
HOURLY PRICING PROGRAM OVERVIEW

Topics

- Hourly Pricing Introduction
- Understanding Hourly Pricing
- Metering & Telecommunication Requirements
- Billing Overview
- Energy Profiler Online

HOURLY PRICING INTRODUCTION

Mandatory Hourly Pricing

- On September 23, 2005 the PSC issued Order 03-E-0641 requiring utilities to implement Mandatory Hourly Pricing (MHP).
- The goal in implementing MHP is to realize the benefits of reducing the system peak demand and shifting load to off-peak, less expensive time periods.
- The benefits for customers include potential reductions to peak period prices, enhanced reliability and a reduction in NY State's dependence on natural gas fired generation.

Mandatory Hourly Pricing Customer Value

- MHP may provide customer value
 - Enables customers to realize benefits of:
 - Shifting Loads
 - Reduced Peaks
 - Paying Actual Market Costs
- Allows customers to manage ***Energy Cost.***

Who is Affected and When

- Currently customers with a billing demand of 500 kW or greater for 2 out of 12 months are subject to the hourly pricing tariff provisions.
- Effective September 22, 2012, the program will be expanded to include all remaining rate class 8 customers.
- Customers purchasing supply from the utility will be billed hourly prices.
- All customers, regardless of supplier, are subject to the metering and telecommunication requirements.

UNDERSTANDING HOURLY PRICING

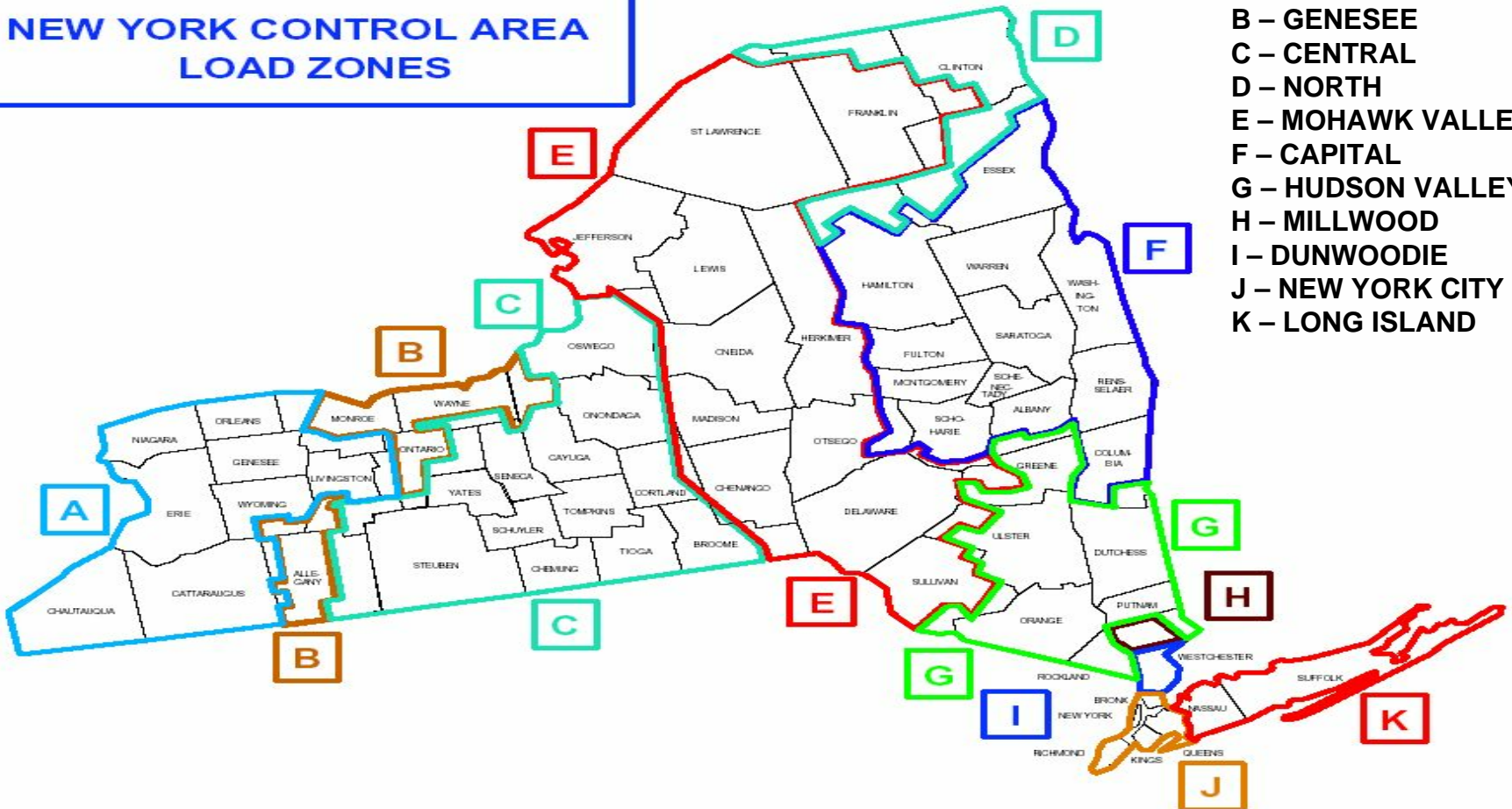
What Determines Hourly Pricing?

Hourly Pricing is based on the Day-Ahead Market

- ❑ New York Independent System Operator (NYISO)
 - Provides for the economic dispatch of generation
 - Operates the bulk transmission system
- ❑ Fuel drives cost
 - Fossil fuels, Oil, Natural gas, Coal
 - Hydro power
- ❑ Generation availability drives cost
 - Based on system requirements and cost
 - High Cost Peaking units when needed

NYISO Zone Map

NEW YORK CONTROL AREA LOAD ZONES



Zones

- A – WEST
- B – GENESEE
- C – CENTRAL
- D – NORTH
- E – MOHAWK VALLEY
- F – CAPITAL
- G – HUDSON VALLEY
- H – MILLWOOD
- I – DUNWOODIE
- J – NEW YORK CITY
- K – LONG ISLAND

Day-Ahead Pricing Data at nyiso.com

Day Ahead Zonal

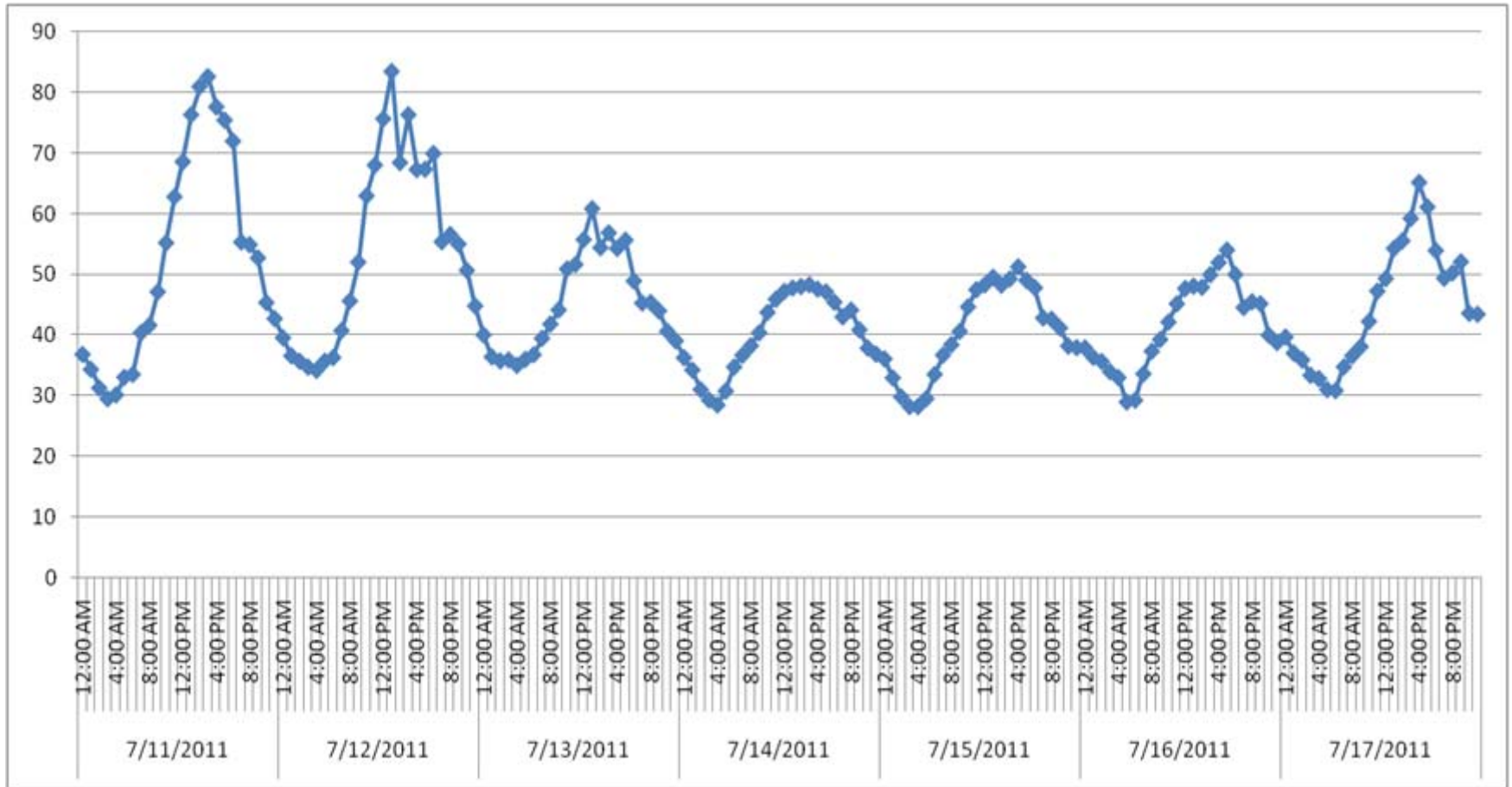
The screenshot displays the NYISO website's 'Markets & Operations' section. The left sidebar contains a 'Market Data' menu with options like 'Pricing Data', 'Power Grid Data', 'Load Data', 'Reports & Information', 'Postings by Date', 'Zone Maps', 'Graphs', 'Market Access Login', and 'Custom Reports'. The main content area is titled 'Pricing Data' and features a tabbed interface with 'Pricing Data' selected. Under 'Pricing Data', there are three main categories: 'Day-Ahead Market LBMP', 'Real-Time Market LBMP', and 'Time-Weighted/Integrated RT'. Each category has sub-options for 'Zonal', 'Generator', and 'Reference Bus'. The 'Day-Ahead Market LBMP' category is expanded, showing a table of pricing data for the month of June 2012. The table has columns for 'Date', 'Download' (with links for CSV, PDF, and HTML), and 'Last Updated'. The data spans from June 10, 2012, to June 19, 2012. At the bottom of the table, there are links for 'More Files' and 'Custom Report'.

Date	Download	Last Updated
June 19, 2012	CSV PDF HTML	06/18/12 09:47 EDT
June 18, 2012	CSV PDF HTML	06/17/12 09:49 EDT
June 17, 2012	CSV PDF HTML	06/16/12 09:48 EDT
June 16, 2012	CSV PDF HTML	06/15/12 09:48 EDT
June 15, 2012	CSV PDF HTML	06/14/12 09:49 EDT
June 14, 2012	CSV PDF HTML	06/13/12 09:49 EDT
June 13, 2012	CSV PDF HTML	06/12/12 09:49 EDT
June 12, 2012	CSV PDF HTML	06/11/12 09:49 EDT
June 11, 2012	CSV PDF HTML	06/10/12 09:50 EDT
June 10, 2012	CSV PDF HTML	06/09/12 09:48 EDT

Day-Ahead Zonal Price

Time Stamp	Name	PTID	LBMP (\$/MWHr)	Marginal Cost Losses (\$/MWHr)	Marginal Cost Congestion (\$/MWH)
6/27/2011 0:00	CAPITL	61757	38.68	1.81	0
6/27/2011 0:00	CENTRL	61754	36.72	-0.15	0
6/27/2011 0:00	DUNWOD	61760	39.41	2.54	0
6/27/2011 0:00	GENESE	61753	35.73	-1.14	0
6/27/2011 0:00	H Q	61844	36.46	-0.41	0
6/27/2011 0:00	HUD VL	61758	39.41	2.54	0
6/27/2011 0:00	LONGIL	61762	43.57	3.76	-2.93
6/27/2011 0:00	MHK VL	61756	37.64	0.77	0
6/27/2011 0:00	MILLWD	61759	39.34	2.47	0
6/27/2011 0:00	N.Y.C.	61761	39.71	2.84	0
6/27/2011 0:00	NORTH	61755	36.54	-0.33	0
6/27/2011 0:00	NPX	61845	38.79	1.92	0
6/27/2011 0:00	O H	61846	34.33	-2.54	0
6/27/2011 0:00	PJM	61847	35.4	-1.47	0
6/27/2011 0:00	WEST	61752	34.99	-1.88	0
6/27/2011 1:00	CAPITL	61757	34.18	1.78	0
6/27/2011 1:00	CENTRL	61754	32.24	-0.16	0
6/27/2011 1:00	DUNWOD	61760	34.57	2.17	0
6/27/2011 1:00	GENESE	61753	31.3	-1.1	0
6/27/2011 1:00	H Q	61844	32.01	-0.39	0
6/27/2011 1:00	HUD VL	61758	34.6	2.2	0
6/27/2011 1:00	LONGIL	61762	37.08	3.27	-1.41
6/27/2011 1:00	MHK VL	61756	33.05	0.65	0
6/27/2011 1:00	MILLWD	61759	34.54	2.14	0
6/27/2011 1:00	N.Y.C.	61761	34.83	2.43	0
6/27/2011 1:00	NORTH	61755	32.01	-0.39	0
6/27/2011 1:00	NPX	61845	34.21	1.81	0
6/27/2011 1:00	O H	61846	30	-2.4	0
6/27/2011 1:00	PJM	61847	33.14	0.75	0
6/27/2011 1:00	WEST	61752	30.49	-1.91	0
6/27/2011 2:00	CAPITL	61757	31.5	1.64	0
6/27/2011 2:00	CENTRL	61754	29.71	-0.15	0
6/27/2011 2:00	DUNWOD	61760	31.71	1.85	0

Day-Ahead Zonal Price



Hourly Pricing Components

- The hourly price includes the following components:
 - ❑ Supply Charge – sum of hourly metered usage multiplied by NYISO Day Ahead Market (DAM) LBMP for Genesee Zone adjusted for losses
 - ❑ Ancillary and NTAC charges
 - ❑ Supply Adjustment Charge
 - ❑ Capacity Charges

Hourly Pricing Component Definitions

- Distribution & Transmission Losses
 - Commodity losses that occur as electricity is transported through power lines and substations.
- Capacity Charge
 - Capacity procurement is required to ensure there is adequate generation to serve the entire load in New York State. Each load serving entity is required to procure capacity for their customers.
 - Each customer must pay for the capacity required to serve their load on a peak day.
- Supply Adjustment Charge
 - Unaccounted for energy and all costs incurred related to supply - differences between the amount of energy the utility purchases and what is sold to customers. It covers differences due to theft of service, forecasting, etc.

METERING AND TELECOMMUNICATION REQUIREMENTS

Metering & Telecommunications Requirements

- All customers subject to MHP will be required to have an interval meter and remote meter reading capability, regardless of who their supplier is.
- RG&E will install the required interval meter. There is a \$7.92 per month charge for this meter.
- The customer will be required to install a telephone line unless the customer is directed by the Company that a cellular option is available.
- We are currently transitioning to installing new meters that include the telephone connection.
- The transition began in the middle of meter installations so not all customers have the new technology, therefore a land line is necessary for earlier installations.

Metering & Telecommunications Requirements

- A telephone line is required for the following reasons:
 - Meters will be read daily
 - Load forecasting and scheduling
 - To support online energy analysis software (Energy Profiler Online) for those customers that subscribe

Metering & Telecommunications Requirements

- What happens if a telephone line is not installed to the meter?
 - RG&E will have to manually download the hourly use data.
 - The customer will be charged a fee of \$82.49 each billing period that RG&E must manually download the data due to the telephone line not being installed or not functioning. This charge will appear as a separate line item on the bill.

BILLING OVERVIEW

Billing Overview

- Delivery & Customer Charges – will continue to be billed as they are currently.
- Monthly Meter Charge - \$7.92 per month
- Supply Charges
 - The bill will show total kilowatt hours (kwh) supplied and the total price.
 - Hourly kwh use and prices will be available on the utility website at the time the bill is issued.
 - ESCO supply charges will continue to be billed as they are currently.

Bill Example

On Peak	507619 kwh	30 days
On Peak	1796.84 kw	30 days
Off Peak	489044 kwh	30 days
Off Peak	1629.44 kw	30 days
Reactive	400500 rkvarh	30 days

Electricity Delivery Charges

Customer charge					1,123.84
Competitive meter charge					28.77
Competitive meter serv. charge					42.62
Competitive meter data service					4.15
Hourly meter charge					7.92
Demand charge	1796.8400 kw	@	8.07		14,500.50
Transition charge - May	679695 kwh	@	0.00142		965.17
Transition charge - Jun	316968 kwh	@	0.00286		906.53
Reactive charge	151334 rkvarh	@	0.00127		192.19
NY state assessment	1796.8400 kw	@	0.78		1,401.54
SBC/RPS charge	996663 kwh	@	0.003548		3,536.16
Subtotal Electricity Delivery					\$22,709.39

Electricity Supply Charges

Supply charge	996663 kwh	@	0.04414784		44,000.52
Supply adjustment charge - May	679695 kwh	@	0.00275		1,869.16
Supply adjustment charge - Jun	316968 kwh	@	0.00114		361.34
Ancillary and NTAC charge-May	679695 kwh	@	0.00258		1,753.61
Ancillary and NTAC charge-Jun	316968 kwh	@	0.00435		1,378.81
Capacity charge	1949.0285 kw	@	0.71049757		1,384.78
Merchant function charge - May	679695 kwh	@	0.004593		3,121.84
Merchant function charge - Jun	316968 kwh	@	0.004614		1,462.49

Bill Example – Supply Charges

Electricity Supply Charges

Supply charge	996663	kwh	@	0.04414784	44,000.52
Supply adjustment charge - May	679695	kwh	@	0.00275	1,869.16
Supply adjustment charge - Jun	316968	kwh	@	0.00114	361.34
Ancillary and NTAC charge-May	679695	kwh	@	0.00258	1,753.61
Ancillary and NTAC charge-Jun	316968	kwh	@	0.00435	1,378.81
Capacity charge	1949.0285	kw	@	0.71049757	1,384.78
Merchant function charge - May	679695	kwh	@	0.004593	3,121.84
Merchant function charge - Jun	316968	kwh	@	0.004614	1,462.49
Subtotal Electricity Supply					\$55,332.55

Supply Charge

The cost per kwh is equal to the sum of each hour's use multiplied by each hour's price (including losses).

Capacity Charge

The capacity charge for hourly pricing customers is unbundled from the supply charge. For customers not subject to hourly pricing the capacity charge is a component of the supply charge.

The capacity kw is equal to the customer's kw use for the hour coinciding with the New York State peak demand for the May - April period. The capacity kw changes every May 1st.

The cost per kw varies on a monthly basis.

Supply Adjustment Charge

This covers differences between the amount of energy the utility purchases and what is sold to customers. It covers differences due to theft of service, forecasting, etc.

Hourly Use and Pricing Summary

This information is not shown on your monthly bill. To access the hourly use and pricing detail the customer must access their account online at rge.com.

Date	Units	00:00	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00
07/27/2007	kwh	1115.68	1118.96	1115.2	1086	1090.56	1166.96	1244.4	1422.4	1557.28	1594	1556.24	1548.8	1604.88
	\$/kwh	0.04849	0.04109	0.04055	0.03873	0.03874	0.03949	0.04199	0.05011	0.05621	0.06257	0.06537	0.06924	0.07235
07/28/2007	kwh	1038.08	1030.56	1014.16	979.12	967.2	965.04	998.16	1048.88	1137.6	1196.72	1213.28	1307.92	1304.56
	\$/kwh	0.05547	0.0522	0.04651	0.04294	0.04209	0.03918	0.0401	0.04053	0.04764	0.05861	0.06527	0.07177	0.07598
07/29/2007	kwh	1081.6	1064.08	1050.16	1033.52	1009.92	1079.28	1142.96	1117.04	1132	1127.52	1136.64	1213.92	1248
	\$/kwh	0.05744	0.0493	0.04591	0.0437	0.04282	0.03913	0.04002	0.04167	0.04639	0.05478	0.06015	0.06379	0.06488
07/30/2007	kwh	1064	1032.16	1035.2	1032.72	1020.48	1091.04	1091.52	1378.64	1593.04	1579.28	1561.92	1553.36	1575.6
	\$/kwh	0.05882	0.05173	0.04844	0.04381	0.04427	0.04865	0.05036	0.05757	0.06262	0.0675	0.07378	0.07962	0.08267
07/31/2007	kwh	1028.56	1019.2	957.84	929.52	929.28	1005.36	1050.64	1248.32	1453.6	1538.32	1519.52	1605.84	1644.16
	\$/kwh	0.05715	0.05141	0.04904	0.04221	0.04217	0.04525	0.05059	0.05803	0.06274	0.06969	0.07594	0.07934	0.08277
08/01/2007	kwh	1106.72	1095.2	1097.84	1072.16	1060.8	1134.8	1186.96	1371.6	1567.76	1618.64	1556.96	1563.04	1593.92
	\$/kwh	0.06164	0.05299	0.05036	0.04655	0.04668	0.04962	0.05387	0.06186	0.06863	0.07553	0.08223	0.08656	0.09293
08/02/2007	kwh	1111.92	609.84	372.24	1062	1042.64	1107.92	1160.16	1358.32	1533.76	1560.24	1531.52	1581.36	1603.52
	\$/kwh	0.06469	0.06162	0.05923	0.05664	0.0562	0.05672	0.05835	0.06459	0.07028	0.07864	0.08601	0.09028	0.09579

Note: If you purchase your energy from an ESCO only the hourly kwh will be displayed.