ASSET DECOMMISSIONING IN UTILITIES: TRANSFORMING THE BUSINESS

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Asset intensive organizations, like those in the Utilities sector, have their own industry specific challenges when it comes to managing their asset's lifecycles, but 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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The Push for Smarter Utilities

All power plants (coal, gas, water, etc.) have a finite life beyond which it is not economically feasible to operate them. As an asset approaches the retirement phase, it needs to be decommissioned, cleaned up, and demolished so that the site is made available for other uses. There are a set of unique challenges the Utilities industry deals with when managing water and power decommissioning projects. Like the planning and attentiveness that must be exercised around sediment management when decommissioning a hydroelectric plant (ex. Condit Hydroelectric Project). This is just one example of the unique compliance and safety standards that must be met by Utility companies.

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 runs 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, Utility companies need a strategy that approaches asset decommissioning around three main areas - Risk/Financial Management, Operational Excellence, and Innovation.

**Risk and Financial Management**

Utility 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. That is why Leaders stress effective project management from an overall business standpoint (Figure 1).

**Figure 1: Managing Your Projects**

![Diagram showing the percentage of respondents in different sectors regarding central visibility to resource workload across projects and ability to embed risk information into project plans.](source)

The Utilities industry needs to do a better job of focusing on this area to improve, especially when it comes to the overall workload across their projects. 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.

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**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
  - 63% - Utilities

- **Projects are delivered within budget**
  - 95% - Asset Intensive Leaders
  - 65% - Asset Intensive Followers
  - 76% - Utilities

- **Decrease in time-to-decision over the past year**
  - 21% - Asset Intensive Leaders
  - 10% - Asset Intensive Followers
  - 12% - Utilities

- **Increase in project length when a project is late**
  - 14% - Asset Intensive Leaders
  - 30% - Asset Intensive Followers
  - 26% - Utilities

There is obviously room for improvement when comparing Utilities 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%
- Utilities - 39%

Real time visibility to project data and information for partners / customers / suppliers (external):
- Asset intensive Leaders - 46%
- Asset intensive Followers - 20%
- Utilities - 42%

Top Challenges for Utility Companies to Effectively Manage Projects:
- Project plans and resource scheduling are not aligned - 38%
- Inefficient and / or manual project management processes - 36%
- Current standards or best practices not enforced enterprise-wide - 34%
- Implementing effective change management procedures - 23%

Operational Excellence in Decommissioning

With the lack of project 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). 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. Utility companies should use this visibility to map out and select the skills required for their projects. This ensures that the right people are on the right project at the right time - eliminating duplicate work, optimizing resources, and keeping projects on track.

Asset intensive Leaders can also adapt on the fly and "re-optimize" based on any changes that may occur. This re-optimization is the crux of operational excellence, and what separates the Leaders. 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. Utilities should continue to promote this visibility to maximize productivity, especially that internal visibility.

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).

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. While Utilities as a
whole are outperforming the Followers, if they don't further embrace this approach they will be left behind.

**Figure 2: Apply Continuous Improvement Thinking**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Asset Intensive Leaders</th>
<th>Asset Intensive Followers</th>
<th>Utilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continuously monitor status of in-process progress to approve / continue / optimize projects</td>
<td>36%</td>
<td>40%</td>
<td>65%</td>
</tr>
<tr>
<td>Apply lessons learned to future projects</td>
<td>20%</td>
<td>34%</td>
<td>44%</td>
</tr>
</tbody>
</table>

**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 the Utilities industry must deal with. However in this challenging environment there are many opportunities for improvement. Utilities 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.

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