

A photograph of a hospital hallway. In the foreground, a woman in a white lab coat is at a reception desk. A man in a white shirt is standing next to her, holding a large bouquet of flowers. In the background, a woman in a white lab coat is walking towards the camera, and a young girl is running. There are yellow chairs and a potted plant on the right side of the hallway. The ceiling has recessed lighting.

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# Ochsner Medical Center – simplified operation and less costs

Easier control of system and reduction of energy consumption with  
Demand Flow from Siemens

“I know that it takes less energy, but mostly, the redesigned system is a lot easier for me to control. Before, I had to look at four systems for my one chilled water plant. But now I can see everything, for every building, in one place.”

Terry Dillenkoffer  
Manager & Chief Engineer  
Facilities Management  
Ochsner Medical Center

## The building

Ochsner Medical Center is located just outside New Orleans and is part of Louisiana’s largest non-profit academic health-care system: Ochsner Health System. Since opening in 1942, Ochsner Health System has since grown to eight hospitals and 38 health centers, employing more than 12,000 people and 750 physicians.

Over the decades, Ochsner Medical Center added several buildings to its campus. During the expansion, many manual processes of plant operation remained in place while some system components were added. Some of the additional pumps created problems with the system’s ability to cool effectively and efficiently.

## The challenge

Ochsner Health System wanted to reduce operating costs for Ochsner Medical Center central plant by simplifying the system’s design, automating the plant and reducing total plant energy consumption. Ochsner Health System identified several key goals:

- Gain control over central chilled water plant with a single chilled water automation system
- Optimize plant performance by automating and reengineering manual processes
- Improve efficiency by eliminating unnecessary system components
- Decrease costs by reducing the total chilled water plant energy consumption

**Answers for infrastructure.**



### The solution

Siemens implemented its Demand Flow™ solution, a turnkey solution that optimized the chilled water system, in approximately eight months. It optimized pumping and chiller production to exactly meet the demand of the facility. The solution enabled the removal of unnecessary pumps, thereby reducing energy consumption required to operate the pumps, and was able to maintain optimum system pressure and temperature.

As part of the project, Siemens installed 70 variable frequency drives (VFDs) on the pumping systems, installed new high-accuracy temperature sensors and flow meters and reprogrammed the sequence of operations for the chiller plant. VFDs on the chiller compressor motors were not required as part of the Demand Flow solution; however, the optimization of the pumping systems enables the reduction of chiller compressor energy. The increased plant efficiency also leads to increased system deliverable capacity and reduced plant runtime.

Prior to Siemens implementation of the Demand Flow solution, there were four building automation systems serving various parts of the facilities. All four needed to be monitored to operate the campus' one chilled water system. Today, the Demand Flow solution has provided the facility engineers with a single system where they can view, track, trend and manage all of the chilled water system's critical data from a single head end.

Siemens guaranteed an average of US\$86,000 in monthly savings generated by Demand Flow and completed the project on schedule. It did not need to provide temporary cooling, which helped reduce the overall costs of the project. Most importantly, patient care was not adversely affected by the implementation of Demand Flow.

### Highlights

- Annual energy savings of US\$1,033,000
- Monthly savings of US\$86,000 guaranteed by Siemens
- Reduction of 8,915 ton of CO<sub>2</sub> emissions per year
- Annual electricity usage reduced by 36.3%