



## Sustainability • Performance • Compliance



*Transform the way your business uses  
manufacturing information*



**vEMI-Variable Cost**

# Enterprise Manufacturing Intelligence



## Business Intelligence

Electricity, gas, and steam usage have a significant impact on a manufacturer's operating cost structure. The vEMI-Variable Cost management module collects, stores, and reports energy, water and waste water usage information for the entire processing plant (excluding CIP systems) by piece of equipment, process, specific product, and mode of operation. Whether installed with vEMI-CIP or as a stand alone module (for customers without CIP systems), vEMI-Variable Cost provides comprehensive data and real time analytics about the energy and utility consumption at your plant.

## Sustainability

Managing energy, water and waste water use is a core focus of every enterprise sustainability program. This vEMI solution displays precisely how much water, energy and waste water your plant is consuming from moment to moment. Quickly and accurately track processes, equipment and products to enterprise goals, and translate those goals to actionable steps within a processing plant. Auditing usage is simple and presented in a format that plant managers, accountants and executives will all use.

| Step              | Product (Lbs) | Steam (Gals) | Gas (TPI) | Electricity (Kwh) | Water (Gal) | Waste Water (Gal) | Cooling (Therm) | Chemicals | Cost (\$) | Cost (\$/Lb) |
|-------------------|---------------|--------------|-----------|-------------------|-------------|-------------------|-----------------|-----------|-----------|--------------|
| <b>Dryer</b>      |               |              |           |                   |             |                   |                 |           |           |              |
| TOTAL             | 0             | 0            | 0         | 0                 | 0           | 0                 | 0               | 0         | \$0       | \$0.00       |
| PRODUCTION        | 0             | 0            | 0         | 0                 | 0           | 0                 | 0               | 0         | \$0       | \$0.00       |
| IDLE              | 0             | 0            | 0         | 0                 | 0           | 0                 | 0               | 0         | \$0       | \$0.00       |
| CIP               | 0             | 0            | 0         | 0                 | 0           | 0                 | 0               | 0         | \$0       | \$0.00       |
| <b>Dryer CIP</b>  |               |              |           |                   |             |                   |                 |           |           |              |
| TOTAL             | 0             | 0            | 0         | 0                 | 0           | 0                 | 0               | 0         | \$0       | \$0.00       |
| PRODUCTION        | 0             | 0            | 0         | 0                 | 0           | 0                 | 0               | 0         | \$0       | \$0.00       |
| IDLE              | 0             | 0            | 0         | 0                 | 0           | 0                 | 0               | 0         | \$0       | \$0.00       |
| CIP               | 0             | 0            | 0         | 0                 | 0           | 0                 | 0               | 0         | \$0       | \$0.00       |
| <b>Evap CIP</b>   |               |              |           |                   |             |                   |                 |           |           |              |
| TOTAL             | 0             | 38,204,310   | 0         | 1,852             | 210,596     | 123,739           | 0               | 6,979     | \$7,280   | \$0.00       |
| PRODUCTION        | 0             | 0            | 0         | 0                 | 0           | 0                 | 0               | 0         | \$0       | \$0.00       |
| IDLE              | 0             | 0            | 0         | 0                 | 0           | 0                 | 0               | 0         | \$0       | \$0.00       |
| CIP               | 0             | 38,204,310   | 0         | 1,852             | 210,596     | 123,739           | 0               | 6,979     | \$7,280   | \$0.00       |
| <b>Enrichment</b> |               |              |           |                   |             |                   |                 |           |           |              |
| TOTAL             | 0             | 19,161,132   | 0         | 609               | 43,264      | 41,166            | 0               | 1,431     | \$1,476   | \$0.00       |
| PRODUCTION        | 0             | 0            | 0         | 0                 | 0           | 0                 | 0               | 0         | \$0       | \$0.00       |
| IDLE              | 0             | 0            | 0         | 0                 | 0           | 0                 | 0               | 0         | \$0       | \$0.00       |
| CIP               | 0             | 19,161,132   | 0         | 609               | 43,264      | 41,166            | 0               | 1,431     | \$1,476   | \$0.00       |

| Step              | Product (Lbs) | Steam (Gals) | Gas (TPI) | Electricity (Kwh) | Water (Gal) | Waste Water (Gal) | Cooling (Therm) | Chemicals | Cost (\$) | Cost (\$/Lb) |
|-------------------|---------------|--------------|-----------|-------------------|-------------|-------------------|-----------------|-----------|-----------|--------------|
| <b>Dryer</b>      |               |              |           |                   |             |                   |                 |           |           |              |
| TOTAL             | 880,432       | 0            | 498       | 7,613             | 6,386       | 0                 | 0               | 0         | \$4,180   | \$0.00815    |
| PRODUCTION        | 880,432       | 0            | 498       | 7,613             | 6,386       | 0                 | 0               | 0         | \$4,180   | \$0.00815    |
| IDLE              | 0             | 0            | 0         | 0                 | 0           | 0                 | 0               | 0         | \$0       | \$0.00000    |
| CIP               | 0             | 0            | 0         | 0                 | 0           | 0                 | 0               | 0         | \$0       | \$0.00000    |
| <b>Dryer CIP</b>  |               |              |           |                   |             |                   |                 |           |           |              |
| TOTAL             | 0             | 0            | 0         | 74                | 4,995       | 0                 | 0               | 1,495     | \$1.33    | \$0.00000    |
| PRODUCTION        | 0             | 0            | 0         | 0                 | 0           | 0                 | 0               | 0         | \$0       | \$0.00000    |
| IDLE              | 0             | 0            | 0         | 0                 | 0           | 0                 | 0               | 0         | \$0       | \$0.00000    |
| CIP               | 0             | 0            | 0         | 74                | 4,995       | 0                 | 0               | 1,495     | \$1.33    | \$0.00000    |
| <b>Evap CIP</b>   |               |              |           |                   |             |                   |                 |           |           |              |
| TOTAL             | 0             | 0            | 0         | 0                 | 6,844       | 0                 | 0               | 1,495     | \$1.89    | \$0.00000    |
| PRODUCTION        | 0             | 0            | 0         | 0                 | 0           | 0                 | 0               | 0         | \$0       | \$0.00000    |
| IDLE              | 0             | 0            | 0         | 0                 | 0           | 0                 | 0               | 0         | \$0       | \$0.00000    |
| CIP               | 0             | 0            | 0         | 0                 | 6,844       | 0                 | 0               | 1,495     | \$1.89    | \$0.00000    |
| <b>Enrichment</b> |               |              |           |                   |             |                   |                 |           |           |              |
| TOTAL             | 3,321,583     | 0            | 0         | 28,919            | 2,628,200   | 53,796            | 0               | 0         | \$1,128   | \$0.00005    |
| PRODUCTION        | 3,321,583     | 0            | 0         | 18,412            | 2,628,200   | 17,822            | 0               | 0         | \$955     | \$0.00002    |
| IDLE              | 0             | 0            | 0         | 0                 | 0           | 0                 | 0               | 0         | \$0       | \$0.00000    |
| CIP               | 0             | 0            | 0         | 10,507            | 0           | 35,974            | 0               | 0         | \$173     | \$0.00000    |

## Social Responsibility

This vEMI-module allows you to produce comprehensive cost accounting reports for steam, gas, electricity, water and waste water consumption — and create a greenhouse gas emissions profile using actual data — without costly or time consuming data recovery efforts. Measure improvements over time and generate the data for a product or product line that can be used to enhance brand awareness.

# Complete the installation in 2 WEEKS!



## Lower Costs

Quickly and easily pinpoint excess use of energy and utilities using Variable Cost management performance metrics. Provide visibility into which product lines, shifts, or equipment are using more than necessary and immediately pinpoint and take corrective action that avoids a major problem.

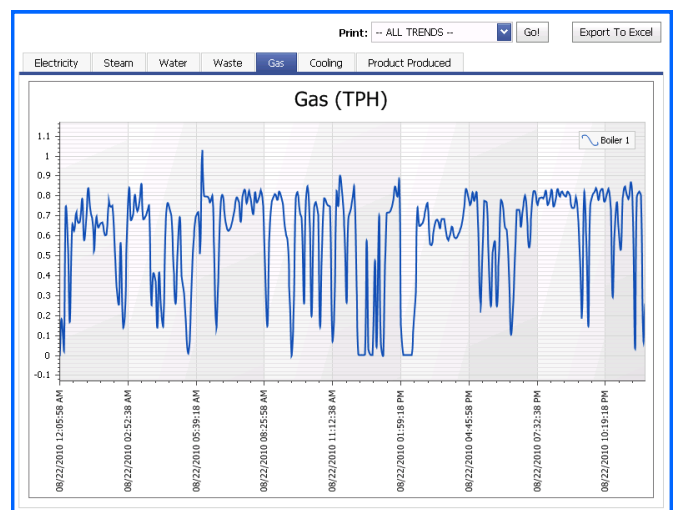


## Alerts on the Go™ - Plant Sentry

The vEMI-Variable Cost module keeps your user groups informed of critical events, whether they are on the move, in the plant or travelling using their favorite iPhones, Blackberries and smart phones.

## Performance

Escalating energy and utility costs can erode your competitive advantage. Stay constantly informed on how every piece of equipment, product, and resource contribute to the cost structure. Be alerted if costs incurred exceed the budgeted standard, fix the problem and improve the overall system performance.



## Data Management

Consistent process definition across the enterprise enables repeatable and verifiable data collection. This enables data aggregation across multiple plants, with simple and reliable interfaces to Enterprise Resource Planning, Accounting and other information systems. Let us handle the data management so that you can focus on running the business.





## Enterprise Benchmarking

Benchmark energy and utility use across your enterprise, anywhere in the world! vEMI-Variable Cost will confidentially benchmark your performance against the manufacturing best practices for other plants (or a selected grouping of plants) within your business enterprise.

It is no longer enough to demand performance. Corporate executives and plant managers need to understand their performance challenges, and create internal programs that meet those challenges.

vEMI-Variable Cost collects, stores and analyzes energy and utility use in a plant, generating a detailed cost accounting around equipment, process, product, and operating mode.



## Industry Benchmarking

Measure how your energy and utility consumption compares to what others in your industry achieve in performing similar operations.

In addition to achieving your cost targets, Vigilistics will help you to baseline an existing carbon footprint, and generate the records you want to have that demonstrate compliance with enterprise sustainability goals and best practices in the industry.

