GLUMAC

Energy Management

CREATING EFFICIENT BUILDINGS

Integrated multi-disciplinary design along with commissioning are the foundations of an energy-efficient building. Energy management is an ongoing process to ensure a building continues to operate efficiently. Energy management starts with collecting operational data and then adjusting systems by programming digital controls. Glumac has the capability to analyze operational data and adjust controls to optimize building systems day-to-day and season-to-season for the most efficient energy performance.

INTEGRATED ENERGY SYSTEMS DESIGN

- Natural ventilation
- Daylighting design
- Thermal energy storage
- Groundwater heat pumps
- Solar hot water
- Variable refrigerant flow (VRF)
- Active and passive chilled beam design
- Combined heat and power (CHP)
- Evaporative cooling
- Heat teclaim
- Under floor air distribution
- Radiant heating and cooling
- Controls and operations
- Stormwater reclaim
- Efficient motor and drive applications
- Multiple energy systems – natural gas, electricity, oil (compressed air, vacuum)

POWER GENERATION AND WASTE HEAT UTILIZATION

- Cogeneration
- Photovoltaics
- Fuel cells
- Wind energy
- Distributed / dispatchable power
- Microturbine technology

LEED SERVICES AND ENERGY EFFICIENCY PROGRAMS

- LEED certification – documentation and process leadership
- Certification categories: New Construction, Existing Buildings, Commercial Interiors, Retail, Schools, Core & Shell
- Energy analysis and computer modeling
- Commissioning for new construction
- Re-commissioning / Retro-commissioning
- Energy code compliance analysis and documentation
- Technical documentation for tax credits and energy incentives

ENERGY MANAGEMENT SYSTEMS

- Energy forecasting: review of historic usage and independent forecasts, forecasting energy costs
- Energy management reporting systems
- Preparation for building management use and LEED points
- Design and application of real-time energy management systems
- Metering systems
- Integrated with security and digital controls
- Control of utility systems or self-generation