

# Eliminating false positives with automated condition monitoring

Optimum Energy uses Tignis software to detect faults in vast amounts of chiller plant sensor data.

## The Energy Efficiency Leader

Optimum Energy enables campuses, hospitals, manufacturing facilities, data centers and other commercial operations to cut energy costs and meet sustainability goals by optimizing HVAC systems. Monitoring hundreds of chiller plants worldwide, Optimum was interested in enhancing its internal technical support team capabilities.

## Fault Detection Challenges

Traditional implementations of fault detection rely on basic pre-programmed rules, resulting in an abundance of unnecessary or meaningless faults. For Optimum Energy, every chiller plant installation they monitor is a “snowflake,” with sensors configured differently for each location. Rules were not always transferable between different chiller plants or buildings. This made managing fault detection labor intensive.

## Automated Condition Monitoring Solution

Tignis integrated an automated physics-based model with its artificial intelligence and machine learning software to curate fault detection instances for Optimum Energy. The system model has an accurate understanding of performance standards. Tignis’ automated and continuously learning process solved the “snowflake” issue, rapidly generating reliable fault detection models for many of the facilities Optimum monitors.

## Impressive and Scalable Results

Tignis’ software is now used across many of the chiller plants that Optimum Energy serves—monitoring and assessing a vast amount of anonymized data. It reduces the quantity of false positives, and helps Optimum’s technical account managers be more proactive in serving customers.



OPTIMUMENERGY

**“Rather than just telling us there’s a problem, Tignis’ software tells us why there’s a problem and what to do about it. Tignis delivers a carefully curated list of instances of faults that are meaningful—we can be sure that they’re something we can act on.”**

Fred Woo, PE  
 Manager of Engineering,  
 Optimum Energy

**See what Tignis can do for your business.**

For more information on applying analytics to your 24/7 monitoring data, visit [www.tignis.com](http://www.tignis.com).