



SHOWCASE PROJECT: HARBEC, INC. DEMONSTRATES HOW SMALL BUSINESSES CAN CONTINUOUSLY ACHIEVE SIGNIFICANT SAVINGS WITH SEP 50001

SOLUTION OVERVIEW

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HARBEC Inc. is a small, agile manufacturer of precision components, assemblies, and solutions for applications in aerospace, medicine, and other high-end industries. The company first earned certification to the ISO 50001 energy management system (EnMS) standard as part of the U.S. Department of Energy's (DOE's) Superior Energy Performance 50001™ (SEP 50001) process in 2013—and has continued making steady, sizeable improvements to its energy and carbon performance ever since. HARBEC recertified to ISO 50001 in December 2019 and achieved DOE recognition for SEP 50001 at the Platinum level for the *third* time.

Audits by independent third parties validated HARBEC's energy performance improvements of 16.5% in 2013, 25.7% in 2016, and 17.6% in 2019. The company's 50,000 square-foot facility in Ontario, NY, is committed to sustainable manufacturing to benefit its customers, community, and current and future business. This "green and smart" company shows that small businesses can continuously achieve significant savings and performance benefits with SEP 50001. HARBEC is also a partner in DOE's Better Plants and Combined Heat and Power (CHP) Deployment programs, holds certification to additional ISO standards, achieved "water neutrality" back in 2015, and operates wind turbines on site.

"SEP 50001 continues to sustain itself as more people see that it works—and saves money. The required **third-party verification** of our energy management practices and results provides **proof positive** of our achievements."

Robert Bechtold, President of HARBEC

MAKING IT HAPPEN

- **Assure broad commitment.** HARBEC fosters a company-wide commitment to energy management and environmental stewardship. The success of its corporate energy management system has added to the high level of energy awareness throughout the company.
- **Reinforce eco-economics:** SEP 50001 supports HARBEC's core value that profitability and environmental stewardship can and should be mutually reinforcing.

- **Leverage outside resources:** HARBEC leverages local and state technical assistance programs to continuously improve its energy management performance. When the company initially implemented SEP 50001, it used resources available through or recommended by its utility company and the New York State Energy Research and Development Authority (NYSERDA).
- **Use DOE technical support:** Over the years, HARBEC has leveraged DOE's CHP Deployment program; made effective use of SEP 50001 guidance, tools, and protocols; and participated in the DOE Better Plants program to drive deeper, more sustained savings.
- **Integrate systems for maximum efficiency:** HARBEC tracks and quantifies energy efficiency to satisfy the documentation requirements for ISO standards 50001, 9001, 14001, and 13485.
- **Train and engage all employees:** Training and regular communications on energy efficiency have equipped all plant employees to participate actively in energy management on a daily basis. Management enthusiastically considers all employee suggestions for further improvements.
- **Find efforts that pay off:** HARBEC optimized the performance of its CHP plant—an effort that didn't require costly new equipment, but did create a new full time position and is delivering substantial savings.
- **Raising the bar:** HARBEC started with tracing its energy use, then translated that usage into the resulting carbon emissions, and now tracks the carbon embodied in every unique part that it produces.

BENEFITS

- **Leadership in sustainability:** HARBEC leverages SEP 50001 to validate its green reputation, which delivers growing value as supply chains and the global economy become increasingly eco-conscious, regulated, and aware of climate impacts.
- **Verified savings:** SEP 50001 provides robust verification of HARBEC's energy savings across its product lines.
- **Sustained savings:** HARBEC uses its integrated EnMS, regular reporting, and trained workforce to maintain its operational improvements and continuously uncover new savings opportunities.
- **Smooth staff transition:** Full documentation helped the new energy manager rapidly understand the plant's processes and priorities to continue leveraging the EnMS.
- **Resilience:** As a mature advocate of energy efficiency, the company has seen that effective energy management strengthens its ability to thrive under challenging conditions (as in 2020). The company's current focus on energy storage will further enhance its resiliency and competitiveness.
- **Quick ROI:** HARBEC adds thousands of dollars to its bottom line each year just by paying attention to energy and quickly making obvious adjustments or fixes.

LOOKING AHEAD

- **Markets:** Rather than waiting on market pressure to force improvements in corporate energy and sustainability practices, HARBEC strives to stay well ahead of the curve—actively educating customers on the significant and rapidly growing business value of sustainable

practices. The medical market is a promising fit for this priority.

- **Zero waste:** Already water- and carbon-neutral, HARBEC expects to achieve zero waste by 2025.
- **Role model:** HARBEC continues as a model for small manufacturers by regularly updating its corporate sustainability objectives to support its long-term resilience and financial performance goals.

LEARN MORE

[HARBEC, Inc's president, Bob Bechtold, describes importance of ISO 50001 \(video\), 2019.](#)

[HARBEC, Inc. SEP Measurement and Verification Case Study, 2017](#)

[HARBEC, Inc. ISO 50001 case study, Energy Management Leadership Awards, 2016](#)

[HARBEC SEP case study, Superior Energy Performance, 2015](#)

[HARBEC DOE Better Plants profile](#)

[HARBEC DOE TAP CHP Project Profile](#)

SECTOR TYPE

Industrial

LOCATION

Ontario, New York

SOLUTIONS

OTHER BENEFITS

Annual Energy Use

Annual Energy Cost

Energy Savings

Cost Savings



HARBEC, Inc.'s specialty plastics manufacturing facility has been certified to ISO 50001 and SEP 50001 since 2013. Photo: HARBEC, Inc.