

# Case Study

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## Case Study: Gold Bullion Manufacturer (Power Factor Correction)

### The Challenge

A customer of Catalyst, a gold bullion manufacturer had an existing power factor correction (PFC) in place which was lagging at 0.87. The customer had been informed by the power company that if this issue needed to be resolved.

Low power factor is caused by inductive loads such as transformers, induction motors, generators and certain lighting ballasts. In the case of this customer, a significant amount of the power consumed is comprised of inductive loads. As part of existing energy efficiency work being undertaken with the customer, Catalyst was asked to look at the PFC issue.

### The Solution

Following a technical survey of the PFC and the overall site, Catalyst recommended the installation of a PFC unit with an upfront capital cost of £6,250. The unit will provide benefits which include reductions in:

- Reactive power charges
- Capability & availability charges
- Circuits, currents & kva
- kw/h losses
- CO<sub>2</sub> emissions

### The Outcome

Catalyst anticipates financial savings for the customer of £73,519.47 over a ten-year period and £29,773.07 over five years. Based on the total capital cost of £6,250 this gives the customer a return of investment of just over one year.

The findings from this exercise were also presented as part of the UK government's Energy Saving Opportunities Scheme compliance; which Catalyst undertook on behalf of the customer.



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