

Power Optimization Solution: Steel Tubing Manufacturer

The Problem

A steel tubing manufacturer located in Texas came to Origyn and OUS seeking to reduce the energy consumption at one of their plants. They had a very limited budget, but were hoping to find a way to curtail their operating expenses.

The Solution

Our team reviewed 12 months of utility bills and discovered that the customer was **paying over \$3,500 a month in power factor penalties** to the utility. Ultimately an onsite audit was conducted of the facility to confirm the power quality issues and from that OUS was able to design a plan to improve the power quality coming into the facility and thus raise their power factor and eliminate the penalties.

Origyn and OUS installed power optimization equipment at each of the 2 switchgear bringing power into the facility. First and foremost, the equipment addressed the power factor issues, raising the power factor from an average of **70% to an average of 97%, above the utilities target of 95% and thus eliminating the penalties being charged**. In addition, through this equipment, we were able to bring the voltage across all three phases of power into balance, make use of transient voltage (which is typically lost to ground), and reduce KVAR (power you pay for but can't really use), all of which helped reduce energy consumption and demand across the entire facility's load.

	Before	After
Annual Electricity Consumption (Kwh)	6,341,862	5,835,713
Annual Electricity Cost	\$443,930	\$365,420

The results from this solution proved to be quite drastic in reducing energy and cost. A year after making these efficiency improvements, the manufacturer saw about a **10% reduction in their energy consumption** across their entire operation, and savings of over \$78K, or 17.6% because they were no longer paying a penalty for their low power factor.

No Capital, No Debt..... Just Savings!

This manufacturer was also able to procure these savings without spending any of their own money or having to take on any debt by utilizing our Energy Efficiency-As-a-Service program. Origyn and OUS provided all the capital to get the projects installed and commissioned, utilizing a 60 month service term, where our team provides service on all installed equipment through the term. This structure not only **saved the customer \$215K in upfront capital expense**, but allowed the manufacturer to keep the expense off their balance sheet and report it as an operating expense.

The manufacturer was able to **maintain \$2,996 per month in savings without spending a penny of their own money**, almost half of the overall savings, while preserving \$215K of their own money.

Service Term: 60 Months

Total Monthly Savings: **\$6,809**

Monthly EEaaS Payment: **\$3,813**

Monthly Savings Retained by Customer: **\$2,996**

Customer's Percentage of Savings: **44%**

Capital Retained by Customer: **\$215,000**