Industrial SPP / Partner Teaming Profile

**Service/Product Provider**

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**Industrial Partner**

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**Alcoa & E4E Solutions Completed Lighting System Upgrades to Save 30-50% in Energy, Reduce Maintenance Costs**

**Project Scope**
The scope of the lighting project at Alcoa Mill Works in Bettendorf, Iowa involved replacing 1000- & 400-Watt HID lighting with 500- & 250-Watt induction fixtures. In addition to the lighting fixtures, we upgraded the lighting infrastructure and installed lighting UPS systems. With the implementation of these products, the plant is now benefitting from lighting controls that incorporate motion and daylight sensors.

In addition to local utility incentives, E4E provided documentation for Federal Energy Policy Act Credits to Alcoa for this project.

**Project Summary**
Approximately 500 induction fixtures were installed, many of which included motion and daylight sensors. Also included was some new infrastructure, and UPS systems.

- **Energy Savings**
  $150,000 per year
- **Investment**
  $500,000
- **Financial Return**
  Typical 2-year simple payback after utility incentive.
- **Other Benefits**
  100,000-hour lamp life and 10-year guarantee provided from the fixture manufacturers will reduce maintenance costs. Safety (instant start fixtures), improved light levels and visibility in the plant.

**Monitoring & Verifying Energy Savings**
Investment grade audit was completed by E4E personnel. Pre and post inspections were performed by the utility, Alcoa and E4E to verify the installation and savings as required for utility incentives.

**Distinguishing Value**
This plant environment is particularly difficult due to the type and amount of production. There were no accidents or production issues with the implementation of these projects. The light levels have improved along with the quality of light.