

# Central Hudson Hourly Pricing Provision



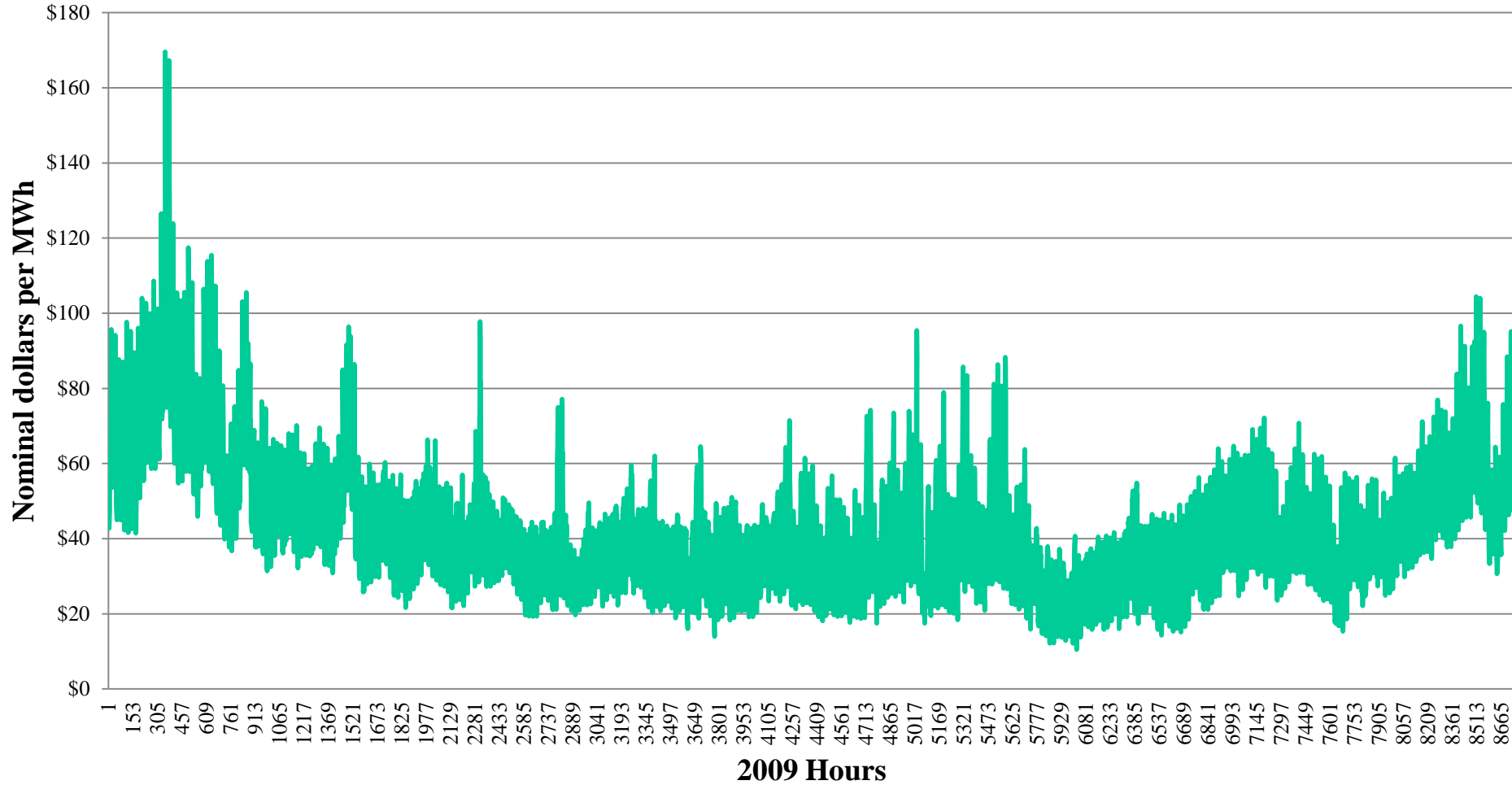
# Today's Presentation

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

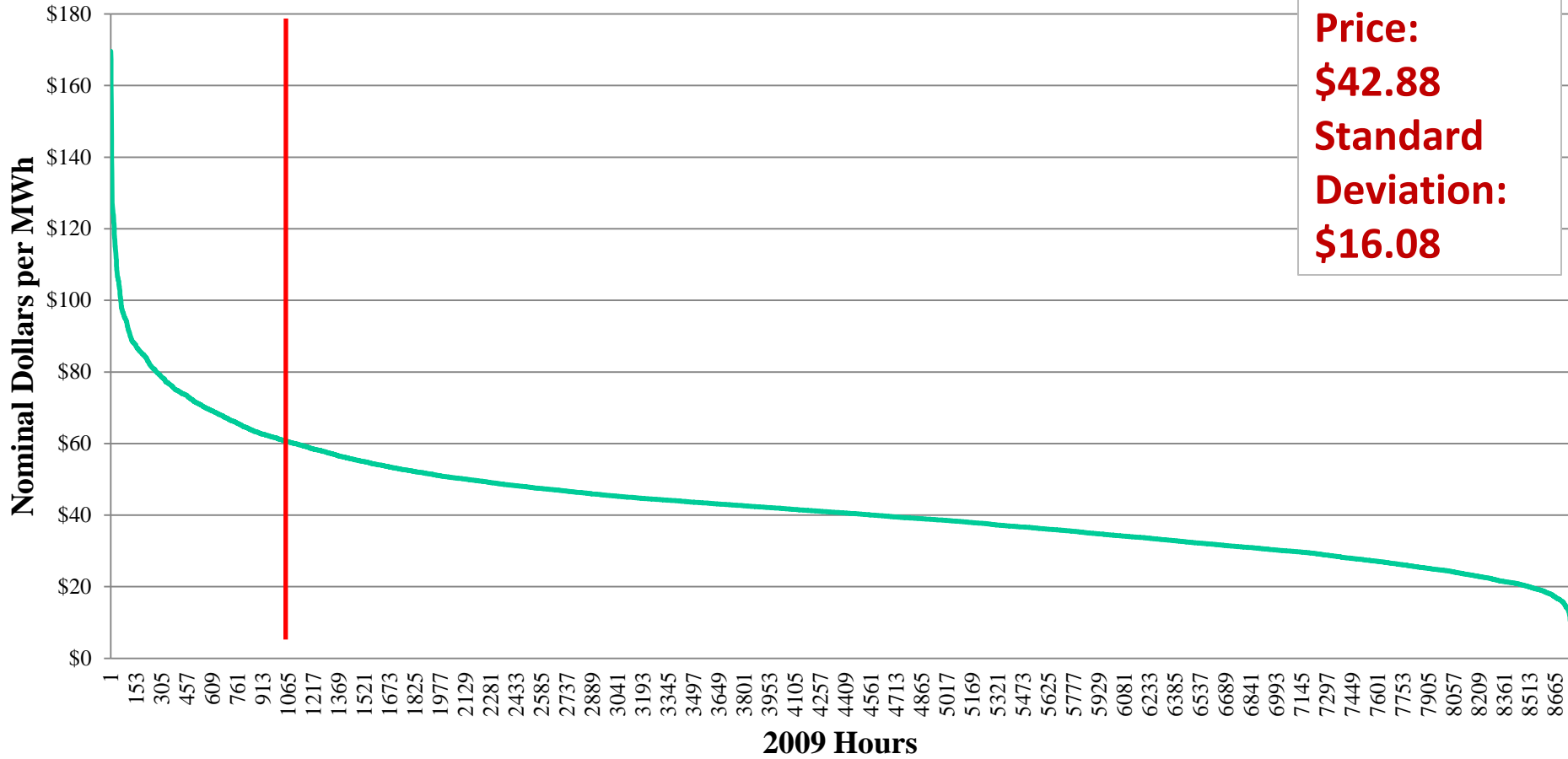
# Overview of Hourly Pricing (Day Ahead Market)

- **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

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- 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

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- 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

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- **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

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

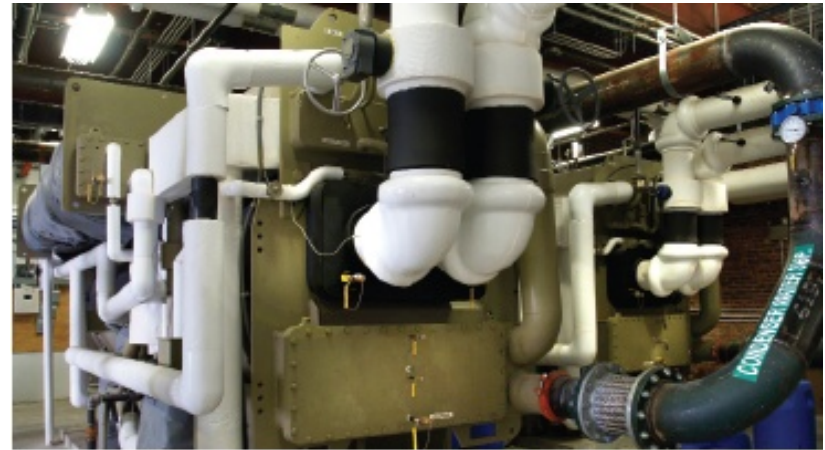
# EE—Prequalified/Performance Based

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- 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  $\geq 250$  kW





# Load Curtailment/Shifting

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- **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

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- 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](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

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

# Other NYSEERDA programs

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- **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

http://www.nysERDA.org/

New York State Energy Research and Development A...

**NYSERDA** New York State Energy Research and Development Authority

David A. Paterson, Governor

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- > Notice of Sale – Nitrogen Oxide Allowances under the Clean Air Interstate Rule
- > Governor Paterson Announces Selection of Francis J. Murray to Serve as NYSERDA President and CEO
- > PV Incentive Program (PON 1050) Changes Incentive Levels
- > Robert Callender, Vice President for Programs, NYSERDA Testimony Before the Legislative Fiscal Committees - January 13, 2009
- > Governor Paterson's Executive Budget Eliminates Largest Deficit in State History, Reins in Spending
- > NYSERDA's responses to the Department of Public Service Staffs questions on August 22, 2008 filing for

WHERE CAN I FIND...?

- Heat Smart NY
- Energy Prices / Weather Data
- State Energy Planning
- Forms/Applications
- Press Releases
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- Success Stories!

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- Business Partners
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- Economic Development
- Energy Analysis
- Renewable Portfolio Standard
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- Transportation
- West Valley

OTHER NYSERDA SITES

- GetEnergySmart.org
- Low-Income Forum on Energy (LIFE)
- Renewables - Power...Naturally
- Saratoga Technology + Energy Park (STEP)
- Small Commercial Lighting Program
- Environmental Monitoring, Evaluation, & Protection (EMEP)

Done    Local intranet    100%

# Website – [www.NYSERDA.org](http://www.NYSERDA.org)

New York State Energy Research and Development Authority

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Tuesday January 26, 2010
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## Commercial / Industrial Programs

NYSERDA'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 Smart<sup>SM</sup> Loan Program**
- **Transportation**
- **Market Development Programs**
  - Lighting
  - Motors
  - Heating, Ventilating, and Air Conditioning (HVAC)

# Questions?

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