# Electric Storage Resource Participation – DSS Updates for Settlements

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July 13, 2020

# Agenda

- Order No. 841 Electric Storage Resource Participation

- NYISO February 2020 Compliance Filing

- Impacts to Settlements

- New Settlement Billing Codes

- DSS Corporate Reports and Universe Updates

- Next Steps

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# Order No. 841 Electric Storage Resource Participation

- FERC Order directing ISO/RTOs to establish market rules for Electric Storage Resource participation in wholesale markets

  - FERC directed the NYISO to submit tariff revisions establishing a new participation model consisting of market rules for Energy Storage Resources (ESRs), that recognizing their physical and operational characteristics, facilitates their participation in the NYISO-administered Energy, Ancillary Services and Installed Capacity markets.

- In December 2019, FERC issued an order accepting the majority of the NYISO's tariff revisions establishing the ESR participation model

  - The NYISO submitted additional tariff revisions required by the Commission's Order in February 2020. Those tariff revisions remain pending before the Commission.

  - NYISO also sought rehearing on the application of transmission charges to ESRs participating in the wholesale market when an ESR is withdrawing Energy for later injection back to the grid, but not being dispatched by the NYISO to provide a service. The Request for Rehearing also remains pending before the Commission.

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# Order No. 841 Electric Storage Resource Participation

- **The February 2020, further compliance filing included tariff revisions that:**

  - Propose a method by which the NYISO will comply with the Commission's directive regarding Transmission Charges, if required to do so

  - Propose a method by which the NYISO will comply with the Commission's directive to prevent double payment for Energy withdrawals (Charging at Retail)

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# NYISO's Proposal

- **The proposed DSS updates identified in this presentation assume FERC issues an Order accepting the NYISO's February 2020 further compliance filing, including the proposed application of transmission charges**

  - Should the Commission grant the NYISO's request for rehearing, the NYISO will not implement the proposals related to transmission charges discussed in the presentation

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# February 2020 Compliance Filing: Impacts to Settlements

1. **Tariff revisions that will apply transmission charges to Energy Storage Resources when that resource is withdrawing, but not being dispatched by the NYISO to provide a service**

   - NYPA Transmission Adjustment Charge (NTAC) – charged by the NYISO on behalf of NYPA, *OATT 2.7.2.4*

   - Transmission Service Charges (TSC) – paid directly to the Transmission Owner, *OATT 2.7.2.1*

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# February 2020 Compliance Filing: Impacts to Settlements

2.  Preventing double payment for Energy withdrawals (Charging at Retail)

    - Tariff revisions that provide a mechanism whereby a Customer (ESR) will be issued a credit on its invoice when the LSE requires payment for Energy withdrawals for wholesale market participation.  NYISO will assess a comparable charge to the appropriate LSE.

    - Modifications to Generator registration materials to document when the ESR will be invoiced by the LSE for its Energy withdrawals for wholesale market participation

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# Impacts to Settlements

- Rebate to the Generator for Retail Withdrawals

- Charge to the LSE for Generator Retail Withdrawals

- NTAC Charge to the Generator for Storage Withdrawals

- Allocation to NYPA of NTAC Charge for Generator Storage Withdrawals

- TSC MWh reporting for Generators and the Transmission Owners

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# New Billing Codes

- New Billing Codes will result in updates to the following files/reports:

  - Daily Reconciliation

  - Invoice Detail

  - Daily Customer Statement

  - Hourly Customer Statement

  - DSS Corporate Reports

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# Updates to Daily Cash Reconciliation Report

- **85001 Retail Withdrawals LSE Charge**
  - Located above the Total Revenue row

- **34101 Retail Withdrawals Generator Rebate**
  - Located above the Total Expenditures row

- **34201 Storage Withdrawal NTAC Revenue**
  - Located in Subtotal Section: 11 NTAC Revenue

- **101201 NTAC Expenditure**
  - Will incorporate the dollar value of 34201

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# Updates to Invoice Detail Report

- **Power Supplier – Energy Settlement ($) section**
  - 341 Retail Withdrawals Generator Rebate Payment
- **Power Supplier – Cost Based Ancillary Services section**
  - 342 Storage Withdrawal NTAC Charge
- **Transmission Customer – Energy Settlement ($) section**
  - 850 Retail Withdrawals LSE Charge
- **Transmission Owner**
  - The existing line item, *OATT Attachment H:  NYPA Transmission Access Settlement ($)*, will incorporate the dollar value of 342

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# Updates to Daily Customer Statement File

- **Power Suppliers section**

  - 341 Retail Withdrawals Rebate $

  - 342 Storage Withdrawal NTAC Charge $

- **Transmission Providers section**

  - The existing Billing Code, *1012 NTAC Credit $,* will incorporate the dollar value of 342

# Updates to Daily Customer Statement File

- **LSE – Storage Withdrawals section (new section)**
  - Addition of existing Billing Codes to create the section
    - 100 LSE Org Name, 400 LSE Name, 100 Gen Org Name, 200 Gen Name, 201 Gen PTID, 101 Start Day
  - New Billing Codes
    - 850 Retail Withdrawals Charge $
    - 851 Retail Withdrawals MWh

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# Updates to Hourly Customer Statement File

- **Power Suppliers section**
  - 269 Retail Withdrawals MWh
  - 270 Retail Withdrawals Rebate $
  - 271 Storage Withdrawal NTAC/TSC MWh
  - 272 Storage Withdrawal NTAC Charge $
- **Transmission Providers section**
  - The existing Billing Code, *1003 NTAC Credit,* will incorporate the dollar value of 272

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# Updates to Hourly Customer Statement File

- **Transmission Providers – Storage Withdrawals TSC section (new section)**

  - Addition of existing Billing Codes to create the section
    - 1000 TP Name, 100 Gen Org Name, 200 Gen Name, 201 Gen PTID, 101 Start Day, 102 Start Hour

  - New Billing Code
    - 1054 Storage Withdrawal TSC MWh
      - Indicates the TSC eligible MWh for Generator withdrawals and is the same MWh value found in Billing Code 271

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# Updates to Hourly Customer Statement File

- **LSE – Storage Withdrawals section (new section)**
  - Addition of existing Billing Codes to create the section
    - 100 LSE Org Name, 400 LSE Name, 100 Gen Org Name, 200 Gen Name, 201 Gen PTID, 101 Start Day, 102 Start Hour
  - New Billing Codes
    - 648 Retail Withdrawals MWh
      - Corresponds to Daily Customer Statement code 269 (slide 14)
    - 649 Hrly R/T Withdrawal Gen LBMP $
    - 650 Retail Withdrawals Charge $
      - Corresponds to Daily Customer Statement code 270 (slide 14)

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# Updates to DSS Corporate Reports

Within the Customer Settlements Documents folder and subfolder as represented below:

- **9 Invoice Support Documents - Settlement Details – Invoice Detail Support report**
  - Adding three new Billing Codes
    - 341 Retail Withdrawals Generator Rebate Payment to the Power Supplier Energy Settlement ($) section
    - 342 Storage Withdrawal NTAC Charge to the Power Supplier Cost Based Ancillary Services section
    - 850 Retail Withdrawals LSE Charge to the Transmission Customer Energy Settlement ($) section

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# Updates to DSS Customer Settlement Universes

The following DSS Customer Settlement Universes will be updated to allow for custom reporting:

- Power Suppliers

- *New Universe*: LSE Storage Withdrawals

- Power Suppliers AncServ

- Transmission Owners

- *New Universe*: Transmission Owners Storage Withdrawals TSC

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# Detailed Universe Updates

Conventions used in the detailed slides:

- Current universe structure shown on left side

- Additions or modifications to current structure shown on right side

- Bolded object names represent new or modified object names

- Location of the object is identified in the parenthesis following the object name

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# Power Suppliers - Generators

■ Generator Class Structure
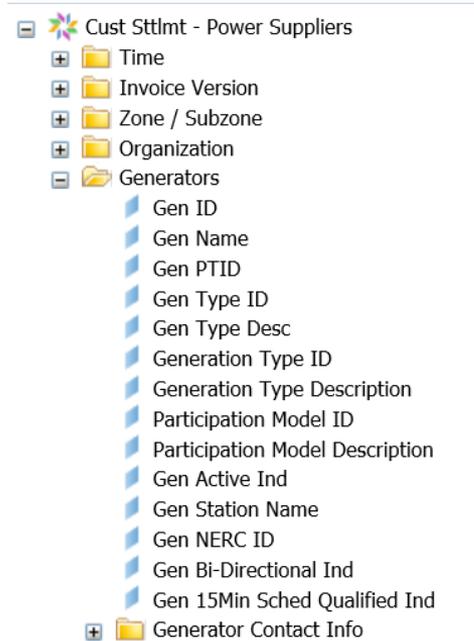


```
--Generators
        -- Charging at Retail LSE PTID (below Participation Model Description)
        -- Charging at Retail LSE Name (below Charging at Retail LSE PTID)
```

# Power Suppliers – Rebate for Retail Withdrawals *(new class)*

- Rebate Retail Withdrawals Class Structure

# New Universe: LSE Storage Withdrawals

- ## LSE Storage Withdrawals description

  - This universe provides access to customer settlements data for Load Serving Entities related to storage withdrawals. It contains data for the settlement calculation results and required billing determinants for the Daily and Hourly RT Charge for Retail Withdrawals for storage Generators being charged by the LSE for withdrawals. It provides users the ability to analyze this data in an ad-hoc fashion using a variety of attributes (i.e. by generator, time period, invoice version etc.). It can be used to view/report the data and support MP reconciliation processes.

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# LSE Storage Withdrawals

- LSE Storage Withdrawals Class Structure

--**Cust Sttlmt – LSE Storage Withdrawals** (below LSE Reliability Must Run universe)

--**Time**
    --**Interval Day-Version**
    --**Month (class)**
    --**Day** (class)
    --**Hour** (class)

--**Invoice Version** (class)

--**Organization** (class)
    -- **Org Name**
    -- **Org Qual Ind**

--**Load Serving Entity**
    --**LSE Name**
    --**LSE PTID**

--**Generator**
    -- **Gen Name**
    -- **Gen PTID**
    -- **Gen Org Name**

--**LSE Storage Withdrawals Settlement** (class)
    --**Interval Day-Version**
    --**Invoice Version Number**

--**Daily**
    --**Interval Start Day**
    --**Stlmnt Results**
        -- **Day RT Charge for Retail Withdrawals by Gens Stlmnt: LSE ($)**
    --**Other Related Info**
        --**Day Retail Withdrawals (MWh)**

--**Hourly**
    --**Interval Start Day**
    --**Interval Start Hour**
    --**Stlmnt Results**
        -- **Hr RT Charge for Retail Withdrawals by Gens Stlmnt: LSE ($)**
    --**Billing**
        --**Hr Retail Withdrawals (MWh)**
        --**Hr RT Withdrawal Gen LBMP ($/MWh)**

--**Report Filters** (class)
--**Report Prompts** (class)
--**Report Objects** (class)

# Power Suppliers AncServ – Storage Withdrawal NTAC Charge *(new class)*

- Storage Withdrawals NTAC Charge Class Structure



```
□ ✳ Cust Sttlmt - PowerSupplrs AncServ
    ⊞ 📁 Time
    ⊞ 📁 Invoice Version
    ⊞ 📁 Zone / Subzone
    ⊞ 📁 Organization
    ⊞ 📁 Generators
    ⊞ 📁 Black Start (a)
    ⊞ 📁 Voltage Support Service
    ⊞ 📁 Regulation Service
    ⊞ 📁 10-Min Sync Operating Reserves
    ⊞ 📁 10-Min Non-Sync Operating Reserves
    ⊞ 📁 30-Min Operating Reserves
    ⊞ 📁 Operating Reserve LOCs & Penalties
    ⊞ 📁 ISO Services Charges
    ⊞ 📁 Generator Bid Data
    ⊞ 📁 Generator Commitment Parameters
    ⊞ 📁 Report Filters
    ⊞ 📁 Report Prompts
    ⊞ 📁 Report Objects
```

```
--ISO Service Charges

-- Storage Withdrawal NTAC Charge (below ISO Service Charge class)

            --Interval Day-Version
            --Invoice Version
            --Interval Start Day
            --Interval Start Hour

            --Daily
                -- Stlmnt Results
                        -- Day RT NTAC Charge for Withdrawals Stlmnt: Gen ($)

            --Hourly
                --Stlmnt Results
                        -- Hr RT NTAC Charge for Withdrawals Stlmnt: Gen ($)
                --Billing Determinants
                        -- Hr RT Gen TSC-Eligible Withdrawal Energy (MWh)

            --RTD
                --Stlmnt Results
                        -- RTD RT NTAC Charge for Withdrawals Stlmnt: Gen ($)
                --Billing Determinants
                        -- RTD RT Gen TSC-Eligible Withdrawal Energy (MWh)
```

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# Transmission Owners – NTAC

- **Updates to the NTAC Class**
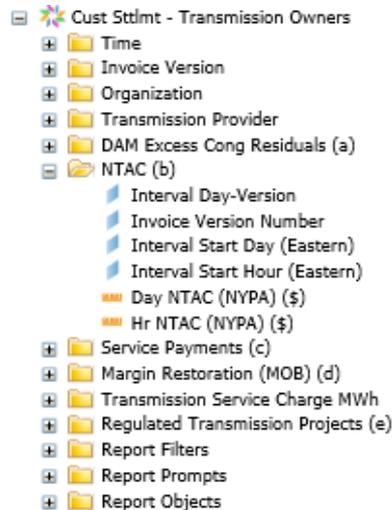


- The Day NTAC (NYPA) ($) and Hr NTAC (NYPA) ($) objects currently sum the NTAC charges of Load Serving Entities and Transaction Customers paid to NYPA.

- The new dollar value of NTAC for storage withdrawals (*RT NTAC Charge for Withdrawals Stlmnt: Gen ($)*), located in the Power Supplier AncServ universe (slide 24), will be added to this sum for both the Day and Hr NTAC objects.

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# New Universe: Transmission Owners Storage Withdrawals TSC

■ **Transmission Owners Storage Withdrawals TSC Description**

- This universe provides access to customer settlements data for Transmission Owners related to Transmission Service Charges (TSC) for storage withdrawals. It contains data for the settlement calculation results and required billing determinants for the Hourly and RTD RT Generator TSC-Eligible Withdrawal Energy. It provides users the ability to analyze this data in an ad-hoc fashion using a variety of attributes (i.e. by generator, time period, invoice version etc.). It can be used to view/report the data and support MP reconciliation processes.

# Transmission Owners Storage Withdrawals TSC

- Transmission Owners Storage Withdrawals TSC Class Structure

--**Cust Sttlmt – Transmission Owners Storage Withdrawals TSC** (below Transmission Owners universe)

    --**Time**
        --**Interval Day-Version**
        --**Month** (class)
        --**Day** (class)
        --**Hour** (class)
        --**RTD** (class)

    --**Invoice Version** (class)

    --**Organization**
        --**Org Name**
        --**Org Qual Ind**

    --**Transmission Provider**
        --**Transmission Provider Name**

--**Generator**
    -- **Gen Name**
    -- **Gen PTID**
    -- **Gen Org Name**

--**Result**
    -- **Interval Start Day**
    -- **Interval Start Hour**
    -- **Hr RT Gen TSC-Eligible Withdrawal Energy (MWh)**
    -- **RTD RT Gen TSC-Eligible Withdrawal Energy (MWh)**

--**Report Filters** (class)
--**Report Prompts** (class)
--**Report Objects** (class)

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# Next Steps

- July 2020 BACWG – provide same presentation

- Targeted September 2020 Deployment

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# Our mission, in collaboration with our stakeholders, is to serve the public interest and provide benefit to consumers by:

- Maintaining and enhancing regional reliability

- Operating open, fair and competitive wholesale electricity markets

- Planning the power system for the future

- Providing factual information to policymakers, stakeholders and investors in the power system



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