

DRAFT

MSR-0023

Balancing LBMP Energy Export

LBMP energy export transactions are balanced for any difference between real-time energy withdrawals scheduled 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_POW_Price_of_Energy:	SCD interval Point of Withdrawal LBMP energy 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_POW_Price_of_Energy:	Hourly BME Point of Withdrawal LBMP energy 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_LBMP_Exp_MWh:	Hourly DAM transaction energy <i>bid</i>
BME_LBMP_Exp_MWh:	Hourly BME transaction energy <i>bid</i>
SCD_LBMP_Exp_MWh:	SCD interval transaction energy that actually flowed
SCD_Interval	SCD interval length in seconds

SCD Interval Settlement Outputs

Bal_POW_of_Energy:	SCD interval Point of Withdrawal LBMP energy 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_LBMP_Exp_MWh:	SCD interval transaction balancing energy
SCD_LBMP_Exp_Energy_\$:	SCD interval Transmission Usage Charge energy settlement
SCD_LBMP_Exp_Losses_\$:	SCD interval Transmission Usage Charge losses settlement
SCD_LBMP_Exp_Congestion_\$:	SCD interval Transmission Usage Charge congestion settlement

SCD Interval Settlement

Point of Injection is the NYISO Reference Bus.

Point of Withdrawal is a NYISO external proxy bus.

$$\text{SCD_LBMP_Exp_MWh} = \{ \text{RT_LBMP_Exp_MWh} - \text{DAM_LBMP_Exp_MWh} \} \times \text{SCD_Interval} \div 3600 \text{ seconds}$$

$$\underline{\text{Bal_POW_Price_of_Energy, Bal_POW_Price_of_Losses, Bal_POW_Price_of_Congestion} = \dots}$$

If the transaction is not curtailed, or is curtailed by NYISO or an external control area the "SCD..." price components are used for Bal_POW_Price_of_Energy, 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_POW_Price_of_Energy, Bal_POW_Price_of_Losses, Bal_POW_Price_of_Congestion.

$$\text{SCD_LBMP_Exp_Energy_\$} = \text{SCD_LBMP_Exp_MWh} \times \text{Bal_POW_Price_of_Energy} \times \text{SCD_Interval} \div 3600 \text{ seconds}$$

$$\text{SCD_LBMP_Exp_Losses_\$} = \text{SCD_LBMP_Exp_MWh} \times \text{Bal_POW_Price_of_Losses} \times \text{SCD_Interval} \div 3600 \text{ seconds}$$

$$\text{SCD_LBMP_Exp_Congestion_\$} = \text{SCD_LBMP_Exp_MWh} \times \text{Bal_POW_Price_of_Congestion} \times \text{SCD_Interval} \div 3600 \text{ seconds}$$

Hourly interval Settlement

Hourly Settlement Inputs

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SCD_LBMP_Exp_MWh:	SCD interval RT LBMP export transaction balancing energy
SCD_LBMP_Exp_Energy_\$:	SCD interval RT LBMP export energy settlement
SCD_LBMP_Exp_Losses_\$:	SCD interval RT LBMP export energy losses settlement
SCD_LBMP_Exp_Congestion_\$:	SCD interval RT LBMP export energy congestion settlement

Hourly Settlement Outputs

Hr_Bal_Exp_MWh:	Hourly Balancing transaction energy
Hr_RT_LBMP_Exp_Energy_\$:	Hourly Balancing LBMP export energy settlement
Hr_RT_LBMP_Exp_Losses_\$:	Hourly Balancing LBMP export energy losses settlement
Hr_RT_LBMP_Exp_Congestion_\$:	Hourly Balancing LBMP export energy congestion settlement
Hr_RT_LBMP_Exp_\$:	Total Hourly Balancing LBMP export energy settlement

Hourly Settlement

$$\text{Hr_RT_Bal_Exp_MWh} = \sum\{\text{SCD_LBMP_Exp_MWh}\}$$

$$\text{Hr_RT_LBMP_Exp_Losses_\$} = \sum\{\text{SCD_LBMP_Exp_Losses_\$}\}$$

$$\text{Hr_RT_LBMP_Exp_Congestion_\$} = \sum\{\text{SCD_LBMP_Exp_Congestion_\$}\}$$

$$\text{Hr_RT_LBMP_Exp_\$} = \text{Hr_RT_LBMP_Exp_Energy_\$} + \text{Hr_RT_LBMP_Exp_Losses_\$} + \text{Hr_RT_LBMP_Exp_Congestion_\$}$$

Hourly Settlement Reported

Hr_RT_Bal_Exp_MWh:	Hourly Advisory Statement Billing Code: 516
Hr_RT_LBMP_Exp_Energy_\$:	Hourly Advisory Statement Billing Code: 517
Hr_RT_LBMP_Exp_Losses_\$:	Hourly Advisory Statement Billing Code: 518
Hr_RT_LBMP_Exp_Congestion_\$:	Hourly Advisory Statement Billing Code: 519
Hr_RT_LBMP_Exp_\$:	Hourly Advisory Statement Billing Code: 520

Daily Settlement

Daily Settlement Inputs

Hr_Bal_Exp_MWh:	Hourly Balancing transaction energy
Hr_RT_LBMP_Exp_Energy_\$:	Hourly Balancing LBMP export energy settlement
Hr_RT_LBMP_Exp_Losses_\$:	Hourly Balancing LBMP export energy losses settlement
Hr_RT_LBMP_Exp_Congestion_\$:	Hourly Balancing LBMP export energy congestion settlement
Hr_RT_LBMP_Exp_\$:	Total Hourly Balancing LBMP export energy settlement

Daily Settlement Outputs

Daily_Bal_Exp_MWh:	Hourly Balancing transaction energy
Daily_RT_LBMP_Exp_Energy_\$:	Hourly Balancing LBMP export energy settlement
Daily_RT_LBMP_Exp_Losses_\$:	Hourly Balancing LBMP export energy losses settlement
Daily_RT_LBMP_Exp_Congestion_\$:	Hourly Balancing LBMP export energy congestion settlement
Daily_RT_LBMP_Exp_\$:	Total Hourly Balancing LBMP export energy settlement

Daily Settlement

$$\text{Daily_RT_LBMP_Exp_MWh} = \sum\{\text{Hr_RT_LBMP_Exp_MWh}\}$$

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Daily_RT_LBMP_Exp_Losses_\$ = $\sum\{\text{Hr_RT_LBMP_Exp_Losses_}\}$

Daily_RT_LBMP_Exp_Losses_\$ = $\sum\{\text{Hr_RT_LBMP_Exp_Losses_}\}$

Daily_RT_LBMP_Exp_Congestion_\$ = $\sum\{\text{Hr_RT_LBMP_Exp_Congestion_}\}$

Daily_RT_LBMP_Exp_\$ = $\sum\{\text{Hr_RT_LBMP_Exp_}\}$

Daily Settlement Reported

Daily_RT_Bal_Exp_MWh:	Hourly Advisory Statement Billing Code: 763
Daily_RT_LBMP_Exp_Energy_\$:	Hourly Advisory Statement Billing Code: 764
Daily_RT_LBMP_Exp_Losses_\$:	Hourly Advisory Statement Billing Code: 765
Daily_RT_LBMP_Exp_Congestion_\$:	Hourly Advisory Statement Billing Code: 766
Daily_RT_LBMP_Exp_\$:	Hourly Advisory Statement Billing Code: 767

Monthly Settlement

Monthly Settlement Inputs

Daily_RT_LSE_Energy_\$:	Daily RT NYCA LSE net energy, losses, & congestion settlement [Billing Codes 701- 703]
Daily_RT_LBMP_Imp_Energy_\$:	Hourly Balancing LBMP export energy settlement [Billing Code 764]
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_Energy_\$:	Hourly Balancing LBMP export energy settlement [Billing Code 764]
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_RT_Energy_\$:	Monthly RT Energy settlement
Monthly_RT_TUC_Losses_\$:	Monthly RT losses Transmission Usage Charge settlement
Monthly_RT_TUC_Congestion_\$:	Monthly RT congestion Transmission Usage Charge settlement

Monthly Settlement

Monthly_RT_Energy_\$ = $\sum\{\text{Daily_RT_LSE_Energy_}\} + \text{Daily_RT_LBMP_Imp_Energy_}\} + \text{Daily_RT_LBMP_Exp_Energy_}\}$

Monthly_RT_TUC_Losses_\$ = $\sum\{\text{Daily_RT_LBMP_Imp_Losses_}\} + \text{Daily_RT_LBMP_Exp_Losses_}\} + \text{Daily_RT_Rep_Losses_}\} + \text{Daily_RT_Imp_Trans_Losses_}\} + \text{Daily_RT_Exp_Trans_Losses_}\} + \text{Daily_RT_WT_Trans_Losses_}\}$

Monthly_RT_TUC_Congestion_\$ = $\sum\{\text{Daily_RT_LBMP_Imp_Congestion_}\} + \text{Daily_RT_LBMP_Exp_Congestion_}\} +$

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Daily_RT_Rep_Congestion_\$ + Daily_RT_Imp_Trans_Congestion_\$ + Daily_RT_Exp_Trans_Congestion_\$ +
Daily_RT_WT_Trans_Congestion_\$}