

Central Hudson Hourly Pricing Provision



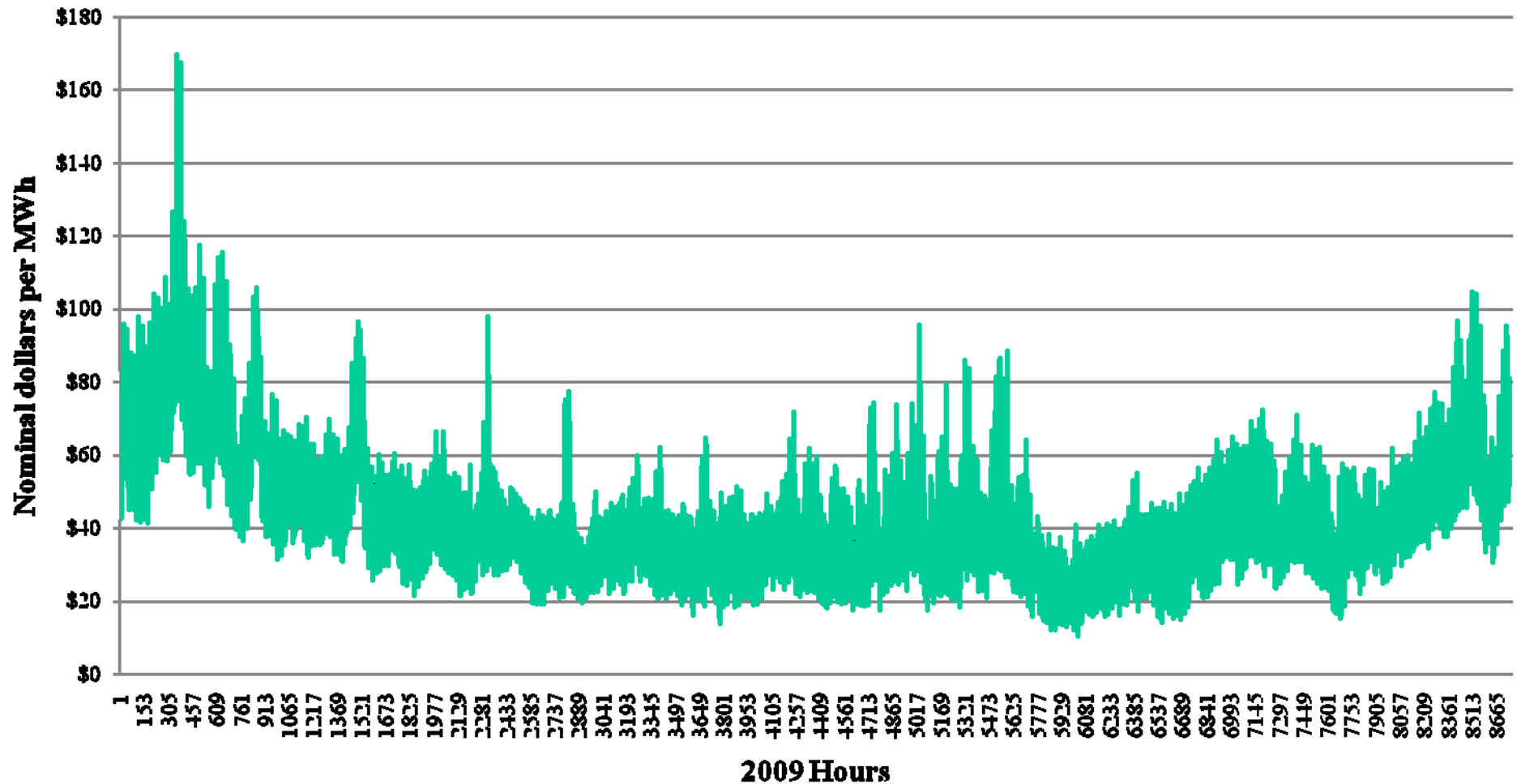
Today's Presentation

- General overview of Hourly Pricing
- Historical pricing information
- HPP customer impacts & value
- NYSERDA Assistance
 - FlexTech Program
 - Existing Facilities Program

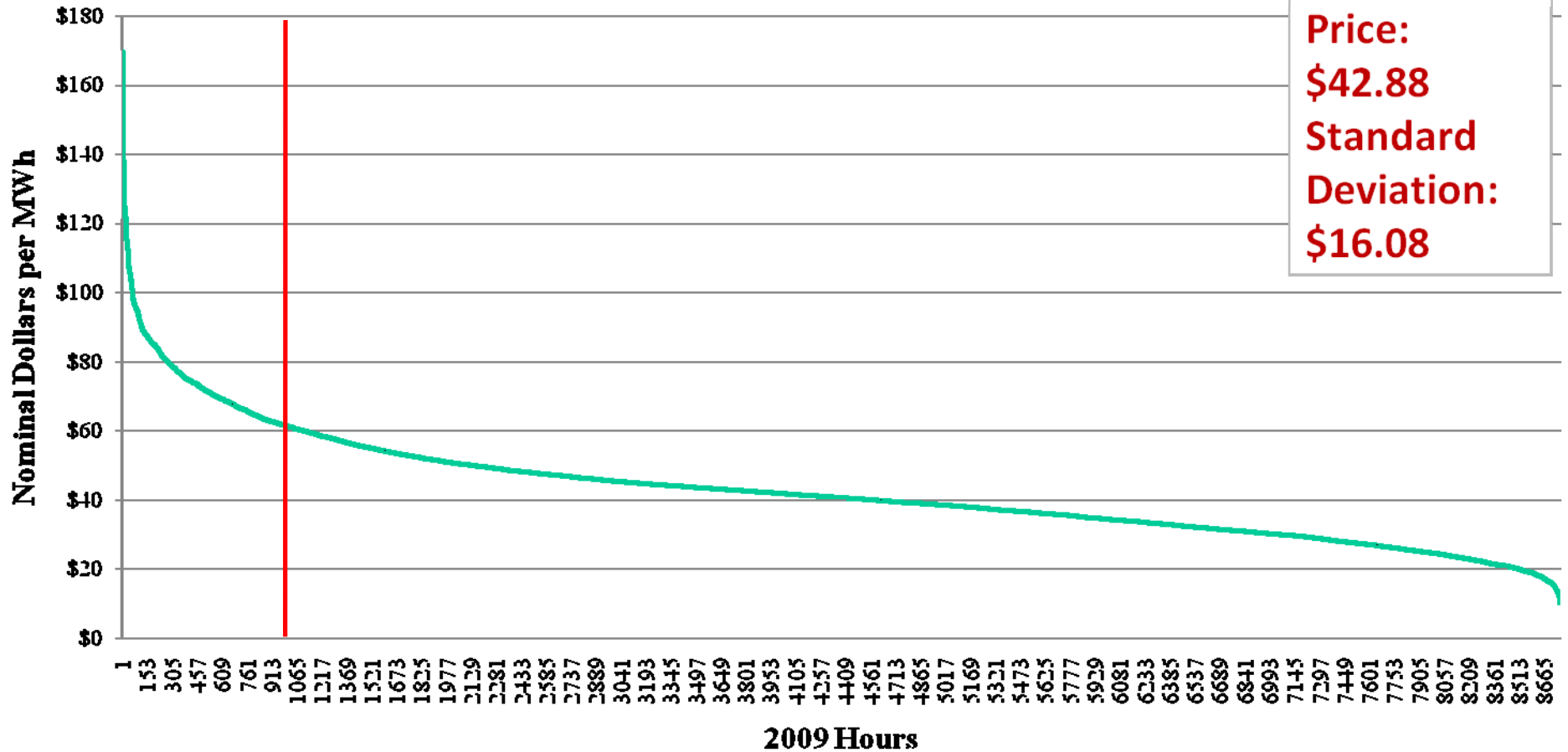
Overview of Hourly Pricing (Day Ahead Market)

- **NYISO DA hourly price determination**
 - Hourly bids due by 5AM for next day
 - Hourly bids stacked/accepted by 11:00 AM for following day
 - Bid prices available for public on NYISO website at 11:00 AM for next day

Zone G 2009 Hourly Day-Ahead Electric Prices



Zone G 2009 Day-Ahead Price Duration Curve



What Does Hourly Pricing Mean to Customers

- HPP allows customers to respond to real market cost
- Achieve high level of energy cost control with monitoring and assessment
 - Building Management System/Online Energy Dashboard
 - Tracking/trending of daily demand schedule & peak consumption
 - Utilizing Dashboard systems to shed or delay load through BMS connection
 - Interval Meter

FlexTech Program

PON1746

Objective: *Provide customizable, cost-shared energy studies to help building owners/managers make informed energy decisions*

- General Energy Feasibility Studies and Technical Support
- **Peak-Load Reduction and Load Management**
- Industrial & Process Efficiency Analysis
- Data Center Efficiency
- **Energy Procurement**
- Retro-Commissioning
- Long-Term Energy and Carbon Management
- CHP & Renewable Generation Projects
- **Peak-Load Reduction Plans**

FlexTech Studies

- Studies may investigate the economics of participating in a Hourly Pricing Provision (HPP)
 - Evaluate the purchase of electricity based on time-differentiated pricing
 - Install real-time metering or web-enabled metering
 - Load curtailment
 - Load shifting
 - Provide review of real-time metering information
 - Participation in load curtailment programs
 - Daily load profiles tracking
 - System monitoring

FlexTech Studies

- Strategies to minimize costs
 - Procurement
 - ESCO hedge-rates or DA hourly prices?
 - Load shifting opportunities
 - Short duration: operation schedule revisions, BMS
 - Long duration: energy storage
 - Temporary (Demand Response): equipment shut-down, load shedding ballasts

FlexTech Program

- **Cost Share**
 - **50/50** – energy related portion
- **Incentive Cap**
 - **\$1,000,000** per project



FlexTech Program

- **Step 1: Choose a consultant**
 - **Independent Service Provider**
 - **100% payment; 50% reimbursed**
 - **NYSERDA FlexTech Consultant**
 - **50% payment to NYSERDA FlexTech Consultant**

FlexTech Program

Peak-Load Curtailment Plan

- **Objective:** *To deliver detailed plans to customers outlining specific load reduction procedures to execute during NYISO calls.*

Incentives

- \$2/kW of the facility's peak summer demand paid directly to the Service Provider
- \$8,000 cap

Eligibility

- Curtailable load must exceed 100kW
- Curtailable load \geq 10% of facility's peak summer demand

- **Hourly pricing participation requires close monitoring of facility/process electric consumption**
 - Energy efficiency measures arise from heightened awareness
 - Monitoring equipment for demand control and run-hour control
 - NYSERDA implementation incentives

Existing Facilities Program

- Implementation Incentives
 - Electric Efficiency—Prequalified/Performance
 - Combined Heat & Power
 - Demand Response
 - Interval Meters (Prequalified)

EE—Prequalified/Performance Based

- Common measures include lighting, motors, VFDs, cooling system upgrades.
 - Prequalified: rebates (\$/unit)
 - Performance-Based: kWh reduction (\$0.12/kWh)
- BMS installation
 - Effective price communication to respond to market signals
 - Controls utilized for efficiency
- \$0.12/kWh
- Energy Storage: ice storage
 - \$300/kW

Combined Heat & Power

- Incentives based on kWh generation and summer peak demand reduction
 - \$0.10/kWh; \$600/kW
 - Reciprocating engine or gas-turbine based
- System size ≥ 250 kW



Load Curtailment/Shifting

- **Demand Response:**
- Requires registration in NYISO DR program
 - ICAP SCR/DSASP
- Common measures include duty cycling, cooling load reductions, process shifting, lighting reductions, etc
 - Fleet control bonus: load shedding ballast & room A/C
- \$100/kW; 75% of eligible installation costs

Interval Meters

- Interval metering primarily intended for primary electric service entry
- Up to \$1,500/meter
- Eligibility: registration in NYISO DR Program

Completing the Interval Meters Measure Application

- Indicate the quantity of interval meters proposed for installation
- To calculate the **Total Incentive**, multiply the **Quantity** by the **Incentive** and enter this amount in the **Total Incentive** column

General Eligibility Requirements for Interval Meters

- Pre-Qualified projects must submit an application for incentives within 90 days of invoice for the purchase and installation of Pre-Qualified measures
- Interval meters must be accurate to within +/- 2%
- Each meter must enable at least 40kW of demand response
- Please attach:
 - 1) Main program application
http://www.nyserda.org/programs/Existing_Facilities/pdfs/Existing%20Facilities%20application.pdf
 - 2) Recent utility bills, with SBC notation
 - 3) Invoices, including purchase and installation price
 - 4) Equipment specification sheets, including product manufacturer and model number
 - 5) Proof of registration in a NYISO or utility demand response program
 - 6) Data access instructions so that NYSERDA may access metered data *i.e.* user ID and password

Interval Meters Incentive Calculation		
Quantity of Interval Meters	Incentive (\$/meter)	Total Incentive
	Up to \$1,500	

Project Cost Information (Required)

Total cost of materials and labor for installed Meter equipment Total \$ _____

Other EFP Opportunities

- Monitoring-Based Commissioning (MBCx)
- Gas Efficiency Incentives
 - Prequalified
 - Performance-Based

Other NYSEERDA programs

- **Industrial Process & Efficiency**
 - Energy reduction per unit of production
 - Permits load growth/production expansion
- **New Construction Program**
 - Technical assistance
 - Implementation incentives
 - Commissioning assistance
 - DR incentives

Website – www.NYSERDA.org

The screenshot shows the NYSERDA website interface. At the top, the NYSERDA logo and name are displayed alongside the Governor's name, David A. Paterson. A link is provided to view the text-only version of the site. Below this is a navigation bar with categories: FIND IT, ABOUT NYSERDA, FUNDING OPPORTUNITIES, EVENTS, and CONTACT US/DIRECTIONS. The 'FIND IT' section is highlighted with a red circle and contains three sub-categories: Commercial / Industrial, Residential, and Research and Development. To the right of these categories are four images representing different energy-related topics. Below the navigation bar is a grid of links organized into five columns: NEWS AND NOTES, WHERE CAN I FIND...?, INCENTIVES FOR..., PROGRAMS, and OTHER NYSERDA SITES. The NEWS AND NOTES column contains several recent announcements. The INCENTIVES FOR... column lists various sectors like Agricultural, Colleges and Universities, and Residential. The PROGRAMS column includes Business Partners, Commercial / Industrial, and West Valley. The OTHER NYSERDA SITES column lists external resources like GetEnergySmart.org and Low-Income Forum on Energy (LIFE).

Website – www.NYSERDA.org

NYSERDA New York State Energy Research and Development Authority

	PROGRAMS	FUNDING OPPORTUNITIES	INCENTIVES FOR...	WHERE CAN I FIND...?
FIND IT <input style="width: 80%;" type="text" value="SEARCH"/>	EVENTS	CONTACT US/DIRECTIONS	ABOUT NYSEERDA	OTHER NYSEERDA SITES

Tuesday January 26, 2010
You Are Here: [Home](#) ▸ [Programs](#) ▸ NYSEERDA - Commercial / Industrial Programs

Commercial / Industrial Programs

NYSEERDA's Commercial/Industrial programs provide energy efficiency services for existing buildings, new construction, industrial facilities, and vehicle fleets.

- • **FlexTech Program**
 - Cost-shared energy studies
- • **New Construction Program**
- • **Existing Facilities Program**
- **New Renewable, Clean Energy, or Energy Efficiency Product Manufacturing Business Incentive**
- **New York Energy \$martSM Loan Program**
- **Transportation**
- **Market Development Programs**
 - Lighting
 - Motors
 - Heating, Ventilating, and Air Conditioning (HVAC)

Questions?

Albany Office: 518-862-1090

Tim Gilroy (x3445)

NYC Office: 212-971-5342

Harris Schaer (x3021)

Clararose Voigt (x3007)

