



# TAKE ENERGY EFFICIENCY TO THE NEXT LEVEL

DEEP DIVE INTO ENERGY USE CAN IDENTIFY WASTE

## ENERGY VALUE STREAM MAPPING:

- Combines the expertise of energy engineers with the knowledge of your staff
- Provides an interactive energy map of an entire process, line or facility
- Creates an opportunity register of operational changes and capital projects
- Prioritizes energy improvements according to cost, effort and savings
- Highlights the way forward in your continuous improvement efforts

If you have a Lean Manufacturing mindset and have actively pursued energy efficiency, you're likely on the lookout for new ways to reduce energy waste and cut energy costs. Look no further than Energy Value Stream Mapping—a tool that delves deep with you and your staff into your operations. What you'll get from this is a holistic energy map and an opportunity register of energy-saving improvements.

At no cost to you, Energy Trust of Oregon can provide the expertise of specialized energy engineers from Ecova, Inc., a Northwest firm which specializes in energy value stream mapping. Working with personnel from your facility and your Energy Trust Program Delivery Contractor, Ecova engineers lead a physical energy scan and conduct data logging to generate insightful process observations. Ecova will then lead a series of cross-functional, interactive and collaborative workshops to explore and analyze the how and why of your processes. The group will also assess the energy impact of process and equipment interactions; examine engrained assumptions behind scheduling and equipment operations; and identify potential energy waste.

## A compass for ensuring all your energy use adds value

From this data gathering, questioning and brainstorming emerges an interactive map of your current energy flow. You'll see what energy is costing you per work center and where idle run-times or bottlenecks could be contributing to waste.

You'll also receive an opportunity register of recommended energy improvements, prioritized into four categories—so you'll know which opportunities yield the highest savings for the least effort and resources. As you make improvements, you can update your energy map and track your progress over time.

The entire service, which can last up to four months and is valued at thousands of dollars, is accomplished with no interruption to your process. Energy Value Stream Mapping will help you ensure that all your energy dollars are adding value to your operation.

## Is your organization ready for Energy Value Stream Mapping?

Good candidates possess at least some of these characteristics:

- Active management of facility energy use
- History of energy improvement projects or Energy Trust initiatives
- On-going commitment to waste reduction or continuous improvement
- Familiarity with Lean Manufacturing, Six Sigma or similar models
- Knowledge of value stream mapping
- Thorough understanding of process or system being evaluated, preferably with metrics
- Experience with Microsoft Visio 2010 and Excel 2007 (or higher)
- Engaged and committed workforce
- Staff and resource availability



Get more from your energy. For more information, call **1.866.202.0576** or email [production@energytrust.org](mailto:production@energytrust.org).

### **A-DEC® , INC., NEWBURG, IDENTIFIES HIDDEN OPPORTUNITIES**

A-dec, which manufactures dental equipment and furniture, participated in Energy Value Stream Mapping in their paint department. Ecova led two day-long workshops with participants from manufacturing, maintenance, and engineering, and collected data between the workshops. The participants assessed their operating practices, questioned the reasons behind them, and were able to identify 33 potential energy improvements. A-dec came away with a list with four categories based on complexity of changes and energy savings potential. The study also documented that implementing nine of the improvements could cut the paint line's annual energy use by an estimated 11 percent. A-dec also received a Visio-based flowchart of the paint line's energy use that the company can update as projects are implemented. A-dec was able to take immediate action by changing the standard operating procedures for their pre-bake oven. This oven is used to dry parts before applying paint. The operators had been opening the oven doors mid-cycle to add additional parts. As a result, parts were in the oven longer than needed and heat was lost due to frequent opening and closing. A simple change in habits and procedures, netted fast and easy savings.