

PJM Manual 29:

Billing

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Prepared by
Market Settlement Operations

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Approval

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Current Revision**Revision 29 (06/29/2022)**

- Periodic Review to address:
 - o Updated/correct terminology
 - o Section 1 and Section 1.1 – renamed to Billing Overview
 - o Section 1.2 – renamed to Payments from Net Buyers and to Net Sellers
 - o Section 1.3 – added new and named Default Allocation Assessment
 - o Section 1.4 – added new and named Billing Notifications
 - o Section 1.5 – added new and named Billing Adjustments
 - o Section 2.1.1 – renumbered to become section 2.2 (Monthly Charges) and added sub-sections of 2.2.1 (Operating Agreement Charges) and 2.2.2 (Open Access Transmission Tariff Charges)
 - o Section 2.1.2 – renumbered to become section 2.3 (Monthly Credits) and added sub-sections of 2.3.1 (Operating Agreement Credits) and 2.3.2 (Open Access Transmission Tariff Credits)
 - o Section 2.1.3 – renumbered to become section 2.4 (Other)
 - o Section 3.1.1 – renumbered to become section 3.2 (Weekly Charges)
 - o Section 3.1.2 – renumbered to become section 3.3 (Weekly Credits)
 - o Section 4 – renamed to Billing Support
 - o Section 4.1 – renamed to Support Overview
 - o Section 4.1.1 – renumbered to become section 4.2 (Guide to Billing)
 - o Section 4.3 – added new and named Market Settlements Reporting System (MSRS)

Introduction

Welcome to the ***PJM Manual for Billing***. In this Introduction, you will find the information about PJM Manuals in general, an overview of this PJM Manual in particular, and information on how to use this manual.

About PJM Manuals

The PJM Manuals are the instructions, rules, procedures, and guidelines established by PJM for the operation, planning, and accounting requirements of PJM and the PJM Energy Market. The manuals are grouped under the following categories.

- Transmission
- PJM Energy Market
- Generation and transmission interconnection
- Reserve
- Accounting and Billing
- PJM administrative services

For a complete list of all PJM manuals, go to the Library section on PJM.com.

About This Manual

The PJM Manual for **Billing** is one of a series of manuals within the PJM set of manuals. This manual focuses on topics within the Accounting and Billing group. This manual focuses on the monthly and weekly billing statements, which are prepared by PJM Settlement, Inc. The manual describes the structure of the bills, as well as the billing and payment processes.

- The ***PJM Manual for Billing*** consists of four sections. These sections are listed in the table of contents beginning on page 2.

Intended Audience

The intended audiences for the ***PJM Manual for Billing*** are:

- PJM Members
- PJM Transmission Customers
- PJM Transmission Owners
- PJM accounting staff
- PJM audit staff
- PJM customer relations and training staff

References

The References to other documents that provide background or additional detail directly related to the ***PJM Manual for Billing*** are:

- Operating Agreement of PJM
- PJM Open Access Transmission Tariff
- Transmission Owners Agreement
- Reliability Assurance Agreements
- PJM Manual for PJM Capacity Market (M-18)
- PJM Manual for *Open Access Transmission Tariff Accounting (M-27)*
- PJM Manual for *Operating Agreement Accounting (M-28)*
- PJM Manual for *Definitions and Abbreviations (M-35)*

Using This Manual

We believe that explaining concepts is just as important as presenting procedures. This philosophy is reflected in the way we organize the material in this manual. We start each section with the overview. Then, we present details and procedures or references to procedures found in other PJM Manuals.

What You Will Find In This Manual

- A table of contents that lists two levels of subheading within each of the sections.
- An approval page that lists the required approvals and a brief outline of the current history
- Sections containing the specific guidelines, requirements, or procedures including PJM actions and PJM Member actions
- A section at the end detailing all previous revisions of this PJM Manual.

Section 1: Billing Overview

Welcome to the Overview section of the *PJM Manual for Billing*. In this section, you will find the following information:

- A brief overview of the billing and payment processes used in accordance with the Operating Agreement of PJM and the PJM Open Access Transmission Tariff. (see “Billing Overview”).
- A description of how payments are sent to net sellers (see “Payments from Net Buyers and to Net Sellers”).
- A description of how default allocation assessment dollars are collected and disbursed (see “Default Allocation Assessment”).
- A description on how to be notified when the billing statement is published (see “Billing Notifications”).
- A description on how adjustments are billed (see “Billing Adjustments”).

1.1 Billing Overview

Billing and payment are coordinated processes under the terms of the PJM Operating Agreement and the PJM Open Access Transmission Tariff. PJM Settlement, Inc. (“PJM Settlement”) issues month-to-date billing statements on a weekly basis (“weekly billing statements”) and final monthly billing statements to facilitate settlement of activity in PJM’s markets and usage of transmission service in a given month. Weekly billing statements are used to settle, and therefore provide cash flows related to network transmission service, energy, transmission congestion, transmission losses and capacity as the month progresses. Monthly billing statements provide a final true up of the activity settled through the weekly billing statements, and also settle the remainder of the billing line items that are not settled via the weekly billing statements. The weekly and monthly billing statements are issue through the PJM Market Settlements Reporting System (MSRS), detailing all charges and credits for the period that apply to the PJM Member or Transmission Customer. The billing statements also presents a net amount due from, or net amount due to the PJM Member or Transmission Customer.

PJM Settlement issues weekly billing statements each Tuesday (or Wednesday in the event that Tuesday is a PJM holiday). Section 3 of the PJM Manual describes the specific billing line items included in the weekly billing statement. The weekly billing statement covers market activity for these billing line items from the first of the month through the previous Wednesday. Each weekly billing statement shows the total billing for that month-to-date period, the weekly billing total included on the previous weekly billing statement for that month (where applicable) and a net amount due from, or due to, PJM or the PJM Member or Transmission Customer. If the weekly billing statements are not issued by 5pm EPT, they are deemed to be issued on the following business day. Payments from PJM Members or Transmission Customers with a net charge are due by 12pm (Noon) EPT three (3) days after the issuance of the billing statements. PJM Settlement will make payments to PJM Members and Transmission Customers with a net credit on the business day following the date that payments are due.

PJM Settlement issues monthly billing statements by the fifth (5) business day following the end of each month. Section 2 of this PJM Manual describes the billing line items included in the

monthly billing statement. The monthly billing statement settles all activity within the month. The net amount due to or due from the PJM Member or Transmission Customer is adjusted for the amounts billed through the weekly billing statements for that same activity month. Payments from PJM Member or Transmission Customers with a net charge are due coincident with the due date of the first weekly bill issued for the activity in the month that the monthly bill is issued. For example, if the January billing statement is issued in the first week of February, then payments for the January billing statement will be due coincident with the due date for the first weekly billing statement issued for the month for February. If such due date is less than three (3) business days after the issuance of the monthly billing statement, then such payment will be due when the payment for the second weekly billing statement is due. PJM Settlement will make payments to the PJM Members and Transmission Customers with a net credit on the business day following the date that payments are due.

The complete Market Settlement Billing calendars can be found on pjm.com > Calendar. Select Market Settlements Billing to see specific issuance and due dates for each weekly and monthly billing statement. Additional downloadable versions of the Market Settlements Billing calendar, as well as instructions for adding the calendar to your personal calendar are available under the Weekly Billing Calendars section at pjm.com > Market & Operations > Billing, Settlements & Credit.

1.2 Payments from Net Buyers and to Net Sellers

PJM Members and Transmission Customers with billing statements displaying a net amount due to PJM Settlement are obligated to pay such amount in full. All payments tendered in satisfaction of a PJM Member's or other entity's obligations to PJM Settlement shall be made in the form of immediately available funds payable to PJM Settlement or by wire transfer to a bank name by PJM Settlement. Payment terms are included on the cover sheet of each weekly and monthly billing statement and further outline below in Section 2 and Section 3 of this PJM Manual.

In accordance with PJM Operating Agreement, Section 14B.4(e), PJM Settlement's absolute liability to make payments to net sellers in each settlement period is limited to "the aggregate amount of payments that has been paid to or recovered by PJM Settlement from PJM Members (including by way of realization of financial security) in respect of that settlement period."

In any settlement period in which PJM Settlement has been paid or recovered less from net buyers than is owed to net sellers, PJM Settlement may reduce payments to, or "short pay", each net seller ratably. For example, if the total amount paid to and recovered by PJM Settlement from net buyers in a settlement period equals 97% of the total amount due to net sellers, then each net seller shall receive from PJM Settlement 97% of the amount due to each net seller for that settlement period.

If PJM Settlement recovers any additional amounts from net buyers for a settlement period prior to billing any applicable Default Allocation Assessment related to that settlement period, PJM Settlement will distribute the amounts recovered ratably to each net seller that has been "short paid". Continuing the example from the previous paragraph, if PJM Settlement recovers from net buyers an additional 1% of the total amount due to net sellers for that settlement period prior to the invoicing of any Default Allocation Assessments for that settlement period, then

PJM Settlement would remit to each net seller an additional 1% of the total amount for that settlement period.

1.3 Default Allocation Assessment

In accordance with PJM Operating Agreement Section 15.2, the PJM Board of Managers may direct billing Default Allocation Assessment(s) to non-defaulting PJM Members to recover the amount(s) not paid or recovered from any net buyer. The calculation of such Default Allocation Assessment(s) is defined in Section 15.2.2 of the PJM Operating Agreement.

If the PJM Board of Managers directs Default Allocation Assessment(s), PJM Settlement will utilize the amounts collected via such Default Allocation Assessment(s) to pay net sellers ratably for any amount due to each net seller resulting from such net seller having been “short paid”.

After a Default Allocation Assessment, the distribution of any subsequent recoveries from the defaulting net buyer(s) will be paid ratably to any Member(s) that have paid a Default Allocation Assessment arising from the defaulting net buyer. By way of example, if PJM Settlement were to recover 80% of the amount owed by a defaulting net buyer, then PJM Settlement would pay each Member an amount equal to 80% of the Default Allocation Assessment(s) paid by the Member.

In any settlement period or series of settlement periods in which PJM Settlement has been paid or recovered less than is owed for charges for miscellaneous items or special adjustments, PJM Settlement may reduce payments to, or “short pay”, ratably each member that would have received the credits associated with the underpaid miscellaneous item or special adjustment charges in proportion to each member’s share of the total credits associated with the underpaid miscellaneous item or special adjustment charges. For example, if the total amount paid to and recovered by PJM Settlement for miscellaneous item or special adjustment charges in a settlement period or series of settlement periods equals 90% of the total amount due for those miscellaneous item or special adjustment charges, then each member with an associated credit for those miscellaneous item or special adjustment charges shall receive from PJM Settlement 90% of the amount due to each member associated with the underpaid miscellaneous item or special adjustment charges.

If PJM Settlement recovers any additional underpaid miscellaneous item or special adjustment charges, PJM Settlement will distribute the amounts recovered ratably to each member that has been “short paid” their credits associated with the underpaid miscellaneous item or special adjustment charges. Continuing the example from the previous paragraph, if PJM Settlement recovers an additional 2% of the total underpaid miscellaneous item or special adjustment charges, then PJM Settlement would remit to each member with credits associated with the underpaid miscellaneous item or special adjustment charges, an additional 2% of the total credits due each member associated with the underpaid miscellaneous item or special adjustment charges.

Examples of miscellaneous items or special adjustments for purposes of this provision include, but are not limited to, revisions required based on an order of a regulatory agency or court related to transactions previously billed by PJM Settlement. These miscellaneous item or special adjustment provisions are not intended to apply to underpayments of recurring

adjustment line items invoiced by PJM Settlement in the normal course of billings to Members, such as, but not limited to, Meter Error Correction and Load Reconciliation charges.

1.4 Billing Notifications

The monthly and weekly billing statements are published through the Market Settlements Reporting System (MSRS) application. MSRS requires access through your Company Account Manager (CAM). Further description of this application is described in Section 4.3 of this PJM Manual.

An email communication is sent to PJM Members after each monthly and weekly billing statement is published in MSRS. This is sent to the Bill Notice distribution email list and the designated Billing Contacts in the Membership Management Community. Subscription to the Billing Notice distribution email list can be managed on pjm.com > About PJM > Communications or under My PJM > My Email Lists. Contact Member Relations at custsvc@pjm.com for further assistance.

1.5 Billing Adjustments

Adjustments to a billing line item may be needed after the billing line item was originally settled on a billing statement. After a billing line item is first invoiced on a billing statement, a two (2) – year timeframe is activated. Adjustments may be made within this two (2) year timeframe, in accordance with PJM Operating Agreement, section 15.6. However, this timeframe may be extended if either of the following occur prior to the two (2) year timeframe expiring (excluding any actions or directives issued by the FERC):

- PJM Member submits a request to the President of PJM Settlement
- PJM Settlement notifies the PJM Members of a need for an adjustment

The adjustment that appears on the billing statement will be the net of the recalculated billing line item charge/credit and the previously billed line item charge/credit. PJM Members can recognize an adjustment on the billing statement by seeing an “A” in the “ADJ” column and the month which the adjustment was applied in the “Source Billing Period Start” column. A MSRS report called “Billing Line Item Adjustment Summary” provides a brief description of the adjustment.

Section 2: Monthly Billing Statement

Welcome to the Monthly Billing Statement section of the *PJM Manual for Billing*. In this section, you will find the following information:

- A description of the overall billing timeline and summary page of the monthly billing statement (see “Summary”).
- A description of the charge billing line items on the monthly billing statement (see “Monthly Charges”).
- A description of the credit billing line items on the monthly billing statement (see “Monthly Credits”).

2.1 Summary

PJM Settlement issues monthly billing statements by the fifth (5) business day following the end of each month. Section 2 of this PJM Manual describes the billing line items included in the monthly billing statement. The monthly billing statement settles all activity within the month. The net amount due to or due from the PJM Member or Transmission Customer is adjusted for the amounts billed through the weekly billing statements for that same activity month. Payments from PJM Member or Transmission Customers with a net charge are due coincident with the due date of the first weekly bill issued for the activity in the month that the monthly bill is issued. For example, if the January billing statement is issued in the first week of February, then payments for the January billing statement will be due coincident with the due date for the first weekly billing statement issued for the month for February. If such due date is less than three (3) business days after the issuance of the monthly billing statement, then such payment will be due when the payment for the second weekly billing statement is due. PJM Settlement will make payments to the PJM Members and Transmission Customers with a net credit on the business day following the date that payments are due.

PJM Members and Transmission Customers are obligated to pay the amounts shown as due on the monthly billing statement.

The monthly billing statement summary page contains the following information:

- Name and address of PJM Settlement, Inc.
- Invoice number
- Name of the PJM Customer Account being invoiced
- PJM Customer Shortname and Organization ID (Org ID)
- Billing statement creation date and time
- Period covered by the billing statement
- Monthly billing total, previous weekly billing total and total net amount due to PJM Settlement or to the PJM Customer Account
- Payment terms, including due date and instructions for wire transfer
- PJM contact information for banking and payment – custsvc@pjm.com
- PJM contact information for billing line items – mrkt_settlement_ops@pjm.com

2.2 Monthly Charges

Although charges typically represent amounts owned by the PJM Member for services provided to the PJM Member, occasionally the calculations result in negative charges which represents an amount due to the PJM Member for the particular service. Dollars seen on the billing statement under the 'Charge' heading as a positive number will be a charge to the PJM Member. Dollars seen on the billing statement under the 'Charge' heading as a negative number will be a credit to the PJM Member.

In addition to the identified services, miscellaneous items or special adjustments may appear on the billing statement. When such billing line items appear on the monthly billing statement, additional information may be provided in the BLI Adjustment Summary report in MSRS.

2.2.1 Operating Agreement Charges

The monthly billing statement lists the amount in dollars due from the Member for each of the services billed under the PJM Operating Agreement. For more detail about how these charges are calculated, see the PJM Manual 28: Operating Agreement Accounting.

The following billing line items may appear on each month's billing statement:

- Spot Market Energy (Day-ahead) charges — The sum of the PJM Member's day-ahead spot market energy charges (+/-) based on the member's billing account energy market injections and withdrawals for the applicable settlement interval.
- Spot Market Energy (Balancing) charges — The sum of the PJM Member's balancing spot market energy charges (+/-) based on the member's billing account energy market injections and withdrawals for the applicable settlement interval
- Regulation charges — The sum of the PJM Member's hourly regulation charges for all hours in which the PJM Member purchased regulation.
- Operating Reserve (Day-ahead) charges — The sum of the PJM Member's daily day-ahead Operating Reserve charges for all days.
- Operating Reserve for Load Response (Day-ahead) charges – The sum of the PJM Member's daily day-ahead Operating Reserve charges for Load Response for all days.
- Operating Reserve (Balancing) charges — The sum of the PJM Member's daily balancing Operating Reserve charges for all days.
- Operating Reserve for Load Response (Balancing) charges – The sum of the PJM Member's daily balancing Operating Reserve charges for Load Response for all days.
- Synchronous Condensing charges — The sum of the PJM Member's daily Synchronous Condensing charges for all days.
- Reactive Services charges — The sum of the PJM Member's hourly Reactive Services charges for all hours in which a generator was instructed by PJM to alter its output to provide reactive services
- Synchronized Reserve charges — The sum of the PJM Member's hourly Synchronized Reserve charges for all hours in which the PJM Member purchased synchronized reserve

- Non-Synchronized Reserve charges – The sum of the PJM Member’s hourly Non-Synchronized Reserve charges for all hours in which the PJM Member purchased Non-Synchronized reserve.
- Day-ahead Scheduling Reserve charges – The sum of the PJM member’s hourly Day-ahead Scheduling Reserve charges for all hours in which the PJM Member purchased day-ahead scheduling reserve.
- Transmission Congestion (Day-ahead) charges — The sum of the PJM Member’s or Transmission Customer’s day-ahead transmission congestion charges (+/-) for all applicable settlement intervals in which the transmission system was congested (explicit and implicit).
- Transmission Congestion (Balancing) charges — The sum of the PJM Member’s or Transmission Customer’s balancing transmission congestion charges (+/-) for all applicable settlement intervals in which the transmission system was congested (explicit and implicit).
- Transmission Losses (Day-ahead) charges — The sum of the PJM Member’s or Transmission Customer’s day-ahead loss charges (+/-) for all applicable settlement intervals (implicit and explicit).
- Transmission Losses (Balancing) charges — The sum of the PJM Member’s or Transmission Customer’s balancing loss charges (+/-) for all applicable settlement intervals (implicit and explicit).
- Inadvertent Interchange charges – The sum of the PJM Member’s hourly inadvertent interchange charges (+/-) for all hours.
- Emergency Energy charges — The sum of the PJM member’s or external pool’s emergency energy purchase charges for all applicable settlement intervals in which PJM purchased or sold emergency energy.
- Economic Load Response (Day-ahead) charges — The sum of the PJM Member’s day-ahead charges for PJM Economic Load Response.
- Economic Load Response (Real-time) charges – The sum of the PJM Member’s real-time charges for PJM Economic Load Response.
- Emergency Load Response charges – The sum of the PJM Member’s charges for PJM Emergency Load Response.
- Financial Transmission Rights (FTR) Auction charges — The sum of the FTR buyer’s charges for the purchase of FTRs through the PJM FTR Auctions.
- Planning Period Congestion Uplift charges – The sum of the FTR holder’s charges for the cost of providing the Uplift on previously unfulfilled FTR Targets. Calculated at the end of each Planning Period.
- Meter Error Correction charges — The sum of the PJM Member’s charge adjustments (+/-) resulting from correction of meter errors.
- Unscheduled Transmission Service charges — The charges associated with unscheduled transmission service according to the PJM agreement with NYISO.
- Fuel Cost Policy Penalty charges – The sum of the PJM Members’ charges for all hours associate with not complying with the Fuel Cost Policy for one or more of its resources.

- Load Reconciliation charges — The sum of the PJM member's Spot Market Energy, Transmission Congestion, Transmission Losses, Inadvertent Interchange, Synchronized Reserve, Non-Synchronized Reserve, Regulation, Day-ahead Scheduling Reserve, Operating Reserve, Synchronous Condensing, and Reactive Services charge adjustments (+/-) for a specified month due to a two-month after-the-fact reconciliation of kWh load responsibility for that member in that month.

2.2.2 Open Access Transmission Tariff Charges

The monthly billing statement also lists the amount in dollars due from the Transmission Customer for each of the services in the PJM Open Access Transmission Tariff. For more detail about how these charges are calculated, see the PJM Manual 27: Open Access Transmission Tariff Accounting.

The following billing line items may appear on each month's billing statement:

- PJM Scheduling, System Control and Dispatch Service charges — The PJM Member's monthly share of PJM's monthly operating expenses, allocated on an unbundled basis in accordance with Schedule 9: "PJM Administrative Services" of the PJM Open Access Transmission Tariff.
- Transmission Owner Scheduling, System Control and Dispatch Service charges — The Transmission Customer's monthly share of the charges for operation of the TOs' control centers, allocated in proportion to the Transmission Customer's use of the transmission system in each transmission zone.
- Reactive Supply and Voltage Control from Generation and Other Sources Service charges — The Transmission Customer's monthly charges for reactive power support for transactions on the PJM Transmission System.
- Network Integration Transmission Service (NITS) charges — The Transmission Customer's monthly transmission demand charge, based on applicable transmission zone rates.
- Network Transmission Service Offset charges — All Network Integration Transmission Service Customers in the Allegheny Power transmission zone are provided with rebates applied as a negative charge based on their applicable wholesale or retail rate to hold them harmless from the network rate conversion.
- MTEP Project Cost Recovery charges – After ATSI and Duke Energy Ohio and Duke Energy Kentucky's integration into PJM, remaining MISO transmission owners will continue to be obligated to construct certain projects in MISO and transmission customers serving load in the ATSI and DEOK Zones will continue to be obligated to pay a portion of the costs of those projects. A share of the costs associated with those projects is allocated as MTEP Project Cost Recovery charges to ATSI and Duke Energy Ohio and Duke Energy Kentucky. DEOK zonal charges are then further allocated to that zone's network customers based on network service peak load ratio shares. Likewise, transmission customers serving load in the remaining MISO zones will continue to be obligated for the costs of previously identified MTEP projects that ATSI and Duke Energy Ohio and Duke Energy Kentucky have constructed or remain obligated to construct in the ATSI and DEOK Zones, respectively. The costs of these projects are allocated as MTEP Project Cost Recovery charges to MISO.

- Direct Assignment Facilities charges – The monthly charge to a Network Customer for necessary transmission facilities to ensure firm or non-firm point-to-point transmission service can be provided.
- Transmission Enhancement (TEC) charges – Approved RTEP project costs are allocated to responsible customers/zones in accordance with Schedule 12 of the PJM OATT with zonal charges further allocated to that zone’s network customers based on network service peak load ratio shares.
- Other Supporting Facilities (OSF) charges — The monthly charge to a Network Customer for low voltage facilities as specified in their service agreement and/or the applicable TO’s Attachment H to the PJM tariff.
- Firm Point-to-Point Transmission Service charges — The Transmission Customer’s monthly firm transmission demand charge, based on applicable PJM border or transmission zone rates.
- Non-Firm Point-to-Point Transmission Service charges — The Transmission Customer’s monthly non-firm transmission demand charge, based on applicable PJM border or transmission zone rates.
- Black Start Service charges — The Transmission Customer’s monthly charges for black start service on the PJM Transmission System.
- PJM Settlement, Inc (PSI) charges – The charge to collect operating costs associated with functions provided by PJM Settlement.
- Market Monitoring Unit (MMU) Funding charges – The charge to collect operating costs associated with functions, as specified in Attachment M, provided to the PJM region.
- FERC Annual Recovery charges – The charge to collect FERC fees based on MWh of energy delivered via network and point-to-point transmission service.
- Organization of PJM States, Inc. (OPSI) Funding – The charge to collect OPSI’s operating costs based on MWh of energy delivered via network and point-to-point transmission service.
- Consumer Advocates of PJM States, Inc. (CAPS) charges – The charge to collect CAP’s operating costs based on MWh of energy delivered via network and point-to-point transmission service.
- North American Electric Reliability Corporation (NERC) charges – The charge to collect a share of NERC’s operating costs based on MWh of energy delivered to load in the PJM Region (excluding Dominion and EKPC Zones).
- Reliability First Corporation (RFC) charges – The charge to collect RFC’s operating costs based on MWh of energy delivered to load in the PJM Region (excluding Dominion and EKPC Zones).
- Load Reconciliation charges - PJM Scheduling, System Control and Dispatch Service, and TO Scheduling, System Control and Dispatch Service, 9-MMU, 9-FERC, 9-OPSI, 9-CAPS, 10-NERC, 10-RFC charge adjustments for a specified month due to a two-month after-the-fact reconciliation of kWh load responsibility for that member in that month.
- RPM-related and FRR-related Capacity charges (details are included in the PJM Manual 18: PJM Capacity Market).

- Generation Deactivation charges – The charge to collect credits to generators requesting retirement where PJM studies find reliability issues that require the generation to continue operating. Cost allocations to zonal load and firm withdrawal rights are determined by PJM based on the beneficiaries.

2.3 Monthly Credits

Although credits typically represent amounts owed to the PJM Member for services provided by the PJM Member, occasionally the calculations result in negative credits which represents an amount due from the PJM Member for the particular service. Dollars seen on the billing statement under the 'Credit' heading as a positive number will be a credit to the PJM Member. Dollars seen on the billing statement under the 'Credit' heading as a negative number will be a charge to the PJM Member.

In addition to the identified services, miscellaneous items or special adjustments may appear on the billing statement. When such billing line items appear on the monthly billing statement, additional information may be provided in the BLI Adjustment Summary report in MSRS.

2.3.1 Operating Agreement Credits

The monthly billing statement lists the amount in dollars due to the Member for each of the services billed under the PJM Operating Agreement. For more detail about how these credits are calculated, see the PJM Manual 28: Operating Agreement Accounting.

The following billing line items may appear on each month's billing statement.

- Regulation credits — The sum of the PJM Member's regulation credits for all settlement intervals in which the PJM Member provided regulation.
- Operating Reserve (Day-ahead) credits — The sum of the PJM Member's daily day-ahead Operating Reserve credits for all days for eligible pool-scheduled resources.
- Operating Reserve for Load Response (Day-ahead) credits – The sum of the PJM Member's daily day-ahead Operating Reserve credits for Load Response for all days.
- Operating Reserve (Balancing) credits – The sum of the PJM Member's daily balancing Operating Reserve credits for all days.
- Operating Reserve for Load Response (Balancing) credits – The sum of the PJM Member's daily balancing Operating Reserve credits for Load Response for all days.
- Synchronous Condensing credits — The sum of the PJM Member's daily Synchronous Condensing credits for all days.
- Reactive Services credits – The sum of the PJM Member's Reactive Services credits for all settlement intervals in which the PJM Member's generation was instructed to alter its output to provide Reactive Services.
- Synchronized Reserve credits — The sum of the PJM member's Synchronized Reserve credits for all settlement intervals in which the PJM Member provided synchronized reserve.

- Non-Synchronized Reserve credits – The sum of the PJM Member’s Non-Synchronized Reserve credits for all settlement intervals in which the PJM Member provided Non-Synchronized Reserve.
- Day-ahead Scheduling Reserve credits – The sum of the PJM member’s hourly Day-ahead Scheduling Reserve credits for all hours in which the PJM Member provided day-ahead scheduling reserve.
- Transmission Congestion (Day-ahead) credits — The sum of the PJM Member’s or Transmission Customer’s transmission congestion credits for all hours in which the transmission system was congested.
- Transmission Congestion (Balancing) credits – The sum of the PJM Member’s or Transmission Customer’s transmission congestion credit for all hours in which the transmission system was congested.
- Transmission Losses credits — The sum of the PJM Member’s hourly transmission losses credits for all hours.
- Emergency Energy credits — The sum of the PJM Member’s or external pool’s emergency energy sale credits for all settlement intervals in which PJM purchased or sold emergency energy.
- Economic Load Response (Day-ahead) credits — The sum of the PJM Member’s day-ahead credits for PJM Economic Load Response.
- Economic Load response (Real-Time) credits – The sum of the PJM Member’s real-time credits for PJM Economic Load Response.
- Emergency Load Response credits – The sum of the PJM Member’s credits for PJM Emergency Load Response.
- Financial Transmission Rights (FTR) Auction credits — The sum of the FTR seller’s credits for the sale of FTRs through the PJM FTR Auctions.
- Planning Period Excess Congestion credits – The sum of ARR holder’s credits for the excess of PJM congestion revenues. Calculated at the end of each Planning Period.
- Planning Period Congestion Uplift credits - The sum of FTR holder’s credits for the Uplift to satisfy any previously unfulfilled FTR Target Credits. Calculated at the end of each Planning Period.
- Auction Revenue Rights (ARR) credits — The allocation to holders of ARRs of net revenues resulting from the sale of FTRs through PJM FTR Auctions.
- Fuel Cost Policy Penalty credits – The sum of the PJM Member’s credits for all hours in which a Fuel Cost Policy Penalty charge occurred.
- Load Reconciliation for Transmission Losses credits — The sum of the PJM member’s Transmission Losses credit adjustments (+/-) for a specified month due to a two-month after-the-fact reconciliation of kWh load responsibility for that member in that month.

2.3.2 Open Access Transmission Tariff Credits

The monthly billing statement lists the amount in dollars due to PJM Members for the services provided under the PJM Open Access Transmission Tariff. For more detail about how these credits are calculated, see the PJM Manual 27: Open Access Transmission Tariff Accounting.

The following billing line items may appear on each month's billing statement:

- Transmission Owner Scheduling, System Control, and Dispatch Service credits — The Transmission Owner's monthly credit for the expense of providing scheduling, system control, and dispatch service through its control center.
- Reactive Supply and Voltage Control Generation and Other Sources Service credits — The Transmission or Generation Owners' share of all service charges collected for reactive supply and voltage control from generation sources service collected for the month.
- Network Integration Transmission Service (NITS) credits — The Transmission Owners' share of all demand charges for network integration transmission service collected for the month.
- Network Integration Transmission Service Offset credits — The negative credit applied to Allegheny Power to hold Network Integration Transmission Service Customer's in the Allegheny Power transmission zone harmless from the network rate conversion.
- Non-Zone Network Integration Transmission Service credits — The Transmission Owners' share of all demand charges for non-zone network integration transmission service collected for the month.
- MTEP Project Cost Recovery credits – MISO's share of MTEP Project Cost Recovery charges collected from ATSI and network customers in the DEOK zone for the month, as well as ATSI's and Duke Energy Ohio and Duke Energy Kentucky's share of MTEP Project Cost Recovery charges collected from MISO for the month.
- Direct Assignment Facilities credits – The month credit to a Transmission Owner for the necessary transmission facilities to ensure firm or non-firm point-to-point transmission service may be provided.
- Transmission Enhancement (TEC) credits – Approved RTEP project costs are provided to the applicable transmission owners, or to the applicable zone's network customers on a network service peak load ratio share if the project costs are already included in the transmission owner's network service rate.
- Other Supporting Facilities (OSF) credits — The monthly credit to a Transmission Owner for low voltage facilities as specified in their service agreement and/or the TO's Attachment H to the PJM tariff.
- Firm Point-to-Point Transmission Service credits — The PJM Transmission Owners' (excluding ComEd) and ComEd Network Customers' share of demand charges collected for firm point-to-point service collected for the month.
- Non-Firm Point-to-Point Transmission Service credits — The PJM Network and Firm Point-to-Point Transmission Customers' share of demand charges for non-firm point-to-point service collected for the month.
- Black Start Service credits — The Generation Owners' share of all service charges collected for black start service for the month.
- RPM-related and FRR-related Capacity credits (details are included in the PJM Manual 18: PJM Capacity Market)

- Generation Deactivation credits – The credits to generators requesting retirement where PJM studies find reliability issues that require the generation to continue operating.

2.4 Other

The monthly billing statement may also include other charges and credits of a miscellaneous nature that are not described in the above sections.

The following charge billing line items may appear on a billing statement:

- Deferred Tax Adjustment – Network Customers taking service from PPL Electric Utilities Corporation, Duquesne Light Company, and PECO Energy Company are charged monthly in accordance with the Open Access Transmission Tariff, Attachment H-8A (PPL), Attach H-17C (DUQ), and Attachment H-7B (PECO).
- Schedule 11A PJM Net – PJM Member request to purchase additional PJMnet connection(s) as described in the Open Access Transmission Tariff, Schedule 11A
- Miscellaneous Bilateral – PJM Settlement administers agreed upon requests between specific PJM Members to bilaterally adjust their billing statement
- PJM Annual Member Fee – The Primary/Voting Member, as described in PJM Manual 33, is charged an annual fee in the November month billing statement for the upcoming calendar year membership.
- PJM Customer Payment Default – PJM Members calculation in accordance with the Operating Agreement, section 15 for when a default has occurred.

The following credit billing line items may appear on a billing statement:

- Deferred Tax Adjustment - PPL Electric Utilities Corporation, Duquesne Light Company, and PECO Energy Company are credited monthly in accordance with the Open Access Transmission Tariff, Attachment H-8A (PPL), Attach H-17C (DUQ), and Attachment H-7B (PECO).
- Miscellaneous Bilateral - PJM Settlement administers agreed upon requests between specific PJM Members to bilaterally adjust their billing statement.

PJM may bill for other charges and credits like capital costs, training charges, and interconnection studies through a separate invoice not issued by PJM Settlement.

Section 3: Weekly Billing Statement

Welcome to the Weekly Billing Statement section of the *PJM Manual for Billing*. In this section, you will find the following information:

- A description of the overall billing timeline and summary page of the weekly billing statement (see “Summary”).
- A list of the charge billing line items on the weekly billing statement (see “Weekly Charges”).
- A list of the credit billing line items on the weekly billing statement (see “Weekly Credits”).

3.1 Summary Page

PJM Settlement issues weekly billing statements each Tuesday (or Wednesday in the event that Tuesday is a PJM holiday), PJM Settlement will issue a billing statement for market activity from the first of the month through the previous Wednesday. If the weekly billing statements are not issued by 5pm EPT, they are deemed to be issued on the following business day. Payments are due by 12pm (Noon) EPT three (3) days after the issuance of the billing statements. PJM Settlement will make payments to PJM Members and Transmission Customers with a net credit on the business day following the date that payments are due.

PJM Members and Transmission Customers are obligated to pay the amounts shown as due on the weekly billing statement.

The weekly billing statement summary page contains the following information:

- Name and address of PJM Settlement
- Invoice number
- Name of the PJM Customer Account being invoiced
- PJM Customer Shortname and Organization ID (Org ID)
- Billing statement creation date and time
- Period covered by the billing Statement
- Weekly billing total, previous weekly billing total and total net amount due to PJM Settlement or to the PJM Customer Account
- Payment terms, including due date and wire transfer instructions
- PJM contact information for banking and payment – custsvc@pjm.com
- PJM contact information for billing line items – mrkt_settlement_ops@pjm.com

3.2 Weekly Charges

The weekly billing statement lists the amount in dollars due from the PJM Member for each of the following services. Although charges typically represent amounts owed by the PJM Member for services provided to the PJM Member, occasionally the calculations result in negative charges which represents an amount due to the PJM Member for the particular service.

The following billing line items may appear on each weekly month-to-date billing statement:

- Spot Market Energy charges (day-ahead and balancing)
- Transmission Congestion charges (day-ahead and balancing)
- Transmission Losses charges (day-ahead and balancing)
- Pseudo-tie Balancing Congestion Refund charges
- Inadvertent Interchange charges
- Emergency Energy charges
- Financial Transmission Rights (FTR) Auction charges
- Network Integration Transmission Service charges
- Network Integration Transmission Service Offset charges
- RPM-related Capacity charges (excluding penalty-related charges billed on a lag)

3.3 Weekly Credits

The weekly billing statement lists the amount in dollars due to the PJM Member for each of the following services. Although credits typically represent amounts owed to the PJM Member for services provided by the Member, occasionally the calculations result in negative credits which represents an amount due from the PJM Member for the particular service.

The following billing line items may appear on each weekly month-to-date billing statement:

- Transmission Congestion credits (excluding end-of-month adjustments for current months, prior months', or end-of-planning period excess revenue allocations)
- Transmission Losses credits
- Emergency Energy credits
- Financial Transmission Rights (FTR) Auction credits
- Auction Revenue Rights (ARR) credits (excluding end-of-month adjustments for current months, prior months, or end-of-planning period excess revenue allocations)
- Network Integration Transmission Service credits (including non-zone)
- Network Integration Transmission Service Offset credits
- RPM-related Capacity credits.(excluding penalty-related credits billed on a lag)

Section 4: Billing Support

Welcome to the Accounting Reports section of the *PJM Manual for Billing*. In this section, you will find the following information:

- A description of the different resources available to understand the details on the billing statements that to PJM members and Transmission Customers receive (see “Support Overview”).
- A description of what is contained in the Guide to Billing document (see “Guide to Billing”).
- A description of what is contained in the Market Settlements Reporting System application and documentation associated with each report (see “Market Settlements Reporting System (MSRS)”).

4.1 Support Overview

PJM Members and Transmission Customers can obtain supporting information regarding each billing line item and the overall billing statement through various resources. The two main resources are the Guide to Billing document and Markets Settlements Reporting System (MSRS) application. Both of these resources are updated frequently with any and all market changes to ensure the most accurate billing statement and billing line item support.

4.2 Guide to Billing

PJM maintains a document called the “Guide to Billing”. This document describes each billing line item that appears on the billing statements and the calculation that is used to determine the charges or credits. The Guide to Billing can be found on pjm.com > Markets & Operations > Billing, Settlements & Credit > Guide to Billing. It is available electronically and PDF format.

The Guide to Billing presents the following information for each billing line item:

- Billing Line Item - service for which the credit or charge is calculated, including the Tariff and/or Operating Agreement section reference, and PJM Manual section reference
- Description - description of the billing line item, including a summary of charge and credit calculations
- Reports - MSRS report names that contain the data used to calculate the billing line item charge or credit.

4.3 Market Settlements Reporting System (MSRS)

The Market Settlements Reporting System (MSRS) requires access through your Company Account Manager (CAM). MSRS contains the monthly and weekly billing statements and all the detailed reports associated with each billing line item on the billing statement. A user guide for the MSRS can be found on pjm.com > Markets & Operations > PJM Tools > Market Settlements Reporting System (MSRS).

Each MSRS report associated with the various billing line items has documentation on pjm.com > Markets & Operations > Billing, Settlements & Credit > MSRS Reports Documentation. This

documentation contains a detailed description of what is included in each report, as well as examples of the CSV and XML file formats for the report. A 'report dictionary' and 'usage guidelines' are also located on this pjm.com page to provide guidance.

Revision History

Administrative Change: (02/04/2021, Approved by Natasha Holter):

- Updated manual ownership from David Budney to Natasha Holter

Administrative Change (02/13/2020; Approved by David Budney):

- Periodic Review is up to date with no changes

Administrative Change (09/17/2018; Approved by David Budney):

- Cover to Cover Periodic Review included in Revision 28.

Revision 28 (04/01/2018):

- Updated Sections 2.1.1, 2.1.2 and 2.1.3 for 5-minute settlements to replace “hourly” with “applicable settlement interval”. Also, updated Section 2.1.2 to remove ComEd from the RTO Start-up Cost Recovery credits billing line item and to remove the Expansion Cost Recovery credits billing line item, as both are not applicable.

Revision 27 (08/10/2016)

- Cover to Cover Periodic Review - updates for overall content clarification and logic

Revision 26 (11/20/2014)

- Updates for the treatment of underpayments of miscellaneous items or special adjustments.

Revision 25 (10/25/2012)

- Updates for Shortage Pricing implementation and other minor clean-up items.

Revision 24 (06/28/2012)

- Updates to clarify existing financial payment processes for any potential “short pay” situations.

Revision 23 (01/01/2012)

- Updates to reflect integration of DEOK zone

Revision 22 (06/01/2011)

- Updates to reflect integration of ATSI zone and creation of PJM Settlement, Inc.

Revision 21 (04/13/2010)

- General clean up including fixing outdated Web links and exhibit references.

Revision20 (08/04/2009)

- General clean up and revisions to reflect weekly billing

Revision 19 (01/01/09)

- Minor general clean up to stay current

Revision 18 (11/01/2008)

- Cleaned up to better align with new settlement system.

Revision 17 (06/01/2007)

- Revisions were made to reflect the implementation of Marginal Losses and for general clean-up.

Revision 16 (01/01/2007)

- Revisions were made to add NERC charge and RFC charge billing line items, and to reflect electronic presentment of billing statements.
- Introduction trimmed to eliminate redundant information.
- List of PJM Manuals exhibit removed, with directions given to PJM Web site where all the manuals can be found.
- Revision History permanently moved to the end of the manual

Revision 15 (6/1/06)

- Revisions were made to reflect the fact that FERC and OPSI fees are included in the PJM Scheduling, System Control and Dispatch Service billing line item.

Revision 14 (4/1/06)

- Removed SECA and MAAC billing references and changed spinning reserve to synchronized reserve.
- Revisions were made on the following pages: 6, 7, 10-17.

Revision 13 (11/1/05)

- Revised to include AEP's RTO Startup Cost Recovery and modify description for Expansion Cost Recovery billing.

Revision 12 (7/1/05)

- Revised to include Expansion Cost Recovery billing.

Revision 11 (5/1/05)

- Revised to reflect changes required for revenue neutrality and SECA changes and the Dominion market integration.

Revision 10 (10/1/04)

- Revised to reflect changes required for the AEP/Dayton market integration.

Revision 09 (5/1/04)

- Revised to reflect changes to the Transitional Market Expansion charges and Firm Point-to-Point Transmission Service credits, and added Expansion Integration charges/credits.

Revision 08 (06/01/03)

- Revised to reflect the allocation of net Annual and Monthly FTR Auctions revenue as ARR credits.
- Changed all references from “PJM Interconnection, L.L.C.” to “PJM.”
- Renamed Exhibits I.1 and 3.1 to Exhibit 1 and Exhibit 2.
- Reformatted to new PJM formatting standard.
- Renumbered pages to consecutive numbering.

Revision 07 (12/01/02)

- The PJM Manual for Billing has been updated to reflect the changes to incorporate the PJM Synchronized Reserve Market and Black Start Service.

Revision 06 (04/01/02)

- The PJM Manual for Billing has been updated to reflect the changes to incorporate the PJM West Region and Rockland Electric Company.

Revision 05 (01/01/01)

- The PJM Manual for Billing has been updated to reflect the changes to the PJM Scheduling, System Control and Dispatch Service billing line item and to include a new billing line item for Mid-Atlantic Area Council Charge.
- Removed Attachment A: Definitions and Abbreviations. Attachment A is being developed into a ‘new’ PJM Manual for Definitions and Abbreviations (M-35).

Revision 04 (06/01/00)

- The PJM Manual for Billing has been updated to reflect the Multi-Settlement Process implementation.

Revision 03 (05/01/99)

- The PJM Manual for Billing has been updated to include new billing line items for Retail Load Reconciliation and for FTR Auction activity.

Revision 02 (01/01/99)

- Changes made throughout the manual for implementation of Pennsylvania Customer Choice, PJM Capacity Credit Market and updated Reliability Assurance Agreement.

Revision 01 (04/17/98)

- Revised all Sections to reference "Locational Marginal Price" rather than "Market Clearing Price."
- Attachment B
- Deleted Attachment B.

Revision 00 (09/02/97)

- This revision is the preliminary draft of the PJM Manual for Billing