



# Energy Performance Metrics



## Accurately understand your plant's current and future energy performance

Typically, manufacturers use a simple ratio called "energy intensity" (energy consumption per a unit of production such as Btu/lb or kWh/unit) to measure energy performance. This metric does not take into account variables such as weather, production changes or mix, and non-productive baseloads, which results in an inaccurate picture of the facility's actual energy performance. Nor does it give an energy manager a clear picture of what drives energy consumption and provides a false sense of security during high production-time periods.

GaMEP will help develop accurate performance indicators using a spreadsheet tool utilizing linear regression analysis. This tool and the resulting energy metrics will more accurately compare performance over time, predict future energy consumption based on operating changes, and verify savings from energy improvement projects.

### ➤ GaMEP will:

- Study your plant's processes, products, and energy consumption patterns.
- Collect energy, production data, and other variable information to establish a baseline.
- Use a free software modeling tool to assess how changing business variables affect energy consumption and establish a baseline model.
- Train your staff to use the tool and exploit its information to manage energy.
- Teach you to pitch cost savings opportunities to upper-level management using predictive energy-performance metrics.



By implementing Energy Performance Metrics, you will:



*Predict Future Cost Savings*



*Reduce Energy Consumption*



*Create a Culture Change*

# Energy Performance Metrics in Action



## Automobile Manufacturer Improves Energy Performance 24% over Six Years

Nissan's commitment to energy efficiency has been a priority of the company for years. Although their energy costs represented only 3.3% of their total manufacturing costs, they recognized that by becoming more energy efficient they could have a significant positive impact on their bottom line. To measure and track improvements across their facility, the Smyrna, Tenn., Nissan plant utilized an online tool provided by GaMEP to identify historical energy performance indicators and look for improvements. As a result, the plant:

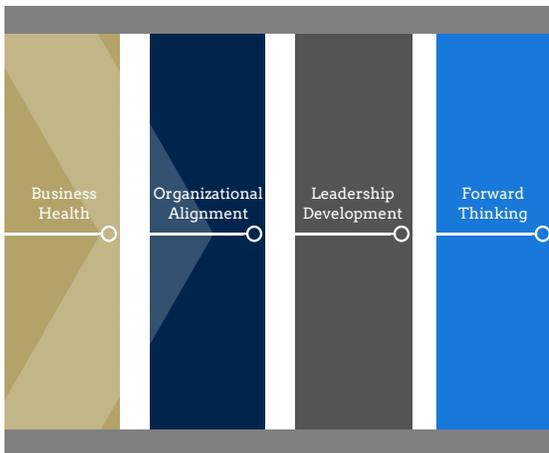
- Identified the vehicle painting process as its biggest energy user, accounting for 70% of the plant's total energy consumption. Realized an annual energy cost savings of \$748,000 from no-cost/low-cost measures attributable to ISO 50001 and SEP. Secured savings of \$1.6 million related to energy spending from capital projects.

## Why Work with GaMEP?

Our goals are simple and impactful:

- Understand the current state of your company.
- Learn about your future goals.
- Teach your team to utilize tools and strategies to meet the needs of your organization.
- Advance your company's competitiveness and ensure a sustainable future for manufacturing in Georgia.

Each of our services resides in one of the following four key strategic solutions within the GaMEP Organizational Excellence framework:



The pillars are interconnected to maximize effectiveness. If you have multiple areas to address, request an Organizational Excellence assessment.

## What Sets GaMEP Apart

Each year, GaMEP works with more than 1,000 manufacturers to implement on-site projects, conduct training, and connect manufacturers to Georgia Tech resources and our partners throughout the state. We do this through:

- Federal and state funds that help offset the cost to Georgia manufacturers, making your investment more powerful.
- Access to locally based project managers that have years of experience developing and implementing best practices for manufacturers.
- Immediate and long-term solutions that increase top-line growth and reduce bottom-line costs throughout your organization.

*Service areas include: process improvement, quality, robotics, business strategy, technology integration, ISO management systems, energy, sustainability, safety integration, and more.*

See what all the "Buzz" is about.

## Connect with GaMEP



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