

Case Study:

Penalty Fees & Power Factor Correction



Objective

- To help the customer determine the cause of high penalty fees and eliminate them.

Solutions

- Perform a Power Factor Correction Study
- Install capacitors to improve power factor

Results/Benefits

- Penalty fees were eliminated immediately after the equipment was installed and running.
- The cost of new equipment paid for itself within one year from the savings on power bills.
- We were able to reduce the amount of reactive power flowing on the customer's power lines, a factor that is going to be more significant as we reduce our reliance on fossil fuels and move toward alternative sources of power.
- We had an opportunity to educate a customer on the cost of power and how to lower their costs as many companies assume that they must simply pay whatever the power company is charging. Instead, by investing in a better system, the customer can save a considerable amount of energy and money, especially year over year.

Local consumer goods manufacturing company was being charged high penalty fees from their natural gas and electric company. Quad Plus eliminated these penalties.

Background

We received a call from a local consumer goods manufacturing company complaining of high penalty fees being charged by the local utility. To determine the cause of these penalties, a Power Factor Correction Study is necessary as it will determine the real (kW) and reactive (kVAR) power flow and power factor through each branch of a power system. The study will also determine need, ratings, location of capacitors, a basic economic analysis, and the payback period for recommended equipment.

Quad Plus Solution

The first step was to complete the Power Factor Correction Study. We also collected data from the customer, including a recent electric bill to determine the customer's current charges and rates. Upon review of the study and data, our team determined that adding stepped capacitor banks was necessary to balance the amount of correction applied to amount of power being used.

Once the equipment was engineered to complete the power factor correction and installed, the Quad Plus team was able to eliminate the penalties, and the cost of the new equipment paid for itself within just one year from reduced power bills. We were also able to help build customer awareness of this problem. Many companies accept their power bills as they come and simply pay it each month. We think that many companies can lower their costs considerably, even when new equipment is necessary due to the reduction in power costs.



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