

# Energy Management

Experience | Commitment | Quality

## OVERVIEW

CDMG's Process Automation Team has acquired excellent professional experience providing Energy Management Services to help clients achieve significant energy and cost savings in a wide variety of industries. CDMG has worked with companies ranging up to Fortune 100 in size, to accomplish successful energy reduction practices.

Our approach is to use the latest industry best practices and technologies to assess energy use, identify opportunities for savings, design and implement Energy Management Systems (EMS) and other solutions to improve process performance and optimize energy efficiency. We have assembled an experienced team for audits and energy savings projects. We have implemented power demand systems for peak loads and demand management, waste heat recovery systems, lighting energy savings through control including the use of day lighting, HVAC control systems, overall energy data collection and reporting systems.

CDMG's Automation Team is an integral part of our multi-discipline engineering group comprised of: Civil/Structural, Electrical, Mechanical, and Piping/HVAC. This full range of disciplines and professional services gives us the ability to deliver on a wider range of projects and industries.

## QUICK FACTS

- Energy audits, EMS design and implementation
- Demonstrated results at achieving significant, measurable savings in energy and cost
- Equipped for a wide range of industries and businesses



T 724.873.4700  
www.cdmg.com



## Aluminum company -- \$675K annual savings

- CDMG contributed to an energy audit and implemented a power demand system and a plant-wide EMS for a major aluminum manufacturing facility. The energy audit team reviewed on-site consumption of electricity, natural gas, water, steam and compressed air. Recommendations included reducing electrical peak demand by controlling the heat treatment furnace demand; installing recirculating cooling water systems, and adding auxiliary peak management air compressors. Resulting annual energy savings included \$300K from peak demand charges, \$300K in water savings and \$75K in compressed air efficiencies.



## Automotive company

- CDMG has provided several Energy Management Systems that monitor, report, and trend plant-wide energy consumption, for a major automotive company. Utilities are metered at strategic locations and utility usage costs are identified for various manufacturing areas of the facility. Reports and trends are provided to area managers who have target energy reduction goals. In addition, lighting and HVAC are monitored and controlled at one central location. Scheduling systems automatically reduce lighting and HVAC when manufacturing equipment is unattended by operators.



## Steel company: \$50K – \$100K annual savings

- A client in the steel industry wanted to increase strip travel speed and minimize the increase in process steam required. An energy balance was performed and a waste heat recovery system was designed. This recovery system extracts heat from the hot outgoing rinse water to preheat cold water that, when mixed with steam, creates hot rinse water. The estimated savings is 1 to 1.2 mm BTU/hr, or an estimated annual savings of \$50K - \$100K.

## EXPERIENCE

CDMG is a cutting-edge, technologically advanced engineering firm that continues to provide all of the multi-discipline engineering services that businesses need to complete the most unique and intricate projects, including energy management. As part of our commitment to increasing knowledge of new design strategies and procedures, we are constantly educating ourselves and advancing our familiarity with new techniques and processes. We are committed to superior, personalized service that results in the best experience for our clients. By continually working side-by-side with our clients and a variety of professional partners, our projects conclude with satisfied clients. A recent survey of our clients indicates that they believe our personal service is far superior to our competitors.

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[www.cdmg.com](http://www.cdmg.com)

PITTSBURGH OPERATIONS  
 SOUTHPOINTE INDUSTRIAL PARK  
 150 TECHNOLOGY DRIVE  
 CANONSBURG, PA 15317

