



NYSERDA



Industrial Energy Efficiency Outreach Services & Case Studies

Breakfast Meeting

March 13, 2018

CHA's Industrial Role

- Our Team's Mission:
 - Meet with manufacturers & service providers throughout NYS to learn about their operations, challenges, & opportunities
 - Determine how NYSERDA's programs can align with company's:
 - Capital plans
 - Sustainability initiative
 - Improve ROI
 - Refer to Utility Programs, as appropriate
 - Team with plant staff to identify energy efficiency improvements that can be implemented for existing and new operations
 - Provide guidance & support every step of the application & implementation process
 - Meet with your staff regularly (on-going) to:
 - Advise on future capital planning and potential for financial support from NYSERDA
 - Make sure opportunities are not missed
 - Garner feedback for program improvements
 - Provide support on questions, issues, etc.

Potters Industries

Plant:

- 26,000-sq-foot manufacturing facility; engineered glass beads

Success:

- Utilized FlexTech program for investment grade level assessment of energy efficiency opportunities
- Heat recovery on three furnace lines:
 - Heat to process dryer
 - Preheat furnace combustion air
- **Energy Savings:** > 54,000 MMBtu/yr
- **NYSERDA IPE Incentives:** > \$300,000



Pactiv

Plant:

- 700,000-sq-foot manufacturing facility; consumer and food service food packaging products; 15 MW demand
- Corporate initiative to reduce energy per pound of product produced

Success:

- Utilizes FlexTech program on an on-going basis for investment grade level assessments of energy efficiency opportunities
- Implementing measures over multiple years, including:
 - Process upgrades, new environmental control technology, process insulation, compressed air system upgrades
- **Energy Savings:** > 9 million kWh/yr; 10,000 MMBtu/yr
NYSERDA IPE Incentives: > \$1.2 million



Potsdam Specialty Paper

Plant:

- 220,000-sq-foot manufacturing facility; specialty paper products
- Initiative to reduce energy per net ton of paper produced

Success:

- Utilizes FlexTech program on an on-going basis for investment grade level assessments of energy efficiency opportunities
- Implementing measures over multiple years, including:
 - Free cooling, variable speed fans/pumps, heat recovery, process upgrades, vacuum upgrades
- **Energy Savings:** > 6 million kWh/yr; 4,000 MMBtu/yr
- **NYSERDA IPE Incentives:** > \$500,000



General Motors

Plant:

- 1.8 million-sq-foot manufacturing facility; automotive components including integrated air fuel modules, fuel rails, valves, manifold assemblies, and fuel injectors
- Corporate wide green initiatives

Success:

- Utilized FlexTech program for investment grade level assessments of energy efficiency opportunities
- Recommended measures, including:
 - Chilled/tower water, compressed air, process hot water
- **Energy Savings:** > 3.1 million kWh/yr; 260 MMBtu/yr
- Implementing measures with 1.8 million kWh/yr savings
NYSERDA IPE Incentives: > \$100,000

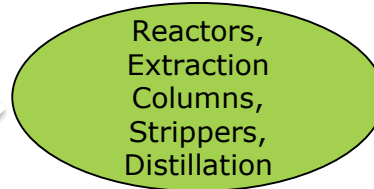
Linking Energy Efficiency To Lean Manufacturing

Chemical Manufacturer

Chemical products , 200,000 sf plant, 75 employees, 24 X 7

Original State

1.0 million kWh
526,000 therms



6.0 million
lbs

Effic: 0.168 kWh/lb; 8,800 BTU/lb

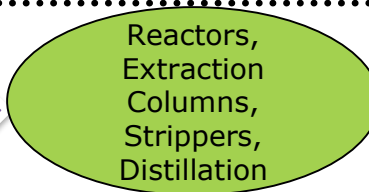
Project

- Larger reactor, columns, steam vacuum jet replacement
- 32% productivity increase

0.7 million kWh saved
378,000 therms saved

Upgraded State

0.7 million kWh
333,000
therms



8.0 million
lbs

Effic: 0.084 kWh/lb; 4,100 BTU/lb

Industrial Energy Efficiency Programs

Questions?

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