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CONSTRUCTION AND ENGINEERING

Oil & Gas Industry

Seven quick wins to lower costs and accelerate revenue

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Introduction

The sharp decline in oil prices that began in 2014 left oil executives in a free fall with oil prices hitting a five-year low in early 2015 when the price of Brent crude temporarily fell below $50 per barrel for the first time since May 2009, marking a 53% drop in just six months.

The stomach-churning fall left oil executives scrambling to control huge losses of more than $100 billion in annualized revenue for U.S. producers.

By the end of April 2015, crude oil prices still hovered in the $50 per barrel range. The freefall had ended, but the landing was far from reassuring.

As the dust settles, other realities have become apparent. The decline in crude price raises fears that small exploration and production companies could go out of business. It's also bad news for the largest oil companies, which have raced to adjust their production and spending plans. BP announced that it would spend about $1 billion in restructuring in 2015 and lay off hundreds of workers. They also reduced spending on development by up to $2 billion. U.S. oil giant ConocoPhillips also announced that it would cut capital spending by 20%. Many energy companies have already started to cut drilling.[1]

The forecast has even turned chilly for shale oil drilling. The number of rigs drilling for oil in North Dakota and parts of Texas has started to edge down. New drilling permits have dropped sharply since October, and many companies say they are going to focus on their most profitable wells.

Oil companies that have made big bets on shale-rock formation in the U.S., a resource that became economically feasible to tap with the advent of new drilling technology, have become victims of their own success. Their shares have been pummeled, too, by the decline in oil prices, which is likely to cut deeply into their revenues and impact their ability to service their high levels of debt.

Oil field service companies and drillers have been among the hardest hit, owing to the likelihood that producers will spend less on new projects and ongoing maintenance work.

As recently as March 2014, global energy chiefs at a U.S. conference in Houston were lamenting over the soaring costs of their oil and gas projects, even as oil hovered above $100 per barrel.[2] One CEO told the crowd that labor and capital costs at his company had doubled over the last decade, and that to pay for the rising price of extracting fossil fuels, the industry needs triple-digit oil prices.

Today, oil executives must move toward accepting that this may be the new normal. Oil companies must consider two broad courses of action. First, executives must be able to quickly determine which projects will yield the highest long-term revenues and then accelerate time to first oil. This production imperative involves selecting the most profitable projects, mitigating risk and uncertainty, and performing ongoing dynamic monitoring.

Second, oil companies must lower costs. This involves improving contractor collaboration, effectively managing change and aligning costs with schedule – all leading to improved margins. Among other things, optimizing maintenance via an enhanced supply chain and logistics is key here.

Many oil companies have already pulled back capital spending by 20%-25%. But cuts across the board without a judicious, programmatic approach to their portfolio and modeling out future scenarios can jeopardize profitability and productivity from a development standpoint in the long run.

A comprehensive enterprise project portfolio management (EPPM) solution is critical for oil companies to help them gain a clearer picture of the current situation and identify areas of opportunity, lower risk and spot opportunities for innovation to improve their current situation and portfolio outlook for both the short and long term.

Companies can potentially lower costs and accelerate revenue in seven key areas.

Accelerating Revenue

As companies assess their portfolio, these areas should be considered:

1. Modeling & analyzing portfolios

Oil companies need to plan capital expenditure carefully and prioritize projects that will deliver. Just as “easy oil” is a thing of the past, “easy capital” no longer exists, and investments in production and exploration are receiving heightened scrutiny. Oil and gas companies need to demonstrate that the opportunities they pursue will deliver the greatest possible returns.

Savings of 10% can be made on capital projects budgets by adopting up-front strategic planning. - McKinsey 2013

A powerful enterprise project portfolio management (EPPM) analytics tool provides the forecasting capabilities oil and gas companies need to identify, prioritize and select the right upstream, midstream and downstream projects. Scenario analysis and decision optimization deliver the information required to predict likely outcomes and determine the probability of success. The result: Companies make investments that make sense, and production and exploration projects pay off.

Conversely, when deciding which projects to temporarily or permanently halt, an EPPM solution can analyze the portfolio impact that the shutdowns or turnarounds might have, as well as planned decommissioning projects.

Only 22% of oil and gas companies have a plan in place for the retirement phase of their assets, according to Aberdeen Group.[3] Decommissioning projects are often long and complex. One small change or event can have a ripple effect across the entire organization. An asset-decommissioning plan should also focus on risk and financial management, operational excellence and innovation.

With scares resources, it becomes even more important to have real-time visibility into the project so project leaders can look for potential problems before they become issues.

Decommissioning is also an opportunity to invite innovation. Continuous improvement has become the cornerstone for transforming the oil and gas industry. Companies should focus on applying previous lessons learned to the permitting and regulatory compliance process of decommissioning, according to Aberdeen. Execution plans from previous projects can serve as guidelines or templates to secure permits from the federal, state or local agencies for future projects.

It's also important to keep decommissioning projects on time and within budget. While there are no production losses by not finishing a decommissioning project on time – it can lead to additional resources being needed to complete the project, according to Aberdeen.[4] These resources could have been used to invest further in the business. Companies that have plans in place ahead of time to decommission assets reap the benefits that get carried over to future projects.

2. Assessing portfolio risk

Most companies experience an average 15% decline in share price after publicly announcing a capital project delay or shutdown. – PwC 2013

Companies in the top 20% of risk management maturity delivered three times the level of EBITDA when compared to companies in the bottom 20%. – EY 2011

Whether investing in new projects or shutting down others, risk management is a key factor, often driven by a clear view of every aspect of a project and its dependencies.

For instance, how do you know where to drill with the least amount of risk? Some companies will be able to keep pumping even at lower prices, depending on the location and quality of their wells.[5] Enterprise Products Partners LP, which operates pipelines and oil storage terminals across the U.S., says its analysis shows that the average well in many shale formations aren't profitable at $60 oil. But wells considered high grade can withstand much lower prices, such as some wells in South Texas, which are profitable at prices of $30 a barrel.

Oil companies need an EPPM system that helps identify these opportunities and avoid risk.

3. Dynamic monitoring & reporting

50% of oil and gas companies will have advanced analytics capabilities in place by 2016. – IDC 2014

Oil companies must take note of the way their organizations have adopted big data and detailed analytics to assist them with the management of their project portfolio. Capturing project delivery data has never been easier.

Companies now have the ability to capture information from the global supply chain through SaaS-based project management solutions, and the field is now enabled to deliver up-to-the-minute data via mobile solutions specifically designed to work on tablets and smart phones. Capturing that data and then translating it into meaningful analytics that can be provided to stakeholders -- both internal and external -- will enable faster, more efficient and therefore cost-effective decision-making.

Driving Down Costs

After oil companies decide which projects to go forward with, those projects must be executed efficiently and in a low-cost way. The following aspects should be considered to make this happen.

4. Improving collaboration and compliance

The most innovative 20% of organizations grew at a rate 16% higher than the least innovative. – PwC

Operational excellence helps to drive down costs and improve efficiencies. Although most of the attention is on capital projects, as it should be, maintenance and operations are areas with significant cost savings potential. Oil and gas companies need to improve productivity while improving quality. They also need to ensure that well-defined standard operating procedures are supported, automated and complied with by both the owner organization and the supply chain. Standardizing processes and ensuring parties are alerted to actions, including non-compliance, are important factors in driving efficiencies throughout projects.

5. Managing change

Project-intensive industries report that an average of 15% of their major capital projects experience change orders. – McGraw-Hill Construction 2011

Oil and gas stakeholders – whether they are owners, services organizations or part of the supply chain -- are well aware that projects change from the day they are approved. Yet they still struggle with the ability to capture change and manage all the subsequent documentation that can help them maneuver through these curves in the road. Standard processes and tools found in EPPM solutions can help organizations account for the impact of both financial and scheduling changes across the portfolio of projects.

6. Integrating supply chains

Improved supplier collaboration reduces rig downtime costs by 12% for project-driven supply chains. – Booz & Company 2010 (now Strategy@)

Oil and gas companies need to find and capture best practices and extend them wherever they can add value. Continuous improvement in all areas of the organization, including back-office functions, is critical to enhancing processes to make them more efficient. Companies that can manage all resources, including labor, equipment

and materials, across an organization's integrated portfolio plan – capital projects, ongoing operations, etc. -- can also help drive strategy in determining procurement, human capital and contracting approaches. What's more, incorporating the integrated project plan with the supply chain ensures that resources are provisioned and delivered to meet the needs of the project.

7. Improving operations and maintenance

Improved planning of maintenance activities delivers 10% savings. – McKinsey 2013

Oil and gas companies must maximize online availability of their assets to deliver oil and gas or refined products, while minimizing operating expenses. Companies that can effectively plan and execute shutdowns and routine maintenance also improve the operational efficiency of their assets and can better meet the goals of the organization.

To this end, enterprises are looking at a number of areas to enhance efficiencies and drive down costs, including long-range planning, scope refinement, resource and risk optimization, efficient field execution and change control. Typically, the focus in these areas is to automate the very manual processes that exist in most operations and maintenance organizations, since this further enhances efficiencies and also provides a heightened level of governance over all operations and maintenance activities.

The Solution

Oracle's Primavera oil and gas industry team approaches EPPM as a strategic issue that demands board-level engagement, rather than a niche or specialist operational function. Our oil and gas clients get a single version of the truth for their organization, real-time visibility of all relevant information from start to finish, and integration of project and program resources.

Additionally, oil and gas companies get immediate access to key performance indicators, cost and budget alignment, and detailed audit trails of all transactions. As a result, project issues are easy to identify, corrections can be made mid-course and resources can be quickly allocated effectively and efficiently.

Conclusion

Enterprise project portfolio management is mission critical to the oil and gas industry, which is driven by billions of dollars in capital investments. These large-scale exploration and production projects, if they fail, have an impact on the company and their share price. EPPM provides that full end-to-end capability to support the capital asset lifecycle – from planning, building & construction, operation & maintenance, to decommissioning.

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