

LARGE INDUSTRIALS

SERIOUS ENGAGEMENT FOR DEEP SAVINGS



ECEEE Industrial Summer Study - 2014

Gary Epstein – President, ERS

PRESENTATION OVERVIEW

- ❑ Challenges Working with the Industrial Sector
- ❑ Relationship Development
- ❑ Identify and Address Barriers
- ❑ US Programs that Demonstrate Industrial Sector Success
- ❑ Example Industrial Case Study Project



INDUSTRIAL SECTOR CHALLENGES WORKING



The industrial sector presents a unique challenge to the energy efficiency and renewable energy program. While industrial facilities have some of the same end uses as commercial buildings (lighting, HVAC, office equipment loads), energy use is typically dominated by industrial process systems. Motivating these customers requires program approaches and expertise that are respectful of an industrial plant's unique patterns of use and the focus on its fundamental manufacturing needs.



CHALLENGES OF PROMOTING ENERGY EFFICIENCY IN THE INDUSTRIAL SECTOR

- ❑ Standard Efficiency Measures (Lighting, HVAC, Controls) May Have Applicability But Most Energy Use is Associated with Manufacturing:
 - Highly Diverse Manufacturing Processes
 - Crosscutting Technologies (Compressed Air, Process Heating and Cooling, Refrigeration, Fan and Pump Systems, Steam)
- ❑ Focus on Stability and Integrity of their Production Systems
- ❑ Inclination Towards Consultants That Understand Their Processes and Will Work Creatively To Develop Energy Efficiency Projects Consistent with Their Needs



RELATIONSHIP DEVELOPMENT



- ❑ Find the Path in to Company
 - Identify and engage with project or energy champions
- ❑ Obtain engagement with decision makers
- ❑ Leverage corporate goals and targets
- ❑ Establish credibility (technical expertise)
 - Energy Expertise
 - Process Expertise
- ❑ Provide a high level of customer service
- ❑ Become a partner

IDENTIFY BARRIERS

- ❑ What's important to them
 - Incentives
 - Technical assistance
 - Implementation support
- ❑ Speak their language
 - IRR, ROI, SP, Cash Flow
 - Per Ton, Per Widget, EI
- ❑ Understand corporate decision process
- ❑ Understand their challenges (insufficient time, limited finances, uninterested in energy efficiency)
- ❑ Find where we can be most relevant



INDUSTRIAL PROGRAM ATTRIBUTES



- ❑ Achieving Success in Energy Efficiency
 - Outreach Staff That Work Directly with Industrial Facility Staff and the Markets that Serve Them
 - Consultants with Specific Industrial Process Expertise
 - Insights into the Industrial Facility Decision-Making Process
 - Ability to Identify and Quantify Impacts of Measures for Process and Cross Cutting Technology Projects
 - Well-Designed Prescriptive Tracks That Incentivize Industrial Measures
 - Custom Measure Tracks That Readily Incorporate Complex Industrial Measures

MOU: NSTAR AND NGRID

- ❑ Memorandum of Understanding (MOU)
 - Comprehensive Outreach and Industrial Support
 - Long-Term Established Relationship
 - Partnership: Industry, Consultants, Program
 - Established Goals and Targets
 - Tracking of Success
 - Comprehensive Support Structure



EFFICIENCY MAINE PROGRAM PORTFOLIO



- ❑ Comprehensive Outreach Effort
 - Outreach Field Staff with Focused Assignments Working with Industrial Facilities
 - Development of Trade Ally Network with Industrial Equipment (Process and Cross Cutting Technologies)
- ❑ Comprehensive Engineering and Technical Assistance for Process EE Measure Development
- ❑ Incentives Offerings
 - Industrial-Focused Prescriptive Incentives
 - Custom Incentives That Support Process Improvements

THE NYSERDA PORTFOLIO OF PROGRAMS



- ❑ NYSERDA Research and Development Program
 - Industrial Process and Product Innovation
 - Emerging and Under-Utilized Technologies
 - CHP and Distributed Generation
- ❑ Industrial Sector Focused Outreach Effort
 - Dynamic Effort to Reach Out to Key Industrial Facilities with Teams of Consultants with Focused Industrial Expertise
- ❑ FlexTech Technical Assistance Program
- ❑ Existing Facilities Program
 - Prescriptive and Custom Incentive Offerings

CASE STUDY: STEINWAY SOLAR EE PROJECT

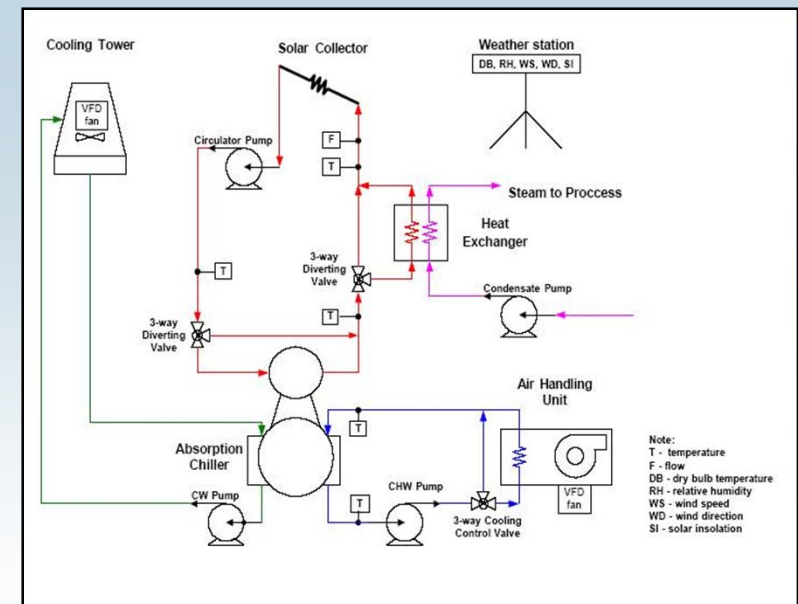


- ❑ Steinway: 1870s Vintage Building
- ❑ NYSERDA-funded Project
 - Outreach Support
 - NYSERDA FlexTech - Comprehensive Energy Studies
 - NYSERDA Emerging Technologies R&D Grant
 - NYSERDA Installation Grant Funding
 - Project Development and Installation Support



STEINWAY: KEY PROJECT FEATURES

- ❑ Parabolic Tracking Concentrating Collectors
- ❑ Largest Rooftop System of its Kind
- ❑ Industrial Application: Piano Action Process
- ❑ Heat/Cool/Dehumidify
- ❑ EE Absorption Chiller
- ❑ Mature but New
- ❑ Year Round Use
- ❑ Summer Peak Reduction
- ❑ Many Ongoing EE Efforts



CONTACTS



ERS

www.ers-inc.com

Gary Epstein:

gepstein@ers-inc.com

978-478-5300

