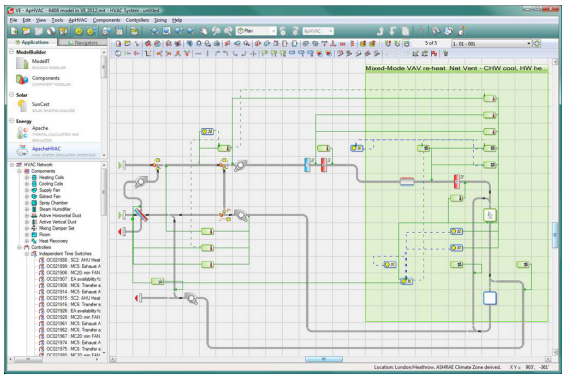
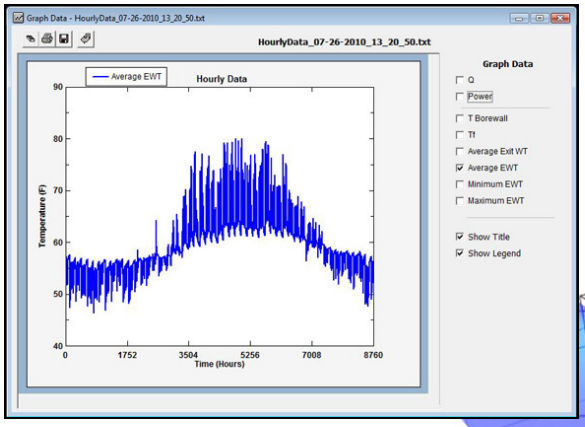
Energy Modeling

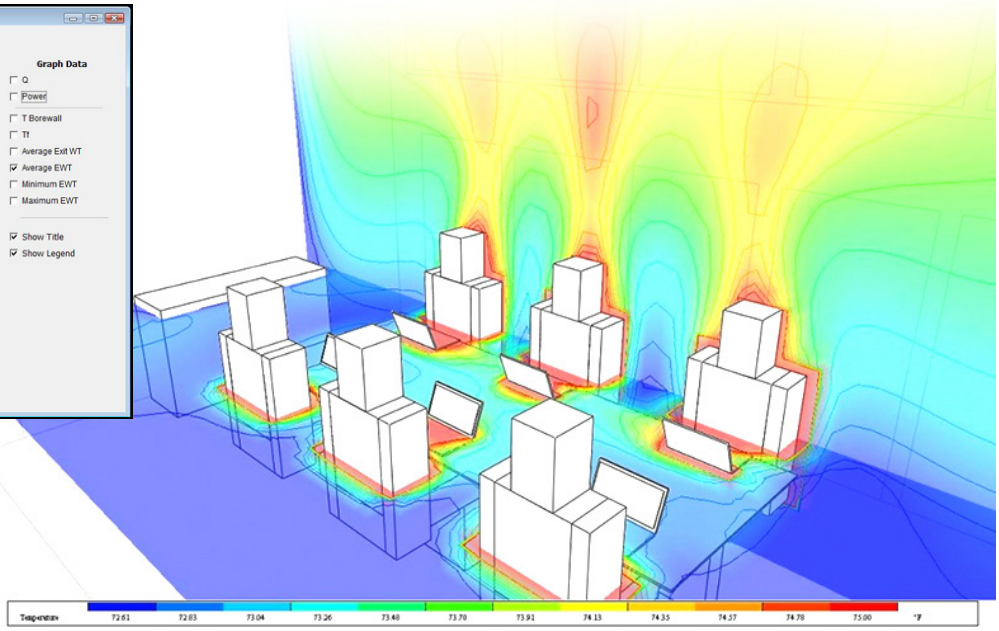
ANALYZE, DESIGN, OPTIMIZATION

ENERGY MODELING SERVICES

- LEED®, ASHRAE 90.1, Appendix G - Performance Rating Methodology
- LEED, ASHRAE 90.1, Chapter 11 Energy Cost Budget Methodology
- ASHRAE Exceptional Calculation Methodology Modeling for ASHRAE 90.1 Appendix G
- Federal Tax Deduction for Energy Efficient Commercial Buildings - ASHRAE 90.1 -2001
- Energy Efficiency Measures Payback and Life-Cycle Cost Analysis
- Parametric Analysis of Building Energy Features







Energy performance is dynamic: infrastructure ages; technologies evolve; resources and priorities change.

You need a partner with the expertise to help you optimize building energy use from design and construction through operations and maintenance over decades. MEP offers a unique continuum of services and proven solutions to maximize energy efficiencies today and continue to identify opportunities for even greater efficiencies – and savings – for years to come. Our work with utilities and energy agencies enables us to help you identify available incentives, rebates, and grants to help you achieve the highest possible return on your investment.

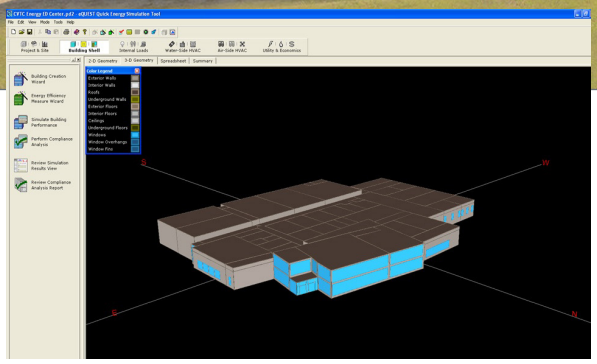
ANALYZE

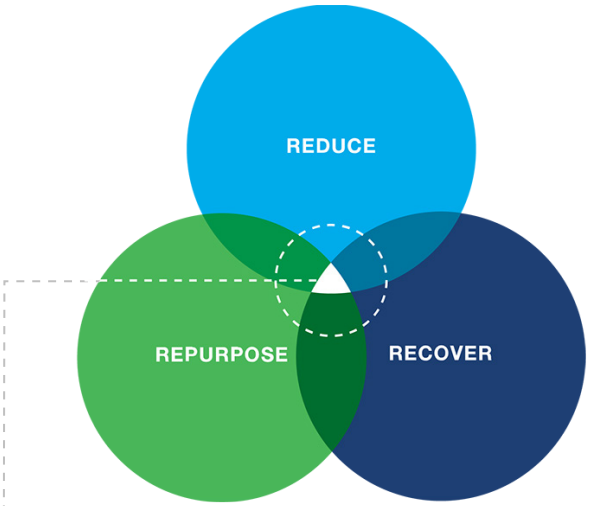
Audits - helps you understand your carbon footprint to identify potential energy reduction opportunities.

Renewable Energy Analysis - enables you to make fully informed decisions about the cost effectiveness and feasibility of alternative energy sources – including enthalpy wheels (heat recovery), geothermal heating and cooling (ground-source heat pumps), and photovoltaics.

Energy Modeling- utilizes an array of sophisticated software to inform conceptual design for maximum efficiency by predicting the exponential effect of multiple scenarios.

Our energy analysts are experts in the application of industry leading energy modeling software including: DOE2.1, DOE2.2, EnergyPlus, RETScreen, Trace 700, HAP, and other analytical tools for optimizing system design and configurations. Energy modeling provides the foundation for allowing economic based system configuration decisions to be made easily and accurately.





Energy stewardship is maxmized by engineering solutions that reduce, repurpose, and recover energy

DESIGN

Energy Infrastructure Design- improves the energy efficiency of traditional building design projects by developing a wide range of energy conservation strategies for all systems and components, detailed energy analysis, and payback analysis – the hard data that informs successful decision-making.

Energy Master Planning - lays the groundwork for a dynamic, realistic framework to guide future decisions concerning your building(s). Climate Action Planning, based on a Greenhouse Gas Inventory, can help you design a holistic, cost-effective road map for reducing your overall carbon footprint.

Implementation- involves the management of quality, cost, time, and scope throughout planning, design, construction, and post-construction phases on both renovation and new construction projects.

OPTIMIZATION

Benchmarking - reviews building energy use, comparing it to data from similar facilities to identify areas for improvement.

Commissioning - verifies that a new building's complex systems are properly installed to operate to design intent and maximum energy efficiency.

Retro-commissioning- verifies that an existing building's systems are properly installed, maintained, and controlled to operate to design intent and identifies opportunities for improved energy efficiency.

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