

Presentation to



Industrial Assessment Centers
on
Energy Engineering Services

November 2, 2012



Imagine
What We Can Do for You!

CHA Overview

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CHA Overview

- 60 Year Old Firm
- Full Service Engineering
- 44 Offices
- 1,250+ Staff
- Services include:
 - Project Management
 - Energy & Utilities
 - Facility Planning
 - Mechanical
 - Electrical
 - Process
 - Structural
 - Civil
 - Transportation
 - Communications & Technology Solutions
 - Sports & Recreation
 - Environmental
 - Geotechnical
 - Survey

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Current Office Locations

North America

Albany, NY
Austin, TX
Atlanta, GA
Blacksburg, VA
Boston, MA
Buffalo, NY
Burlington, VT
Chantilly, VA
Charlotte, NC
Chicago, IL
Cleveland, OH
Columbus, OH
DeLand, FL
Evansville, IN
Hartford, CT
Indianapolis, IN
Kansas City, KS
Kansas City, MO
Keene, NH
Myrtle Beach, SC
Nashville, TN
Newburgh, NY
NYC, NY
Parsippany, NJ
Philadelphia, PA
Pittsburgh, PA
Portland, ME
Princeton, NJ
Raleigh-Durham, NC
Richmond, VA
Rochester, NY
Savannah, GA
Scranton, PA
Southbend, IN
St. Catherines, ON
Syracuse, NY
Tampa, FL
Washington, DC
Tamuning, Guam

Middle East

Tripoli, Libya
Cairo, Egypt
Baku, Azerbaijan
Abu Dhabi, UAE
Dubai, UAE



CIWA
design/construction solutions

CHA Overview

How We Rank



***Proud to be Ranked Among
Engineering News-Record's (ENR)
Top 100 US Design Firms in 2012***

- Overall Ranking – 81
- ENR New York “Design Firm of the Year”



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Core Competencies

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- **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
- **Growing Relationship with ComEd in Chicago**
 - Retro Commissioning, Industrial Cooling/Refrigeration, and Compressed Air
 - Brand New CHA Office Branch!
- **Design Projects**



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 400 energy audits which identified over \$66 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
- GE, Solo Cup, Xerox, and many, many more!



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**

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Questions / Contacts

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