

Empowering Mid Size Automotive Parts Manufacturer Energy Efficiency

Graphet Data Mining's strategic energy management approach addressed the business need to understand energy usage and opportunities to set realistic targets for this site. Best practices for shut off efficiency, peak demand management and system operations were identified using Graphet's data visualization techniques.

Overview of critical systems analyzed

- Compressed Air optimization
- Lighting improvements
- Process cooling optimization
- Process equipment operations such as lathes & sanders



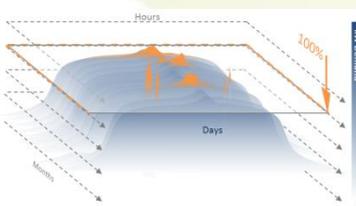
About

Graphet Data Mining facilitated process efficiency and energy management for an industrial automotive parts supplier in Ohio. This mid-size business operates as a set of two plants and has been a leading supplier to the Japanese automotive industry.

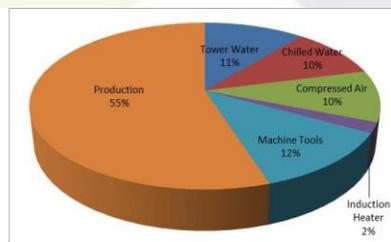
With sponsorship from the with State Energy Program, Graphet Data Mining Government implemented the three-phased approach to develop this site's strategic energy management plan.

Total energy usage spanning both plants in Ohio was 3,891,184 kWh with an annual cost of \$322,968. Graphet Data Mining provided an assessment of how energy was being managed and identified potential opportunities for savings using a metrics-driven approach.

Peak Demand Management



Electric Energy Consumption



An energy plan was developed establishing low, medium, and high priority energy conservation opportunities carefully selected to generate the biggest savings margins. **By investing in the high priority savings opportunities, energy costs could be reduced by 19% yielding simple payback after rebates in 1 year.**

Energy Savings Snapshot



• Payback:

Site 1 Projects: **1.1** years
Site 2 Projects: **3.7** years

• Potential Energy Reduction:

720,675 kWh

Potential Carbon Emission Reduction

583

metric tons CO₂^{††}



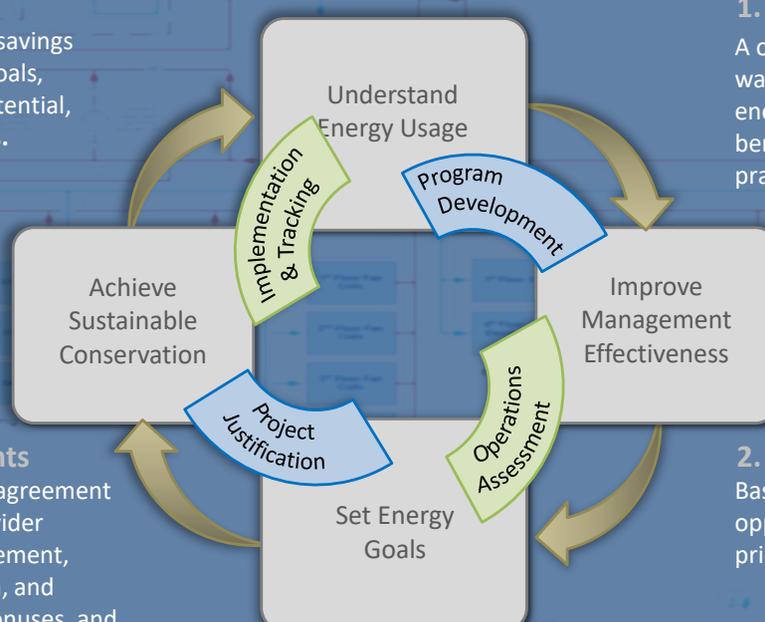
Process for Success »

4. Empower Sustainability

Graphet identified up to 38% in savings potential. High priority energy goals, accounting for nearly the full potential, would yield payback in 1 ½ years.

3. Implement Improvements

With Graphet's energy plan, an agreement was signed with the energy provider outlining improvements to implement, setting a timeline for installation, and detailing customized rebates, bonuses, and support.



1. Identify Opportunities

A one-day energy management session was performed on site to evaluate energy-intensive processes and benchmark energy management practices.

2. Develop Action Plan

Based on energy usage patterns, savings opportunities were identified and prioritized.

