PJM Schedule 9 Administrative Rate Overview

Financial Risk Mitigation Senior Task Force
June 6, 2019
Jim Snow
Pre-1999: Single Formula Rate Charged 100% Based on Megawatt Hours of Load Served

1999 through May 2006: Multiple Formula Rates Charged to Unbundled Service Categories with Billing Determinants Based on Megawatt Hours of Load Served and Market Activity

June 2006 through 2016: Fixed Service Category Rates (Stated Rates) plus Formula Rate Rider for Advanced Control Center (AC²) Costs Charged to Unbundled Service Categories with Billing Determinants Based on Megawatt Hours of Load Served and Market Activity

Beginning January 2017: Updated Fixed Service Category Rates (Stated Rates) with Costs Charged to Unbundled Service Categories with annual escalations from 2019 through 2026
• Maintain low rate volatility and provide multi-year service fee certainty for five to ten years
• Deploy effective operation and capital cost management
• Provide rate and cost transparency to members
• Maintain creditworthiness for cost-effective borrowing purposes
• Schedule 9-1: Control Area Administrative Service
• Schedule 9-2: Financial Transmission Rights Administrative Service
• Schedule 9-3: Market Support Service
• Schedule 9-4: Regulation & Frequency Response Administrative Service
• Schedule 9-5: Capacity Resource & Obligation Management Service
• Schedule 9-PJMSettlement: PJM Settlement, Inc Administrative Services
## Second Quarter 2019 PJM Administrative Rates

<table>
<thead>
<tr>
<th>Schedule</th>
<th>9-2 Financial Transmission Rights (FTR) Administration Service</th>
<th>9-3 Market Support (MS) Service</th>
<th>9-4 Regulation &amp; Frequency Response Administration Service (per MWh)</th>
<th>9-5 Capacity Resource &amp; Obligation Management Service (per MW Day)</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>9-1 Control Area Administrative on Service (per MWh)</td>
<td>9-2 FTR Service Rate Component 1 (per FTR MWh)</td>
<td>9-2 FTR Service Rate Component 2 (per FTR bid hour)</td>
<td>9-3 MS Service Rate Component 1 (per MWh)</td>
</tr>
<tr>
<td>2019 Stated Rate</td>
<td>0.2153</td>
<td>0.0029</td>
<td>0.0019</td>
<td>0.0475</td>
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<tr>
<td>2Q 2019 PJM Settlement Rate* Offset</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>(0.0042)</td>
</tr>
<tr>
<td>Quarterly Refund Rate**</td>
<td>(0.0240)</td>
<td>(0.0001)</td>
<td>(0.0001)</td>
<td>(0.0052)</td>
</tr>
<tr>
<td>Effective Rates***</td>
<td>0.1913</td>
<td>0.0028</td>
<td>0.0018</td>
<td>0.0381</td>
</tr>
</tbody>
</table>
## Schedule 9-1: Control Area Administration Service

### Activities
- Associated with preserving reliability of PJM Region and administering Point-to-Point Transmission Service and Network Integration Transmission Service

### Usage
- Sum of Transmission Customer’s actual hourly transmission use during month (MWh)

### Updates
- Fixed (stated) rate updated annually according escalation outlined in Schedule 9 of OATT
- Adjusted quarterly for refund rate

### Charge
- Customer’s Total Transmission Use for Month * Control Area Administration Service Rate

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### Activities
- Activities associated with administering Financial Transmission Rights (FTRs)

### Usage
- **Component #1** is sum of FTR holder’s hourly FTR MWs for each hour of month that FTR is in effect, regardless of dollar value of the FTR
- **Component #2** is number of hours associated with all bids to buy FTR Obligations + 5 * number of hours associated with all bids to buy FTR Options

### Updates
- Fixed (stated) rate updated annually according escalation outlined in Schedule 9 of OATT
  - Adjusted quarterly for refund rate

### Charge
- **Component #1**: Total FTR MWh * FTR Administration Service Rate +
- **Component #2**: Number of hours in all bids to buy FTR Obligations and 5 * number of hours in all bids to buy FTR Options * FTR Administration Service Rate
**Schedule 9-3: Market Support Service**

<table>
<thead>
<tr>
<th>Activities</th>
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<tbody>
<tr>
<td>• Activities associated with supporting operation of PJM Interchange Energy Market and related functions</td>
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<table>
<thead>
<tr>
<th>Usage</th>
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<tbody>
<tr>
<td>• <strong>Component #1</strong> charged to Transmission Customers and Generation Providers using PJM transmission system and to market participants that submit offers to sell or bids to buy energy in PJM Interchange Energy Market</td>
</tr>
<tr>
<td>• <strong>Component #2</strong> is number of bid/offer segments submitted by market participant</td>
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<table>
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<tr>
<td>• Fixed (stated) rate updated annually according escalation outlined in Schedule 9 of OATT</td>
</tr>
<tr>
<td>• Adjusted quarterly by refund rate and 9-PJM Settlement Rate</td>
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<thead>
<tr>
<th>Charge</th>
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<tbody>
<tr>
<td>• <strong>Component 1</strong>: (Total Transmission Customer MWh Usage + Generation Provider MWh Usage + Total cleared bid/offer MWh) * Market Support Service Rate) +</td>
</tr>
<tr>
<td>• <strong>Component 2</strong>: (All Day-Ahead Energy Market Bid/Offer Segments * Market Support Service Rate)</td>
</tr>
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Schedule 9-4: Regulation & Frequency Response Administration

**Activities**
- Activities associated with administering provision of Regulation and Frequency Response Service

**Usage**
- Sum of PJM Member’s Regulation Obligation (in MWh) + PJM Member’s Regulation scheduled (pool-scheduled and self-scheduled)

**Updates**
- Fixed (stated) rate updated annually according escalation outlined in Schedule 9 of OATT
- Adjusted quarterly by refund rate

**Charge**
- Total Regulation Usage * Regulation and Frequency Response Administration Service Rate
Schedule 9-5: Capacity Resource & Obligation Management Service

### Activities
- Activities to assure that members have arranged for sufficient generating capacity to meet their capacity obligations, processing Network Integration Transmission Service, administering the PJM capacity markets, and administering and providing technical support for RAAs

### Usage
- Sum of LSEs monthly Accounted-for Obligations during the month (including FRRs) and Capacity Resource Owner’s Unforced Capacity (MWd)

### Updates
- Fixed (stated) rate updated annually according escalation outlined in Schedule 9 of OATT
- Adjusted quarterly by refund rate

### Charge
- Total Usage * Capacity Resource and Obligation Management Service Rate
**Activities**
- Recovers expenses of PJM Settlement, Inc.

**Usage**
- Transmission Customers
- Generation Providers
- Market Participants that Submit Offers to Buy or Sell Energy in PJM Interchange Energy Market

**Updates**
- Set annually, based on budgeted costs and forecast usage
- Quarterly adjustments for over/under collections

**Charge**
- 9-PJMSettlement rate
  - * Total Transmission Usage (MWh) of PJM transmission usage