PJM Manual 29:

Billing Revision: 27 Effective Date: August 10, 2016

Prepared by Market Settlements Department PJM © 2016





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Approval

Approval Date: 08/11/2016 Effective Date: 08/10/2016

David Budney, Manager

Market Settlements



Current Revision

Revision 28 (02XX/01XX/20178):

 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)

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



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.

This manual also refers to other PJM manuals, which define in detail the telecommunication protocols, redundancy requirements, accuracy and periodicity of data, generator obligations, reporting requirements, and accounting procedures established to ensure reliable operation.

• 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 Open Access Transmission Tariff Accounting (M-27)
- PJM Manual for <u>Operating Agreement Accounting (M-28)</u>
- PJM Manual for <u>Definitions and Abbreviations (M-35)</u>

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: 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 "Overview").

1.1 Overview

Billing and payment are coordinated processes under the terms of the Operating Agreement of PJM and the PJM Open Access Transmission Tariff. Billing statements are published monthly and weekly by PJM Settlement, Inc. in electronic PDF format via the PJM Market Settlements Reporting System (MSRS), detailing all charges and credits for the period that apply to the PJM Member or Transmission Customer under the Operating Agreement and the Tariff. The billing statement presents a net amount due from the PJM Member or Transmission Customer or due to the PJM Member or Transmission Customer. The amounts due reflect the previous weekly month-to-date billing amount as described below, and payments are due coincident with the due date of the first weekly bill issued for activity in the month that the monthly bill is issued.

Weekly month-to-date billing statements contain a subset of billing line items as described in Section 3 of this manual and reflect the previous week's net due amount in the current week's net due amount. Each Tuesday (or Wednesday in the event that Tuesday is a PJM holiday), PJM Settlement, Inc. 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 Noon EPT three days after the issuance of the billing statements. Payments will be made by PJM Settlement, Inc. on the business day following the date that payments are due.

The complete weekly billing calendars can be found at:

http://www.pjm.com/markets-and-operations/billing-settlements-and-credit.aspx

1.2 Payments to Net Sellers

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 Members (including by way of realization of financial security) in respect of that settlement period."

Billings for Items Other than Miscellaneous Items and Special Adjustments

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.

In accordance with PJM Operating Agreement Section 15.2, the PJM Board of Managers may direct billing Default Allocation Assessment(s) to non-defaulting 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.

Billings for Miscellaneous Items or Special Adjustments

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.



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 summary page of the monthly billing statement (see "Summary Page").
- A description of the line item details section of the monthly billing statement (see "Charges" and "Credits").

2.1 Summary Page

The summary page contains the following information:

- Name and address of PJM Settlement, Inc.
- Name of the PJM Customer Account being invoiced
- Billing statement creation date and time, and period covered by the billing statement
- Total net amount due to PJM Settlement, Inc. or to the PJM Customer Account
- · Payment terms and instructions for wire transfer
- PJM contact information for customer inquiries

2.1.1 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 for Operating Agreement Accounting (M-28)**. 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. In addition to the identified services, miscellaneous items or special adjustments may appear from time to time. When such items appear on a monthly billing statement, additional information may be provided in the BLI Adjustment Summary report in MSRS.

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

- Spot Market Energy charges The sum of the PJM Member's hourly day-ahead and balancing spot market energy charges (+/-) based on the member's billing account energy market injections and withdrawals for the applicable settlement interval. net hourly spot market interchange.
- Regulation charges The sum of the PJM Member's hourly regulation charges for all hours in which the PJM Member purchased regulation.
- Operating Reserve charges The sum of the PJM Member's daily day-ahead and balancing Operating Reserve charges for all days, including any day-ahead and balancing Operating Reserve charges for Load Response.
- 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 Dayahead Scheduling Reserve charges for all hours in which the PJM Member purchased day-ahead scheduling reserve.
- Transmission Congestion charges The sum of the PJM Member's or Transmission Customer's hourly day-ahead and balancing transmission congestion charges (+/-) for all hours applicable settlement intervals in which the transmission system was congested (explicit and implicit).
- Transmission Losses charges The sum of the PJM Member's or Transmission Customer's hourly day-ahead and balancing loss charges (+/-) for all hours 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 hourly emergency energy purchase charges for all hoursapplicable settlement intervals in which PJM purchased or sold emergency energy.
- PJM Load Response charges The sum of the PJM Member's charges for PJM Economic Load Response and PJM Emergency Load Response.
- FTR Auction charges The sum of the FTR buyer's charges for the purchase of FTRs through the PJM FTR Auctions.
- 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.
- Ramapo PAR Facilities charges The charges due from PJM Mid-Atlantic transmission owners to pay for the carrying charges associated with the phase angle regulating (PAR) facilities at Ramapo.
- 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.



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 for Open Access Transmission Tariff Accounting (M-27)**. Although charges typically represent amounts owed by the Transmission Customer for services provided to the Transmission Customer, occasionally the calculations will result in negative charges which represent an amount due to the Transmission Customer for the particular service. In addition to the identified services, miscellaneous items or special adjustments may appear from time to time. When such items appear on a monthly billing statement, additional information may be provided in the BLI Adjustment Summary report in MSRS.

The following 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. Schedule 9-PJMSettlement (with an equal and opposite Schedule 9-3 Offset charge refund), Schedule 9-MMU (MMU Funding), and Schedule 9-6 (AC2 Cost) charges are also allocated along with the Schedule 9-1 through 9-5 charges. 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 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.
- Network Integration Transmission Service (ATSI Low Voltage) charges The ATSI zone utilizes a dual voltage rate structure. In addition to the Network Integration Transmission Service charge, network customers in the ATSI transmission zone are charged a low voltage network integration transmission service charge for the portion of their load deemed to be using transmission facilities below 138 kV.
- 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.

- Transmission Enhancement 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 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 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 transmission demand charge, based on applicable PJM border or transmission zone rates.
- RTO Start-up Cost Recovery charges The charge to ComEd and AEP network customers (and customers serving ComEd and AEP load with point-to-point service) to compensate ComEd and AEP for integrating into PJM.
- Black Start Service charges The Transmission Customer's monthly charges for black start service on the PJM Transmission System.
- Expansion Cost Recovery charges The charge to PJM LSEs to compensate the ComEd, AEP, and Dayton transmission owners for their costs of integrating into PJM.
- FERC Annual Recovery charges The charge to 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.
- 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 ATSI Zones). The exclusion applicable to the ATSI Zone shall expire on January 1, 2012.
- 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 ATSI Zones). The exclusion applicable to the ATSI Zone shall expire on January 1, 2012.
- Load Reconciliation charges PJM and TO Scheduling, System Control and Dispatch Service, 9-6, 9-MMU, 9-FERC, 9-OPSI, 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 Reliability Pricing Model Manual).
- 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.

2.1.2 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 for Operating Agreement Accounting (M-28)**. 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. In addition to the identified services, miscellaneous items or special adjustments may appear from time to time. When such items appear on a monthly billing statement, additional information may be provided in the BLI Adjustment Summary report in MSRS.

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

- Regulation credits The sum of the PJM Member's hourly regulation credits for all hours settlement intervals in which the PJM Member provided regulation.
- Operating Reserve credits The sum of the PJM Member's daily day-ahead and balancing Operating Reserve credits for all days for eligible pool-scheduled resources.
- 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 hourly Reactive Services credits for all hours 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 hourly Synchronized Reserve credits for all hours settlement intervals in which the PJM Member provided synchronized reserve.
- Non-Synchronized Reserve credits The sum of the PJM Member's hourly-Non-Synchronized Reserve credits for all hours-settlement intervals in which the PJM Member provided Non-Synchronized Reserve.
- Day-ahead Scheduling Reserve credits The sum of the PJM member's hourly Dayahead Scheduling Reserve credits for all hours in which the PJM Member provided dayahead scheduling reserve.
- Transmission Congestion 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 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 hourly emergency energy sale credits for all hourssettlement intervals in which PJM purchased or sold emergency energy.
- PJM Load Response credits The sum of the PJM member's credits for PJM Economic Load Response and PJM Emergency Load Response.



- FTR Auction credits The sum of the FTR seller's credits for the sale of FTRs through the PJM FTR Auctions.
- ARR credits The allocation to holders of ARRs of net revenues resulting from the sale of FTRs through PJM FTR Auctions.
- Ramapo PAR credits The credits due to the NYISO for the carrying charges for phase angle regulating (PAR) facilities at Ramapo.
- 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.

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 for Open Access Transmission Tariff Accounting (M-27)**. In addition to the identified services, miscellaneous items or special adjustments may appear from time to time. When such items appear on a monthly billing statement, additional information may be provided in the BLI Adjustment Summary report in MSRS.

The following 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 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.
- Network Integration Transmission Service (ATSI Low Voltage) credits ATSI's share of all Network Integration Transmission Service (ATSI Low Voltage) charges collected for the month.
- 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.
- Transmission Enhancement 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 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-topoint service collected for the month.
- RTO Start-up Cost Recovery credits The credits to ComEd and AEP to compensate them for integrating into PJM.
- Black Start Service credits The Generation Owners' share of all service charges collected for black start service for the month.
- Expansion Cost Recovery credits The credits to ComEd, AEP, and Dayton to compensate them for their PJM expenses of integrating into PJM.
- RPM-related and FRR-related Capacity credits (details are included in the PJM Reliability Pricing Model Manual)
- Generation Deactivation credits The credits to generators requesting retirement where PJM studies find reliability issues that require the generation to continue operating.

2.1.3 Other

The monthly billing statement may also include other charges and credits of a miscellaneous nature. Certain other charges and credits may be invoiced on separate billing statements, such as capital costs, training charges, and adjustments from previous methods of accounting.

For services that are provided on a time scale longer than one month, charges and credits are generally prorated on the monthly billing statement. For services that are provided on a time scale less than one month (such as spot market energy, which is an hourly service), detailed accounting and billing information is made available by PJM to PJM Members and Transmission Customers for their review. This detailed information may be useful for internal accounting and for verifying the monthly billing statement.

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



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 summary page of the weekly billing statement (see "Summary Page").
- A description of the line item details section of the weekly billing statement (see "Charges" and "Credits").

3.1 Summary Page

The summary page contains the following information:

- Name and address of PJM Settlement, Inc.
- Name of the PJM Customer Account being invoiced
- Billing statement creation date and time, and period covered by the billing Statement
- Total net amount due to PJM Settlement, Inc. or to the PJM Customer Account
- · Payment terms and instructions for wire transfer
- PJM contact information for customer inquiries.

3.1.1 Charges

The weekly billing statement lists the amount in dollars due from the 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 charge 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)
- Inadvertent Interchange charges
- Emergency Energy charges
- FTR Auction charges
- Network Integration Transmission Service charges
- Network Integration Transmission Service Offset charges
- Network Integration Transmission Service (ATSI Low Voltage) charges
- RPM-related Capacity charges (excluding penalty-related charges billed on a lag)

3.1.2 Credits

The weekly billing statement lists the amount in dollars due to the 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 credit 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
- FTR Auction credits
- 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
- Network Integration Transmission Service (ATSI Low Voltage) credits
- RPM-related Capacity credits.(excluding penalty-related credits billed on a lag)

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



Section 4: Accounting Reports

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 billing reports that are made available to PJM members and Transmission Customers (see "Accounting Reports").

4.1 Accounting Reports

PJM publishes numerous accounting reports electronically that are updated throughout the billing month as well as month-end reports along with the monthly billing statements. These reports are located in PJM's Market Settlement Reporting System (MSRS) found under PJM Tools in pjm.com located at https://esuite.pjm.com/mui/index.htm. The purpose of providing the reports is to enable the PJM Members and Transmission Customers to verify the charges and credits that appear on their billing statement.

4.1.1 Customer Guide

PJM maintains a customer guide to billing that describes each of the line items that appear on the bill and the calculation that is used to determine the charges or credits. The Customer Guide to Billing is electronically available at http://www.pjm.com/markets-and-operations/billingsettlements-and-credit/guide-to-billing.aspx.

The Customer 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 or Operating Agreement reference)
- Description description of the line item, including charge/credit calculations
- Reports list of billing reports available from the Market Settlements Reporting System (MSRS) that contain the data used to calculate the line item charge or credit.

The complete set of documentation for PJM MSRS reports can be found at the following link:

http://www.pjm.com/markets-and-operations/billing-settlements-and-credit/msrs-reportsdocumentation.aspx



Revision History

Revision 27 (08/10/2016)

<u>Cover to Cover Periodic Review - updates for overall content clarification and logic</u>

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 Pointto-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