Digital asset maintenance for energy & utilities: What do you need to start?

The energy sector and utilities are traditional industries experiencing dynamic evolution. While there are still many old-fashioned processes in place, digitalization is increasingly making its way. And one of its aspects is digital asset maintenance.

Asset management as an important strategy

Nowadays, companies in the energy sector commonly recognize asset management as an important strategy in achieving better business results. When implemented correctly, it is a source of cost savings, easier regulatory compliance, and competitive advantage. And benefits multiply with a more sophisticated approach and solutions.

In this blog, we're going to outline the specifics of asset maintenance for power and utilities, what are its benefits, or how to start with asset management inspections software.

What is asset maintenance?

Let's divide the term into smaller pieces. In general, assets are all physical items that a company owns and uses throughout its operations. It ranges from equipment, tools, machinery, and inventory, to plants, land, or facilities.

In a broader scope, assets are also financial resources, workforce, or digital solutions. It can be literary anything that brings value to the business. But for energy and utilities, let's stick with physical items referenced as PPE (property, plant, equipment) as the most relevant pieces of assets.

These are the examples of assets for electricity, power plants, oil & gas, renewable energy, and other similar sectors:

- Drilling equipment
- Transmission towers
- Solar panels
- Gas pipelines
- Electricity cables
- Wind turbines
- Substations

All of them have certain value, based on variables such as acquisition price, cost of repairs, revenue the asset generates, etc. The thing with the physical items we mentioned is that they depreciate over time.
The company's goal is to maintain the value and maximize the performance of an asset as long as possible.

That's where 'maintenance' comes in. Companies can control their assets' value with the right maintenance management – preventing costly damage, breakdowns, and losses. This helps to operate, maintain, and upgrade an asset in a cost-effective way.

Now imagine all the infrastructure and equipment in the energy and utility sectors. Many of their assets are in place for decades and need precise management. That's why asset maintenance is crucial for thriving and if companies handle these resources properly, the rewards are massive.

What are the benefits of asset maintenance?

There are 3 key advantages of implementing digital asset maintenance for companies in energy and utilities:

- Cost-savings on asset repair/replacement processes
- Real-time data collection helping to identify and manage risks
- Process standardization and reduction of human error

Cost-savings on asset repair/replacement processes

In a sector full of complex machinery, equipment, and developed infrastructure like pipelines or transmission towers, it is necessary to have a precise overview of the condition of assets. It helps managers to optimize spending between fixing and replacing the items. The process includes the planning of spare parts orders and budgeting for months and years to come.

And the difference between optimized and spending might be millions of dollars.

That's why companies deploy various types of maintenance methodologies. Predictive maintenance, condition-based approach, or preventive maintenance are the most frequent ones. Companies identify and prevent asset breakdowns to avoid high replacement expenses and potential service outages.

Real-time data collection to identify and manage risks

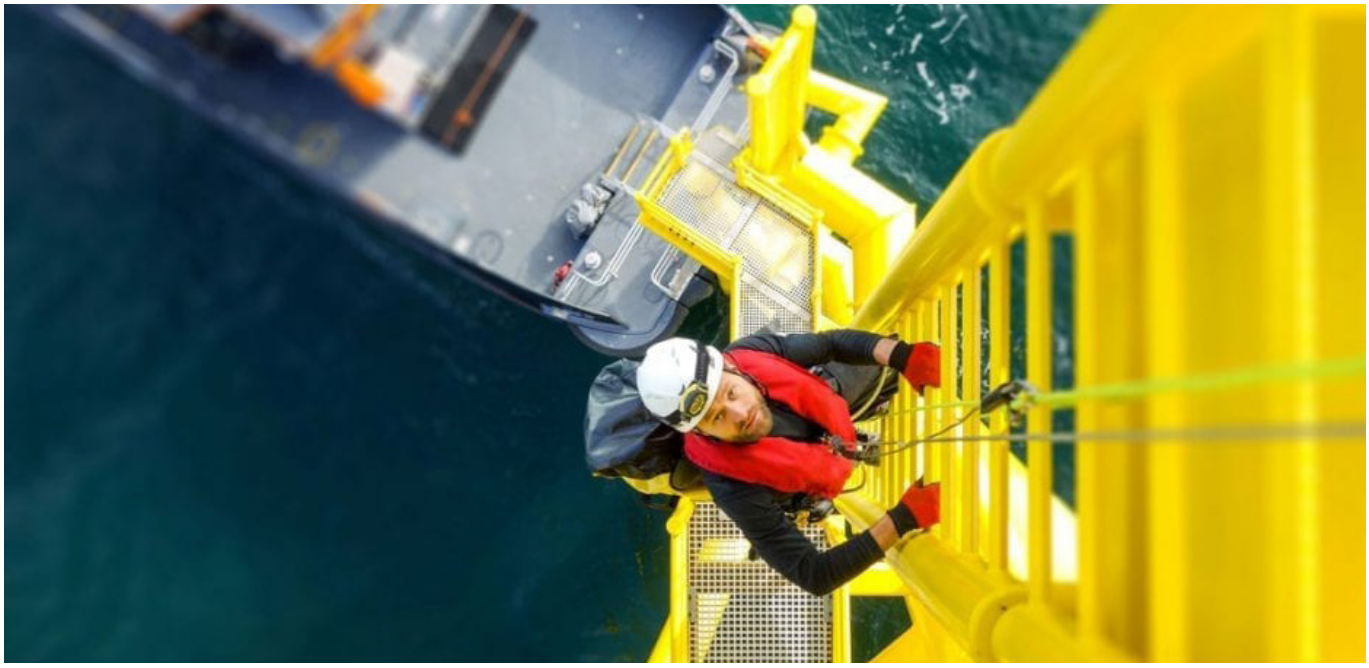
The digitalization of field workers enables organizations to collect, update, and share data directly from the field. This reduces the time needed to get insights on asset condition as well and allows managers to make decisions faster. The interoperability between teams then goes further into advanced planning and scheduling for spare parts and automated work order scheduling.

By improving the flow of information between the field and back-office, companies can minimize paperwork and focus solely on the actual job. And these efficiency increases have major impact on business results. As experienced by Toyota Material Handling, the difference can be even $4.2 million a year.

Process standardization and reduction of human error

The energy and utilities sectors are specific with their scope of valuable assets. Organizations can have numerous facilities and infrastructure networks spread out across the world. In such a setting, the lack of standardized processes can make the asset management go haywire.

But digital forms and data collection in real-time provide a way to mitigate the number of errors and set up a step-by-step process no matter who and where fulfills the task. A checklist with constantly updated instructions and data verification allows managers to spot inconsistencies quickly and notify field technicians to take corrective action.



Paper-based vs. digital: What's the difference?

For long, companies have been replacing paper-based processes with spreadsheets. Now, more advanced apps and solutions are taking over the industry. And companies that implement maintenance software solutions can gain a huge competitive advantage.

The key differences between paper-based asset management and digital solutions are:

- **Easy access** – Cloud systems allow workers to access information about assets from anywhere via any device
- **Sharing and collaboration** – In energy and utilities, many employees work outside the office. Digital solutions enable document sharing in real-time and don't require prolonged paper administration

- **Security measures** – Companies can make digital documents available only to authorized persons with specific credentials, while paper files are more prone to be misused
- **Editing** – Technicians can receive the latest document updates and manuals immediately when available
- **Human errors reduction** – Digital inspection checklists allow verification of entered values, prevent mistakes, or notify the worker about inconsistencies

Asset maintenance software

Predicting asset performance can save organization thousands, even millions, of dollars every month. For energy and utilities, where the extent of assets is like no other, digitalization of maintenance processes becomes a vital part of the company's operation.

And that's where good asset maintenance software can make a difference. Digital solutions enable to track all the organization's assets in one place, collect data from the field, and analyze it in real-time. This helps you manage individual steps of the inspection process, including repair history, work order scheduling, and maintenance planning.

So, hopefully, with the essential information in your pocket, you can evolve your operations using a digital solution.

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