BEFORE THE PUBLIC UTILITIES COMMISSION OF OHIO

In the Matter of the Application of)
Ohio Edison Company, The Cleveland)
Electric Illuminating Company and) PUCO Case No. 23-301-EL-SSO
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)
•	,

DIRECT TESTIMONY
OF
MATTHEW BRAKEY
ON BEHALF OF
OHIO ENERGY LEADERSHIP COUNCIL

EXHIBIT NO.

INDEX TO DIRECT TESTIMONY OF MATTHEW BRAKEY

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-	1 I.	PERSONAL BACKGROUND
4	2 Q1.	WHAT IS YOUR NAME AND BUSINESS ADDRESS?
•	3 A.	My name is Matthew Brakey, and my business address is 8584 East Washington Street,
4	4	Suite #213, Chagrin Falls, Ohio 44023.

5 Q2. BY WHOM ARE YOU EMPLOYED AND WHAT IS YOUR POSITION?

A. I am employed as the President of Brakey Energy, which provides comprehensive energy management consulting services in the Ohio market, principally for midsized to large commercial and industrial customers in Ohio. I am also employed as the President of Brakey Energy Retail, which provides commissioned brokerage services, targeting the same market and customer type.

11 Q3. WHAT IS YOUR EDUCATIONAL AND PROFESSIONAL BACKGROUND?

12 A. I received my bachelor's degree in Political Science from Miami University in Oxford,
13 Ohio in 2004 and a law degree from the Cleveland Marshall College of Law in 2014. I
14 have spent my entire post-collegiate professional career consulting with and advising
15 customers on energy usage and management issues in the Ohio market. After I received
16 my bachelor's degree, I joined Brakey Energy in 2004 as the Vice President and then
17 eventually took the role of President of Brakey Energy in 2010, and I have held that same
18 position since that time to the present.

Q4. WHAT ARE YOUR JOB RESPONSIBILITIES?

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A. As President of Brakey Energy, I am responsible for all aspects of the operations of the business, including the provision of customer services, management of our employees, and the day-to-day administrative functions of the business. Most of my time is spent directly interacting with Brakey Energy's employees and customers in providing our

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Q5. WHAT SERVICES DO YOU PROVIDE AT BRAKEY ENERGY?

A. Brakey Energy provides a broad spectrum of services for its commercial and industrial customers, all related to their electricity and natural gas needs and consumption. Brakey Energy has built its business being experts on Ohio's unique rate and regulatory environment. Our services include electric and natural gas procurement, gas and power supply contract negotiations, energy efficiency advice and audits, interruptible and demand response program advice, consulting on transmission and capacity issues and costs, natural gas and electric utility rates and tariffs, and energy cost savings opportunities. Through decades of experience providing its services, Brakey Energy has developed considerable expertise on Ohio's retail energy markets and those aspects of PJM Interconnection and the wholesale energy markets impacting or providing cost savings opportunities for our customers.

Q6. WHAT TYPE OF ENERGY MARKET KNOWLEDGE AND EXPERIENCE

HAVE YOU DEVELOPED IN PROVIDING THESE SERVICES?

My role and responsibilities at Brakey Energy relating to consulting with and advising our customers on numerous and sometimes complex aspects of their energy usage require that I have a strong working knowledge and expertise on Ohio's retail energy markets, competitive supply markets and products, programs offered in the wholesale market or through PJM Interconnection, and utility rates, procedures and tariff provisions that impact our customers' energy consumption and the cost of energy and utility services.

My role and responsibilities at Brakey Energy also require that I develop an in-depth understanding and knowledge of our customers' energy consumption requirements and

1		characteristics, including consumption patterns and variations, energy demand on
2		different hours, days and seasons, energy requirements for a customer's business, demand
3		response and curtailment capabilities, alternative energy options, and operational issues.
4		Through my direct work on energy issues with hundreds of commercial and industrial
5		customers over the past nineteen years at Brakey Energy, I have developed a deep
6		knowledge of how such customers use energy, can manage energy, and the steps they can
7		take to save money on energy. Our customers are in a wide variety of industries and
8		business segments, including manufacturing, chemicals, steelmaking and metals
9		processing, data centers, machine shops, and retail establishments, and through my
10		immersion in the energy requirements and consumption in those various industries, I
11		have developed a strong working knowledge of how tariff rates and terms impact utility
12		and energy charges and how commercial and industrial customers can manage their
13		energy in ways that both save on energy expenses and also provide grid-wide benefits.
14	Q7.	IS BRAKEY ENERGY CERTIFIED BY THE COMMISSION?
15	A.	We provide our energy procurement and brokering services through Brakey Energy
16		Retail LLC, which is certified by the Public Utilities Commission of Ohio as a Power
17		Broker in the State of Ohio in PUCO Case No. 13-2034-EL-AGG. Brakey Energy Retail
18		LLC also recently obtained a CRNGS certificate from the Commission in PUCO Case
19		No. 23-0402-GA-AGG. Brakey Energy provides energy consulting and other related non-
20		commissioned energy services through a separate entity, Brakey Energy, Inc.
21	Q8.	WHAT IS YOUR RELATIONSHIP WITH OHIO ENERGY LEADERSHIP
22		COUNCIL ("OELC")?
23	A.	Many of Brakey Energy's clients have their interests represented in the Ohio Energy

1		Leadership Council ("OELC") through the Brakey Energy Client Group (BECG). I
2		represent BECG in OELC meetings and otherwise for purposes of OELC membership. I
3		have also held officer positions with OELC, and am currently serving as the
4		Secretary/Treasurer of the organization.
5	Q9.	WHAT IS BRAKEY ENERGY'S RELATIONSHIP WITH OELC?
6	A.	Brakey Energy provides energy consulting services to OELC on a flat-fee basis in
7		support of OELC's advocacy before the Commission and advice to OELC members.
8	Q10.	HAVE YOU EVER TESTIFIED BEFORE THE COMMISSION?
9	A.	Yes. I submitted written testimony in PUCO Case Nos. 23-0023-EL-SSO/23-0024-EL-
10		AAM.
11	Q11.	HAVE YOUR EVER SUBMITTED TESTIMONY IN ANY OTHER
12		REGULATORY PROCEEDING?
13	A.	No.
14	Q12.	HAVE YOUR EVER BEEN ENGAGED AS AN EXPERT IN ANY TYPE OF
15		PROCEEDING?
16	A.	Yes, I was engaged as an expert witness on behalf of the plaintiff in the Schwebel Baking
17		Company, et al. v. FirstEnergy Solutions Corp. litigation relating to surcharges assessed
18		to commercial and industrial customer electric bills following the 2014 polar vortex. I
19		was also engaged as an expert witness of behalf of OELC in In the Matter of the
20		Application of Ohio Power Company for Authority to Establish a Standard Service Offer
21		Pursuant to R.C. 4928.143 in the Form of an Electric Security Plan, PUCO Case Nos.
22		23-0023-EL-SSO/23-0024-EL-AAM.
23		

1 Q13. ON WHOSE BEHALF ARE YOU TESTIFYING IN THIS CASE?

2 A. I am providing testimony in this case on behalf of OELC.

3 II. <u>PURPOSE OF TESTIMONY</u>

4 Q14. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

- 5 A. The purpose of my testimony is to discuss certain features of the fifth Electric Security
- 6 Plan (ESP V) application filed in this case by Ohio Edison Company, The Cleveland
- 7 Electric Illuminating Company and The Toledo Edison Company ("FirstEnergy" or the
- 8 "Companies"). Specifically, I am providing testimony concerning FirstEnergy's Rider
- 9 NMB tariff, and Rider ELR tariff, and changes to those tariffs proposed by FirstEnergy in
- its ESP V application.

11 III. <u>FIRSTENERGY'S RIDER NMB</u>

12 Q15. WHAT IS FIRSTENERGY'S NON-MARKET-BASED SERVICES RIDER?

- 13 A. FirstEnergy's Non-Market-Based Services Rider, known as Rider NMB, is used by
- FirstEnergy to recover non-market-based transmission-related charges which are imposed
- on FirstEnergy by the Federal Energy Regulatory Commission ("FERC"), regional
- transmission organizations such as PJM Interconnection, L.L.C. ("PJM"), or other
- entities. The costs that FirstEnergy recovers through Rider NMB include Network
- 18 Integration Transmission Service ("NITS"), Regional Transmission Expansion Plan
- 19 ("RTEP") costs, and other PJM charges related to transmission.²

20 Q16. WHEN AND HOW DID RIDER NMB TAKE EFFECT?

A. Rider NMB has been in place for more than a decade. It was initially authorized by the

¹ Source: Ohio Edison Company tariff PUCO No. 11 at Sheet 119; The Cleveland Electric Illuminating Company tariff PUCO No. 13 at Sheet 119; and The Toledo Edison Company tariff PUCO No. 8 at Sheet 119.

² Source: Direct Testimony of Juliette Lawless filed on April 5, 2023, at pp. 7-8.

1		Public Utilities Commission of Ohio ("Commission") as part of FirstEnergy's second
2		electric security plan ³ and reauthorized as part of FirstEnergy's third ⁴ and fourth ⁵ electric
3		security plans.
4	Q17.	HOW ARE RIDER NMB CHARGES CURRENTLY CALCULATED UNDER
5		FIRSTENERGY'S TARIFFS FOR COMMERCIAL AND INDUSTRIAL
6		CUSTOMERS?
7	A.	Commercial and industrial customers are charged under Rider NMB based on monthly
8		billing demand. Under FirstEnergy's tariffs, monthly billing demand is generally the
9		customer's highest thirty (30) minute integrated demand measured in kW or kVA. ⁶ Rider
10		NMB charges are non-bypassable, meaning the customer pays the charges whether or not
11		the customer is receiving generation service from a Competitive Retail Electric Service
12		("CRES") supplier. The Rider NMB Rates customers pay vary based on FirstEnergy
13		distribution utility and rate schedule. ⁷
14	Q18.	WHAT IS THE RIDER NMB PILOT PROGRAM?
15	A.	The Rider NMB Pilot Program was established when the Commission approved the
16		Stipulation in FirstEnergy's ESP IV case, and made effective June 1, 2016.8 Participants
	⁴ ESP ⁵ ESP	II, Opinion and Order (August 25, 2010). Case No. 10-388-EL-SSO. III, Opinion and Order (July 18, 2012). Case No. 12-1230-EL-SSO. IV, Opinion and Order (March 31, 2016). Case No. 14-1297-EL-SSO.
		ending on service voltage, the monthly billing demand may also equal the minimum kW or kVA specific in the FirstEnergy tariffs or the customer's "Contract Demand" as defined in the tariff.

⁶ Depending on service voltage, the monthly billing demand may also equal the minimum kW or kVA values specific in the FirstEnergy tariffs or the customer's "Contract Demand" as defined in the tariff.
⁷ Source: Ohio Edison Company tariff PUCO No. 11 at Sheet 119; The Cleveland Electric Illuminating Company tariff PUCO No. 13 at Sheet 119; and The Toledo Edison Company tariff PUCO No. 8 at Sheet 119.

⁸ ESP IV, Opinion and Order (March 31, 2016). Case No. 14-1297-EL-SSO. The Pilot Program was initially only made available to certain customers and sponsoring groups, although the Commission rejected arguments that the program was discriminatory, finding in its Fifth Entry on Rehearing that "Customers who may benefit from participation in the Rider NMB pilot program should work with Staff and the Companies to determine if the customers' participation is appropriate, and the customer may then file an application with the Commission under R.C. 4905.31 for permission to participate in the Rider

1		in the Rider NMB Pilot Program are subject to cost recovery by FirstEnergy for the same
2		PJM billing line-item charges that get applied by FirstEnergy to customers charged under
3		Rider NMB. However, the manner in which these costs are charged to participants in the
4		Pilot Program differs in material ways. First, FirstEnergy removes Rider NMB charges
5		from its distribution utility bill to Pilot Program participants, and instead makes those
6		charges the responsibility of the CRES supplier providing competitive retail electric
7		service to the customer.9 Furthermore, the way those transmission charges are calculated
8		by the CRES supplier conducting the billing for Rider NMB line-item charges differs
9		from the Rider NMB tariff. Rather than basing those charges on monthly billing demand,
10		as FirstEnergy does under its Rider NMB tariff, the CRES supplier generally calculates
11		those charges based on the customer's Network Service Peak Load ("NSPL") value. As
12		of March 1, 2023, there were seventy-six (76) customers representing one hundred and
13		eight (108) accounts in the Rider NMB Pilot Program. 10
14	Q19.	COULD YOU EXPLAIN WHAT NETWORK SERVICE PEAK LOAD ("NSPL")
15		IS AND HOW THAT VALUE IS DETERMINED FOR CUSTOMERS WITH
16		INTERVAL OR ADVANCED METERS?
17	A.	Network Service Peak Load (NSPL) is a customer's average load, that may be scaled for
18		line losses and weather normalization, during the annual five coincident peaks (5CPs)

NMB pilot program, and the Commission will determine if such participation is in the public interest." ESP IV, Fifth Energy on Rehearing (Oct. 12, 2016), ¶ 309.

⁹ Under the Rider NMB Pilot Program, participants must receive generation service from a CRES, although an exception was made in late 2022 and early 2023 to accommodate participants wishing to return to utility default service. Those Pilot Program participants were manually billed Rider NMB charges by FirstEnergy for that discrete time period. *See* Entry dated November 2, 2022, in PUCO Case No. 21-1205-EL-AEC.

¹⁰ Source: Review of the Non-Market-Based Services Riders Established by Ohio Edison Company, The Cleveland Electric Illuminating Company, and The Toledo Edison Company and Associated Pilot Program dated July 2023 prepared by Exeter Associates, Inc., Case No. 22-391-EL-RDR, at p. 7.

within the FirstEnergy Ohio zone (ATSI Zone), which are the five single hours in the
measurement year with the highest metered demand for electricity in that zone, provided
they occur on different days. 11 If the ATSI Zone's single highest hourly peak or 1CP
occurs in the winter (December 1 – March 31), then a customer's NSPL is based on their
load during the five highest winter ATSI Zone peak hours. If the ATSI Zone's 1CP
occurs in the summer (June 1 – September 30), then a customer's NSPL is based on their
load during the five highest summer ATSI Zone peak hours. Historically, the ATSI
Zone's peak occurs in the summer and therefore the 5CPs occur in the summer season.
The average hourly demand in kW at which a customer consumes power during the ATSI
Zone's 5CPs between the 12-month measurement period spanning November 1 and
October 31, multiplied by a scaling factor for voltage service level line losses 12 and a
reconciliation factor ¹³ for weather normalization, establishes a customer's NSPL value
for the following calendar year. 14 For example, a customer's load during the ATSI
Zone's 5CPs between November 1, 2022 through October 31, 2023 will establish a
customer's NSPL value for the entire calendar year of 2024 (January 1, 2024 through
December 31, 2024). Then, effective January 1, 2025, the customer's NSPL value will
change based on the customer's load during the ATSI Zone's 5CPs between November 1,
2023 through October 31, 2024. The NSPL value for the account at issue will continue to
change on an annual basis depending on the customer's demand during the ATSI Zone's

¹² Source:

¹¹ The ATSI Zone encompasses the service territories of FirstEnergy's Ohio electric utility companies. See https://www.pjm.com/library/~/media/about-pjm/pjm-zones.ashx

https://www.firstenergycorp.com/content/dam/supplierservices/files/eligibility/Eligibility_List_File.pdf ¹³ The reconciliation factor varies by FirstEnergy Ohio operating company and is updated annually.

¹⁴ Source: https://firstenergycorp.com/content/dam/supplierservices/files/supplierregistration/PJMCapacityManualOH.pdf

1		5CPs. If an interval or advanced metered customer does not have data at the time of all
2		5CPs, then the average hourly load will be based upon the readings during any of the
3		5CPs that are recorded.
4	Q20.	HOW IS THE NSPL VALUE DETERMINED FOR A CUSTOMER THAT DOES
5		NOT HAVE AN INTERVAL OR ADVANCED METER IN PLACE PRIOR TO A
6		SUMMER CP SEASON?
7	A.	For "monthly metered" FirstEnergy customers, 15 the average load that forms the basis of
8		their NSPL calculations is determined to be the average hourly meter readings during the
9		5CPs of their load profile assigned by FirstEnergy. 16 In addition to this average load
10		being multiplied by lines losses and a reconciliation factor for weather normalization,
11		there is an additional scaling factor called the "Customer Factor" used as a multiplier. 17
12		For a monthly metered customer, this Customer Factor is equal to the "customers usage
13		taken from monthly meter readings during the peak season divided by the respective
14		Class Usage." ¹⁸ New customers with no prior load history, regardless of meter type, will
15		be assigned to the average NSPL for the applicable profile class 19 it has been assigned by
16		FirstEnergy. ²⁰

 $^{^{15}}$ Customers that do not have interval or advanced meters, whose meters are read on a once-month-basis without granular hourly interval data.

¹⁶ Source: https://firstenergycorp.com/content/dam/supplierservices/files/supplier-registration/PJMCapacityManualOH.pdf

¹⁷ For customers with an interval or advanced meter, their Customer Factor is equal to 1.

¹⁸ See Footnote 12. Class Usage is the aggregate of the hourly values of the Profile Load for the same time frame as the customer monthly season meter reads.

¹⁹ Default NSPL values by class profile for the 2023 calendar year can be found at https://www.firstenergycorp.com/content/dam/supplierservices/files/load-profile/OHSummaryDefaultsFactors.pdf

²⁰ Source: https://firstenergycorp.com/content/dam/supplierservices/files/supplier-registration/PJMCapacityManualOH.pdf

Q21. WHAT OUTCOME OR CONDUCT DOES TRANSMISSION BILLING BASED

ON NSPL VALUES INCENTIVIZE?

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A. Transmission billing based on NSPL values incentivizes customers who are able to reschedule, curtail, or minimize their load ("peak load shaving") during the times when the load on ATSI's transmission zone is anticipated or forecasted to register as one of its five highest hourly annual levels or 5CPs. That is because customers billed for transmission charges based on NSPL values will have their transmission billing determinant for an entire calendar year set by the customer's load during those 5CP events in the ATSI Zone. If a customer is not actively managing its load during those 5CP events by curtailing or minimizing electricity usage during those hours, that customer could end up paying significantly more for transmission charges through their CRES. Because it is very difficult to predict 5CP events with anywhere close to 100% accuracy, a customer actively managing its load for minimizing their NSPL value must necessarily conduct peak load shaving during multiple periods throughout the year for anywhere from one to seven hours at a time, depending on numerous factors driven predominantly by the weather. Even then, accurately hitting all 5CPs has become exceedingly difficult in the past several years as a result of unpredictable weather patterns, historically cool summers in ATSI, and increasingly active peak load shaving activity by customers in the ATSI Zone. Accordingly, transmission billing based on NSPL values incentivizes peak load shaving during multiple periods of potential 5CP events during the year, and the increasing difficulty of forecasting 5CP hours with accuracy has required more frequent peak load shaving with greater duration. Indeed, there are customers that have chosen to simply adjust their shifts in order to minimize

- summer afternoon load rather than aggressively CP manage via curtailments in response to daily grid conditions.
- 3 Q22. DOES PEAK LOAD SHAVING PRESENT ANY BENEFITS TO THE UTILTY,
- 4 ITS SYSTEMS OR OTHER UTILITY CUSTOMERS?
- 5 A. Yes.

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Q23. COULD YOU DESCRIBE THOSE BENEFITS?

7 A. Peak load shaving provides stability to the ATSI Zone in particular, and the PJM electric 8 grid as a whole, during times when the balance of the supply and demand on the zonal or 9 regional grid may be the most vulnerable. In particular, ATSI's 5CPs have historically 10 occurred on hot and humid summer afternoons or early evenings. During those times, customers in ATSI's territory – especially the most vulnerable populations – are relying 11 12 upon the electric grid to maintain indoor temperatures at safe and habitable levels. 13 Maintaining grid stability and electricity availability during hot weather events can literally be a life-and-death issue, as demonstrated by heat related deaths in Ohio. 21 Peak 14 15 load shaving thus plays a critical role in supporting grid stability during times of high 16 demand. From a cost perspective, peak load shaving also allows for ATSI's transmission 17 system to operate more efficiently, requiring less iron-in-the-ground investments thus 18 helping to keep transmission costs down for all customers. The benefits of voluntary peak 19 load shaving by customers able to curtail their load is especially important at this time, 20 with ATSI forecasting continued growth of seasonal peak loads in its Ohio service territory over the proposed term of ESP V (April 1, 2024 – March 31, 2032).²² 21

²¹ Source: https://www.wlwt.com/article/heat-wave-turns-deadly-with-3-ohio-deaths/3523555

²² Source: FirstEnergy's PUCO Form FE-T2, page 5 of FirstEnergy's and ATSI's *2023 Electric Long-Term Forecast Report*, filed April 4, 2023, in PUCO Case No. 23-504-EL-FOR.

1		FirstEnergy's forecasted load growth is also consistent with inquiries Brakey Energy has
2		received from high-consumption companies looking to locate in that service territory.
3	Q24.	WHAT TYPES OF COMMERCIAL OR INDUSTRIAL CUSTOMERS MAY BE
4		BENEFITTED BY USING NSPL VALUES FOR TRANSMISSION CHARGES?
5	A.	Commercial and industrial customers that may benefit from transmission billing based on
6		their NSPL values instead of monthly billing demand are customers that are not weather
7		sensitive (i.e., those with minimal space cooling loads), those that have the operational
8		flexibility to predominantly run during hours in which CPs are unlikely to occur, those
9		that have the ability to curtail load during on-peak hours and/or shift load to off-peak
10		hours, or those who have significant on-site generation or battery storage resources that
11		can provide power to the customer without drawing from the grid. Examples of such
12		customers include steel mills, data centers, and certain manufacturers that are able to
13		curtail business operations on short notice. It should be noted that in my experience the
14		universe of commercial and industrial customers that can either feasibly curtail load on
15		short notice or materially adjust production schedules while maintaining overall business
16		viability is relatively modest in number, although those customers are typically very large
17		energy users and thus represent a disproportionately large portion of the overall system
18		load. For instance, a single steel mill or data center may be able to voluntarily curtail 50
19		MW or more of load during anticipated system peaks, which would be the equivalent of
20		dozens or even hundreds of smaller businesses curtailing electricity usage
21		simultaneously. Thus, large users performing peak load shaving can have a significant
22		beneficial impact on system reliability when compared to smaller users for which it is not
23		economically or logistically feasible to curtail load.

Q25.	WOULD ALL COMMERCIAL AND INDUSTRIAL CUSTOMERS BENEFIT
	FROM USING NSPL VALUES FOR TRANSMISSION CHARGES?

No. Many commercial and industrial customers, particularly those that are weather sensitive and must condition facilities for building occupants or temperature-sensitive products, operate predominantly during on-peak hours and do not have the ability to curtail their load or shift their operations to off-peak hours. Those customers would generally not benefit from using NSPL values for transmission charges. Over the long term, such customers would likely end up paying significantly more for transmission charges than under the current monthly billing demand framework. For example, a weather sensitive customer such as a grocery store could have a relatively high NSPL value assigned to it if the customer was running refrigeration and air conditioning during hot summer afternoons that end up setting the ATSI Zone's 5CPs. That high NSPL value would be used to bill the transmission charges to that customer during an entire calendar year, even during the cooler shoulder months when the customer's monthly peak demand would be significantly lower. This example demonstrates the importance of the Rider NMB Pilot Program, as the program permits eligible customers able to conduct peak load shaving to be part of that program, while not burdening many other customers that are not able to curtail with high billing determinants that form the basis for the calculation of Rider NMB transmission charges from FirstEnergy.

Q26. DOES THE CURRENT RIDER NMB PILOT PROGRAM PROVIDE BENEFITS TO FIRSTENERGY'S SYSTEM AND CUSTOMERS?

22 A. Yes.

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Q27. COULD YOU PLEASE DESCRIBE THOSE BENEFITS?

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2 A. By billing pilot program participants for Rider NMB charges based on their assigned 3 NSPL values, the Rider NMB Pilot Program incentivizes voluntary peak load shaving. 4 The many benefits of incentivizing voluntary peak load shaving, particularly among large 5 energy users, are described in detail in my response to Question No. 23. To recap, Rider 6 NMB pilot program participants who have the ability to peak load shave are incentivized 7 to minimize their load during times when the demand and strain on ATSI's and PJM's 8 electric grid are the highest. In this way, Rider NMB pilot participants help ATSI's 9 system and customers by offsetting any potential imbalances between supply to and 10 demand on the grid in a way that helps ensure the resiliency and reliability of the electric 11 grid for all customers. The impact of that voluntary peak load shaving is evident in the 12 information produced by FirstEnergy in this case, and in particular the information shown 13 in Exhibit MB-1 attached to this testimony and filed under seal, which shows that for the 14 five-year period from March 2019 through July 2023 (the majority of the term of ESP 15 IV) the aggregate monthly 5CP demand for customers participating in the Rider NMB 16 pilot program has consistently been substantially lower than the aggregate average 17 monthly billing demand, ranging from about 42% to about 51% of the aggregate average 18 monthly billing demand, representing a reduction in real terms of up to 686.5 MW in 2022 during that approximately five-year period. 23 These benefits are particularly critical 19 20 to preserve at this time in light of the continued peak demand load growth forecasted by 21 ATSI for its service territory during the term of ESP V, which growth could present 22 challenges to reliability as demand increases and extreme weather events continue to

²³ Source: Document produced by FirstEnergy as OELC Set 01-INT-001 Attachment 1 CONFIDENTIAL.

1		occur.
2	Q28.	ARE YOU FAMILIAR WITH THE AUDIT CONDUCTED BY EXETER
3		ASSOCIATES, INC. OF RIDER NMB?
4	A.	Yes, I have reviewed the audit report prepared by Exeter Associates, Inc. ("Exeter") of
5		FirstEnergy's Rider NMB that was filed on July 17, 2023, in PUCO Case No. 22-391-
6		EL-RDR.
7	Q29.	WHAT WERE SOME OF THE FINDINGS OF EXETER'S AUDIT REPORT?
8	A.	In its audit report, Exeter found that the quantified benefits of the Rider NMB Pilot
9		Program outweighed the costs, with an aggregate savings of over \$230 million in
10		transmission costs for all FirstEnergy customers over the six-year period from March
11		2017 through February 2023. ²⁴ Exeter also found that the participants in the Rider NMB
12		Pilot Program consistently curtailed their load during anticipated 5CP events in ATSI,
13		while non-program participants generally did not. In my view, this demonstrates the
14		benefits of the pilot for those participants who have the operational flexibility and
15		sophistication to actively manage their energy load during hours of expected 5CP events.
16		The Exeter audit clearly demonstrated that participants in the Rider NMB pilot program
17		conducted peak load shaving on a routine basis, thus significantly contributing to lower
18		overall system peaks during 5CP events, which translates into transmission savings for all
19		FirstEnergy customers.

²⁴ Source: Review of the Non-Market-Based Services Riders Established by Ohio Edison Company, The Cleveland Electric Illuminating Company, and The Toledo Edison Company and Associated Pilot Program dated July 2023 prepared by Exeter Associates, Inc., Case No. 22-391-EL-RDR, at pp. 1-2.

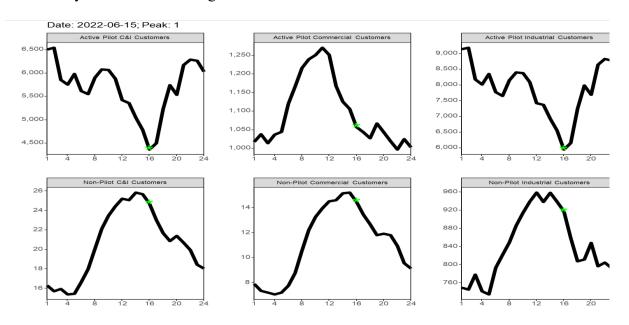
Q30. DID EXETER'S AUDIT REPORT PROVIDE ANY VISUALS TO COMPARE

LOAD BETWEEN NMB PILOT PROGRAM PARTICIPANTS AND

CUSTOMERS NOT ENROLLED IN THE PILOT PROGRAM DURING A

HISTORICAL ATSI ZONE 5CP?

Yes, Figure 4 from Exeter's audit report²⁵ illustrates the capabilities of Commercial and Industrial (C&I) Rider NMB Pilot Program participants to actively curtail during or shift load outside of a 5CP hour as compared to non-pilot C&I customers. The charts from that report, copied below, show average load in kW for six comparison customer groups on June 15, 2022. The hour ending 4:00 PM (16:00 EPT) on June 15, 2022 was the highest hourly load in ATSI during the summer of 2022.



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Exeter utilized these charts to provide evidence of aggressive load curtailments by Rider NMB pilot participants during a 5CP hour in the ATSI Zone. I believe that what Exeter failed to acknowledge in their report is that many pilot customers are consciously

²⁵ See Exeter audit at page 24.

	scheduling their shifts around high probability CP hours in the summer and therefore are
	not engaged in active curtailments in response to any given day's grid conditions. For
	example, I am aware of forges and foundries that will operate off peak to avoid potential
	ATSI Zone CP hours along with take advantage of other market price signals. These
	proactive load reductions, via either curtailment or savvy scheduling, represents several
	hundred MWs and helps ensure the resiliency and reliability of the electric grid for all
	customers during these events. ²⁶
Q31.	DOES PEAK LOAD SHAVING DURING ATSI GRID PEAKS RESULT IN
	REDUCED TRANSMISSION COSTS FOR RIDER NMB PILOT PROGRAM
	CUSTOMERS?
A.	Yes, if Rider NMB pilot program customers peak load shave during the ATSI 5CPs in a
	way that lowers their NSPL below their average monthly billed demand, they can lower
	their monthly transmission costs.
Q32.	DOES THE RIDER NMB PILOT PROGRAM SHIFT TRANSMISSION COSTS
	TO OTHER FIRSTENERGY CUSTOMERS?
A.	In my opinion, that has not been established. In its audit report, Exeter claims the
	existence of the Rider NMB Pilot Program resulted in a \$107.7 million cost shift paid by
	non-Pilot participants over the six-year period from March 2017 through February 2023,
	with some years (2021 and 2022) involving a negative cost shift meaning non-Pilot
	participants actually paid <i>less</i> those years as a result of the pilot's existence. ²⁷ Exeter also
	concluded that non-participating large C&I customers absorbed the greatest cost shift,
	A. Q32.

²⁶ See Exhibit MB-1, filed under seal.

²⁷ Source: Review of the Non-Market-Based Services Riders Established by Ohio Edison Company, The Cleveland Electric Illuminating Company, and The Toledo Edison Company and Associated Pilot Program dated July 2023 prepared by Exeter Associates, Inc., Case No. 22-391-EL-RDR, at pp. 19-20.

with only 7.3% of those costs shifted to residential customers. For example, Exeter
calculated about \$1 million in costs shifted to residential customers in the March 2017 –
February 2018 time period using a "no pilot" counterfactual analysis. 28 However, I have
questions about Exeter's counterfactual analysis that are not thoroughly explained in its
audit report. For instance, the analysis may not properly account for those customers that
reschedule work shifts to avoid high probability ATSI CP hours. Actively curtailing
during potential ATSI CP hours is not the only way to respond to transmission price
signals, and active curtailments can carry significant costs: Employee downtime, wasted
materials, reduced inventory, and failure to meet orders to name just a few. Rescheduling
shifts solves many of these problems. Further, Exeter's counterfactual analysis suggest
that it is based on an assumption that Rider NMB Pilot Participants do not reduce their
load. The figure and table accompanying Exeter's cost-shift counterfactual analysis
describe how Exeter made a "No Load Reduction" assumption for its analysis, although
Exeter does not provide any further explanation regarding that assumption. If Exeter
applied such an assumption, that could have resulted in a faulty cost-shift analysis in light
of Exeter's conclusion later in its audit that "it appears that Pilot participant load is
substantially lower than non-Pilot customer load during all three sets of relevant peak
hours [set out in Table 3]" ²⁹ and that "it appears that Pilot customers alter their load from
their normal patterns while non-Pilot customers do not."30

 $^{^{28}}$ *Id.* at p. 18. 29 *Id.* at Figure 3 (p. 19) and Table 2 (p. 20). 30 *Id.* at p. 24.

Ţ	Q33.	IN 118 ESP V APPLICATION, HOW IS FIRSTENERGY PROPOSING TO
2		CHANGE RIDER NMB AND ITS PILOT PROGRAM?
3	A.	FirstEnergy is proposing to completely overhaul Rider NMB. First, it is proposing to
4		entirely eliminate the Rider NMB Pilot Program. Second, FirstEnergy proposes to
5		rename their current Rider NMB to Rider NMB 1 and add a rate known as Rider NMB 2.
6		Non-residential customers with a monthly meter will be billed for transmission according
7		to their monthly billing demand and FirstEnergy's Rider NMB 1 rate. Non-residential
8		customers with advanced or interval meters would be billed the Rider NMB 2 rate based
9		on their NSPL value – either based on actual consumption during ATSI's 5CPs or as
10		artificially and administratively determined by FirstEnergy as I stated in my answers to
11		Questions No. 19 and 20.
12	Q34.	DO YOU HAVE ISSUES WITH FIRSTENERGY'S PROPOSED CHANGES TO
13		RIDER NMB?
14	A.	Yes.
15	Q35.	COULD YOU PLEASE SUMMARIZE THOSE ISSUES?
16	A.	FirstEnergy's proposed changes to Rider NMB are premature, arbitrary, and
17		discriminatory because:
18		1. Only a minority of FirstEnergy non-residential customers have interval or
19		advanced meters;
20		2. FirstEnergy has proposed to switch all non-residential customers with interval or
21		advanced meters to NSPL billing based on the Rider NMB 2 rate without performing any
22		customer specific bill impact analysis;

1		3. The use of metering technology as the arbitrary criteria for billing under the Ride
2		NMB 1 or 2 rate will determine winners and losers among customers within the same
3		industry with similar load shapes; and
4		4. Of the customers that have interval or advanced, NSPL based billing for a
5		customer who transitions from a monthly meter to an interval or advanced meter will
6		initially be based on an artificially and administratively determined value.
7		In contrast to the proposal made by FirstEnergy and the different possible scenarios as
8		recommended by Exeter in its report, ³¹ a migration to NSPL-based billing for
9		transmission needs to happen gradually through an expansion of the Rider NMB Pilot
10		Program and on a non-discriminatory basis after all non-residential customers have
11		advanced or interval meters in place that have recorded a summer of 5CP consumption.
12	Q36.	HOW MANY NON-RESIDENTIAL CUSTOMERS ACROSS FIRSTENERGY'S
13		THREE OPERATING COMPANIES HAVE ADVANCED OR INTERVAL
14		METERS?
15	A.	The percentage of non-residential customers in the Ohio Edison Company service
16		territory The Cleveland Electric Illuminating Company service territory, and The Toledo
17		Edison Company service territory with advanced or smart meters is 27%, 37%, and 37%
18		respectively. ³² The percentage of FirstEnergy non-residential customers who have
19		advanced or interval meters is broken down by operating company and tariff in Table
20		MB-1:

³¹ In making its recommendations in its audit report, Exeter does not appear to take into account the fact that most non-residential customers do not have an advanced or interval meters, and the challenges that would present to Exeter's recommendation of having a CRES be responsible for billing all transmission charges currently assessed through Rider NMB.

charges currently assessed through Rider NMB.

32 Source: FirstEnergy's response to PUCO-DR-010 - Supplemented and Revised, attached as **Exhibit MB-3**.

1 Table MB-1³³

FirstEnergy Operating Company	Tariff	Customers Eligible for Monthly Demand Based Billing on Proposed Rider NMB 1 (A)	Customers Eligible for NSPL Based Billing on Proposed Rider NMB 2 (B)	% of Customers with Advanced or Interval Meters (B)/(A+B)
	GS	81,730	30,238	27%
Ohio Edison	GP	509	652	56%
	GSU	7 97		93%
Company	GT	1	187	99%
	Total	82,247	31,174	27%
Th - Cl11	GS	49,086	29,008	37%
The Cleveland	GP	40	90	69%
Electric	GSU	233	340	59%
Illuminating	GT	-	15	100%
Company	Total	49,359	29,453	37%
	GS	21,720	12,341	36%
T-1-1- E4:	GP	273	266	49%
Toledo Edison	GSU	-	8	100%
Company	GT	4	62	94%
	Total	21,997	12,677	37%

2

- 3 Q37. SHOULD FIRSTENERGY BILL RIDER NMB CHARGES TO ANY NON-
- 4 RESIDENTIAL COMMERCIAL AND INDUSTRIAL CUSTOMER THAT HAS
- 5 AN ADVANCED OR INTERVAL METER BASED ON THEIR NSPL?
- 6 A. No.
- 7 Q38. DOES AN ADVANCED OR INTERVAL METER ALLOW A NON-
- 8 RESIDENTIAL CUSTOMER TO MANAGE ITS LOAD DURING POTENTIAL
- 9 **5CP EVENTS?**
- 10 A. FirstEnergy stated in discovery that "customers with interval or advanced meters have the

³³ Source: FirstEnergy's response to PUCO-DR-010 – Supplemented and Revised, attached as **Exhibit MB-3**.

1		ability to control their loads during peak load periods, thus directly managing their
2		assigned NSPLs and providing the opportunity to lower their NMB 2 costs."34 In my
3		opinion, a non-residential commercial or industrial customer having an advanced or
4		interval meter associated with their account(s) is unrelated to whether they have the
5		operational flexibility and sophistication to actively manage their energy load during
6		hours of expected 5CP events. FirstEnergy's advanced and interval meters enable its
7		customers to retroactively view metered load data between one to two days after the day
8		of operation. ³⁵ This means that, as deployed, FirstEnergy's advanced and interval
9		metered customers cannot view their load in real-time, such as during a potential ATSI
10		5CP hour. In addition to this limitation, FirstEnergy admits that "the meter technology
11		deployed by the Companies does not have capability to forecast peak loads."36 Thus,
12		customers with advanced or interval meters cannot rely on those meters to manage their
13		NSPL values, since the meters will only serve to record a customer's load and provide
14		delayed data during the hours that prove to be the ATSI 5CPs.
15	Q39.	DID YOU REVIEW FIRSTENERGY'S BILL IMPACT ANALYSIS FOR
16		CUSTOMERS THAT WILL SWITCH TO THE PROPOSED RIDER NMB 2
17		RATE?
18	A.	Yes. I reviewed the PUCO DR-010-Attachment 2.

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³⁴ Source: The Ohio Edison Company, The Cleveland Electric Illuminating Company, and The Toledo Edison Company's Response to Ohio Energy Leadership Council's Discovery Request PUCO Case 23-0301-EL-SSO First Set, attached as **Exhibit MB-4**.

³⁵ *Id*.

³⁶ *Id*.

1	Q40.	IN YOUR OPINION IS FIRSTENERGY'S RIDER NMB 2 ANALYSIS
2		ACCURATE?
3	A.	No. In my opinion, the analysis is flawed.
4	Q41.	WHY DO YOU THINK THAT FIRSTENERGY'S RIDER NMB ANALYSIS IS
5		FLAWED?
6	A.	FirstEnergy completed its Rider NMB 2 bill impact analysis under the assumption that
7		non-residential customers have an NSPL value that is equal to the customer's monthly
8		billing demand. Not all customers have NSPL values equal to their monthly billing
9		demand, particularly not all twelve months of the year. Customers with weather-sensitive
10		summer loads often have NSPL values that materially exceed their average monthly
11		billing demand. FirstEnergy has in fact acknowledged that this variance between a
12		customer's NSPL and its average monthly billing demand exists and is widespread.
13		According to FirstEnergy, "the calculated percentage of NSPL to demand varies from
14		32.1% to 135.2% with the average of these being 78.2%." Instead of using actual
15		customer examples in its Rider NMB 2 bill impact analysis, FirstEnergy used a 1:1 ratio
16		of monthly billing demand to NSPL. That approach, which FirstEnergy called
17		"conservative," does not show the variance in how customers will actually be impacted
18		by FirstEnergy's proposed changes. ³⁷
19		
20		
21		
22		

 $\overline{}^{37}$ *Id.*

1	Q42.	WOULD NON-RESIDENTIAL INTERVAL OR ADVANCED METERED
2		COMMERCIAL AND INDUSTRIAL CUSTOMERS WITH THE INABILITY TO
3		MANAGE THEIR LOAD DURING ATSI ZONE 5CPS BE IMPACTED FROM A
4		COST PERSPECTIVE BY THIS BILLING CHANGE?
5	A.	Yes.
6		
7	Q43.	WHAT TYPE OF BILL IMPACTS WOULD MANY INTERVAL OR ADVANCED
8		METERED COMMERCIAL AND INDUSTRIAL CUSTOMERS ACTUALLY
9		EXPERIENCE OVER THE TERM OF ESP V IF FIRSTENERGY'S PROPOSED
10		CHANGES TO RIDER NMB ARE APPROVED?
11	A.	If FirstEnergy's proposed changes to Rider NMB are approved, many commercial and
12		industrial customers will experience significant increases in their transmission charges
13		beginning on April 1, 2025.
14	Q44.	COULD YOU PLEASE PROVIDE EXAMPLES OF THESE COST INCREASES?
15	A.	Yes. I have prepared an analysis to illustrate the impact of the proposed Rider NMB 2
16		rates on a sample of fifty (50) commercial and industrial customers with advanced or
17		interval meters. Table MB-2 summarizes the current average monthly measured demand
18		which I have assumed to be equal to the monthly billing demand, 2023 NSPL value, and
19		current average monthly Rider NMB charges based on monthly billing demand for a
20		sample of fifty (50) customers across all three FirstEnergy Ohio service territories. Using
21		the estimated Rider NMB 2 rate of \$6.1096 per kW provided by FirstEnergy in the
22		Testimony of Juliette Lawless, Table MB-2 also summarizes the estimated future average
23		monthly transmission charges for this sample set of customers. The calculated increase in

- 1 average monthly transmission charges, percentage increase in those transmission charges,
- and increase in transmission charges on the basis of cents per kWh are also summarized.
- 3 In this sample set of customers spanning more than twenty (20) different business
- 4 verticals or facility types, customers will see between a 22% to 392% increase in monthly
- 5 transmission charges if their accounts are switched to NSPL-based billing on
- 6 FirstEnergy's proposed Rider NMB 2.

Table MB-2.³⁸

Customer Example Number	Facility Type	Average kW Demand ³⁹	2023 Transmission NSPL	Current Avg. Monthly Rider NMB Charges ⁴⁰	Estimated Future Avg. Monthly Rider NMB 2 Charges ⁴¹	Increase in Avg. Monthly Trans. Charges	% Increase	Increase (¢ / kWh)
1	Healthcare	804.8	4,059.6	\$5,044	\$24,803	\$19,759	392%	5.65
2	Manufacturing	398.3	974.1	\$2,190	\$5,952	\$3,762	172%	2.50
3	Restaurant	60.5	111.4	\$254	\$680	\$427	168%	2.47
4	Retail	46.1	81.9	\$193	\$500	\$307	159%	1.73
5	Healthcare	1,163.5	2,064.1	\$4,991	\$12,611	\$7,620	153%	1.22
6	Retail	98.2	165.9	\$412	\$1,014	\$602	146%	1.54
7	Hotel	39.8	63.1	\$167	\$386	\$219	131%	1.43
8	Education - High School	289.1	584.5	\$1,590	\$3,571	\$1,982	125%	1.68
9	Healthcare	365.0	726.8	\$2,007	\$4,440	\$2,434	121%	1.42
10	Apartment	167.8	333.2	\$922	\$2,036	\$1,113	121%	1.27
11	Big Box Retail	470.4	702.9	\$1,972	\$4,294	\$2,323	118%	0.88
12	Grocery	470.0	693.1	\$1,970	\$4,234	\$2,264	115%	0.86
13	Healthcare	248.3	364.7	\$1,041	\$2,228	\$1,187	114%	1.18
14	Manufacturing	336.3	487.8	\$1,429	\$2,980	\$1,551	109%	0.95
15	Apartment	309.2	574.6	\$1,700	\$3,510	\$1,810	106%	1.46
16	Grocery	345.4	486.0	\$1,448	\$2,969	\$1,522	105%	0.75
17	Mall	270.9	380.8	\$1,135	\$2,327	\$1,191	105%	1.43

³⁸ Source: Documents produced by FirstEnergy as OELC Set-02-RPD-001 Attachment 1A - Confidential, OELC Set-02-RPD-001 Attachment 1B - Confidential, and OELC Set-02-RPD-001 Attachment 1C - Confidential. See **Exhibit MB-2** filed under seal for the supporting analysis for Table MB-2.

³⁹ Average kW demand was calculated from the documents produced by FirstEnergy as OELC Set 02-RPD-001 Attachment 1A – Confidential, OELC Set 02-RPD-001 Attachment 1B – Confidential, and OELC Set 02-RPD-001 Attachment 1C – Confidential.

⁴⁰ Rider NMB charges estimated based on April 1, 2023 Rider NMB rates multiplied by the average kW demand

⁴¹ Average monthly NMB 2 charges were calculated based on multiplying the 2023 NSPL by the estimated Rider NMB 2 rate of \$6.1096 per kW.

Customer Example Number	Facility Type	Average kW Demand ³⁹	2023 Transmission NSPL	Current Avg. Monthly Rider NMB Charges ⁴⁰	Estimated Future Avg. Monthly Rider NMB 2 Charges ⁴¹	Increase in Avg. Monthly Trans. Charges	% Increase	Increase (¢ / kWh)
18	Senior Apartments	339.2	577.9	\$1,727	\$3,531	\$1,803	104%	1.08
19	Grocery	336.7	466.4	\$1,411	\$2,850	\$1,439	102%	0.80
20	Food Production	1,247.6	2,079.1	\$6,354	\$12,702	\$6,349	100%	0.78
21	Office	345.6	461.6	\$1,448	\$2,820	\$1,372	95%	0.81
22	Grocery	371.3	493.1	\$1,556	\$3,013	\$1,457	94%	0.63
23	Office	266.4	461.8	\$1,465	\$2,821	\$1,357	93%	1.25
24	Manufacturing	13,382.0	15,292.5	\$48,832	\$93,431	\$44,599	91%	0.64
25	Education - High School	490.8	639.7	\$2,057	\$3,908	\$1,851	90%	1.10
26	Mall	375.6	476.5	\$1,596	\$2,911	\$1,315	82%	0.84
27	Fast Food Restaurant	102.4	128.1	\$429	\$782	\$353	82%	0.74
28	Skilled Nursing / Assisted Living	217.2	273.0	\$923	\$1,668	\$745	81%	0.74
29	Education - Middle School	257.8	318.0	\$1,081	\$1,943	\$862	80%	1.07
30	Senior Apartments	540.3	853.2	\$2,971	\$5,213	\$2,242	75%	0.92
31	Community Center	450.8	709.3	\$2,478	\$4,333	\$1,855	75%	0.90
32	Museum	282.3	336.7	\$1,183	\$2,057	\$874	74%	0.62
33	Fast Food Restaurant	104.4	123.1	\$438	\$752	\$315	72%	0.61
34	Mall	246.4	294.0	\$1,047	\$1,796	\$749	72%	0.79
35	Fast Food Restaurant	104.1	119.8	\$436	\$732	\$296	68%	0.60
36	Food Production	297.1	434.6	\$1,633	\$2,655	\$1,022	63%	0.97
37	Recreation Center	206.4	232.3	\$877	\$1,419	\$542	62%	0.49
38	Food Production	218.2	316.8	\$1,200	\$1,935	\$736	61%	0.93
39	Restaurant	207.4	297.7	\$1,140	\$1,819	\$679	60%	0.68
40	Amusement Park	723.1	772.3	\$3,031	\$4,719	\$1,688	56%	0.50
41	Skilled Nursing / Assisted Living	290.3	406.6	\$1,596	\$2,484	\$888	56%	0.62
42	Recreation Center	224.3	230.0	\$953	\$1,405	\$452	47%	0.42

Customer Example Number	Facility Type	Average kW Demand ³⁹	2023 Transmission NSPL	Current Avg. Monthly Rider NMB Charges ⁴⁰	Estimated Future Avg. Monthly Rider NMB 2 Charges ⁴¹	Increase in Avg. Monthly Trans. Charges	% Increase	Increase (¢ / kWh)
43	Education - College / University	225.0	228.8	\$956	\$1,398	\$441	46%	0.72
44	Mall	778.8	969.6	\$4,282	\$5,924	\$1,642	38%	1.37
45	Education - High School	252.2	307.3	\$1,387	\$1,878	\$491	35%	0.65
46	Food Production	1,211.4	1,366.1	\$6,169	\$8,347	\$2,177	35%	0.33
47	Recreation Center	283.4	314.1	\$1,443	\$1,919	\$476	33%	0.33
48	Skilled Nursing / Assisted Living	723.2	943.8	\$4,533	\$5,766	\$1,234	27%	0.33
49	Community Center	156.3	171.7	\$859	\$1,049	\$190	22%	0.25
50	Food Production	7,629.9	9,176.1	\$47,821	\$56,062	\$8,241	17%	0.21

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2 Q45. WOULD ALL NON-RESIDENTIAL CUSTOMERS FORCED TO TRANSITION

- 3 TO NSPL BILLING FOR RIDER NMB EXPERIENCE NEGATIVE BILL
- 4 IMPACTS COMPARED TO THE STATUS QUO IF FIRSTENERGY'S
- 5 PROPOSAL IS APPROVED?
- 6 A. No.

7 Q46. COULD YOU PLEASE PROVIDE EXAMPLES OF THESE COST BENEFITS?

A. Yes. I have prepared an analysis to illustrate the impact of the proposed Rider NMB 2

rates on a sample of fifty (50) commercial and industrial customers with advanced or

interval meters. Table MB-3 summarizes the current average monthly measured demand

which I have assumed to be equal to the monthly billing demand, 2023 NSPL value, and

current average monthly Rider NMB charges based on monthly billing demand for a

sample of fifty (50) customers across all three FirstEnergy Ohio service territories. Using

the estimated Rider NMB 2 rate of \$6.1096 per kW provided by FirstEnergy in the

Testimony of Juliette Lawless, Table MB-3 also summarizes the estimated future average monthly transmission charges for this sample set of customers. The calculated decrease in average monthly transmission charges, percentage decrease in those transmission charges, and decrease in transmission charges on the basis of cents per kWh are also summarized. In this sample set of customers spanning more than twenty (20) different business verticals or facility types, customers will see between a 47% to 86% decrease in monthly transmission charges if their accounts are switched to NSPL-based billing on FirstEnergy's proposed Rider NMB 2.

10 **Table MB-3.**⁴²

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Customer Example Number	Facility Type	Average kW Demand ⁴³	2023 Transmission Peak Load Share	Current Avg. Monthly Rider NMB Charges ⁴⁴	Estimated Avg. Future Monthly Rider NMB 2 Charges ⁴⁵	Decrease in Avg. Monthly Trans. Charges	% Decrease	Decrease (C / kWh)
1	Manufacturing	4,389.2	612.8	\$27,510	\$3,744	\$23,766	86%	4.57
2	Machine Shop	17,639.4	2,112.8	\$93,237	\$12,908	\$80,328	86%	2.40
3	Manufacturing	494.0	70.3	\$2,716	\$429	\$2,286	84%	2.78
4	Manufacturing	1,314.8	204.4	\$6,703	\$1,249	\$5,454	81%	7.21
5	Aggregate Plant	459.0	82.0	\$2,337	\$501	\$1,836	79%	3.39
6	Foundry	338.1	68.0	\$1,722	\$415	\$1,306	76%	3.51
7	Education - College / University	509.1	105.1	\$2,593	\$642	\$1,951	75%	2.87
8	Manufacturing	738.1	157.4	\$3,763	\$962	\$2,801	74%	2.42

⁴² Source: Documents produced by FirstEnergy as OELC Set-02-RPD-001 Attachment 1A - Confidential, OELC Set-02-RPD-001 Attachment 1B - Confidential, and OELC Set-02-RPD-001 Attachment 1C - Confidential. See **Exhibit MB-2** filed under seal for the supporting analysis for Table MB-3.

⁴³ Average kW demand was calculated from documents produced by FirstEnergy as OELC Set 02-RPD-001 Attachment 1A – Confidential, OELC Set 02-RPD-001 Attachment 1B – Confidential, and OELC Set 02-RPD-001 Attachment 1C – Confidential.

⁴⁴ Rider NMB charges estimated based on April 1, 2023 Rider NMB rates multiplied by the average kW demand.

⁴⁵ Average monthly NMB 2 charges were calculated based on multiplying the 2023 NSPL by the estimated Rider NMB 2 rate of \$6.1096 per kW.

Customer Example Number	Facility Type	Average kW Demand ⁴³	2023 Transmission Peak Load Share	Current Avg. Monthly Rider NMB Charges ⁴⁴	Estimated Avg. Future Monthly Rider NMB 2 Charges ⁴⁵	Decrease in Avg. Monthly Trans. Charges	% Decrease	Decrease (¢ / kWh)
9	Recycling Center	954.6	207.3	\$4,867	\$1,266	\$3,600	74%	2.12
10	Foundry	318.7	69.2	\$1,623	\$423	\$1,200	74%	2.09
11	Manufacturing	564.7	139.1	\$3,105	\$850	\$2,255	73%	2.76
12	Warehouse	317.5	79.3	\$1,745	\$484	\$1,261	72%	0.75
13	Forge	3,029.8	716.6	\$15,446	\$4,378	\$11,068	72%	2.13
14	Manufacturing	491.3	121.4	\$2,502	\$742	\$1,760	70%	1.58
15	Flour Mill	623.2	155.3	\$3,174	\$949	\$2,225	70%	1.66
16	Water Reclamation Facility	2,400.3	659.9	\$12,687	\$4,032	\$8,656	68%	0.88
17	Manufacturing	625.8	182.0	\$3,441	\$1,112	\$2,328	68%	1.71
18	Metal Stamping	642.2	173.6	\$3,270	\$1,061	\$2,210	68%	1.40
19	Commercial Printer	375.8	84.5	\$1,575	\$516	\$1,059	67%	1.85
20	Aggregate Plant	321.9	100.6	\$1,770	\$615	\$1,155	65%	2.08
21	Recycling Center	409.7	123.0	\$2,086	\$751	\$1,335	64%	2.01
22	Manufacturing	299.2	92.3	\$1,525	\$564	\$962	63%	1.57
23	Pipeline Terminal	1,655.3	643.0	\$10,375	\$3,928	\$6,447	62%	2.14
24	Manufacturing	290.3	101.7	\$1,596	\$622	\$975	61%	1.96
25	Recycling Center	439.1	143.3	\$2,236	\$876	\$1,360	61%	1.64
26	Forge	1,028.0	420.6	\$6,443	\$2,570	\$3,873	60%	3.04
27	Manufacturing	363.2	132.0	\$1,997	\$806	\$1,190	60%	1.99
28	Manufacturing	189.7	69.9	\$1,043	\$427	\$616	59%	1.61
29	Machine Shop	592.6	203.0	\$3,021	\$1,240	\$1,781	59%	1.26
30	Manufacturing	444.5	152.4	\$2,264	\$931	\$1,333	59%	1.27
31	Aggregate Plant	1,324.8	455.1	\$6,754	\$2,780	\$3,973	59%	1.42
32	Manufacturing	279.2	97.5	\$1,423	\$596	\$828	58%	1.19
33	Office	184.1	69.7	\$1,012	\$426	\$586	58%	2.16
34	Plating Service	318.3	121.0	\$1,750	\$740	\$1,010	58%	0.72
35	Retail	866.3	330.3	\$4,762	\$2,018	\$2,745	58%	1.39
36	Manufacturing	183.9	80.8	\$1,152	\$494	\$659	57%	1.53
37	Manufacturing	1,513.6	667.9	\$9,487	\$4,081	\$5,406	57%	1.27
38	Bank	634.1	279.9	\$3,974	\$1,710	\$2,264	57%	2.33
39	Food Production	454.0	163.6	\$2,314	\$999	\$1,315	57%	1.31

Customer Example Number	Facility Type	Average kW Demand ⁴³	2023 Transmission Peak Load Share	Current Avg. Monthly Rider NMB Charges ⁴⁴	Estimated Avg. Future Monthly Rider NMB 2 Charges ⁴⁵	Decrease in Avg. Monthly Trans. Charges	% Decrease	Decrease (C / kWh)
40	Manufacturing	170.4	76.3	\$1,068	\$466	\$602	56%	2.18
41	Metal Stamping	269.2	106.2	\$1,480	\$649	\$831	56%	1.79
42	Manufacturing	244.1	98.6	\$1,342	\$602	\$740	55%	1.52
43	Manufacturing	652.4	248.7	\$3,326	\$1,519	\$1,807	54%	1.23
44	Manufacturing	190.0	79.9	\$1,044	\$488	\$556	53%	1.75
45	Recycling Center	412.1	173.5	\$2,266	\$1,060	\$1,206	53%	1.49
46	Healthcare	200.4	85.7	\$1,102	\$524	\$578	52%	0.68
47	Manufacturing	547.1	178.7	\$2,293	\$1,091	\$1,202	52%	1.31
48	Manufacturing	1,344.2	543.9	\$6,853	\$3,323	\$3,530	52%	1.15
49	Education - High School	321.5	110.9	\$1,348	\$678	\$670	50%	1.01
50	Steel Fabricator	3,052.7	1,393.0	\$16,136	\$8,511	\$7,625	47%	1.21

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2 Q47. WHAT WILL CAUSE SOME CUSTOMERS TO SEE INCREASES IN THEIR

3 TRANSMISSION CHARGES AND OTHERS TO SEE DECREASES DUE TO

4 RIDER NMB 2?

5 A. FirstEnergy has stated in discovery that it will not consider the bill impacts of a non-6 residential customer switching from Rider NMB 1 to Rider NMB 2 before switching a customer's billing rate, 46 but I have found that the impacts in many cases can be quite 7 8 significant. Customers that have an NSPL value that is higher than their average monthly 9 billing demand will see increases in their transmission charges if they are billed the Rider 10 NMB 2 based on their NSPL. Conversely, customers that have an NSPL value that is 11 lower than their average monthly billing demand may expect to see a reduction in their 12 transmission charges when they are billed the Rider NMB 2.

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⁴⁶ Source: FirstEnergy's Response #3 to PUCO DR-020, attached as **Exhibit MB-5**.

1	Q48.	WILL THESE BILL IMPACTS AFFECT ALL CUSTOMERS WITHIN A
2		SPECIFIC INDUSTRY OR BUSINESS SEGMENT THE SAME WAY?
3	A.	No. A given FirstEnergy customer may have an advanced or interval meter installed
4		while a competitor with a similar operational load profile in a similar geographic area
5		may not.
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7	Q49.	CAN YOU PROVIDE AN EXAMPLE OF A SPECIFIC INDUSTRY THAT WILL
8		HAVE CUSTOMERS SPLIT AMONG RIDER NMB 1 AND RIDER NMB 2 IF
9		FIRSTENERGY'S PROPOSED CHANGES ARE APPROVED?
10	A.	Yes. Based on information provided by FirstEnergy in this case to the Ohio Hospital
11		Association, ⁴⁷ only 36% of FirstEnergy's customers that are classified as hospitals have
12		interval or advanced meters, which means that only 36% of hospitals in FirstEnergy's
13		territory would be billed by the proposed Rider NMB 2. The remaining 64% of customers
14		that are categorized as hospitals would be billed by the proposed Rider NMB 1. The
15		percentage of hospitals in FirstEnergy territory customers who have advanced or interval
16		meters and would qualify for Rider NMB 2 is broken down by operating company and
17		summarized in this Table MB-4:
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⁴⁷ Source: The Ohio Edison Company, The Cleveland Electric Illuminating Company, and The Toledo Edison Company's Response to The Ohio Hospital Association's Discovery Request PUCO Case 23-0301-EL-SSO First Set, attached as **Exhibit MB-4**; see also FirstEnergy's response to OCC Set 05 – INT-006, attached as **Exhibit MB-6**.

1 Table MB-4⁴⁸

FirstEnergy Operating Company	Total Estimated Hospitals (A)	Estimated Hospitals with Interval or Advanced Meters (B)	% of Hospitals that Qualify for Rider NMB 2 Billing (B)/(A)
Ohio Edison Company	513	163	32%
The Cleveland Electric Illuminating Company	220	102	46%
Toledo Edison Company	147	56	38%
Total	880	321	36%

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The meter dichotomy among customers classified as hospitals illustrates how customers

within the same industry would be subject to different billing formulas, a difference

which arbitrarily would prove to be advantageous to some and disadvantageous to others.

Q50. HOW WILL THESE VARYING BILL IMPACTS AFFECT ENERGY-RELATED DECISIONS BY OHIO BUSINESSES IN FIRSTENERGY TERRITORY?

A. The bill impacts reveal that if the proposed changes to the Rider NMB are approved,
there will be winners and losers. Often, the determination of whether a customer wins or
loses will be arbitrarily based on whether FirstEnergy has yet gotten around to installing
an interval or advanced meter. This creates a chaotic and uneven rate environment and
shifts the competitive business landscape based on arbitrary meter-installation schedules.

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⁴⁸ Source: FirstEnergy's response to OHA Set-1, attached as **Exhibit MB-7**, with percentages calculated based on information provided by FirstEnergy in that response.

1 Q51. COULD THERE BE OTHER CONSEQUENCES, PERHAPS UNINTEN

- 2 ONES, THAT MAY OCCUR AS A BYPRODUCT OF TRANSITIONING ALL
- 3 COMMERCIAL AND INDUSTRIAL CUSTOMERS WITH ADVANCED OR
- 4 INTERVAL METERS TO NSPL BILLING?
- 5 A. Yes.

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6 Q52. COULD YOU PLEASE DESCRIBE THESE CONSEQUENCES?

A. Potential ATSI 5CPs have already become increasingly difficult to forecast in recent years. If all non-residential commercial and industrial customers with advanced or interval meters suddenly transition to NSPL-based billing for transmission in April 2025, it will likely result in an abrupt market response, with unpredictable curtailment activity during the ATSI Zone's 5CPs, which could end up causing peaks to occur at atypical times. This is a phenomenon we have been increasingly witnessing in recent years merely based on pilot participant curtailments. Since I started tracking ATSI 5CPs in 2011, the 5CPs have historically occurred between the hour ending (HE) 1:00 PM and 6:00 PM through the summer of 2021. In the summer of 2022, not only one, but two of the ATSI 5CPs occurred during an HE 7:00 PM. In the summer of 2023, one of the 5CPs occurred during an HE 7:00 PM. Load from those users who are curtailing usage on hot summer afternoons of potential ATSI 5CPs are actually creating peaks when their aggregated load comes back online. This phenomenon could actually be exacerbated if FirstEnergy's proposed Rider NMB changes are approved and result in PJM having difficulty in dispatching the appropriate generation units when they are actually needed and users squandering economic resources by curtailing at unneeded times. In addition to ATSI 5CPs beginning to occur at historically atypical times in recent years, four of the

1		preliminary 5CPs recorded this year in the ATSI Zone have hourly metered loads that are
2		between approximately 220 – 420 MW lower than the lowest historical 5CP recorded in
3		the ATSI Zone ⁴⁹ since I started tracking ATSI 5CPs in 2011. ⁵⁰ A sudden shift to NSPL
4		billing will make predicting the hours ATSI 5CPs will occur and the loads that they will
5		register at highly difficult.
6	Q53.	ARE YOU OPPOSED TO TRANSITIONING MORE NON-RESIDENTIAL
7		CUSTOMERS TO TRANSMISSION BILLING BASED ON NSPL?
8	A.	No. I believe that conceptually transmission billing based on a customer's share of
9		FirstEnergy's 5CPs is an appropriate goal that FirstEnergy should be working towards.
10		However, until FirstEnergy finishes its rollout of interval and advanced meters planned
11		through its Grid Mod II Case ⁵¹ and those meters have predominately logged consumption
12		during a summer 5CP period, such a move will result in chaotic bill swings often
13		resulting in rate shock and arbitrary bill outcomes among competitors putting some at
14		significant market disadvantage. Furthermore, a sudden shift of market participants into
15		NSPL billing will likely result in unpredictable changes to the shape of ATSI Zone load
16		on potential 5CP days. I believe the time is not appropriate to require customers who lack
17		the ability to manage their load during ATSI Zone 5CPs to be arbitrarily billed for
18		transmission based on their NSPL values merely because FirstEnergy prioritized them for
19		an interval or advanced meter install.

⁴⁹ The lowest historical hourly load in the ATSI Zone that registered as a 5CP was the hourly load of 11,834 MW on July 20, 2017 during the hour ending 3:00 PM EPT.

⁵⁰ Source: Values calculated based on preliminary metered load available in PJM's Data Miner 2: https://dataminer2.pjm.com/feed/hrl load metered

⁵¹ FirstEnergy's Grid Mod II Case No. 22-0704 includes a proposal to install an additional 700,000 advanced meters across FirstEnergy's service territory, a majority of which will be for residential customers.

1	Q54.	DO YOU FORESEE ANY OTHER ISSUE WITH FIRSTENERGY'S PLANS TO
2		IMPLEMENT RIDER NMB 2 AS PROPOSED?
3	A.	Yes, I have one additional issue with FirstEnergy's plans to implement Rider NMB 2 as
4		proposed.
5	Q55.	COULD YOU PLEASE EXPLAIN THAT ISSUE?
6	A.	Outside of FirstEnergy's plans to transition non-residential customers who currently have
7		advanced or interval meters to Rider NMB 2 effective April 1, 2025, FirstEnergy has
8		proposed that any non-residential customers who have an advanced or interval meter
9		installed in the future will be placed on Rider NMB 2 on the billing cycle immediately
10		following the meter installation. I foresee that will potentially produce additional
11		arbitrary billing outcomes for impacted customers, which in some instances could last for
12		more than a year.
13	Q56.	HOW COULD THAT PROPOSAL PRODUCE ADDITIONAL ARBITRARY
14		BILLING OUTCOMES?
15	A.	As I discussed in Question No. 20, customers without interval or advanced meters are
16		assigned their NSPL based on an artificial and administratively determined load profile –
17		not their actual load during the ATSI 5CPs since monthly-read meters are not
18		sophisticated enough to capture time of use data. Until a customer has an advanced or
19		interval meter installed for a full summer (June 1 – September 30) in order for the meter
20		to capture a customer's actual load during that summer's ATSI 5CP hours, a customer's
21		NSPL value by default will be based on an artificial and administratively determined
22		assigned load profile value that may be very different from what their actual NSPL value

1		may have been calculated to be. 52 Further, in discovery, FirstEnergy has stated that for
2		customers without an advanced meter it uses "the customer's monthly billed energy
3		quantity that is profiled (back casted) to hourly values" to determine the customer's
4		NSPL. ⁵³ Again, such a value assigned based on back-casting hourly values may produce
5		an NSPL that is very different from actual NSPL values.
6	Q57.	COULD YOU PLEASE PROVIDE TWO EXAMPLES OF NSPL VALUES
7		ASSIGNED TO NON-RESIDENTIAL CUSTOMERS WHO DO NOT HAVE AN
8		ADVANCED OR INTERVAL METER?
9	A.	Yes. One of my clients that is a municipal water treatment plant in FirstEnergy's territory
10		has an assigned 2023 NSPL value of 30.6816 kW, while the account currently has an
11		average monthly billing demand of approximately 133.2 kW. Another client that has a
12		commercial office space in FirstEnergy's territory has an assigned 2023 NSPL value of
13		112.877 kW, while the account has an average monthly billing demand of approximately
14		88.7 kW. ⁵⁴ In the instance of the water treatment plant, the default NSPL value would
15		prove to be a more advantageous billing determinant than the customer's average
16		monthly billing demand. However, in the instance of the commercial office, the opposite
17		would be true. In both cases, the use of default NSPL values for the calculation of Rider
18		NMB 2 charges would be arbitrary and produce disparate rate outcomes.
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52 Source: https://firstenergycorp.com/content/dam/supplierservices/files/supplier-registration/PJMCapacityManualOH.pdf
53 Source: FirstEnergy's response #3 to PUCO DR-020, attached as **Exhibit MB-5**.
54 Source: Document produced by FirstEnergy as OELC Set 02-RPD-001 Attachment 1B - Confidential.

1	Q58.	COULD YOU PLEASE DESCRIBE HOW LONG A CUSTOMER'S
2		TRANSMISSION CHARGES ON RIDER NMB 2 MIGHT BE ARBITRARY FOR
3		AN ADVANCED OR INTERVAL METER INSTALLATION THAT TAKES
4		PLACE IN OCTOBER 2025, FOR EXAMPLE?
5	A.	Under FirstEnergy's proposed changes to Rider NMB, I would assume that a customer
6		who receives an advanced or interval meter for their account in October 2025, would start
7		receiving Rider NMB 2 charges in November 2025. Those charges would be based on an
8		assigned load profile NSPL assigned to their account. That assigned NSPL would carry
9		over into the 2026 calendar year. Beginning in January 2027, once that customer's 2027
10		NSPL value is established based on their load during the ATSI 5CPs of the summer of
11		2026, the customer would actually start to be billed transmission charges that are based
12		on their actual NSPL value, not an arbitrary value assigned by default. Approximately
13		fourteen (14) billing cycles would take place before this hypothetical customer receives
14		Rider NMB 2 charges based on an NSPL value that they may be able to manage through
15		curtailments during potential ATSI 5CPs. During that period of time, their Rider NMB 2
16		charges would be wholly artificially and administratively determined and have no
17		reasonable relation to their actual usage characteristics.
18	Q59.	IN YOUR OPINION, WHEN WILL NSPL BILLING FOR ALL NON-
19		RESIDENTIAL CUSTOMERS WITH ADVANCED OR INTERVAL METERS BE
20		APPROPRIATE TO IMPLEMENT?
21	A.	In my opinion, NSPL-based billing for most commercial and industrial customers will
22		not be appropriate until FirstEnergy has successfully finished installing advanced or
23		interval meters for all non-residential customers and predominantly all of these meters

1		have recorded a summer of 5CP consumption. Until that time, I believe it would be most
2		prudent to take a gradual approach to expanding transmission billing based on NSPL by
3		opening up the Rider NMB Pilot Program to more customers that have the operational
4		flexibility and sophistication to manage their load during the ATSI Zone 5CPs on a
5		wholly optional basis.
6	IV.	FIRSTENERGY'S INTERRUPTIBLE PROGRAMS
7	Q60.	ARE YOU FAMILIAR WITH FIRSTENERGY'S INTERRUPTIBLE RATE
8		PROGRAM, KNOWN AS THE ECONOMIC LOAD RESPONSE PROGRAM?
9	A.	Yes, I am familiar with FirstEnergy's Economic Load Response program and associated
10		tariff, known as Rider ELR.
11	Q61.	COULD YOU PLEASE SUMMARIZE THE RIDER ELR PROGRAM
12		CURRENTLY IN PLACE?
13	A.	Rider ELR was approved by the Commission in FirstEnergy's first ESP case, and Rider
14		ELR has continued without interruption since it was first approved in 2009. ⁵⁵ Rider ELR
15		was expanded in ESP IV to include additional curtailable load, and in approving the
16		continuation of Rider ELR and its expansion, the Commission found that "[w]ith respect
17		to the continuation and expansion of Rider ELR, the evidence in the record demonstrates
18		that interruptible load programs provide reliability, economic and energy efficiency
19		benefits to customers."56 In that same decision, the Commission found that Rider ELR
20		and other programs "should facilitate the state's effectiveness in the global economy in
21		accordance with R.C 4928.02(N)."57 Consistent with these benefits and goals, the Rider

⁵⁵ See ESP IV, Opinion and Order (March 31, 2016) at p. 94, Case No. 14-1297-EL-SSO, citing ESP I, Opinion and Order (Mar. 25, 2009) at p. 10.
⁵⁶ Id.
⁵⁷ Id.

1		ELR program currently in place is designed to attract high-consumption, load-responsive
2		interval metered customers to curtail their load when a local event in FirstEnergy's
3		service territory or a regional event in the PJM jeopardizes the integrity of either the
4		distribution or transmission system. According to FirstEnergy's tariff, ⁵⁸ the current Rider
5		ELR program is limited to customers served above primary voltage who took service
6		under the Rider ELR program as of May 31, 2016 or to eligible customers who provided
7		written notice of an intent to participate in the Rider ELR program on or before May 31,
8		2015. The customers in the Rider ELR program must agree to interrupt, or curtail, all of
9		their load above their defined Firm Load, or Firm Service Level (FSL) within two hours'
10		notice in the event of a local emergency or if FirstEnergy receives an emergency
11		curtailment notice from PJM. Currently, Rider ELR customers are not permitted to
12		participate in PJM's emergency demand response program since the customer's
13		curtailable load is bid into PJM's capacity auctions.
14	Q62.	HOW DOES THE RIDER ELR PROGRAM WORK FROM THE CUSTOMER
15		PERSPECTIVE?
16	A.	Customers enrolled in the Rider ELR program enter into service agreements with
17		FirstEnergy which specify the Firm Load and demand response capability, or curtailable
18		load for the customer's account. When Rider ELR customers receive a dispatch notice
19		from FirstEnergy that is either called by FirstEnergy or PJM, those customers are

⁵⁸ Source: Ohio Edison Company tariff PUCO No. 11 at Sheet 101; The Cleveland Electric Illuminating Company tariff PUCO No. 13 at Sheet 101; and The Toledo Edison Company tariff PUCO No. 8 at Sheet 101.

obligated to curtail their load down to their firm service level, at a minimum, or risk

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facing costly penalties.

1	Q63.	WHAT OBLIGATIONS AND RISKS DOES A CUSTOMER UNDERTAKE BY
2		PARTICIPATING IN RIDER ELR?
3	A.	According to FirstEnergy's tariff for the Rider ELR program, Rider ELR customers must
4		curtail all load above their Firm Load when requested by FirstEnergy for a local event or
5		by PJM through FirstEnergy for a regional emergency. Rider ELR customers are
6		obligated to curtail load at any time and for any duration of time, no matter how
7		burdensome the timing of or number of hours the dispatch may be. If a Rider ELR
8		customer does not meet the obligations of a dispatch, they will be required to pay an
9		Emergency Curtailment Event (ECE) Charge assessed on the portion of the customer's
10		actual measured load that exceeds its pre-established contract Firm Load for any and all
11		hours during the emergency dispatch. Based on the ECE Charge equation listed in
12		FirstEnergy's tariff, the ECE Charge rate is 300% times the PJM Locational Marginal
13		Price as defined and specified by PJM at the appropriate pricing node during the
14		applicable hour(s) of the emergency event, scaled by a Loss Adjustment Factor and
15		Commercial Activity Tax rate.
16	Q64.	WHAT ARE THE POTENTIAL BENEFITS FOR A CUSTOMER THAT
17		PARTICIPATES IN RIDER ELR?
18	A.	In return for providing demand response load to FirstEnergy, Rider ELR customers
19		receive a monthly Rider ELR program distribution credit of \$5.00 per kW of curtailable
20		load, where curtailable load is the difference between the customer's monthly billing
21		demand and the customer's contract Firm Load, capped at the customer's contracted
22		curtailable capacity. Rider ELR customers also receive a monthly generation credit
23		totaling \$5.00 per kW of curtailable load through the Economic Development Rider

1		provision (b) ("Rider EDR(b)"). According to FirstEnergy's tariff, the Rider ELR
2		program credits shall not produce a total monthly bill for any customer that is less than
3		two (2) cents per kWh. Rider ELR customers pay a \$150 per month Program
4		Administrative Charge. ⁵⁹
5	Q65.	DOES FIRSTENERGY'S RIDER ELR INTERRUPTIBLE RATE PROGRAM
6		PROVIDE ANY BENEFIT TO FIRSTENERGY'S SYSTEM OR OTHER
7		CUSTOMERS?
8	A.	Yes.
9	Q66.	COULD YOU PLEASE DESCRIBE THOSE BENEFITS?
10	A.	FirstEnergy's interruptible Rider ELR program provides stability to the ATSI Zone and
11		PJM electric grid as a whole during times when the balance of the supply and demand on
12		the zonal or regional grid may be the most vulnerable. Providing stability to the local
13		utility and regional electric grids in turn benefits other utility customers so that they can
14		rely on the electric grid to keep their homes and businesses powered without interruption
15		especially when residential and commercial customers rely on it the most, such as hot
16		summer afternoons. While this has been very valuable to maintaining grid stability as
17		recently shown by the events of the winter storm of December 2022, the benefit of this
18		curtailable load will be all the more invaluable if FirstEnergy's load grows during the
19		term of ESP V as FirstEnergy projects. ⁶⁰
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⁵⁹ Source: Ohio Edison Company tariff PUCO No. 11 at Sheet 101; The Cleveland Electric Illuminating Company tariff PUCO No. 13 at Sheet 101; and The Toledo Edison Company tariff PUCO No. 8 at Sheet 101

60 See Answer to Question #23.

Q67. WHY IS IT IMPORTANT TO HAVE BOTH THE RIDER NMB PILOT

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A. Both the Rider NMB Pilot Program and the Rider ELR interruptible rate program provide stability to the ATSI Zone and PJM electric grid as a whole during times when the balance of the supply and demand on the zonal or regional grid may be the most vulnerable. While both programs provide similar grid resiliency and stability benefits, their operational differences demonstrate why it is important to have both programs in place in FirstEnergy territory. The Rider NMB Pilot Program has the effect of shaving peak demand on higher demand days of the year, as customers in that program voluntarily seek to lower their NSPL value during periods of demand that may set the ATSI's 5CPs. However, the peak demand shaving that occurs as a result of that program is a result of voluntary conduct on the part of the customer incentivized by market mechanisms and economic outcomes to reduce load when the entire system load is elevated and may set a 5CP for the year. Given the historical load characteristics of the ATSI Zone, it's safe to presume that these user curtailments will exclusively occur during summer afternoons and early evenings. In contrast to the Rider NMB Pilot Program, the Rider ELR interruptible rate program provides robust demand reductions year-round during times when PJM or FirstEnergy issue interruption notices to the customers in that program, and, in particular, when the electric grid is in a state of emergency. In this way, the Rider ELR program directly provides FirstEnergy with a mechanism that the utility can use to significantly reduce load in a short timeframe to maintain system stability and functionality regardless of time of day or season, which will be more even more valuable as load continues to grow in FirstEnergy's service territory and as PJM's generation fleet

1		transitions to non-dispatchable generation resources.
2	Q68.	ARE YOU FAMILIAR WITH HOW ENERGY MARKETS AND CUSTOMERS
3		IN OHIO WERE IMPACTED BY THE DECEMBER 2022 WINTER STORM?
4	A.	Yes.
5	Q69.	COULD YOU DESCRIBE THOSE IMPACTS?
6	A.	Real-time locational marginal pricing across the PJM system reached a peak price of
7		\$3,700 per megawatt hour ⁶¹ during the hour ending (HE) 6:00 PM Eastern Prevailing
8		Time (EPT) on December 23, 2022. Customers in Ohio faced blizzard-like conditions
9		with rapidly dropping temperatures that ultimately settled well below zero for all of the
10		ATSI Zone. ⁶²
11	Q70.	DID PJM OR FIRSTENERGY ISSUE CURTAILMENT DIRECTIVES DURING
12		THE DECEMBER 2022 WINTER STORM EVENT?
13	A.	Yes. PJM issued two NERC EEA2 ⁶³ emergency load response events during that winter
14		storm. ⁶⁴ One curtailment directive was issued on December 23 and one curtailment
15		directive was issued on December 24. PJM triggered events for 5 Rider ELR customers at
16		5:30 PM and 6:00 PM on December 23, with the events ending at 10:15 PM. PJM also
17		triggered emergency load response events at 4:20 AM, 5:00 AM, and 6:30 AM for all
18		Rider ELR customers. In response to PJM's emergency load response events issued on

⁶¹ Source: https://dataminer2.pjm.com/feed/rt_hrl_lmps

⁶² Source: https://www.pjm.com/-/media/committees-groups/committees/mic/2023/20230111/item-0x---winter-storm-elliott-overview.ashx

⁶³ North American Electric Reliability Corporation Energy Emergency Alert Level 2 means that load management procedures are in effect. More information on NERC EEA2 alerts can be found at https://www.nerc.com/pa/Stand/Reliability%20Standards/EOP-011-2.pdf

⁶⁴ Source: https://www.pjm.com/-/media/committees-groups/committees/mic/2023/20230111/item-0x---winter-storm-elliott-overview.ashx

1		December 24, FirstEnergy started sending out event notices at 9:30 AM. ⁶⁵
2	Q71.	WERE YOU MONITORING THOSE CURTAILMENT DIRECTIVES DURING
3		THE DECEMBER 2022 WINTER STORM?
4	A.	Yes.
5	Q72.	COULD YOU PLEASE DESCRIBE WHAT OCCURRED IN TERMS OF THOSE
6		CURTAILMENT DIRECTIVES DURING THE DECEMBER 2022 WINTER
7		STORM?
8	A.	Over the course of December 23 and 24, 2022, PJM dispatched two NERC EEA2 events
9		which resulted in FirstEnergy issuing dispatches to its Rider ELR customers on
10		December 24. As a result of those dispatches, FirstEnergy asked twenty-four (24) Rider
11		ELR customers to curtail their loads for 236 curtailment hours, or 9.8 hours per customer,
12		on December 24, 2022. The Rider ELR customers curtailed a minimum of 199.5 MW
13		during the Emergency Curtailment Event issued by FirstEnergy. FirstEnergy received
14		approximately \$11.4 million in payments from PJM due to Rider ELR customers'
15		performance during Winter Storm Elliott and was not assessed any penalties from PJM
16		due to underperformance. 66
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⁶⁵ Source: The Ohio Edison Company, The Cleveland Electric Illuminating Company, and The Toledo Edison Company's Response to Ohio Energy Leadership Council's Discovery Request PUCO Case 23-0301-EL-SSO First Set, attached as **Exhibit MB-4**. FirstEnergy did not issue Emergency Curtailment Notices on December 23, 2023 due to a malfunction in FirstEnergy's automated notification system that did not send out the notifications through its webservice. *Id*.

⁶⁶ Source: The Ohio Edison Company, The Cleveland Electric Illuminating Company, and The Toledo Edison Company's Response to Ohio Energy Leadership Council's Discovery Request PUCO Case 23-0301-EL-SSO First Set, attached as **Exhibit MB-4**.

Q73. WHAT COULD HAVE OCCURRED IN TERMS OF ENERGY USAGE DURING

THE DECEMER 2022 WINTER STORM WITHOUT FIRSTENERGY'S RIDER

ELR INTERRUPTIBLE RATE PROGRAM?

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Without FirstEnergy's Rider ELR program and others like it, it is very possible that A. energy consumption and demand in the PJM grid as a whole may have exceeded supply on December 23 and 24, 2022. PJM's Event Analysis and Recommendation Report on Winter Storm Elliott⁶⁷ indicates that if PJM did not dispatch its first NERC EEA2 emergency alert on December 23, 2022, the actual load following the HE 6:00 PM EPT would have continued to outpace the forecasted load at the same time forced generator outages climbed to approximately 34,500 MW later that evening. Even though the ATSI Zone is a summer-peaking territory, the whole PJM grid was facing reliability issues due to the underperformance of generation resources in the extreme cold. The uncertainty about whether PJM would have enough capacity to meet its demand only grew more worrisome in the early morning hours of December 24. According to PJM's report, "Between forced outages, derates, generators not starting on time, and the inability to fill pumped storage hydro ponds, approximately 47,000 MW [or 24%] of the generation fleet in the PJM region was unavailable for the Dec. 24 morning peak. Additionally, the valley load during the early morning hours on Dec. 24 was atypically high. It was approximately 40,000 MW higher than the next-highest valley over the last decade."68 The nimble, flexible, and sizeable loads of demand response resources across the PJM footprint, including FirstEnergy's Rider ELR customers, curtailed their capacity and helped prevent

⁶⁷ Source: https://pjm.com/-/media/library/reports-notices/special-reports/2023/20230717-winter-storm-elliott-event-analysis-and-recommendation-report.ashx

⁶⁸ Source: https://pjm.com/-/media/library/reports-notices/special-reports/2023/20230717-winter-storm-elliott-event-analysis-and-recommendation-report.ashx

what may have been a catastrophic failure of the PJM electric grid.

2 Q74. WHAT IS FIRSTENERGY PROPOSING FOR ESP V IN TERMS OF ITS RIDER

3 ELR INTERRUPTIBLE RATE PROGRAMS?

A. FirstEnergy is proposing to continue its Rider ELR program, but is proposing a significant reduction of the Rider ELR and Rider EDR(b) credits, as demonstrated by this

7 Table MB-5

Table MB-5:

Rider	June 1, 2024	June 1, 2025	June 1, 2026	June 1, 2027	June 1, 2028	June 1, 2029	June 1, 2030	June 1, 2031
ELR	(\$5.00)	(\$4.50)	(\$4.00)	(\$3.50)	(\$3.00)	(\$2.50)	(\$2.00)	(\$1.50)
EDR(b)	(\$5.00)	(\$4.50)	(\$4.00)	(\$3.50)	(\$3.00)	(\$2.50)	(\$2.00)	(\$1.50)

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Q75. SHOULD FIRSTENERGY REDUCE THE CREDIT PAID UNDER ITS RIDER

10 ELR PROGRAM?

A. No. FirstEnergy should not reduce the Rider ELR and Rider EDR(b) credits. At a time when PJM has grown increasingly reliant on non-dispatchable generation such as solar and wind, and trends suggest this will only continue, it is hard to imagine a worse time to reduce credits to the customers that are ensuring life-saving grid stability. This is especially true given where both energy prices and overall inflation have been trending significantly higher, effectively lessening the overall bill and competitiveness impacts of the credits, even if left unchanged.

Q76. IS YOUR ANSWER INFORMED IN ANY WAY BY THE TRENDS IN NEW

GENERATION RESOURCES IN PJM?

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3 A. Yes. Due to PJM's projected increase in intermittent and limited-duration generation
4 resources, projected load growth in the PJM footprint due to the expansion of data
5 centers, and planned retirements of existing generation units, ⁶⁹ now is not the time to
6 reduce incentives and access to such incentives for sizeable capacity resources to provide
7 stability to the PJM and ATSI Zone electric grids during grid emergencies.

Q77. COULD YOU PLEASE SUMMARIZE WHY INTERRUPTIBLE PROGRAMS

ARE IMPORTANT FOR SYSTEM RELIABIITY?

Interruptible programs are important for system reliability because PJM's generation resources continue a shift towards resources that are non-dispatchable and that have proven to be unreliable during extremely cold winter storms. As I previously discussed in my testimony, a significant portion of PJM's generation resources were not able to perform as the system demanded from them during the winter storm on December 23 and 24, 2022. Over 33,000 MW of natural gas-fired generators were unable to procure fuel during the subzero temperatures and accounted for approximately 70% of the total forced generator outages in PJM on December 24, 2022. Currently gas generators make up 46% of PJM's total generator fleet. In my opinion, the events of December 23 and 24, 2022 are a clear indication that interruptible capacity resources that have proven their ability to respond within 30-120 minutes' notice are becoming increasingly more important to preventing imbalances between supply and demand on the electric grid. Also, unlike

⁶⁹ Source: https://www.pjm.com/-/media/library/reports-notices/special-reports/2023/energy-transition-in-pjm-resource-retirements-replacements-and-risks.ashx

⁷⁰ Source: https://pjm.com/-/media/library/reports-notices/special-reports/2023/20230717-winter-storm-elliott-event-analysis-and-recommendation-report.ashx

customers that only participate in PJM demand response programs, FirstEnergy Rider

ELR interruptible customers may be utilized by both PJM and FirstEnergy, in the event

that FirstEnergy needs the capacity to respond to local emergency events.

O78. WHY ARE DEMAND RESPONSE "MARKET" RATES INSUFFICIENT?

A. Current demand response capacity prices are making it less desirable for customers to enroll in demand response with a curtailment service provider (CSP), who will maintain a share of the customer's earnings. ATSI net zonal capacity prices since the 2021/2022 delivery year (DY) have fallen year-over-year as demonstrated by this Table MB-6:

Table MB-6

	2021/2022	2022/2023	2023/2024	2024/2025
	DY	DY	DY	DY
ATSI Net Zonal Capacity Price (\$/MW- day)	\$160.21	\$50.05	\$34.18	\$28.92 ⁷¹

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Furthermore, many FirstEnergy customers aggressively 5CP manage for both capacity and transmission. This can produce very low Peak Load Contributions (PLC), making emergency demand response participation uneconomic. Based on PJM guidelines, a curtailment service provider will enroll a customer in PJM's capacity demand response program based on the delta between the customer's PLC and the customer's firm service

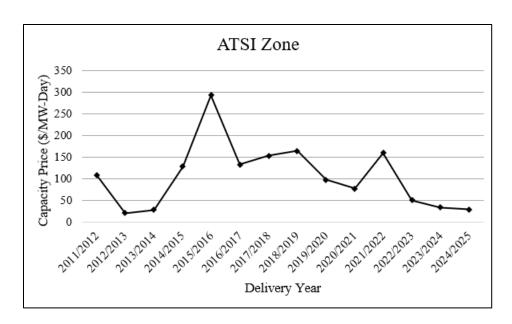
⁻

⁷¹ This capacity price is the result of PJM's Base Residual Auction for the 2024/2025 DY. This price may change slightly following the third incremental auction for the 2024/2025 DY which is scheduled to open in February 2024 and close in March 2024.

1		level that is scaled by a line loss factor. ⁷² A customer's performance during a summer
2		emergency event will be measured by the delta between its operating load over the
3		duration of the event and its PLC value for the DY. To the extent there are emergency
4		grid conditions during a time that is not a potential CP, such as during the winter, many
5		of these customers will have little to no incentive to curtail absent participation in the
6		Rider ELR program.
7	Q79.	IN THE ATSI ZONE, HAVE CAPACITY PRICES PREVIOUSLY CLEARED
8		BELOW THE 2024/2025 DY PRICE OF \$28.92/ MW-DAY?
9	A.	Yes, in the 2012/2013 DY, the final net zonal capacity price for the ATSI Zone was
10		\$20.46/MW-Day.
11	Q80.	WHERE DID CAPACITY PRICES CLEAR IN THE ATSI ZONE FOLLOWING
12		THE 2012/2023 DY?
13	A.	The ATSI Zone capacity prices rose to a peak zonal price of \$293/MW-Day in the
14		2015/2016 DY, following the lowest historical ATSI Zone capacity price of \$20.46/MW-
15		Day in the 2012/2013 DY. Prices then followed a pattern of falling and rising between
16		the 2015/2016 DY and the 2021/2022 DY. For reference, ATSI Zone final capacity
17		prices, or current capacity price in the case of the 2024/2025 DY, dating back to the
18		2011/2012 DY ⁷³ are shown in this graph:

⁷² A CSP may be able to enroll a customer for demand response in the winter months based on the CSP's capacity portfolio and the delta between a customer's winter peak load and their firm service level, but there is no guarantee.

⁷³ Capacity prices for the 2011/2012 and 2012/2013 DY were found from https://www.monitoringanalytics.com/reports/reports/2011/analysis_of_2011_2012_and_2012_2013_atsi_integration_auctions_20110114.pdf. Capacity prices for all other delivery years were located in Excel workbooks on PJM's website https://pim.com/markets-and-operations/rpm.aspx.



Q81. IN YOUR OPINION, IS IT POSSIBLE THAT ATSI ZONE CAPACITY PRICES
COULD RISE FROM CURRENT LEVELS APPROACHING OR EXCEEDING
PREVIOUS HISTORICAL HIGHS?

5 A. Yes.

6 Q82. COULD YOU PLEASE EXPLAIN WHY YOU THINK THAT IS POSSIBLE?

A. ATSI Zone capacity prices spiked in the 2015/2016 delivery year largely because of coal plant closures in response to Mercury Air Toxics Standards as issued by the United States Environmental Protection Agency⁷⁴. This capacity price was particularly high relative to prior depressed capacity prices from auctions that were held during the Great Recession. Today we find ourselves in eerily similar circumstances. We once again are pivoting from rather calamitous economic conditions; this time, a situation largely created from the aftermath of a global pandemic during which time business operations were interrupted, thereby disrupting the consumption of normalized amounts of power.

⁷⁴ Source: https://www.prnewswire.com/news-releases/firstenergy-citing-impact-of-environmental-regulations-will-retire-six-coal-fired-power-plants-138115263.html

1		However, unlike in the Great Recession, we are seeing stagflation forces that are putting
2		upward price pressure on just about everything. Also similar to 2015/16, we are seeing a
3		dramatic shift away from legacy generation sources. Although perhaps even worse now
4		than then, we are moving to generation sources that are non-dispatchable and notoriously
5		unreliable to serve as capacity resources.
6	Q83.	IN ADDITION TO CAPACITY MARKET PRICES, ARE THERE OTHER
7		FACTORS THAT SHOULD BE CONSIDERED IN ANY DISCUSSION
8		SURROUNDING RIDER ELR PROGRAM CREDITS?
9	A.	Yes, I believe it is an oversight to look at only capacity market prices when setting Rider
10		ELR program credits. It would be very short sighted over an eight-year ESP V to
11		drastically reduce the Rider ELR program credits based on the current, likely transient,
12		dip in capacity prices in current years. It is my opinion that Rider ELR program credits
13		should also reflect economic development and reliability benefits.
14	Q84.	WHY SHOULD ECONOMIC DEVELOPMENT BENEFITS BE CONSIDERED
15		WHEN SETTING RIDER ELR CREDITS?
16	A.	The Commission has already found that interruptible load programs such as Rider ELR
17		provides economic development benefits to customers. ⁷⁵ FirstEnergy's current Rider
18		ELR program customers include twenty-four (24) of the largest industrial customers
19		across FirstEnergy's service territory. As shown in Table MB-7, the list includes some of
20		the biggest names in manufacturing that have brought an unquantifiable economic impact
21		to the state of Ohio and specifically FirstEnergy's service territory. 76 I am not able to

 ⁷⁵ See ESP IV, Opinion and Order (March 31, 2016) at p. 94, Case No. 14-1297-EL-SSO.
 ⁷⁶ Information presented in Table MB-7 is from an Excel file produced by FirstEnergy as PUCO DR-006 Attachment 2 Confidential Supplemental (unredacted).

- quantify the economic development benefits created by these twenty-four (24)
- 2 companies, but I believe it to be profound and far-reaching.

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Table MB-7 [Customer Name and Load Redacted in Public Version]

Number	Rider ELR Program Customer	Maximum Curtailable Load (kW)
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1	Q85.	ARE YOU ABLE TO QUANTIFY THE RELIABILITY BENEFITS PRODUCED
2		BY THE RIDER ELR PROGRAM THAT SHOULD BE CONSIDERED WHEN
3		SETTING RIDER ELR CREDITS?
4	A.	The reliability benefits brought about by Rider ELR are not benefits I am able to
5		quantify. However, FirstEnergy has placed a significant valuation on grid reliability that I
6		believe demonstrates the tremendous benefit to all of FirstEnergy's customers of having
7		reliable electric distribution service. Specifically, in the testimony of Shawn Standish
8		sponsored by FirstEnergy in this ESP V case in support of its proposed vegetation
9		management program, FirstEnergy estimates cost savings to its customers of \$963
10		million on a nominal basis over ten years from reliability improvements using the United
11		States Department of Energy's Interruption Cost Estimator ("ICE") tool. 77 Even if Rider
12		ELR produces a fraction of the reliability improvements that FirstEnergy calculates will
13		led to nearly \$1 billion in nominal cost savings to customers, FirstEnergy's investment in
14		the Rider ELR program are more than worth it. As I noted above, the Commission has
15		already found that "interruptible load programs provide reliability, economic and energy
16		efficiency benefits to customers." ⁷⁸ The Commission should continue to support critical
17		programs such as Rider ELR that provide reliability benefits to all FirstEnergy customers
18	Q86.	SHOULD FIRSTENERGY REDUCE THE CREDITS PAID UNDER THE RIDER
19		ELR PROGRAM DURING ESP V?
20	A.	No. FirstEnergy should not reduce the Rider ELR and Rider EDR (b) credits as
21		FirstEnergy has proposed to do in its ESP V application. At a time when PJM's system
22		has grown increasingly dependent on interruptible resources, and trends suggest will only

⁷⁷ Source: Testimony of Shawn Standish filed April 5, 2023, at pp. 15-16.
⁷⁸ See ESP IV, Opinion and Order (March 31, 2016) at p. 94, Case No. 14-1297-EL-SSO.

1		continue, it is hard to imagine a worse time to reduce credits to the customers that are
2		ensuring life-saving grid stability. This is especially true given where both energy prices
3		and overall inflation have been trending significantly higher, effectively lessening the
4		overall bill and competitiveness impacts of the Rider ELR and Rider EDR (b) credits,
5		even if left unchanged.
6	Q87.	SHOULD FIRSTENERGY LIMIT PARTICIPATIONS IN THE RIDER ELR
7		PROGRAM DURING ESP V NARROWLY TO GRANDFATHERED PROGRAM
8		PARTICIPANTS?
9		No. There are many customers, some of which I have firsthand knowledge of, that are
10		ideal loads for the Rider ELR program but currently do not have program access. This
11		ESP V proceeding is an ideal opportunity to reopen the program to allow entry for
12		customers with curtailment capabilities. There is no good reason to put up an artificial
13		barrier denying these customers program access.
14	Q88.	DO YOU FORESEE ANY OTHER ISSUE WITH FIRSTENERGY'S PROPOSED
15		CHANGES TO ITS RIDER ELR PROGRAM?
16	A.	Yes.
17	Q89.	COULD YOU PLEASE EXPLAIN THAT ISSUE?
18	A.	FirstEnergy has proposed that once ESP V commences on June 1, 2024, FirstEnergy will
19		no longer be the CSP for Rider ELR customers. As stated in the testimony of Edward
20		Stein, "the Companies will require Rider ELR customers to provide proof of registration
21		to participate in PJM load management programs from an active PJM CSP." ⁷⁹ From my
22		experience assisting my own clients in shopping for a CSP, I do not believe it is a

⁷⁹ Source: Direct Testimony of Edward Stein filed on April 5, 2023, at pp. 4-5.

realistic timeline for FirstEnergy to force Rider ELR customers to enroll their curtailable load with a CSP for the June 1, 2024 through May 31, 2025 DY without knowing when a decision in this case will be made. Based on PJM's Demand Response Critical Calendar Dates for the 2023/2024 DY, 80 January 19, 2023 was the date that CSPs needed to have their registrations in a "Confirmed" status in order to be considered existing for the third incremental auction for the 2023/2024 DY. Although PJM's calendar for the next DY does not appear to be public yet, I would infer that there will be a similar target date in January 2024 for CSPs to have registrations finalized prior to the third incremental auction for the 2024/2025 DY, which will open in February 2024. If a decision in this proceeding is not made in three months' time, Rider ELR customers with hundreds of MW of capacity may find themselves unable to partner with a CSP that has not already fully subscribed the capacity they bid into the incremental auction for the 2024/2025 DY. Even if a decision was rendered on the day of my testimony submission, it would set off an unnecessary fire drill for these customers to quickly find a CSP home. In my opinion, if FirstEnergy no longer desires to serve as the CSP for Rider ELR customers and that proposal is approved, FirstEnergy should look to transition away from serving as a CSP, no earlier than with the June 1, 2025 through May 31, 2026 DY.

VI. CONCLUSION

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19 Q90. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes. However, I reserve the right to supplement my testimony or file rebuttal testimony as new information becomes available or in response to positions taken by other parties in this proceeding.

⁸⁰ Source: https://pjm.com/-/media/markets-ops/demand-response/dr-critical-dates-calendar.ashx

CERTIFICATE OF SERVICE

I certify that a true copy of the foregoing document was served by e-mail upon the persons listed below this 23rd day of October, 2023.

/s David F. Proaño

David F. Proano (0078838)

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CONFIDENTIAL DOCUMENT FILED UNDER SEAL

CONFIDENTIAL DOCUMENT FILED UNDER SEAL

Case No. 23-0301-EL-SSO

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

RESPONSES TO THE PUBLIC UTILITIES COMMISSION OF OHIO'S DATA REQUESTS

PUCO DR-010

- 1. An excel version with formulas intact for attachment JL-4 in Lawless' testimony.
- 2. Has a bill impact assessment been done to see the impact of customers switching to NMB 2 rates?
 - a. Has a bill impact assessment been done to see the impact of customers staying on NMB 1 rates in the classes that are able to switch to NMB 2 rates?
 - i. Please provided any bill impact assessments that have been completed in Excel with formulas intact.
- 3. The percentage of customers in each class that have advanced meters.
- 4. The timeframe to upgrade to advanced meters for customers excluding the residential and lighting classes.
- 5. Can a customer request an advanced meter in a faster timeframe to switch to NMB 2 rates?
- 6. Can a customer with a newly installed advanced meter switch to the NMB 2 rates at any time, or is it once a year when the NMB rates go into effect?
- 7. An explanation on the retail customer NSPL calculation explained in Stien's testimony page 10 vs PJM's NSPL calculation based on transmission peak.
 - a. Are retail customers' NSPLs calculated at the time of the PJM transmission peak?
 - i. If not, please explain why.
- 8. Can a customer with an advanced meter opt out of NMB 2 rates?
- 9. How many customers will qualify for NMB 2 rates vs. the number of customers who will not?
 - a. Please break the customers out by service territory and class.
- 10. An estimate of the dollar amount for the proposed UFE billing line item that will flow through the NMB for a 12 month period.

Response: Original Response Sent 9/12/2023

1. Please see PUCO DR-010 – Attachment 1.

- 2. In developing this proposal, the Companies analyzed the potential bill impacts to customers from the proposed NMB 2 rates, compared to current Rider NMB rates. Please see PUCO DR-010 Attachment 2. The assessment did not separate the customers based on whether they would remain on NMB 1 rates or if they would be on NMB 2 rates. The assessment also conservatively assumed that billing demand was equal to NSPL. It did not use exact values for specific customers or the calculated average ratio of NSPL to billing demand that can be seen in the attachment.
 - a. The Companies prepared a comparison of the proposed NMB 1 rates for commercial and industrial customers to the current Rider NMB rates.
 - i. Please see PUCO DR-010 Attachment 3.
- 3. Of the approximately 235,000 Commercial customers, 19% have advanced meters. Of the approximately 3,000 industrial customers, 61% have advanced meters and of the approximately 1.9 million residential customers, 34% have advanced meters.
- 4. Grid Mod II is pending before the Commission which includes 700,000 additional smart meters for residential, industrial and commercial customers. The Companies estimate that approximately 90% of those meters will be installed on residential customers and the remaining 10% will be installed on commercial and industrial customers during the 4-year budget period proposed in Grid Mod II.
- 5. Yes. A customer can request the Company to install an advanced meter for an additional fee. See section 9 of tariff sheet no. 75.
- 6. Under the Companies' proposal, customers would not choose between the two rates. Rather, customers with advanced meters will be immediately updated to the NMB 2 rates. The billing system will charge each customer the correct rate, NMB 1 or NMB 2, based upon whether they have an advanced meter or not.
- 7. The Companies utilize the methods to calculate customer NSPLs as described in the Companies' manual titled "Determination of Capacity Peak Load Contributions and Network Service Peak Loads," which is available at: PJMCapacityManualOH.pdf (firstenergycorp.com).
 - b. While the single PJM Transmission Peak is utilized in the calculation to scale customer results, the calculation still utilizes the 5 highest peaks of a customer coincident with the 5 highest peaks of the Companies' seasonal peak in the same season as the PJM transmission peak to (1) allow for winter peaking utilities to calculate correlated customer NSPLs, and (2) allow customers' load diversity

- to be present in the calculation of NSPL much like it is for the calculation of Peak Load Contributions (PLCs).
- 8. No. Commercial and industrial customers with advanced meters cannot opt-out of the NMB 2 rates. Under the Companies' proposal, the billing system will automatically enroll customers with advanced meters into the NMB 2 rates. This will support cost alignment and alleviate the administrative burden that would come with making NMB 2 optional and having to track customers who opt-in and opt-out.
- 9. Please see the following tables for the number of customers who would qualify for NMB 2 rates vs. NMB 1 rates based on current customer metering as of August 24, 2023.

		NMB 1	NMB 2
	GS	80,755	30,238
OF	GP	509	652
OE	GSU	7	97
	GT	1	187

		NMB 1	NMB 2
	GS	44,160	29,008
CE	GP	40	90
CE	GSU	233	340
	GT	-	15

		NMB 1	NMB 2
	GS	20,670	12,341
TE	GP	273	266
I.E.	GSU	-	8
	GT	4	62

10. For the twelve month period of June 2022 through May 2023, and based on energy prices alone (RT LMP), the estimated dollar amount for the proposed UFE billing line item that would flow through Rider NMB would be approximately a \$14,000 credit. The \$14,000 credit was comprised of approximately 5,000 hours where energy credits totaled approximately \$79.821 million and approximately 3,700 hours where charges totaled the approximately equal amount of \$79.807 million. As explained in the testimony of Companies' Witness Stein at p. 8, using profiles to mathematically derive customer hourly load data, including for customers who do not yet have advanced metering infrastructure ("AMI" or "smart" meters) is a contributor to UFE. As the Companies continue to install AMI meters, the volatile nature of UFE will decrease. In other words, the approximately \$80M credits and charges will reduce in magnitude. Unaccounted for Energy MWh quantities used in the example above can be found Companies' website the on

https://firstenergycorp.com/upp/oh/oh_load_data.html and opening the file titled "Unaccounted For Energy."

Revised and Supplemental Response Sent 10/20/23:

- 2. See PUCO DR- 010 Attachment 2 Supplemental. The Attachment has been updated to include customer counts. Please note that this supplemental attachment includes all customers on each rate schedule and does not differentiate by meter type. The customers were grouped based on average billing demand and kWh usage over the most recent 12 months.
- 3. Of the Companies' 1.9 million residential customers, approximately 33% have advanced meters. For the number of commercial and industrial customer premises on rate schedules GS, GP, GSU, and GT with advanced or interval meters, please see the revised response to subpart 9 below.
- 9. The Companies identified as of September 26, 2023, additional customers who would be on the proposed NMB 1 Rate. These are unmetered Rate GS customers and therefore were not included on the original list of customers who were queried by meter type. The following tables include these customers in addition to the customers who were previously provided, based on current data in the Companies' billing system. The only changes from the table in the Companies' original response are to Rider NMB 1, Rate GS.

		NMB 1	NMB 2
	GS	81,730	30,238
OF	GP	509	652
OE	GSU	7	97
	GT	1	187

		NMB 1	NMB 2
	GS	49,086	29,008
CE	GP	40	90
CE	GSU	233	340
	GT	-	15

		NMB 1	NMB 2
	GS	21,720	12,341
TE	GP	273	266
I E	GSU	0	8
	GT	4	62

BEFORE THE PUBLIC UTILITIES COMMISSION OF OHIO

In the Matter of the Application of Ohio)	
Edison Company, The Cleveland Electric)	
Illuminating Company and The Toledo)	Case No. 23-0301-EL-SSO
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		

OHIO EDISON COMPANY, THE CLEVELAND ELECTRIC ILLUMINATING COMPANY, AND THE TOLEDO EDISON COMPANY'S OBJECTIONS AND RESPONSES TO THE FIRST SET OF INTERROGATORIES AND REQUESTS FOR PRODUCTION OF DOCUMENTS FROM THE OHIO ENERGY LEADERSHIP COUNCIL

Pursuant to Rules 4901-1-16 through 4901-1-22 of the Ohio Administrative Code and in accordance with Ohio Rules of Civil Procedure 26, 33, and 34, Ohio Edison Company, The Cleveland Electric Illuminating Company, and The Toledo Edison Company (the "Companies"), hereby submit these Objections and Responses to the First Set of Interrogatories and Requests for Production of Documents (the "Requests") served by Ohio Energy Leadership Council ("OELC").

GENERAL OBJECTIONS

The Companies incorporate the following objections into each response below, as if fully restated therein.

- 1. These General Objections are incorporated by reference into the Companies' responses made with respect to each Request. The inclusion of any specific objection to a Request in a response below is not intended, nor shall in any way be deemed, as a waiver of any General Objection or any specific objection made herein or that may be asserted at another date.
- 2. The Companies object to each Request to the extent that it seeks information protected from disclosure by the attorney-client privilege, the attorney work product doctrine, or

any other applicable statutory or common law privilege, prohibition, limitation, or immunity from disclosure. Nothing contained in the responses below is intended as a waiver of this objection.

- 3. The Companies object to each Request to the extent that it seeks information not relevant to the subject matter of this action and not reasonably calculated to lead to the discovery of admissible evidence.
- 4. The Companies object to each Request to the extent that it seeks production of information that is confidential business, commercial, or proprietary information belonging to the Companies or third parties.
- 5. The Companies object to each Request, definition, or instruction to the extent that it purports to impose upon the Companies obligations greater than, or different from, those contained in the Ohio Administrative Code.
- 6. The Companies object to each Request to the extent it seeks documents or information not in the Companies' possession, custody, or control.
- 7. The Companies object to each Request that purports to require a detailed, narrative response. Under applicable Commission rules and the Ohio Rules of Civil Procedure, "[a]n interrogatory seeks an admission or seeks information of major significance in the trial or the preparation for trial. It does not contemplate an array of details or outlines of evidence, a function reserved by the rules for deposition." *Penn Central Transp. Co. v. Armco Steel Corp.*, 27 Ohio Misc. 76, 77 (Montgomery Cty. 1971).
- 8. Also, in responding to these Requests, the Companies do not admit the truth, validity, completeness, or merit of any of the requesting party's Definitions, Instructions for Answering, Requests, or any subparts thereof as set forth below.

- 9. The Companies reserve the right to supplement any witness lists provided in response to these Requests as additional witnesses may be identified. The Companies' witnesses may testify to matters within their knowledge and expertise, including without limitation the topics in their prefiled written direct testimony, as well as to additional matters on rebuttal or in prefiled written testimony.
- 10. A statement that documents will be produced is not intended to suggest that responsive documents exist within the Companies' possession, custody, or control; nor is it intended to suggest that the Companies will search every electronic and paper file within their possession, custody, or control, because that exercise would be unduly burdensome and prohibitively expensive and is not required under the rules. A statement that documents will be produced means that the companies will search for documents in those places where the Companies reasonably anticipate they may be located and, if located and not subject to any privilege, the Companies will make them available for inspection and copying at a mutually agreeable time and place. Where applicable, the Companies will designate documents as confidential or competitively sensitive confidential and will release such documents only to parties with properly executed protective agreements.
- 11. The objections and responses contained herein and produced in response hereto are not intended to be, nor should they be, construed as waiving the Companies' right to object to these Requests or the information provided in response thereto for any purpose, including but not limited to discovery, motion practice, and hearing.
- 12. The objections and responses contained herein are not intended to be, nor should they be, construed as a waiver of the Companies' right to object to other discovery involving or relating to the subject matter of these Requests and responses.

- 13. The Companies object to these Requests to the extent they seek documents or information that is publicly available to, and thus equally accessible by, the requesting party.
- 14. The Companies object to those Requests that fail to include reasonable time parameters pursuant to which they are to be answered, on the basis that said requests are overly broad, unduly burdensome, expose the Companies to undue expense, and are designed to elicit information that is irrelevant and/or not likely to lead to the discovery of admissible evidence.
- 15. The Companies object to the definition of "Document" and "Documentation" to the extent they seek to impose obligations on the Companies that are broader than, or inconsistent with, those imposed by the rules of the Ohio Administrative Code and the Ohio Rules of Civil Procedure. The Companies construe the term "documents" to be synonymous in meaning and equal in scope to the usage of the term "documents" in Rule 34(A) of the Ohio Rules of Civil Procedure.
- 16. The Companies object to the definition of "PUCO" and "Commission" as vague and ambiguous because the definition conflates the identity and roll of PUCO Commissioners, Staff, and the Ohio Attorney General's Office.

Answer Prepared By: Juliette Lawless, Christopher Moravec, Ronald Lord As to Objections: Trevor Alexander

Case No. 23-0301-EL-SSO

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

ANSWERS TO INTERROGATORIES

OELC Set For each year during the term of FirstEnergy's ESP IV through the present year, please identify:

- a) The total number of customers and total number of accounts enrolled in FirstEnergy's Rider NMB Pilot in each year;
- b) For each account enrolled in FirstEnergy's Rider NMB Pilot at any time during the term of FirstEnergy's ESP IV, that account's Network Service Peak Load ("NSPL") value for each year that the account was enrolled in the Rider NMB Pilot;
- c) For each account enrolled in FirstEnergy's Rider NMB Pilot at any time during the term of FirstEnergy's ESP IV, that account's monthly billed demand for each month in each year that the account was enrolled in the Rider NMB Pilot; and
- d) An indication of which accounts enrolled in FirstEnergy's Rider NMB Pilot at any time during the term of FirstEnergy's ESP IV were enrolled through a reasonable arrangement approved by the PUCO.

Response: a)

Year	Customers	Accounts	Premise Numbers
2016	41	44	44
2017	41	59	63
2018	53	73	77
2019	56	78	82
2020	61	85	89
2021	75	105	108
2022	77	109	112
2023	71	97	99

^{*}This table include participants at the end of the NMB year; 2023 includes participants as of October 2023

b) See OELC Set 01-INT-001 Attachment 1 Confidential.

- c) Objection. The Request is overbroad and unduly burdensome in requesting monthly billed demand for each month in each year for each account enrolled in First Energy's Rider NMB Pilot at any time during the Companies' ESP IV. Subject to and without waiving the foregoing objection, see OELC Set 01-INT-001 Attachment 1 Confidential for the monthly demands for each Pilot participant while participating in the Pilot program for March 2019 through July 2023.
- d) Objection. This Request is vague and ambiguous in its use of the phrase "An indication of which accounts enrolled in FirstEnergy's Rider NMB Pilot." This Request seeks information that is not relevant and not reasonably calculated to lead to the discovery of admissible evidence. This Request improperly seeks or purports to require the Companies to provide information that is publicly available on the Commission's docket and thus equally available to the requesting party. Subject to and without waiving the foregoing objections, please see OELC Set 01-INT-001 Attachment 1 Confidential.

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ANSWERS TO INTERROGATORIES

OELC Set 01– INT-002

Referring to page 11, lines 7-9, of the testimony of Juliette Lawless filed in this Proceeding on April 5, 2023, Ms. Lawless testified that "the Companies are proposing to establish NMB 2 charges, which will apply only to commercial and industrial customers who have interval or advanced meters", please provide the following information:

- a) A detailed description of what types of meters qualify as an "interval or advanced meter" for purposes of this NMB 2 proposal, including a description of the functions of a meter that qualifies as an "interval" or "advanced" and an identification by manufacturer, make and model number of meters available in the market that FirstEnergy has installed or will install as an "interval" or "advanced" meter in its service territory;
- b) Whether there is a distinction or difference between an "interval meter" and an "advanced meter," or whether such phrases are referring to the same type of meter;
- c) How FirstEnergy notifies customers that an "interval or advanced meter" has been installed for their accounts and whether there is any indication on FirstEnergy's monthly bill that a customer has an "interval or advanced meter" for their account; and
- d) How many accounts currently enrolled in the Rider NMB Pilot have interval or advanced meters.

Response:

a) Objection. This Request is vague and ambiguous in its use of the phrase "descriptions of the functions of a meter that qualifies as an 'interval' or 'advanced.'" The Companies object to this Request that purports to require a detailed, narrative response. *Penn Central Transp. Co. v. Armco Steel Corp.*, 27 Ohio Misc. 76, 77 (C.P. 1971). Subject to and without waiving the foregoing objections, Advanced meters and interval meters have the ability to record usage data in either hourly or 15-minute intervals. Below is a list interval and advanced meter types by manufacturer and model number.

Meter Type	Manufacturer	Model No.
Advanced	ITRON	C2SOD
Advanced	ITRON	C2SODS
Advanced	ITRON	CN2SOD
Advanced	ITRON	CN2SODS
Advanced	ITRON	CP2SOA
Advanced	ITRON	CP2SOAS
Advanced	ITRON	CP3SOA
Advanced	ITRON	CP3SOAS
Interval	ELSTER	A1RLCQ+
Interval	ELSTER	A3RALC
Interval	GENERAL ELECTRIC	KV2C
Interval	ITRON	SS3S2L
Interval	ITRON	SS4S2L
Interval	LANDIS & GYR	AXRS4E
Interval	LANDIS & GYR	RXRS4E

- b) Interval meters are legacy meters used to record usage data in interval blocks. Advanced meters are smart meters capable of recording interval usage and voltage data, two-way communication as well as providing near real time data to customers. In either case, the customer's NSPL is determined based on their own interval data and is not determined based on a load profile.
- c) Typically, customers with interval meters would have requested those meters from the Companies, in which case no separate notice is necessary. Customers who are unsure if they have an interval meter may contact the Companies to inquire. For customer notification regarding advanced meters, please see: What You Can Expect: Meter Installation (firstenergycorp.com) and OELC Set 1-INT-002-Attachment 1. Customers' monthly bills include their meter number, which the Companies can identify as an advanced or interval meter, but customers would likely need to request that information from the Companies.
- d) 96 of the 99 customers currently enrolled in the Rider NMB Pilot have interval or advanced meters.

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ANSWERS TO INTERROGATORIES

OELC Set 01– INT-003

Referring to page 11, lines 7-9, of the testimony of Juliette Lawless filed in this Proceeding on April 5, 2023, Ms. Lawless testified that "the Companies are proposing to establish NMB 2 charges, which will apply only to commercial and industrial customers who have interval or advanced meters", please provide the following information:

- a) A detailed description regarding why FirstEnergy is proposing to apply NMB 2 charges only to commercial and industrial customers who have interval or advanced meters;
- b) A detailed explanation regarding why FirstEnergy is requiring that a commercial or industrial customer have an interval or advanced meter in order for the account at issue to be subject to the proposed NMB 2 rate;
- c) An explanation regarding whether a commercial or industrial customer must have an interval or advanced meter in order for FirstEnergy to know or determine the NSPL value for the account at issue;
- d) A detailed description regarding how FirstEnergy believes an interval or advanced meter will help a commercial or industrial customer manage their load during times of expected peak usage in FirstEnergy territory;
- e) A detailed description of the process of enrolling a customer with a newly installed interval or advanced meter into the NMB 2 rate, including how soon (described in days or billing cycles) after the installation of an interval or advanced meter the commercial or industrial customer account will be transition to the NMB 2 rate;
- f) A detailed description of the frequency with which interval kWh energy usage and kW demand data from interval or advanced meters in FirstEnergy service territory is uploaded to a FirstEnergy customer's online account portal¹ and made accessible to the customer through the portal, and how long that data for any particular day remains accessible to the customer;
- g) An explanation of whether or not a customer with an interval or advanced

¹ The FirstEnergy online account portal refers to the customer portal available through the "Log In" link at firstenergycorp.com with the data being available through the tool referred to by FirstEnergy as the "Analyze Usage Tool."

- meter can view their kWh energy usage and kW demand data at the same time it is recorded by the customer's meter (i.e., in "real-time") or alternatively whether the customer must wait a certain time period to have access to their energy usage and demand data;
- h) Whether an interval or advanced meter has the capability to predict or forecast peak load for FirstEnergy's service territory and, if so, whether such data is available to the customer through a FirstEnergy customer's online account portal; and
- i) Whether FirstEnergy is proposing to expand the data available through a FirstEnergy customer's online account portal to commercial and industrial customers with an interval or advanced meter.

- a) Objection. The Companies object to this Request that purports to require a detailed, narrative response. *Penn Central Transp. Co. v. Armco Steel Corp.*, 27 Ohio Misc. 76, 77 (C.P. 1971). Subject to and without waiving the foregoing objection, customers with interval or advanced meters have the ability to control their loads during peak load periods, thus directly managing their assigned NSPLs and providing the opportunity to lower their NMB 2 costs. Customers without interval or advanced meters would not be able to directly manage their NSPL because their NSPL is determined based on a load profile, and therefore would likely not have the same opportunity to manage their NMB 2 charges as customers with interval or advanced meters.
- b) Objection. The Companies object to this Request that purports to require a detailed, narrative response. *Penn Central Transp. Co. v. Armco Steel Corp.*, 27 Ohio Misc. 76, 77 (C.P. 1971). Subject to and without waiving the foregoing objection, please see the Companies' response to subpart a).
- c) Objection. The Companies object to this Request that purports to require a detailed, narrative response. *Penn Central Transp. Co. v. Armco Steel Corp.*, 27 Ohio Misc. 76, 77 (C.P. 1971). Subject to and without waiving the foregoing objection, while an interval meter is not required to calculate any customer's NSPL, an interval meter is required for those customers desiring to see the effects of the load management efforts directly recognized in the calculation of their NSPL. For customers that do not have an interval or advanced meter, their NSPL is calculated based on a load profile and not their specific individually measured interval data.
- d) Objection. The Companies object to this Request that purports to require a detailed, narrative response. *Penn Central Transp. Co. v. Armco Steel Corp.*, 27 Ohio Misc. 76, 77 (C.P. 1971). This Request seeks information that is not relevant and not reasonably calculated to lead to the discovery of admissible evidence. The request also mischaracterizes the Companies' proposal. Subject to and without waiving the foregoing objections, please see the Companies' response to subparts a) and c).

- e) Objection. The Companies object to this Request that purports to require a detailed, narrative response. *Penn Central Transp. Co. v. Armco Steel Corp.*, 27 Ohio Misc. 76, 77 (C.P. 1971). This Request seeks information that is not relevant and not reasonably calculated to lead to the discovery of admissible evidence. Subject to and without waiving the foregoing objections, the customer's bill following the installation of the interval or advanced meter would include charges for NMB 2 instead of NMB 1. This is done automatically through the Companies' billing system.
- f) Objection. The Companies object to this Request that purports to require a detailed, narrative response. *Penn Central Transp. Co. v. Armco Steel Corp.*, 27 Ohio Misc. 76, 77 (C.P. 1971). This Request seeks information that is not relevant and not reasonably calculated to lead to the discovery of admissible evidence. Subject to and without waiving the foregoing objections, currently, interval data is uploaded to the customer portal daily after it has gone through verification processes and no longer than two days after the day of operation. The customer portal retains 24 months of interval usage history.
- g) Objection. The Companies object to this Request that purports to require a detailed, narrative response. *Penn Central Transp. Co. v. Armco Steel Corp.*, 27 Ohio Misc. 76, 77 (C.P. 1971). This Request seeks information that is not relevant and not reasonably calculated to lead to the discovery of admissible evidence. Subject to and without waiving the foregoing objections, customers have the ability to view their usage data "in real time" by connecting energy monitoring equipment to an AMI meter using a qualified home area network (HAN) device or by requesting pulse service, which is further explained on the FirstEnergy Corp. website at: <u>Interval Metering and Pulse Service Ohio Smart Meters (firstenergycorp.com).</u>
- h) Objection. This Request seeks information that is not relevant and not reasonably calculated to lead to the discovery of admissible evidence. Subject to and without waiving the foregoing objection, the meter technology deployed by the Companies does not have capability to forecast peak loads.
- i) No. The Companies are not proposing to expand the capabilities of the currently operating customer portal at this time.

Answer Prepared By: Edward B. Stein As to Objections: Trevor Alexander

Case No. 23-0301-EL-SSO

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ANSWERS TO INTERROGATORIES

OELC Set 01– INT-004 Please describe whether a commercial or industrial customer without an interval or advanced meter can use other resources or information, such as PJM's website resources or a third-party vendor, to help the customer manage their load during times of expected peak usage in FirstEnergy territory.

Response:

Objection. The Companies object to this Request that purports to require a detailed, narrative response. *Penn Central Transp. Co. v. Armco Steel Corp.*, 27 Ohio Misc. 76, 77 (C.P. 1971). This Request seeks information that is not relevant and not reasonably calculated to lead to the discovery of admissible evidence. Subject to and without waiving the foregoing objections, yes, customers without interval or advanced meters can use other resources to help them manage their load. For example, if a customer shuts off the lights, they have managed their load and are using less electricity. However, if a customer wants to engage in load management programs of the Companies, PJM, or otherwise, the customer must meet the requirements of those programs, which typically require revenue-quality, interval metering in order to provide accurate representations of load reductions. Further, while these customers may be able to manage their loads, such behaviors will likely not be directly reflected in the customer's NSPL or PLC values because those will still need to be calculated based on load profiles without the availability of measured interval data.

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ANSWERS TO INTERROGATORIES

OELC Set 01– INT-005

Referring to FirstEnergy's responses to Question #8 of PUCO DR-010, FirstEnergy states that "Commercial and industrial customers with advanced meters cannot opt-out of the NMB 2 rates. Under the Companies' proposal, the billing system will automatically enroll customers with advanced meters into the NMB 2 rates. This will support cost alignment and alleviate the administrative burden that would come with making NMB 2 optional and having to track customers who opt-in and opt-out", please provide the following information:

- a) A detailed description of the "administrative burden" referenced in FirstEnergy's responses, including an estimate of the labor, overhead or other costs associated with such "administrative burden"; and
- b) A detailed description of how automatically enrolling a commercial or industrial customer with an interval or advanced meter in the NMB 2 rate "will support cost alignment".

Response:

a) Objection. The Companies object to this Request that purports to require a detailed, narrative response. Penn Central Transp. Co. v. Armco Steel Corp., 27 Ohio Misc. 76, 77 (C.P. 1971). Subject to and without waiving the foregoing objections, by "administrative burden", the Companies were referring to incremental administrative responsibilities required to make Rider NMB2 optional, as compared to the Companies' proposal. No estimate of the costs of these activities has been prepared, but the Companies anticipate that labor and potentially other-than-labor resources would be needed if Rider NMB2 was optional, including involvement from several internal groups such as Settlements, Customer Service, Settlements, Billing, Rates & Regulatory Affairs, Legal, IT, and others.

These incremental administrative activities may include, but would not be limited to:

- determining whether NMB2 would be opt-in or opt-out;
- developing processes/requirements for individual customers to

- opt-in or opt-out, including potential IT changes that may be necessary;
- developing a process to track customer decisions, including potential IT changes that may be necessary;
- developing internal processes and controls to ensure ongoing compliance with the program requirements; and
- training internal personnel to support the opt-in / opt-out process.
- b) Objection. The Companies object to this Request that purports to require a detailed, narrative response. Penn Central Transp. Co. v. Armco Steel Corp., 27 Ohio Misc. 76, 77 (C.P. 1971). Subject to and without waiving the foregoing objections, charging customers on a per NSPL basis under Rider NMB2 better aligns retail cost recovery with how the non-market-based services costs are assigned by PJM. See the direct testimony of Companies' witness Juliette Lawless at page 12, lines 6 through 11 and the direct testimony of Companies' witness Edward Stein at pages 10, line 2 through page 11, line 12.

Answer Prepared By: Juliette Lawless

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ANSWERS TO INTERROGATORIES

OELC Set For the proposed NMB 2 rate, will FirstEnergy use the actual NSPL values assigned to the account to bill NMB 2 charges, or will FirstEnergy use some other value? If some other value, please describe the calculation of that value.

Response: The Companies will use actual NSPL values assigned to the customer's account

to bill Rider NMB 2 rates.

Answer Prepared By: Juliette Lawless

Case No. 23-0301-EL-SSO

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ANSWERS TO INTERROGATORIES

OELC Set 01– INT-007 For the proposed NMB 2 rate, for those commercial and industrial customers in NMB 2, will NMB 2 rate charges be static on a month-to-month basis, only changing when the account at issue is assigned a new NSPL value on January 1 of any given year or when the NMB 2 rate is updated by FirstEnergy through its annual update filings referred to in the testimony of Juliette Lawless filed in this Proceeding at p. 11, lines 15-20? If not, please describe what other factors will lead to variations in the NMB 2 rate over the course of a calendar year.

Response:

Yes, Rider NMB 2 charges for an individual customer will remain the same each month until either the customer is assigned a new NSPL value or the Rider NMB 2 rate is updated.

Answer Prepared By: Juliette Lawless, Santino Fanelli As to Objections: Trevor Alexander

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ANSWERS TO INTERROGATORIES

OELC Set 01– INT-008

Referring to FirstEnergy's responses to Question #2 of PUCO DR-010, FirstEnergy states that "In developing this proposal, the Companies analyzed the potential bill impacts to customers from the proposed NMB 2 rates, compared to current Rider NMB rates. Please see PUCO DR-010 – Attachment 2. The assessment did not separate the customers based on whether they would remain on NMB 1 rates or if they would be on NMB 2 rates. The assessment also conservatively assumed that billing demand was equal to NSPL. It did not use exact values for specific customers or the calculated average ratio of NSPL to billing demand that can be seen in the attachment", please provide the following information:

- a) If only commercial and industrial customers with interval or advanced meters will be on the NMB 2 rate, and assuming FirstEnergy knows who those customers currently are, why does FirstEnergy's NMB 2 rate assessment described above not separate the customers based on whether they would remain on NMB 1 rates or be on NMB 2 rates:
- b) If 81% of commercial customers and 39% of industrial customers in FirstEnergy territory do <u>not</u> currently have advanced meters, as described in FirstEnergy's responses to Question #3 of PUCO DR-010, and thus those customers will not be on the NMB 2 rate as proposed by FirstEnergy, describe why FirstEnergy's NBM 2 rate assessment includes those customers and how their inclusion potentially impacts the NMB 2 rate assessment;
- c) Describe why FirstEnergy's assessment assumes that "billing demand was equal to NSPL" when historical data shows that NSPL values can vary from billing demand over the course of a calendar year, and why FirstEnergy labels this assumption as "conservative"; and
- d) Describe why FirstEnergy's NMB 2 rate assessment does not use exact values for specific customers or the calculated average ratio of NSPL to billing demand, which is data presumably available to FirstEnergy.

Response:

Objection. The Companies object to these Requests that purport to require a

- detailed, narrative response. Penn Central Transp. Co. v. Armco Steel Corp., 27 Ohio Misc. 76,77 (C.P. 1971). The requests also mischaracterize the Companies' prior responses. Subject to and without waiving the foregoing objection, the Companies respond as follows:
- a) The Companies analyzed the impacts of proposed Rider NMB1 and Rider NMB2 rates separately. PUCO DR-010 Attachment 2 estimates the typical bill impacts on customers comparing current Rider NMB rates to proposed Rider NMB2 rates. PUCO DR-010 Attachment 3 estimates the typical bill impacts on customers comparing current Rider NMB rates to proposed Rider NMB1 rates. These analyses were not conducted on an individual customer basis, but rather, focused on average typical bill impacts across a series of usage levels for all customers, consistent with typical bill analyses included in the Companies' regulatory filings before the Commission. Under this approach, individual customers did not need to be separated between Rider NMB1 and Rider NMB 2.
- b) Please see the Companies' response to subpart a) above.
- c) As explained in the response to subpart a), the Companies' typical bill analyses were based on estimated average impacts across a series of usage levels. As can be seen in PUCO DR-010 Attachment 2, the calculated percentage of NSPL to demand varies from 32.1% to 135.2% with the average of these being 78.2%. The Companies used 100% conversion of demand to NSPL since individual customers may have percentage difference of above or below these calculated percentages. For purposes of this analysis, the percentage was considered conservative since it is higher than the calculated average of the percentage conversion of demand to NSPL.
- d) Please see the Companies' response to subpart a). The analysis in PUCO DR-010 Attachment 2 includes the average ratios of NSPL to billing demand for each rate schedule. The Companies analyzed the estimated typical bill impacts using those ratios as well, but for the reasons explained in the response to subpart c), focused on the analysis assuming that average billing demand was equal to NSPL. In addition, customers served under Rider NMB 2 would have the opportunity to manage their peak loads before implementation, which could change the estimated impact of Rider NMB 2 for individual customers.

Answer Prepared By: Chris Moravec

Case No. 23-0301-EL-SSO

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ANSWERS TO INTERROGATORIES

OELC Set Please identify, for each partial or full calendar year of the proposed term for **01–INT-009** ESP V, FirstEnergy's forecasts of the annual peak demand for all customers in

FirstEnergy's service territory for that partial or full calendar year.

Response: Please see the Companies' response to OELC Set 01-RPD-003.

Answer Prepared By: Edward B. Stein As to Objections: Trevor Alexander

Case No. 23-0301-EL-SSO

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ANSWERS TO INTERROGATORIES

OELC Set 01– INT-010

Please provide FirstEnergy's current estimate of the total aggregate load in MW for all <u>non-residential customers</u> that may be interruptible or curtailable in FirstEnergy territory, whether or not that load currently participates in any PJM or FirstEnergy demand response or interruptible program.

Response:

Objection. This Request seeks information that is not relevant and not reasonably calculated to lead to the discovery of admissible evidence. Subject to and without waiving the foregoing objections, according to PJM's DR Hub, the total number of MWs in the capacity market in the Companies' territories is 1,050.

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ANSWERS TO INTERROGATORIES

OELC Set 01– INT-011

Please identify the total load in MW that was curtailed or interrupted in FirstEnergy territory on December 23, 2022, as a result of any interruptible notice originating from PJM (including, but not limited to, any Pre-Emergency Load Management Reduction Action, Emergency Load Management Reduction Action or NERC level EEA2 initiated or issued by PJM at any time on December 23, 2022).

Response:

Objection. This Request seeks information that is not relevant and not reasonably calculated to lead to the discovery of admissible evidence. The request also seeks information not in the Companies' possession or control. Subject to and without waiving the foregoing objections, the Companies only have information regarding load curtailed or interrupted as a result of PJM notices as it relates to Rider ELR customers. The Companies did not initiate an Emergency Curtailment Event for their Rider ELR customers on December 23, 2022. Also, please see the Companies' response to OELC Set 01-INT-021.

Answer Prepared By: Brandon McMillen As to Objections: Trevor Alexander

Case No. 23-0301-EL-SSO

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

ANSWERS TO INTERROGATORIES

OELC Set For the load identified in response to ROG-01-011, please identify:

- **01–INT-012** a) the total number of FirstEnergy accounts included in that curtailed or interrupted load;
 - b) for the accounts included in the response to subpart (a) of this interrogatory, the total number of those accounts that were participating or being served under FirstEnergy's Rider ELR on December 23, 2022;
 - c) for the accounts included in the response to subpart (b) of this interrogatory as participating or being served under FirstEnergy's Rider ELR, the total load in MW that was curtailed or interrupted at any time on December 23, 2022;
 - d) for the accounts included in the response to subpart (b) of this interrogatory as participating or being served under FirstEnergy's Rider ELR, the cumulative total number of hours that those accounts were curtailed or interrupted at any time on December 23, 2022;
 - e) for each of the accounts included in the response to subpart (b) of this interrogatory as participating or being served under FirstEnergy's Rider ELR, the peak load contribution (PLC) values for each account for the current 2022/2023 delivery year and future 2023/2024 delivery year;
 - f) for each of the accounts included in the response to subpart (b) of this interrogatory as participating or being served under FirstEnergy's Rider ELR, the monthly billed demand for each account for the 12 billing cycles with service periods ending in June 2022 through May 2023; and
 - g) a detailed itemization of all payments, revenues and/or penalties received by FirstEnergy from PJM related to the load curtailment on December 23, 2022, or the interruptible notice originating from PJM on that date.

Response: a) Not applicable.

- b) Not applicable.
- c) Not applicable.

- d) Not applicable.
- e) Objection. This Request seeks information that is not relevant and not reasonably calculated to lead to the discovery of admissible evidence. Subject to and without waiving the foregoing objection, not applicable.
- f) Objection. This Request seeks information that is not relevant and not reasonably calculated to lead to the discovery of admissible evidence. Subject to and without waiving the foregoing objections, not applicable.
- g) Objection. This Request is vague and ambiguous in its use of the phrase "or the interruptible notice originating from PJM on that date." This Request seeks information that is not relevant and not reasonably calculated to lead to the discovery of admissible evidence. Subject to and without waiving the foregoing objections, see the Companies' response to OELC Set 01-INT-014.

Answer Prepared By: Brandon McMillen As to Objections: Trevor Alexander

Case No. 23-0301-EL-SSO

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

ANSWERS TO INTERROGATORIES

OELC Set 01– INT-013

Please identify the total load in MW that was curtailed or interrupted in FirstEnergy territory on December 24, 2022, as a result of any interruptible notice originating from PJM (including, but not limited to, any Pre-Emergency Load Management Reduction Action, Emergency Load Management Reduction or NERC level EEA2 initiated or issued by PJM at any time on December 24, 2022).¹

Response:

Objection. This Request seeks information that is not relevant and not reasonably calculated to lead to the discovery of admissible evidence. Subject to and without waiving the foregoing objections, the Companies only have information regarding load curtailed or interrupted as a result of PJM notices as it relates to Rider ELR customers. See the Companies' response to OCC Set 05-INT-006(g).

¹ Please refer to this publicly-available PJM presentation if further details are required on the terms used in this interrogatory: https://www.pjm.com/-/media/committees-groups/committees/mic/2023/20230111/item-0x---winter-storm-elliott-overview.ashx

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

ANSWERS TO INTERROGATORIES

OELC Set 01– INT-014

For the load identified in response to ROG-01-013, please identify:

- a) the total number of FirstEnergy accounts included in that curtailed or interrupted load;
- b) for the accounts included in the response to subpart (a) of this interrogatory, the total number of those accounts that were participating or being served under FirstEnergy's Rider ELR on December 24, 2022;
- c) for the accounts included in the response to subpart (b) of this interrogatory as participating or being served under FirstEnergy's Rider ELR, the total load in MW that was curtailed or interrupted at any time on December 24, 2022:
- d) for the accounts included in the response to subpart (b) of this interrogatory as participating or being served under FirstEnergy's Rider ELR, the cumulative total number of hours that those accounts were curtailed or interrupted at any time on December 24, 2022;
- e) for each of the accounts included in the response to subpart (b) of this interrogatory as participating or being served under FirstEnergy's Rider ELR, the peak load contribution (PLC) values for each account for the current 2022/2023 delivery year and future 2023/2024 delivery year;
- f) for each of the accounts included in the response to subpart (b) of this interrogatory as participating or being served under FirstEnergy's Rider ELR, the monthly billed demand for each account for the 12 billing cycles with service periods ending in June 2022 through May 2023; and
- g) a detailed itemization of all payments, revenues and/or penalties received by FirstEnergy from PJM related to the load curtailment on December 24, 2022, or the interruptible notice originating from PJM on that date.

Response:

Objection. This Request seeks information that is not relevant and not reasonably calculated to lead to the discovery of admissible evidence. Subject to and without waiving the foregoing objections:

a) 24 ELR customers were curtailed.

- b) See the Companies' response to subpart (a).
- c) See the Companies' response to OCC Set 05-INT-006(g).
- d) See the Companies' response to OCC Set 05-INT-006(e).
- e) Objection. This Request seeks information that is not relevant and not reasonably calculated to lead to the discovery of admissible evidence. Subject to and without waiving the foregoing objection, see OELC Set 01-INT-014 Attachment 1 Confidential.
- f) Objection. This Request seeks information that is not relevant and not reasonably calculated to lead to the discovery of admissible evidence. Subject to and without waiving the foregoing objection, see OELC Set 01-INT-014 Attachment 2 Confidential.
- g) Objection. This Request is vague and ambiguous in its use of the phrase "or the interruptible notice originating from PJM on that date." This Request seeks information that is not relevant and not reasonably calculated to lead to the discovery of admissible evidence. Subject to and without waiving the foregoing objections, the Companies received approximately \$11.4M in payments from PJM for the curtailment events in December 2022.

OECSP	
3/1/2023 0:00	\$ (2,151,718.16)
4/1/2023 0:00	\$ (2,944,130.26)
5/1/2023 0:00	\$ (2,721,728.86)
6/1/2023 0:00	\$ (1,405,837.57)
7/1/2023 0:00	\$ (1,086,346.53)
8/1/2023 0:00	\$ (1,132,623.12)
	\$ (11,442,384.50)

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

ANSWERS TO INTERROGATORIES

OELC Set 01– INT-015 Please identify the number of FirstEnergy accounts that were participating or being served under FirstEnergy's Rider ELR on December 23, 2022, that failed to curtail or interrupt load on that day in response to any interruptible notice originating from PJM or FirstEnergy, and for those accounts identify the total aggregate amount of load in MW that should have been curtailed or interrupted on that day.

Response: None. See the Companies' response to OELC Set 01-INT-021.

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

ANSWERS TO INTERROGATORIES

OELC Set 01– INT-016

Please identify the number of FirstEnergy accounts that were participating or being served under FirstEnergy's Rider ELR on December 24, 2022, that failed to curtail or interrupt load on that day in response to any interruptible notice originating from PJM or FirstEnergy, and for those accounts identify the total aggregate amount of load in MW that should have been curtailed or interrupted on that day.

Response: None.

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

ANSWERS TO INTERROGATORIES

OELC Set 01– INT-017

Referring to FirstEnergy's proposal for ESP V that participants in Rider ELR must participate in PJM load management programs through a third-party curtailment service provider, please describe how customers that either do not have a nomination for emergency demand response or whose nomination value is de minimis, and thus may not be eligible to participate in a PJM load management program, can continue to participate in Rider ELR during ESP V.

Response:

Objection. The Companies object to this Request that purports to require a detailed, narrative response. Penn Central Transp. Co. v. Armco Steel Corp., 27 Ohio Misc. 76, 77 (C.P. 1971). Subject to and without waiving the foregoing objections, PJM capacity market demand response nominations are made on an aggregated or portfolio level by PJM zone that involves the evaluation of all individual demand response customers. A customer with a zero or de minimis individual load response capability can still participate in and benefit from a PJM load management program. These customers can help to contribute their summer and/or winter performance capabilities to the aggregated load response portfolio and allow additional capabilities of other customers in the resource portfolio to be utilized by reducing down to their firm load during an emergency event.

Answer Prepared By: Edward B. Stein, Robert J. Greene As to Objections: Trevor Alexander

Case No. 23-0301-EL-SSO

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

ANSWERS TO INTERROGATORIES

OELC Set 01– INT-018

For FirstEnergy's total hourly metered load consumed in FirstEnergy's service territory for the 24-hour period beginning at 00:00 EST on December 23, 2022 and ending at 23:59 EST on December 23, 2022, please provide the following information:

- a) For each hour in that 24-hour period, please identify in MW with as much specificity as available what portion of that load was consumed by different customer classes within FirstEnergy's service territory (i.e., Residential, Commercial, Industrial); and
- b) If available, also provide the 15-minute interval data for the metered load consumed in FirstEnergy's service territory for that 24-hour period and, if also available, identify in MW with as much specificity as available what portion of that load was consumed by different customer classes within FirstEnergy's service territory (i.e., Residential, Commercial, Industrial).

- a) Objection. This Request seeks information that is not relevant and not reasonably calculated to lead to the discovery of admissible evidence. Subject to and without waiving the foregoing objection, See the Companies' energy procurement website:
 https://firstenergycorp.com/content/dam/upp/files/oh/load-data/OH_Hourly_Load_by_Class.xlsx
- b) Objection. This Request seeks information that is not relevant and not reasonably calculated to lead to the discovery of admissible evidence. Subject to and without waiving the foregoing objection, at this time, the Companies only have access to 15-minute interval data for commercial and industrial customers with advanced meters who are billed on 15- or 30-minute demand. See OELC Set 01-INT-018 Attachment 1 for the requested data for these customers.

Answer Prepared By: Edward B. Stein As to Objections: Trevor Alexander

Case No. 23-0301-EL-SSO

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

ANSWERS TO INTERROGATORIES

OELC Set 01– INT-019

For FirstEnergy's total hourly metered load consumed in FirstEnergy's service territory for the 24-hour period beginning at 00:00 EST on December 24, 2022 and ending at 23:59 EST on December 24, 2022, please provide the following information:

- a) For each hour in that 24-hour period, please identify in MW with as much specificity as available what portion of that load was consumed by different customer classes within FirstEnergy's service territory (i.e., Residential, Commercial, Industrial); and
- b) If available, also provide the 15-minute interval data for the metered load consumed in FirstEnergy's service territory for that 24-hour period and, if also available, identify in MW with as much specificity as available what portion of that load was consumed by different customer classes within FirstEnergy's service territory (i.e., Residential, Commercial, Industrial).

- a) Objection. This Request seeks information that is not relevant and not reasonably calculated to lead to the discovery of admissible evidence. Subject to and without waiving the foregoing objection, see the Companies' response to OELC Set 01– INT-018 (a).
- b) Objection. This Request seeks information that is not relevant and not reasonably calculated to lead to the discovery of admissible evidence. Subject to and without waiving the foregoing objection, the Companies only have access to 15-minute interval data for commercial and industrial customers with advanced meters who are billed on 15- or 30-minute demand. See OELC Set 01-INT-019-Attachment 1 for the requested data for these customers.

Answer Prepared By: Chris Moravec As to Objections: Trevor Alexander

Case No. 23-0301-EL-SSO

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

ANSWERS TO INTERROGATORIES

OELC Set 01– INT-020

Please identify the following:

- a) The number of electricity service accounts in FirstEnergy's service territory that had a peak demand equal to or greater than 1,000 kW but less than 2,500 kW in calendar year 2022;
- b) The number of electricity service accounts in FirstEnergy's service territory that had a peak demand equal to or greater than 2,500 kW but less than 5,000 kW in calendar year 2022;
- c) The number of electricity service accounts in FirstEnergy's service territory that had a peak demand equal to or greater than 5,000 kW but less than 10,000 kW in calendar year 2022;
- d) The number of electricity service accounts in FirstEnergy's service territory that had a peak demand equal to or greater than 10,000 kW but less than 25,000 kW in calendar year 2022;
- e) The number of electricity service accounts in FirstEnergy's service territory that had a peak demand equal to or greater than 25,000 kW but less than 50,000 kW in calendar year 2022;
- f) The number of electricity service accounts in FirstEnergy's service territory that had a peak demand equal to or greater than 50,000 kW but less than 75,000 kW in calendar year 2022;
- g) The number of electricity service accounts in FirstEnergy's service territory that had a peak demand equal to or greater than 75,000 kW but less than 100,000 kW in calendar year 2022;
- h) The number of electricity service accounts in FirstEnergy's service territory that had a peak demand equal to or greater than 100,000 kW but less than 250,000 kW in calendar year 2022; and
- i) The number of electricity service accounts in FirstEnergy's service territory that had a peak demand equal to or greater than 250,000 kW in calendar year 2022.

Response:

The Companies do not track peak demand for residential customers. Please see below for the numbers of customers served under Rate Schedules GS, GP, GSU, and GT at the requested peak demand levels. The Companies are providing customer counts, rather than accounts, for consistency with their FERC Form 1 reporting:

- a) 740
- b) 243
- c) 92
- d) 71
- e) 21
- f) 5
- g) 4
- h) 3
- i) 1

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

ANSWERS TO INTERROGATORIES

OELC Set 01– INT-021

In response to Subpart (c) of Interrogatory No. 4 of the first set of discovery requests from Nucor Steel Marion, Inc. ("Nucor") (Nucor Set 01 – INT-004), FirstEnergy stated that, "there have been metering, dispatch, and customer performance issues. For example, the Companies experienced a malfunction of the automated notification system for a recent PJM emergency event causing response to the event to be delayed." With respect to this "malfunction" referenced by FirstEnergy, please provide the following information:

- a) identify when the malfunction occurred;
- b) identify what caused the malfunction;
- c) describe specifically what the malfunction was;
- d) describe specifically what delay occurred as a result of the malfunction;
- e) identify how long of a delay was caused by the malfunction;
- f) identify the specific amount of any penalties assessed by PJM as a result of this delay in response described by FirstEnergy; and
- g) if there were PJM penalties, identify whether FirstEnergy has sought to recover any portion of those penalties from its customers.

- a) The malfunction occurred on December 23, 2023, and December 24, 2023.
- b) The Companies have a notification system in place that automatically polls the PJM DR Hub for emergency curtailment events. Once an event is called by PJM, the Companies' system will be triggered, and notifications would be sent to the customers called by PJM through a webservice. When the events in December were triggered, the webservice returned an error and did not send the notifications. This was due to API integration with the webservice. Once the error was discovered, the Companies sent out notifications manually.
- c) See the Companies' response to b).
- d) On December 23, 2023, PJM triggered events for 5 ELR customers at 5:30PM and 6:00PM and ended the events at 10:15 PM. On December 24, 2023, PJM triggered events at 4:20AM, 5:00AM and 6:30AM for all ELR customers.

After identifying the malfunction of the notification system and confirming the customers that were called to curtail, the Companies began to send out event notices at 9:30AM on December 24, 2023.

- e) See the Companies' response to d).
- f) Due to the Companies' ELR customers overperformance in the event hours, the Companies did not receive any penalties. See also the Companies' response to OELC Set 01-INT-014.
- g) Not applicable.

Answer Prepared By: Edward B. Stein

Case No. 23-0301-EL-SSO

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

ANSWERS TO INTERROGATORIES

OELC Set 01– INT-022

Referring to page 6, lines 21-23, of the testimony of Edward Stein filed in this Proceeding on April 5, 2023, where Mr. Stein testified that "the available credits (which include credits under Rider ELR and the Companies' Economic Development Rider ('Rider EDR') provision (b)) each are equivalent to approximately \$164/MW/Day", please identify and provide the formula and calculation referred to or relied on by Mr. Stein to testify as to this specific \$164/MW/Day figure.

\$ 5	5.00	12 kw/mo	1 kw/yr	1000 kw/day	_	60000	_	\$164.38
1 kw/n	no	1 kw/yr	365 kw/day	1MW/day	_	365	_	1 MW/Day

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

ANSWERS TO INTERROGATORIES

OELC Set 01– INT-023

Referring to page 14, lines 3-5, of the testimony of Brandon McMillen filed in this Proceeding on April 5, 2023, where Mr. McMillen testified that "Currently, the Companies are eligible to receive revenues from PJM if the Rider ELR demand response resources clear in the PJM capacity auctions, and 80% of those revenues are provided to customers to offset the costs of the Rider ELR and Rider EDR(b) credits", please provide the following information:

- a) describe why FirstEnergy keeps 20% of the PJM revenues associated with Rider ELR demand response resources that clear in the PJM capacity auctions;
- b) describe what services FirstEnergy provides, if any, to justify the retention of 20% of the PJM revenues associated with Rider ELR demand response resources that clear in the PJM capacity auctions;
- c) identify the PUCO order or tariff provision that permits FirstEnergy to retain 20% of the PJM revenues associated with Rider ELR demand response resources that clear in the PJM capacity auctions; and
- d) describe whether FirstEnergy retains any other PJM revenues associated with Rider ELR demand response resources, including, but not limited to, emergency energy payments made by PJM for demand response events.

- a) See the July 17, 2013 Entry on Rehearing in Case No. 12-2190-EL-POR (paragraph 8) and the November 21, 2017 Opinion and Order in Case No. 16-0743-EL-POR (paragraphs 34 and 74).
- b) See the Companies' response to part a).
- c) See the Companies' response to part a).
- d) The Companies retain 20% of all PJM revenues associated with energy efficiency and demand response programs, including but not limited to emergency payments made by PJM for demand response events, pursuant to the response to part a).

Answer Prepared By: Edward Miller As to Objections: Trevor Alexander

Case No. 23-0301-EL-SSO

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

ANSWERS TO INTERROGATORIES

OELC Set 01– INT-024

Referring to page 25, lines 6-7, of the testimony of Edward Miller filed in this Proceeding on April 5, 2023, where Mr. Miller testified that "The Companies propose to develop and offer an opt-out process for Large Customers given the prior history in the state and based on feedback provided to the Companies", please provide the following information:

- a) describe with specifics the "prior history in the state" referred to by Mr. Miller; and
- b) describe with specifics the "feedback provided to the Companies" including the identity of the person or entity providing such feedback, the date of the feedback and the substance of that feedback.

- a) The Companies object to this Request that purports to require a detailed, narrative response. Penn Central Transp. Co. v. Armco Steel Corp., 27 Ohio Misc. 76, 77 (C.P. 1971). Subject to and without waiving the foregoing objection, the reference to "prior history in the state" is referring to the experience of the Companies with implementation of the Mercantile Customer Self-Direct program during the period 2009 to 2020 where certain customers were able to opt-out of Rider DSE2 with completion of self-directed projects, as well as implementation of an opt-out provision beginning January 1, 2017 pursuant to Ohio R.C. 4928.6611 until 2020. Such history includes the Companies' experience with administration and implementation of the opt-outs, including but not limited to application processing and verifying eligibility.
- b) Objection. This Request seeks information that is not relevant and not reasonably calculated to lead to the discovery of admissible evidence. Subject to and without waiving the foregoing objections, the "feedback provided to the Companies refers to input received by the Companies during meetings with interested stakeholders on November 15, 2022 and February 24, 2023 to solicit input for planning ESP V, where certain stakeholders expressed a preference to have the ability to opt-out of utility

sponsored energy efficiency programs.

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

ANSWERS TO INTERROGATORIES

OELC Set 01– INT-025

Referring to page 30, lines 9-13, of the testimony of Edward Miller filed in this Proceeding on April 5, 2023, where Mr. Miller testified that "The Companies propose to utilize the previously approved Commission practice in which 80% of PJM net revenues obtained from cleared EE resources (revenues minus costs) from the FCM would offset the EE/PDR Plan revenue requirements in the years the PJM FCM revenues are realized, with 20% of the PJM FCM revenues retained by the Companies", please provide the following information:

- a) describe why FirstEnergy is proposing to keep 20% of the PJM net revenues described by Mr. Miller;
- b) describe what services FirstEnergy will provide, if any, to justify the retention of 20% of the PJM net revenues described by Mr. Miller; and
- c) identify all PUCO orders or tariffs reflecting the "previously approved Commission practice" referred to by Mr. Miller.

- a) The Companies propose to continue the 80/20 percent sharing of revenues between customers and the Companies, consistent with the July 17, 2013 Entry on Rehearing in Case No. 12-2190-EL-POR (paragraph 8) and the November 21, 2017 Opinion and Order in Case No. 16-0743-EL-POR (paragraphs 34 and 74).
- b) The Companies will perform analysis and develop offers for eligible EE Resources from programs into applicable PJM Base Residual Auctions ("BRAs") and/or Incremental Auctions ("IAs"). The Companies intend to offer in EE peak reduction values from programs consistent with PJM's governing Manuals 18 and 18B. The Companies plan the following high-level processes for use in the development of its EE resource values to facilitate participation in the PJM Capacity Auctions:
 - a. Identify and remove PJM ineligible measures and establish Capacity Rights to the EE resources to be considered.
 - b. Categorize PJM eligible measures by PJM Program name and segregate EE resources into the applicable PJM delivery year.
 - c. Determine the kW savings values for each measure for the PJM

- defined summer and winter periods, based on assigned savings load shape, accounting for delivery channel, interactive factors and fuel.
- d. Aggregate kW savings based on PJM Capacity performance kW values being the lesser of the summer or winter kW values by installation period, to maximize offers and allow for otherwise stranded resources to participate.
- e. Recognize costs to participate vs anticipated revenues for selection of EE resources to be offered.
- f. Recognize that EE resources have a limited offer duration of four years with additional installation period limitations.
- g. Recognize that PJM Auctions have been delayed and some IA auctions cancelled, resulting in the potential for EE resources from some installation periods no longer being eligible for inclusion in auctions.
- c) See the response to subpart a)

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ANSWERS TO INTERROGATORIES

OELC Set 01– INT-026

Referring to the "Energy Solutions for Business" program described on pages 22-25 of the testimony of Edward Miller filed in this Proceeding on April 5, 2023, please provide the following information:

- a) how FirstEnergy proposes to select the "implementation vendor" referred to in the program description;
- b) the estimated number of FirstEnergy employees that will have some responsibility for supporting the implementation and/or operation of the program; and
- c) the amount of revenue FirstEnergy anticipates or estimates will be generated for FirstEnergy from the "Energy Solutions for Business" program during the proposed term of ESP V, including, but not limited to, revenue associated with O&M costs, program administration costs or revenue from yendors.

- a) FirstEnergy Service Company's Energy Efficiency ("EE") Department is responsible for selecting and acquiring implementation vendors who will be responsible to administer, promote, and provide the programs and program services to customers. The EE Department selection process prioritizes criteria including, but not limited to the vendors' experience delivering similar programs or initiatives, vendor resources and marketing strength and cost to select qualified third-party implementation vendors for delivery of its programs.
- b) The EE Department is responsible for the design, implementation and management of all energy efficiency and demand response programs across FirstEnergy's various operating companies, including the Companies' Energy Solutions for Business program. Key activities include acquiring and managing the program implementation vendors to ensure quality control and assurance over program implementation, conducting program evaluation, measurement and verification, tracking and reporting. Various members of the EE Department will spend a portion of their time to directly perform and/or support the operation of the Companies' portfolio of programs including the Energy Solutions for Business Program. The Companies

- anticipate that approximately 8-11 employees will be involved in this program.
- c) The Companies propose that their revenues will offset their costs, including carrying charges, and have the opportunity to retain 20% of revenues from its offers for eligible EE Resources from the programs into applicable PJM Base Residual Auctions ("BRAs") and/or Incremental Auctions ("IAs"). See the direct testimony of Brandon S. McMillen for a description of the Companies' cost recovery proposal and see the direct testimony of Edward Miller for the anticipated costs of the "Energy Solutions for Business" program.

In the Matter of the Application of the 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

RESPONSE TO REQUEST FOR PRODUCTION OF DOCUMENTS

OELC Set
O1 – RPDO01
Please produce all workpapers, Excel files, calculations, worksheets or other documents identified, referred to or relied upon by FirstEnergy in responding to the above first set of interrogatories by OELC.

Response: Objection. This Request is vague and ambiguous in its use of the term "relied upon." Subject to and without waiving the foregoing objection, see the Companies' responses to the interrogatories in OELC Set 01.

In the Matter of the Application of the 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

RESPONSE TO REQUEST FOR PRODUCTION OF DOCUMENTS

OELC Set 01 – RPD-002 Please produce all forecasts prepared by FirstEnergy of anticipated transmission investments required to serve its customer load for any portion or all of the proposed term of ESP V.

Response:

Objection. The Request seeks information that is irrelevant and is not reasonably calculated to lead to the discovery of admissible evidence. This Request is also vague and ambiguous in its use of the term "forecasts" and the phrase "transmission investments." The Request seeks information regarding transmission information which is not in the possession of the Companies. In addition, the Request seeks or purports to require the Companies to provide documents and/or information that is publicly available or already in the possession, custody, or control of the requesting party, and thus equally available to the requesting party. Subject to and without waiving the foregoing objections, see the Companies' 2023 Electric Long-Term Forecast Report filed in Case No. 23-0504-EL-FOR.

In the Matter of the Application of the 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

RESPONSE TO REQUEST FOR PRODUCTION OF DOCUMENTS

OELC Set 01 – **RPD-** 003

Please produce all peak demand forecasts prepared by FirstEnergy for its

customer load for any portion or all of the proposed term of ESP V.

Response:

Objection. The Request is overbroad and unduly burdensome in requesting all peak demand forecasts prepared by FirstEnergy for its customer load. Subject to and without waiving the foregoing objections, see OELC Set 01-RPD-003 Attachment 1 for the Companies' monthly peak demand forecast that was

finalized in January 2023.

In the Matter of the Application of the 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

RESPONSE TO REQUEST FOR PRODUCTION OF DOCUMENTS

OELC Set 01 – **RPD-** 004

Please produce all forecasts of billing units prepared by FirstEnergy for its customers for any portion or all of the proposed term of ESP V, including, but not limited to, the "Forecast as of December 2022" referenced as a "source" on page 4 of JL-4 Exhibit A, Attachment A.

Response:

Objection. The Request is overbroad and unduly burdensome in requesting all forecasts of billing units prepared by FirstEnergy for its customers. Subject to and without waiving the foregoing objections, see OELC Set 01-RPD-004 Attachment 1.for the forecast that is referenced as source on page 4 of Attachment JL-4 Exhibit A. Please note that Attachment JL-4 used forecasted billing units for the months of April 2023 through March 2024.

In the Matter of the Application of the 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

RESPONSE TO REQUEST FOR PRODUCTION OF DOCUMENTS

OELC Set
O1 – RPDO05
Please produce all documents detailing, containing or reflecting the proposed schedule or plan for the future installation of interval or advanced meters in FirstEnergy service territory.

Response: Objection. The Request is overbroad and unduly burdensome in requesting all documents detailing, containing or reflecting the proposed schedule or plan for the future installation of interval or advanced meters. Subject to and without waiving the foregoing objections, please see OELC Set 1-RPD-005 Attachment 1, OELC Set 1-RPD-005-Attachment 2, and refer to the Companies' Grid Mod

In the Matter of the Application of the 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

RESPONSE TO REQUEST FOR PRODUCTION OF DOCUMENTS

OELC Set 01 – **RPD-** 006

Referring to the "Energy Solutions for Business" program described on pages 22-25 of the testimony of Edward Miller filed in this Proceeding on April 5, 2023, please produce all documents detailing, containing or reflecting the proposed program plan and offerings for the proposed "Energy Solutions for Business" program.

Response:

Objection. The Request is overbroad and unduly burdensome in requesting all documents detailing, containing or reflecting the proposed program plan and offerings for the proposed "Energy Solutions for Business" program. Subject to and without waiving the foregoing objections, see the testimony of Edward Miller filed in this proceeding which describes the proposed Energy Solutions for Business program and provides workpapers that identify the measures to be offered, the Companies' participation projections and budgets for this program.

In the Matter of the Application of the 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

RESPONSE TO REQUEST FOR PRODUCTION OF DOCUMENTS

OELC Set 01 – **RPD**-007

Please produce all studies, assessments, analyses, reports, or other documents relied on or referenced by FirstEnergy in developing the changes to Rider NMB proposed in FirstEnergy's ESP V application in this Proceeding, including, but not limited to, the establishment of an NMB 2 rate and elimination of the Rider NMB Pilot.

Response:

Objection. The Request is overbroad and unduly burdensome in requesting all studies, assessments, analyses, reports, or other documents relied on or referenced by FirstEnergy in developing the changes to Rider NMB proposed in FirstEnergy's ESP V application in this Proceeding. The request is also vague and ambiguous as to the phrase "relied on". Subject to and without waiving the foregoing objections, the Companies' Rider NMB proposal in ESP V was informed by stakeholder comments submitted in Case No. 23-0051-EL-RDR and feedback received in meetings with interested stakeholders prior to filing of ESP V. In addition, please see Attachment JL-4 of the Application and PUCO DR-010 Attachment 2.

In the Matter of the Application of the 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

RESPONSE TO REQUEST FOR PRODUCTION OF DOCUMENTS

OELC Set 01 – RPD-008 Please produce all studies, assessments, analyses, reports, or other documents relied on or referenced by FirstEnergy in developing the changes to Rider ELR proposed in FirstEnergy's ESP V application in this Proceeding, including, but not limited to, the proposed use of a third-party curtailment service provider and proposed phase-down of credits.

Response:

Objection. The Request is overbroad and unduly burdensome in requesting all studies, assessments, analyses, reports, or other documents relied on or referenced by FirstEnergy in developing the changes to Rider ELR proposed in FirstEnergy's ESP V application in this Proceeding. Subject to and without waiving the foregoing objection, see the Companies' responses to Nucor Set-01-INT-003, Nucor Set-01-INT-005, and Nucor Set-01-INT-006.

CERTIFICATE OF SERVICE

I certify that a true copy of the foregoing Objections and Responses to Ohio Energy Leadership Council's First Set of Interrogatories and Requests for Production of Documents upon The Ohio Edison Company, the Cleveland Electric Illuminating Company, and The Toledo Edison Company was served upon the persons below via electronic transmission on this 5th day of October, 2023:

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Attorney for Ohio Edison Company, The
Cleveland Electric Illuminating Company, and
The Toledo Edison Company

EXHIBIT MB-5

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

RESPONSES TO THE PUBLIC UTILITIES COMMISSION OF OHIO'S DATA REQUESTS

PUCO DR- Please provide the following related to DR 10: **020**

- 1. DR -010-Attachment 1:
 - a. An explanation on why the NMB 2 NSPL rate is a combined rate for all the Companies and GS, GP, GSU, and GT classes.
 - b. Please explain how one uniform NMB 2 rate for all classes across all three EDUs better aligns non-market-based service costs with the cost causers.
- 2. DR -010-Attachment 2:
 - a. The estimated number of customers in each level of demand and NSPL for each Company and rate class.
- 3. DR 10-6:
 - a. How will the Company calculate a customer's NSPL for billing purposes when the customer currently does not operate on a Smart meter?
 - i. Will there be an estimate done? If so, please provide the assumptions and calculation of the estimate with an example.
 - b. Could customer's switching from NMB 1 to NMB 2 rates cause an issue with the forecast within the NMB?
 - c. Will bill impacts of the customer switching from NMB 1 to NMB 2 rates be considered before switching their billing?

Response:

- 1. DR-010-Attachment 1
 - a. The proposed NMB2 rate is a combined rate in order to align with how transmission costs are assigned by PJM, which are allocated based on NSPL, not by Operating Company or rate schedule.
 - b. There is one uniform transmission rate at PJM that does not differentiate based on the makeup of load that LSEs are serving. The differentiation is accomplished through the NSPL the customer is assigned. See also the Companies' response to 1a.
- 2. DR-010-Attachment 2
 - a. The Companies will be supplementing PUCO DR-010 Attachment 2.

3. DR 10-6

- a. The Companies use the customer's monthly billed energy quantity that is profiled (back casted) to hourly values. Those hourly values are used in the determination of the customer's NSPL.
 - i. No.
- b. No. The rates for NMB 1 and NMB 2 are both based upon 100% of the revenue requirement to avoid fluctuation in rates. NSPLs used in the calculation of the proposed rates will be determined the summer before the rates will be implemented. NSPLs for each upcoming year are determined by the prior year's peaks.
- c. No. Under the Companies' proposal, NMB2 will apply to non-residential customers with interval or smart meters..

EXHIBIT MB-6

Answer Prepared By: Brandon McMillen As to Objections: Trevor Alexander

Case No. 23-0301-EL-SSO

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

ANSWERS TO INTERROGATORIES

OCC Set 05 The following interrogatories relate to the Economic Load Response Rider – INT-006 ("Rider ELR").

- (a) For the current calendar year and the past two calendar years, how many customers participate on the Economic Load Response Rider for each operating company (OE, CEI, & TE)?
- (b) What is the total curtailable load in kWs for each operating company under Rider ELF for the current calendar year and the past two calendar years?
- (c) Are customers in the Rider ELR program also allowed to participate in the PJM Demand Response Program?
- (d) If Rider ELR customers are allowed to participate in the PJM Demand Response Program, are customers allowed to keep any credits received from PJM or are they required to reimburse FE?
- (e) For each of the past five years (201, 2019, 2020, 2021 and 2022) and to date in 2023, how many Emergency Curtailable Events occurred under Rider ELR?
- (f) What was the duration of each curtailable event?
- (g) How much load was actually curtailed for each Emergency Curtailable Event for OE, CEL and TE?

Response: (a) 16 OE customers; 4 CEI customers; and 4 TE customers.

(b) Objection. This request is vague and ambiguous in its use of the terms "Rider ELF" and "curtailable load." For purposes of this response the Companies assume "Rider ELF" means "Rider ELR" and that "curtailable load" is defined as provided in the Companies' Rider ELR tariffs. Subject to and without waiving the forgoing objections, see the table below for the sum of the total monthly curtailable loads in kW.

	ОРСО	2021	2022	2023 thru June
Ī	CEI	2,253,583	2,283,740	1,101,362
	OE	2,019,121	2,097,305	1,024,888
Ī	TE	2,247,310	2,240,958	1,120,123

- (c) Objection. The request is vague and ambiguous in its use of the phrase "PJM Demand Response Program". For purposes of this response, the Companies interpret this request to ask whether Rider ELR customers can participate with their demand response capabilities in the PJM capacity market. Subject to and without waiving the foregoing objections, the Rider ELR tariff provides that Rider ELR customers are not able to participate with their demand response capabilities in the PJM capacity market, . However, Rider ELR customers are able to participate in PJM programs related to the energy market.
- (d) Rider ELR customers that participate in PJM programs related to the energy market do not reimburse the Companies for credits they may receive from those other programs.
- (e) Objection. This Request is vague and ambiguous in its use of the term "201." For purposes of this response, the Companies assume this Request seeks the number of Emergency Curtailable Events, including test events, from 2018-present. Subject to and without waiving the foregoing objections, see the table below.

Date	Start Time	End Time
May 14, 2019 (PJM Test)	2:00 PM	3:00 PM
May 11, 2021 (PJM Test)	2:00 PM	3:00 PM
May 10, 2022 (PJM Test)	2:00 PM	3:00 PM
December 24, 2022	10:10 AM	8:00 PM

- (f) See response to (e).
- (g) Objection. This Request is vague and ambiguous in its use of the terms "load was actually curtailed" and "CEL." For purposes of this response, the Companies assume "CEL" means CEI. Subject to and without waiving the foregoing objections, for each event listed in (e), the Companies successfully curtailed to or below their PJM registered firm service level for all Rider ELR customers. See the table below for the expected load reduction for Rider ELR customers reported to PJM for each delivery year coinciding with the events listed in (e).

Delivery Year	MWs	
2018/19	126.8	
2020/21	132.8	
2021/22	128.6	
2022/23	199.5	

EXHIBIT MB-7

BEFORE THE PUBLIC UTILITIES COMMISSION OF OHIO

In the Matter of the Application of The)	Case No. 23-0301-EL-SSO
Ohio Edison Company, The Cleveland)	
Electric Illuminating Company, and The)	
Toledo Edison Company for Authority to)	
Establish A Standard Service Offer)	
Pursuant to R.C. 4928.143 in the Form of)	
an Electric Security Plan		

OHIO EDISON COMPANY, THE CLEVELAND ELECTRIC ILLUMINATING COMPANY, AND THE TOLEDO EDISON COMPANY'S OBJECTIONS AND RESPONSES TO THE OHIO HOSPITAL ASSOCIATION'S FIRST SET OF INTERROGATORIES AND REQUEST FOR PRODUCTION OF DOCUMENTS

Pursuant to Rules 4901-1-16 through 4901-1-22 of the Ohio Administrative Code and in accordance with Ohio Rules of Civil Procedure 26, 33, and 34, Ohio Edison Company, The Cleveland Electric Illuminating Company, and The Toledo Edison Company (the "Companies"), hereby submit these Objections and Responses to the First Set of Interrogatories and Request for Production of Documents (the "Requests") served by the Ohio Hospital Association ("OHA").

GENERAL OBJECTIONS

The Companies incorporate the following objections into each response below, as if fully restated therein.

1. These General Objections are incorporated by reference into the Companies' responses made with respect to each Request. The inclusion of any specific objection to a Request in a response below is not intended, nor shall in any way be deemed, as a waiver of any General Objection or any specific objection made herein or that may be asserted at another date.

- 2. The Companies object to each Request to the extent that it seeks information protected from disclosure by the attorney-client privilege, the attorney work product doctrine, or any other applicable statutory or common law privilege, prohibition, limitation, or immunity from disclosure. Nothing contained in the responses below is intended as a waiver of this objection.
- 3. The Companies object to each Request to the extent that it seeks information not relevant to the subject matter of this action and not reasonably calculated to lead to the discovery of admissible evidence.
- 4. The Companies object to each Request to the extent that it seeks production of information that is confidential business, commercial, or proprietary information belonging to the Companies or third parties.
- 5. The Companies object to each Request, definition, or instruction to the extent that it purports to impose upon the Companies obligations greater than, or different from, those contained in the Ohio Administrative Code.
- 6. The Companies object to each Request to the extent it seeks documents or information not in the Companies' possession, custody, or control.
- 7. The Companies object to each Request that purports to require a detailed, narrative response. Under applicable Commission rules and the Ohio Rules of Civil Procedure, "[a]n interrogatory seeks an admission or seeks information of major significance in the trial or the preparation for trial. It does not contemplate an array of details or outlines of evidence, a function reserved by the rules for deposition." Penn Central Transp. Co. v. Armco Steel Corp., 27 Ohio Misc. 76, 77 (Montgomery Cty. 1971).
- 8. Also, in responding to these Requests, the Companies do not admit the truth, validity, completeness, or merit of any of the requesting party's Definitions, Instructions for Answering,

Requests, or any subparts thereof as set forth below.

- 9. The Companies reserve the right to supplement any witness lists provided in response to these Requests as additional witnesses may be identified. The Companies' witnesses may testify to matters within their knowledge and expertise, including without limitation the topics in their prefiled written direct testimony, as well as to additional matters on rebuttal or in prefiled written testimony.
- 10. A statement that documents will be produced is not intended to suggest that responsive documents exist within the Companies' possession, custody, or control; nor is it intended to suggest that the Companies will search every electronic and paper file within their possession, custody, or control, because that exercise would be unduly burdensome and prohibitively expensive and is not required under the rules. A statement that documents will be produced means that the companies will search for documents in those places where the Companies reasonably anticipate they may be located and, if located and not subject to any privilege, the Companies will make them available for inspection and copying at a mutually agreeable time and place. Where applicable, the Companies will designate documents as confidential or competitively sensitive confidential and will release such documents only to parties with properly executed protective agreements.
- 11. The objections and responses contained herein and produced in response hereto are not intended to be, nor should they be, construed as waiving the Companies' right to object to these Requests or the information provided in response thereto for any purpose, including but not limited to discovery, motion practice, and hearing.
- 12. The objections and responses contained herein are not intended to be, nor should they be, construed as a waiver of the Companies' right to object to other discovery involving or relating

to the subject matter of these Requests and responses.

- 13. The Companies object to these Requests to the extent they seek documents or information that is publicly available to, and thus equally accessible by, the requesting party.
- 14. The Companies object to those Requests that fail to include reasonable time parameters pursuant to which they are to be answered, on the basis that said requests are overly broad, unduly burdensome, expose the Companies to undue expense, and are designed to elicit information that is irrelevant and/or not likely to lead to the discovery of admissible evidence.
- 15. The Companies object to the definition of "Document" and "Documentation" to the extent they seek to impose obligations on the Companies that are broader than, or inconsistent with, those imposed by the rules of the Ohio Administrative Code and the Ohio Rules of Civil Procedure. The Companies construe the term "documents" to be synonymous in meaning and equal in scope to the usage of the term "documents" in Rule 34(A) of the Ohio Rules of Civil Procedure.
- 16. The Companies object to the definition of "Communication" as overbroad, unduly burdensome, and vague and ambiguous, and the Companies further object to the extent that the definition seeks to impose obligations on the companies that are broader than, or inconsistent with, those imposed by the rules of the Ohio Administrative Code and Ohio Rules of Civil Procedure. For example, OHA defines "Communication" to include the transmission or relay of information by "oral" means, and therefore unreasonably purports to require the Companies to describe in detail communications that are not contained in any document.
- 17. The Companies object to the definition of "Identify," "state the identity of," or "identified" as overbroad, unduly burdensome, vague, and ambiguous.
 - 18. The Companies object to the definition of "Substance" as overbroad, unduly

burdensome, vague, and ambiguous.

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

ANSWERS TO INTERROGATORIES

OHA Set 01 - INT-001 On page 11 of the Direct Testimony of FirstEnergy Witness Juliette Lawless, she states that NMB 2 charges will "apply only to commercial and industrial customers who have interval or advanced meters." How many hospitals located in the FirstEnergy territory have interval or advanced meters? Please identify the numbers of hospitals customers for each territory (OE, CEI, TE).

Response:

Objection. This request is vague and ambiguous in its use of the term "hospital." This request is also unduly burdensome in requesting the number of customers who are hospitals in each of the Companies' service territories as well as the number of customers who are hospitals that have interval and advance meters. Subject to and without waiving the foregoing objections, the Companies for purposes of this question interpret "hospitals" to include customer premises designated with the NAICS code 622, described as "Hospitals."

The Companies have estimated the number of customer premises that are hospitals by using the NAICS code 622. See the following table for the total commercial and industrial customers who are estimated to be hospitals and which of these have interval or advanced meters as of August 2023:

	Total	Estimated	
	Estimated	Hospitals with	
	Hospitals	interval or	
		advanced meters	
OE	513	163	
CEI	220	102	
TE	147	56	

Answer Prepared By: Juliette Lawless As to Objections: Trevor Alexander

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ANSWERS TO INTERROGATORIES

OHA Set 01 - INT-002 How many hospitals will be charged on the proposed Rider NMB 1? Please identify the numbers of hospitals customers for each territory (OE, CEI, TE).

Response:

Objection. This Request is vague and ambiguous in its use of the phrase "identify the numbers of hospitals customers for each territory." Subject to and without waiving the foregoing objection, see the Companies' response to OHA Set 01-INT-001. The estimated number of hospital customer premises identified using NAICS code 622 without interval or advanced meters as of August 2023, and that would be on Rider NMB 1, are provided below

0.5	2.50
OE	350
CEI	118
TE	91
Total	559

Answer Prepared By: Juliette Lawless As to Objections: Trevor Alexander

Case No. 23-0301-EL-SSO

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

ANSWERS TO INTERROGATORIES

OHA Set 01 How many hospitals will be charged on the proposed Rider NMB 2? Please identify the numbers of hospitals customers for each territory (OE, CEI, TE).

Response: Objection. This Request is vague and ambiguous in its use of the phrase

"identify the numbers of hospitals customers for each territory." Subject to and without waiving the foregoing objection, see the Companies' response to OHA Set 01-INT-001. Under the Companies' proposal, all commercial and industrial customers with interval or advanced meters would be on the proposed Rider

NMB 2 rate.

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

ANSWERS TO INTERROGATORIES

OHA Set 01 - INT-004 During the previous five years (2017-2022), please identify the dates for each year that the Companies' four coincident system peaks occurred.

Response:

	Transmission Zone (HE EPT)	Transmission Zone (HE EPT)	Transmission Zone (HE EPT)	Transmission Zone (HE EPT)
2017	07/13/16 6:00 PM	08/12/16 3:00 PM	08/25/16 4:00 PM	09/07/16 5:00 PM
2018	06/13/17 2:00 PM	07/20/17 3:00 PM	07/21/17 3:00 PM	08/21/17 2:00 PM
2019	06/18/18 3:00 PM	07/16/18 2:00 PM	08/28/18 5:00 PM	09/04/18 2:00 PM
2020	07/10/19 5:00 PM	07/18/19 3:00 PM	07/20/19 6:00 PM	08/20/19 3:00 PM
2021	07/08/20 4:00 PM	07/10/20 1:00 PM	08/10/20 6:00 PM	08/27/20 3:00 PM
2022	06/28/21 2:00 PM	07/06/21 5:00 PM	08/09/21 5:00 PM	08/24/21 5:00 PM

Answer Prepared By: Juliette Lawless As to Objections: Trevor Alexander

Case No. 23-0301-EL-SSO

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

ANSWERS TO INTERROGATORIES

OHA Set 01 How many hospitals participated in the Rider NMB Opt-Out Pilot Program? – INT-005

Response: Objection. This Request seeks information that is not relevant and not

reasonably calculated to lead to the discovery of admissible evidence. Subject to and without waiving the foregoing objections, as of October 1, 2023, none of the Rider NMB Opt-Out Pilot Program participants are or have been hospitals, based on NAICS code 622 as explained in the Companies' response to OHA Set

01-INT-001.

In the Matter of the Application of the 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

RESPONSE TO REQUEST FOR PRODUCTION OF DOCUMENTS

OHA Set 01 Please produce all documents you referred to, reviewed, and/or relied upon when preparing responses to the above requests for admissions and interrogatories.

Response: Objection. This Request is vague and ambiguous in its use of the phrase "relied upon." Subject to and without waiving the foregoing objections, the Companies do not have responsive documents because the data in the Companies' responses were obtained by querying the Companies' systems.

CERTIFICATE OF SERVICE

I certify that a true copy of the foregoing Objections and Responses to the Ohio Hospital Association's First Set of Interrogatories and Requests for Production of Documents upon The Ohio Edison Company, the Cleveland Electric Illuminating Company, and The Toledo Edison Company was served upon the persons below via electronic transmission on this 11th day of October, 2023:

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in

Case No(s). 23-0301-EL-SSO

Summary: Testimony Public Redacted Version - Direct Testimony of Matthew Brakey on behalf of Ohio Energy Leadership Council electronically filed by Mr. David F. Proano on behalf of Ohio Energy Leadership Council (OELC), f/k/a Industrial Energy Users-Ohio.