

ICAP Market Settlement Data

Mathangi Srinivasan Kumar

Market Training Program Lead, Market Training, New York Independent System Operator

Accounting & Billing Workshop

December 9 – 13, 2024 Remote Learning



ICAP Market Overview

NYISO's ICAP market

- ICAP Installed Capacity
- Benefits of the ICAP Market
 - Ensures resource adequacy
 - Resources recover a portion of fixed costs
 - Provides market signal for investment



ICAP Market Overview

How does it work?

- Suppliers offer their capacity in one or more ICAP market auctions
- Loads bid to procure capacity in specific auctions
- NYISO runs auctions to match bids and offers to determine a clearing price
 - Auctions held for
 - GHI Locality
 - LI (Zone K)
 - NYC (Zone J)
 - ROS (Rest of State)
- Auxiliary processes and activities



ICAP Market Mechanics

Auxiliary processes and activities

- Determining the amount of capacity required
- Determining the amount of capacity available
- Determining the amount of capacity suppliers are qualified to offer
- Determining the amount of capacity obligation to be procured

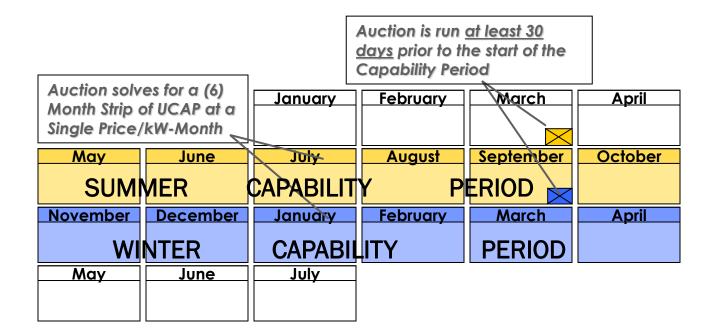


ICAP Market Auctions

Strip or Capability Period Auctions	 Every Capability Period (Twice a year) Settlement determinants: Market Clearing Price # MWs Sold/Purchased
Monthly Auctions	 Every Month (for the upcoming month) Settlement Determinants: Market Clearing Price # MWs Sold/Purchased
Spot Market Auctions	 Every Month (For the Upcoming Month) Settlement Determinants: Market Clearing Price # MWs Sold/Purchased

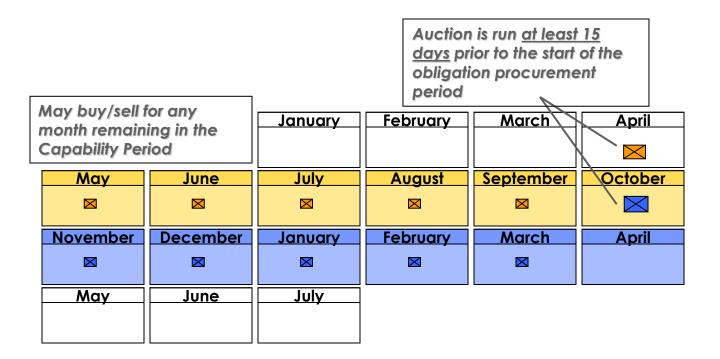


Strip or Capability Period Auctions





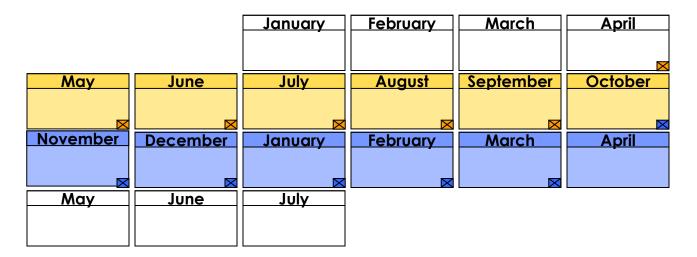
Monthly Auctions





Spot Market Auctions

- Auction is run 4-5 business days prior to the start of the month
- May sell for upcoming month only; LSEs do not bid
- Solves using the ICAP Demand Curve





Monthly ICAP Market Settlements

• Objectives for Monthly Capacity Market Settlements

- Identify the two NYISO applications where ICAP billing information can be found
- Describe the settlement information found in the Consolidated billing menu of the ICAP Automated Market System (AMS)
- Provide Settlement Description
- Identify Settlement Eligibility
- Name Settlement Determinants
- Describe the settlement information in the Customer Settlements Interface (CSI)
- Note Settlement Reference Material



ICAP Billing Information

- ICAP Automated Market System (AMS) Billing Information
 - Consolidated Billing
 - Summary
 - Detail
 - Report
- Customer Settlements Interface (CSI)
 - Consolidated Invoice
 - ICAP Detail Report
 - Invoice Summary Report

ICAP Automated Market System





ICAP Settlements – ICAP AMS

Settlements Description:

- <u>ICAP Auction Sales:</u> Intended to pay Capacity Market participants for selling UCAP to meet capacity requirements in New York
 - Sale: Credit to Market Participant
- <u>ICAP Auction Purchases:</u> Intended to charge LSEs for purchasing UCAP to fulfil their NYCA and locational capacity obligations
 - Purchase: Charge to Market Participant

ICAP Settlement Eligibility



• ICAP Market Participants will be <u>paid</u> if:

 They are suppliers who submit offers to sell UCAP in one of the NYISO ICAP auctions and are awarded capacity as a result of the auction

• ICAP Market Participants will be <u>charged</u> if:

- They are LSEs that have to fulfil their NYCA and locational UCAP obligations
 - If LSE bids in Strip Market Auction and selected in the auction: Charged the Strip Auction MCP
 - If LSE bids in Monthly Market Auction and selected in the auction: Charged the Monthly Auction MCP
 - If still deficient in fulfilling capacity obligations: Automatically charged the Spot Auction MCP
- Suppliers can also purchase capacity, and LSEs can sell capacity under specific conditions

DARG New York ISO Independent System Operator

ICAP Settlements – ICAP AMS

- Settlements Result:
 - Total Billed per month(\$)
- Settlement Intermediates:
 - Auction Total (\$)
 - Strip Auction Total (\$)
 - Monthly Auction Total (\$)
 - Spot Market Auction Total (\$)
 - Adjustments Total (\$)
 - Load Shift Adjustment Total (\$)
 - Load Shift True Up Adjustment Total (\$)
- Settlements Determinants:
 - Auction Award (MW)
 - Market Clearing Price (\$/kW-month)

ICAP Settlements – ICAP AMS

Settlement Algorithm:

Total Billed per month(\$) = Auction Total(\$) + Adjustments Total(\$)

Where:

- Auction Total (\$) = Strip Auction (\$) + Monthly Auction (\$) + Spot Auction (\$)
- Adjustments Total (\$) = Load Shift Adjustments (\$) + Load True Up Adjustments (\$)
 And :
- Strip Auction (\$/month) = Auction Award (MW) * 1000 * Market Clearing Price (\$/kW-month)
- Monthly Auction (\$/month) = Auction Award (MW) * 1000 * Market Clearing Price (\$/kW-month)
- Spot Market Auction (\$/month) = Auction Award (MW) *1000 * Market Clearing Price (\$/kW-month)
- Load Shift Adjustment (\$/month) = Load Shift (MW) * 1000 * Spot Market Clearing Price (\$/kW-month)
- Load Shift True Up (\$/month) = Load Shift True Up (MW) * 1000 * Spot Market Clearing Price (3 months prior) (\$/kW-month)
 - Load Shift True Up MW = True Up MW Original MW



ICAP AMS Billing Information

Installed Capacity	
Auction 🔻 Mitigation 🔻 Certify 🔻 Bids/Offers 🔻 Load Forecast 🔻 Calendar 🔻 Rights 🔻 Derating Factor 👻 DMNC 👻 SCR 💌	Billing Upload/Download
	Maintain Daily Forecasted Load and Actual True Up Load View Load Shift Billing Adjustments Consolidated Billing

Consolidated Billing

- Summary
- Detail
- Report



ICAP AMS - Consolidated Billing Summary

Consolidated Billing Summary													
Consolidated Billing Summary													
						IK K (1) > >I						
Delivery Month	Billing Organization ID Search	Billing Organization =- Search	Market Participant =- Search	Strip Auction	Monthly Auction	Spot Auction	Supplemental Auction	Auction Total	Load Shift Adjustments	Load True Up Adjustments	Adjustments Total	Total Billed	Action
Mar/2018				23,920.00	74,440.00	37,480.00	0.00	135,840.00	25,632.50	2,385.10	28,017.60	163,857.60	
						ik k (1) > >i						
New York Independe	nt System Operator											© 201	7 All Rights Reserve

* Sign convention followed: Positive: Charge to the MP (Negative): Credit to the MP Representative For Training Use Only



ICAP AMS - Consolidated Billing Detail

-														
Со	onsolidated E	Billing Summar	у											
							Consolidated	Billing Summary						
							IK K (<mark>1 → →</mark>						
	Delivery Month Mar/2018	Billing Organization ID Search	Billing Organization = Search	Market Participant =- Search	Strip Auction	Monthly Auction	Spot Auction	Supplemental Auction	Auction Total	Load Shift Adjustments	Load True Up Adjustments	Adjustments Total	Total Billed	Action
	Mar/2018				ſ	Opening billingDe	tail.pdf			×				
						from: blob What should Fir O Open with Save File	iiLpdf dobe Acrobat Doo : efox do with this f h Adobe Acroba	ile? at (default) es like this from n		v 				

ICAP AMS - Consolidated Billing

Detail

_ 15	NEW YORK INDEPENDENT SYSTEM OPERAT	UCAP (Consolidate	ed Invoice				
MP Name: Delivery Month: Date Generated:								
		GHI	LI	NYC	ROS	Total		
Strip Auction	Purchased	0.00	0.00	32,970.00	0.00		_	-
	Sold	0.00	0.00	0.00	(9,050.00)		_	
	Total	0.00	0.00	32,970.00	(9,050.00)	23,290.00		
Monthly Auction	Purchased	2,520.00	0.00	27,875.00	51,705.00			AUCTIO
	Sold	0.00	0.00	0.00	(7,660.00)	74,440.00		
	Total	2,520.00	0.00	27,875.00	44,045.00			TOTAL
Spot Auction	Purchased	24,336.00	1,054.00	38,471.00	37,417.00			
	Sold	(29,016.00)	0.00	0.00	(34,782.00)			
	Total	(4,680.00)	1,054.00	38,471.00	2,635.00	37,480.00		
Load Shift	MW	0.5	-0.05	1.2	1.2			
	Clearing \$/kW	9.36	5.27	12.41	5.27			ΤΟΤΔΙ
	Total	4,680.00	(263.50)	14,892.00	6,324.00	25,632.50		TOTAL
Load Shift True Up	TU MW	0.5	-0.005	1.25	0.25			BILLED
	Orig MW	0.35	-0.005	0.63	1.42			
	Shift MW	0.15	0	0.62	-1.17			
	Clearing \$/kW	3.15	1.53	5.84	1.46			
	Total	472.50	0	3,620.80	(1,708.00)	2,385.10		
Special Adjustments	Manual Adjustments	0.00	0.00	0.00	0.00		_	J
	Total	0.00	0.00	0.00	0.00			
Grand Total						163,857.60		



ICAP AMS- Consolidated Billing Report

-	USO NOW Y NUMBER										
	Consolidated I	Billing Summar	у								
					Consolidated Billing Summary						
					K < (1) → >I						
	Delivery Month	Billing Organization ID	Billing Organization =	Market Participant =		×	Load True Up Adjustments	Adjustments Total	Total Billed	Action	
	Mar/2018	Search	Search	Search	You have chosen to open:					¥	
	Mar/2018				conBillingReport.xlsx which is: Microsoft Excel Worksheet (19.4 KB)		\$0.00	\$0.00	\$0.00		
					from: blob:						
					What should Firefox do with this file?						
					⊖ <u>S</u> ave File						
					Do this <u>a</u> utomatically for files like this from now on.						
					OK Cancel						

Consolidated Billing Report - Strip

GHI	Purchase MW	0	
	Purchase Clearing Price	\$8.25	
	Purchase Extended Award Value	\$0.00	
	Sold MW	0	
	Sold Clearing Price	\$8.25	
	Sold Extended Award Value	\$0.00	
	Total	\$0.00	
LI	Purchase MW	0	
	Purchase Clearing Price	\$4.15	
	Purchase Extended Award Value	\$0.00	
	Sold MW	0	
	Sold Clearing Price	\$4.15	
	Sold Extended Award Value	\$0.00	
	Total	\$0.00	
NYC	Purchase MW	3	
	Purchase Clearing Price	\$10.99	
	Purchase Extended Award Value	\$32,970.00	
	Sold MW	0	
	Sold Clearing Price	\$10.99	
	Sold Extended Award Value	\$0.00	
	Total	\$32,970.00	\leftarrow
ROS	Purchase MW	0	
	Purchase Clearing Price	\$0.00	
	Purchase Extended Award Value	\$0.00	
	Sold MW	2.5	
	Sold Clearing Price	\$3.62	
	Sold Extended Award Value	(\$9,050.00)	
	Total	(\$9,050.00)	\leftarrow

HQ	Sold MW	0
	Sold Clearing Price	\$3.62
	Sold Extended Award Value	\$0.00
	Total	\$0.00
IESO	Sold MW	0
	Sold Clearing Price	\$0.00
	Sold Extended Award Value	\$0.00
	Total	\$0.00
NE	Sold MW	0
	Sold Clearing Price	\$0.00
	Sold Extended Award Value	\$0.00
	Total	\$0.00
РЈМ	Sold MW	0
	Sold Clearing Price	\$0.00
	Sold Extended Award Value	\$0.00
	Total	\$0.00

Total (Strip Auction) = \$23,920.00



Consolidated Billing Report – Consolidated Billing Report – Monthly Auction, Example Month

Purchase Clearing Price \$8.40 Purchase Extended Award Value Value \$2,520.00 Sold MW 0 Sold Clearing Price \$8.40 Total \$2,520.00 LI Purchase MW 0 Purchase Clearing Price \$4.00 Purchase Clearing Price \$4.00 Purchase Extended Award Value Value \$0.00 Sold Clearing Price \$4.00 Sold Clearing Price \$4.00 Sold Clearing Price \$4.00 Sold Clearing Price \$4.00 NYC Purchase MW 2.5 Purchase Clearing Price \$11.15	GHI	Durahasa MW	0.2	
Purchase Extended Award Value \$2,520.00 Sold MW 0 Sold Clearing Price \$8.40 Sold Extended Award Value \$0.00 Total \$2,520.00 LI Purchase MW 0 Purchase Clearing Price \$4.00 Purchase Clearing Price \$4.00 Sold Extended Award Value Value \$0.00 Sold Clearing Price \$4.00 Sold Extended Award Value \$0.00 Sold Extended Award Value \$0.00 NYC Purchase MW 2.5 Purchase Clearing Price \$11.15	GHI	Purchase MW	0.3	
Value \$2,520.00 Sold MW 0 Sold Clearing Price \$8.40 Sold Extended Award Value \$0.00 Total \$2,520.00 LI Purchase MW 0 Purchase Clearing Price \$4.00 Purchase Extended Award Value Value \$0.00 Sold Clearing Price \$4.00 Sold Clearing Price \$4.00 Sold Clearing Price \$4.00 Sold Clearing Price \$4.00 NYC Purchase MW 2.5 Purchase Clearing Price \$11.15			\$8.40	
Sold MW 0 Sold Clearing Price \$8.40 Sold Extended Award Value \$0.00 Total \$2,520.00 Purchase MW 0 Purchase Clearing Price \$4.00 Purchase Extended Award Value \$0.00 Sold MW 0 Sold Clearing Price \$4.00 Sold Clearing Price \$4.00 Sold Extended Award Value \$0.00 Total \$0.00 NYC Purchase MW 2.5 Purchase Clearing Price \$11.15			¢0 500 00	
Sold Clearing Price \$8.40 Sold Extended Award Value \$0.00 Total \$2,520.00 LI Purchase MW 0 Purchase Clearing Price \$4.00 Purchase Extended Award Value \$0.00 Sold Clearing Price \$4.00 Sold Clearing Price \$4.00 Sold Extended Award Value \$0.00 Total \$0.00 NYC Purchase MW 2.5 Purchase Clearing Price \$11.15			\$2,520.00	
Sold Extended Award Value \$0.00 Total \$2,520.00 LI Purchase MW 0 Purchase Clearing Price \$4.00 Purchase Extended Award Value Value \$0.00 Sold MW 0 Sold Clearing Price \$4.00 Sold Extended Award Value \$0.00 Sold Extended Award Value \$0.00 NYC Purchase MW 2.5 Purchase Clearing Price \$11.15			0	
Total \$2,520.00 LI Purchase MW 0 Purchase Clearing Price \$4.00 Purchase Extended Award Value Value \$0.00 Sold MW 0 Sold Clearing Price \$4.00 Sold Extended Award Value \$0.00 Total \$0.00 NYC Purchase MW 2.5 Purchase Clearing Price \$111.15				
LI Purchase MW 0 Purchase Clearing Price \$4.00 Purchase Extended Award Value \$0.00 Sold MW 0 Sold Clearing Price \$4.00 Sold Extended Award Value \$0.00 Total \$0.00 Purchase MW 2.5 Purchase Clearing Price \$11.15				
Purchase Clearing Price \$4.00 Purchase Extended Award Value Value \$0.00 Sold MW 0 Sold Clearing Price \$4.00 Sold Extended Award Value \$0.00 Total \$0.00 NYC Purchase MW 2.5 Purchase Clearing Price \$11.15			\$2,520.00	
Purchase Extended Award Value \$0.00 Sold MW 0 Sold Clearing Price \$4.00 Sold Extended Award Value \$0.00 Total \$0.00 NYC Purchase MW 2.5 Purchase Clearing Price \$11.15	Ц		0	
Value \$0.00 Sold MW 0 Sold Clearing Price \$4.00 Sold Extended Award Value \$0.00 Total \$0.00 NYC Purchase MW 2.5 Purchase Clearing Price \$11.15			\$4.00	
Sold MW 0 Sold Clearing Price \$4.00 Sold Extended Award Value \$0.00 Total \$0.00 Purchase MW 2.5 Purchase Clearing Price \$11.15				
Sold Clearing Price \$4.00 Sold Extended Award Value \$0.00 Total \$0.00 NYC Purchase MW 2.5 Purchase Clearing Price \$11.15		Tanao	\$0.00	
Sold Extended Award Value \$0.00 Total \$0.00 NYC Purchase MW 2.5 Purchase Clearing Price \$11.15			-	
Total \$0.00 NYC Purchase MW 2.5 Purchase Clearing Price \$11.15		5	• • • •	
NYC Purchase MW 2.5 Purchase Clearing Price \$11.15		Sold Extended Award Value	\$0.00	
Purchase Clearing Price \$11.15		Total	\$0.00	
	NYC	Purchase MW	2.5	
		Purchase Clearing Price	\$11.15	
Purchase Extended Award		Purchase Extended Award		
Value \$27,875.00		Value	\$27,875.00	
Sold MW 0		Sold MW	0	
Sold Clearing Price \$11.15		Sold Clearing Price	\$11.15	
Sold Extended Award Value \$0.00		Sold Extended Award Value	\$0.00	
Total \$27,875.00 🚄		Total	\$27,875.00	4
ROS Purchase MW 13.5	ROS	Purchase MW	13.5	
Purchase Clearing Price \$3.83		Purchase Clearing Price	\$3.83	
Purchase Extended Award		Purchase Extended Award		
Value \$51,705.00		Value	\$51,705.00	
Sold MW 2		Sold MW	2	
Sold Clearing Price \$3.83		Sold Clearing Price	\$3.83	
Sold Extended Award Value (\$7,660.00)		Sold Extended Award Value	(\$7,660.00)	
Total \$44,045.00		Total	\$44,045.00	

HQ	Sold MW	0
	Sold Clearing Price Sold Extended Award	\$3.83
	Value	\$0.00
	Total	\$0.00
IESO	Sold MW	0
	Sold Clearing Price	\$0.00
	Sold Extended Award	
	Value	\$0.00
	Total	\$0.00
NE	Sold MW	0
	Sold Clearing Price	\$3.83
	Sold Extended Award	
	Value	\$0.00
	Total	\$0.00
РЈМ	Sold MW	0
	Sold Clearing Price	\$0.00
	Sold Extended Award	
	Value	\$0.00
	Total	\$0.00

Total (Monthly Auction) = \$74,440.00

Consolidated Billing Report – Spot Market Auction, Example Month

GHI	Purchase Deficiency MW	0	
	Purchase Excess MW	2.6	
	Purchase Clearing Price	\$9.36	
	Purchase Extended Award		
	Value	\$24,336.00	
	Sold Offered MW	0	
	Sold Excess MW	3.1	
	Sold Clearing Price	\$9.36	
	Sold Extended Award Value	(\$29,016.00)	
	Total	(\$4,680.00)	$\left \leftarrow \right $
LI	Purchase Deficiency MW	0	
	Purchase Excess MW	0.2	
	Purchase Clearing Price	\$5.27	
	Purchase Extended Award		
	Value	\$1,054.00	
	Sold Offered MW	0	
	Sold Excess MW	0	
	Sold Clearing Price	\$5.27	
	Sold Extended Award Value	\$0.00	
	Total	\$1,054.00	\leftarrow
NYC	Purchase Deficiency MW	0	
	Purchase Excess MW	3.1	
	Purchase Clearing Price	\$12.41	
	Purchase Extended Award		
	Value	\$38,471.00	
	Sold Offered MW	0	
	Sold Excess MW	0	
	Sold Clearing Price	\$12.41	
	Sold Extended Award Value	\$0.00	
	Total	\$38,471.00	<

ROS	Purchase Deficiency MW	0	
	Purchase Excess MW	7.1	
	Purchase Clearing Price	\$5.27	
	Purchase Extended Award Value	\$37,417.00	
	Sold Offered MW	3.9	
	Sold Excess MW	2.7	
	Sold Clearing Price	\$5.27	
	Sold Extended Award Value	(\$34,782.00)	
	Total	\$2,635.00	←
HQ	Sold Offered MW	0	
	Sold Clearing Price	\$5.27	
	Sold Extended Award Value	\$0.00	
	Total	\$0.00	
IESO	Sold Offered MW	0	
	Sold Clearing Price	\$0.00	
	Sold Extended Award Value	\$0.00	
	Total	\$0.00	
NE	Sold Offered MW	0	
	Sold Clearing Price	\$0.00	
	Sold Extended Award Value	\$0.00	
	Total	\$0.00	
РЈМ	Sold Offered MW	0	
	Sold Clearing Price	\$5.27	
	Sold Extended Award Value	\$0.00	
	Total	\$0.00	

Total (Spot Market Auction) = \$37,480.00

Consolidated Billing Report – Load Adjustments, Example Month



Load	Shift True Up		
GHI	Clearing \$/kW	\$3.15	
	TU MW's	0.5	
	Orig MW's	0.35	
	Shift	0.15	
	Total	\$472.50	┥
LI	Clearing \$/kW	\$1.53	
	TU MW's	-0.005	
	Orig MW's	-0.005	
	Shift	0	
	Total	\$0.00	
NYC	Clearing \$/kW	\$5.84	
	TU MW's	1.25	
	Orig MW's	0.63	
	Shift	0.62	
	Total	\$3,620.80	I€
ROS	Clearing \$/kW	\$1.46	
	TU MW's	0.25	
	Orig MW's	1.42	
	Shift	-1.17	
	Total	(\$1,708.20)	←

Total (Load Shift) = \$25,632.50 Total (Load Shift True Up) = \$2,385.10



Representative

Consolidated Billing Report, ICAP Settlements – Example Month

		For Training Use Only
Strip Auction	\$23,920.00	
Monthly Auction	\$74,440.00	135,840.00
Spot Market Auction	\$37,480.00	
Supplementary Auction	\$0.00	
Load Shift	\$25,632.50	
Load Shift True Up	\$2,385.10	
		* Sign convention followed:
Total billed (Month)	\$163,857.60	Positive: Charge to the MP (Negative): Credit to the MP

Customer Settlements Interface (CSI)





Customer Settlements Interface – Weekly Invoices

	Customer Settlements In Invoice Reports	terface			
	Consolidated Invoice Daily Reconciliation Global Rates TSC/NTAC Rates Working Capital Metering Reco	onciliation 💌			l
	MPs: Month: 05/ 0	O Biling Period Schedule Invoice Schedule	ew		3
	•	🎯 Invoice Summary Rep	ort 🔹 🗟 Invoice Detail Report 📓 Adjustmen	t Detail Report 📓 PrePayment Detail Rep	ort 🗟 ICAP Detail Report 🗟 Bad Debt Loss Detail F
	Billing Period Start Date		Billing Period End Date	Version	
	Invoice Date: 02/07/				
ľ	05/01		05/31	3	
ł	09/01		09/30	2	
4	01/01		01/31	1	
Ι	Invoice Date: 05/11/				
ľ	05/01.		05/06	0.5	
	Invoice Date: 05/18/				
ľ	05/07.		05/13	0.5	
	Invoice Date: 05/25/				Weekly Invoice
ŀ	05/14		05/20.	0.5	
ľ	Invoice Date: 06/01/				
ŀ	05/21.		05/27	0.5	
	Invoice Date: 06/07/				
ŀ	Invoice Date: 06/07/ 09/01		09/30.	3	
	01/01		05/30.	2	
	05/01		05/31	1	
	Invoice Date: 10/07/				
ŀ	01/01		01/31	3	
	05/01		05/31	2	
ŀ	09/01		09/30	1	

Customer Settlements Interface

	NYISO Market Participant ICAP Details - Invoice Dated May 11,20XX									
Market Participant Name: Invoice Number:										
ICAP Detail - Invo	CAP Detail - Invoice with Flexible Billing Period									
Flexible Billing Pe	eriod of 05	/01/20XX -	05/06/20	X						
ICAP AuctionDividedNumber ofMultipliedNumber of Days inEqualsICAP Transactions/PaynTotals (\$)byDays inbyFlexible Billing Periodto Market Participant (
(\$135,840.00)	/	31	6	=	(\$26,291.61)					
	NYISO I	Market Pa	rticipant l	CAP Details - Invoice D	Dated Ma	ay 18, 20XX				
Market Participa	nt Name:				Invoice N	umber:				
ICAP Detail - Invoi	ice with Fle	exible Billing	Period							
Flexible Billing Pe	riod of 05,	/07/20XX -	05/13/20X	х						
ICAP Auction Totals (\$)	Divided by	Number of Days in Month	Multiplied by	Number of Days in Flexible Billing Period	Equals	ICAP Transactions/Payment to Market Participant (\$)				
(\$135,840.00)	/	31	x	7	=	(\$30,673.55)				

Note: Sign convention used Positive: Credit to the MP (Negative): Charge to the MP



Customer Settlements Interface – Monthly Invoices

1			
	Customer Settlements Interfact Invoice Reports	ce	
Consolidated Inv	oice Daily Reconciliation Global Rates TSC/NTAC Rates Working Capital Metering Reconciliation •		Logou
MPs:		ling Period Schedule Ray View	3
		🎯 Invoice Summary Report 🔹 🗟 Invoice Detail Report 🗟 Adjus	stment Detail Report 📓 PrePayment Detail Report 📓 ICAP Detail Report 🔝 Debt Loss Detail Repo
	Billing Period Start Date	Billing Period End Date	Version
Invoice Date:	02/07/		
	05/01	05/31	3
	09/01	09/30	2
	01/01	01/31	1
Invoice Date:	05/11/		
	05/01.	05/06	0.5
Invoice Date:	05/18/		
	05/07.	05/13	0.5
Invoice Date:	05/25/		
	05/14.	05/20.	0.5
Invoice Date:	06/01/		
	05/21.	05/27	0.5
2 Invoice Date:			
Invoice Date:	09/01.	09/30.	3
▶	01/01.	01/31.	² Monthly invoice
	05/01	05/31	
Invoice Date:	10/07/		
	01/01	01/31	3
	05/01	05/31	2



Customer Settlements Interface – ICAP Detail Report

N	YISO Market Part	icipant ICAP Deta	ils - Invoice Dated Jun	ie 07, 20XX				
Market Participa	Market Participant Name: Invoice Number:							
ICAP Detail - Invo	pice with Initial M	lonth Billing Perio	d	•				
Flexible Invoice Date	Billing Period Start Date	Billing Period End Date	ICAP Transactions/P Participant (\$) from Previous Inve	-	Representative For Training Use Only			
5/11/20XX 5/18/20XX 5/25/20XX	5/1/20XX 5/7/20XX 5/14/20XX	5/6/20XX 5/13/20XX 5/20/20XX	(\$22,291.61) (\$30,673.55) (\$30,673.55)					
6/1/20XX	5/21/20XX	5/27/20XX Flexible Total	(\$30,673.55) (\$118,312.26)					
ICAP Auction Totals with Load Shift and True- Up (\$)	minus	Flexible Total	Equals	ICAP Transactions/Payment Market Participant (\$				
(\$163,857.60)	-	(\$118,312.26)	=	(\$45,545.34)				

Note: Sign convention used Positive: Credit to the MP (Negative): Charge to the MP



Customer Settlements Interface- Monthly Invoice

Building The	NEW YORK INDEPENDENT SYSTEM OPERATOR Skiegy Warkets Of TomorrowToday	Invoice Re	r Settlement	io internace				
Consolidated Invoice	Daily Reconciliation Global Rates	TSC/NTAC Rates	Working Capital Mete	ring Reconciliation •				
MPs:			 Month: 05/ 	Biling Pe Invoice	criod Schedule	3		
					😂 Invoice Summary Report 💌	🛐 invoice Detail Report 📓 Adju:	stment Detail Report 📓 PrePayment Detail Report	🗟 ICAP Detail Report 📓 Bad Debt Loss
	Billi	ng Period Start Date				Billing Period End Date	Version	
Invoice Date: 02/07/								
		05/01				05/31	3	
		09/01				09/30	2	
		01/01				01/31	1	
Invoice Date: 05/11/								
		05/01.				05/06	0.5	
Invoice Date: 05/18/								
		05/07.				05/13	0.5	
Invoice Date: 05/25/								
		05/14				05/20.	0.5	
Invoice Date: 06/01/								
invoice butter buy bir		05/21.				05/27	0.5	
Invoice Date: 06/07/	_							
invoice bate: 00/07/		09/01.				09/30.	3	Monthly Invoio
		01/01.				01/31.	2	Monthly Invoic
		05/01				05/31	1	
Invoice Date: 10/07/								
		01/01				01/31	3	
		05/01				05/31	2	
		09/01				09/30	1	



Customer Settlements Interface¹ Invoice Summary Report

Market Participant Name: [F			
		nvoice Number		
		BC Posting Da	te:	5/6/20XX
		nvoice Issued:	4 . 19400	6/7/20XX
	P	Payment Due to	the NYISO:	6/9/20XX
		Total Charge to	Market Participant:	
	May-20XX	Jan-20XX	Sep-20X(X-1)	
		4 Month	Final Bill Close-	
	Initial Settlement	Settlement	out	Total
	Version 1	Version 2	Version 3	
Monthly Payments / (Charges)				
monthly Payments A Charges				
Power Supplier				
Transmission Customer				
Transmission Congestion Contract Holder				
Transmission Owner				
Demand Response Customer				
Virtual Bidding Customer Settlement Subtotal				
Previous Version Settlement Subtotal				
Total Current Settlement Subtotal				
Adjustments				
Interest Payment to (Charge to) Market Participant				
Current Invoice Payment (Charge to) Market Participant				
Prepayments				
Net Payment to (Charge to) Market Participant				
Working Capital Cash Transactions				
ICAP Transaction to Market Participant				(\$45,545.34)
Bad Debt Loss				
			Invoice Total	

* Sign convention used: Positive: Credit to the MP (Negative): Charge to the MP



Which version of invoice in the Customer Settlement Interface includes load shift and true up in the ICAP transactions/payment to the MP?

- a. Weekly invoice
- **b.** Monthly invoice
- c. Both weekly and monthly invoices



Which version of invoice in the Customer Settlement Interface includes load shift and true up in the ICAP transactions/payment to the MP?

a. Weekly invoice

b. Monthly invoice

c. Both weekly and monthly invoices



For the May Monthly auction, a supplier is awarded 100 MW of UCAP in NYC at a clearing price of \$4.93/kW – Month

There are 4 days in the flexible invoice period

What is the settlement for this supplier for the 'weekly' invoice?

- a. \$1,972.00
- b. \$49,300.00
- c. \$63,612.90
- d. \$16,433.33



For the May Monthly auction, a supplier is awarded 100 MW of UCAP in NYC at a clearing price of \$4.93/kW – Month

There are 4 days in the flexible invoice period

What is the settlement for this supplier for the 'weekly' invoice?

- a. \$1,972.00
- b. \$49,300.00
- c. <u>\$63,612.90</u>
- d. \$16,433.33

100MW x 1,000 = 100,000 kW/month 100,000 x \$4.93 = \$493,000

ICAP Auction Totals (\$)	Divided by	Number of Days in May	Multiplied by	Number of Days in Flexible Billing Period	Equals	ICAP Transactions/Pay ment to MP (\$)
\$493,000	/	31	X	4	=	\$63,612.90

ICAP Market Settlements

Settlement Reference Material

- OATT and MST
- Installed Capacity Manual
 - Section 5.16 Billing and Settlements
- ICAP Automated Market System User's Guide
 - Section 12.4 How to View Consolidated Billing
- Settlement Data Applications User's Guide (CSI User Guide)
 - Section 4.2.2.5 ICAP Detail Report