

## VerifEye™ Submetering System Helps Heat Treatment Plant Fire Up Profits

As one of the largest metal heat treatment plants on the West Coast, Byington Steel provides metallurgical services to some of the leading manufacturers in the aerospace, automotive, machinery and medical products industries.

The Company's operations range from heat treating, hardening and degreasing, to stress loading, failure-testing and low-temperature freezing - all exceedingly energy-intensive processes. Giant furnaces, cryogenic freezers, straightening presses and degreasing machinery at the plant operate on multiple shifts for hours at a time, consuming vast quantities of electricity, gas, and water which need to be allocated among individual clients and production lines and runs.

### Master-Metering Makes Measuring and Managing Production Costs Challenging

Like many industrial plants in today's tightening economy, Byington Steel was seeking a way to manage its energy consumption for greater cost reduction and profitability. Key to this objective was the Company's ability to understand how much energy



**"The VerifEye system lets us monitor our real time energy usage to achieve our cost reduction, client billing and profitability goals in an era of rising energy prices and tightening budgets."**

*- Kathryn Byington  
CEO, Byington Steel*

individual processes were consuming. Since the plant was master-metered with single meters measuring electric, gas and water consumption at the facility level, the Company's ability to zero in on its raw materials costs, though mission-critical to its operations, was virtually impossible.

Byington Steel needed a way to tie the cost of goods sold to specific client processes and production lines and runs. This would enable it to allocate its energy and water costs to client-billable processes and generate accurate, cost-based invoices.

Plant managers also needed a way to identify inefficient processes and potential machinery failures to avoid costly downtime and optimize productivity. In addition, by having access to historical usage data for each piece of equipment and process, the Company could price-competitively bid on new jobs and grow its business.

### VerifEye™ Revenue-Grade Energy Monitoring System Takes the Heat Out of Allocating Client- Billable Costs

Committed to investing in new technology, decision-makers at the plant made a smart choice. They installed the VerifEye Series 2000 Three-Phase Electric submeters and advanced communications system to capture, profile and analyze the facility's electric, gas, steam and water consumption in real-time.



Installation of drop box furnace



The submeters and Energy Monitoring Hub installed quickly and easily with no disruption of service to the plant's operating environment.

According to Steve Schmehl, the Company's Maintenance Supervisor, "The ease of installation of the VerifEye system, its accuracy, flexibility and seamless integration with our existing IT infrastructure are truly impressive. The system provides us with a way to know precisely where and how energy is being used and gives us a turnkey solution for billing clients."

### **Submeters and Communication System Provide Robust Integration with Cost Accounting and Factory Automation Systems**

The Leviton Energy Monitoring Hub interfaces with the Series 2000 Electric Submeters and the plant's natural gas, steam and water meters to measure and verify usage data down to the one-minute interval. The output data from the Energy Monitoring Hub in turn, interfaces

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Maintenance Supervisor*

with the plant's existing factory automation system and enables seamless integration with its cost accounting system.

### **Advanced Solution Energizes Profits**

Today, Byington Steel is able to generate real-time energy and water usage statistics for each and every production process and client run. This streamlines cost accounting and allows the Company to easily invoice clients and accurately bid on future projects.

In addition, plant managers now have instant access to the plant's historical energy usage profile and metrics so they can contract with any number of utility service providers to achieve greater cost flexibility and savings. They can also chart out and profile usage peaks and valleys for load shedding and cost avoidance during peak demand periods. The Company intends to install the VerifEye Series 2000 Sub Meters for its entire line of furnaces to enhance its plant-wide operations.



### VerifEye System Benefits

- Easily enables production cost calculations for client-billable processes down to the penny
- Gives plant managers a way to identify inefficient equipment and optimize maintenance schedules to avoid catastrophic failure
- Helps identify energy usage during peak periods to facilitate load shedding and avoid needlessly high energy costs
- Provides usage profiles that enable contracting with multiple utility service providers for better rates and cost economy

### VerifEye Series 2000 Three-Phase Meters

- kWh meter with optional demand functionality (includes reset key)
- Available in 120/208V or 277/480V 3PH 4W WYE in 100-1200 Amp ratings
- Equipped with Modbus RTU (RS485) and Pulse Output standard features
- Feature large LCD display
- Certified to all applicable ANSI C12.1 standards
- Utilize split and solid core current transformers (CTs)
- Allow for up to three sets of CTs to be installed per meter

### VerifEye Energy Monitoring Hub

- Pushes or pulls meter data to energy dashboards, kiosks and software applications
- Seamlessly interfaces with Leviton sourced electricity, gas, steam and water meters
- Provides interval data from energy meters as granular as one minute
- Easily integrates with third-party billing companies or site software solutions
- Provides instant on-line access to energy data from local or remote sites



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