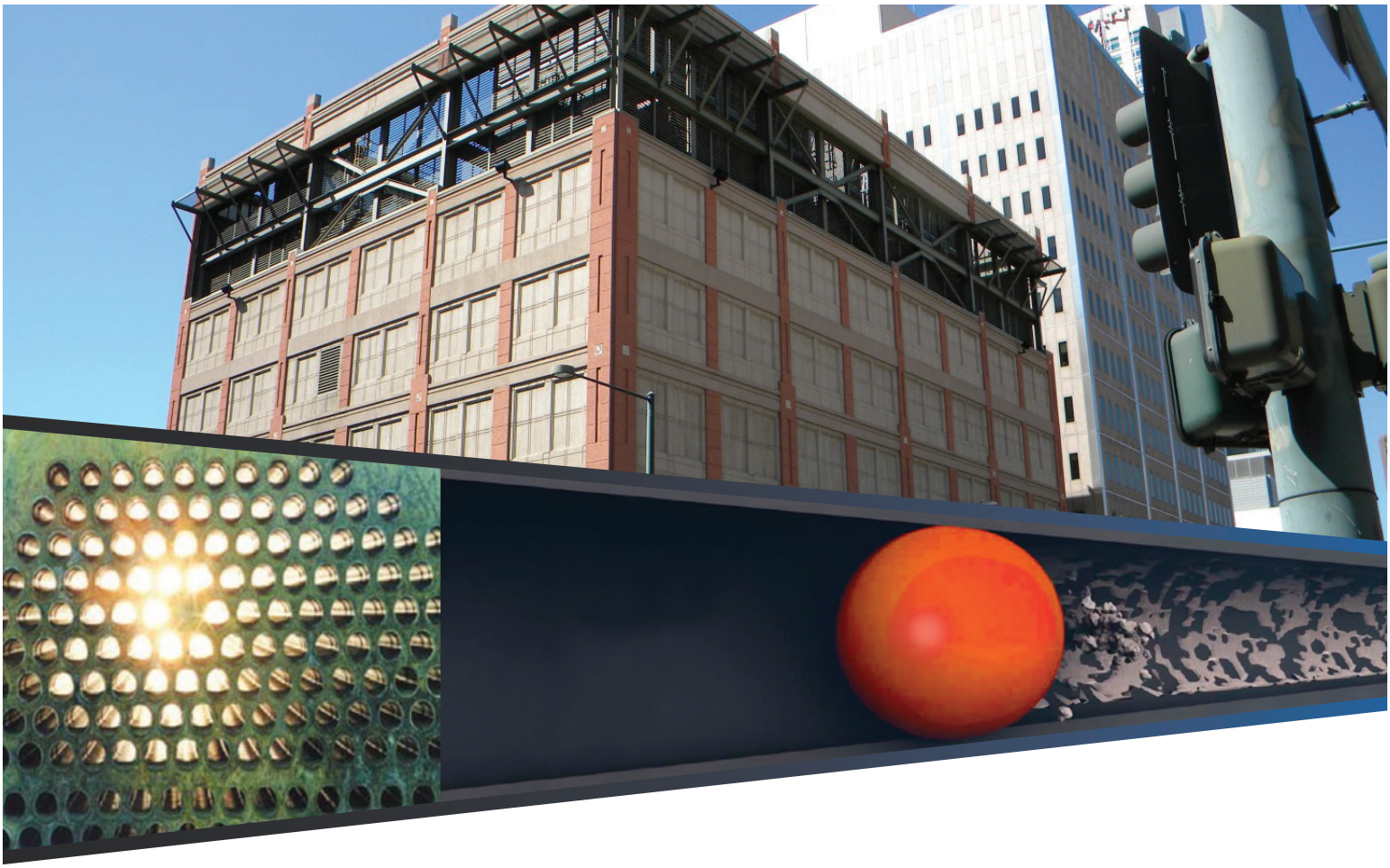
AN INNOVAS TECHNOLOGIES® CASE STUDY

Xcel Energy Sees 2ND Straight Year of Substantial Energy Efficiency Gains with Helios



Mike O'Malley, embracing Xcel Energy's commitment to sustainability excellence, found a great opportunity to significantly improve chiller efficiency in the district cooling plant he manages in Denver, Colorado.

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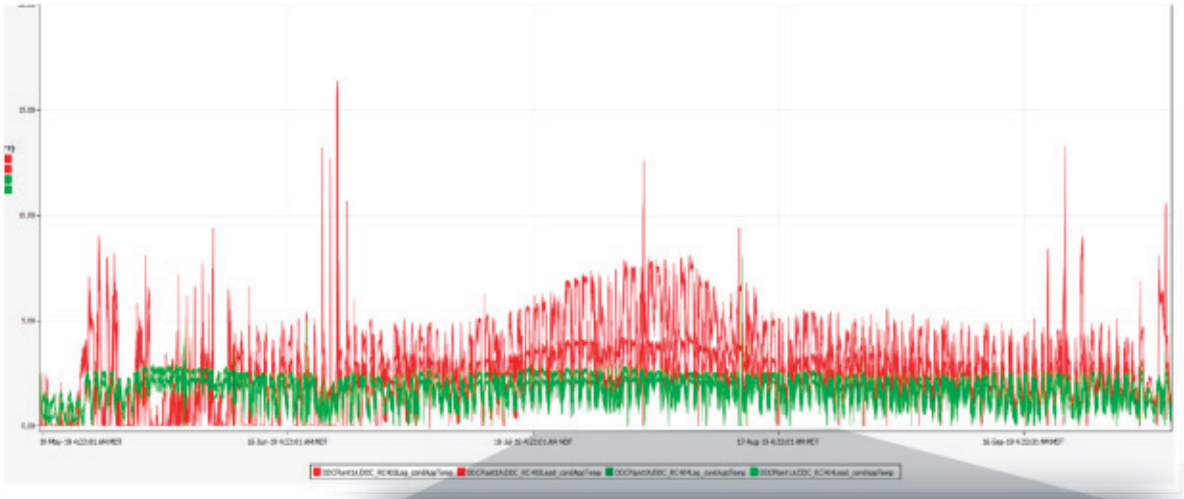
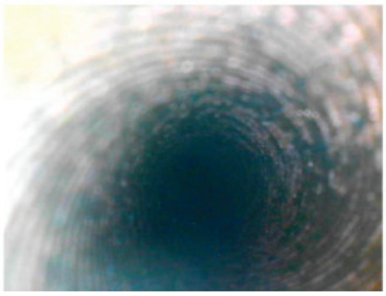
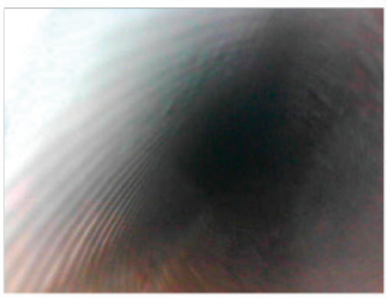


In 2018 we reported the outstanding results that Xcel Energy in Denver had after installing the Helios System. Those results, as confirmed by Xcel Energy show substantial energy efficiency gains after installing the Helios System. Are those results repeatable? The above graph represents the approach temperatures of the identical chillers run in 2019. One served by the Helios System, one not. The green chiller, served by the Helios System maintained an average of .5F approach temperature throughout the cooling season. The red chiller, left unserved, obviously did not. Repeatable performance, year after year.

RC403 No Helios



RC404 With Helios



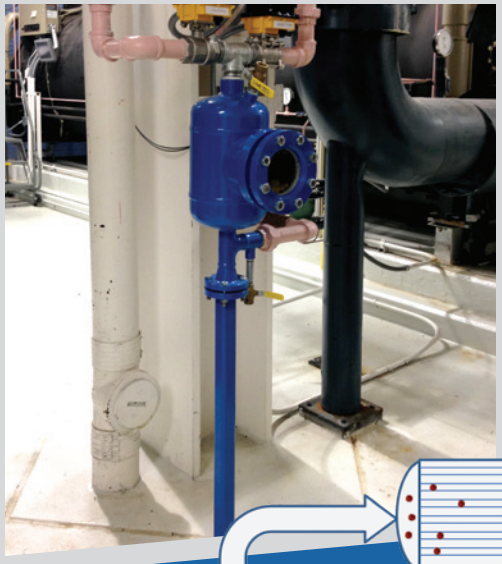
Borescope photos also show the difference. One is completely clean; the other is obviously not.

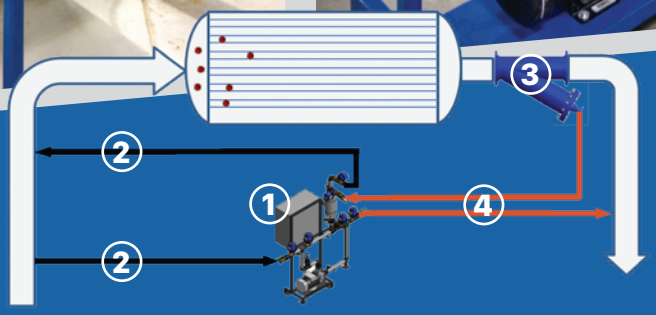
By their own words, Xcel Energy provides their customer a "safe, reliable, affordable energy that they need and expect. We're recognized as industry leaders in delivering renewable energy and reducing carbon and other emissions."

Integrating the Helios System has been a proven avenue for them to provide all of those things to their customers.

The Helios Tube Cleaning System® from Innovas improves the energy efficiency of cooling systems

- **Prevents scale**, fouling, biological life and corrosion in heat exchanger tubes
- **Reduces maintenance** and downtime costs by eliminating manual or chemical tube cleaning
- **Extends the service life** of heat transfer equipment





The Helios Cleaning Cycle

The Helios cycle is fully automatic and controlled by a programmable controller.

1. Between cycles, the sponge balls are stored in the Collector and all valves are closed.
2. At programmed intervals, the Controller commands the injection valves to open and pump to start, and the balls are injected into the heat exchanger inlet line.
3. Normal cooling water flow transports the balls through the heat exchanger tubes and into the Ball Trap.
4. The Controller then prompts the collection valves to open and pump to start, and the balls are returned to the Collector, where they are held until the next injection/collection cycle starts.

View the Helios TCS Operation in action at innovastechnologies.com

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