



# Energy Assessments and Engineering Design of Efficient Systems

GEA is an expert energy consulting firm specializing in conducting energy efficiency assessments to facilitate high levels of performance in the generation, handling, use, and distribution of energy within industrial, utility, commercial and institutional facilities. GEA is a licensed, professional engineering firm, with the tools and computerized models needed to assess complex systems.

## BENEFITS OF AN ENERGY AUDIT

- Reduced Energy Use of 10-40 %
- Benchmark Energy Consumption
- Reduced Operating Expenses
- Waste Reduction
- Asset Management Improvement Plan
- Reduction of Environmental Impact
- Reduced Carbon Co<sub>2</sub> Footprint
- Increase Sustainable Operations



*Building HVAC Systems Can Be Optimized*

## STEPS TO ENERGY EFFICIENCY

- Collect Data
- Plant Walk-thru
- Energy Survey-Audit
- Benchmark
- Preliminary Assessment
- Feasibility Study
- Lifecycle Analysis
- Implementation Study
- Implementation Non-Structural Practices
- Implementation Structural Changes
- Monitor and Evaluate Performance



*Chiller Powered by Waste Heat with Cooling Tower*

## TARGETED INDUSTRIES

Pharmaceutical Plants  
Cooling Towers  
Water Plants  
Schools/Universities  
Textile Manufacturers  
Chemical Manufacturers

Electrical Utilities  
Food/Beverage Plants  
Hospitals  
Wastewater Plants  
Paper Companies  
Power Plants



*Pumps & Motors Can Be a Source of Savings*

### The GEA Group:

- GEA Engineering, P.C.
- GEA Green Tech. Engr. P.C.
- GEA Water Solutions
- GEA Environ. Cons., Inc

100 Airport Executive Park • Suite 105 • Nanuet, NY 10954 • USA  
Phone: (845) 371-5522 • Fax: (845) 371-5526 [www.geaengineering.com](http://www.geaengineering.com)



## ***GEA PROFESSIONAL SERVICES***

- Engineering Auditing
- Control Plant Model and Analysis
- Engineering Consulting
- Power Load Reduction
- Cost Benefit Analysis
- Engineering & Design
- Construction Management
- Retrofit & Commissioning
- Renewable Energy Experience
- Credits, Grants & Tax Rebates

### ***SYSTEMS ANALYSIS***

- Building HVAC
- Cooling Tower Operations
- Chiller Plants
- Hydraulic Modeling
- Pump Efficiency Assessments
- Motor Efficiency Assessments
- Compressed Air Systems
- Boiler Plants
- Reverse Osmosis Systems
- Energy Recovery Systems
- Cogeneration CHP Systems
- Lighting, Instrumentation & Controls



*Combine-Cycle CHP Cogeneration System*

### ***RENEWABLE ENERGY SYSTEMS***

- Solar PhotoVoltaics
- Wind Power
- Biomass
- Biogas Methane CHP
- Cogeneration
- Hydropower
- Project Financing

#### **The GEA Group:**

- GEA Engineering, P.C.
- GEA Green Tech. Engr. P.C.
- GEA Water Solutions
- GEA Environ. Cons., Inc

**100 Airport Executive Park • Suite 105 • Nanuet, NY 10954 • USA**  
**Phone: (845) 371-5522 • Fax: (845) 371-5526 [www.geaengineering.com](http://www.geaengineering.com)**