

COAL MINES and ENERGY MANAGEMENT... WHY BOTHER?

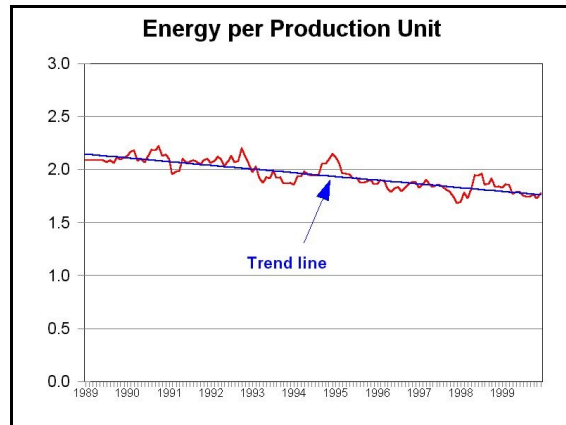
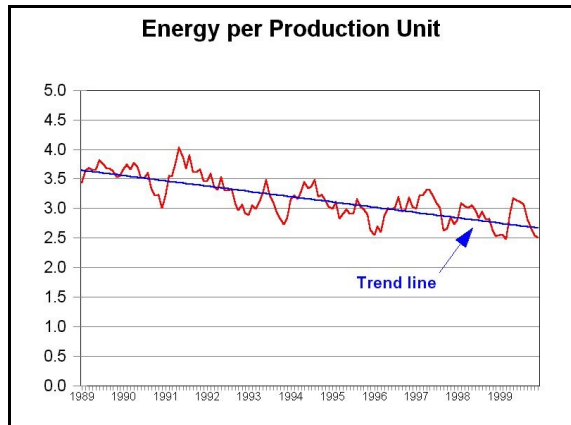
Energy management is often overlooked. There are many possible reasons for this phenomenon some of which could include, energy is cheap so why be concerned or even the belief that energy is being used wisely in the business. Often managers are just unaware of the benefits that will flow from a well run energy management programme.

Importantly, energy management projects can provide excellent returns on the investment. Possible energy and cost savings depend on the starting point. If the starting point is one of energy efficiency, savings will be relatively low but conversely if the operation is not energy efficient, savings will be large.

Generally for industry, savings of 15% are common rising to 25 - 30% for energy inefficient operations. Our experience with mining companies is that they fall into the group where higher savings are common. In one 'extreme' case, a mining company was wasting about 50% of the energy it was buying at a cost of many millions \$ per year.

The two graphs below shows the monthly energy performance of two coal mines in the Hunter Valley in NSW over a period of 10 years. The graph on the left shows an achieved 28% reduction in energy per unit of production over the 10 years and the graph on the right shows a 16.7% reduction per unit of production over the same time frame.

For the mines in 2000, those savings were worth about \$2.5 million per year for the two mines. In the years prior to deregulation in the electricity market, the savings were actually greater, though with higher energy prices predicted in coming years, the value of energy cost savings will increase once again.



The graphs show the results but there were other substantial benefits that flowed from the commitment by the mines over those years. The mines ran continuous improvement programmes, listed projects and action plans, assigned responsibilities with control and follow up processes as well as undertook employee awareness training. They benefited from an improved work culture across the board. These were very satisfactory results.

Savings through energy management go directly to the bottom line.