



FACILITY

Nine Mile Point Nuclear Station is located in Oswego, NY, and has two boiling water reactors that provide more than 1,900 megawatts of electricity to more than 1 million homes. This plant is the first nuclear power facility in the U.S. to be certified for meeting ISO voluntary environmental management systems standard—a clear indication that Nine Mile Point has taken a leadership position in the environmental area.

CHALLENGE

Management-driven energy and maintenance saving initiatives drove a search for an energy efficient lighting solution that could provide sufficient light from a great distance. Weather conditions such as high winds and large amounts of snow were a concern due to the northern lakefront location of the facility. Energy usage and lighting maintenance costs were high due to stringent work safety guidelines and the governmental requirement that nuclear power plants be the most secure facilities in the entire U.S. industrial infrastructure.

SCOPE

Replacement of the current 1000W metal halide lights mounted at a height of 100' to generate an efficient amount of light to illuminate a greater area than what the metal halide system could deliver.

SOLUTION

25 Ephesus Visium 600 LED fixtures were installed (5 per pole) at a height of 100'. A custom bracket system was engineered for the existing poles to provide additional support, eliminating safety concerns due to potential high winds and snow build up.

RESULTS

Energy savings is estimated to be 78%, and an average of 5fc was generated. The area illuminated increased by 50% over the metal halide system. The Ephesus LED upgrade eliminated heavy maintenance costs and provided a brighter light that was able to illuminate a greater area. In addition, less than half as many light fixtures were needed due to the smart lensing technology that precisely focused light in specific areas to maintain the high level of security necessary for the facility.

“The foot candle readings do not give a fair representation of what the eye really sees. The Visium lights are brighter, crisper and whiter to the eye, with a feeling of more light.”
 – Anonymous (due to nuclear facility security regulations)