CALIFORNIA HOSPITAL

CASE STUDY

Located in Southern California, this hospital's main campus has patient care, research, pharmaceutical manufacturing, and patient housing facilities. Faced with comfort system challenges, they engaged with FlowEnergy to optimize the campus' cooling.

THE PROBLEM

This hospital and research center was struggling to provide adequate cooling across campus with their current system's chiller capacity. This limitation forced management to consider energy curtailment – essentially shutting down buildings to save energy. The urgency of this situation, coupled with the campus' need to add new research buildings, meant constructing a new California hospital association (OSHPD)-certified chiller plant. This chiller plant would have been a multi-million dollar capital investment, had FlowEnergy not suggested an alternative approach: reduce the demand and optimize the existing comfort system.

FAST FACTS

LOCATION
Southern California

INDUSTRY
Hospital/
Research Center

CAMPUS SIZE
1,500,000 square ft
across 22 buildings

PROJECT TYPE
Chilled Water System
Optimization

ANNUAL SAVINGS
6,912,000 kWh
$550,000

THE SOLUTION

Following on-site surveys, FlowEnergy proposed a chilled water optimization project with 10% savings on total electricity and 1,600 tons in recovered chiller capacity. With the hospital's management on board, FlowEnergy proceeded to install SmartValve devices across campus, and deploy FlowEnergy Surge software for energy monitoring. By harnessing the power of patented hardware and innovative software, we precisely matched flows to the load at each air-handling unit. As each building was integrated, the reduced loads mirrored the output from our hydraulic model and the savings started to take effect.

THE RESULTS

After completing the project, the results exceeded our predictions. Recovered capacity increased from 1,600 to 2,100 tons, and we are tracking to exceed 4,000,000 kWh saved annually. For a medical facility, patient care is paramount, and FlowEnergy was able to provide these energy savings without sacrificing patient comfort. On the contrary, comfort improved as a result of this project.

- *6,912,000 kWh saved annually*
- *$550,000 in annual utility savings*
- *$550,000 project rebate*
- *2,100 tons of capacity recovered (25%)*
- *1,780 kW peak demand reduction*

ABOUT FLOWENERGY

FlowEnergy offers next generation solutions for energy efficient, cost effective, and comfortable buildings. We consider each element of your energy ecosystem and how they work together. Based on your energy consumption, we reverse engineer a tailored optimization strategy that complements and enhances your existing infrastructure.

Our sister company, Flow Control Industries, has a long history of market-shifting firsts. FlowEnergy builds on that proven performance with innovations that make a real difference. Because we know that today's best is just tomorrow's benchmark, we never stop pushing the boundaries to deliver more effective and efficient solutions.

FlowEnergy

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