

Presentation to



Industrial Assessment Centers
on
Energy Engineering Services

October 11, 2011





CHA Overview



CHA Overview

- 59 Year Old Firm
- Full Service Engineering
- 30 Offices
- 700+ Staff, including CHATS
- Services include:
 - Project Management
 - Energy & Utilities
 - Facility Planning
 - Mechanical
 - Electrical
 - Process
 - Structural
 - Civil
 - Transportation
 - Communications & Technology Solutions
 - Sports & Recreation
 - Environmental
 - Geotechnical
 - Survey



Current Office Locations



CHA Overview

How We Rank



***Proud to be Ranked Among
Engineering News-Record's (ENR)
Top 100 US Design Firms in 2010***

- Overall Ranking – 85
- Manufacturing Sector Ranking – 11



Imagine
What We Can Do for You!

CHA Energy Services

CHA

Core Competencies

Imagine
What We Can Do for You!



- **Energy Engineering**
 - Energy Planning & Management
 - Energy Audits & Studies
 - Load Profiling & Rate Analysis
 - Performance Contracting
 - Co-Generation & On-Site Generation
 - Feasibility Studies
 - Energy Supply Contract Management
 - Renewable Energy Systems
 - Federal & State Funding Assistance
 - Design of Primary & Secondary Utility Systems
 - Commissioning & Retro-Commissioning
 - Full Data Logging & Instrumentation Capability

CHIA

Related Energy Experience



- **NYSERDA FlexTech Consultant for over 15 years**
- **NYSERDA Services**
 - **FlexTech Studies**
 - **FlexTech Study Reviews**
 - **Prequalified Incentive Reviews**
 - **Performance Based Incentive Reviews and Assistance**
 - **Benchmarking Assessments**
 - **Industrial Screening Assessments**
- **Design Projects**

Imagine
What We Can Do for You!

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Types of Measures Assessed

- Compressed Air
 - Usage Assessments
 - Leak Surveys
 - Pressure Reduction
 - System Improvements
- Cooling Systems
 - Passive Cooling
 - Cooling Tower Improvements
 - Chilled Water Surveys
 - Chiller Upgrade/Replacement
- Heating Systems
 - Boiler Economizer
 - Steam System Evaluation
 - Heating System Evaluation
- Building Systems
 - HVAC Surveys
 - Lighting Systems
 - Building Envelope Improvements
 - Building Controls



Highlights of Energy Audits

Performed over 300 energy audits which identified over \$59 million in energy savings, including:

- Harvard University (54 Buildings)- \$4,751,400 / 2.4 yr
- Ithaca College - \$350,000 / 4.0 yr
- Pepsi Bottling Group - \$272,500 / 2.0 yr
- Georgia-Pacific - \$327,300 / 2.3 yr
- Remington Arms - \$310,000 / 4.6 yr
- Lockheed Martin - \$65,900 / 0.3 yr
- Carrier - \$57,000 / 2.5 yr
- IBM – 47,000 / 1.8 yr
- DuPont - \$600,000 / 2.0 yr
- Bausch & Lomb - \$553,900 / 3.6 yr



Plant Audit Approach

- Level 1 – Screening Audit
 - Plant Walkdown / Field Investigation
 - Identification of Potential Energy Conservation & Cost Reduction Measures
 - High Level Screening Analysis (order of magnitude)
 - Identification of Funding Opportunities
 - Ranking by Potential Payback
- Level 2 – Detail Audit
 - Data Logging / Utility Surveys
 - Existing System Optimization & System Upgrades/Replacement Analysis
 - Concept Development
 - Energy Analysis
 - Budgetary Cost Estimates & Savings
 - Simple Payback or Life Cycle Cost Analysis
 - Prioritized Master Plan





Why CHA

- **Field experience obtained quickly**
- **Teamed with both experienced and new energy engineering staff**
- **Extensive variety of clients and facilities**
- **Opportunities for design work**
- **Professional, dynamic office environment**
- **Certification reimbursement and salary increases for PE, CEM, LEED, etc.**
- **Company sports teams (softball, volleyball) and social interaction**
- **Location flexibility with 30 offices**





Questions / Contacts

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