DRAFT
MSR-0021
Balancing Transmission Usage Charges – Wheel-Through Transactions

Wheel-through bilateral transactions are balanced for the difference between transmission service scheduled real-time and that scheduled day-ahead. The settlements are settled at LBMPs dependent upon whether the contract(s) are modified and who modifies the schedule.

SCD interval Settlement

SCD_POI_of_Losses:	SCD interval Point of Injection LBMP losses component
SCD_POI_Price_of_Congestion:	SCD interval Point of Injection LBMP congestion component
SCD_POW_of_Losses:	SCD interval Point of Withdrawal LBMP losses component
SCD_POW_Price_of_Congestion:	SCD interval Point of Withdrawal LBMP congestion component
BME_POI_of_Losses:	Hourly BME Point of Injection LBMP losses component
BME_POI_Price_of_Congestion:	Hourly BME Point of Injection LBMP congestion component
BME_POW_of_Losses:	Hourly BME Point of Withdrawal LBMP losses component
BME_POW_Price_of_Congestion:	Hourly BME Point of Withdrawal LBMP congestion component
DAM_WT_Trans_MWh:	Hourly DAM transaction energy _bid_
BME_WT_Trans_MWh:	Hourly BME transaction energy _bid_
SCD_WT_Trans_MWh:	SCD interval transaction energy that actually flowed
SCD_Interval	SCD interval length in seconds

SCD Interval Settlement Outputs

Bal_POI_of_Losses:	SCD interval Point of Injection LBMP losses component per settlement rules
Bal_POI_Price_of_Congestion:	SCD interval Point of Injection LBMP congestion component per settlement rules
Bal_POW_of_Losses:	SCD interval Point of Withdrawal LBMP losses component per settlement rules
Bal_POW_Price_of_Congestion:	SCD interval Point of Withdrawal LBMP congestion component per settlement rules
SCD_Bal_WT_Trans_MWh:	SCD interval transaction balancing energy
SCD_WT_Trans_Losses_$:	SCD interval Transmission Usage Charge losses settlement
SCD_WT_Trans_Congestion_$:	SCD interval Transmission Usage Charge congestion settlement

SCD Interval Settlement

Points of Injection and withdrawal are both NYISO external proxy buses.

$SCD\_Bal\_WT\_Trans\_MWh = \{ RT\_WT\_Trans\_MWh - DAM\_WT\_Trans\_MWh \} \times SCD\_Interval \div 3600$ seconds

_Bal_POI_Price_of_Losses, Bal_POI_Price_of_Congestion, Bal_POW_Price_of_Losses, Bal_POW_Price_of_Congestion = …._

_If the transaction is not curtailed, or is curtailed by NYISO or an external control area the "SCD…" price components are used for Bal_POI_Price_of_Losses, Bal_POI_Price_of_Congestion, Bal_POW_Price_of_Losses, & Bal_POW_Price_of_Congestion._

_If the transaction is curtailed by the Market Participant the lesser of the "SCD…" and "BME…" price components are used for Bal_POI_Price_of_Losses, Bal_POI_Price_of_Congestion, Bal_POW_Price_of_Losses, & Bal_POW_Price_of_Congestion._

$SCD\_WT\_Trans\_Losses\_\$ = SCD\_Bal\_WT\_Trans\_MWh \times (Bal\_POW\_Price\_of\_Losses - Bal\_POI\_Price\_of\_Losses) \times SCD\_Interval \div$
3600 seconds

$SCD\_WT\_Trans\_Congestion\_\$ = SCD\_Bal\_WT\_Trans\_MWh \times \{-1 \times (Bal\_POW\_Price\_of\_Congestion - Bal\_POI\_Price\_of\_Congestion)\} \times$
$SCD\_Interval \div 3600$ seconds

Hourly interval Settlement

Hourly Settlement Inputs

SCD_Bal_WT_Trans_MWh:	SCD interval transaction balancing energy
SCD_WT_Trans_Losses_$:	SCD interval Transmission Usage Charge losses settlement
SCD_WT_Trans_Congestion_$:	SCD interval Transmission Usage Charge congestion settlement

Hourly Settlement Outputs

Hr_RT_Bal_WT_Trans_MWh:	Hourly Balancing transaction energy
Hr_RT_WT_Trans_Losses_$:	Hourly Balancing Transmission Usage Charge losses settlement
Hr_RT_WT_Trans_Congestion_$:	Hourly Balancing Transmission Usage Charge congestion settlement
Hr_RT_WT_Trans_TUC_$:	Total Hourly Balancing Transmission Usage Charge settlement

Hourly Settlement

$$Hr\_RT\_Bal\_WT\_Trans\_MWh = \sum\{ SCD\_Bal\_WT\_Trans\_MWh\}$$

$$Hr\_RT\_WT\_Trans\_Losses\_\$ = \sum\{SCD\_WT\_Trans\_Losses\_\$\}$$

$$Hr\_RT\_WT\_Trans\_Congestion\_\$ = \sum\{SCD\_WT\_Trans\_Congestion\_\$\}$$

$$Hr\_RT\_WT\_Trans\_TUC\_\$ = Hr\_RT\_WT\_Trans\_Losses\_\$ + Hr\_RT\_WT\_Trans\_Congestion\_\$$$

Hourly Settlement Reported

Hr_RT_Bal_WT_Trans_MWh:	Hourly Advisory Statement Billing Code: 505
Hr_RT_WT_Trans_Losses_$:	Hourly Advisory Statement Billing Code: 506
Hr_RT_WT_Trans_Congestion_$:	Hourly Advisory Statement Billing Code: 507
Hr_RT_WT_Trans_TUC_$:	Hourly Advisory Statement Billing Code: 508

Daily Settlement

Daily Settlement Inputs

Hr_RT_Bal_WT_Trans_MWh:	Hourly Balancing transaction energy
Hr_RT_WT_Trans_Losses_$:	Hourly Balancing Transmission Usage Charge losses settlement
Hr_RT_WT_Trans_Congestion_$:	Hourly Balancing Transmission Usage Charge congestion settlement
Hr_RT_WT_Trans_TUC_$:	Total Hourly Balancing Transmission Usage Charge settlement

Daily Settlement Outputs

Daily_RT_Bal_WT_Trans_MWh:	Daily Balancing transaction energy scheduled
Daily_RT_WT_Trans_Losses_$:	Daily Balancing Transmission Usage Charge losses settlement
Daily_RT_WT_Trans_Congestion_$:	Daily Balancing Transmission Usage Charge congestion settlement
Daily_RT_WT_Trans_TUC_$:	Total Daily Balancing Transmission Usage Charge settlement

Daily Settlement

$$Daily\_RT\_Bal\_WT\_Trans\_MWh = \sum\{Hr\_RT\_Bal\_WT\_Trans\_MWh\}$$

$$Daily\_RT\_WT\_Trans\_Losses\_\$ = \sum\{Hr\_RT\_WT\_Trans\_Losses\_\$\}$$

$$Daily\_RT\_WT\_Trans\_Congestion\_\$ = \sum\{Hr\_RT\_WT\_Trans\_Congestion\_\$\}$$

$Daily\_RT\_WT\_Trans\_TUC\_\$ = \sum\{Hr\_RT\_WT\_Trans\_TUC\_\$\}$

Daily Settlement Reported

Daily_RT_WT_Trans_MWHr:	Daily Advisory Billing Statement – Billing Code 754
Daily_RT_WT_Trans_Losses_$:	Daily Advisory Billing Statement – Billing Code 755
Daily_RT_WT_Trans_Congestion_$:	Daily Advisory Billing Statement – Billing Code 756
Daily_RT_WT_Trans_TUC_$:	Daily Advisory Billing Statement – Billing Code 757

Monthly Settlement

Monthly Settlement Inputs

Daily_RT_LBMP_Imp_Losses_$:	Daily RT LBMP import energy - losses settlement [Billing Code 765]
Daily_RT_LBMP_Imp_Congestion_$:	Daily RT LBMP import energy - congestion settlement [Billing Code 766]
Daily_RT_LBMP_Exp_Losses_$:	Daily RT LBMP export energy - losses settlement [Billing Code 765]
Daily_RT_LBMP_Exp_Congestion_$:	Daily RT LBMP export energy - congestion settlement [Billing Code 766]
Daily_RT_Rep_Losses_$:	Daily RT LBMP replacement energy for curtailed imports [Billing Code 765]
Daily_RT_Rep_Congestion_$:	Daily RT LBMP replacement energy for curtailed imports [Billing Code 766]
Daily_RT_Int_Trans_Losses_$:	Daily RT Internal Transaction losses settlement [Billing Code 755]
Daily_RT_Int_Trans_Congestion_$:	Daily RT Internal Transaction congestion settlement [Billing Code 756]
Daily_RT_Imp_Trans_Losses_$:	Daily RT Import Transaction losses settlement [Billing Code 755]
Daily_RT_Imp_Trans_Congestion_$:	Daily RT ImportTransaction congestion settlement [Billing Code 756]
Daily_RT_Exp_Trans_Losses_$:	Daily RT Export Transaction losses settlement [Billing Code 755]
Daily_RT_Exp_Trans_Congestion_$:	Daily RT Export Transaction congestion settlement [Billing Code 756]
Daily_RT_WT_Trans_Losses_$:	Daily RT Wheel Transaction losses settlement [Billing Code 755]
Daily_RT_WT_Trans_Congestion_$:	Daily RT Wheel Transaction congestion settlement [Billing Code 756]

Monthly Settlement Outputs

Monthly_DA_TUC_Losses_$:	Monthly RT losses Transmission Usage Charge settlement
Monthly_DA_TUC_Congestion_$:	Monthly RT congestion Transmission Usage Charge settlement

Monthly Settlement

$Monthly\_RT\_TUC\_Losses\_\$ = \sum\{ Daily\_RT\_LBMP\_Imp\_Losses\_\$ + Daily\_RT\_LBMP\_Exp\_Losses\_\$ + Daily\_RT\_Rep\_Losses\_\$ + Daily\_RT\_Imp\_Trans\_Losses\_\$: Daily\_RT\_Exp\_Trans\_Losses\_\$: Daily\_RT\_WT\_Trans\_Losses\_\$\}$

$Monthly\_RT\_TUC\_Congestion\_\$ = \sum\{ Daily\_RT\_LBMP\_Imp\_Congestion\_\$ + Daily\_RT\_LBMP\_Exp\_Congestion\_\$ + Daily\_RT\_Rep\_Congestion\_\$ + Daily\_RT\_Imp\_Trans\_Congestion\_\$ + Daily\_RT\_Exp\_Trans\_Congestion\_\$ + Daily\_RT\_WT\_Trans\_Congestion\_\$\}$