

Ancillary Services

For

Transaction Customers

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Remote Learning

Objectives Per Settlement Name:

- Provide Settlement Description
- Identify Settlement Eligibility
- Name Settlement Determinants
- Name Settlement Intermediates
- Explain Settlement Algorithm
- Step Through Settlement Scenario
- Perform Settlement Example
- Note Settlement Reference Material

Transaction Ancillary Services

Settlement Name:

- A. Transaction Customer MST/OATT Schedule 1
- B. Transaction Customer OATT Schedule 2 (VSS)
- C. Transaction Customer OATT Schedule 5 (Operating Reserve)

Transaction Ancillary Services – MST / OATT Schedule 1

Settlement Description:

- Intended to recover a portion of NYISO's operating costs and FERC fees from Transaction Customers

Scheduling, System Control, and Dispatch (S,SC & D)

+

FERC Fees

Transaction Ancillary Services

MST/OATT Schedule 1

Settlement Eligibility:

Transaction Customers will receive a charge for MST/OATT Schedule 1 (\$) if:

- The Transaction Customer scheduled real-time import, export or wheel-through energy within the NYCA
 - Hr RT Import Trans: $TC \text{ (MWh)} > 0$ or Hr RT Export Trans: $TC \text{ (MWh)} > 0$ or Hr RT Wheel-Thru Trans: $TC \text{ (MWh)} > 0$
 - *Excluding CTS - NE Transactions (for both injections and withdrawals)*

Transaction Ancillary Services MST/OATT Schedule 1 - S, SC, & D

Settlement Determinants:

- Hr RT Import Trans: TC (MWh)
- Hr RT Export Trans: TC (MWh)
- Hr RT Wheel-Thru Trans: TC (MWh)
- Hr OATT Sched 1 Rate: WD (\$/MWh)
- Hr OATT Sched 1 Rate: Inj (\$/MWh)

Transaction Ancillary Services

MST/OATT Schedule 1 - S, SC, & D

Settlement Intermediates:

- Not applicable

Settlement Results:

- Hr OATT Sched 1 WD Stlmnt: TC (\$)
- Hr OATT Sched 1 Inj Stlmnt: TC (\$)

Transaction Ancillary Services MST/OATT Schedule 1 - S, SC, & D

Settlement Algorithm:

Hr OATT Sched 1 WD Stlmnt: TC (\$) =

$$\left[\{ \text{Hr OATT Sched 1 Rate: WD (\$/MWh)} \} * \{ \text{Hr RT Export Trans: TC (MWh)} \} + \{ \text{Hr RT Wheel-Thru Trans: TC (MWh)} \} \right] * -1$$

Where:

Hr OATT Sched 1 Rate: WD (\\$/MWh) =

$$.72 * \{ (\text{NYISO Cost of Ops}) / \text{Forecasted MWh Volume} \}$$

Transaction Ancillary Services MST/OATT Schedule 1 - S, SC, & D Settlement Algorithm:

Hr OATT Sched 1 Inj Stlmnt: TC (\$) =

$$\begin{aligned} & [\{ \text{Hr OATT Sched 1 Rate: Inj (\$/MWh)} \} * \{ \text{Hr RT Import Trans: TC (MWh)} \\ & + \text{Hr RT Wheel-Thru Trans: TC (MWh)} \}] * -1 \end{aligned}$$

Where:

Hr OATT Sched 1 Rate: Inj (\\$/MWh) =

$$.28 * \{ (\text{NYISO Cost of Ops}) / \text{Forecasted MWh Volume} \}$$

Transaction Ancillary Services

MST/OATT Schedule 1 - S, SC, & D

■ Settlement Scenario

- Transaction Customer had a wheel-through transaction for 20 MWs for HB 3
- Wheelthroughs are assessed on a per MWh basis the rate for injections and withdrawals
 - Rate Schedule 1 for Withdrawals is \$0.710640
 - Rate Schedule 1 for Injections is \$0.276360

Transaction Ancillary Services MST/OATT Schedule 1 - S, SC, & D

■ Settlement Example

Hr OATT Sched 1 WD Stlmnt: TC (\$) =
 $\$0.710640 * 20 * -1 = -\14.21

Hr OATT Sched 1 Inj Stlmnt: TC (\$) =
 $\$0.276360 * 20 * -1 = -\5.53

Total Settlement = **\$19.74**

Transaction Ancillary Services MST/OATT Schedule 1 - FERC Fees

- **Settlement Determinants**
 - Hr RT Wheel-Thru Trans: TC (MWh)
 - Hr RT Export Trans: TC (MWh)
 - Hr RT Import Trans: TC (MWh)
 - Hr Fee Exempt Export (MWh)
 - Hr Fee Exempt Import (MWh)
 - Hr Proj FERC Fee NYISO Total (\$)
 - Hr True-up FERC Fee NYISO Total (\$)

Transaction Ancillary Services MST/OATT Schedule 1 - FERC Fees

■ Settlement Intermediates

- Hr OATT Sched 1 FERC Fees Rate: WD (\$/MWh)
- Hr OATT Sched 1 FERC Fees Rate: Inj (\$/MWh)

■ Settlement Results

- Hr Hr OATT Sched 1 FERC Fees WD Stlmnt: TC (\$)
- Hr OATT Sched 1 FERC Fees Inj Stlmnt: TC (\$)

Transaction Ancillary Services

MST/OATT Schedule 1 - FERC Fees

■ Settlement Algorithm

Hr OATT Sched 1 FERC Fees WD Stlmnt: TC (\$) =

Hr OATT Sched 1 FERC Fees Rate: WD (\$/MWh) (Hr RT Export Trans: TC (MWh) + Hr RT Wheel-Thru Trans: TC (MWh))* (-1)*

and/or

Hr OATT Sched 1 FERC Fees Inj Stlmnt: TC (\$) =

Hr OATT Sched 1 FERC Fees Rate: Inj (\$/MWh) (Hr RT Import Trans: TC (MWh) + Hr RT Wheel-Thru Trans: TC (MWh)) * (-1)*

Where:

Hr OATT Sched 1 FERC Fees Rate =

actual billed fees – annual estimated fees + true up interest accrual

- Broken down to a monthly level and then an hourly level rate
- Export Transactions assessed 72% of the 94% Physical Allocation
- Import Transactions assessed 28% of the 94% Physical Allocation
- Wheels-Thru assessed both 28% and 72% of the 94% Physical Allocation

Transaction Ancillary Services - MST/OATT Schedule 1

Settlement Reference Material:

- **Tariff Reference**
 - MST – Schedule 1, Section 15.1
 - OATT – Schedule 1, Section 6.1
- **Accounting and Billing Manual**
 - Sections 8.1 & 8.2, Appendix M
- **DSS Corporate Report**
 - Settlement Details – Transaction Customer – Ancillary Services

Transaction Ancillary Services - MST/OATT Schedule 1

Settlement Reference Material:

- **Advisory Billing File**

- Transaction Customer Section
 - *S, SC & D, etc MST Charge \$*
 - Hourly Bill Code: 608; Daily Bill Code 805
 - *S, SC & D, etc OATT Charge \$*
 - Hourly Bill Code: 615; Daily Bill Code 809
 - FERC Fees OAT WD Charge \$
 - Hourly Bill Code: 644; Daily Bill Code 842
 - FERC Fees OAT Inject Charge \$
 - Hourly Bill Code: 645; Daily Bill Code 843

Transaction Ancillary Services

Settlement Name:

- A. Transaction Customer MST/OATT Schedule 1
- B. Transaction Customer OATT Schedule 2 (VSS)**
- C. Transaction Customer OATT Schedule 5 (Operating Reserve)

Transaction Ancillary Services – OATT Schedule 2: Voltage Support Service (VSS)

Settlement Description:

- Intended to recover NYISO's costs to procure Voltage Support Services from Power Suppliers

Transaction Ancillary Services

OATT Schedule 2 – Voltage Support Service (VSS)

Settlement Eligibility:

Transaction Customers will receive a charge for OATT Schedule 2 -VSS (\$) if all of the following conditions exist:

- The Transaction Customer scheduled real-time export or wheel-through energy within the NYCA
 - Hr RT Export Trans: $TC \text{ (MWh)} > 0$ or Hr RT Wheel-Thru Trans: $TC \text{ (MWh)} > 0$

Transaction Ancillary Services

OATT Schedule 2 - VSS

Settlement Determinants:

- Hr VSS Rate (\$/MWh)
- Hr RT Export Trans:TC (MWh)
- Hr RT Wheel-Thru Trans: TC (MWh)

Transaction Ancillary Services

OATT Schedule 2 - VSS

Settlement Intermediates:

- None

Settlement Results:

- Hr VSS Stlmnt: TC (\$)

Transaction Ancillary Services

OATT Schedule 2 - VSS

Settlement Algorithm:

Hr VSS Stlmnt: TC (\$) =

[Hr VSS Rate (\$/MWh) * {Hr RT Export Trans: TC (MWh) + Hr RT Wheel-
 Thru Trans: TC (MWh)}}] * -1

Where:

Hr VSS Rate (\$/MWh) =
 { Total 2018 NYISO VSS Payments) / Forecasted MWh Volumes}

And:

Total 2018 NYISO VSS Payments =
 Projected 2018 NYISO VS Payments to Generators +
 Projected 2018 NYISO VS Payments to non-generator VAR Suppliers +
 Projected 2018 VSS LOC Payments +
 2017 Over/Under-Collection of VSS Payments

Transaction Ancillary Services

OATT Schedule 2 - VSS

■ Settlement Scenario

- Transaction Customer has RT Export schedule
 - 65 MWh in HB 02 for LBMP Export
- Voltage Support Rate Schedule 2 for Withdrawals: \$0.43 (for 2018)
- Transaction Customer will be charged a RT Settlement for HB 02

Transaction Ancillary Services

OATT Schedule 2 - VSS

- Settlement Example

$$\text{Hr VSS Stlmnt: LSE (\$)} = \$ -27.95$$
$$[\$0.43 * 65] * (-1)$$

Where:

$$\text{Hr VSS Rate (\$/MWh)} = \$0.43$$
$$\{(\$66,431,604.68 + \$391,919.09 + \$0 + (\$-1,354,779.18)) / 157,767,363\}$$

Transaction Ancillary Services – OATT Schedule 2 (VSS)

Settlement Reference Material:

- **Tariff Reference**
 - OATT – Schedule 2, Section 6.2
- **Accounting and Billing Manual**
 - Section 8.3, Appendix M
- **Advisory Billing File**
 - Transaction Customer Section
 - *VSS Charge \$*
 - Hourly Bill Code: 606
 - Daily Bill Code: 804
- **DSS Corporate Report**
 - Settlement Details – Transaction Customer – Ancillary Services

Transaction Ancillary Services

Settlement Name:

- A. Transaction Customer MST/OATT Schedule 1
- B. Transaction Customer OATT Schedule 2 (VSS)
- C. Transaction Customer OATT Schedule 5 (Operating Reserve)**

Transaction Ancillary Services – OATT Schedule 5: Operating Reserve Service

Settlement Description:

- **Intended to recover NYISO's costs to procure Operating Reserve Services from Power Suppliers**

Transaction Ancillary Services

OATT Schedule 5 – Operating Reserve Service

Settlement Eligibility:

Transaction Customers will receive a charge for OATT Schedule 5 - Operating Reserves (\$) if all of the following conditions exist:

- The Transaction Customer scheduled real-time export energy within the NYCA
 - Hr RT Export Trans: TC (MWh) > 0

Transaction Ancillary Services

OATT Schedule 5 – Operating Reserve Service

Settlement Determinants:

- Hr RT Export Trans: TC (MWh)
- Hr Total NYISO RT LSE Load (MWh)
- Hr Total NYISO RT Export Trans (MWh)
- Hr Total NYISO Op Res Cr to PS (\$)

Transaction Ancillary Services

OATT Schedule 5 – Operating Reserve Service

Settlement Intermediates:

- Hr RT TC Ld Ratio Sh: LSE & Exp

Settlement Results:

- Hr Op Res Stlmnt: TC (\$)

Transaction Ancillary Services

OATT Schedule 5 – Operating Reserve Service

Settlement Algorithm:

Hr Op Res Stlmnt: TC (\$) =

(Hr Total NYISO Op Res Cr to PS (\$) * Hr RT TC Ld Ratio Sh: LSE & Exp) * -1

Where:

Hr RT TC Ld Ratio Sh: LSE & Exp =

Hr RT Export Trans: TC (MWh) / {Hr Total NYISO RT LSE Load (MWh) + Hr Total NYISO RT Export Trans (MWh)}

Transaction Ancillary Services – OATT Schedule 5 Operating Reserve

Settlement Reference Material:

- **Tariff Reference**
 - OATT – Schedule 5, Section 6.5
- **Accounting and Billing Manual**
 - Section 8.6, Appendix M
- **Advisory Billing File**
 - Transaction Customer Section
 - *Total Hourly Operating Reserve Charge*
 - *Daily Total Operating Reserve Charge*
 - Hourly Bill Code: 610
 - Daily Bill Code: 806
- **DSS Corporate Report**
 - Settlement Details – Transaction Customer – Ancillary Services