

Industrial Energy Efficiency Best Practices Workshop

NYSERDA Opportunities for Industry
November 12, 2013

Financial Incentives

Program	Upstate	Downstate
Flexible Technical Assistance	50/50 cost share	50/50 cost share
Electric Efficiency	\$.12 / kWh	\$.16 / kWh
Natural Gas Efficiency	\$15/MMBtu	\$20/MMBtu

Up to \$1,000,000 for Studies
Up to \$5,000,000 for Electric Incentives
Up to \$1,000,000 for Natural Gas Incentives

Focus on Industry and Process

NYSERDA's Objective	Save 800,000 MWh and 2.9 million MMBTUs by 2015
Focus Contracts	Upstate – CHA Downstate – Energy Resource Solutions Data Centers – Willdan
Targeted Sectors	Manufacturing, forest products, mining & extraction and data centers
Key NYSERDA Programs	FlexTech, IPE, Existing Facilities, New Construction
Eligibility / Funding	Facilities must pay into System Benefits Charge \$150 million

FlexTech Program

Comprehensive, customized energy studies

- Cost share 50/50
- Up to \$1,000,000, max 10% of energy costs
- Engineering feasibility studies
- Energy master plans
- Project specific: Compressed Air
- Retro-Commissioning
- CHP Feasibility Studies
- Energy advisor consulting



Identifies Cost Effective, Site Specific Energy Strategies

FlexTech Program

Customer chooses consultant to meet their needs

Use a NYSERDA consultant

- Choose from contractor list
- Scoping visit – proposal – approve SOW
- NYSERDA pays the engineer up to 50%
- Customer pays the balance

Choose an independent consultant

- Submit application w/ contractor proposal
- NYSERDA approves SOW
- Customer pays the engineer
- NYSERDA reimburses customer up to 50% on approval of a final report

Industrial and Process Efficiency Incentives

Incentive Type	Utility	Upstate	Downstate
Process and Energy Efficiency	Electric	\$0.12/kWh	\$0.16/kWh
	Natural Gas	\$15/MMBtu	\$20/MMBtu
Operations and Maintenance (O&M)	Electric	\$0.05/kWh	\$0.05/kWh
	Natural Gas	\$6/MMBtu	\$6/MMBtu
Minimum project size	\$30,000 minimum incentive		
Simple payback threshold (with incentive)	No less than 6 months		
Maximum incentive	All Projects	50% Project Cost	
	Electric	\$5 million/facility/year	
	Natural Gas	\$1 million/facility/year	

For new construction & existing facilities

Industrial and Process Efficiency Incentives

Incentive determined by verified energy savings:

$$\left(\text{Pre-installation usage} - \text{Post-installation usage} \right) \times \text{Incentive rate} = \text{Cash Incentive}$$

Incentive rate =

- \$0.12/kWh electric incentive
- \$15/MMBtu natural gas incentive

Funds distributed post-installation

M&V: required >500,000 kWh or 10,000 MMBtu

Building System Improvements

Installation of a new or improvements to an existing system that result in a gross reduction of energy usage

- Lighting
- HVAC
- Variable Frequency Drives (VFD)
- Compressed Air Improvements
 - Supply Side--new equipment, vfd, etc.
 - Demand Side—eliminate misapplications



Process Efficiency

Installation of a new process or improvements to an existing process that result in a gross reduction of energy usage or a net reduction of energy usage per unit of production



- Energy use is embedded in every part
- Every piece of scrap has an energy component
- Re-work uses additional energy
- Overtime requires additional energy use
- Lean/6 Sigma/Productivity Projects all have an energy component

Operations and Maintenance

Projects that deliver verifiable annual energy savings resulting from upgrades or initiatives to achieve operations

Operations and Maintenance Incentives	Electric	Natural Gas
	\$.05 / kWh	\$6/MMBtu

Examples:

- Compressed air system leak management
- Replacement of leaking steam traps
- Installation of cogged style fan belts

Application Process

Easy to Apply

- Submit application through Consolidated Funding Application
- Assign Technical Support
- Review Project Savings
- Purchase Order Issued
- Customer Installs Project
- Verify installation

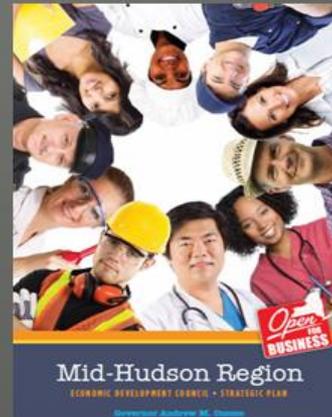


NYSERDA Technical Reviewer Support Throughout

EDGE Program

Economic Development Growth Extension

- Outreach and Support for **all** NYSERDA Programs
- Match **energy projects** with **funding**
- Support **Regional Economic Development Council**
- **CFA** assistance
- **Partnerships**



NYSERDA Programs

- New Construction
- Flex Tech
- Existing Facilities
- Small Commercial Energy Assessment
- Industrial Process Efficiency
- Residential - Green Jobs Green New York
- Multifamily Programs
- Clean Energy Business Development
- Agricultural Efficiency
- Solar PV Incentives
- Solar Thermal Incentives
- Wind Power
- Combined Heat and Power
- Cleaner Greener Communities
- Emerging Technologies
- Workforce Development and Training
- ...and more!



nyserda can help!

- Improve the energy performance of most facilities
- Energy efficiency is less expensive than energy production.
- Many energy measures also generate economic, process, comfort and environmental benefits.
- NYSERDA incentives can help justify projects & shorten payback time.
- E-mail: cmg@nyserda.org
- Visit www.nyserda.ny.gov/ipe