



### Service/Product Provider

#### ***Pneu-Logic Corporation***

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### Industrial Partner

#### ***PepsiCo, Gatorade***

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## **Pneu-Logic installs compressor controls and saves Gatorade \$70,000 in annual energy**

### **Project Scope**

After undergoing an independent Compressed Air Analysis, several issues were identified within the plant's compressed air system. Most significant was the lack of automation. With seven compressors in three locations and no monitoring in place to observe system-wide pressures, the compressors maintained a higher than necessary power usage regardless of production requirements.

### **Project Summary**

Upgrading the plant's compressed air system infrastructure and installing Pneu-Logic's PL4000 Compressed Air Control Solution reduced the energy required to run the compressed air system. Control algorithms matched air supply with air demand using direct air pressure monitoring, pressure rate of change calculations, and direct air flow demand measurement. The PL4000 uses flow-based compressor staging tables and strategies to select optimal compressor combinations, wherein only one compressor varies in flow output in response to system demand and the remaining base compressors operate at full load or are off.

- **Energy Savings**  
\$70,000 or 1.1 million kWh, a 21% reduction
- **Investment**  
Total investment was \$175,000 to complete infrastructure (piping expansion) and PL4000 installation. This was somewhat offset by a \$70,000 incentive provided by a local utility.
- **Financial Return**  
IRR (inclusive of utility incentive) was 35.7% with a 1.5 year payback
- **Other Benefits**  
This project contributed to meeting PepsiCo's sustainability goals, reducing their carbon footprint.

### **Monitoring & Verifying Energy Savings**

The PL4000 serves as a comprehensive management tool, using advanced monitoring, trending, data logging, and reporting software to continuously document energy savings.

### **Distinguishing Value**

The Pneu-Logic PL4000 system was installed seamlessly and tuned for optimum performance quickly, while the plant was in full production. The system is user friendly, expandable, and provides detailed information on the entire compressed air system (for use in troubleshooting and energy management). Gatorade is currently investigating installing the PL4000 at other sites in the division.