

March 16, 2026

**VIA ELECTRONIC FILING**

Debbie-Anne A. Reese  
Secretary  
Federal Energy Regulatory Commission  
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Washington, DC 20426

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**Re: *FirstEnergy Service Company, Revised Attachments M-1 and M-2 to PJM OATT in Docket No. ER26-\_\_\_-000***

Dear Secretary Reese:

Pursuant to Section 205 of the Federal Power Act (“FPA”)<sup>1</sup> and Part 35 of the regulations of the Federal Energy Regulatory Commission (“Commission”),<sup>2</sup> FirstEnergy Service Company (“FirstEnergy”), on behalf of its affiliated Electric Distribution Companies (“EDC”), submits for filing revised Attachments M-1 and M-2 to the PJM Open Access Transmission Tariff (“PJM Tariff”).<sup>3</sup> FirstEnergy requests that the Commission accept the revisions effective May 16, 2026.

**I. BACKGROUND**

Attachments M-1 and M-2, discussed more below, outline the meter data and corresponding load calculation that FirstEnergy submits to PJM. In 2010, Rappahannock Electric Cooperative (“REC”) and Shenandoah Valley Electric Cooperative (“SVEC”) purchased the electric distribution facilities and service territory of the FirstEnergy affiliate Potomac Edison. On August 3, 2012, PJM, on behalf of FirstEnergy, filed revisions to Attachments M-1 and M-2. The revisions were intended to reflect the EDCs added due to FirstEnergy’s mergers with GPU, Inc. and Allegheny Energy and to revise formulas and terms included in Attachments M-1 and M-2. On October 2, 2012, the Commission accepted and suspended FirstEnergy’s proposed revisions to Attachments M-1 and M-2, to be effective August 3, 2012, subject to refund and to the outcome of hearing and settlement

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<sup>1</sup> 16 U.S.C. § 824d.

<sup>2</sup> 18 C.F.R. § Part 35 (2025).

<sup>3</sup> Pursuant to Order No. 714, this filing submitted by PJM Interconnection, L.L.C. (“PJM”) on behalf of FirstEnergy Service Company as part of an XML filing package that conforms with the Commission’s regulations. PJM has agreed to make all filings on behalf of the PJM Transmission Owners in order to retain administrative control over the PJM Tariff. Thus, FirstEnergy Service Company has requested PJM submit these revisions to Attachments M-1 and M-2 to the PJM Tariff in the eTariff system as part of PJM’s electronic Intra PJM Tariff.

judge procedures.<sup>4</sup> Following hearing procedures and issuance of an Initial Decision,<sup>5</sup> the Commission issued its Order on Initial Decision concerning the amendments to Attachments M-1 and M-2 on November 19, 2015.<sup>6</sup> On August 26, 2016, the Commission ultimately approved a settlement between FirstEnergy, American Municipal Power, Inc. (“AMP”), and Old Dominion Electric Cooperative (“ODEC”) relating to the Attachment M-1 and M-2 calculations.<sup>7</sup>

Attachment M-1 – the Procedure for Determining a Load Serving Entity’s Hourly Energy Obligations – provides the process by which FirstEnergy makes certain calculations on behalf of wholesale and retail Load Service Entities (“LSEs”) operating in the service territories of the ten FirstEnergy EDCs in PJM.<sup>8</sup> Attachment M-1 provides a comprehensive explanation of the methodology and mechanics that the FirstEnergy EDCs use to report the Total Hour Energy Obligation (“THEO”)<sup>9</sup> of both wholesale and retail LSEs to PJM and the LSEs themselves. THEO is the amount of energy (measured in megawatt-hours) that a wholesale or retail LSE is responsible for supplying in each hour of each day. PJM uses this information to calculate the monthly market energy interchange bill for each LSE. FirstEnergy’s THEO formula provides for the accounting of losses through contractually or mutually-determined loss factors added to the interconnection point meter readings. Attachment M-1 also provides that unaccounted for energy is not allocated to wholesale LSEs unless otherwise specified in their contracts or other agreements with FirstEnergy.

Attachment M-2 establishes the procedures and methodologies for determining the Peak Load Contribution (“PLC”) and the Network Service Peak Load (“NSPL”) used by each EDC in the different FirstEnergy Zones. The PLC is a measure of a customer’s share of the system’s peak during the yearly five coincident peak hours. The NSPL is a customer’s contribution to the network’s single zone peak used to allocate transmission costs.

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<sup>4</sup> See *PJM Interconnection, L.L.C.*, 141 FERC ¶ 61,009 (2012).

<sup>5</sup> *PJM Interconnection, L.L.C and American Transmission Systems, Inc.*, 148 FERC ¶ 63,003 (2014).

<sup>6</sup> See *PJM Interconnection, L.L.C.*, 153 FERC ¶ 61,216 (2015) (affirming the Initial Decision issued on July 15, 2014).

<sup>7</sup> See *PJM Interconnection, L.L.C.*, 156 FERC ¶ 61,133 (2016).

<sup>8</sup> The FirstEnergy EDCs are: Ohio Edison Company, The Toledo Edison Company, The Cleveland Electric Illuminating Company, Pennsylvania Power Company, Metropolitan Edison Company, Pennsylvania Electric Company, Jersey Central Power and Light Company, Monongahela Power Company, West Penn Power Company, and The Potomac Edison Company.

<sup>9</sup> Going forward, FirstEnergy will use “hourly energy” instead of “THEO.”

**II. DESCRIPTION OF FILING**

FirstEnergy submits the instant revisions to Attachments M-1 and M-2 primarily to: (1) update the resettlements process language to reflect currently accepted procedures included in similar PJM transmission owner tariffs; and (2) consolidate the two separate Attachment M-1 and M-2 tariff sheets into a single tariff attachment.<sup>10</sup> Finally, FirstEnergy seeks to amend language to update how FirstEnergy utilizes loss factors at specific delivery points, along with other ministerial edits throughout the document, noted in the marked Attachment B included with this filing.

**III. COMMUNICATIONS**

Communications concerning this filing should be sent to the following individuals:<sup>11</sup>

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**IV. INFORMATION REQUIRED BY THE COMMISSION'S REGULATIONS AND REQUEST FOR WAIVERS**

As discussed above, this filing will clarify FirstEnergy's obligations under Attachments M-1 and M-2 concerning the determination and reporting of hourly energy obligations and supplier peak load shares for market participants in the PJM pricing zone of FirstEnergy EDC affiliates. It will not result in a rate increase. As a result, the filing requirements of 18 C.F.R. §§ 35.13(b) and 35.13(c) apply.<sup>12</sup>

**A. Documents Submitted with this Filing (Section 35.13(b)(1))**

Along with this transmittal letter, the documents submitted in this filing include:

Attachment A – Marked versions of Attachments M-1 and M-2

Attachment B – Clean version of Revised Attachment M1/M2

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<sup>10</sup> The consolidated document will be titled Attachment M1/M2.

<sup>11</sup> FirstEnergy respectfully requests waiver of Rule 2010 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.2010, to permit more than two individuals to receive service in this proceeding.

<sup>12</sup> See 18 C.F.R. § 35.12(a)(2)(iii).

**B. Effective Date (Section 35.13(b)(2))**

The Applicant respectfully requests that the Commission grant an effective date of May 16, 2026, which is sixty-one (61) days after the date of this filing.

**C. Service (Section 35.13(b)(3))**

PJM has served a copy of this filing on all PJM Members and on all state utility regulatory commissions in the PJM Region by posting the filing electronically. In accordance with the Commission's regulations,<sup>13</sup> PJM will post a copy of this filing to the FERC filings section of its internet site, located at the following link: <https://www.pjm.com/library/filing-order> with a specific link to the newly-filed document, and will send an e-mail on the same date as the filing to all PJM Members and all state utility regulatory commissions in the PJM Region<sup>14</sup> alerting them that this filing has been made by PJM and is available by following such link. PJM also serves the parties listed on the Commission's official service list for this docket. If the document is not immediately available by using the referenced link, the document will be available through the referenced link within 24 hours of the filing. A copy of this filing will be available on the Commission's eLibrary website located at the following link: <http://www.ferc.gov/docs-filing/elibrary.asp> in accordance with the Commission's regulations and Order No. 714.<sup>15</sup>

**D. Description of the Filing (Section 35.13(b)(4))**

The basis for the requested Tariff amendment is described above in Section II.

**E. Statement of Reasons for the Filing (Section 35.13(b)(5))**

*See* Section II, above.

**F. Requisite Agreements (Section 35.13(b)(6))**

FirstEnergy is not required to obtain prior agreement from other parties for the submission of this filing.

**G. Statement Regarding Illegal, Duplicative, or Unnecessary Costs (Section 35.13(b)(7))**

None of the costs relating to this filing has been alleged in any administrative or judicial proceeding to be illegal, duplicative, or unnecessary costs that are demonstrably the product of discriminatory practices.

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<sup>13</sup> *See* 18 C.F.R. §§ 35.2(e) and 385.2010(f)(3).

<sup>14</sup> PJM already maintains, updates, and regularly uses e-mail lists for all PJM members and affected state commissions.

<sup>15</sup> *Electronic Tariff Filings*, Order No. 714, 124 FERC ¶ 61,270 (2008).

**H. Cost of Service and Revenue Information to Support Filing and Request for Waiver**

FirstEnergy believes that it has provided sufficient information for the Commission to authorize the Tariff amendment. To the extent the Commission's regulations in 18 C.F.R. Section 35.13(a), (c), (d), or (h) would require any additional information, FirstEnergy respectfully requests waiver of such requirements.

**I. Request for Waivers**

FirstEnergy respectfully requests that the Commission grant any further waivers of its regulations, including any requirements set forth in 18 C.F.R. Part 35 to the extent necessary to permit the Commission to accept this filing and grant the requested relief.

**V. CONCLUSION**

WHEREFORE, for the reasons set forth above, FirstEnergy respectfully requests that the Commission accept this filing without modification, condition, or suspension, with an effective date of May 16, 2026.

Respectfully submitted,

/s/ Michael A. Yuffee

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Dated: March 16, 2026

# **ATTACHMENT A**

**Marked versions of Attachments M-1 and M-2**

**ATTACHMENT M-1/M-2 (FirstEnergy ~~Zones~~)**  
**~~FirstEnergy Procedure for Determining a~~**

**Load Serving Entity's Hourly Energy Obligations**

**Purpose**

The purpose

~~Determination of this Attachment M-1 is to give PJM members serving load in a FirstEnergy Zone(s) the understanding of how each hour of an operating day's Total Hourly Energy Capacity Peak Load Contributions, Network Service Peak Load Contributions, Daily Peak Load Obligation ("THEO") is developed, in accordance with the PJM Open Access Transmission Tariff, the PJM Operating Agreement, Reliability Assurance Agreement or other relevant PJM documents (the "PJM Documents"), Daily Network Service Peak Load Obligation, and submitted to PJM. Attachment M-1 pertains to both wholesale Hourly Load Obligations~~

**PURPOSE**

This document outlines the process by which FirstEnergy determines the Capacity Peak Load Contributions ("PLCs"), Network Service Peak Loads ("NSPLs"), and Hourly Load Obligations for each retail and wholesale Load Serving Entities ("~~LSEs~~Entity ("LSE")" serving load in the following FirstEnergy Electric Distribution Companies ("~~EDC~~"): ~~Zones (the "FirstEnergy Zones (the "FirstEnergy Zones"):-")~~: Ohio Edison Company, The Toledo Edison Company, The Cleveland Electric Illuminating Company (~~together~~ ("~~ATSI Zone Ohio~~"), FirstEnergy Pennsylvania Electric Company ("FE PA") operating in the separate ATSI, Penelec, MetEd, and Allegheny Power PJM transmission zones, Jersey Central Power & Light Company ("JCP&L"), Monongahela Power Company ("Mon Power") and The Potomac Edison Company ("Potomac Edison MD" and "Potomac Edison WV").

Attachment ~~M-1/M-1 is~~ 2 does not ~~intended to supersede~~ amend or replace any contractual arrangement(s) between FirstEnergy (or its affiliated FirstEnergy EDC) and the applicable LSE that otherwise governs the calculations. Such contractual arrangement(s) shall prevail unless silent on a particular issue or calculation existing contracts or agreements between FirstEnergy and any LSEs.

Capitalized terms used in Attachment M-1 ~~is divided into three main sections. The first section titled "Terms" defines terms specific to this Attachment /M-1 that are not found in 2 have the PJM Documents. The second section titled "Wholesale" describes processes for determining meaning given to them under the THEO provisions of the PJM Open Access Transmission Tariff unless otherwise defined herein.~~

**CAPACITY (PLC) AND TRANSMISSION (NSPL)**

**Overview**

Annually, FirstEnergy calculates PLCs and NSPLs for wholesale LSEs and customers of retail LSEs within each FirstEnergy Zone, per the process described below. These preliminary values are then scaled to ensure alignment with PJM targets:

- PLCs – The sum of all individual customer PLCs is scaled to match the normalized peak load target allocated to the FirstEnergy Zone, as determined by PJM.
- NSPLs – The sum of all individual customer NSPLs is scaled to match FirstEnergy's metered zonal load at the time of the Zone's highest transmission peak value, as determined by PJM.

FirstEnergy then aggregates the PLC and NSPL values by LSE and submits them to PJM. FirstEnergy subsequently provides PJM with updated aggregations on a daily basis.

FirstEnergy does not determine PLC or NSPL for retail consumers served by wholesale LSEs, such as municipal electric utilities or electric cooperatives, and non-affiliate wholesale LSEs.

### Annual Calculation of Capacity Peak Load Contributions (PLCs)

FirstEnergy calculates PLCs for wholesale LSEs and customers of retail LSEs located within any FirstEnergy Zone. This calculation is based on load data from the PJM five coincident peak (“5CP”) dates and hours during the summer season immediately preceding the start of the planning year. The final section titled “resulting PLCs are effective from June 1 through May 31 of the following planning year, consistent with PJM planning periods. For the purposes of these procedures, FirstEnergy defines the summer season as June 1 through September 30.

The following methodology is used to calculate PLCs for wholesale LSEs and customers of retail LSEs.

1. **Load Basis:** FirstEnergy uses the wholesale LSE’s or retail customer’s load at the time of the 5CPs as the basis for the PLC calculation.
  - a. If interval meters are utilized, load values for the 5CPs are determined using customer-specific interval meter data.
  - b. If interval meters are not utilized, load values for the 5CPs are determined using profiled data.
2. **Loss Adjustments:** Applicable loss factors are applied to the wholesale LSE’s or retail customer’s load.
3. **Demand Response Adjustment:** If a PJM demand response event occurred within a FirstEnergy Zone, during one or more of the 5CPs, the PJM-determined load reduction is added back to the wholesale LSE’s or retail customer’s hourly values.
4. **Final PLC Determination:**
  - a. For wholesale LSEs, the average load across the 5CPs, calculated using the methodology outline above, is adjusted by a weather normalization factor to determine the PLC.
  - b. For retail LSEs, the average load across the 5CPs, calculated using the methodology outlined above, is adjusted by a scaling factor to determine the retail customer’s PLC. New retail customers, where meter data is not yet available, are assigned a PLC based on the average value calculated for the associated customer’s rate class and load profile.

### Annual Calculation of Network Service Peak Loads (NSPLs)

FirstEnergy calculates NSPLs for wholesale LSEs and customers of retail LSEs located within any FirstEnergy Zone. This calculation is based on load data from the five transmission peak dates and hours (“5TP”) occurring during the season in which the single PJM transmission peak (“SPTP”) occurred – either the summer season (June 1 to September 30) or the winter season (December 1 to March 31). The resulting NSPLs are effective from January 1 through December 31 of the following calendar year, consistent with PJM planning periods.

The following methodology is used to calculate NSPLs for wholesale LSEs and customers of retail LSEs.

1. **Wholesale LSE NSPL Calculation:** The NSPL for a wholesale LSE is calculated as the LSE's metered load at the time of the SPTP and adjusted for applicable loss factors.
2. **Retail” describes processes for determining Customer Load Basis:** FirstEnergy uses the THEO for retail LSEs such customer’s load at the time of the 5TPs as the basis for the NSPL calculation.
  - a. If interval meters are utilized, load values for the 5TPs are determined using customer-specific interval meter data.
  - b. If interval meters are not utilized, load values for the 5TPs are determined using profiled data.
3. **Loss Adjustments:** Applicable loss factors are applied to the retail generation service providers customer’s load.
4. **Demand Response Adjustment:** Load reductions resulting from a PJM demand response event are not added back for NSPL calculations.
5. **Retail NSPL Determination:** The average of each retail LSE’s load across the 5TPs, calculated using the methodology above, is adjusted by a scaling factor to determine the retail customer’s NSPL. New retail customers, where meter data is not yet available, are assigned an NSPL based on the average value calculated for the associated customer’s rate class and load profile.

### Daily Update to PLC and NSPL

Because the LSE responsible for a customer's PLC and NSPL may change during the effective period, FirstEnergy aggregates PLC and NSPL values daily by LSE serving retail customers or retail suppliers providing provider of last resort services load within the Zone and submits updates to PJM in accordance with PJM procedures and capacity market schedules.

- **Retail LSEs:** PLC and NSPL values for LSEs are scaled daily by PJM to align with the FirstEnergy performs the THEO calculation and subsequently uploads this data to PJM systems (such as PJM’s InSchedule eSuite application zonal target.
- **Wholesale LSEs:** PLC and NSPL values are established annually and are not subject to scaling.

If adjustments are made to the PLC or its successor) on behalf NSPL of an LSE in the FirstEnergy Zone after the daily update to PJM, FirstEnergy may calculate the financial value of

the adjustment and report that value to PJM. FirstEnergy will also allocate the equal and opposite financial value to all LSEs in the FirstEnergy Zone, on a load-ratio share basis, and report the adjustments to PJM. PJM will include any adjustments in the next monthly billing statement issued by PJM to the affected LSE(s).

## **DETERMINATION OF HOURLY LOAD OBLIGATIONS**

### **Overview**

FirstEnergy settles hourly load obligations for each LSE through a two-step settlement process.

**Settlement A (Preliminary “Day-After” Load):** FirstEnergy estimates each LSE’s hourly load responsibility using a combination of available interval data, preliminary data, and historical or weather-based profiles. These estimates are submitted to PJM in accordance with PJM procedural requirements and energy market schedules.

**Settlement B (Final Load Reconciliation):** Approximately 60 days after the delivery month, FirstEnergy reconciles actual customer meter data and load profile data with Settlement A estimates. Final hourly load obligations and energy variances are calculated, with variances submitted to PJM in accordance with PJM procedural requirements and energy market schedules.

FirstEnergy does not determine hourly load obligations for the retail consumers of wholesale LSEs like municipal electric utilities, electric cooperatives, and non-affiliate wholesale LSEs.

~~Questions concerning the methodologies described in this Attachment M-1 may be submitted by visiting the Supplier Support section of the FirstEnergy corporate website located here: <https://www.firstenergycorp.com/supplierservices>.~~

### **Section I: Terms**

~~Unaccounted for Energy—Energy that is remaining after comparing: (a) the FirstEnergy Zone load determined by summing physical generation delivered to a FirstEnergy Zone plus net imports/exports of energy into/out of a FirstEnergy Zone to: (b) the sum of all wholesale and retail customers’ metered load, whether interval metered or estimated, including contractual or otherwise mutually agreed upon losses, as specified herein or as otherwise filed with FERC, in any given hour. Unaccounted for Energy is not allocated to wholesale LSEs unless otherwise specified in their contracts/agreements with FirstEnergy. The methodology for determining Unaccounted for Energy for an LSE providing service to retail customers receiving distribution service from a FirstEnergy EDC shall be set forth in state approved retail tariffs.~~

### Losses—Settlement A – Preliminary “Day After” Hourly Load Obligations

1. **Interval-Settled Customers (Wholesale and Retail):** Estimated hourly load is based on available interval meter data or, if unavailable, on historical data from similar day types or weather conditions.
2. **Monthly-Settled Retail Customers:** Estimated hourly load is derived from the customer’s assigned load profile. Load profiles are used to distribute load into hourly values spanning the retail customer’s billing period.
3. **Loss Adjustments:** Applicable loss factors are applied to the wholesale LSE’s or retail customer’s load.
4. **Unaccounted for Energy (UFE):** A "bottom-up" load shape is created from customer data and compared to actual Zone load. Any variance is treated as UFE and allocated accordingly to retail LSEs.
5. **Reporting to PJM:** FirstEnergy aggregates hourly energy obligations by LSE and PJM Contract Number and submits the resulting energy schedules to PJM.

### Settlement B - Final Hourly Load Reconciliation

1. **Interval-Settled Customers (Wholesale and Retail):** Final hourly load is based on actual interval data.
2. **Monthly-Settled Customers:** Hourly load is derived from the customer’s assigned load profile. Load profiles are used to distribute load into hourly values spanning the retail customer’s billing period.
3. **Loss Adjustments:** Applicable loss factors are applied to the wholesale LSE’s or retail customer’s load.
4. **Unaccounted for Energy (UFE):** A "bottom-up" load shape is created from customer data and compared to actual Zone load. Any variance is treated as UFE and allocated accordingly to retail LSEs.
5. **Variance Calculation and PJM Reporting:** FirstEnergy then calculates the difference between Settlement A and Settlement B hourly loads, aggregates variances by LSE and PJM Contract Number, and submits them to PJM for final settlement.

If adjustments are made to the hourly load of a LSE in the FirstEnergy Zone after this load reconciliation, FirstEnergy may calculate the financial value of the adjustment and report that value to PJM. FirstEnergy will also allocate the equal and opposite financial value to all LSEs in the FirstEnergy Zone, on a load-ratio share basis, and report the adjustments to PJM. PJM will include any adjustments in the next monthly billing statement issued by PJM to the affected LSE(s).

### LOSS FACTORS

The following loss factors shall apply ~~for~~to all LSEs in each FirstEnergy- Zone.— Loss factors will be applied according to location (FirstEnergy Zone) and service voltage of each meter point. ~~For wholesale LSEs, all~~ All of the loss factors specified herein shall apply, unless otherwise established by contract ~~and~~, filed with- FERC. ~~For retail LSEs, or with the Transmission Load loss factors specified herein shall apply, however for lower service voltages, the loss factors specified in~~applicable state-approved retail tariffs shall apply. — commission.

Service Voltage	ATSI <u>Zone</u> Ohio	<del>-</del> FE PA (Penn Power, ATSI Zone)	FE PA (MetEd Zone)	FE PA (Penelec Zone)	JCP&L
Transmission Load	1.01486	1.01486	1.02100	1.04070	1.03900
Subtransmission Source	1.02786	1.02786	-	-	-
Subtransmission Load	1.02886	1.02886	-	-	-
Primary Load	1.05786	1.05786	1.03740	1.06060	1.06100
Secondary Load	1.09486	1.08960	1.07180	1.09450	1.11800

Service Voltage	FE PA (West Penn Power, Allegheny Power Zone)	Potomac Edison MD	Potomac Edison WV	Mon Power
Transmission Load	1.02184	1.02245	1.02245	1.02233
Subtransmission Source	-	-	1.02646	-
Subtransmission w/Tran Charge	1.04282	-	-	-
Subtransmission Load	1.03578	1.03742	1.03807	1.03390
Primary Source	-	-	1.03070	1.03378
Primary Load	1.06383	1.07542	1.07691	1.06071
Secondary Load	1.09434	1.09513	1.09705	1.09033

Transmission Load - For Mon Power, Potomac Edison MD, Potomac Edison WV and FE PA (West Penn Power, Allegheny Power ~~Zone~~), 138 kV and above. ~~For JCP&L and~~ FE PA (Penelec Zone and MetEd ~~Zones~~), Zone) and JCP&L, 34.5 kV Delta and above. ~~For ATSI Zone (Ohio and FE PA (Penn Power, ATSI Zone Pennsylvania), 69 kV and above.~~

~~Subtransmission~~ Subtransmission Source - For Potomac Edison WV, For ATSI Zone (Ohio and FE PA (Penn Power, ATSI Zone Pennsylvania), service at source of subtransmission bus.

Subtransmission w/Tran Charge - For FE PA (West Penn Power, Allegheny Power ~~Zone~~), service on low side of subtransmission to primary transformer. ~~-~~

Subtransmission Load - For Mon Power, Potomac Edison MD, Potomac Edison WV, and FE PA (West Penn Power, Allegheny Power ~~Zone~~), 23 kV Delta to 69 kV. ~~For ATSI Zone (Ohio and FE PA (Penn Power, ATSI Zone Pennsylvania), 23 kV Delta to 34.5 kV. Delta~~

Primary Source - For Mon Power and Potomac Edison WV, service at source of primary bus.

~~Primary Source - For Mon Power and Potomac Edison WV, service at source of primary bus.~~

Primary Load - For Mon Power, Potomac Edison MD, Potomac Edison WV, FE PA (West Penn Power, Allegheny Power ~~Zone~~); and ~~Penn Power, ATSI Zone~~, and ~~ATSI (Ohio, & Pennsylvania)~~, 1 kV to 15 kV. ~~For FE PA (Penelec Zone and MetEd Zones Zone) and JCP&L, 1 kV to 34.5 kV Wye.~~

Secondary Load - For all FirstEnergy EDC ~~Zones~~, below 1 kV.

## ~~Section II: Wholesale~~

~~The FirstEnergy EDCs are required to determine the THEO for each wholesale LSE operating in their respective FirstEnergy Zones and submit this information to PJM per practices under the PJM Documents. The following procedures and methodologies describe how THEO is determined.~~

~~Note: A wholesale LSE's THEO is determined in accordance with current and approved contractual obligations between FirstEnergy EDCs and the respective wholesale LSE. Should the current and approved agreements be silent on procedural matters regarding the determination and submittal of a wholesale LSE's THEO, the PJM Documents shall be used to establish such procedures including those outlined below.~~

~~FirstEnergy uses the following equation to determine a wholesale LSE's THEO in a FirstEnergy Zone. If the wholesale LSE serves load in more than one FirstEnergy Zone, the THEO is determined separately for each FirstEnergy Zone.~~

$$\text{THEO} = \sum_{x=1}^n (\text{Wholesale LSE's Interconnection Hourly Meter Reading}_x * (1.0 + \text{Applicable Loss Factor}))$$

~~where:~~

~~\_\_\_\_\_ THEO = The wholesale LSE's hourly energy consumption in any given hour of the previous operating day in a FirstEnergy Zone~~

~~\_\_\_\_\_ x = A specific Meter\* included in the determination of the wholesale LSE's hourly energy consumption in a FirstEnergy Zone~~

~~\_\_\_\_\_ n = The total number of Meters aggregated to determine the wholesale LSE's THEO~~

~~\* For purposes of this document, the term "Meter" refers to the billing quality metering devices and related equipment owned by FirstEnergy and/or the wholesale LSE, located at or near the interconnection point (the "Interconnection") between the FirstEnergy distribution or transmission system and the wholesale LSE system, and used to measure the wholesale LSE's THEO.~~

~~Wholesale LSE's Interconnection Hourly Meter Reading (WIMR) = The quantity of energy consumed by the wholesale LSE at an individual wholesale LSE's Interconnection as shown on the Meter in a given hour, with an adjustment for certain behind-the-meter generation if applicable. Specifically, WIMR shall equal the actual interconnection point meter readings of the wholesale LSE plus the metered output of any generation resources that met all of the following three criteria during the given hour: (1) the resource was operating behind the interconnection meter, (2) the resource was participating in PJM markets or other wholesale markets, and (3) the output of the resource was wheeled across the wholesale LSE's system to the FirstEnergy distribution or transmission system.~~

~~Applicable Loss Factor (ALF) = The contractually or otherwise mutually determined loss factor as specified herein or as otherwise filed with FERC in effect to account for losses across the applicable distribution and transmission system to the LSE's system.~~

~~In the case where the actual WIMR is not obtained by FirstEnergy from one or more of the Meters in time to use in the calculation of the wholesale LSE's THEO, FirstEnergy will use an estimated WIMR in place of an actual WIMR for any missing hour(s) of Meter data.~~

The derivation of an estimated WIMR will be determined on a case-by-case basis and be dependent on the reason for and the duration of the event triggering the need for an estimated WIMR. FirstEnergy's WIMR methodology will take into account appropriate variables such as the history of the Interconnection Meter readings; load growth; the season of the year; temperature and any other variable(s) that could significantly affect the accuracy of the WIMR.

The following chart illustrates possible cases and outcomes of using this methodology to estimate the WIMR to be provided to PJM. The methodology used to generate a WIMR in a particular case is dependent on the reason the actual WIMR was not received.

Case	Reason	Primary (Day After) Reconciliation Estimate	Secondary (60-Day) Reconciliation Estimate
1	Short term communication outage (<59 days)	Profile generated in FE Settlement System*	Not applicable if actual Meter data received
2	Long term communication error (>=59 days)	Profile generated in FE Settlement System*	Not applicable if actual Meter data received via handheld device or manual entry
3	Short term Meter/metering equipment malfunction (<59 days)	Profile generated in FE Settlement System*	Estimate in Meter Data Management System*
4	Long term Meter/metering equipment malfunction (>=59 days)	Estimate in Meter Data Management System*	Estimate in Meter Data Management System*

\*If the FE Settlement or Data Management System(s) data are not available or may not be accurate, data obtained from the wholesale LSE's Meter, SCADA or other accurate source will be used. Regardless of estimating methodology or data source, FirstEnergy will coordinate the estimate(s) of the wholesale LSE's THEO with the affected wholesale LSE.

**Section III: Retail**

The THEO for an LSE providing service to retail customers receiving distribution service from a FirstEnergy EDC shall adhere to the following:

- A. ~~Where retail customers are interval metered and interval meter data is used for retail billing, interval meter data will be utilized for the THEO calculations.~~
- B. ~~Where interval meter readings are not received in time for PJM settlement deadlines, estimates will be developed using customer specific profiles.~~
- C. ~~Where retail customers do not have installed interval metering or use interval metering for billing, profiles will be utilized to distribute load into hourly values spanning the retail customer's billing period.~~
- D. ~~All retail customer load will be grossed up for applicable transmission and distribution losses.~~
- E. ~~Unaccounted For Energy for each hour will be allocated to LSEs based on their load ratio share of metered load, unless such approach is prohibited by the applicable regulatory body. The FirstEnergy EDC will provide monthly, on an informational basis, the Unaccounted For Energy hourly percentages that were applied to LSEs' hourly loads.~~

~~FirstEnergy does not determine the THEO for retail consumers of wholesale LSEs like municipal electric utilities and electric cooperatives.~~

~~Additional implementation details related to the determination of the THEO for retail LSEs and the process for submitting data for sub-account customers will be provided in the manual titled "Supplier Energy Obligation" posted under the "Supplier Registration" tab of the Supplier Support section of the FirstEnergy corporate website located here: <https://www.firstenergycorp.com/supplierservices>. The Manual may reflect differences based on the state utility commission requirements applicable to each FirstEnergy EDC, to the extent such requirements are not inconsistent with the requirements stated in this Attachment M-1.~~

## **ATTACHMENT M-2 (FirstEnergy Zones)**

### **FirstEnergy Procedure for Determining a Load Serving Entity's Peak Load Contribution (PLC) and Network Service Peak Load (NSPL)**

#### **PURPOSE**

The purpose of this Attachment M-2 is to establish the procedures and methodologies under which FirstEnergy will determine the PLC and NSPL, as defined/specified in the PJM Open Access Transmission Tariff, the PJM Operating Agreement, Reliability Assurance Agreement or other relevant PJM documents (the "PJM Documents") each PJM Planning Year for each retail and wholesale Load Serving Entity ("LSE") serving load in the following FirstEnergy Electric Distribution Companies ("EDCs") Zones (the "FirstEnergy Zones"): Ohio Edison Company, The Toledo Edison Company, The Cleveland Electric Illuminating Company (together, "ATSI Ohio"), FirstEnergy Pennsylvania Electric Company ("FE PA") operating in the separate ATSI, Penelec, MetEd, and Allegheny Power PJM transmission zones, Jersey Central Power & Light Company ("JCP&L"), Monongahela Power Company ("Mon Power") and The Potomac Edison Company ("Potomac Edison MD" and "Potomac Edison WV"). Attachment M-2 is not intended to supersede or replace any contractual arrangement(s) between FirstEnergy (or its affiliated FirstEnergy EDC) and the applicable LSE that otherwise governs the calculations. Such contractual arrangement(s) shall prevail unless silent on a particular issue or calculation.

Questions concerning the methodologies described in this Attachment M-2 may be submitted by visiting the Supplier Support section of the FirstEnergy corporate website located here: <https://www.firstenergycorp.com/supplierservices>.

#### **SECTION I: TERMS**

**Transmission Zone**—The areas within PJM as set forth in Attachment J of the PJM Open Access Transmission Tariff for American Transmission Systems, Incorporated, Allegheny Power, Jersey Central Power & Light Company, Metropolitan Edison Company and Pennsylvania Electric Company.

Losses – The following loss factors shall apply for each FirstEnergy Zone. Loss factors will be applied according to location (FirstEnergy Zone) and service voltage of each meter point. For wholesale LSEs, all of the loss factors specified herein shall apply, unless otherwise established by contract and filed with FERC. For retail LSEs, the Transmission Load loss factors specified herein shall apply, however for lower service voltages, the loss factors specified in state-approved retail tariffs shall apply.

Service Voltage	ATSI Ohio	FE PA (Penn Power, ATSI Zone)	FE PA (MetEd Zone)	FE PA (Penelee Zone)	JCP&L
Transmission Load	1.01486	1.01486	1.02100	1.04070	1.03900
Subtransmission Source	1.02786	1.02786			
Subtransmission Load	1.02886	1.02886			
Primary Load	1.05786	1.05786	1.03740	1.06060	1.06100
Secondary Load	1.09486	1.08960	1.07180	1.09450	1.11800

Service Voltage	FE PA (West Penn Power, Allegheny Power Zone)	Potomac Edison MD	Potomac Edison WV	Mon Power
Transmission Load	1.02184	1.02245	1.02245	1.02233
Subtransmission Source			1.02646	
Subtransmission w/Tran Charge	1.04282			
Subtransmission Load	1.03578	1.03742	1.03807	1.03390
Primary Source			1.03070	1.03378
Primary Load	1.06383	1.07542	1.07691	1.06071
Secondary Load	1.09434	1.09513	1.09705	1.09033

Transmission Load – For Mon Power, Potomac Edison MD, Potomac Edison WV and FE PA (West Penn Power, Allegheny Power Zone), 138 kV and above. For FE PA (Penelee and MetEd

~~Zones) and JCP&L, 34.5 kV and above. For ATSI Ohio and FE PA (Penn Power, ATSI Zone), 69 kV and above.~~

~~Subtransmission Source—For Potomac Edison WV, For ATSI Ohio and FE PA (Penn Power, ATSI Zone), service at source of subtransmission bus.~~

~~Subtransmission w/Tran Charge—For FE PA (West Penn Power, Allegheny Power Zone), service on low side of subtransmission to primary transformer.~~

~~Subtransmission Load—For Mon Power, Potomac Edison MD, Potomac Edison WV and FE PA (West Penn Power, Allegheny Power Zone), 23 kV to 69 kV. For ATSI Ohio and Penn Power, 23 kV to 34.5 kV.~~

~~Primary Source—For Mon Power and Potomac Edison WV, service at source of primary bus.~~

~~Primary Load—For Mon Power, Potomac Edison MD, Potomac Edison WV, FE PA (West Penn Power, Allegheny Power Zone; and Penn Power, ATSI Zone) and ATSI Ohio, 1 kV to 15 kV. For FE PA (Penelee and MetEd Zones) and JCP&L, 1 kV to 34.5 KV.~~

~~Secondary Load—For all FirstEnergy EDC Zones, below 1 kV.~~

## **SECTION H: WHOLESALE**

~~Under the PJM Documents, the FirstEnergy EDCs are required to determine the PLC and NSPL for each wholesale LSE operating in their respective FirstEnergy Zones.~~

~~This Attachment M-2 supplements and clarifies the procedures and methodologies under which FirstEnergy will determine the PLC and NSPL for all wholesale LSEs with load located in one or more FirstEnergy Zone. Unless specified otherwise, this Attachment M-2 does not amend or replace any existing contracts or agreements between FirstEnergy and any wholesale LSE.~~

The PLC and NSPL values for each FirstEnergy Zone in which the wholesale LSE serves load will be calculated separately and will be based on the hourly reading obtained from billing quality metering and related equipment (“Meters”) owned by FirstEnergy or the wholesale LSE located at or near the interconnection point between the FirstEnergy distribution or transmission system, and the wholesale LSE system. Furthermore, all calculations in this Attachment M-2 will be done consistent with the requirements of the PJM Documents.

### **PLC Calculation**

The calculation of PLC for each wholesale LSE, with load located in any of the FirstEnergy Zones, is as follows:

1. Determine the wholesale LSE’s load contribution to the total FirstEnergy Zone load at the time of the high 5 peak hours for the PJM region (“High 5 Hours”) as determined by PJM. This load is grossed up for contractual or otherwise mutually agreed upon losses, as specified herein or as otherwise filed with FERC.

If a PJM Demand Response Event (“DR Event”) occurred within the applicable FirstEnergy Zone in which the wholesale LSE serves load during one or more of the High 5 Hours, then add back the PJM-determined load reduction to each of the corresponding wholesale LSE’s loads for those DR Events affecting the High 5 Hours.

The result is the wholesale LSE’s unrestricted PJM High 5 loads.

2. Average the wholesale LSE’s 5 unrestricted PJM High 5 loads.
3. Multiply the wholesale LSE’s average unrestricted PJM High 5 load by the ratio of (a) the appropriate FirstEnergy Zone’s weather-normalized peak to (b) the average of the FirstEnergy unrestricted loads during the PJM High 5 Hours.

~~Note: PJM determines the weather-normalized peak for each Transmission Zone. Where a Transmission Zone comprises more than one FirstEnergy Zone, each FirstEnergy Zone's weather-normalized peak is determined on a load ratio share basis (including PJM add-backs, if any) using the High 5 Hours. This ensures that the weather normalization ratio is the same value for each FirstEnergy Zone in those cases where a Transmission Zone comprises more than one FirstEnergy Zone.~~

~~4. This determines the wholesale LSE's PLC for that FirstEnergy Zone, which is posted to the wholesale LSE's PJM RPM account.~~

~~5. Numeric Example:~~

~~FirstEnergy Zone load during PJM High 5 Hour 1: 1,000 MW~~

~~FirstEnergy Zone load during PJM High 5 Hour 2: 1,100 MW~~

~~FirstEnergy Zone load during PJM High 5 Hour 3: 850 MW~~

~~FirstEnergy Zone load during PJM High 5 Hour 4: 1,250 MW~~

~~FirstEnergy Zone load during PJM High 5 Hour 5: 1,175 MW~~

~~Step 1: Determine/compute wholesale LSE's load during the High 5 Hours from Meters (grossed up for contractual or otherwise mutually agreed-upon losses, as specified herein or as otherwise filed with FERC):~~

~~Wholesale LSE's load during PJM High 5 Hour 1: 85 MW~~

~~Wholesale LSE's load during PJM High 5 Hour 2: 86 MW~~

~~Wholesale LSE's load during PJM High 5 Hour 3: 70 MW~~

~~Wholesale LSE's load during PJM High 5 Hour 4: 98 MW~~

~~Wholesale LSE's load during PJM High 5 Hour 5: 90 MW~~

~~Step 2: Perform add-backs for High 5 DR Events, if any.~~

~~Wholesale LSE's PJM-determined add-back during PJM High 5 Hour 4: 5 MW~~

~~Wholesale LSE's unrestricted load during PJM High 5 Hour 4:  $98 + 5 = 103$  MW~~

~~Step 3: Calculate wholesale LSE's average unrestricted load~~

$$\text{ ~~} (85 + 86 + 70 + 103 + 90) / 5 = 86.8 \text{ MW}~~$$

~~Step 4: Determine FirstEnergy Zone weather normalization ratio~~

~~Note: Any FirstEnergy or other LSE add-backs would also be included in determining the unrestricted FirstEnergy Zone loads.~~

~~Unrestricted FirstEnergy Zone load during PJM High 5 Hour 1: 1,000 MW~~

~~Unrestricted FirstEnergy Zone load during PJM High 5 Hour 2: 1,100 MW~~

~~Unrestricted FirstEnergy Zone load during PJM High 5 Hour 3: 850 MW~~

~~Unrestricted FirstEnergy Zone load during PJM High 5 Hour 4: 1,255 MW~~

~~Unrestricted FirstEnergy Zone load during PJM High 5 Hour 5: 1,175 MW~~

~~FirstEnergy Zone weather-normalized peak load: 950 MW~~

$$\text{ ~~} 950 / ((1000 + 1100 + 850 + 1255 + 1175) / 5) = 0.883~~$$

~~Step 5: Determine PLC for wholesale LSE for that FirstEnergy Zone:~~

$$\text{ ~~} 0.883 * 86.8 = 76.6 \text{ MW}~~$$

### NSPL Calculation

~~The NSPL calculation for a wholesale LSE is simply the wholesale LSE's metered load at the time of the Transmission Zone peak as determined by PJM and as grossed up for contractual or otherwise mutually agreed upon losses, as specified herein or as otherwise filed with FERC.~~

~~Numeric Example:~~

~~Transmission Zone peak occurred on August 1, 201X, during Hour Ending 1700.~~

~~Wholesale LSE's load on August 1, 201X, during Hour Ending 1700 (including contractual or otherwise mutually agreed upon losses, as specified herein or as otherwise filed with FERC): 90 MW~~

~~Wholesale LSE's NSPL = 90 MW~~

~~Note: Unlike the calculation of PLC, add-backs are not considered in determining the wholesale LSE's NSPL.~~

### SECTION III: RETAIL

~~The PLC and NSPL for an LSE providing service to retail customers receiving distribution service from a FirstEnergy EDC shall be determined in accordance with the following:~~

- ~~1. On a customer by customer basis, PLCs will be determined based on the customer load during the High 5 Hours.~~

~~a. — Where interval meters are utilized for retail customer billing, load values for the High 5 Hours will be determined using customer-specific interval meter data.~~

~~b. — Where interval meters are not utilized for retail customer billing, load values for the High 5 Hours will be determined from profiled data.~~

~~c. — All data will be grossed up for applicable distribution and transmission losses.~~

~~d. — If a DR Event occurred in the FirstEnergy Zone in which the retail LSE serves load during one or more of the High 5 Hours, then the PJM-determined load reduction for each customer will be added back to the customer's load value for the corresponding hour.~~

~~e. — PLCs will be scaled by the Daily Scaling Factor (“DSF”) before submittal to PJM.~~

~~2. — On a customer-by-customer basis, NSPLs will be determined by:~~

~~a. — selecting the hours in which the 5 peak loads occurred during the season in which the respective Transmission Zone peak, as reported by PJM, occurred (i.e., Summer season from June 1 to September 30, or Winter season from December 1 to March 31);~~

~~b. — determining the average load values of each retail load customer during these 5 peak hours;~~

~~c. — grossing up all data for transmission and, as applicable, distribution losses; and~~

~~d. — scaling that average load value to the Transmission Zone peak as reported by PJM.~~

~~— In lieu of a PLC DSF, a separate and distinct NSPL daily scaling factor is determined for each Transmission Zone and applied to each NSPL to ensure that the sum of all NSPL values reported to PJM matches the respective Transmission Zone target. For NSPL, there is no add-back for DR Events.~~

~~FirstEnergy does not determine PLCs and NSPLs for the retail consumers of wholesale LSEs like municipal electric utilities and electric cooperatives.~~

~~Additional implementation details related to the determination of the PLC and NSPL for each retail customer will be provided in the manual titled "Supplier Capacity Manual" under the "Supplier Registration" tab of the Supplier Support section of the FirstEnergy corporate website located here: <https://www.firstenergycorp.com/supplierservices>. The Manual may reflect differences based on the state utility commission requirements applicable to each FirstEnergy Zone, to the extent such requirements are not inconsistent with the requirements stated in this Attachment M-2.~~

# **ATTACHMENT B**

**Clean version of Revised Attachment M1/M2**

## ATTACHMENT M-1/M-2 (FirstEnergy)

### Determination of Capacity Peak Load Contributions, Network Service Peak Load Contributions, Daily Peak Load Obligation, Daily Network Service Peak Load Obligation, and Hourly Load Obligations

#### PURPOSE

This document outlines the process by which FirstEnergy determines the Capacity Peak Load Contributions (“PLCs”), Network Service Peak Loads (“NSPLs”), and Hourly Load Obligations for each retail and wholesale Load Serving Entity (“LSE”) serving load in the following FirstEnergy Electric Distribution Companies Zones (the “FirstEnergy Zones”): Ohio Edison Company, The Toledo Edison Company, The Cleveland Electric Illuminating Company (“ATSI Zone Ohio”), FirstEnergy Pennsylvania Electric Company (“FE PA” operating in the separate ATSI, Penelec, MetEd, and Allegheny Power PJM transmission zones), Jersey Central Power & Light Company (“JCP&L”), Monongahela Power Company (“Mon Power”) and The Potomac Edison Company (“Potomac Edison MD and Potomac Edison WV”).

Attachment M-1/M-2 does not amend or replace any existing contracts or agreements between FirstEnergy and any LSEs.

Capitalized terms used in Attachment M-1/M-2 have the meaning given to them under the provisions of the PJM Open Access Transmission Tariff unless otherwise defined herein.

#### CAPACITY (PLC) AND TRANSMISSION (NSPL)

##### Overview

Annually, FirstEnergy calculates PLCs and NSPLs for wholesale LSEs and customers of retail LSEs within each FirstEnergy Zone, per the process described below. These preliminary values are then scaled to ensure alignment with PJM targets:

- **PLCs** – The sum of all individual customer PLCs is scaled to match the normalized peak load target allocated to the FirstEnergy Zone, as determined by PJM.
- **NSPLs** – The sum of all individual customer NSPLs is scaled to match FirstEnergy's metered zonal load at the time of the Zone's highest transmission peak value, as determined by PJM.

FirstEnergy then aggregates the PLC and NSPL values by LSE and submits them to PJM. FirstEnergy subsequently provides PJM with updated aggregations on a daily basis.

FirstEnergy does not determine PLC or NSPL for retail consumers served by wholesale LSEs, such as municipal electric utilities, electric cooperatives, and non-affiliate wholesale LSEs.

##### Annual Calculation of Capacity Peak Load Contributions (PLCs)

FirstEnergy calculates PLCs for wholesale LSEs and customers of retail LSEs located within any FirstEnergy Zone. This calculation is based on load data from the PJM five coincident peak (“5CP”) dates and hours during the summer season immediately preceding the start of the planning year. The resulting PLCs are effective from June 1 through May 31 of the following

planning year, consistent with PJM planning periods. For the purposes of these procedures, FirstEnergy defines the summer season as June 1 through September 30.

The following methodology is used to calculate PLCs for wholesale LSEs and customers of retail LSEs.

1. **Load Basis:** FirstEnergy uses the wholesale LSE's or retail customer's load at the time of the 5CPs as the basis for the PLC calculation.
  - a. If interval meters are utilized, load values for the 5CPs are determined using customer-specific interval meter data.
  - b. If interval meters are not utilized, load values for the 5CPs are determined using profiled data.
2. **Loss Adjustments:** Applicable loss factors are applied to the wholesale LSE's or retail customer's load.
3. **Demand Response Adjustment:** If a PJM demand response event occurred within a FirstEnergy Zone, during one or more of the 5CPs, the PJM-determined load reduction is added back to the wholesale LSE's or retail customer's hourly values.
4. **Final PLC Determination:**
  - a. For wholesale LSEs, the average load across the 5CPs, calculated using the methodology outline above, is adjusted by a weather normalization factor to determine the PLC.
  - b. For retail LSEs, the average load across the 5CPs, calculated using the methodology outlined above, is adjusted by a scaling factor to determine the retail customer's PLC. New retail customers, where meter data is not yet available, are assigned a PLC based on the average value calculated for the associated customer's rate class and load profile.

### **Annual Calculation of Network Service Peak Loads (NSPLs)**

FirstEnergy calculates NSPLs for wholesale LSEs and customers of retail LSEs located within any FirstEnergy Zone. This calculation is based on load data from the five transmission peak dates and hours ("5TP") occurring during the season in which the single PJM transmission peak ("SPTP") occurred – either the summer season (June 1 to September 30) or the winter season (December 1 to March 31). The resulting NSPLs are effective from January 1 through December 31 of the following calendar year, consistent with PJM planning periods.

The following methodology is used to calculate NSPLs for wholesale LSEs and customers of retail LSEs.

1. **Wholesale LSE NSPL Calculation:** The NSPL for a wholesale LSE is calculated as the LSE's metered load at the time of the SPTP and adjusted for applicable loss factors.
2. **Retail Customer Load Basis:** FirstEnergy uses the retail customer's load at the time of the 5TPs as the basis for the NSPL calculation.
  - a. If interval meters are utilized, load values for the 5TPs are determined using customer-specific interval meter data.
  - b. If interval meters are not utilized, load values for the 5TPs are determined using profiled data.

3. **Loss Adjustments:** Applicable loss factors are applied to the retail customer's load.
4. **Demand Response Adjustment:** Load reductions resulting from a PJM demand response event are not added back for NSPL calculations.
5. **Retail NSPL Determination:** The average of each retail LSE's load across the 5TPs, calculated using the methodology above, is adjusted by a scaling factor to determine the retail customer's NSPL. New retail customers, where meter data is not yet available, are assigned an NSPL based on the average value calculated for the associated customer's rate class and load profile.

### **Daily Update to PLC and NSPL**

Because the LSE responsible for a customer's PLC and NSPL may change during the effective period, FirstEnergy aggregates PLC and NSPL values daily by LSE serving load within the Zone and submits updates to PJM in accordance with PJM procedures and capacity market schedules.

- **Retail LSEs:** PLC and NSPL values for LSEs are scaled daily by PJM to align with the FirstEnergy zonal target.
- **Wholesale LSEs:** PLC and NSPL values are established annually and are not subject to scaling.

If adjustments are made to the PLC or NSPL of an LSE in the FirstEnergy Zone after the daily update to PJM, FirstEnergy may calculate the financial value of the adjustment and report that value to PJM. FirstEnergy will also allocate the equal and opposite financial value to all LSEs in the FirstEnergy Zone, on a load-ratio share basis, and report the adjustments to PJM. PJM will include any adjustments in the next monthly billing statement issued by PJM to the affected LSE(s).

## **DETERMINATION OF HOURLY LOAD OBLIGATIONS**

### **Overview**

FirstEnergy settles hourly load obligations for each LSE through a two-step settlement process.

**Settlement A (Preliminary “Day-After” Load):** FirstEnergy estimates each LSE's hourly load responsibility using a combination of available interval data, preliminary data, and historical or weather-based profiles. These estimates are submitted to PJM in accordance with PJM procedural requirements and energy market schedules.

**Settlement B (Final Load Reconciliation):** Approximately 60 days after the delivery month, FirstEnergy reconciles actual customer meter data and load profile data with Settlement A estimates. Final hourly load obligations and energy variances are calculated, with variances submitted to PJM in accordance with PJM procedural requirements and energy market schedules.

FirstEnergy does not determine hourly load obligations for the retail consumers of wholesale LSEs like municipal electric utilities, electric cooperatives, and non-affiliate wholesale LSEs.

### **Settlement A – Preliminary “Day After” Hourly Load Obligations**

1. **Interval-Settled Customers (Wholesale and Retail):** Estimated hourly load is based on available interval meter data or, if unavailable, on historical data from similar day types or weather conditions.
2. **Monthly-Settled Retail Customers:** Estimated hourly load is derived from the customer's assigned load profile. Load profiles are used to distribute load into hourly values spanning the retail customer's billing period.
3. **Loss Adjustments:** Applicable loss factors are applied to the wholesale LSE's or retail customer's load.
4. **Unaccounted for Energy (UFE):** A "bottom-up" load shape is created from customer data and compared to actual Zone load. Any variance is treated as UFE and allocated accordingly to retail LSEs.
5. **Reporting to PJM:** FirstEnergy aggregates hourly energy obligations by LSE and PJM Contract Number and submits the resulting energy schedules to PJM.

### **Settlement B - Final Hourly Load Reconciliation**

1. **Interval-Settled Customers (Wholesale and Retail):** Final hourly load is based on actual interval data.
2. **Monthly-Settled Customers:** Hourly load is derived from the customer's assigned load profile. Load profiles are used to distribute load into hourly values spanning the retail customer's billing period.
3. **Loss Adjustments:** Applicable loss factors are applied to the wholesale LSE's or retail customer's load.
4. **Unaccounted for Energy (UFE):** A "bottom-up" load shape is created from customer data and compared to actual Zone load. Any variance is treated as UFE and allocated accordingly to retail LSEs.
5. **Variance Calculation and PJM Reporting:** FirstEnergy then calculates the difference between Settlement A and Settlement B hourly loads, aggregates variances by LSE and PJM Contract Number, and submits them to PJM for final settlement.

If adjustments are made to the hourly load of a LSE in the FirstEnergy Zone after this load reconciliation, FirstEnergy may calculate the financial value of the adjustment and report that value to PJM. FirstEnergy will also allocate the equal and opposite financial value to all LSEs in the FirstEnergy Zone, on a load-ratio share basis, and report the adjustments to PJM. PJM will include any adjustments in the next monthly billing statement issued by PJM to the affected LSE(s).

### **LOSS FACTORS**

The following loss factors shall apply to all LSEs in each FirstEnergy Zone. Loss factors will be applied according to location (FirstEnergy Zone) and service voltage of each meter point. All of the loss factors specified herein shall apply, unless otherwise established by contract, filed with FERC, or with the applicable state commission.

Service Voltage	ATSI Zone Ohio	FE PA (Penn Power, ATSI Zone)	FE PA (MetEd Zone)	FE PA (Penelec Zone)	JCP&L
Transmission Load	1.01486	1.01486	1.02100	1.04070	1.03900
Subtransmission Source	1.02786	1.02786			
Subtransmission Load	1.02886	1.02886			
Primary Load	1.05786	1.05786	1.03740	1.06060	1.06100
Secondary Load	1.09486	1.08960	1.07180	1.09450	1.11800

Service Voltage	FE PA (West Penn Power, Allegheny Power Zone)	Potomac Edison MD	Potomac Edison WV	Mon Power
Transmission Load	1.02184	1.02245	1.02245	1.02233
Subtransmission Source			1.02646	
Subtransmission w/Tran Charge	1.04282			
Subtransmission Load	1.03578	1.03742	1.03807	1.03390
Primary Source			1.03070	1.03378
Primary Load	1.06383	1.07542	1.07691	1.06071
Secondary Load	1.09434	1.09513	1.09705	1.09033

Transmission Load - For Mon Power, Potomac Edison MD, Potomac Edison WV and FE PA (West Penn Power, Allegheny Power Zone), 138 kV and above. For FE PA (Penelec Zone and MetEd Zone) and JCP&L, 34.5 kV Delta and above. For ATSI Zone (Ohio and Pennsylvania), 69 kV and above.

Subtransmission Source - For Potomac Edison WV, For ATSI Zone (Ohio and Pennsylvania), service at source of subtransmission bus.

Subtransmission w/Tran Charge - For FE PA (West Penn Power, Allegheny Power Zone), service on low side of subtransmission to primary transformer.

Subtransmission Load - For Mon Power, Potomac Edison MD, Potomac Edison WV and FE PA (West Penn Power, Allegheny Power Zone), 23 kV Delta to 69 kV. For ATSI Zone (Ohio and Pennsylvania), 23 kV Delta to 34.5 kV Delta

Primary Source - For Mon Power and Potomac Edison WV, service at source of primary bus.

Primary Load - For Mon Power, Potomac Edison MD, Potomac Edison WV, FE PA (West Penn Power, Allegheny Power Zone); and ATSI Zone (Ohio & Pennsylvania), 1 kV to 15 kV. For FE PA (Penelec Zone and MetEd Zone) and JCP&L, 1 kV to 34.5 kV Wye.

Secondary Load - For all FirstEnergy EDC Zones, below 1 kV.