

New York State Energy Research and Development Authority



What is NYSERDA?

- **Established in 1975, NYSERDA is a public benefit corporation helping New York State meet its goals to:**
 - Reduce energy consumption and increase energy efficiency
 - Create a clean energy economy
 - Grow diverse, renewable energy supplies
 - Protect the environment
 - Provide experienced leadership in planning and policy

New York State Industrial Programs

- NYS PSC Leadership
- Energy Efficiency Programs
 - FlexTech
 - Industrial and Process Efficiency (IPE)

FlexTech

- Identify opportunities through energy studies
- Objective information about potential energy projects
- Cost-share up to 50%
- Cap of \$1 million on multi-year, multi-building studies

EXAMPLES:

- Feasibility Studies
- Energy Master Planning
- Industrial and Process Efficiency Analysis
- Data Center Efficiency
- Energy Efficiency Retro-Commissioning
- Combined Heat and Power

Industrial and Process Efficiency (IPE)

IPE

Incentives for manufacturers and data centers to enhance energy efficiency and productivity.

Goals	Save 800,000 MWh and 2.9 million MMBTUs by 2015
Outreach Contracts	Industrial Data Centers
Eligibility	Facilities must pay System Benefits Charge
Funding	\$121 million Customer Incentives
Incentive Cap	Electric: \$5 million/facility/year Natural Gas: \$1 million/facility/year

Process Efficiency Measures

New process or improvements to existing process that result in reduced energy/unit production

- Advanced technology installation
- New process line installation
- New or improved process and support systems
- Energy use is embedded in every part
- Every piece of scrap has an energy component
- Lean/6 Sigma/Productivity projects



Data Centers

Optimizing infrastructure for ever-increasing information demands

IT Computing Efficiency

- Installation of next-generation servers
- Server virtualization
- Storage consolidation
- Fat to Thin client conversion
- IT capacity management

Support System Improvements

- Cooling systems
- Airflow management
- UPS upgrades



Industrial and Process Efficiency Results

Program Duration: 2012 – 2015

Results as of 12/31/13: 50% through program

Energy Savings	Electric (MWh)	Gas (Dth)
Order	800,000	2,940,000
Actual	480,773	2,202,845
% of Goal	60%	75%

Cost Effectiveness	Electric (\$/MWh)	Gas (\$/Dth)
Order	\$ 177	\$13
Actual	\$156	\$11

Outreach Approach

- Expertise
 - Industry & Data Centers
 - Outreach process
 - Goal driven
- Approach
 - 1-on-1 Customer Interaction
 - Key Decision-Maker Identification
 - Salesforce CRM



Key Account Mgmt

- Key Account identification
 - Estimate best kW for each industrial account
- Key Account Managers
 - Single NYSERDA contact
 - Relationship development
 - Roadmap
- Stratify assignments
 - Industry sector, geography, size
- Salesforce CRM

Outreach Features

- Address specific vertical needs
- Credibility
 - Team w/manufacturing & process experience
 - Speak the customer language
- Customer Driven
 - Understand customer motivation
 - Not afraid of complex, messy projects



Outreach Contractor RFP Selection

Vertical Understanding

- knowledge of sector-specific characteristics, business priorities, and decision making processes
- successful outreach experience

Existing Relationships & Relationship Development

- existing relationships with sub-sector stakeholders, service providers, trade associations or professional societies

Experience & Unique Qualifications

- knowledge of the high-energy user & major energy consuming areas

Irving Tissue

Upgraded Plant, Ft. Edward, NY:

- \$150 million investment by Irving
- New Paper machine
- New pulp processing and support equipment

Objective:

- Improve productivity, Outcompete sister plants
- Energy Savings is a design criteria

Focus: Process Equipment

- Installed more efficient vacuum system
- Installed more efficient pulp agitation systems
- VSDs on large pumping systems (1000s of HP)



Energy Savings: 14,800,000 kWh/year
NYSERDA IPE Incentive: \$1,775,000

World Kitchen

Existing Plant, Corning, NY:

- Multi-step, energy intensive, manufacturing line

Objective:

- Improve productivity and efficiency



Focus: Process Improvements:

- New Rotary Fire Polisher-significantly reduced scrap
- More saleable units for same energy use
- Energy use per unit reduced significantly

Reduced Energy Cost: \$192,000/year

Additional NYSERDA Programs

- Combined Heat & Power (CHP)
 - Acceleration Program <1.3 MW
 - Performance Program >1.3 MW
- Research & Development
 - Transformative Technologies for Energy-Efficient Manufacturing
 - Accelerating Commercialization of Industrial Technologies

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