

Efficiency Through Awareness

Use Peak42 to facilitate the delivery of efficiency savings through key performance visibility and process optimisation evaluation

The challenge to operations teams is to run plant assets in the most cost effective manner and make informed decisions on the optimum operating parameters for those assets. The Peak42 ETA (Efficiency Through Awareness) strategy is a set of procedures designed to enable Peak42 engineers to work with clients operating and support personnel in a co-operative environment with the common aim of reducing operating costs.



“Optimisation of a process performance is fast becoming a necessity as operating companies realise both their duty of care to the environment and desire to reduce operating costs. We are able to facilitate this process by use of technology to visualise and analyse the real time cost of ownership. At Peak42 we are committed to helping our clients help themselves.”

*Nigel Hall
Director
Peak42 Limited*

BUSINESS SITUATION

Process companies are developing optimisation schemes to reduce energy and costs. While many operating plants have modern control and monitoring systems, these typically focus on plant operation and alarm management. The current challenge is to develop the infrastructure to offer a focused cost reduction strategy and deliver an on-line operating cost.

SOLUTION

Peak42 facilitate the optimisation process through a three tier strategy:

- Monitoring – Review and upgrade current plant monitoring facilities to give key performance indication on-line.
- Analysis – Work with operations teams to develop reduction techniques.
- Performance – Use technology to enhance plant performance and measurement systems including portable and Web based systems.

BENEFITS

- Greater awareness of process performance.
- Cost savings via energy reduction.
- Cost savings on feedstock/ raw materials and resource usage.
- Ability to compare performance over time and between similar process plants/units.
- Improved methods of viewing on-line information on plant performance.

Situation

While the optimisation of the process performance in terms of quality and capacity has usually been well developed, the cost of operating and hence ownership can always be reduced. We believe the application of a simple set of tools can be used across a range of process plant to reduce operating costs and target plant areas where inefficiencies lie. The on-line monitoring and evaluation of the key inputs and outputs is the most important stage to cost reduction.

Solution

Our approach is designed to make maximum use of the available installed technology and offer both short term analysis and long term monitoring facilities.

The first stage to the strategy is the Monitoring stage developed to give cost based on-line and historical parameter data with key plant performance indicators. These key parameters will be agreed with operations from current plant consumption cost figures. These will typically include Electrical Consumption (at key nodes), Chemical consumption, Plant throughput at key nodes and plant quality measurements.

While our preference is to develop the existing installed systems, we will also supplement these systems with temporary or permanent monitoring equipment and evaluation software.

The monitoring stage will focus on both delivery of the key operating data and operating cost data with unit cost per consumable

The second stage utilises the data delivered in the first stage for Analysis. Our recommendation is to use the knowledge base of the operational staff coupled with a series of workshops and challenges.

The key aim of this stage is to modify the "accepted" operation of the plant to reduce the energy and chemical consumption without detrimental effects on the quality or quantity of throughput. This stage can also be used to determine the correlation of major plant parameters and consumption costs.

The final stage will focus on the changes to improve Performance. Our process control specialists can implement the automation improvements, information technology solutions and innovative methods of visualisation. Suggested options include the use of portable (PDA) devices for on-plant real-time information and off-site management information. Data can be collated on a dedicated web site for access by both operations and management and dedicated SCADA / Telemetry displays (Dashboard) for performance monitoring.

Benefit

Reduction in operating costs. The obvious benefit to introducing this strategy is one of cost savings. These cost savings should be ongoing as the availability of the data constantly challenges operational procedures and allows management to set tangible targets.

Working with quality information in the right place. The Peak42 solution will focus on delivering a final system that will enable key cost and quality data to be delivered to the correct personnel.

Challenging suppliers. With quality performance data, suppliers of both energy and raw materials can be challenged and alternative tariffs or products can be quickly and scientifically evaluated

Benchmarking Plants. The standardisation of key performance data can offer clients the opportunity to benchmark similar plants/process units or intermediate processes and obtain best of breed operating procedures.

The Carbon Trust are convinced that an automated Monitoring and Targeting solution can efficiently reduce a typical site energy costs by between 10 and 15%.

www.carbontrust.co.uk

Capability Summary



Systems Integration: - Cost effective automation solutions to meet the control and monitoring requirements of modern and legacy process installations.



Consultancy: - The use of our knowledge to support our Clients before, during and after the implementation of automation projects.



Performance Management: - A range of innovative product based solutions and project services to help our Clients optimise their process performance and generate savings.

For more information about Peak42

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