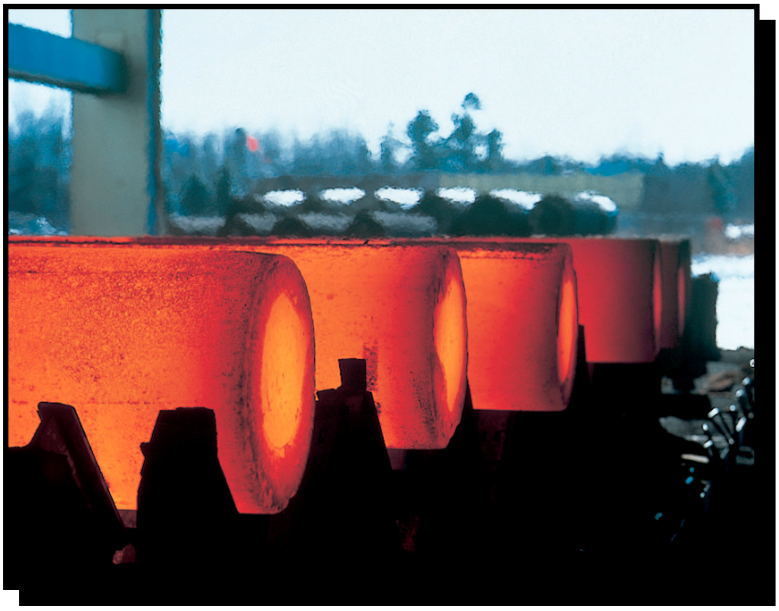
Feasibility Study for Confidential Client
Arkansas



AHP in association with Industrial Furnace Company (IFCO) provided engineering services for a waste heat recovery feasibility study. The client uses car bottom furnaces to bake green stock and re-bake pitch-impregnated stock in batches to produce graphite electrodes. The process uses large amounts of natural gas as the furnace fuel.

The goals established for an energy savings program were:

- Cost payback for energy savings improvements of 2 years
- Maximum savings in fuel cost
- Minimum interference to operations
- Ease of installation
- Low cost and effective operations and maintenance
- Minimum exhaust emissions

AHP developed a thermal computer model of the furnaces that shows for every hour how the fuel is used, exhaust gas flows, combustion air flows and temperature of each. From the model potential options were determined and evaluated.

It was determined that it is feasible to implement capital improvement projects that could result in a 45% reduction in natural gas usage. Cost savings generated can repay the capital investment in less than three years.

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