HITTING YOUR NUMBERS IN OIL AND GAS

4 ways to reduce operational costs.
The global demand for affordable energy and an increase in relatively low-cost natural gas supplies, increasing regulatory pressures and skyrocketing capital and operational costs make it challenging for oil and gas companies to balance operations and maintain profitability.

As the industry continues the search for new reserves, addresses capacity issues, and upgrades ageing plant and infrastructures, it will look to automation technology to optimize production processes to maximize profits and reduce costs wherever possible. Energy usage, for instance, can account for up to 43 percent* of refinery operating costs, so a small savings in energy can lead to big savings in cost.

Today’s technologies help you to put integrated information, control, power and safety solutions in place, which enable you to balance the books and stay ahead of the competition.

*Source: Ernst & Young as part of BP’s 2011 sustainability report.
Keeping downtime costs under control.

The oil and gas industry, the fastest-growing industrial market for process automation today, also suffers from the highest downtime costs of any industry, often surpassing $1 million per hour.

As the oil and gas industry works to find new reserves, build new capacity, and upgrade its existing infrastructure, it looks to automation and information technology and services to fulfill regulatory requirements and safety goals while maximizing production assets performance.

With this in mind, the industry has to be able to access the support capabilities to ensure that investments in equipment, processes and people deliver optimum return on investment and minimize operational costs.

When small changes in process mean significant differences to productivity, you need to be aware of the possibilities technologically – information becomes the catalyst for improvement. How do you currently keep up with the ways suppliers and competitors take on today’s challenges? And how do you make the changes in approach work for you?
Reducing energy consumption.

A sustainable approach to energy resource usage is now the norm, and with an inconsistent supply and variable pricing wreaking havoc on profits and forecasting accuracy, it makes sense to be as efficient as possible.

Managing your energy consumption must go beyond electric to include water, compressed air, gases and steam, collectively referred to as WAGES. And with WAGES costs being some of the largest contributors to indirect costs, controlling them can have a big impact on your bottom line. But do you know how much energy your operation is using?

Improved awareness of and visibility to energy resource usage is the foundation for any strategic energy management program – it helps an organization understand where, when and how it utilizes energy in order to then establish the necessary scope of its energy savings efforts, define key metrics, and put the appropriate measures in place.

Achieving this takes a partner with an implicit understanding of your industry, your business and your goals, along with the automation and information technologies to support change.

Source: Rockwell Automation case study, Daqing Refinery Plant, China

In one project, Rockwell Automation helped China’s top-grossing petrochemical refinery reduce energy consumption by 41 percent, making a significant difference to their bottom line. In the same way, our engineers can work with you to help implement an individualized plan to reduce energy consumption.

The results mentioned above are specific to the client’s use of Rockwell Automation products and services in conjunction with other products. Specific results may vary for other customers.

www.oilandgas.rockwellautomation.com/demand
Ageing equipment.

Many oil and gas reservoirs continue to generate viable quantities of product well beyond the intended life of the original field design. The ageing asset base, combined with the cost and production risk associated with system upgrades, have led producers to view DCS migration decisions as an integral part of their long-term competitive strategy. Migrating from a legacy system to a new automation system will:

- Increase system performance and response
- Increase uptime, reliability and productivity
- Reduce spare parts requirement
- Reduce energy consumption and long-term costs
- Avoid being tied into a lengthy support contract

As equipment ages, it’s inevitable that questions around parts sourcing, service, potential productivity losses from old technology, and increased risks of downtime become more significant, and the need for change more pressing. You need to work with a supplier that has the service, system and industry knowledge to partner with you on an upgrade strategy to help you maximize your competitive advantage.

Source: Rockwell Automation case study, Daqing Refinery Plant, China
Safety systems and their impact on production asset performance.

Oil and gas companies have always engineered safety systems with the main goal of protecting people, facilities and the environment, but recent studies have shown that best-in-class safety performance has a significant impact on productivity:

- Increasing equipment performance (OEE) by 5 percent*
- Reducing unscheduled downtime by 4 percent*
- Experiencing significantly fewer injuries*

Recent events in the oil and gas industry have substantially increased interest in maintaining the highest standards of safety at all times. These events have spotlighted the potential worker, environmental and business ramifications of a significant safety event. Balancing these critical requirements often comes to a head when an oil and gas producer needs to upgrade a facility’s safety system.

A risk and safety assessment helps you identify and mitigate risks through design, selection, deployment, and support of the right safety system for your application.

As a market leader in process, machine and electrical safety solutions, Rockwell Automation has a well-earned reputation for helping oil and gas companies improve safety and compliance, helping to reduce costs and improve efficiency.

*Source: Integrated Safety Systems, Aberdeen Group, November 2011
The **oil and gas industry in focus.**

This is one of six Rockwell Automation guides focusing on key industry challenges.

1. The future of world energy: adapting to meet the challenges. [www.oilandgas.rockwellautomation.com/challenges](http://www.oilandgas.rockwellautomation.com/challenges)

2. 4 ways to maximize assets. Ensuring operational excellence. [www.oilandgas.rockwellautomation.com/demand](http://www.oilandgas.rockwellautomation.com/demand)

3. 4 ways to reduce operational costs. Balancing operations and maintaining profitability. [www.oilandgas.rockwellautomation.com/minimize](http://www.oilandgas.rockwellautomation.com/minimize)

4. How to hit your numbers in critical control and safety. The costs and complexities of industry safety issues. [www.oilandgas.rockwellautomation.com/critical](http://www.oilandgas.rockwellautomation.com/critical)

5. How to hit your numbers when there is a skills gap. Overcoming staff shortages worldwide. [www.oilandgas.rockwellautomation.com/skills](http://www.oilandgas.rockwellautomation.com/skills)


For more details about the comprehensive solutions we offer in oil and gas, visit [www.oilandgas.rockwellautomation.com](http://www.oilandgas.rockwellautomation.com)