

Jewish Community Center

Tenafly, New Jersey



Background

Located in Northern New Jersey, the Jewish Community Center on the Palisades (JCC) serves the community as a center for cultural and family activities ranging from swimming and sports to day care and senior activities.

Originally opened in 1981, the facility has expanded over the years to accommodate the growing community. Currently, the property is home to approximately 160,000 square feet of activity, classroom and office space including an Olympic sized pool, full regulation sized basketball courts and shower facilities.

As the electrical and mechanical load requirements grew, the need for additional and more cost effective electrical and thermal energy supplies became apparent. To meet that need, two Tecogen CM60 cogeneration systems, supplying low cost electricity and thermal energy, were installed in the late 1980s.

Initially, both CM60 systems operated between 12 and 15 hours per day. Over the years, however, the maintenance of the equipment became burdensome and the need for service increased. With the system's functionality reduced, they no longer provided the savings that were originally anticipated.

Solution

Working with the JCC, American DG Energy evaluated the historical use patterns for the equipment and assessed the repair and upgrade costs as well as the potential savings from bringing the systems back into full operation.

American DG Energy determined that by investing in the repair of the systems and providing their On-Site Utility services, which includes all maintenance and fuel costs, both cogeneration systems could be restored to full capacity and at no cost to the JCC.

American DG Energy purchased both CM60 systems from the JCC, paid for the repairs and today is responsible for all equipment operating costs. Now, the JCC only pays for the energy supplied by the equipment and the price for that energy is discounted by 10%.

The JCC Management is very pleased with the new relationship. Danny Rocke, the JCC's Chief Financial Officer points out an additional financial benefit. "The JCC not only saves 10% on energy costs from American DG Energy, we also no longer spend thousands of dollars each year on maintenance of the cogeneration equipment. And, since our facility staff is free of all the service responsibility, they have more time for their primary building responsibilities."

During the Winter heating season from October through April, both CM60 systems operate 24 hours a day and seven days a week delivering discounted electrical and hot water energy savings. In the Summer, one CM60 module provides the thermal and electrical energy needed by the JCC.

As a result of implementing American DG Energy's On-Site Utility, a clear improvement was seen in the energy savings and operational contribution of these once forgotten CM60 systems. The JCC is expected to save more than \$200,000 over the term of the agreement.

In the end, what had become an under performing energy system has now come back with a resounding rebound. The system today provides energy savings on a continuous basis for the JCC and is helping them contain rising energy costs. The JCC is saving money on their energy costs without any of the equipment responsibility.

Avi Lewinson, the JCC's Executive Director added, "Because American DG Energy is only paid for the amount of energy they are able to provide us, they have a built in incentive to care about their equipment performance as much as we do. They've become a real partner in helping us control our energy costs."



Project Highlights:

American DG Energy implemented the following upgrades and repairs:

- Purchased both CM60 systems from the JCC
- Upgraded the controls
- Completely refurbished and rebuilt both Tecodrive natural gas engines
- Refurbished and repaired the pumping loops from both systems to their domestic connections
- Rebuilt and reconfigured the hot water supply and return loops to the existing domestic hot water tank
- Repaired and refurbished the boiler loop heat exchanger
- Repaired and refurbished the pool heat exchanger loop
- Installed additional metering including: a new output BTU meter to monitor cogeneration thermal output; a utility grade gas meter to monitor equipment gas consumption; and new loop temperature sensors

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