

MAZZETTI NASH LIPSEY BURCH



*Beyond Engineering*

M+NLB's vision is to make the world a better place by creating better environments. For almost 50 years, we have been building these facilities along the west coast and throughout the nation.

M+NLB knows how to design complex facilities, and we know how to get them built. In our 50 years, we have collaborated with our clients, and especially with the facility managers who must operate their facilities in a safe and effective way. We understand their challenges, and we are able to help develop strategies that improve these critical operations.

We have hired not only engineers, but also engineers with MBAs and financial backgrounds enabling us to understand the financial world of the industries we serve. In addition, we believe our role encompasses that of an investment manager—we strive to help our clients make only those investments that help them achieve the most significant progress toward their visions.

Because of our deep commitment to making the world a better place, we have long occupied a leadership position in sustainable design. But while others are satisfied with simply designing greener buildings, we focus our efforts on providing myriad ways to help our clients deal with the reality of combating climate change, and the legal, regulatory, and financial changes that will be part of this battle for many years to come.

# Operational Savings & Healthcare EEP

*Case Study / [mazzetti.com](http://mazzetti.com)*



# Process

## PHASE I: Energy Audits

First, M+NLB provides free energy audits for the facility. The audits assemble and summarize energy consumption from the facility, including benchmarking against similar facilities. The audit includes a facility tour by one of the M+NLB Climate Change Consultants, coupled with detailed interviews of the facility operators. M+NLB then catalogs as many Energy Conservation Measures (ECMs) as we are able to identify, together with order of magnitude costs and order of magnitude savings of energy, and energy costs. The audits consider all feasible energy measures, including lighting, heating and cooling; fans, controls, and pumping systems; equipment; and maintenance issues.

## PHASE II: Recommended Energy Demand Reduction Program

M+NLB next provides customized recommendations for the facility for all financially feasible measures. Our reports include simple payback and life cycle assessments for the proposed ECMs. Our summary reports deliver ECMs with an assessment ranking for accurate decision-making and goal setting. The analyses include an offer for incentives from utilities, as well as other potential financing sources.

In performing the financial analysis, M+NLB's philosophy is to act as more than just engineers—we think of ourselves as investment managers. We know that healthcare owners must achieve a high return on their facility capital investments, and we help them to see the potential returns from the various ECMs, together with a sensitivity analysis, so that they can understand how their savings might change with various potential energy futures.

## PHASE III: Implementation

Because M+NLB has been designing and building healthcare facilities for almost 50 years, we are then able to help the facility deliver its project. We work with the facility to develop the desired scope. We have the ability then to provide them with complete design-build services, or to work with a favorite local contractor to develop the design documents and get the project permitted. Once the project construction is complete, M+NLB then performs commissioning services to verify savings to the utility, and to leave the facility owner with a functioning system. Upon completion of the project, the facility receives the promised utility incentive payment, and then they realize the energy savings for the remaining life of the system.

In 2006, frustrated by its inability to attract healthcare customers to its incentive programs, Southern California Edison (SCE)—the largest electrical utility in California, serving over 13 million people in 50,000 square miles—hired Mazzetti Nash Lipsey Burch (M+NLB) in a unique performance-based contract to create demand for healthcare energy reduction projects through their Healthcare Energy Efficiency Program (HealthcareEEP).

M+NLB's distinctive understanding of the healthcare industry, coupled with our expertise in the energy-consumption patterns and savings opportunities, and topped off by our ability to deliver successful design and construction projects, made us the ideal partner for SCE. The program was so successful in 2007 that SCE elected to extend it two more years, and San Diego Gas & Electric, the neighboring utility, hired M+NLB for a similar effort.

M+NLB is working with SCE and two other marketing and project management consultants to provide a disciplined approach to moving the healthcare facility market.



According to EIA, Healthcare operations spend over \$83 billion\* on energy each year to meet patient needs. Every dollar a healthcare organization saves on energy is equivalent to generating new revenues of \$20 for hospitals. A 5% reduction in energy costs in for-profit hospitals, medical offices, and nursing homes can boost earnings a penny a share.\*

\*Source EIA, CBECS 2001, Adjusted for inflation to 2007 dollars.

# Results

To date, M+NLB has completed Phase I Energy Audits for approximately 20 facilities, including:

- Kaiser Permanente
- Providence Health System
- St. Joseph Health System
- Veterans Health Administration
- Simi Valley Community Hospital
- Sierra View District Hospital
- Kaweah Delta Healthcare District Hospital
- Desert Regional District Hospital

We have completed Phase II reports for most of these clients, and we have seven implementation projects underway (as of 12/31/07). Our estimate of savings that this program will achieve was 6.5 million kilowatt hours per year (kWh/year); however, based on the studies to date, savings are projected at 12 million kWh/year.