

# E-Manager

## In-depth energy analysis to **manage costs**

TO CONTROL YOUR ENERGY COSTS, YOU NEED TO REALLY UNDERSTAND HOW AND WHEN YOU'RE USING POWER. E-MANAGER IS THE WEB-BASED ENERGY INFORMATION SERVICE FROM PORTLAND GENERAL ELECTRIC THAT ENABLES YOU TO BUILD A CUSTOM, IN-DEPTH ANALYSIS OF YOUR ENERGY USE. WITH E-MANAGER, YOU'LL HAVE ALL THE INFORMATION YOU NEED TO QUICKLY GET A HANDLE ON EXACTLY WHERE YOUR ENERGY DOLLARS ARE GOING – AND WHERE YOU MAY BE ABLE TO SAVE.

### Why E-Manager?

With data from E-Manager, you can easily spot when energy is being used inefficiently or if you have hidden equipment problems. Does your energy use look like you are running a full production shift on holidays when your operation is actually closed?

E-Manager can uncover problems such as a system that has been over-ridden or is running unnecessarily.

With data from E-Manager, you can adjust your operations and see the impact on your energy use – in some cases as quickly as an hour. You don't have to wait for your bill to see the results.

E-Manager is a powerful tool for analyzing and identifying opportunities to save energy.

Here's just a sample of what you'll be able to do with E-Manager:

- Compare current operating data with historical information
- Know when your operation is using the most energy
- Generate an "average day" profile and a "peak day" profile for comparison
- Identify abnormalities and trends in your usage and help determine causes
- Optimize operations by adjusting energy use
- Monitor the effectiveness of your energy efficiency measures

### How it works

We gather interval load data from your site and make it available to you via a password-protected Web site. Tools for creating a variety of detailed charts and graphs are available to you on the Web site and all data is archived for future reference.

### Numerous charting possibilities

With E-Manager, you can create charts that show your energy use in 15 or 30 minute intervals – hour to hour, day to day, week to week and month to month. With this valuable information you can adjust your operations to reduce peak load or correct hidden equipment problems.

Using E-Manager, you can even synchronize your energy data with your own production data and local airport weather data. This will allow you to see trends in your energy use as it relates to these factors.

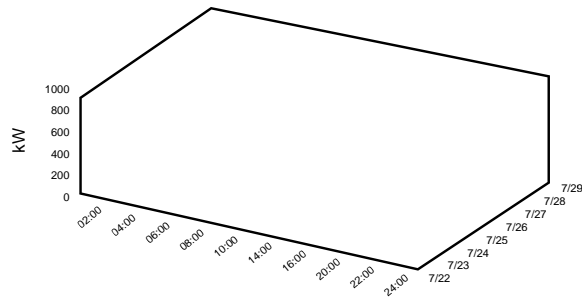
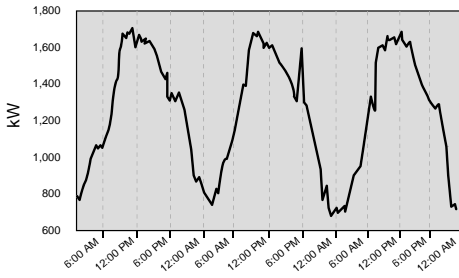
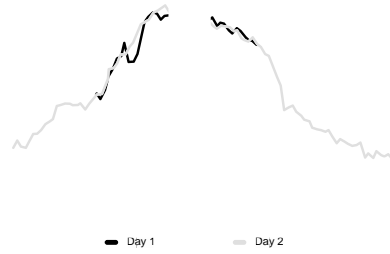
The following is just a sampling of other types of charts and graphs you can create:

- 3-D surface charts
- Single and multi-point trends
- Indexing based on your production, heating/cooling degree days or square footage
- Statistical summaries



*"About one-third of our 1 million square-foot facility is refrigerated, so we use a lot of energy. E-Manager enables me to test different energy strategies every day. I see the results the very next day, rather than having to wait for the next bill. Then I can fine-tune our energy use on an hour-by-hour basis. E-Manager has helped us reduce our energy use by more than 1 million kWh per year."*

– **Bob Neal,**  
Plant Services Manager,  
Unified Western Grocers



\* Individual circumstances will vary. Call PGE for more information.

Note: As a PGE customer, it is not necessary to purchase this product to receive quality regulated electric service from PGE. Similar products may be available from other vendors.

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