

# Consolidated Invoice Re-Design

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**Con Invoice Re-Design Project Training**

*Summer, 2011*

*Rensselaer, NY*

# The Roles of the NYISO



## Reliable operation of the bulk electricity grid

- *Managing the flow of power nearly 11,000 circuit-miles of transmission lines from more than 300 generating units*



## Administration of open and competitive wholesale electricity markets

- *Bringing together buyers and sellers of energy and related products and services*



## Planning for New York's energy future

- *Assessing needs over a 10-year horizon and evaluating the feasibility of projects proposed to meet those needs*



## Advancing the technological infrastructure of the electric system

- *Developing and deploying information technology and tools to make the grid smarter*

# Consolidated Invoice



## Re-Design

- ◆ Session Objectives

- *Understand New Con Invoice Format*
- *Explain Changes to Invoice Timelines*
- *Navigate Customer Settlements Interface*
- *Identify Supporting Applications & Documents*

# Consolidated Invoice Re-Design



- ◆ Consolidated Invoice

- *New Format*
- *New Timeline*

- ◆ Customer Settlements Interface

- *Consolidated Invoice*
  - Invoice Summary
  - Invoice Detail
  - Adjustment Detail
  - Pre-Payment Detail
- *Additional Reports*

**Targeted Deploy Date**

**8/9/11**

**1<sup>st</sup> Weekly Invoice**

**10/12/11**

# Consolidated Invoice

## Re-Design



### ◆ Consolidated Invoice - Current Format

NYISO Market Participant Billing Summary - Invoice Date *Month, Day, Year*

Market Participant Name: ISO Billing Sample Invoice Number: 4270-20080407

	<i>Month, Year</i> Initial Settlement	<i>Month, Year</i> 4 Month Settlement	Total
<b>Monthly Payments/(Charges)</b>			
Power Supplier	\$0.00	\$0.00	\$0.00
Transmission Customer	\$0.00	\$0.00	\$0.00
Transmission Congestion Contract Holder	\$0.00	\$0.00	\$0.00
Transmission Owner	\$0.00	\$0.00	\$0.00
Demand Response Customer	\$0.00	\$0.00	\$0.00
Virtual Bidding Customer	\$0.00	\$0.00	\$0.00
Sub Total Payment to (Charge to) Market Participant	\$0.00	\$0.00	\$0.00
Adjustments - See Page 2 for details	\$0.00	\$0.00	\$0.00
Interest Payment to (Charge to) Market Participant	\$0.00	\$0.00	\$0.00
ICAP Payment to (Charge to) Market Participant			\$0.00
Working Capital Transactions	\$0.00		\$0.00
Current Invoice Payment to (Charge to) Market Participant	\$0.00	\$0.00	\$0.00
Balance Due on Prior Invoice(s)			\$0.00
Total Payment to (Charge to) Market Participant			\$0.00

Date Posted:  
 Payments to NYISO Due:  
 Payments to Market Participants Due:

	Opening Balance	Current Month Contributions	Current Month Interest	Other Transactions	Ending Balance
Working Capital Activity for the Current Month	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

# Consolidated Invoice Re-Design



## ◆ Consolidated Invoice - New Format

### ■ *Changes to Overall Layout*

- Data Moved & Housed Together
  - **Invoice Number**
  - **Posting & Invoice Dates**
  - **Payment & Charge Dates**
  - **Total Invoice Dollars**

**Populated Based upon  
Net Settlement**



Invoice Number:  
FBC Posting Date:  
Invoice Issued:  
Payments Due To The NYISO On:  
Total Charge to Market Participant:

# Consolidated Invoice

## Re-Design



### ◆ Consolidated Invoice - New Format

NYISO Market Participant Invoice Dated December 07, 2010

Market Participant Name: \_\_\_\_\_

Invoice Number:  
 FBC Posting Date:  
 Invoice Issued:  
 Payments Due To The NYISO On:  
 Total Charge to Market Participant:

	Nov-2010 Initial Settlement Version 1	Jul-2010 4 Month Settlement Version 2	Total
<u>Monthly Payments/(Charges)</u>			
Power Supplier			
Transmission Customer			
Transmission Congestion Contract Holder			
Transmission Owner			
Demand Response Customer			
Virtual Bidding Customer			
<b>Settlement Subtotal</b>			
Previous Version Settlement Subtotal	_____		
<b>Total Current Settlement Subtotal</b>	_____		
Adjustments	_____		
Interest Payment to (Charge to) Market Participant	_____		
Current Invoice Payment to (Charge to) Market Participant	_____		
Prepayments	_____		
<b>Net Payment to (Charge to) Market Participant</b>	_____		
	Working Capital Cash Transactions		
	ICAP Transaction to Market Participant		
	_____		
	Invoice Total		
	Overpayment*		
	Past Due Balance*		
	_____		
	<b>Total Charge to Market Participant</b>		
	_____		

Instructions for making electronic payments to New York Independent System Operator, Inc.  
 Key Bank, N.A.  
 66 South Pearl Street  
 Albany, NY 12210  
 ABA# 3435323  
 Account# 123456789

\*The amounts of the Overpayment and Past Due Balances may not reflect payments made after the Requiral data of the previously issued invoice.

# Consolidated Invoice



## Re-Design

- ◆ Consolidated Invoice - New Format
  - *Changes to Overall Layout*
    - Added Banking Instructions
      - **Bottom Left Corner**

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Account# 123456789



# Consolidated Invoice

## Re-Design



### ◆ Consolidated Invoice - New Format

NYISO Market Participant Invoice Dated December 07, 2010

Market Participant Name: \_\_\_\_\_

Invoice Number: \_\_\_\_\_  
 FBC Posting Date: \_\_\_\_\_  
 Invoice Issued: \_\_\_\_\_  
 Payments Due To The NYISO On: \_\_\_\_\_  
 Total Charge to Market Participant: \_\_\_\_\_

	Nov-2010 Initial Settlement Version 1	Jul-2010 4 Month Settlement Version 2	Total
<u>Monthly Payments/(Charges)</u>			
Power Supplier			
Transmission Customer			
Transmission Congestion Contract Holder			
Transmission Owner			
Demand Response Customer			
Virtual Bidding Customer			
<b>Settlement Subtotal</b>			
Previous Version Settlement Subtotal	_____		
<b>Total Current Settlement Subtotal</b>	_____		
Adjustments	_____		
Interest Payment to (Charge to) Market Participant	_____		
Current Invoice Payment to (Charge to) Market Participant	_____		
Prepayments	_____		
<b>Net Payment to (Charge to) Market Participant</b>	_____		
	Working Capital Cash Transactions		
	ICAP Transaction to Market Participant		
	_____		
	Invoice Total		
	Overpayment*		
	Past Due Balance*		
	_____		
	<b>Total Charge to Market Participant</b>		
	_____		

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# Consolidated Invoice

## Re-Design



### ◆ Consolidated Invoice - New Format

#### ■ *Changes to Overall Layout*

##### ● Subtotal Line Items

##### ● **‘Settlement Subtotal’**

- Reflects Full Amount

##### ● **‘Previous Version Settlement Subtotal’**

- Reflects Previous Version Subtotal

##### ● **‘Total Current Settlement Subtotal’**

- Reflects Delta between Previous & Current Subtotals

Settlement Subtotal
Previous Version Settlement Subtotal
Total Current Settlement Subtotal

# Consolidated Invoice Re-Design



## ◆ Consolidated Invoice - New Format

NYISO Market Participant Invoice Dated December 07, 2010

Market Participant Name: \_\_\_\_\_

Invoice Number: \_\_\_\_\_  
 FBC Posting Date: \_\_\_\_\_  
 Invoice Issued: \_\_\_\_\_  
 Payments Due To The NYISO On: \_\_\_\_\_  
 Total Charge to Market Participant: \_\_\_\_\_

	Nov-2010 Initial Settlement Version 1	Jul-2010 4 Month Settlement Version 2	Total
<u>Monthly Payments/(Charges)</u>			
Power Supplier			
Transmission Customer			
Transmission Congestion Contract Holder			
Transmission Owner			
Demand Response Customer			
Virtual Bidding Customer			
<b>Settlement Subtotal</b>		(15,000)	
Previous Version Settlement Subtotal		(10,000)	
<b>Total Current Settlement Subtotal</b>		(5,000)	
Adjustments			
Interest Payment to (Charge to) Market Participant			
Current Invoice Payment to (Charge to) Market Participant			
Prepayments			
Net Payment to (Charge to) Market Participant			
		Working Capital Cash Transactions	
		ICAP Transaction to Market Participant	
		Invoice Total	
		Overpayment*	
		Past Due Balance*	
		<b>Total Charge to Market Participant</b>	

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# Consolidated Invoice



## Re-Design

- ◆ Consolidated Invoice - New Format
  - *Changes to Overall Layout*
    - Added Pre-Payment Line Item
      - **Added Pre-Payment Detail Report**
    - Moved Location of ICAP Transaction Line Item

# Consolidated Invoice NEW YORK INDEPENDENT SYSTEM OPERATOR

## Re-Design

- ◆ Consolidated Invoice - New Format
  - *Changes to Overall Layout*
    - Moved Location of Working Capital Line Item
      - **Removed Working Capital Details**
      - **Replaced with Working Capital Detail Report**

### Pre-Deployment

	Opening Balance	Current Month Contributions	Current Month Interest	Other Transactions	Ending Balance
Working Capital Activity for the Current Month	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

### Post-Deployment

Prepayments	
Net Payment to (Charge to) Market Participant	
	Working Capital Cash Transactions
	ICAP Transaction to Market Participant

# Consolidated Invoice

## Re-Design



### ◆ Consolidated Invoice - New Format

NYISO Market Participant Invoice Dated December 07, 2010

Market Participant Name: \_\_\_\_\_

Invoice Number: \_\_\_\_\_  
 FBC Posting Date: \_\_\_\_\_  
 Invoice Issued: \_\_\_\_\_  
 Payments Due To The NYISO On: \_\_\_\_\_  
 Total Charge to Market Participant: \_\_\_\_\_

	Nov-2010 Initial Settlement Version 1	Jul-2010 4 Month Settlement Version 2	Total
<u>Monthly Payments/(Charges)</u>			
Power Supplier			
Transmission Customer			
Transmission Congestion Contract Holder			
Transmission Owner			
Demand Response Customer			
Virtual Bidding Customer			
<b>Settlement Subtotal</b>			
Previous Version Settlement Subtotal	_____		
<b>Total Current Settlement Subtotal</b>	_____		
Adjustments	_____		
Interest Payment to (Charge to) Market Participant			
<b>Current Invoice Payment to (Charge to) Market Participant</b>	_____		
Prepayments	_____		
<b>Net Payment to (Charge to) Market Participant</b>	_____		
		Working Capital Cash Transactions	
		ICAP Transaction to Market Participant	
		_____	
		Invoice Total	
		Overpayment*	
		Past Due Balance*	
		_____	
		<b>Total Charge to Market Participant</b>	
		_____	

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# Consolidated Invoice



## Re-Design

- ◆ Consolidated Invoice - New Format
  - *Changes to Overall Layout*
    - Invoice Adjustment Details
      - **Available in Adjustment Detail Report**
      - **Report is in XLS View**

# Consolidated Invoice

## Re-Design



- ◆ Consolidated Invoice - New Timeline
  - *Flexible Invoice Period (FIP)*
    - Weekly Invoicing being Added
    - May Contain 7 Billing Days or Fewer
    - Invoice Version Number 0.5



# Consolidated Invoice



## Re-Design

- ◆ Consolidated Invoice - New Timeline
  - *Continuing Monthly Invoicing*
    - Initial Month Settlement - Version 1
    - Four Month Settlement - Version 2
    - Final Bill Close-Out (FBC) - Version 3
    - FERC Ordered - Version 4
    - Manual Adjustments

# Consolidated Invoice NEW YORK INDEPENDENT SYSTEM OPERATOR

## Re-Design

- ◆ Consolidated Invoice - New Timeline
  - *Banking Dates (+2, +4)*
    - Requisites - *Charges*
      - **1<sup>st</sup> Banking Day Common to all Customers that falls On or After 2<sup>nd</sup> Business Day, after Invoice is rendered**
    - Disbursements - *Payments*
      - **1<sup>st</sup> Banking Day Common to all Customers that falls On or After 2<sup>nd</sup> Business Day after Due Date for Customer Payments**

# Consolidated Invoice NEW YORK INDEPENDENT SYSTEM OPERATOR

## Re-Design

- ◆ Consolidated Invoice - New Timeline
  - *Flexible Invoice Period (FIP)*
    - Example: October 2011

FIP Invoice Dates	Billing Period	Requital Dates	Disbursement Dates
10/12/11 FIP V0.5	10/01 - 10/07	10/14/11	10/18/11
10/19/11 FIP V0.5	10/08 - 10/14	10/21/11	10/25/11
10/26/11 FIP V0.5	10/15 - 10/21	10/28/11	11/01/11
11/02/11 FIP V0.5	10/22 - 10/28	11/04/11	11/08/11

# Consolidated Invoice NEW YORK INDEPENDENT SYSTEM OPERATOR

## Re-Design

- ◆ Consolidated Invoice - New Timeline
  - *Monthly Invoicing*
    - Example: October 2011

Monthly Invoice Dates	Billing Period	Requital Dates	Disbursement Dates
11/07/11 INI V1	10/01 - 10/31	11/09/11	11/14/11
11/07/11 4 Mnth V2	06/01 - 6/30	11/09/11	11/14/11
11/07/11 FBC V3	02/01 - 02/28	11/09/11	11/14/11
11/07/11 FERC V4	N/A	N/A	N/A

# Consolidated Invoice



## Re-Design

- ◆ Customer Settlements Interface (CSI)
  - *Migration of Finance Applications*
    - Out of MIS Marketplace
  - *Reasons Behind Interface Creation*
    - Supports Weekly Invoicing
    - Remove Dependencies that Impact:
      - **Code Deployments**
      - **Outages**
  - *New URL (Web Link)*
    - Same Login & Password as Marketplace Login

# Consolidated Invoice

## Re-Design



- ◆ Customer Settlements Interface

- *Main Menu*



**ISO** NEW YORK INDEPENDENT SYSTEM OPERATOR  
Building The Energy Markets Of Tomorrow...Today

### Customer Settlements Interface

Main Menu

[Consolidated Invoice](#) | [Daily Reconciliation](#) | [Global Rates](#) | [TSCNTAC Rates](#) | [Working Capital](#) | [Metering Reconciliation ▾](#) [Log Out](#)

Customer Settlements Interface  
Please click any of the links above.

# Consolidated Invoice Re-Design



- ◆ Customer Settlements Interface

- Consolidated Invoice - Invoice Summary Report

**Customer Settlements Interface**  
Invoice Reports

Consolidated Invoice | Daily Reconciliation | Global Rates | TSCNTAC Rates | Working Capital | Metering Reconciliation | Log Out

MPs: [Dropdown] Month: [Dropdown]  Billing Period Schedule  Invoice Schedule

Billing Period Summary

Billing Period Start Date	Invoice Date	Invoice Schedule
12/01/2010	01/10/2011	Invoice Schedule
12/01/2010	05/06/2011	Invoice Schedule
12/01/2010	09/07/2011	Invoice Schedule
12/01/2010		Invoice Schedule

Invoice Summary Report

PDF XLS

Jan Jul  
Feb Aug 2006 2011  
Mar Sep 2007 2012  
Apr Oct 2008 2013  
May Nov 2009 2014  
Jun Dec 2010 2015

OK Cancel

**-Search By Invoice Sched -**  
Returns all invoices issued  
In the selected month

**-Search By Billing Period -**  
Returns all invoices with the  
selected billing month

NYISO Market Participant Invoice Dated December 07, 2010

Market Participant Name:

Invoice Number: FBC Posting Date: Invoice Issued: Payments Due To The NYISO On: Total Charge to Market Participant:
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	Nov-2010 Initial Settlement Version 1	Jul-2010 4 Month Settlement Version 2	Total
<u>Monthly Payments/(Charges)</u>			
Power Supplier			
Transmission Customer			
Transmission Congestion Contract Holder			
Transmission Owner			
Demand Response Customer			
Virtual Bidding Customer			
<b>Settlement Subtotal</b>			
Previous Version Settlement Subtotal	<hr/>		
<b>Total Current Settlement Subtotal</b>			
Adjustments	<hr/>		
Interest Payment to (Charge to) Market Participant			
<b>Current Invoice Payment to (Charge to) Market Participant</b>			
Prepayments	<hr/>		
<b>Net Payment to (Charge to) Market Participant</b>			
		Working Capital Cash Transactions	
		ICAP Transaction to Market Participant	
		<hr/>	
		<b>Invoice Total</b>	
		Overpayment*	
		Past Due Balance*	
		<hr/>	
		<b>Total Charge to Market Participant</b>	
		<hr/>	

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\*The amounts of the Overpayment and Past Due Balances may not reflect payments made after the Requisite data of the previously issued invoice.

<b>Total Charge to Market Participant</b>
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# Consolidated Invoice Re-Design



- ◆ Customer Settlements Interface

- Consolidated Invoice - Invoice Detail Report

The screenshot displays the 'Customer Settlements Interface' for 'Invoice Reports'. The interface includes a navigation bar with options like 'Consolidated Invoice', 'Daily Reconciliation', 'Global Rates', 'TSC/NTAC Rates', 'Working Capital', and 'Metering Reconciliation'. Below this, there are input fields for 'MPs' and 'Month', along with radio buttons for 'Billing Period Schedule' and 'Invoice Schedule'. A 'View' button is also present. The main content area shows a 'Billing Period Summary' table with columns for 'Billing Period Start Date', 'Billing Period End Date', and 'Version'. Three rows are visible, each corresponding to an invoice date: 01/10/2011, 05/06/2011, and 09/07/2011. Above the table, there are report generation options: 'Invoice Summary Report', 'Invoice Detail Report' (highlighted with a red box), 'Adjustment Detail Report', and 'Pre-Payment Detail Report'.

Billing Period Start Date	Billing Period End Date	Version
12/01/2010	12/31/2010	1
12/01/2010	12/31/2010	2
12/01/2010	12/31/2010	3

<b>Power Supplier Statement Monthly Billing Period {03/01/2011}</b>	FIP {03/01/2011 -	FIP {03/08/2011 -	FIP {03/15/2011 -	FIP {03/22/2011 -	Initial Settlement
Invoice Date	3/9/2011	3/16/2011	3/23/2011	3/30/2011	4/7/2011
Energy (MWh)					
300 Forward Energy					
303 Balancing Energy					
Energy Settlement (\$)					
301 Forward Energy					
304 Balancing Energy					
314 ELR DAM Contract Balancing Payment \$					
302 DAM Bid Production Cost Guarantee					
305 R/T Bid Production Cost Guarantee					
328 Margin Restoration (MOB) Payment \$					
Cost Based Ancillary Services					
306 Reactive Supply and Voltage Control Avail Pymt.					
307 Reactive Supply and Voltage Control LOC Pymt.					
312 Black Start Service Payment					
1100 Wind Forecasting Service Charge					
Market Based Ancillary Service					
308 Regulation and Frequency Response Avail Payment					
309 Regulation and Frequency Response Penalty Charge					
310 Operating Reserves Service Availability Payment					
310 Operating Reserves Service Penalty Charge					
320 322 324 326 Scheduling System Control & Dispatch Service					
1017 Local Black Start and Restoration Services Payment					
<b>Power Supplier Statement Monthly Billing Period {11/01/2010}</b>	Initial Settlement	4 Month Settlement			
Invoice Date	12/7/2010	4/7/2011			
Energy (MWh)					

# Consolidated Invoice Re-Design



- ◆ Customer Settlements Interface

- Consolidated Invoice - Adjustment Detail Report

The screenshot displays the 'Customer Settlements Interface' for 'Invoice Reports'. It includes a navigation bar with options like 'Consolidated Invoice', 'Daily Reconciliation', and 'Global Rates'. Below this, there are input fields for 'MPs' and 'Month', and radio buttons for 'Billing Period Schedule' and 'Invoice Schedule'. A menu of report types is shown, with 'Adjustment Detail Report' highlighted in a red box. Below the menu is a table with columns for 'Billing Period Start Date', 'Billing Period End Date', and 'Version'. The table lists three entries for different invoice dates: 01/10/2011, 05/06/2011, and 09/07/2011, all with a start date of 12/01/2010 and an end date of 12/31/2010.

Billing Period Start Date	Billing Period End Date	Version
Invoice Date: 01/10/2011		
12/01/2010	12/31/2010	1
Invoice Date: 05/06/2011		
12/01/2010	12/31/2010	2
Invoice Date: 09/07/2011		
12/01/2010	12/31/2010	3

NYISO Market Participant Adjustment Details - Invoice Dated

Market Participant Name:												Invoice Number:	
<b>Adj ID</b>	<b>Billing Month</b>	<b>Eff Date</b>	<b>Rev Month</b>	<b>LoadRatio Date</b>	<b>Total MWh</b>	<b>Org MWh</b>	<b>Adj Amount</b>	<b>Interest</b>	<b>Total Adjustment</b>	<b>Adjustment Type</b>	<b>Rev Flag</b>	<b>Src Adj ID</b>	<b>Comments</b>

# Consolidated Invoice Re-Design



- ◆ Customer Settlements Interface

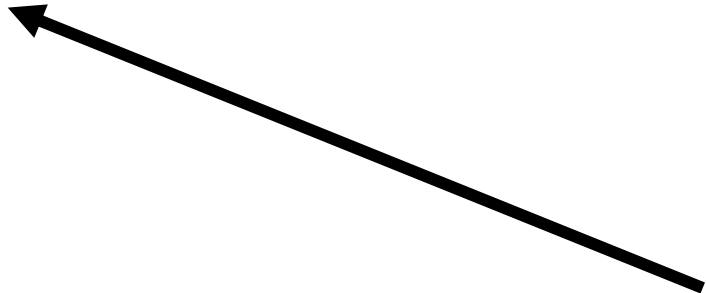
- Consolidated Invoice - Pre-Payment Detail Report

The screenshot displays the 'Customer Settlements Interface' for 'Invoice Reports'. The top navigation bar includes the ISO logo and the text 'NEW YORK INDEPENDENT SYSTEM OPERATOR Building The Energy Markets Of Tomorrow...Today'. Below the navigation bar, there are tabs for 'Consolidated Invoice', 'Daily Reconciliation', 'Global Rates', 'TSCNTAC Rates', 'Working Capital', and 'Metering Reconciliation'. A 'Log Out' link is visible in the top right corner. The main interface area contains a search section with 'MPs:' and 'Month:' fields, and radio buttons for 'Billing Period Schedule' and 'Invoice Schedule'. Below this, there are four report options: 'Invoice Summary Report', 'Invoice Detail Report', 'Adjustment Detail Report', and 'Pre-Payment Detail Report'. The 'Pre-Payment Detail Report' option is highlighted with a red border. Below the report options is a table with columns for 'Billing Period Start Date', 'Billing Period End Date', and 'Version'. The table contains three rows of data, each corresponding to an invoice date: 01/10/2011, 05/06/2011, and 09/07/2011. All rows show a start date of 12/01/2010 and an end date of 12/31/2010.

Billing Period Start Date	Billing Period End Date	Version
Invoice Date: 01/10/2011		
12/01/2010	12/31/2010	1
Invoice Date: 05/06/2011		
12/01/2010	12/31/2010	2
Invoice Date: 09/07/2011		
12/01/2010	12/31/2010	3

### NYISO Market Participant Prepayment Details - Invoice Dated

Market Participant Name:	Invoice Number:
<b>Prepayments</b>	
<b>Prepayment Type</b>	<b>Prepayment Amount</b>
<b>Total Prepayments</b>	



**Total Prepayments:**

- Reflective of Invoice Line Item
- Processed Weekly w/FIP

# Consolidated Invoice



## Re-Design

### ◆ Customer Settlements Interface

- *Additional Reports (Accessibility is Permission Based)*
  - Daily Reconciliation
  - Global Rates
  - TSC/NTAC
  - Working Capital
  - Metering Reconciliation

# Consolidated Invoice NEW YORK INDEPENDENT SYSTEM OPERATOR

## Re-Design

- ◆ Customer Settlements Interface
  - *Daily Reconciliation*



The screenshot shows the 'Customer Settlements Interface' for 'Daily Reconciliation'. The page header includes the ISO logo and the text 'NEW YORK INDEPENDENT SYSTEM OPERATOR Building The Energy Markets Of Tomorrow... Today'. The main title is 'Customer Settlements Interface Daily Reconciliation'. Below the title is a navigation bar with tabs: 'Consolidated Invoice', 'Daily Reconciliation' (highlighted with a red box), 'Global Rates', 'TSCNTAC Rates', 'Working Capital', and 'Metering Reconciliation'. On the right side of the navigation bar is a 'Log Out' link. Below the navigation bar are input fields for 'Start Date', 'End Date', 'MPs', 'Version' (set to 0), and 'Report Type' (set to \$). There are also buttons for 'Get Report' and 'List Versions History'. A dropdown menu is open under 'Report Type', showing '\$' and 'MWh'. Below the input fields is a message: 'Please Select the date to view the associated data'.




Billing Code	Income	Billing Code	Expense
70101 DAM LSE Internal LBMP Energy		30101 DAM Internal PS LBMP Energy Purchases Expenditure	
70201 DAM LSE Internal LBMP Losses		30102 DAM Internal PS LBMP Losses Purchases Expenditure	
70301 DAM LSE Internal LBMP Congestion		30103 DAM Internal PS LBMP Congestion Purchases Expenditure	
75901 DAM External TC LBMP Energy Sales Revenue		75903 DAM External PS LBMP Energy Purchases Expenditure	
76001 DAM External TC LBMP Losses Sales Revenue		76003 DAM External PS LBMP Losses Purchases Expenditure	
76101 DAM External TC LBMP Congestion Sales Revenue		76103 DAM External PS LBMP Congestion Purchases Expenditure	
75902 DAM Replacement LBMP Energy Sales Revenue Due to Curtailed Imports		30201 DAM NYISO Bid Production Cost Guarantee (Internal Units) Expenditure	
76002 DAM Replacement LBMP Losses Sales Revenue Due to Curtailed Imports		76801 DAM NYISO Bid Production Cost Guarantee (External Units) Expenditure	
76102 DAM Replacement LBMP Congestion Sales Revenue Due to Curtailed Imports		77301 DAM Virtual Supply LBMP Energy Expenditure	
77101 DAM Virtual Load LBMP Energy Sales		77302 DAM Virtual Supply LBMP Losses Expenditure	
77102 DAM Virtual Load LBMP Losses Sales		77303 DAM Virtual Supply LBMP Congestion Expenditure	
77103 DAM Virtual Load LBMP Congestion Sales		78001 DAM Trading Hub LBMP Energy Expenditure	
		78101 DAM Trading Hub LBMP Losses Expenditure	
		78201 DAM Trading Hub LBMP Congestion Expenditure	
		201100 DAM Price Responsive Load Program Incentive Expenditure	
		201200 DAM Price Responsive Load Program Reduction Expenditure	
		201300 DAM Price Responsive Load Program Penalties	
		201400 DAM Price Responsive Load Program Load Balancing Expenditure	
		201500 DAM Price Responsive Load Program Bid Guarantee Expenditure	
1 DAM LBMP Revenue		13 DAM LBMP Expenditure	
70501 Balancing LSE Internal LBMP Energy		30401 Balancing Internal PS LBMP Energy Purchases Expenditure	
70601 Balancing LSE Internal LBMP Losses		30402 Balancing Internal PS LBMP Losses Purchases Expenditure	
70701 Balancing LSE Internal LBMP Congestion		30403 Balancing Internal PS LBMP Congestion Purchases Expenditure	
76401 Balancing External TC LBMP Energy Sales Revenue		76403 Balancing External PS LBMP Energy Purchases Expenditure	
76501 Balancing External TC LBMP Losses Sales Revenue		76503 Balancing External PS LBMP Losses Purchases Expenditure	
76601 Balancing External TC LBMP Congestion Sales Revenue		76603 Balancing External PS LBMP Congestion Purchases Expenditure	
76402 Balancing Replacement LBMP Energy Sales Revenue Due to Curtailed Imports		30501 Balancing NYISO Bid Production Cost Guarantee (Internal Units) Expenditure	
76502 Balancing Replacement LBMP Losses Sales Revenue Due to Curtailed Imports		30502 Supplemental Event Credit	
76602 Balancing Replacement LBMP Congestion Sales Revenue Due to Curtailed Imports		76901 Balancing NYISO Bid Production Cost Guarantee (External Units) Expenditure	
77401 Balancing Virtual Load LBMP Energy Sales		76902 Balancing NYISO Bid Production Cost Guarantee Expenditure due to In Hour Curtailments	
77402 Balancing Virtual Load LBMP Losses Sales		31301 DAM Contract Balancing [Internal Units] Expenditure	
77403 Balancing Virtual Load LBMP Congestion Sales		31401 Energy Limited Resource Balancing per Local Reliability	
70502 Failed Transaction Financial Impact Charge		31402 Energy Limited Resource Balancing per ISO	
		77501 Balancing Virtual Supply LBMP Energy Expenditure	
		77502 Balancing Virtual Supply LBMP Losses Expenditure	
		77503 Balancing Virtual Supply LBMP Congestion Expenditure	
		78401 Balancing Trading Hub LBMP Energy Expenditure	
		78501 Balancing Trading Hub LBMP Losses Expenditure	
		78601 Balancing Trading Hub LBMP Congestion Expenditure	
		32801 Margin Restoration (MOB) Expenditure	
		202600 EDRP Demand Response Energy Expenditure	
		202800 SCR Demand Response Energy Expenditure	
		202900 SCR Demand Response Bid Guarantee Expenditure	

# Consolidated Invoice Re-Design



- ◆ Customer Settlements Interface
  - *Global Rates*

A screenshot of the "Customer Settlements Interface" web application, specifically the "Global Rates" section. The interface has a dark blue header with the ISO logo and the text "Customer Settlements Interface Global Rates". Below the header is a navigation bar with tabs: "Consolidated Invoice", "Daily Reconciliation", "Global Rates" (highlighted with a red box), "TSC/INTAC Rates", "Working Capital", and "Metering Reconciliation". A "Log Out" link is in the top right. The main content area includes a "Global Rate Types:" dropdown menu with a list of rate categories such as "Ancillary Services Voltage Support Rate", "FERC Interest Rate", "Generator Voltage Support Rate", "Local Black Start and System Restoration Services", "Local Black Start Testing and Training Expense", "NYISO Wide Black Start Rate", "Ramapo PAR Rate", "Station 80 Rate", "TP Coefficient", "Wind Forecast Fixed Fee", and "Wind Forecast variable rate of dollars per MW". To the right of the dropdown are "Month:" and "Year:" dropdown menus. Further right are "Generators:" and "Transmission Providers:" sections, each with a "+" and "?" icon and a list of items. A "Display Rates" button is located on the far right.


Customer Settlements Interface
Global Rates

Consolidated Invoice | Daily Reconciliation | **Global Rates** | TSC/INTAC Rates | Working Capital | Metering Reconciliation ▾
Log Out

Global Rate Types:

Ancillary Services Voltage Support Rate

FERC Interest Rate

Generator Voltage Support Rate

Local Black Start and System Restoration Services

Local Black Start Testing and Training Expense

NYISO Wide Black Start Rate

Ramapo PAR Rate

Station 80 Rate

TP Coefficient

Wind Forecast Fixed Fee

Wind Forecast variable rate of dollars per MW

Month:  Year:

**Generators:** + ?

---

---

---

---

**Transmission Providers:** + ?

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**Global Rates**  Value is Updatable


Begin Effective Date	End Effective date	Rate	Update Username	Update Time	Delete Row

# Consolidated Invoice Re-Design



- ◆ Customer Settlements Interface
  - *TSC/NTAC*

A screenshot of the "Customer Settlements Interface" web application. The page has a dark blue header with the ISO logo and the text "NEW YORK INDEPENDENT SYSTEM OPERATOR Building The Energy Markets Of Tomorrow...Today". The main title is "Customer Settlements Interface" with a subtitle "Tsc/Ntac Rates". Below the header is a navigation bar with tabs: "Consolidated Invoice", "Daily Reconciliation", "Global Rates", "TSC/NTAC Rates" (highlighted with a red box), "Working Capital", and "Metering Reconciliation". A "Log Out" link is on the far right. The main content area contains a form with "Organization Name:" and "Calendar Month:" fields. The "Organization Name" field is currently empty and has a dropdown arrow. Below it, a large white box is open, showing a list of organizations. The text "Please Select the Org" is visible on the left side of this box, and "associated data" is visible on the right. A "Display Rates" button is located to the right of the "Calendar Month" field.


Customer Settlements Interface  
Tsc/Ntac Rates

Consolidated Invoice | Daily Reconciliation | Global Rates | TSC/NTAC Rates | Working Capital | Metering Reconciliation ▾
Log Out

Organization Name:  Calendar Month:

Billing Period Summary

Rate Type	PJM LOAD KEYSTONE	OH LOAD BRUCE	NYCA	HQ LOAD CHATQUAY	NE LOAD SANDY POND
UNDISCOUNTED					
ON PEAK					
OFF PEAK					
NTAC					

# Consolidated Invoice Re-Design



- ◆ Customer Settlements Interface
  - Working Capital

A screenshot of the "Customer Settlements Interface" web application. The interface has a dark blue header with the ISO logo and the text "Customer Settlements Interface Main Menu". Below the header is a navigation bar with links: "Consolidated Invoice", "Daily Reconciliation", "Global Rates", "TSC/NATC Rates", "Working Capital" (highlighted with a red box), and "Metering Reconciliation". A "Log Out" link is in the top right. The main content area contains the text "Customer Settlements Interface Please click any of the links above." and a "Working Capital" dialog box. The dialog box has fields for "Start Date", "End Date", and "Billing Org", and buttons for "Get Report" and "Cancel".

Working Capital Detail for

Type ID	Transaction Date	Type Description	Amount	Transaction Description
---------	------------------	------------------	--------	-------------------------

**Listed as Individual Line Items:**

- Opening & Ending Balances
- Interest Earned
- Refunds
- Monies Owed

# Consolidated Invoice Re-Design



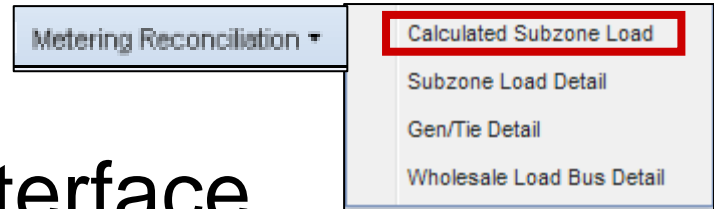
- ◆ Customer Settlements Interface
  - *Metering Reconciliation*

A screenshot of the "Customer Settlements Interface" web application. The top navigation bar is dark blue with the ISO logo on the left and the text "Customer Settlements Interface" and "Main Menu" on the right. Below the navigation bar is a light blue horizontal menu with several items: "Consolidated Invoice", "Daily Reconciliation", "Global Rates", "TSCNTAC Rates", "Working Capital", and "Metering Reconciliation". The "Metering Reconciliation" item is highlighted with a red rectangular box, and a dropdown menu is open below it, listing four options: "Calculated Subzone Load", "Subzone Load Detail", "Gen/Tie Detail", and "Wholesale Load Bus Detail". To the right of the navigation bar is a "Log Out" link. Below the navigation bar, the main content area contains the text "Customer Settlements Interface" and "Please click any of the links above."

**Meter Reconciliation Reports:**  
No Changes, Same as Currently Available



# Consolidated Invoice Re-Design



## ◆ Customer Settlements Interface

- *Metering Reconciliation - Calculated Subzone Load*



Calculated Subzone Load

Subzone Load Detail

Gen/Tie Detail

Wholesale Load Bus Detail



Query Criteria

Start Date/Time

Version: 0

End Date/Time:

PTID/Name:

Export to CSV

Hourly Totals  Column Headers

Print to Excel

Calculate Subzone Load

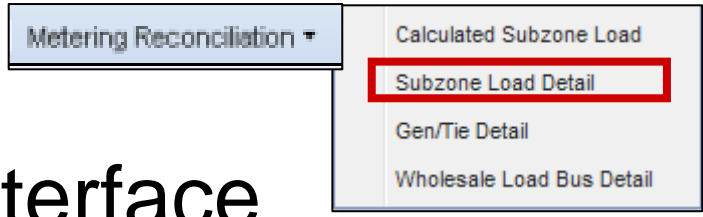
Date/Time	NYISO Calculated Subzone Load (MWh)	Gen/Tie Total(MWh)	Subzone Losses(MWh)
-----------	-------------------------------------	--------------------	---------------------

Bill Date: : 06/01/2010

- [06/01/2010 00:00:00 EDT](#)
- [06/01/2010 01:00:00 EDT](#)
- [06/01/2010 02:00:00 EDT](#)
- [06/01/2010 03:00:00 EDT](#)
- [06/01/2010 04:00:00 EDT](#)
- [06/01/2010 05:00:00 EDT](#)
- [06/01/2010 06:00:00 EDT](#)
- [06/01/2010 07:00:00 EDT](#)
- [06/01/2010 08:00:00 EDT](#)
- [06/01/2010 09:00:00 EDT](#)
- [06/01/2010 10:00:00 EDT](#)
- [06/01/2010 11:00:00 EDT](#)
- [06/01/2010 12:00:00 EDT](#)
- [06/01/2010 13:00:00 EDT](#)
- [06/01/2010 14:00:00 EDT](#)
- [06/01/2010 15:00:00 EDT](#)
- [06/01/2010 16:00:00 EDT](#)
- [06/01/2010 17:00:00 EDT](#)
- [06/01/2010 18:00:00 EDT](#)
- [06/01/2010 19:00:00 EDT](#)

Hourly Totals

# Consolidated Invoice Re-Design



- ◆ Customer Settlements Interface

- *Metering Reconciliation - Subzone Load Detail*



Calculated Subzone Load

Subzone Load Detail

Gen/Tie Detail

Wholesale Load Bus Detail



Query Criteria

Start Date/Time: [input]

Version: 0 [input]

End Date/Time: [input]

PTID/Name: [input]

Export to CSV

Hourly Totals  Column Headers

Print to Excel

Calculate Subzone Load Detail  &ge ±5% and <±10% Anomaly  &ge ±10% Anomaly  Null PTS Value Anomaly

Reset Commit

Ptid	Ptid Name	Type	Gen/Tie Total(MWh)	MA Reported MWh	ISO PTS MWh	MA REPORTED LESR POSITIVE LOAD MWh	ISO PTS LESR LOAD POSITIVE MWh	MA REPORTED LESR NEGATIVE LOAD MWh	ISO PTS LESR LOAD NEGATIVE MWh	Last Updated	Last Updated User
------	-----------	------	--------------------	-----------------	-------------	------------------------------------	--------------------------------	------------------------------------	--------------------------------	--------------	-------------------

Bill Date : 06/01/2010 00:00:00 EDT

# Consolidated Invoice Re-Design



Metering Reconciliation ▾

- Calculated Subzone Load
- Subzone Load Detail
- Gen/Tie Detail**
- Wholesale Load Bus Detail

## ◆ Customer Settlements Interface

### ■ *Metering Reconciliation - Gen/Tie Detail*

The screenshot shows the 'Customer Settlements Interface' for 'Gen/Tie Detail'. The top navigation bar includes 'Consolidated Invoice', 'Daily Reconciliation', 'Global Rates', 'TSCNTAC Rates', 'Working Capital', and 'Metering Reconciliation'. The main content area has input fields for 'Start Date' and 'End Date', a 'Version' dropdown set to '0', and a 'Gen / Ties' table area. To the right, there are radio buttons for 'Type' (All, Generators, Ties) and 'Sort By' (PTID, Name), along with a 'List Versions' button and a 'Submit' button. A message at the bottom reads 'Please Select the dates to view the associated data'.


Calculated Subzone Load

Subzone Load Detail

Gen/Tie Detail

Wholesale Load Bus Detail

Query Parameters ↑

**Query Type:** Gen/Ties Hourly Load Detail   
 **Start Date/Time:**    
 **Name:**    
  Print to Excel  
**PTID:**    
 **End Date/Time:**    
 **Version:** 0   
 **Include Column Headers?**

Time	Ptid	Ptid Name	Type	MA Reported MWH	ISO PTS MWH	MA Report LESR Positive Load MWH	ISO PTS LESR Load Positive MWH	MA Reported LEST Negative Load	ISO PTS LESR Load Negative MWH	Last Updated	Last Updated User
------	------	-----------	------	-----------------	-------------	----------------------------------	--------------------------------	--------------------------------	--------------------------------	--------------	-------------------

[-] Date/Time: 06/01/2011 00:00:00 EDT

* 06/01/2011 00:00:00 EDT
* 06/01/2011 00:00:00 EDT

[-] Date/Time: 06/01/2011 01:00:00 EDT

* 06/01/2011 01:00:00 EDT
* 06/01/2011 01:00:00 EDT

Legend ↓

- ↑ ≥ ±5% and ≤±10% Anomaly
- ↓ ≥ ±10% Anomaly
- ^ Null PTS Value Anomaly

# Consolidated Invoice Re-Design



Metering Reconciliation ▾

- Calculated Subzone Load
- Subzone Load Detail
- Gen/Tie Detail
- Wholesale Load Bus Detail**

## ◆ Customer Settlements Interface

- *Metering Reconciliation - Wholesale Load Bus Detail*

The screenshot displays the 'Customer Settlements Interface' for 'Wholesale Load Bus Detail'. The top navigation bar includes the ISO logo and the text 'NEW YORK INDEPENDENT SYSTEM OPERATOR Building The Energy Markets Of Tomorrow...Today'. The main navigation menu contains links for 'Consolidated Invoice', 'Daily Reconciliation', 'Global Rates', 'TSCNTAC Rates', 'Working Capital', and 'Metering Reconciliation'. The 'Metering Reconciliation' menu is expanded, showing options for 'Calculated Subzone Load', 'Subzone Load Detail', 'Gen/Tie Detail', and 'Wholesale Load Bus Detail'. The interface includes input fields for 'Start Date', 'End Date', and 'Version: 0'. There are also buttons for 'Get Report' and 'List Versions'. A message at the bottom states: 'Please Select the dates to view the associated data'.

Calculated Subzone Load

Subzone Load Detail

Gen/Tie Detail

**Wholesale Load Bus Detail**

Query Criteria

Start Date/Time

Version: 0


End Date/Time:

PTID/Name:

Export to CSV

Hourly Totals

Column Headers

 Print to Excel

Wholesale Load Bus Details

 Reset  Commit

Ptid	Ptid Name	MA Reported MWH	ISO Calculated MWH	Last Updated	Last Updated User
------	-----------	-----------------	--------------------	--------------	-------------------

Hourly Totals

Tolerance:

Within Tolerance:



# Consolidated Invoice

## Re-Design



- ◆ Supporting Applications & Documents
  - *Settlement Data Exchange (SDX) User Guide*
    - Being updated to Include new Excerpt on CSI
  - *Advisory Billing Files (ADD)*
    - Updating to Support Version 0.5
  - *Credit Management System (CMS)*
    - Updating to Support Version 0.5

# Consolidated Invoice



## Re-Design

- ◆ Supporting Applications & Documents
  - *Decision Support System (DSS)*
    - Customer Settlements Data Mart to Support Version 0.5
      - **Updating Existing Corporate Reports**
      - **Adding One New Corporate Report**
      - **Adding New Data Objects as Needed**
      - **Updating Con Invoice to DSS Mapping Doc**

# Consolidated Invoice

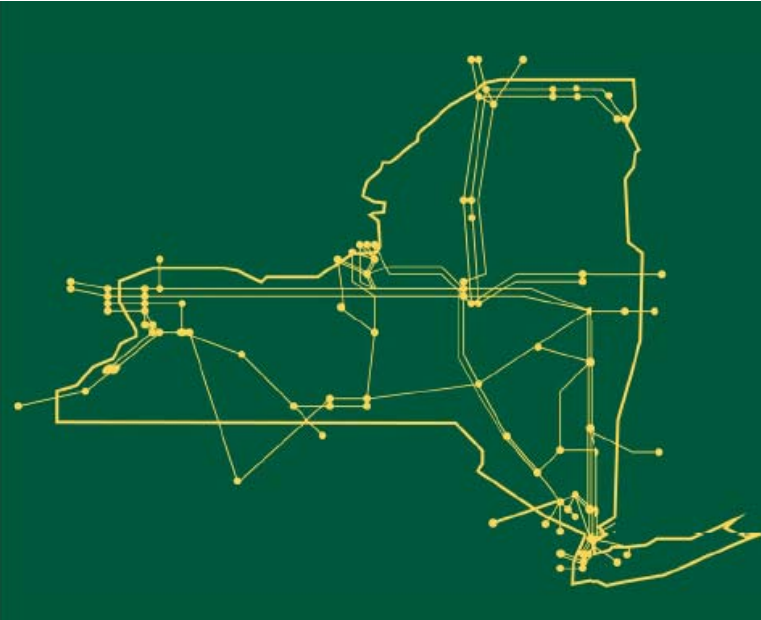
## Re-Design



### ◆ Re-Cap

- *Targeted Deploy Date 8/9/11*
- *1<sup>st</sup> Weekly Invoice Scheduled for 10/12/11*
- *Con Invoice Undergoing Changes*
  - New Format
  - New Timeline
- *Implementation of New Settlements Interface*
  - Migration of Existing Reports
  - Addition of New Reports

The New York Independent System Operator (NYISO) is a not-for-profit corporation responsible for operating the state's bulk electricity grid, administering New York's competitive wholesale electricity markets, conducting comprehensive long-term planning for the state's electric power system, and advancing the technological infrastructure of the electric system serving the Empire State.



[www.nyiso.com](http://www.nyiso.com)