



ENGINEERING

OUR FIRM

Commissioning &
Sustainability



 **ENGINEERING**

Rochester | Buffalo | Syracuse | Schenectady
www.meengineering.com

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COMMISSIONING

M/E Engineering is an accredited service provider of the Building Commissioning Association, and employs accredited professionals by the BCA, the Associated Air Balancing Council and ASHRAE. The firm is also a full member of the United States Green Building Council and has 33 LEED accredited professionals on staff.

M/E Engineering has successfully implemented commissioning and retro-commissioning programs for educational, industrial, municipal, governmental, health care, corrections and commercial clients that have provided significant positive results including the following:

- Reduced energy costs
- Fewer change orders during construction
- Lower maintenance costs
- Long term occupant satisfaction
- Indoor environmental quality
- Extended system life
- Trained facility staff
- Fewer installation call backs

Commissioning is a systematic process to ensure building systems perform according to the design intent and the Owner's operational requirements. It is a quality assurance program that is focused on long term building performance.

Commissioning Services

- Development/review of Owner's Project Requirements and Basis of Design
- Commissioning Plans
- Design and contract document review
- Commissioning process facilitator
- Prefunctional Checklist development
- Functional Test Procedure development
- Onsite field testing and commissioning
- Test results documentation
- Operations Manual review
- Owner training
- Final Commissioning Record
- Project warranty inspections
- Systems Manual development
- LEED Certification commissioning
- Balancing Report verification

Retro-Commissioning Services

- Audit of building HVAC and other energy consuming systems
- Review of past utility bills
- Interview of facility operating personnel
- Diagnostic monitoring and testing of building systems
- Identification and implementation of lower cost operational and maintenance measures
- Proposed resolutions to more complex issues
- Training of facility staff
- Building Operating Manuals
- System Maintenance Plans
- Building Retrofit Design
- Long Term Re-Commissioning Plans
- HVAC system testing
- Laboratory system verification



SUSTAINABILITY

M/E Engineering has studied and designed a vast variety of energy conservation related technologies and strategies that support sustainable building engineering and design. Our analyses have ranged from simple bin hour calculations to full college campus computer modeling addressing lighting upgrades, HVAC equipment replacement, control system modifications, cogeneration systems, photovoltaics, micro turbines and geo-thermal heat pumps. Today's building environment demands energy efficiency and sustainability as a design prerequisite. At its core, sustainability is part of our practice which includes:

- Building Energy Audits
- Utility Usage Assessments + Rate Schedule Analysis
- Investment Grade Energy Studies
- Energy Conservation Measure Evaluations + Master Planning
- Life Cycle Cost Analysis
- Net Zero Strategy Recommendations
- Energy Grant and Incentive Procurement
- Utility Monitoring and Savings Verification

ENERGY MODELING

M/E Engineering has a dedicated group of specialized professionals in Energy Measure Analysis and Modeling.

We utilize various simulation and software programs, including eQUEST, Trace, EnergyPlus, and OpenStudio to develop detailed energy models based upon a minimally code compliant base case and an actual built proposed design.

Our expertly trained and certified energy modeling staff have extensive experience in LEED, utility incentive programs and life cycle cost based energy simulations for a wide variety of clients and building types, including, universities, K-12 schools, hospitals, laboratory and research facilities, casino / hospitality and entertainment complexes, multi-family residential, office buildings and industrial facilities.

We regularly utilize Energy Modeling to not only indicate construction compliance with various codes and standards, but also to provide detailed comparative analysis of system options to ensure building Owners make well informed decisions for the long term efficient operation of their properties

