirstEnergy Charges

Shopping Customer

Charges From The Illuminating Company	
Customer Number:	
Rate: General Service Subtransmission CE-GSUD	
Customer Charge	180.00
Distribution Related Component	15,861.66
Economic Development Component	-0.89
Cost Recovery Charges	516.03
Consumer Rate Credit	-1,542.46
Current Consumption Bill Charges	15,014.34

Non-shopping Customer

Charges From The Illuminating Company	Maring.	1985
Customer Number;		
Rate: General Service Subtransmission CE-GSUF		
Customer Charge		180,00
Distribution Related Component		7,335.13
Economic Development Component		-1.27
Cost Recovery Charges		10,806.96
Bypassable Generation and Transmission Related Component	;	33,437.09
Consumer Rate Credit		-668.23
Current Consumption Bill Charges	:	51,089.68

Distribution Service

- The service for the poles, wires, substations, and transformers.
- Ohio's investor-owned Electric Distribution Utilities (EDUs) are regulated by the Public Utilities Commission of Ohio (PUCO).
- FirstEnergy's Ohio EDUs are:
 - Ohio Edison (OE);
 - The Illuminating Company (CEI); and
 - Toledo Edison (TE).

Base Distribution Charges

- Base distribution charges include a monthly customer charge, base demand charge, and reactive demand charge.
- Example:

CEI General Service Rate Schedule

	Secondary (GS)	Primary (GP)	Subtransmission (GSU)	Transmission (GT)
Customer Charge	\$7.00	\$150.00	\$180.00	\$320.00
Base Demand Charge	\$13.68 for all kW up to 5 kW \$7.479 per kW for all kW over 5 kW	\$2.405 per kW	\$0.971 per kW	\$0.001 per kVa
Reactive Demand Charge	\$0.36 per rkVa	\$0.36 per rkVa	\$0.36 per rkVa	N/A

 Base distribution charges are frozen through the end of the current Electric Security Plan (ESP IV), which is May 31, 2024.

Recent Changes to FirstEnergy Rider Charges

- Also included in FirstEnergy's monthly bills are charges for several riders that collect revenue for various distribution and non-distribution related costs.
 - These include costs for things like economic development, low-income payment assistance, the state kWh tax, delivery capital recovery, etc.
- Rider rates can change multiple times a year depending on the rider (e.g., quarterly, biannually, or annually).
 - Most recent rider rate update was on January 1, 2023.
 - Most significant change on January 1 was to the Universal Service Fund (USF) Rider.
 - The USF provides funding for the state's low-income payment assistance programs.

USF Rider Rates

- USF rider has a two-tiered rate structure that benefits larger users of electricity.
 - Second tier rates have remained the same since 2019.

	2022 USF R	tates ¢/kWh	2023 USF F	% Increase in		
	First 833,000 kWh	Next 833,000 kWh	First 833,000 kWh	Next 833,000 kWh	1st Tier Rates	
CEI	0.15450¢	0.05680¢	0.20060¢	0.05680¢	30%	
OE	0.22477¢	0.10461¢	0.29592¢	0.10461¢	32%	
TE	0.21160¢	0.05610¢	0.27352¢	0.05610¢	29%	

Customer Rate Credit (CRC) Rider

- This rider provides credits to all FirstEnergy customers.
 - It is a result of settlement negotiations in FirstEnergy's Significantly Excessive Earnings Test (SEET) case.
- As part of the settlement, FirstEnergy agreed to credit customers a total amount of \$306 million over 4 years.
 - \$96.1 million will be in the form of refunds resulting from revisions to FE's 2017-2019 SEET calculations.
 - In addition, FE has agreed to provide rate reductions of \$210 million over a 4-year period:
 - \$80 million in 2022;
 - \$60 million in 2023;
 - \$45 million in 2024; and
 - \$25 million in 2025.

CRC Rider Rates

- CRC Rider has two components.
 - Rate 1 credits customers for the \$96M in SEET revisions.
 - Rate 1 was set to zero effective February 1, 2023.
 - Rate 2 credits customers for the annual rate reductions.
 - This rate will be adjusted annually.
 - Rate 2 will terminate, subject to reconciliation, on May 31, 2024.

CUSTOMER CLASS	RATE 2
Residential	\$(1.45) per month
Nonresidential	(0.0834)¢ per kWh

Impact of 1/1/23 Rate Updates

 Overall, the January 1 nonbypasssable rider rate updates resulted in average distribution bill decreases of approximately 0.03¢ per kWh for FirstEnergy General Service customers.

	Change in Rider Rates in ¢ per kWh								
	GS GP GSU GT								
CEI	(0.0278)¢	(0.0201)¢	(0.0457)¢	(0.0488)¢					
OE	(0.0244)¢	(0.0113)¢	(0.0450)¢	(0.0441)¢					
TE	(0.0032)¢	(0.0454)¢	(0.0366)¢	(0.0365)¢					

Economic Load Response Program

- Economic Load Response (ELR) Program, i.e.
 "Interruptible" Program, is available only to customers above Primary service that took service under the program as of May 31, 2016.
- Customers provide interruptible service in exchange for monthly FirstEnergy bill credits.
- ELR Program currently scheduled to sunset May 2024.

FE Smart Meter Deployment

- Smart meters provide more detailed information about how customers use electricity.
 - Scalar meters: only provide total kWh usage and the single highest peak demand value of each service month
 - Smart meters: provide usage information on an hourly basis
 - No land line required.
- According to FirstEnergy Supplier Support, smart meters will need to be in service for 12 months before data will be made available to customers.

Smart Meter Analyze Usage Tool

Step 1

Access the FirstEnergy Corp website at firstenergycorp.com

Step 2

Select the **LOG IN** button on the upper right-hand portion of the screen.



Step 3

In the drop-down menu, click the **LOG IN** button to sign into your account. If you have not yet registered your account, click the **REGISTER** button and complete the registration process.



Step 4

When presented with the login screen from FirstEnergy, enter the account Username and Password and click the **LOG IN** button.



Step 5

Once logged in, the My Account page is displayed. On the left-hand side of the page, click the **Analyze Usage** link from the menu.



Smart Meter Analyze Usage Tool

Step 6

The Analyze Usage screen displays.



Step 7

In the Cost & Usage section click on the Usage Trends link.



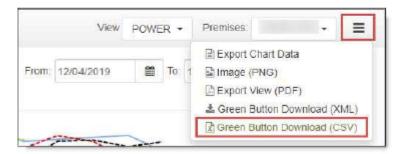
Step 8

On the Usage Trends part of the chart, click the drop down next to view and select **Power**. This will allow you to view your units of measure such as kWh, kVA, kVAr, kW, and Power Factor.



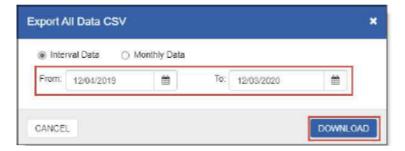
Step 9

Once the View has been set to Power, click the ellipses, and select the **Green Button Download** highlighted in green. The (XML) option with download data into and XML format. The (CSV) option will download data into an excel file.



Step 10

Once selected, ensure the Interval Data radio button is selected. Enter the desired From and To dates are and click the **DOWNLOAD** button.





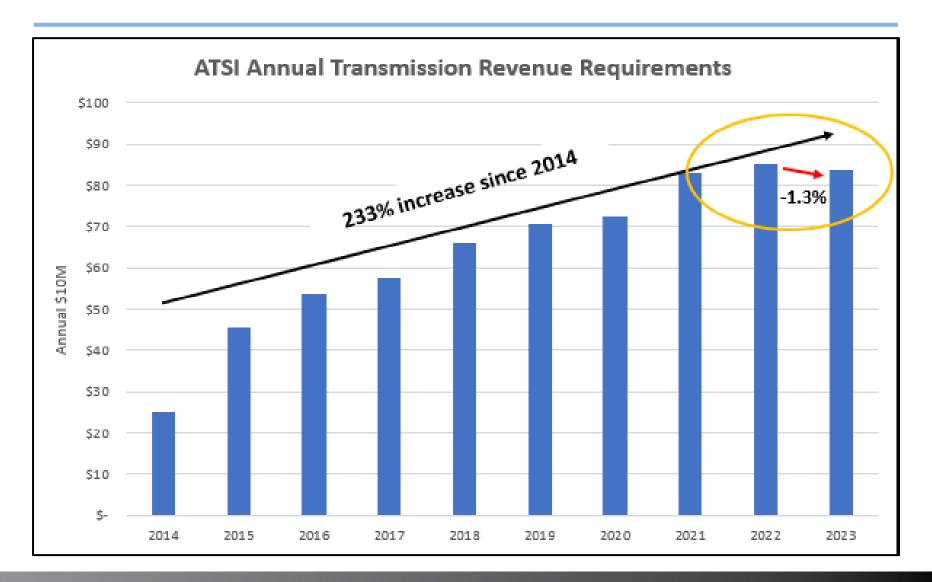
Transmission



Transmission Service

- Transmission is:
 - The service for moving electricity across high voltage lines;
 - Included as a charge in your monthly electric bill; and
 - Regulated exclusively by the Federal Energy Regulatory Commission (FERC).
- American Transmission Systems, Inc. (ATSI) is FirstEnergy's transmission subsidiary.
 - OE, CEI, and TE are located within the ATSI zone.

Transmission Revenue Requirement



Transmission Rates for 2023

- PJM uses each zone's annual transmission revenue requirement to calculate the zone's Network Integration Transmission System (NITS) rate for each calendar year.
- ATSI's 2023 NITS rate is \$65,642.19 per MW-Year.
 - This is approximately \$5.470 per kW-Month.
 - This rate is approximately 2.6% lower than the 2022 rate.

Impact of Transmission Rates on FirstEnergy Customers

- PJM bills FirstEnergy for transmission service for customers based on the annual NITS rate.
- FirstEnergy recovers transmission costs from customers through its Nonmarket-Based Services (NMB) rider.
- The NITS rate is the primary driver of NMB rider rates.
- FirstEnergy typically updates NMB rider rates on March 1 of each year. In 2023, new rates go into effect on April 1.

April 1, 2023 NMB Rider Rates

OE NMB Rates

RATE SCHEDULE	CURRENT RATE	APRIL 1 RATE	CHANGE
RS	1.75¢/kWh	1.89¢/kWh	8.1%
GS	\$4.33/kW	\$4.15/kW	-4.1%
GP	\$4.94/kW	\$5.05/kW	2.1%
GSU	\$4.45/kVa	\$4.25/kVa	-4.4%
GT	\$5.50/kVa	\$5.24/kVa	-4.9%

CEI NMB Rates

RATE SCHEDULE	CURRENT RATE	APRIL 1 RATE	CHANGE
RS	1.89¢/kWh	2.21¢/kWh	16.6%
GS	\$4.69/kW	\$5.45/kW	16.3%
GP	\$6.54/kW	\$6.15/kW	-6.0%
GSU	\$5.97/kW	\$6.21/kW	4.1%
GT	\$3.23/kVa	\$3.62/kVa	11.9%

TE NMB Rates

RATE SCHEDULE	CURRENT RATE	APRIL 1 RATE	CHANGE
RS	1.83¢/kWh	2.01¢/kWh	9.8%
GS	\$4.01/kW	\$4.21/kW	5.0%
GP	\$4.70/kW	\$5.05/kW	7.4%
GSU	\$5.38/kVa	\$4.29/kVa	-20.2%
GT	\$5.87/kVa	\$5.04/kVa	-14.2%

Transmission Pilot Program

- Included in ESP IV is a transmission pilot program that creates alternative billing methodology for transmission charges.
- A customer's average demand during the ATSI 5 CPs, scaled up for line losses and weather normalization, is referred to as the customer's "transmission tag."
- Ideal load types for pilot program:
 - Flexibility to operate off-peak,
 - Non weather-sensitive loads, or
 - Flexibility to curtail or shift loads to on site resources.

2022 ATSI Transmission 5 CPs

Date	Load (MW)	Hour Ending
6/15/22	12,771	4:00 PM
6/16/22	12,606	2:00 PM
6/22/22	12,590	4:00 PM
8/3/22	12,386	7:00 PM
8/8/22	12,206	7:00 PM

2022 ATSI Transmission 5 CPs are the five highest hourly loads in ATSI from November 1, 2021-October 31, 2022.

Impact of NITS on Transmission Pilot Program Customers

- NITS charges are the primary driver of transmission charges for customers that participate in FirstEnergy's transmission pilot program.
- Pilot program customers with transmission tags that remain similar from year to year will not see a noticeable change in transmission charges for 2023.
- Pilot program currently scheduled to sunset in May 2024.



Generation



Generation Service

- Cost associated with generating the electrons that consumers use to power lights and equipment.
- Customers served by FirstEnergy's Ohio EDUs have the option to competitively source electric generation service.
- Investor-owned EDUs are required to provide default generation service to customers that do not contract for generation through an alternative supplier.
 - This default service is referred to as the Standard Service Offer (SSO).

Default Generation Service

- FirstEnergy procures supply (i.e., energy and capacity) for its SSO customers through a series of Competitive Bidding Process auctions leading up to each June 1 through May 31 delivery year.
 - These auctions do not include load associated with customers on the Percentage of Income Payment Plan, which uses an RFP process.

				SSO Deliv	ery Year			
Auction	6/1/16 to	6/1/17 to	6/1/18 to	6/1/19 to	6/1/20 to	6/1/21 to	6/1/22 to	6/1/23 to
Date	5/31/17	5/31/18	5/31/19	5/31/20	5/31/21	5/31/22	5/31/23	5/31/24
4/13/16	12 months							
4/13/16	24 m	onths						
4/13/16		36 months						
4/26/16	12 months							
4/26/16	24 m	onths						
4/26/16		36 months						
10/3/16		12 months						
1/31/17		12 months						
10/10/17			24 m	onths				
10/10/17				36 months				
1/29/18			24 m	onths				
1/29/18				36 months				
10/22/18				12 months				
1/28/19				12 months				
10/7/19					12 months			
10/7/19					24 m	onths		
1/28/20					12 months			
1/28/20					24 m	onths		
10/5/20						12 months		
1/26/21						12 months		
8/23/21							12 months	
10/6/21							12 months	
3/7/22							24 m	onths
10/4/22								12 months
1/10/23								12 months
3/20/23								12 months

Most Recent SSO Auction Results

- Most recent auction was held on January 10, 2023.
- Auction was held for 33 tranches.
- One tranche equals 1% of the overall SSO load for the delivery year.
- Six winning bidders, sealed.

Average SSO Auction Prices

FirstEnergy SSO Auction Results

				6/1/2021	6/1/2022	6/2/2023
Auction	Term in			to	to	to
Date	Months	Weight		5/31/2022	5/31/2023	5/31/2024
1/28/20	24	25%		\$0.04295		
10/5/20	12	25%	1	\$0.04847		
1/26/21	12	25%	1	\$0.04680		
8/23/21	12	33%	1		\$0.04210	
10/6/21	12	33%	1		\$0.05021	
3/7/22	24	33%	1		\$0.06811	
10/4/22	12	33%	1			\$0.12230
1/10/23	12	33%	1			\$0.09770
3/20/23	12	33%	1			TBD
Weighted Average Price			\$0.04590	\$0.05347	\$0.11000	
Change Ov	Change Over Prior Price			4.2%	16.5%	TBD
% of Supply	y			100.0%	100%	67%

Standard Service Offer (SSO) Rates

- The SSO rate is the default rate charged by the utility for generation service to customers that do not contract with an alternative supplier.
 - The SSO rate is higher in the three summer months of June,
 July, and August than it is in the other nine months of the year.
- SSO rate is composed of:
 - Generation Service Rider (energy and capacity);
 - Alternative Energy Rider;
 - Generation Cost Reconciliation Rider; and
 - Non-Distribution Uncollectible Rider.

Previous vs. Current SSO Rates

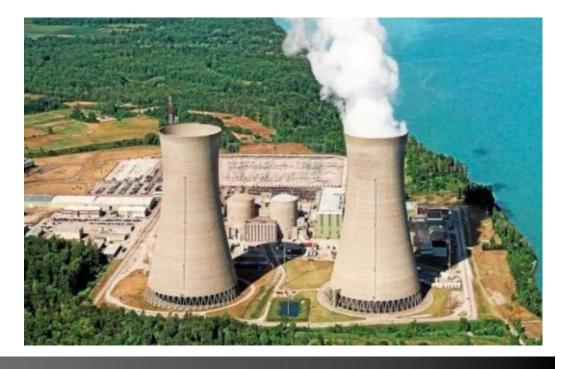
UTILITY	RATE SCHEDULE	SSO RATES (¢/kWh)		
		OCT 1, 2022 RATES	JAN 1, 2023 RATES	DIFFERENCE
OE	GS	5.64¢	5.32¢	-0.32¢
	GP	5.37¢	5.06¢	-0.31¢
	GSU	5.18¢	4.87¢	-0.30¢
	GT	5.10¢	4.80¢	-0.30¢
CEI	GS	5.73¢	5.35¢	-0.37¢
	GP	5.48¢	5.12¢	-0.36¢
	GSU	5.28¢	4.92¢	-0.35¢
	GT	5.13¢	4.78¢	-0.35¢
TE	GS	5.61¢	5.31¢	-0.31¢
	GP	5.34¢	5.05¢	-0.29¢
	GSU	5.11¢	4.82¢	-0.29¢
	GT	5.09¢	4.81¢	-0.29¢

Future SSO Rates

- New GEN rider (i.e., the main component of the SSO) rates will become effective on June 1, 2023.
 - Based on recent auction results, we anticipate that SSO rates will be significantly higher for the 23-24 DY than they are currently.
 - It has been Brakey Energy's recommendation that customers who may have been defaulting to the SSO, return to an electric supply agreement with a CRES by May 2023.



Capacity



What is Capacity?

- Capacity is the amount of electricity available on the grid at any one time.
 PJM operates a regional market for capacity.
 - A generator's ability to produce or a user's ability to curtail.
- Capacity costs in the PJM wholesale market are determined by a series of auctions.
 - Ymj&vjqfgrqqy~&uwrhrsl&rtijq&WUR. &xxzxji&yt&ruqjrjsy&tw|fwi%uwthzwjrjsy&t&ljsjwfyrsl&nfufhry~3
 - The Base Residual Auction (BRA) is primary driver of any given delivery year's price.
- Capacity prices are in place for a delivery year (DY) June 1 May 31.
- Capacity is typically the second greatest component of wholesale electricity costs, behind energy.

Peak Load Contribution (PLC)

- A customer's Peak Load Contribution (PLC) determines its allocation of capacity costs.
- A PLC is determined by a customer's average usage during five CPs, adjusted for transmission losses and multiplied by the forecast pool requirement (FPR) and zonal scaling factor (ZSF).
 - There may also be an adjustment for weather normalization.
- A CP is one of the five hours of the year (typically June-September) when demand on the PJM electric grid is at its highest.
- PLC from the prior DY set a customer's peak load share for the following DY.

PJM 2022 RTO Capacity 5 CPs

Date	Load (MW)	Hour Ending
7/20/22	147,341	6:00 PM
7/21/22	145,151	5:00 PM
7/22/22	144,253	6:00 PM
8/8/22	143,108	4:00 PM
8/3/22	142,119	6:00 PM

PJM Capacity Auctions

- Normally, PJM conducts the BRA in May, 3 years in advance of the DY.
- Three incremental auctions (IA) are held prior to the start of the DY.
- BRAs and IAs have been delayed or canceled several times due to regulatory actions by FERC.
- Capacity prices for the 2023/2024 DY are currently based on the BRA.
 The 3IA for 2023/2024 is scheduled for March 2023.
- The BRA for the 2024/2025 DY was held in December 2022 (originally scheduled for May 2021), but results have not been released.
- The BRA for the 2025/2026 DY is scheduled for June 2023.
- The BRA for the 2026/2027 DY is scheduled for November 2023.

Capacity Prices

DY	PJM ATSI RPM (\$ / MW-day)
2021/2022	\$ 160.21
2022/2023	\$ 50.05
2023/2024	\$ 34.13
2024/2025	TBD
2025/2026	TBD



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In the Matter of the Application of Ohio Edison Company, The Cleveland Electric Illuminating Company, and The Toledo Edison Company for Approval of Phase Two of Their Distribution Grid Modernization Plan (Case No. 22-704-EL-UNC)

- FirstEnergy seeks authorization for second phase of distribution grid modernization plan that continues Grid Mod I Technologies and includes various Pilot Projects.
- FirstEnergy requests authorization to recover in Rider AMI their actual Grid Mod II
 capital costs, up to \$626.4 million, and incremental O&M expenses associated with Grid
 Mod II up to an aggregate of \$144.1 million over 4 year deployment period.
- FirstEnergy has moved for a procedural schedule with the following proposed deadlines:
 - April 1, 2023 Motions to Intervene
 - June 2023 Hearing
- OCC has opposed FirstEnergy's motion as premature and argues that the parties and the Commission need time to analyze and decide FirstEnergy's Smart Gird Program Phase I case, including how the audit report's recommendations will be integrated into the Phase II program.

In the Matter of the Application of Ohio Edison Company, The Cleveland Electric Illuminating Company, and The Toledo Edison Company for Approval of Phase Two of Their Distribution Grid Modernization Plan (Case No. 22-704-EL-UNC)

- The independent audit in FirstEnergy's Grid I case had found:
 - The Companies were "largely successful" in implementing the required number of technologies in the allowed timeframe, though some portions are undergoing or awaiting full activation.
 - The Companies did not provide the auditor with underlying assumptions of certain benefits and cost projections, which precluded the auditor's complete assessment.
 - Grid Mod I cost-benefit analysis does not meet the level of transparency which
 would be expected per the Commission's grid modernization proceeding
 conclusions, or, more broadly, a level which would allow for audit conclusions to be
 reached.
 - The demonstrated operational savings have fallen short of the level included in the Stipulation.

In The Matter Of The Review Of The Non-Market-Based Services Rider Pilot Program Established By Ohio Edison Company, The Cleveland Electric Illuminating Company, and the Toledo Edison Company (Case No. 22-0391-EL-RDR)

- FirstEnergy's Non-Market-Based Services Rider ("Rider NMB") is a non-bypassable rider that is designed to recover non-market-based transmission-related costs, such as Network Integration Transmission Service charges, imposed on or charged to the Companies by FERC or PJM.
- The Commission requires FirstEnergy and Staff to review the actual results of the Rider NMB Pilot Program and report their findings to the Commission.
- The Commission opened proceedings in April 2022.
- Exeter Associates, Inc. has been selected to conduct the audit.
- The final audit report is due April 10, 2023.



IN THE MATTER OF THE REVIEW OF THE POLITICAL AND CHARITABLE SPENDING BY OHIO EDISON COMPANY, THE CLEVELAND ELECTRIC ILLUMINATING COMPANY, AND THE TOLE (Case No. 20-1502-EL-UNC)

- On September 8, 2020, OCC filed motions for an investigation and management audit of FirstEnergy and its activities regarding H.B. 6, to hire an independent auditor, to reopen the distribution modernization rider audit case, and to require FirstEnergy to show that it did not improperly use money collected from consumers or violate any utility regulatory laws, rules, or orders in its activities regarding H.B. 6.
- On November 4, 2020, the Commission issued an Entry directing PUCO Staff to issue an RFP to acquire audit services to assist the Commission with the review of FirstEnergy's compliance with the corporate separation provisions of R.C. 4928.17 and with the Companies' Commission approved corporate separation plans for the period between November 1, 2016, and October 31, 2020.
- The Commission opened the Political and Charitable Spending Audit on September 15, 2020, to review the political and charitable spending by FirstEnergy in support of H.B. 6 and the subsequent referendum effort.



IN THE MATTER OF THE REVIEW OF THE POLITICAL AND CHARITABLE SPENDING BY OHIO EDISON COMPANY, THE CLEVELAND ELECTRIC ILLUMINATING COMPANY, AND THE TOLE (Case No. 20-1502-EL-UNC) Continued...

- On August 16, 2022, the U.S. Attorney for the S.D. of Ohio requested that the Commission stay these matters for a period of six months, citing its concern that continued discovery in the Commission's investigations may directly interfere with or impede the United States' ongoing investigation into corruption relating to H.B. 6.
- By entry dated August 24, 2022, the Commission stayed its investigation and these proceedings.
- On February 22, 2023, the U.S. Attorney for the S.D. of Ohio requested that the Commission stay these matters for a period of an additional six months, citing its concern that continued discovery in the Commission's investigations may directly interfere with or impede the United States' ongoing investigation into corruption relating to H.B. 6.

Questions?