TIME WARNER CENTER, NEW YORK CITY

Energy optimization efforts will help save 1.8 million kWh annually

The 2.8 million-square-foot landmark is home to shops, restaurants, residents and offices.

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Contract Facts

2.8 million
square-foot mixed use complex

Services provided since: 2013

SourceOne energy consulting

More than $300K
in annual energy cost savings

Nearly 20%
reduction in energy consumption and growing

More than 1.8 million kWh
savings/annually

Scope

Located in central Manhattan, Time Warner Center is one of New York City's most recognizable buildings. The 2.8 million-square-foot landmark is home to shops, restaurants, residents and offices. In order to ensure a comfortable yet sustainable environment, managers of The Time Warner Center, Related Management, sought to make its central chilled water plant more efficient.

Challenge

Veolia's energy consulting group, SourceOne, performed a peer review to determine current operating conditions, evaluate issues affecting efficiency and make recommendations for capital investment and energy efficiency projects. The existing central plant required upgrades to incorporate newer technology and greater operational flexibility. The system had limited ramping up or down capability to meet system demand, causing the system to run inefficiently.

Solution

Several identified improvements were reviewed and a cost-benefit analysis was performed as part of SourceOne's peer review. Implementation of variable frequency drives on primary pumps and chillers allows greater operational control, ensuring flexibility to meet demands to the system. New operations procedures were implemented in order to improve energy efficiency of the plant.

Result

During the analysis, the SourceOne team reinforced Related Management's current approach to the plant's upgrades and identified key areas where improvements will yield significant benefits: efficient and sustainable use of resources and materials; enhanced system effectiveness; and reduced costs, while improving plant operation.

To date, four primary chilled water pumps were upgraded to variable frequency drives and existing building management software was updated to effectively manage the new drives. This change, along with additional process improvements, allowed the plant nearly 20% energy savings. In addition, we are in the process of retrofitting two of additional chillers with variable frequency drives that will yield additional energy savings.