

White Paper

Management Systems and Managing Energy



Putting A Proven System to Work for You and Your Organization

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About NEEA: The Northwest Energy Efficiency Alliance is a non-profit organization working to maximize energy efficiency to meet our future energy needs. NEEA is supported by and works in collaboration with Bonneville Power Administration, Energy Trust of Oregon and more than 100 Northwest utilities on behalf of more than 12 million energy consumers. NEEA uses the market power of the region to accelerate the innovation and adoption of energy-efficient products, services and practices. Since its inception in 1997, NEEA initiatives have saved enough energy to power more than 450,000 homes each year. Energy efficiency can satisfy more than half of our new demand for energy, saving us money, and keeping the Northwest a healthy and vibrant place to live.

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Management System and Managing Energy:

Putting A Proven System to Work for You and Your Organization

In today's economy, productivity and competitiveness frequently hinge on how efficiently your company manages complex industrial processes. For most companies, management systems cover safety, quality and/or environmental protocols. To gauge whether your company has an effective management system in place, ask yourself three questions:

- 1. Has your company set a goal related to your program?**
- 2. Does senior management dedicate resources to help you achieve the goal?**
- 3. Do you regularly report to senior management on progress toward the goal?**

If you answered “yes” to all three questions, you're likely managing key organizational performance indicators with a management system and have embedded the threshold of a system within your organization. What may surprise you is how you can take performance management to the next level — by adding energy measures to the programs you're already monitoring. Energy performance management principles and practices are the same — and the results may add an extra layer of business intelligence with positive benefits to your bottom line. When it comes to energy, you can expect to reduce your energy intensity (energy by unit of output) by 25% over the next 10 years — especially if you're in an energy intensive industry. You might also experience additional, indirect benefits industrial companies are reporting: increased productivity and reliability, improved safety, reduction in turnover, and increased morale.

The Management System: Just Another Program *du Jour*?

You've undoubtedly seen various programs come and go at your company, distracting you from the key objective of pushing product out the door, profitably. Contractors and personnel turnover take program elements and ideas with them — leaving little discernable evidence they were ever there. What's needed is an enterprise-wide management system that permanently embeds a reliable, repeatable system of practices into the DNA of your company so that you can achieve reliable, repeatable results. One that's not dependent on any one person or team within the organization. It can be that simple.

Putting A Management System for Energy in Place

If you see energy as just another bill you have to pay every month, you're missing a critical opportunity to improve company productivity and your bottom line. When you view energy as a resource to manage — in the same way you manage other inputs, like labor or raw materials — it becomes a controllable expense. A management system for energy provides a framework to put those controls in place:

- Begin with an energy efficiency goal and commitment to achieve it
- Proceed with a plan to achieve the goal
- Establish metrics that let you gauge how you're performing toward the goal
- Implement and evolve your energy management plan
- Review the effectiveness of the plan — and revise as needed
- Repeat this cycle for continuous energy improvement

Sound familiar? Maybe you know it as the Deming Cycle (Plan, Do, Check, Act), or Continuous Improvement? This is strategic energy management — a management system for energy.

Installing A Management System for Energy

It sounds easy enough. But how do you do it? How do you embed a strategic energy management system into a company?

»» **Begin with an energy efficiency goal and commitment to achieve it:**

Set SMART (specific, measurable, attainable, realistic and timely) energy goals. Document your goal in an energy policy. A formal energy policy demonstrates senior management's commitment to managing energy. It also links your company's energy commitment to enhanced performance and measurable success.

»» **Proceed with a plan to achieve the goal:**

Use an action plan to create a timeline that maps your plans and activities with roles and responsibilities. Your action plan gives you a method of capturing progress and can motivate your organization's personnel by demonstrating tangible results. Your action plan allows you to demonstrate savings that are tied to energy management in every aspect of your company's operations.

» **Establish metrics that let you gauge how you're performing toward the goal:**

If you can measure it, you can manage it. Identify key performance indicators (KPIs) that help track and measure your goals. KPIs tied to specific energy goals provide metrics that all facets of your organization can use to gauge your company's ongoing energy performance. Energy-use metrics allow you to recognize normal energy-intensity at your facility. You can then develop the response procedures needed to correct out-of-range situations.

» **Implement and evolve your energy management plan:**

Organize and empower an energy team. Align key employees in your company with the roles and responsibilities required for a successful energy team, and equip them with the tools and materials they'll need to get started. Energy management is most effective when it's a team effort. A successful team is one in which each member's role is clearly defined and everyone understands what is expected. Your energy team forms a strong tactical link to the strategic direction set by senior management (as defined in your organization's energy policy).

» **Review the effectiveness of the plan – and revise as needed:**

Formally assess your energy management system on an annual basis to identify the performance improvements you've achieved. Review the measurable results you've collected, and celebrate and promote your successes inside and outside your company. Regular review of your company's performance reveals what has actually been accomplished versus your goals and projections. You can use the documentation of energy management successes to guide future progress. Senior management can use this information to confirm the value of energy management.

» **Repeat this cycle for continuous energy improvement:**

As the cycle continues, energy management in your organization will continue to grow more robust and deliver ever-higher levels of performance. This is the crux of how a management system permanently embeds a reliable, repeatable system of practices into the DNA of your company so that you can achieve optimal results.

Be **SMART:**

Specific
Measurable
Attainable
Realistic
Timely

Your local utility will be your biggest supporter and source of key information, incentives and other resources ...

What's Next?

Sound like a big job? Maybe more than you want to take on? Start small. Every system has a threshold, or entry point. The first steps might be the hardest, but walking through the threshold directs you and your company on a journey that will lead to significant benefits. Your first steps — no matter how small — can be scaled up according to your company's goals.

If you're ready to begin and need help:

- **Call your local utility.** No matter your starting point, your local utility will be your biggest supporter and source of key information, incentives and other resources that will offset your energy management implementation and/or energy efficiency project costs.
- **Check out ENERGY STAR for Industry.** ENERGY STAR can help your company develop and hone your energy management program.
- **Take a look at U.S. DOE's Save Energy Now LEADER Companies program.** By signing a voluntary pledge to reduce your company's energy intensity by 25% in 10 years, you can access financial resources, consultative support, and technical resources.
- **Contact your state's energy office,** which may also have incentives, tax credits, and other resources that will offset your energy management implementation and/or energy efficiency project costs. Some state resources can be used in addition to federal resources and those from your local utility.
- Visit www.energyimprovement.org for an online program and tools that will set you on a customized path toward strategic energy management.

Great Expectations – The Big Benefits

Once you've committed to managing energy in a strategic way, get ready to watch the results roll in:

- A Washington paper mill completed nearly 30 energy efficiency projects in just over three years, saving over \$300 thousand in energy costs.
- Three Northwest food processing organizations have each saved about \$2 million in energy costs over four years of implementing energy management at between four and six of their plants.
- An Idaho food processing company saw its electric bill decrease by over 8% and its gas bill decrease by nearly 1% during the first year it began managing energy.
- An Oregon vegetable processor reduced its energy intensity by over 3% during the first year it began managing energy.

Want to Get Started Today?

A management system doesn't happen overnight. But here are three things you can do right now to help you start using energy efficiently:

1. Turn out the lights in vacant rooms. The shop floor needs to be lit for safety reasons, but break rooms, offices, and bathrooms only need to be lit when occupied.
2. Consider energy in your company's purchasing decisions. If you are about to purchase new equipment, look into energy efficient models. Even when energy efficient models cost more, the energy they save almost always results in a more substantial payback.
3. Eliminate inappropriate compressed air use. Compressed air can easily account for up to 10% of your company's energy use. More often than not, compressed air is used inappropriately in some applications. For example, use a broom instead of compressed air to sweep the floor. ■

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