Building Performance Equipment, Inc.®

Sustainable, Reliable, and Energy Efficient Ventilation Systems

ENERGY STAR PARTNER

LOCATION

145 Talmadge Road
Edison, NJ

APPLICATION

656,000-sq.ft. Industrial Complex with refrigerated warehouse

CHALLENGE

Avidan Management's 656,000-sq.ft. property had been labeled a 'gas guzzler,' making at least 200,000 sq.ft. of the structure challenging to rent. The facility included 40,000 sq.ft. of one-story office space, a 181,000 sq.ft. refrigerated warehouse, and 433,000 sq.ft. of mixed-use dry-warehouse space. Haglid Engineering performed an energy audit on the complex, which determined the need for a host of retrofits, plus occupancy and refrigeration controls, then came up with an energy reduction plan.

SOLUTION

Haglid's reduction plan included a 4.26-megawatt rooftop solar array--the largest roof-top mounted installation in the country at the time. The building's envelope was optimized to achieve an R-30 insulation value. A barrier wall was built to separate the loading dock area from the cooler/freezer areas of the main warehouse. New controls were added to the 1,222-ton refrigeration plant as well as high-speed cooler/freezer doors. Energy-efficient lighting with motion sensors was implemented, and energy-efficient heaters were added to dry warehouse areas. Especially key, a 20,000-cfm BPE energy recovery (ERV) system improved HVAC efficiency as well as indoor air quality.

Once Haglid's energy reduction plan and BPE energy recovery tools were implemented, the building became ENERGY STAR® Certified. Potential tenants could not believe 145 Talmadge Road was the same property. Building efficiency improved by over a third, and despite 181,000 square feet of refrigerated warehouse space, the building achieved Net Zero status as it became net power producing. Avidan Management quickly rented its space, and the Urban Green Council awarded the project with a 2012 EBie for the building with the highest percentage of energy savings.

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