GOLDFIN
CONSULTING INC.

STRATEGIC ENERGY MANAGEMENT CASE STUDY

This case study highlights the outcomes of a targeted energy scan conducted at a manufacturing facility participating in a two-year Strategic Energy Management (SEM) program. After joining the program in 2023, the facility quickly prioritized opportunities to improve energy performance across both auxiliary and process-related systems.

PROBLEM

The facility faced a challenge in translating its energy performance goals into a defined list of actionable projects. The Energy Management Assessment identified this gap and helped the team focus their efforts by outlining ten priority areas and supporting the development of a more structured project planning approach.

APPROACH

The facility participated in a comprehensive Energy Scan (Treasure Hunt), which involved a detailed walkthrough of key systems to identify energy-saving opportunities.

SYSTEMS REVIEWED INCLUDED:	THE SCAN IDENTIFIED 93 ENERGY EFFICIENCY OPPORTUNITIES, SUCH AS:
• Auxiliary systems: lighting, compressed air, HVAC, building automation • Process-specific systems: chillers, injection molding, heat recovery, hydraulics, conveying systems.	• Idling equipment (conveyors, fans, dryers, heating systems). • Compressed air inefficiencies and leaks. • Faulty heat exchanger. • VFD opportunities for hydraulic pumps. • Chiller controls and set point optimization. • Lighting controls improvements.

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The targeted energy scan and follow-up actions led to measurable improvements in both energy performance and operational efficiency. By addressing key system inefficiencies and implementing strategic upgrades, the facility surpassed its original energy reduction target and strengthened its internal energy management practices.

IMPACT

STRENGTHENING OF INTERNAL ENERGY MANAGEMENT PRACTICES

- Monitored and implemented energy sub metering processes.
- Established weekly reviews of energy data.
- Created alert systems procedures for equipment overconsumption.
- Repaired and prevented equipment repair failures and production downtime.
- Increased employee energy awareness and suggestions.

SURPASSING OF ENERGY REDUCTION

- Target: 5% energy reduction.
- Achieved: 8% electricity reduction (1,574 MWh annually).
- Verification: IPMVP Option C facility energy baseline model.

Goldfin employs IPMVP-compliant energy baseline models as the preferred M&V approach, ensuring accurate and reliable savings verification. The program encourages a comprehensive monitoring system. For this participant their M&V plan includes real-time tracking, monthly reporting, and quarterly management reviews to maintain program effectiveness and continuous improvement.

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