

Roles and Responsibilities

Senior Energy Engineer

takasolutions

Job Description

The Senior Energy Engineer position will focus on the auditing, design, implementation and operation of energy efficiency and renewable energy projects, as well as support with design, specification and the growth of technology and controls group, including annual maintenance contracts. Typical energy efficiency measures will include: Demand control strategies, VFD's on various fan and pumping applications, various space temperature setback and economizing control strategies, upgrade to more efficient HVAC equipment, heat recovery strategies, combined heat and power systems, and more. This position is responsible for the development of complex projects of unlimited scope and size on large buildings and developments.

Responsibilities

- Perform on-site energy efficiency audits that are focused on mechanical system, control systems and lighting energy efficiency opportunities.
- Complete historical utility billing analysis and facility benchmarking analysis.
- Develop company controls, technology and AMC business line
- Recommend and analyze energy efficiency measures (EEM).
- Complete EEM energy calculations, savings projections and narrative descriptions.
- Co-present audit/design findings to Customer along with Project Development Staff.
- Build strong relationships with equipment suppliers, mechanical contractors and control contractors.
- Collaborate with suppliers, consultants and contractors to ensure original design intent is adhered to throughout implementation.
- Lead and manage teams to deliver projects, set process and standards and grow capabilities
- Utilize site measurements and information to help shape project scope and justify measurement selection, energy use calculations and M&V strategies.
- Plan, organize, and participate in performing preliminary and detailed project development audits of basic performance contracting projects
- Perform savings calculations and identify any risk associated with the projections, scenario projections, sensitivity analysis and lifecycle costing.
- Ensure savings projections are plausible and financial risk is identified and analyzed
- Define project scope and perform project estimates
- Ensure project estimates are accurate and the project scope is executable within the budget
- Assist sales and marketing team with sales strategies, reports and presentations
- Prepare technical audit, energy, M&V and project performance reports
- Develop technical standards, protocols and requirements for innovative energy efficiency and demand side management programs in collaboration with Project Managers and Financial Managers.
- Perform and review facility energy audits, feasibility studies, reports and project analysis
- Develop and implement quality assurance procedures for energy and green building programs for current and future projects
- Concept and schematic design, calculations and drawing production
- Research emerging technologies and standards for implementation into company practice and project implementation
- Review calculations and assumptions used to estimate or measure energy savings
- Conduct site visits to verify installation and operation of technologies
- Work with project site staff, owners staff and maintenance teams to ensure accurate operation within design parameters.
- Energy modeling development and model creation for us in energy analysis.
- Utilize energy modeling applications and spreadsheets to forecast, analyze and compare projected energy savings to actual usage and EEM attractiveness
- Maintain project files and statistics for reporting to client, invoicing and company performance

Qualifications

- Bachelor's Degree in Mechanical, Electrical, Controls or Energy Engineering.
- Professional Engineering License or ability to obtain within one year of being hired.
- Energy Professional certification - Certified Energy Manager preferred
- Strong knowledge base of energy efficiency methodology and building engineering and design
- Strong written and oral communication skills for customer interaction and report writing.
- 7-8+ years' experience in a Energy or related engineering position
- Job experience working on energy efficiency construction projects in commercial and industrial facilities.

Computer Skills

- Expert skills in Microsoft Excel, Word, Outlook
- Proficiency with eQuest, TraneTrace or other energy modeling software
- AutoCAD, Revit
- Microsoft Project or Primavera

Talent and Skills

- A highly self-motivated, ambitious individual
- A person with a high sense of urgency and a pro-active approach to problem solving
- Professional presence
- High energy and action oriented
- Strong oral and written communication skills
- Ability to travel when needed to project sites(50% +)
- Expert in developing excel based energy modeling on mechanical and electrical systems.
- Knowledge of building systems, energy technologies, green building and high performance design
- Understanding of marketing strategy and market analysis techniques is a strong plus
- Team-oriented, hands-on, highly skilled, adaptive, and client-focused
- Knowledge of construction and subcontracting

Growth Plan & Key Performance Indicators

As part of professional development, personal growth and contribution to company strategy a number of key items are identified and planned for candidate perusal as part of the offer and job. Below is a brief summary of the items.

Certifications

- PE – 1 year
- CEA – 3 months
- CMVP – 3 months
- PMP
- LEED AP
- PQP

Skills and Responsibilities

- Estimation & Procurement
- Software Development
- Controls Logic Programming
- Energy Modeling Training