



FES International, Inc.

COMMERCIAL BUILDING

Blue Cross Blue Shield



Challenge

Blue Cross Blue Shield's 16-story, 70s-era corporate headquarters building was constructed like most high-rises in the last century with two risers per floor and two low-voltage distribution transformers per floor.

With increased integration of controls, a greater dependence on information technology, and an ever expanding data processing center and call center, Blue Cross Blue Shield partnered with FES International to optimize this mission critical 24-7 corporate facility, making the connected loads 100% compatible with the low-voltage distribution system.

Following numerous collaborative discussions, FES International assessed power system optimization opportunities. FES International's thorough facility auditing process confirmed that existing loading in the system was out of balance, voltage distortion from nonlinear loads was prevalent, and much of the existing infrastructure had inefficient performance levels.

Solution

FES International created a solution to reduce nonlinear load-generated "penalty losses" in the distribution system, increase system and load energy efficiencies, improve system power factor, and reduce voltage distortion at the 480-volt loads. To implement this solution, FES International designed a power system optimization plan that produced a new low-voltage distribution system, causing the cancellation of the 5th, 7th, 17th, and 19th harmonic currents throughout common 480-volt buses.

Impact and Results

The reduction of power usage saves Blue Cross Blue Shield \$64,000 annually. FES International also met with New Jersey "SmartStart" Buildings to present the proposal, calculations, and system solution design. After extensive review and scrutiny, the New Jersey State Utility issued an energy efficiency rebate that supported nearly 25% of the entire project cost.

Client Profile

Formed in 1932, Horizon Blue Cross Blue Shield of New Jersey is the state's oldest and largest health insurer. In 2010, the company processed more than 57.6 million claims totaling more than \$13 billion for its members. The company has more than 4,800 employees and is headquartered in Newark with offices in Harrison, Wall Township, Mt. Laurel, and West Trenton.

Promises Delivered: \$ ♻️ 🌱 ⚠️

To learn more about this project, please contact FES International.

FES International designs and engineers fully customized power system solutions in order to improve the performance and efficiency of the entire electrical distribution system. Contact us today to fully optimize your distribution system:

(727) 478-7288 or www.FES-US.com

CASESTUDY