

ASSET DECOMMISSIONING IN OIL & GAS: TRANSFORMING THE BUSINESS

September, 2014

Asset intensive organizations like Oil and Gas have their own industry specific challenges when it comes to managing their asset's lifecycles. One area that is often overlooked or pushed off until the last minute is the decommissioning phase of their assets. Leaders in the industry turn to three areas to transform their business - Risk and Financial Management, Operational Excellence, and Innovation.

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22%

**Only 22% of Oil & Gas
companies have a plan
in place for the
retirement phase of
their assets.**

The Oil & Gas Boom

With recent advances in technology, supplies of new sources of energy (shale gas, oil from shale, tight sands and the deepwater, natural-gas liquids, etc.) are booming, particularly in the US. However, as companies scramble to construct additional derricks, platforms, and rigs to take advantage of these new resources the amount of assets that will need to be eventually decommissioned also increases. In fact, in [BSEE's 2010 Decommissioning Cost Update](#) it was forecasted that over the next 15 years over one billion US Dollars will be spent on decommissioning the 23 existing assets *on the federal Outer Continental Shelf (OCS) offshore California alone.*

It was shown in Aberdeen's [The Importance of Decommissioning in Asset Intensive Industries](#) that decommissioning asset can no longer be an afterthought:

- By not planning for the retirement phase of an asset a company risks sacrificing resources towards future projects.

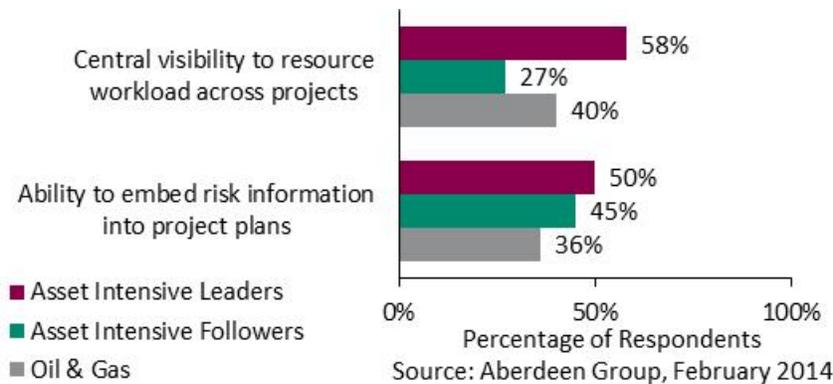
- ➔ By not planning for the retirement phase **now**, a company risks losing the tribal knowledge of the workers that built/operate the asset.

Knowing that a plan needs to be in place is not enough, Oil and Gas companies need a strategy that approaches asset decommissioning around three main areas - Risk/Financial Management, Operational Excellence, and Innovation.

Risk and Financial Management

Oil & Gas projects are long, complex, and made up of many moving parts. One small change or unforeseen event can have a ripple effect that can cripple an unprepared business. Leaders stress effective project management from an overall business standpoint (Figure 1).

Figure 1: Managing Your Projects



Oil & Gas organizations need to do a better job of focusing on this area to improve, especially when it comes to embedding risk information. With the perceived lower priority that decommissioning projects have in most organizations, being able to better view and distribute workloads across all projects, *while monitoring risk*, becomes even more important.

Defining Asset Intensive Leaders

Aberdeen used four key performance criteria in the area of project management to distinguish the asset intensive Leaders from Follower organizations.

Projects delivered on-time or early

- 86% - Asset Intensive Leaders
- 47% - Asset Intensive Followers
- 62% - Oil and Gas

Projects are delivered within budget

- 95% - Asset Intensive Leaders
- 65% - Asset Intensive Followers
- 75% - Oil and Gas

Decrease in time-to-decision over the past year

- 21% - Asset Intensive Leaders
- 10% - Asset Intensive Followers
- 13% - Oil and Gas

Increase in project length when a project is late

- 14% - Asset Intensive Leaders
- 30% - Asset Intensive Followers
- 25% - Oil and Gas

There is obviously room for improvement when comparing Oil and Gas companies to the Leaders.

Asset intensive industries include, but are not limited to: oil and gas, mining, metals and metal processing, energy and utilities, and chemicals.

Real time Visibility Promotes Operational Excellence:

Real time visibility to project data and information for organizational stakeholders (internal):

- Asset intensive Leaders - 54%
- Asset intensive Followers - 35%
- Oil & Gas - 49%

Real time visibility to project data and information for partners / customers / suppliers (external):

- Asset intensive Leaders - 46%
- Asset intensive Followers - 20%
- Oil & Gas - 38%

Top Challenges for Oil & Gas Companies to Effectively Manage Projects:

- Inefficient and / or manual project management processes - 37%
- Project plans and resource scheduling are not aligned - 35%
- Current standards or best practices not enforced enterprise-wide - 30%
- Implementing effective change management procedures - 23%

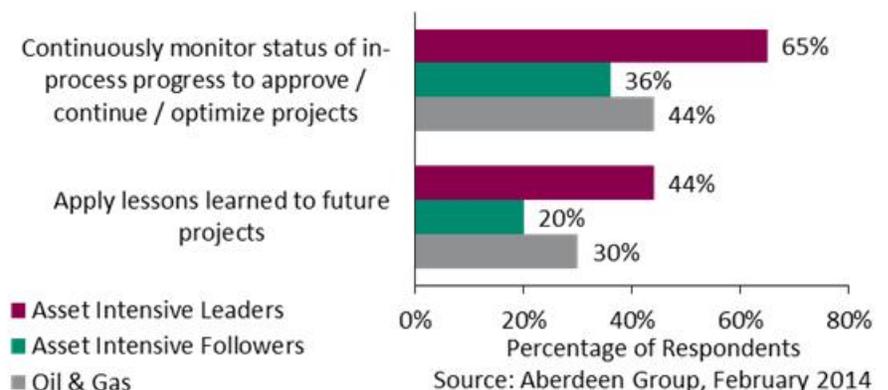
Operational Excellence in Decommissioning

With the lack of resources that is being experienced both externally and internally, utilizing what is available becomes even more important. This is why Leaders stress the importance of having real time visibility (see sidebar below). This increased visibility (both internally and externally) allows a company to look forward and discover potential problems before they become issues throughout the decommissioning process. Asset Intensive Leaders can also adapt on the fly and "re-optimize" based on any changes that may occur. The Followers rely solely on reacting to problems as they arise, which has a severe impact on the cost and time targets for their projects. Oil & Gas companies should continue to promote this visibility to maximize productivity.

Innovation the Process

Forming and executing the plan is not the last step when decommissioning an asset, Leaders are looking at ways they can further innovate and improve their business, a company can always do better (Figure 2).

Figure 2: Apply Continuous Improvement Thinking



Continuous improvement is being embraced as the engine to transform the business; this plays a direct role in the superior time and cost project metrics that Leaders have seen in the last

year. It is this continuous improvement approach that demonstrates the maturity of a company. Oil and Gas companies especially should focus on applying previous lessons learned to the permitting and regulatory compliance process of decommissioning. Execution Plans from previous projects can serve as guidelines or templates to secure permits from Federal, State, or local agencies for future projects. While Oil and Gas organizations as a whole are outperforming the Followers, if they don't further embrace this approach they will be left behind.

Key Takeaway

Completing decommissioning projects on time and on budget all while dealing with stringent environmental and safety standards are some of the unique challenges that Oil & Gas companies must deal with. However in this challenging environment there are many opportunities for improvement. The Oil & Gas industry must emulate the Leaders; implementing a strategy that covers three critical areas of the decommissioning phase - Risk/Financial Management, Operational Excellence, and Innovation - is a proven approach to transform the business.

Execution Plan:

An Execution Plan is a formal plan that provides a detailed description of proposed project activities, the associated equipment, and personnel requirements, and the schedule for completing the activities. The Execution Plan is prepared to support the application process needed to secure permits from Federal, State, and local regulatory agencies. During this phase of the process, environmental baseline information is collected and field surveys are conducted to evaluate the project site.

Source: [BSEE Decommissioning Cost Update Report](#)

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