Major Midwestern University definitively solves century old problem of chiller fouling.

Implemented in 2017, the effectiveness of the Helios© system was carefully evaluated by operations, engineering, finance and maintenance. From start to finish, the implementation started with one evaluation chiller followed by additional (Evap & Condenser) large chiller implementations (54,000 Tons) over the next three years. Five years later, the Helios© systems have slayed tube fouling saving the university $100K's in maintenance and $M's in energy costs.

The savings on the first (test) chiller exceeded $40K annually leading to the prompt integration of the Helios Automatic Tube Cleaning System© university wide. After all the chillers were equipped the total hourly savings exceeded $260.00 per hour (255.00 Net) energy savings translating to >$1M saved annually and project payback in under three years. The old wisdom is true...Fortune does favor the bold.

Mitigating Energy Costs

The elephant in the room. A major issue facing large organizations is the forecasted rise in energy rates. Electricity could easily triple in cost over the next ten years, and if so, the price rise magnifies the value of the Helios proportionately.

- The Helios TCS© saves energy and reduces demand from the grid from high use systems.
- The Helios TCS© offers a fast ROI for chiller operators with immediate energy cost savings.
- The automated cleaning system eliminates labor necessary for manual chiller tube cleaning.

Savings & Performance

One of the key attributes of any performing asset is how much it cost to operate, initially and into the future. Additionally, the asset reliability and longevity factor into the calculation of the ultimate asset value. In these regards, the Helios TCS© performs at a level with very few equals.

The university, with 18 Helios© systems in operation during the chilled water season, experiences an aggregated (all) hourly cost of operations of $4.54 per hour equaling about $.25 (25 Cents) per hour per Helios© system. The variables included in the cost of operations included pump skid energy, cleaning balls, labor to change cleaning balls (1000 run hour change cycles), and a reserve for spare parts.

- **$255 / Hour Net Energy Savings**
- **Annual Energy Savings > $1 Million USD**
- **Labor Savings > 1,000 Man-Hours Annually**

Unparalleled Life Cycle Savings

The Helios Tube Cleaning System© offers measurably significant savings for chiller operators in HVAC, District Energy, commercial or industrial applications. From a Life Cycle Value Stream (LCVS) perspective the Helios© performs with few equals generating energy savings, reliability improvements and real labor savings.

The Helios© is designed for strength and simplicity translating to a reliability rate of over 99.97% making unplanned maintenance very rare and enabling minimized spares stockage. Intended to out last the chiller it serves, the Helios© also incorporates a technology road-map to ensure its contributions into the future.

A

On average, the Helios© delivers an 8% improvement in chiller efficiency with a full project cost payback in under 3 years.

B

The Helios© eliminates the need to manually clean chiller tubes saving thousands of dollars in annual maintenance per chiller.

C

A typical Helios© installation (four 1,500 ton chillers) will save over 1.0M kW hours annually avoiding over 730 tons CO2 emissions.