

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.

Kaiser Permanente

Detailed Energy Analysis Yields Significant Energy Savings

Case Study / mazzetti.com



Kaiser Permanente hired Mazzetti Nash Lipsey Burch (M+NLB) to analyze all 10 of its Northern California sites for potential savings.

M+NLB Protects Kaiser Permanente's Financial Health

Filtering for Results

Kaiser Permanente was anxious for quick results. With 10 medical centers totaling 2.6 million square feet, M+NLB developed a tailored approach to the Kaiser Permanente analysis, ensuring similar results across all facilities. M+NLB then trained and dispatched four teams to work in parallel to quickly collect consumption data and provide detailed facility assessments. Kaiser Permanente initially requested examination of approximately 20 Energy Conservation Measures (ECMs) per site—for no increase in cost, we delivered an assessment of over 50 different ECMs per site. And there was more: the assessments were quite thorough, turning up dozens of additional potential ECMs.

M+NLB then turned to data crunching, assessment, and presentation. We prepared detailed financial analyses for each ECM for each site, including sensitivity analyses. The analyses included simple payback, as well as net present value and internal rate of return, so that the data could be presented appropriately to various audiences within Kaiser Permanente. M+NLB then worked with Kaiser Permanente financial staff to prepare all necessary documentation for internal project control and approval for the recommended ECMs.

Delivering Results

The 2001 Energy Studies resulted in \$24 million of recommended capital investments, with promised annual savings of approximately \$5 million. Over the next few years, Kaiser actually implemented \$14 million of the M+NLB recommendations, and, by its calculations, now saves approximately \$2.5 million every year as a result. They have already saved enough to pay for the capital investments; and for the rest of the lives of these systems, they will reap the additional rewards. By way of comparison, the total capital investment resulting from all other consultants in all other Kaiser Permanente facilities has been just over \$3 million.

What's on the Horizon?

In addition to our efforts to reduce overall energy consumption, M+NLB has been exploring the use of on-site renewable energy generation to help reduce Kaiser Permanente's dependence on fossil fuel-based energy

In 2001, Kaiser Permanente, the only private U.S. healthcare company that only makes money by keeping people well, faced an increasingly threatening energy market. Kaiser Permanente owns and operates over 60 million square feet of healthcare buildings across the country, and it was on the verge of losing its advantaged energy-pricing contract with Enron.

More, the state of California, which contained the majority of Kaiser Permanente's building assets, faced gaming by the power industry in the face of deregulation. This gaming, coupled with aging and inadequate distribution of facilities, resulted in rolling blackouts across the state. Kaiser Permanente needed to develop a rational approach to managing the energy portion of its budget.



The annual energy savings for the 10 Northern California sites correspond to 17,500 metric tons of CO2 saved each year, or the equivalent of 3,400 cars being taken off the road.

and alleviate the inherent cost volatility of utility-delivered power. Scheduled for completion in December 2008, the current pilot project will provide over 3 megawatts of on-site photovoltaics for five select Kaiser Permanente facilities throughout California. Other consultants in all other Kaiser Permanente facilities has been just over \$3 million.

In late 2001, M+NLB introduced Kaiser Permanente to the Power Purchasing Agreement (PPA) structure as a means for obtaining on-site renewable energy generation at little or no cost to Kaiser. In a PPA, a solar provider assumes a majority of the risk and installs the photovoltaic system with their own capital on property leased from a Kaiser Permanente facility. The only significant obligation from Kaiser Permanente is to purchase the power produced by the system for the 20-year life of the contract. From the beginning, M+NLB has led the development of the project objectives and the request for proposal while simultaneously auditing over 20 potential solar sites in search of the final 5. We have also been a key player in the financial analysis, proposal selection, and overall project management, with construction administration services planned through implementation. In most cases, the on-site energy generation will not completely offset local energy demands but will provide financial security by guaranteeing energy costs for the next 20 years, as well as serve as an example of sustainability for large organizations everywhere.

Kaiser Permanente's Energy Legacy

Because of our work on the Energy Studies—and our continued efforts to help make Kaiser Permanente more energy efficient, and because of Kaiser's commitment to environmental safety, people in Northern California can breathe the air that is just a little bit cleaner.