



Energy Conservation

Delivering Value-added Project Solutions for Our Customers





Burns and Roe provides full-service engineering, procurement and construction management services to institutional and industrial customers and to government agencies throughout the United States. Our services extend from energy consultation and technical assistance studies, preliminary engineering, detailed engineering and design, and construction management, to testing, start-up, commissioning and follow-up support services.



Recognized Leader in Energy Conservation

Burns and Roe is a recognized leader in performing the analysis, planning and design of institutional and industrial utility generation and distribution systems. Our design services include the preparation of construction documents, specifications, and construction cost estimates. In addition, Burns and Roe provides all related procurement and construction management activities. Our comprehensive energy assessment program includes:

- Establishment of Baseline Energy Use
- Electrical and kW Consumption Patterns Analysis
- Thermal Fuel Usage Patterns Analysis
- Hours of Utilization Studies
- Load Profile Analysis
- Domestic Hot Water Analysis
- Normalized Data for Local Weather Condition Studies
- Utility Metering Analysis: Gas, Oil, Electric
- On-site Energy Audits
- Utility Data, Energy Usage Review
- Development of Project Requirements
- Development of Energy Estimating Methods
- Review of Degree-day Calculations, Bin-hour Methods, Computer Modeling
- Cost Estimating and Developing Cost Effectiveness of Energy Services
- HVAC Equipment Evaluation
- Air Balance Testing
- Indoor Environmental Air Quality Assessment



Established History in Energy Conservation

Since the 1970s, Burns and Roe has been providing engineering and consultancy services required to support our customer's energy conservation programs and their related energy services. These services include:

- Facility Energy Assessment Studies
- Building Management Systems
- Demand-Side Management (DSM) Projects
- Energy Cost Reduction Programs
- Energy Management Control Projects
- Procurement and Construction
- Construction Management
- Testing and Commissioning
- Measurement and Verification (M&V) Plans

Energy Star and Green Technology

Burns and Roe has the capabilities and qualifications to provide "green" design solutions that protect and enhance the environment. We address environmental challenges with designs that integrate engineering technology and natural systems. Our engineering strategies improve the comfort for building occupants and reduce environmental impacts while ultimately reducing utility costs. By utilizing Energy Star and Green Technology principles, Burns and Roe develops and analyzes Environmental Energy Efficient Energy Conservation Measures for cost effectiveness including:

- Lighting, HVAC
- Power Generation - Fuel Cells, Micro-turbines, Photo Voltaic
- Cogeneration
- Water Preservation and Reduction Programs
- Indoor Environmental Quality
- Materials and Resources (Waste Management/Recycling)
- Commissioning/M&V



DESIGN EXPERIENCE

Burns and Roe's design experience includes:

- HVAC Design and Building Retrofit and Rehabilitation
- Energy Management and "Open" System Temperature Control Systems
- Energy Conservation Analysis and Retrofit Modifications
- Energy Audits, Technical Assistance, Computer Modeling and Life Cycle Cost Analysis
- Fume Hood Design and Optimization
- Central Chilled Water Plant Design
- Central Boiler Plant Design
- Cogeneration
- Control Commissioning and Control Sequences of Operations

BURNS AND ROE ADVANTAGE

Burns and Roe offers the following important benefits to our customers:

- Superior professionals with broad engineering and construction backgrounds experienced in energy conservation.
- Leadership in Energy and Environmental Design (LEED) accredited Professionals.
- Extensive corporate experience that includes numerous energy service programs for institutional and industrial clients.
- A corporate reputation and history of repeat business built on producing a quality project consistent with our client's objectives.
- Extensive staff resources with proven responsiveness to our customer's needs and goals.
- A heritage of responsive long term relationships.



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