

EXPERIENCE

2008-Present American Utility Management
Vice President, Energy Solutions

Oak Brook, IL

Responsible for the creation and management of the newly formed Energy Solutions group which has assisted AUM in expanding its offerings to become a leading national energy management services provider for the multi-family industry, inclusive of energy management planning, facility utility auditing, energy commodity procurement, utility variance analysis, rate & tariff analysis, budgeting and benchmarking, in addition to AUM's traditional utility bill payment, resident billing and utility sub-metering services.

Offering Energy Management services to approximately 1,100 multi-family properties consisting of 200,000 residential apartment units nationwide.

Responsible for managing a \$15-\$20 million energy commodity hedging program in areas with deregulated electric and natural gas service.

Responsible with the evaluation of energy conservation and sustainability projects for both existing portfolio properties and future property acquisitions & developments. Review and evaluation of Return On Investment calculations, project and equipment reliability, lifecycle rate of return, financing options, local and/or federal rebates.

Have assisted in the creation of several new reports and bill payment validation tools in order to minimize data entry errors and provide clients with error free usage and cost trend reports and graphs.

Managed the group to perform rate analysis, tariff analysis and utility invoice audits for several hundred properties and have discovered several hundred thousands of savings both immediate in the form of refunds and credits and on-going in the form of reduced rates and tax exemptions.

Directly involved with EPA's Energy Star Portfolio Manager for the creation of national cross-portfolio multifamily property energy and water usage benchmarks. Assisting several clients with properties located within regions that have adopted Portfolio Manager as their energy benchmark tool of choice to conform to new laws and regulations.

2005-2008 Archstone
Director, Energy Services

Arlington, VA

Responsible for the creation and update of the Energy Management Program for the entire company. Currently in process of developing a company wide Energy Sustainability guide for new developments and upcoming renovations. Integration of well known energy conservation opportunities, LEED requirements, Energy Star requirements and local, state and federal laws and mandates.

Energy Management of 65,000 residential units nationwide with areas of concentration in the North-East, Mid-Atlantic, South-East, Texas and the West Coast. Responsible for managing a \$15 Million energy commodity hedging program in areas with deregulated electric and natural gas service. Responsible with the evaluation of energy conservation and sustainability projects for both existing properties and future property developments. Review and evaluate Return On Investment calculations, project and equipment reliability, lifecycle rate of return, financing options, local and/or federal rebates. Managed the installation of seven co-generation units, evaluation of solar water heating and photovoltaic projects, evaluation of wind turbine projects. Responsible for management of the Demand Response Program for several properties in the ConEd electric service area. Responsible for management of the Interruptible natural gas service for several high-rise properties in NYC and Washington DC and management of the dual fuel program in times of high demand and economic opportunities. Responsible for energy and water sub-metering projects for direct reading of resident and retail tenant consumptions for monitoring and re-billing.

Directly involved with the selection of mechanical, electrical and plumbing (MEP) equipment in new developments and renovations/replacements. Part of the Commissioning team for new developments. Involved with the creation of the capital expenditure replacement schedule for MEP equipment in existing properties. Responsible for the evaluation and creation of pro-forma utility cost and consumption figures for acquisition prospects as part of the Due Diligence team

Creation and management of a \$75 Million utility budget and re-forecast for electric, natural gas, diesel and water for all the properties owned and managed by the company. Monthly and quarterly variance reports for review by Executive team. Direct communication with accounting team regarding payment issues and accruals.

1998-2005 Consolidated Engineering Services Arlington, VA
Energy Program Manager

Provided complete energy engineering services for over 50 million square feet of commercial, residential and retail space. Conducted detailed on-site energy surveys of commercial and residential properties. Analysis of residential, commercial and retail energy loads, heating and cooling load calculations, detailed utility data analysis and energy consumption projections; feasibility studies, design, cost estimating, material and equipment specifications. Prepared energy awareness presentations for on-site operating personnel.

Analyzed tariff and rate schedules; collected energy data for complete characterization of building energy consumption patterns. Developed tenant sub-metering programs for commercial and residential properties. Acted as liaison between the properties and several utilities through out the U.S.

Negotiated commodity contracts for the purchase of deregulated natural gas and electricity nationwide. Assisted the properties in saving millions of dollars annually on utility costs by closely managing their usage and deregulated commodity purchasing. Developed a utility management database in order to manage the utility usage and cost data. Benchmarked commercial properties with EPA's Energy Star program. Assisted 18 commercial high-rise properties with the acquisition of the Energy Star Certification.

Investigation and evaluation of building mechanical, electrical, plumbing and fire protection systems in existing buildings. Performed technical analysis of problems and developed solutions, prepared engineering designs, specifications and reports as needed to recommend and implement solutions. Acted as the project manager in capital improvement projects which included the preparation of technical specifications and drawings, cost estimating, solicitation and evaluation of construction proposals, award and preparation of contracts and oversight of the construction process. Performed detail inspections of mechanical and electrical systems, prepared capital improvement budgets, reviewed engineering drawings of new building designs and tenant alterations prepared by outside engineering consultants.

1996-1998 Consolidated Engineering Services Arlington, VA
Environmental Control Center Operator

Responsible for remote operation of Energy Management and Digital Building Control Systems covering 50 million square feet of commercial, residential and retail space. Supervision and adjustment of building systems to meet changing cooling/heating loads and demands. Monitoring of real time energy consumption and management of energy demand requirements.

1990-1996 Consolidated Engineering Services Arlington, VA
Operating Engineer

Responsible for the day-to-day operation of commercial buildings' mechanical, electrical, plumbing and fire protection systems. Perform preventive maintenance to building equipment. Investigate and repair tenant comfort problems. Responsible for the chemical water treatment program of the property.

EDUCATION

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| 1994–1997 | George Mason University | Fairfax, VA |
| ▪ | M.S., Facilities Management. | |
| ▪ | Honor Roll. | |
| 1988–1993 | George Mason University | Fairfax, VA |
| ▪ | B.S., Urban Systems Engineering (Civil Engineering). | |

LICENCES/CERTIFICATES

- Certified Energy Manager, CEM
- Certified Energy Procurement Professional, CEP
- Certified Sustainable Development Professional, CSDP
- Engineer In Training, 1993, Commonwealth of Virginia
- Third Class Steam Engineer License, District of Columbia

PROFESSIONAL AFFILIATIONS & AWARDS

- American Society of Heating, Air Conditioning & Refrigeration Engineers, Member.
- Association of Energy Engineers, Member.
- Guest Lecturer at GA Tech's School of Building Construction
- NAA Conference Speaker
- NMHC Leadership Conference Panel Speaker
- AOBA 2000, 2003 Leadership Award. (DC BOMA Chapter)
- EPA Panel Speaker on Energy Star for Commercial Properties
- IREM (DC Chapter) Seminar Speaker