



NYISO Advisory Billing Code Reconciliation and Mapping

Version 10.1

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Revision History

- March 12, 2008 – Added New Billing Codes relating to the automation of the Ramapo Par, Station 80, and Local Black Start Calculations.
- May 6, 2008 – Added a few additional calculations and made minor corrections to Billing Code names.

Document Intent

This document is intended to provide NYISO Advisory file users with guidance as to the flow of data from the hourly advisory file, through the daily Advisory file, to the Consolidate Invoice detail file. In an effort to facilitate this review, the exact name used on each of those documents was used here.

This document is organized primarily according to the hourly advisory file. Within each hourly advisory file category sub-categories were added to clarify the types of bill codes. For additional information, or to clarify the terminology, see the Billing and Accounting Manual.

Occasionally, in order facilitate the user's ability to calculate the amount appearing on an invoice line, it is necessary to mention a bill code that will not appear in the Advisory File until a later section. In such instances the bill code appears in the calculation only. Later, when that bill code would normally appear in the Advisory File, full treatment of the bill code is utilized except that the Monthly Invoice amount section refers the user back to the earlier section's calculation of the Monthly Invoice amount.

POWER SUPPLIERS

FORWARD ENERGY

Billing Codes:

202 = DAM Hrly LBMP MWh
203 = DAM Hrly LBMP \$
204 = DAM Forward energy \$
205 = DAM BPCG \$
206 = DAM Startup \$
300 = DAM LBMP MWh
301 = DAM Forward Energy \$
302 = DAM BPCG \$

Calculations:

For each hour 204 = 202 * 203

To calculate the Daily Bill Codes use the following formulas

$$300 = \Sigma 202$$

$$301 = \Sigma 204$$

$$302 = \Sigma \{ \text{Max} [(\Sigma 205 + \Sigma 206), 0] \text{ for each unit} \}$$

To derive the Monthly Invoice amounts listed on the *Power Supplier Monthly Settlement* Statement

$$300 \text{ Forward Energy} = \Sigma 300$$

$$301 \text{ Forward Energy} = \Sigma 301$$

$$302 \text{ DAM Bid Production Cost Guarantee} = \Sigma 302$$

BALANCING ENERGY

Billing Codes:

207 = Hrly R/T MWh
208 = Hrly R/T Bus LBMP \$
209 = Hrly R/T Energy \$
210 = R/T BPCG \$
211 = R/T Startup \$
238 = Hrly LRR DAM Contract Bal Pmnt \$
239 = Hrly DAM Contract Bal Pmnt \$
252 = Hrly Reg Rev Adj \$
253 = Hrly Sup Event Credit \$
263 = Hr RT Mitigated Startup Cost
264 = HT RT Mitigated MinGen Cost
303 = R/T MWh
304 = R/T Energy \$
305 = R/T BPCG \$
313 = DAM Contract Balancing Payment \$
316 = Regulation Rev Adj \$
317 = Sup Event Credit \$
327 = RT BPCG Mitigation Charge

Calculations:

In order to compute the hourly settlement values for Billing Codes 207 through 211, it is necessary to time & load weight each RTD interval level settlement over the respective hour.

To calculate the Daily Bill Codes use the following formulas

$$\begin{aligned}
 303 &= \Sigma 207 \\
 304 &= \Sigma 209 \\
 305 &= \Sigma \{ \text{Max} [(\Sigma 210 + \Sigma 211), 0] \text{ for each unit} \} \\
 313 &= \Sigma 238 + \Sigma 239 \\
 316 &= \Sigma 252 \\
 317 &= \Sigma 253 \\
 327 &= \text{If } \Sigma(263,264) > 0, \Sigma(210,211) - \Sigma(263,264), \text{ else } 327 = 0
 \end{aligned}$$

To derive the Monthly Invoice amounts listed on the *Power Supplier Monthly Settlement* Statement

$$\begin{aligned}
 303 \text{ Balancing Energy} &= \Sigma 303 \\
 304 \text{ Balancing Energy} &= \Sigma 304 + \Sigma 313 \\
 305 \text{ R/T Bid Production Cost Guarantee} &= \Sigma 305 + \Sigma 316 + \Sigma 317 - \Sigma 327
 \end{aligned}$$

VOLTAGE SUPPORT SERVICE PAYMENTS & CHARGES

Billing Codes:

212 = Monthly Voltage Service \$
 213 = % In Service
 214 = Voltage Support \$
 215 = Hrly VSS LOC \$
 306 = Voltage Support \$
 307 = VSS LOC \$

Calculations:

For each hour:

$$\begin{aligned}
 \text{For each ICAP Unit: } 214 &= \Sigma[(212 * \text{MVar compensation amount}) \div \text{Number of hours in the month}] \\
 \text{For each internal Non-ICAP Unit: } 214 &= \Sigma[(212 * \text{MVar compensation amount}) * (213 \div 100) \div \text{Number of hours in the month}] \\
 \text{For each external Non-ICAP Unit: } 214 &= 0
 \end{aligned}$$

To calculate the Daily Bill Codes use the following formulas:

$$\begin{aligned}
 306 &= \Sigma 214 \\
 307 &= \Sigma 215
 \end{aligned}$$

To derive the Monthly Invoice amounts listed on the *Power Supplier Monthly Settlement* Statement:

$$\begin{aligned}
 306 \text{ Reactive Supply and Voltage Control Availability Pymt.} &= \Sigma 306 \\
 307 \text{ Reactive Supply and Voltage Control LOC Pymt.} &= \Sigma 307
 \end{aligned}$$

REGULATION SERVICE PAYMENTS & CHARGES

Billing Codes:

217 = Hrly DAM Reg Avail
 218 = Hrly DAM Reg MCP \$
 222 = Regulation Charge \$
 251 = Hrly Bal Mkt Reg Avail \$
 308 = Regulation Payment \$
 309 = Regulation Charge \$

Calculations:

To calculate the Daily Bill Codes use the following formulas:

$$\begin{aligned}
 308 &= \Sigma[(217 * 218) \text{ by unit} + 251] \\
 309 &= \Sigma 222
 \end{aligned}$$

To derive the Monthly Invoice amounts listed on the *Power Supplier Monthly Settlement* Statement:

$$\begin{aligned}
 308 \text{ Regulation and Frequency Response Avail Payment} &= \Sigma 308 \\
 309 \text{ Regulation and Frequency Response Penalty Charge} &= -\Sigma 309
 \end{aligned}$$

OPERATING RESERVES SERVICE

Billing Codes:

223 = Hrly 30 Min MCP \$
224 = Hrly 30 Min Res MWHr
227 = Hrly 30 Min Avail \$
228 = Hrly Synch MCP \$
229 = Hrly Synch Res MWHr
232 = Hrly Synch Res Avail \$
233 = Hrly 10 Min Non Synch Res MCP \$
234 = Hrly 10 Min Non Synch Res MWHr
237 = Hrly 10 Min Non Synch Res Avail \$
310 = Operating Reserve Payment \$

Calculations:

To calculate the DAM Operating Reserves use the following formulas:

30 Minute Balancing Operating Reserve = $\Sigma(223 * 224)$
Synchronous Balancing Operating Reserve = $\Sigma(228 * 229)$
10 Minute Non-Synchronous Balancing Operating = $\Sigma(233 * 234)$

To calculate the balancing market Operating Reserves use the following formulas:

30 Minute Balancing Operating Reserve = $\Sigma 227 - \Sigma(223 * 224)$
Synchronous Balancing Operating Reserve = $\Sigma 232 - \Sigma(228 * 229)$
10 Minute Non-Synchronous Balancing Operating = $\Sigma 237 - \Sigma(233 * 234)$

To calculate the Daily Bill Codes use the following formulas:

$310 = \Sigma(227 + 232 + 237)$

To derive the Monthly Invoice amounts listed on the *Power Supplier Monthly Settlement* Statement:

310 Operating Reserves Service Availability Payment = $\Sigma 310$

BLACK START SERVICE PAYMENTS AND CHARGES

Billing Codes:

1007 = Local Black Start/Rest Payment \$
312 = Black Start Service Payment \$
1017 = Local Black Start/Rest Payment \$

Calculations:

To calculate the Daily Bill Codes use the following formulas:

$1017 = \Sigma 1007$

To derive the Monthly Invoice amounts listed on the *Power Supplier Monthly Settlement* Statement:

312 Black Start Service Payment = $\Sigma 312$
1017 Local Black Start and Restoration Services Payment = $\Sigma 1017$

SCHEDULE 1 (MST, OATT, MISCELLANEOUS CHARGES)

Billing Codes:

254 = Injection MWHr
255 = S SC&D MST Inject Rate
256 = S SC&D MST Inject Charge \$
257 = S SC&D OAT Inject Rate (Note: Rounded to two decimal places – find the exact rate in the Sched 1 filing to prove these calculations.)
258 = S SC&D OAT Inject Charge \$
259 = Misc Exp MST Inject Rate

- 260 = Misc Exp MST Inject Charge \$
- 261 = Misc Exp OAT Inject Rate
- 262 = Misc Exp OAT Inject Charge \$
- 318 = Injection MWHr
- 319 = S SC&D MST Inject Rate
- 320 = S SC&D MST Inject Charge \$
- 321 = S SC&D OAT Inject Rate
- 322 = S SC&D OAT Inject Charge \$
- 323 = Misc Exp MST Inject Rate
- 324 = Misc Exp MST Inject Charge \$
- 325 = Misc Exp OAT Inject Rate
- 326 = Misc Exp OAT Inject Charge \$

Calculations:

For each hour:

- 256 = 254 * 255
- 258 = 254 * 257
- 260 = 254 * 259
- 262 = 254 * 261

To calculate the Daily Bill Codes use the following formulas:

- 318 = Σ 254
- 320 = Σ 256
- 322 = Σ 258
- 322 = 318 * 321
- 324 = Σ 260
- 326 = Σ 262

To derive the Monthly Invoice amounts listed on the *Power Supplier Monthly Settlement* Statement:

$$320\ 322\ 324\ 326\ \text{Scheduling System Control \& Dispatch Service – Injections} = - (\Sigma 320 + \Sigma 322 + \Sigma 324 + \Sigma 326 + \Sigma 2036 + \Sigma 2037)$$

LSE LBMP ENERGY

FORWARD LBMP ENERGY

Billing Codes:

- 402 = DAM Hrly LBMP MWh
- 403 = DAM LBMP \$
- 404 = Hrly Fwd Energy \$
- 405 = Hrly Fwd Loss \$
- 406 = Hrly Fwd Cong \$
- 700 = DAM LBMP MWh
- 701 = Fwd Energy \$
- 702 = Fwd Loss \$
- 703 = Fwd Cong \$

Calculations:

For each hour:

- 404 = (402 * Energy Component of 403)
- 405 = (402 * Losses Component of 403)
- 406 = [402 * - (Congestion Component of 403)]

To calculate the Daily Bill Codes use the following formulas:

700 = Σ 402
701 = Σ 404
702 = Σ 405
703 = Σ 406

To derive the Monthly Invoice amounts listed on the *Transmission Customer Monthly Settlement* Statement:

701 Forward Energy \$ = - (Σ 701 + Σ 702 + Σ 703 + Σ 759)
700 Forward Energy = Σ 700 + Σ 758

BALANCING LBMP ENERGY

Billing Codes:

407 = LSE Hrly R/T MWh
408 = R/T LBMP \$
409 = Hrly R/T Energy \$
410 = Hrly R/T Loss \$
411 = Hrly R/T Cong \$
704 = LSE R/T MWh
705 = R/T Energy \$
706 = R/T Loss \$
707 = R/T Cong \$

Calculations:

In order to compute the hourly settlement values for Billing Codes 407 through 411, it is necessary to time & load weight each RTD interval level settlement over the respective hour.

For each hour:

409 = (407 * Energy Component of 408)
410 = (407 * Losses Component of 408)
411 = [407 * - (Congestion Component of 408)]

To calculate the Daily Bill Codes use the following formulas:

704 = Σ 407
705 = Σ 409
706 = Σ 410
707 = Σ 411

To derive the Monthly Invoice amounts listed on the *Transmission Customer Monthly Settlement* Statement:

705 Balancing Energy \$ = - Σ (705 + 706 + 707 + Σ 776 + Σ 764 + Σ 777)
704 Balancing Energy = Σ 704 + Σ 763

TRANSACTIONS

FORWARD MARKET TRANSMISSION USAGE CHARGES

Billing Codes:

501 = DAM Scheduled Transactions
502 = Hrly Transaction DAM Loss
503 = Hrly Transaction DAM Congestion \$
504 = Hrly DAM TUC \$
750 = DAM Scheduled Transactions
751 = Transaction DAM Loss \$
752 = Transaction DAM Congestion \$

753 = DAM TUC \$

Calculations:

For each hour $504 = (502 + 503)$

To calculate the Daily Bill Codes use the following formulas:

$$750 = \Sigma 501$$

$$751 = \Sigma 502$$

$$752 = \Sigma 503$$

$$753 = \Sigma 504$$

$$753 = 751 + 752$$

To derive the Monthly Invoice amounts listed on the *Transmission Customer Monthly Settlement* Statement:

$$751 \text{ Forward Loss Charge} = - (\Sigma 751 + \Sigma 760)$$

$$752 \text{ Forward Congestion Charge} = - (\Sigma 752 + \Sigma 761)$$

BALANCING MARKET TRANSMISSION USAGE CHARGES

Billing Codes:

505 = R/T Scheduled Transactions

506 = R/T Loss \$

507 = R/T Congestion \$

508 = Hrly R/T TUC \$

530 = Hrly Fin Impact Charge \$

754 = R/T Schedule Transactions

755 = R/T Loss \$

756 = R/T Congestion \$

757 = R/T TUC \$

776 = Fin Impact Charge \$

Calculations:

In order to compute the hourly settlement values for Billing Codes 505 through 508, it is necessary to time & load weight each RTD interval level settlement over the respective hour.

For each hour $508 = 506 + 507$

To calculate the Daily Bill Codes use the following formulas:

$$754 = \Sigma 505$$

$$755 = \Sigma 506$$

$$756 = \Sigma 507$$

$$757 = \Sigma 508$$

$$757 = 755 + 756$$

$$776 = \Sigma 530$$

To derive the Monthly Invoice amounts listed on the *Transmission Customer Monthly Settlement* Statement:

$$755 \text{ Balancing Loss Charge} = - (\Sigma 755 + \Sigma 765)$$

$$756 \text{ Balancing Congestion Charge} = - (\Sigma 756 + \Sigma 766)$$

$\Sigma 776$ is included in the amount listed as 705 Balancing Energy \$

TRANSACTIONS LBMP ENERGY**FORWARD MARKET**Billing Codes:

511 = DAM LBMP Market MWHr
512 = DAM LBMP Market Energy \$
513 = DAM LBMP Market Loss \$
514 = DAM LBMP Market Cong \$
515 = DAM LBMP Market LBMP \$
528 = DAM Bid Cost Guarantee
758 = DAM LBMP Market MWh
759 = DAM LBMP Market Energy \$
760 = DAM LBMP Market Loss \$
761 = DAM LBMP Market Cong \$
762 = DAM LBMP Market LBMP \$
768 = DAM Bid Cost Guarantee

Calculations:

For each hour 515 = 512 + 513 + 514

To calculate the Daily Bill Codes use the following formulas:

$758 = \Sigma 511$
 $759 = \Sigma 512$
 $760 = \Sigma 513$
 $761 = \Sigma 514$
 $762 = \Sigma 515$
 $762 = 759 + 760 + 761$
 $768 = \Sigma [\text{Max} (\Sigma 528, 0) \text{ for each unit}]$

To derive the Monthly Invoice amounts listed on the *Transmission Customer Monthly Settlement* Statement:

$\Sigma 758$ DAM External Bid Production Cost Guarantee \$ = $\Sigma 768$
 $\Sigma 758$ is included in the amount listed as 700 Forward Energy
 $\Sigma 759$ is included in the amount listed as 701 Forward Energy \$
 $\Sigma 760$ is included in the amount listed as 751 Forward Loss Charge
 $\Sigma 761$ is included in the amount listed as 752 Forward Congestion Charge

BALANCING MARKETBilling Codes:

516 = R/T LBMP Market MWHr
517 = R/T LBMP Market Energy \$
518 = R/T LBMP Market Loss \$
519 = R/T LBMP Market Cong \$
520 = R/T LBMP Market LBMP \$
529 = R/T Bid Cost Guarantee
531 = Hrly Fin Impact Charge \$
763 = R/T LBMP Market MWh
764 = R/T LBMP Market Energy \$
765 = R/T LBMP Market Loss \$
766 = R/T LBMP Market Cong \$
767 = R/T LBMP Market LBMP \$
769 = R/T Bid Cost Guarantee
777 = Fin Impact Charge \$

Calculations:

In order to compute the hourly settlement values for Billing Codes 516 through 529, it is necessary to time & load weight each RTD interval level settlement over the respective hour.

For each hour $520 = 517 + 518 + 519$

To calculate the Daily Bill Codes use the following formulas:

$$\begin{aligned}763 &= \Sigma 516 \\764 &= \Sigma 517 \\765 &= \Sigma 518 \\766 &= \Sigma 519 \\777 &= \Sigma 531 \\767 &= \Sigma 520 \\767 &= \Sigma(764 + 765 + 766) \\769 &= \Sigma[\text{Max}(\Sigma 529, 0) \text{ for each unit}]\end{aligned}$$

To derive the Monthly Invoice amounts listed on the *Transmission Customer Monthly Settlement* Statement:

$$\begin{aligned}769 \text{ R/T External Bid Production Cost Guarantee } \$ &= \Sigma 769 \\ \Sigma 763 \text{ is included in the amount listed as } 704 \text{ Balancing Energy} \\ \Sigma 764 + \Sigma 777 \text{ is included in the amount listed as } 705 \text{ Balancing Energy } \$ \\ \Sigma 765 \text{ is included in the amount listed as } 755 \text{ Balancing Loss Charge} \\ \Sigma 766 \text{ is included in the amount listed as } 756 \text{ Balancing Congestion Charge}\end{aligned}$$

ANCILLARY SERVICES

Billing Codes:

600 = Hrly Ancillary services Billing MWhr
601 = Hrly Ext Export Transactions MWhr
602 = Hrly Ext Wheel Thru Transactions MWhr
603 = NTAC Rate
604 = NTAC Charge \$
605 = Voltage Support Rate
606 = Hrly VSS charge \$
607 = S SC&D MST Rate
608 = S SC&D MST Charge \$
610 = Hrly Reserve Chg \$
611 = Residual Adjustment \$
612 = Hrly Reg Charge \$
613 = Black start Charge \$
614 = S SC&D OAT Rate (Note: Rounded to two decimal places – find the exact rate in the Sched 1 filing to prove these calculations.)
615 = S SC&D OAT Charge \$
617 = LRR Black Start Charge \$
618 = Hrly Reg Rev Adj \$
619 = Hrly Sup Event Charge \$
620 = Hrly Fin Impact Credit \$
621 = Hrly Ext LBMP Export Transactions MWhr
622 = Hrly Ext Import Transactions MWhr
255 = S SC&D MST Inject Rate
623 = S SC&D MST Inject Charge \$
257 = S SC&D OATT Inject Rate (Note: Rounded to two decimal places – find the exact rate in the Sched 1 filing to prove these calculations.)
624 = S SC&D OAT Inject Charge \$
259 = Misc Exp MST Inject Rate
625 = Misc Exp MST Charge \$
626 = Misc Exp MST WD Rate

- 627 = Misc Exp MST WD Charge \$
- 261 = Misc Exp OAT Inject Rate
- 628 = Misc Exp OAT Inject Charge \$
- 629 = Misc Exp OAT WD Rate
- 630 = Misc Exp OAT WD Charge \$
- 631 = ISONE Schedule
- 632 = ISONE NTAC Rate
- 633 = HQ Schedule
- 634 = HQ NTAC Rate
- 635 = OH Schedule
- 636 = OH NTAC Rate
- 637 = PJM Schedule
- 638 = PJM NTAC Rate
- 639 = Ramapo PAR Charge \$
- 640 = Station 80 Charge \$
- 641 = Local Black Start/Rest Charge \$
- 800 = Ancillary Services Billing MWhr
- 801 = External Export Transactions MWhr
- 802 = External Wheel Thru Transactions MWhr
- 803 = NTAC Charges \$
- 804 = VSS Charge \$
- 805 = S SC&D MST Charge \$
- 806 = Reserve Charge \$
- 807 = R&FR Charge \$
- 808 = Black Start Charge \$
- 809 = S SC&D OAT Charge \$
- 810 = LRR Uplift Charge \$
- 811 = LRR Black Start Charge \$
- 812 = NYISO-Wide Uplift Charge \$
- 813 = Residual Adjustments \$
- 814 = Demand Response Program Uplift
- 815 = Incremental Uplift
- 817 = Regulation Rev Adj \$
- 818 = Sup Event Charge \$
- 819 = Fin Impact Credit \$
- 824 = External LBMP Import Transactions MWhr
- 825 = External Import Transactions MWhr
- 826 = S SC&D MST WD Rate
- 827 = S SC&D OAT WD Rate (Note: Rounded to two decimal places – find the exact rate in the Sched 1 filing to prove these calculations.)
- 828 = S SC&D MST Inject Charge \$
- 829 = S SC&D OAT Inject Charge \$
- 830 = Misc Exp MST Inject Charge \$
- 831 = Misc Exp MST WD Rate
- 832 = Misc Exp MST WD Charge \$
- 833 = Misc Exp OAT Inject Charge \$
- 834 = Misc Exp OAT WD Rate
- 835 = Misc Exp OAT WD Charge \$
- 836 = Ramapo PAR Charge \$
- 837 = Station 80 Charge \$
- 838 = Local Black Start/Rest Charge \$

Calculations:

For each hour:

600 = 402 + 407 + 501 + 505 + 511 [Exports Only] + 516 [Exports Only] + Any Bilateral Transaction MWhr scheduled by a different Billing Organization for which customer is the Point of Delivery

601 = 501 + 505 + 511 + 516 + Any Export Bilateral Transaction MWhr scheduled by a different Billing Organization for which customer is the Point of Delivery (exports only)

- 602 = 501 + 505 + Any Wheel-Through Bilateral Transaction MWhr scheduled by a different Billing Organization for which customer is the Point of Delivery (Wheels-Through only)
- 604 = 603 * 600 (LSEs)
- 604 = (631 * 632) + (633 * 634) + (635 * 636) + (637 * 638) (Transaction Customers)
- 606 = 605 * (601 + 602)
- 608 = 607 * 600 (LSEs)
- 608 = 607 * (601+ 602) (Transaction Customers)
- 615 = 614 * 600 (LSEs)
- 615 = 614 * (601+ 602) (Transaction Customers)
- 623 = 255 * 622
- 624 = 257 * (602 + 622)
- 625 = 259 * 622
- 627 = 626 * 621
- 628 = 261 * 622
- 630 = 629 * 621

To calculate the Daily Bill Codes use the following formulas:

- 800 = Σ 600
- 801 = Σ 601
- 802 = Σ 602
- 803 = Σ 604
- 804 = Σ 606
- 805 = Σ 608
- 806 = Σ 610
- 813 = Σ 611
- 807 = Σ 612
- 808 = Σ 613
- 809 = Σ 615
- 811 = Σ 617
- 817 = Σ 618
- 818 = Σ 619
- 819 = Σ 620
- 824 = Σ 621
- 825 = Σ 622
- 828 = Σ 623
- 829 = Σ 624
- 830 = Σ 625
- 832 = Σ 627
- 833 = Σ 628
- 835 = Σ 630
- 836 = Σ 639
- 837 = Σ 640
- 838 = Σ 641

- 810 = the sum of the customer’s ratio share of the daily Bid Production Cost Guarantee payments made to suppliers directly attributable to the system reliability of their respective transmission district, as directed by the respective transmission system owner.
- 812 = the sum of (1) the summation of customer’s hourly ratio share of DAM Contract Balancing payments made to suppliers and (2) the sum of the customer’s ratio share of the daily Bid Production Cost Guarantee payments made to suppliers.

To derive the Monthly Invoice amounts listed on the **Transmission Customer Monthly Settlement** Statement:

- 800 Ancillary Service = Σ 800
- 803 NYPA Transmission Adjustment Charge [NTAC] = $-\Sigma$ 803
- 804 Reactive Supply & Voltage Control Service = $-\Sigma$ 804
- 806 Operating Reserves Service = $-\Sigma$ 806
- 807 Regulation & Frequency Response Service = $-(\Sigma$ 807 + Σ 817)
- 808 Black Start Service = $-\Sigma$ 808
- 810 Local Reliability Related Uplift = $-\Sigma$ 810
- 812 NYISO-wide Uplift = $-(\Sigma$ 812 + Σ 818 + Σ 815)

813 Residual Adjustments = $-\Sigma 813$
814 Demand Response Program Uplift = $-\Sigma 814$
836 Ramapo Par Charge = $-\Sigma 836$
837 Station 80 Charge = $-\Sigma 837$
838 Local Black Start and Restoration Services = $-\Sigma 838$
805 809 832 835 Scheduling System Control & Dispatch Service – Withdrawals = $-(\Sigma 805 + \Sigma 809 + \Sigma 832 + \Sigma 835) + \Sigma 819$
828 829 830 833 Scheduling System Control & Dispatch Service – Injections = $-(\Sigma 828 + \Sigma 829 + \Sigma 830 + \Sigma 833)$

TCC (Transmission Congestion Contract)

Billing Codes:

901 = TCC credit
903 = TCC credit

Calculations:

To calculate the Daily Bill Codes use the following formulas:

$$903 = \Sigma 901$$

To derive the Monthly Invoice amounts listed on the *Transmission Congestion Contract Monthly Settlement* Statement:

$$\Sigma 903 \text{ by Contract ID}$$

DEMAND RESPONSE PROGRAMS

Billing Codes:

2002 = DAM Demand Reduction Schedule MWhr
2003 = Demand Reduction Actual MWhr
203 = DAM LBMP (Generator)
403 = DAM LBMP (Zonal)
2004 = R/T LBMP (Generator- Time weighted not Load weighted)
408 = R/T LBMP (Zonal)
2005 = Demand Response Incentive \$
2006 = Demand Response Reduction \$
2007 = Demand Response Penalty \$
2008 = Demand Reduction Load Balancing \$
2009 = Load Reduction Bid Guarantee \$
2030 = Sched 1 MWhr
255 = S SC&D MST Inject Rate
2031 = S SC&D MST Inject Charge \$
257 = S SC&D OAT Inject Rate
2032 = S SC&D OAT Inject Charge \$
259 = Misc Exp MST Inject Rate
2033 = Misc Exp MST Inject Charge \$
261 = Misc Exp OAT Inject Rate
2034 = Misc Exp OAT Inject Charge \$
2010 = Demand Reduction MWhr
2011 = Demand Response Incentive \$
2012 = Demand Response Reduction \$
2013 = Demand Response Penalty \$
2014 = Demand Reduction Load Balancing \$
2015 = Load Reduction Bid Guarantee \$

2035 = Sched 1 MWhr
2036 = S SC&D MST Inject Charge \$
2037 = S SC&D OAT Inject Charge \$
2038 = Misc Exp MST Inject Charge \$
2039 = Misc Exp OAT Inject Charge \$

Calculations:

To calculate the Daily Bill Codes use the following formulas:

2010 = $\Sigma 2003$
2011 = $\Sigma 2005$
2012 = $\Sigma 2006$
2013 = $\Sigma 2007$
2014 = $\Sigma 2008$
2015 = Max ($\Sigma 2009$, 0)
2035 = $\Sigma 2030$
2036 = $\Sigma 2031$
2037 = $\Sigma 2032$
2038 = $\Sigma 2033$
2039 = $\Sigma 2034$

To derive the Monthly Invoice amounts listed on the *Demand Response Monthly Settlement* Statement:

2011 Demand Response Incentive = $\Sigma 2011$
2012 Load Reduction = $\Sigma 2012$
2013 Demand Response Penalty = $\Sigma 2013$
2014 Demand Reduction Load Balancing = $\Sigma 2014$
2015 Load Reduction Uplift = $\Sigma 2015$
 $\Sigma 2037$ is include in the amount listed on the *Power Supplier Statement* as 320 322 324 326 Scheduling System Control & Dispatch Service - Injections

VIRTUAL BIDDING PROGRAM

Forward Load & Supply

Billing Codes:

412 = Virtual Load MWh
413 = DAM Virtual Load \$
414 = Virtual Supplier MWh
415 = DAM Virtual Supplier \$
770 = Virtual Load MWh
771 = DAM Virtual Load \$
772 = Virtual Supplier MWh
773 = DAM Virtual Supplier \$

Calculations:

To calculate the Daily Bill Codes use the following formulas:

770 = $\Sigma 412$
771 = $\Sigma 413$
772 = $\Sigma 414$
773 = $\Sigma 415$

To derive the Monthly Invoice amounts listed on the *Virtual Bidding Monthly Settlement* Statement:

771 DAM Virtual Load LBMP Energy Sales = $-\Sigma 771$
773 DAM Virtual Load LBMP Energy Expenditure = $\Sigma 773$

Balancing Load & Supply

Billing Codes:

416 = Balancing Virtual Load \$

417 = Balancing Virtual Supply \$

774 = Balancing Virtual Load \$

775 = Balancing Virtual Supplier \$

Calculations:

To calculate the Daily Bill Codes use the following formulas:

$$774 = \Sigma 416$$

$$775 = \Sigma 417$$

To derive the Monthly Invoice amounts listed on the *Virtual Bidding Monthly Settlement* Statement:

$$774 \text{ Balancing Virtual Load LBMP Energy Sales} = -\Sigma 774$$

$$775 \text{ Balancing Virtual Load LBMP Energy Expenditure} = \Sigma 775$$

TRANSMISSION PROVIDERS

(This section includes Transmission Owners, NTAC, and DAM Congestion Balancing)

Billing Codes:

1002 = Ext TSC IMWHR

1003 = NTAC Credit

1005 = Ramapo PAR Credit \$

1006 = Station 80 Credit \$

1012 = NTAC Credit

1013 = IMWM Coefficient

1014 = Excess Cong credit

1015 = Ramapo PAR Credit \$

1016 = Station 80 Credit \$

Calculations:

To calculate the Daily Bill Codes use the following formulas:

$$1012 = \Sigma 1003$$

$$1015 = \Sigma 1005$$

$$1016 = \Sigma 1006$$

To derive the Monthly Invoice amounts listed on the *Transmission Owner Monthly Settlement* Statement:

$$\text{OATT Attachment H: NYPA Transmission Access Settlement (\$)} = \Sigma 1012$$

$$\text{OATT Attachment H: External Transmission Service (MWh)} = \Sigma 1002$$

$$\text{OATT Attachment N: Congestion Balancing Settlement (\$)} = \Sigma 1014$$

$$1015 \text{ Ramapo Phase Angle Regulator} = \Sigma 1015$$

$$1016 \text{ Station 80 Payment} = \Sigma 1016$$