Ancillary Services

For

Transaction Customers

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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 (MWh) > 0 or Hr RT Export Trans: TC (MWh) > 0 or Hr RT Wheel-Thru Trans: TC (MWh) > 0
    - *Excluding CTS - NE Transactions (for both injections and withdrawals)*

FOR TRAINING PURPOSES ONLY

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 ($) =

[{Hr OATT Sched 1 Rate: WD ($/MWh)} * {Hr RT Export Trans: TC

(MWh) + Hr RT Wheel-Thru Trans: TC (MWh)}] * -1

Where:

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

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

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

Settlement Algorithm:

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

[{Hr OATT Sched 1 Rate: Inj ($/MWh)} * {Hr RT Import Trans: TC (MWh)

+ Hr RT Wheel-Thru Trans: TC (MWh)}] * -1

Where:

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

.28 * {(NYISO Cost of Ops)/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 <u>72%</u> of the 94% Physical Allocation
- Import Transactions assessed <u>28%</u> of the 94% Physical Allocation
- Wheels-Thru assessed both <u>28%</u> and <u>72%</u> 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 <u>export or wheel-through</u> energy within the NYCA

  - Hr RT Export Trans: TC (MWh) > 0 or Hr RT Wheel-Thru Trans: TC (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

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

Where:
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