

# ICE RINK CUTS ENERGY COSTS

## Relighting for Energy Conservation



### ICE HOUSE

111 Midtown Bridge  
Approach  
Hackensack, New Jersey

### FACILITY DESCRIPTION

Sports Facility

### HOURS OF OPERATION

4,000-8760 per year  
(Variable)

### TOTAL KW Reduction

112 KW

### ANNUAL ENERGY SAVINGS

\$56,000.00

### RETROFIT DESCRIPTION

Replacement of Rink Lighting



With four regulation size NHL rinks, Ice House is the largest facility of its kind in the Tri-State area. Located just minutes from New York City, the Ice House is recognized as a world-class skating facility. From its first year of operation, Ice House has consistently drawn attention and praises of everyone from Gold Medal Winning Olympic Skaters to NHL Professionals. When looking to upgrade their lighting, Ice House turned to O.K. Electric for an energy saving solution.

### THE AUDIT

The first step in determining the viability of an upgrade at this location was the execution of a detailed audit. The O.K. Electric survey team visited the site, and developed a comprehensive database of all of the existing light fixtures throughout the facility. Information was gathered from management on operating hours. Electric bills were used to verify energy costs. The optimum lighting design was developed, and a final proposal was presented.

### HID RETROFITS

Existing lighting over the rinks consisted of 1000 watt metal halide fixtures with spun aluminum reflectors. The existing reflector design provided mainly horizontal foot-candles. Fixtures were upgraded one for one with new 400 watt pulse start metal halide fixtures. The new fixtures utilized an acrylic prismatic lens and a Stingray dual reflector, providing several benefits.

First, the prismatic reflectors provided 20% uplight, utilizing the white ceiling to provide more consistent

illumination and improved vertical light levels. Measured light levels were maintained. The 400 watt lamp source not only consumed 60% less energy, but the new lamps last more than twice as long, reducing future maintenance costs. Start up and re-strike times were also dramatically reduced.

### NEW JERSEY CLEAN ENERGY

The New Jersey Clean Energy Program provides a rebate for companies interested in updating to new energy efficient technologies. This rebate helped the Ice House realize a payback period of less than two years, and a 56% return on investment.

### THE ENVIRONMENT

All lamps and ballasts on this project were recycled, preventing the release of mercury and PCB's. Additionally, The Kwh savings of this project annually eliminates the release of 1,792,000 pounds of CO2, the major cause of climate change, and saves 1,548 Barrels of oil per year, providing a benefit equivalent to removing 161 cars from the road.

### WARRANTIES

New Fixtures carry a 5 year warranty, providing peace of mind into the future.



ENERGY SOLUTIONS - O.K. ELECTRIC SUPPLY COMPANY

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