Settlements & Billing

Configuration Guide: Day Ahead Energy Transfer Revenue Settlement

**CC 8411**

Version 5.0

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# Purpose of Document

The purpose of this document is to capture the requirements and design specification for a SaMC Charge Code in one document.

# Introduction

## Background

Day Ahead Transfer Revenue for Energy occurs when the net Day Ahead Transfer scheduling limit is reached in the Day-Ahead Market. This manifests as a separation of the Marginal Energy Cost (MEC) of the binding Balancing Authority Area (BAA) in the Extended Day Ahead Market (EDAM) Area from the MEC of an adjacent BAA in the EDAM Area that is attributed to a Day Ahead Transfer System Resource.

## Description

The Day Ahead Transfer Revenue CC will allocate EDAM Transfer revenue from Day Ahead Energy represented by Day Ahead Transfer System Resources equally between Balancing Authority Areas, except when notified of an agreement between EDAM Entities on either side of a Day Ahead Energy Transfer that a different allocation for some portion of the EDAM Transfer revenue is required. This charge code shall calculate on an hourly settlement interval.

# Charge Code Requirements

## Business Rules

| Bus Req ID | Business Rule |
| --- | --- |
| 1.0 | This charge code will calculate on an hourly basis. |
| 2.0 | Calculate the DA Transfer Revenue as the difference between transfer source and sink pairs with respective BAA MEC. |
| 3.0 | Consume EDAM Transfer Resource IFM hourly CRN, awards and schedules of energy. |
| 3.1 | Corrections allowed for CRN, awards and schedules. |
| 4.0 | Allocation of transfer revenue shall be split under the following methods: |
| 4.1 | Type 2 Transfer Revenue will be settled directly with SCs. |
| 4.1.1 | Except when CRN\_ID = ‘None’ in which case that portion will be allocated to the EDAM Entity. |
| 4.2 | For non CISO EDAM Entitites, directly settle with the Entity. |
| 4.3 | For CISO BAA, ETC/TOR will be allocated directly to transmission rights holders. |
| 4.3.1 | For CISO BAA, sub-allocate based on the ratio of SC measured demand to the CISO BAA measured demand. |
| 5.0 | PTB included to allow adjustments. |

## Predecessor Charge Codes

| Charge Code/ Pre-calc Name |
| --- |
| PC Measured Demand Over Control Area |
|  |

## Successor Charge Codes

| Charge Code/ Pre-calc Name |
| --- |
| CC 4989 |

## Inputs – External Systems

|  |  |  |
| --- | --- | --- |
| Row # | Variable Name | Description |
| 1 | BABAATransferSystemResourceDAEnergyTransferQty BrQ’AA’QpQ’’r’d’Nz’mdh | Balancing Authority Area Transfer Quantity of DA Energy for resource r and Pricing Node p |
| 2 | DayAheadTransferSystemResourceLMPPrc rQ’AA’QpQ’’r’Nmdh | Day-Ahead LMP for Energy at nodal location of Transfer System Resource ($/MW) |
| 3 | DayAheadTransferSystemResourceMCCPrc rQ’AA’QpQ’’r’Nmdh | Day-Ahead MCC for Energy at nodal location of Transfer System Resource ($/MW) |
| 4 | EDAMTSRAllocationRatio rQ’Nmdh | Ratio for allocation of Transfer Revenue, with a default of 50:50 between associated Q’ BAAs to transfer resource r and CRN N |
| 5 | PTBDAEnergyTSRAdjustmentAmt BQ’Jmdh | PTB Adjustment for DA Energy TSR by Business Associate B, BAA Q’, PTB ID J and Trading Hour h |

## Inputs - Predecessor Charge Codes or Pre-calculations

|  |  |  |
| --- | --- | --- |
| Row # | Variable Name | Predecessor Charge Code/  Pre-calc Configuration |
| 1 | BAMeasuredDemandRatio Bmdh | Measured Demand Over Control Area PC |

## CAISO Formula

### DayAheadEnergyTSRSettlement BQ’mdh =

BADayAheadEnergyTSRSettlement BQ’mdh +

BADayAheadEnergyTSRTORSettlement BQ’mdh +

BADayAheadEnergyTSRReleasedTransferSettlement BQ’mdh +

EDAMDayAheadEnergyTSRSettlement BQ’mdh

### BADayAheadEnergyTSRSettlement BQ’mdh = BAMeasuredDemandRatio Bmdh \* CAISODayAheadEnergyTSRExcludeTORAllocation Q’mdh

### BADayAheadEnergyTSRTORSettlement BQ’mdh = Sum (r,N,z’) CAISODayAheadEnergyTSRTORAllocation BrQ’Nz’mdh

### CAISODayAheadEnergyTSRExcludeTORAllocation Q’mdh = Sum (B,r,N,z’) CAISODayAheadEnergyTSRAllocation BrQ’Nz’mdh

Where z’ <> ETC,TOR

### CAISODayAheadEnergyTSRTORAllocation BrQ’Nz’mdh = CAISODayAheadEnergyTSRAllocation BrQ’Nz’mdh

Where z’ = ETC,TOR

### CAISODayAheadEnergyTSRAllocation BrQ’Nz’mdh= EDAMDayAheadBAAEnergyTSRAllocation BrQ’Nz’mdh

Where Q’ = CISO

### EDAMDayAheadEnergyTSRSettlement BQ’mdh = Sum (r,N,z’) EDAMDayAheadBAAEnergyTSRAllocation BrQ’Nz’mdh

Where Q’ <> CISO

### EDAMDayAheadBAAEnergyTSRAllocation BrQ’Nz’mdh = EDAMTSRAllocationRatio rQ’Nmdh \* ResourceDayAheadEnergyTSRTransferRevenue BrNz’mdh

ResourceDayAheadEnergyTSRTransferRevenue BrNz’mdh = Sum (Q’,A,A’,Q,p,d’) DayAheadEnergyTSRTransferRevenue BrQ’AA’Qpd’Nz’mdh

Where d’ <> 2 or N = None

BADayAheadEnergyTSRReleasedTransferSettlement BQ’mdh = Sum (r,A,A’,Q,p,N,z’) DayAheadEnergyTSRReleasedTransferRevenue BrQ’AA’QpNz’mdh

DayAheadEnergyTSRReleasedTransferRevenue BrQ’AA’QpNz’mdh =Sum(d’) DayAheadEnergyTSRTransferRevenue BrQ’AA’Qpd’Nz’mdh

Where d’ = 2 and N <> None

DayAheadEnergyTSRTransferRevenue BrQ’AA’Qpd’Nz’mdh = Sum(Q’’,r’) DayAheadEnergyTSRNetAmount BrQ’AA’QpQ’’r’d’Nz’mdh - DayAheadEnergyTSRMCCAmount BrQ’AA’QpQ’’r’d’Nz’mdh

**Congestion Calculations**

DayAheadEnergyTSRMCCAmount BrQ’AA’QpQ’’r’d’Nz’mdh = BABAATransferSystemResourceDAEnergyTransferQty BrQ’AA’QpQ’’r’d’Nz’mdh  \* DayAheadTransferSystemResourceMCCPrc rQ’AA’QpQ’’r’Nmdh

**Transfer Revenue Evaluation Calculations**

DayAheadEnergyTSRNetAmount BrQ’AA’QpQ’’r’d’Nz’mdh = DayAheadEnergyTSRHourlySwapAmount BrQ’AA’QpQ’’r’d’Nz’mdh - DayAheadEnergyTSRHourlyAmount BrQ’AA’QpQ’’r’d’Nz’mdh

### DayAheadEnergyTSRHourlySwapAmount BrQ’AA’QpQ’’r’d’Nz’mdh = AttributeSwap(r,r’) DayAheadEnergyTSRHourlyAmount BrQ’AA’QpQ’’r’d’Nz’mdh

### DayAheadEnergyTSRHourlyAmount BrQ’AA’QpQ’’r’d’Nz’mdh = BABAATransferSystemResourceDAEnergyTransferQty BrQ’AA’QpQ’’r’d’Nz’mdh \* DayAheadTransferSystemResourceLMPPrc rQ’AA’QpQ’’r’Nmdh

## Outputs

Define the expected output(s) from this Charge Code/Pre-Calc. Please remember to list any intermediate output that would help the market participant understand the final outcome}

|  |  |  |
| --- | --- | --- |
| Output Req ID | Name | Description |
|  | In addition to any outputs listed below, all inputs shall be included as outputs. |  |
| 1 | DayAheadEnergyTSRHourlyAmount BrQ’AA’QpQ’’r’d’Nz’mdh | Transfer Revenue Difference Amount between TSR pairs. |
| 2 | DayAheadEnergyTSRHourlySwapAmount BrQ’AA’QpQ’’r’d’Nz’mdh | Transfer Revenue Difference Amount between swapped TSR pairs. |
| 3 | DayAheadEnergyTSRNetAmount BrQ’AA’QpQ’’r’d’Nz’mdh | Transfer Revenue Net Amount between TSR pairs. |
| 4 | DayAheadEnergyTSRMCCAmount BrQ’AA’QpQ’’r’d’Nz’mdh | Transfer Revenue MCC Amount per TSR pair. |
| 5 | DayAheadEnergyTSRTransferRevenue BrQ’AA’Qpd’Nz’mdh | Transfer Revenue Amount per TSR pair less MCC. |
| 6 | DayAheadEnergyTSRReleasedTransferRevenue BrQ’AA’QpNz’mdh | Transfer Revenue Amount due to Released Schedules on Type 2 Resources. |
| 7 | BADayAheadEnergyTSRReleasedTransferSettlement BQ’mdh | Transfer Revenue Settlement amount amount due to Released Schedules on Type 2 Resources. |
| 8 | ResourceDayAheadEnergyTSRTransferRevenue BrNz’mdh | Transfer Revenue for Type 1,3,4 TSRs and Type 2 TSRs with CRN of None. |
| 9 | EDAMDayAheadBAAEnergyTSRAllocation BrQ’Nz’mdh | Day Ahead Energy Allocation amount by B SC, r resource and Q’ BAA. |
| 10 | EDAMDayAheadEnergyTSRSettlement BQ’mdh | Day Ahead Energy Transfer Revenue amount for EDAM entity (not including CAISO). |
| 11 | CAISODayAheadEnergyTSRAllocation BrQ’Nz’mdh | Day Ahead Energy Transfer Revenue Allocation amount to the CAISO BAA. |
| 12 | CAISODayAheadEnergyTSRTORAllocation BrQ’Nz’mdh | Day Ahead Energy Transfer Revenue Allocation amount to transmission rights holders in CAISO BAA. |
| 13 | CAISODayAheadEnergyTSRExcludeTORAllocation Q’mdh | Day Ahead Energy Transfer Revenue Allocation amount to non-transmission rights holders in CAISO BAA. |
| 14 | BADayAheadEnergyTSRTORSettlement BQ’mdh | Settlement amount to transmission rights holders in CAISO BAA. |
| 15 | BADayAheadEnergyTSRSettlement BQ’mdh | Sub-Allocation amount to SCs within CAISO BAA. |
| 16 | DayAheadEnergyTSRSettlement BQ’mdh | Settlement Amount for Transfer Revenue by Scheduling Coordinator and BAA. |

# Charge Code References and Internal Comments

## Charge Code Effective Date

| Charge Code/  Pre-calc Name | Document Version | Effective Start Date | Effective End Date | Version Update Type |
| --- | --- | --- | --- | --- |
| 8411 Day Ahead Energy Transfer Revenue Settlement | 5.0 | 5/1/26 | Open | Initial Configuration |