

# Smarter asset information management

4 ways to achieve operational excellence in the Energy sector



**Contents**

Operational excellence is a necessity	3
Build a solid foundation for digital transformation	4
Energy sector case study	5
Enhance asset performance through effective content management	6
Improve project and contract management through secure integrations	7
Make the future predictable	8
How to raise the bar for operational excellence	8



## Did you know?

By 2024, 25 percent of renewable energy companies, asset owners and asset operators will double investments in tools and technologies to accelerate intelligent operations to unlock revenue.<sup>1</sup>

As energy commodity prices increase in volatility, leading Oil & Gas and Utilities organizations are implementing digital solutions that modernize operations, mitigate risk and improve business processes.

Digital transformation drives excellence in areas such as capital project management, asset performance and supplier relations.

Oil & Gas and Utilities companies are managing complex relationships and information governance requirements. They need a world-class content management solution that:

- Integrates with enterprise applications.
- Includes purpose-built applications for asset management and capital projects.
- Supports analytics and mobile communications.

## Operational excellence is a necessity

Across exploration, refining, power generation and distribution, renewables and other energy segments, leaders are focused on reducing costs, mitigating risks, maximizing return on assets and streamlining project management.

Companies in the Oil & Gas industry face volatile commodity prices and pressures to increase return on assets. In Utilities, renewables are the fastest growing form of energy. Distributed energy resources (DERs) are disrupting generation and distribution while customers are exploring alternatives to utility dependence. Across all sectors, assets are aging and workforce retirements are stripping out valuable institutional knowledge.

Organizations recognize the need for a digitally driven focus on cost saving, incorporating the Internet of Things (IoT) and advanced analytics to improve decision-making at every level. Soon artificial intelligence (AI) will enable even greater insight and agility.

<sup>1</sup> Gartner® Competitive Landscape: Renewable Energy Management Systems, Nicole Foust, Lloyd Jones, Sruthi Nair, Lauren Wheatley, 29 August 2022.  
GARTNER is a registered trademark and service mark of Gartner, Inc. and/or its affiliates in the U.S. and internationally and is used herein with permission. All rights reserved.





Cloud-based solutions play an essential role in analytics, but they also complicate content management if information silos are simply replicated from on-premises applications to cloud applications. To derive essential insights and deliver them to employees, including mobile workers, organizations need to manage content effectively.

---

This guide explores best practices that help organizations within the Energy sector **achieve operational excellence and master modern work.**

---

## Build a solid foundation for digital transformation

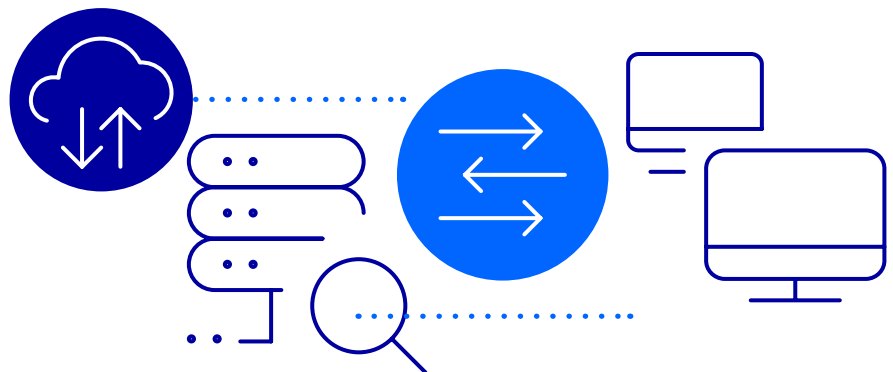
Energy companies typically manage massive amounts of information in a wide variety of types, such as:

- Project transmittal documents
- Engineering documents
- Operational procedures
- Equipment manuals
- Checklists
- Safety forms
- Work orders

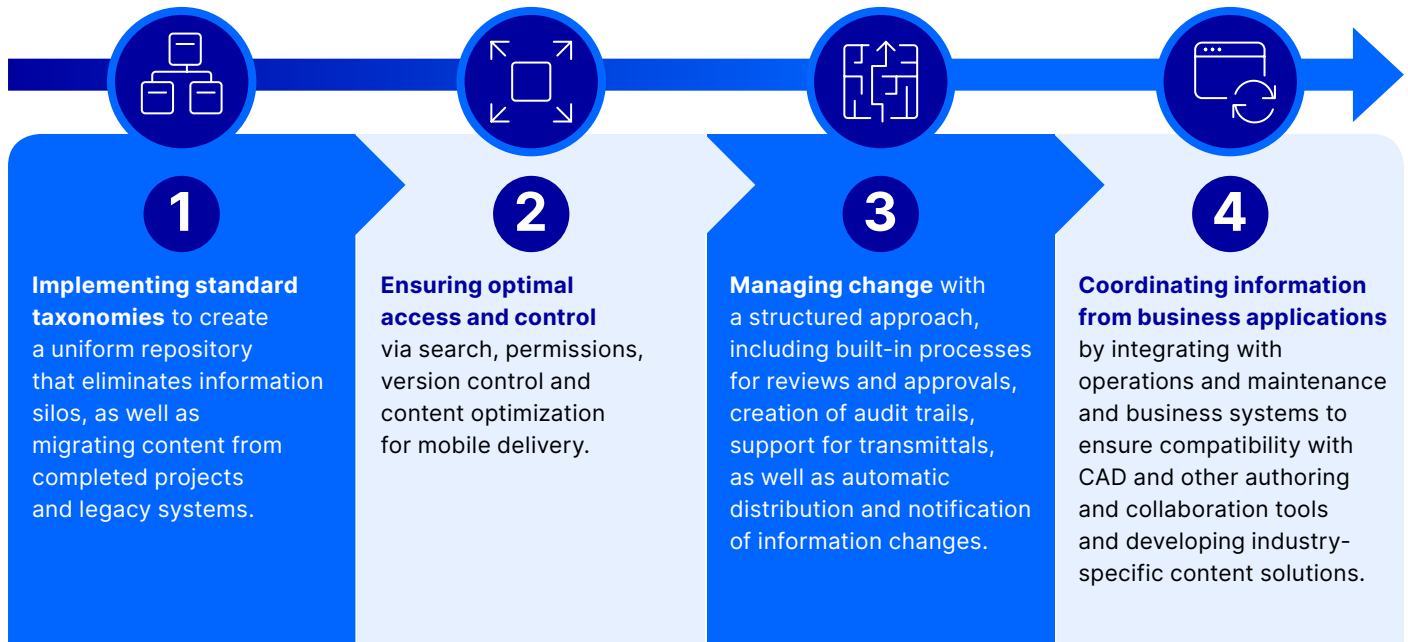
With every project and operational change, they manage and track content through complex revisions, reviews, audits and handoffs.

Companies document every asset and operating plant throughout their lifecycle, from design, to build, to the latest updates. Capital projects also generate enormous flows of content. An organization's ability to control costs is closely linked to its management of documents across repositories as well as handoffs with third parties.

To be able to take advantage of advanced technology and work from mobile solutions, an organization needs to manage information and eliminate silos.



## 4 stages of implementing asset information management



With modern content management, organizations can automate and accelerate the exchange of information with secure, auditable document control capabilities. They can also streamline creation, distribution and tracking and enforce document templates, corporate standards and naming conventions.

### Energy sector case study

Metropolitan Utilities District now has on-demand access to technical and operational data, eliminating many hours of back-and-forth coordination with back-office colleagues and allowing faster, more efficient maintenance.

**“All important information concerning our day-to-day network operations and maintenance is available 24/7,”** said Ron Schell, director of enterprise applications. **“Thanks to OpenText Extended ECM for SAP Solutions, our engineers can look up anything they need quickly, wherever they are.”**

[Read their story](#)





## Enhance asset performance through effective content management

Energy companies invariably operate expensive, complex assets, such as offshore platforms, power generation plants, electricity grids, pipelines and more. Profitability rises and falls with their uptime. To maximize uptime and prevent interruptions that drain profitability, companies need to support project teams, engineering and operations and maintenance personnel with effective content management and integrated best-practice workflows.

For example, a company could use [enterprise content management \(ECM\)](#) together with an [AI-powered analytics platform](#), to increase the speed and accuracy of core sample analysis during onshore test drilling.

Engineers typically analyze each sample to determine its composition, including the liquid content, rock type and porosity, with results graphed in Microsoft® PowerPoint® to facilitate review. An ECM system could categorize and store graph images as they are developed, feeding them to an analytics engine using machine learning to improve its accuracy. As new samples are collected, the system could perform analysis faster and more accurately to reduce costly re-drilling and improve decision-making.

With strong content management, organizations can also increase collaboration among interdisciplinary teams of engineering, procurement and construction (EPC) contractors, owner-operators and equipment suppliers on shutdown-turnaround and equipment failure analysis. Integrated review and annotation tools are needed to streamline field markup and maintain an electronic record of an asset's as-built state. Content must be searchable by full-text, metadata or semantic search so that operations and maintenance teams can troubleshoot equipment without losing precious time.

Effective content management can also reduce costs and increase productivity in change management. With a structured approach, organizations can reduce errors and accelerate workflows and collaboration across the organization and with external parties. As assets are updated and new components installed, changes in operating conditions must be documented under full revision control in accordance with ISO standards. New asset documentation must be linked to the functional location and equipment.

Asset repairs and updates create inter-organizational content management challenges. As work orders flow in and out of systems, such as SAP® and IBM® Maximo® and new equipment is installed, essential content and documentation must be managed and stored effectively to enable version management, access control and audit trails.



It is important for organizations to control information systematically and put it at the fingertips of operational personnel so they can find the right version and look at it on their device of choice. Organizations also need to ensure the information they need is stored, updated and easy to find to avoid reliance on employee knowledge. Information only in employees' heads can prove costly when they leave the company or retire.

By prioritizing content management, an organization can increase reliability and maximize production from assets. This helps ensure information governance and process management controls that underpin all maintenance activities.

## Improve project and contract management through secure integrations

Strong content management also promotes excellence with capital projects. When constructing facilities, grids and pipelines, companies must manage specialized and unstructured documentation, including contracts, images, engineering drawings, technical specifications and inspection reports.

Beginning in design and through build and handover to asset operations, they need a secure, integrated environment where contracts, transmittals, engineering submissions and scope changes can be exchanged and managed.

Project teams and contractors typically perform large-scale exchanges of file collections every month with stringent requirements to retain schedules, track milestones, reference previous versions and automate processes. Their work may be performed under complex regulations regarding health, safety and environment (HSE), local permitting, licensing and project management.

It is essential for all participants to work from a single version of the truth to prevent re-work and errors. Delays in document exchange can increase costs, so the systems must help reduce time for handover and commissioning. The content management platform should also facilitate integration with ERP and EAM systems, as well as native CAD and GIS-based applications. This will help ensure a full audit trail to enable appropriate process management controls.







## QUICK TIP

### Focus on supplier communications

Businesses need to establish an advanced data exchange system that helps project teams, EPC contractors and suppliers communicate and collaborate easily throughout the design and construction process.

[Learn more](#)

Optimized content management also strengthens interdisciplinary review of contracts and projects. By managing all the documents around a project effectively, organizations manage risk, renewals and scope changes throughout the life of

the contract while enforcing quality and consistency of contract language and processes. A complete contract management solution also automates contract creation and renewals and simplifies tracking and management of clauses, terms, conditions, commitments and milestones. Project managers and engineers can easily update the status of deliverables and scope changes, review the change history and audit trail and determine who was involved.

### Make the future predictable

High-powered analysis of large, diverse data sets is essential to achieve true operational excellence.

McKinsey reports that utilities are using advanced analytics to enhance service quality, reduce costs and preserve and deepen customer relationships.<sup>2</sup> Machine-based learning is also helping utilities analyze customer attributes and behaviors and apply predictive criteria to define customer groups.

Energy companies that modernize their content management capabilities are prepared to leverage analytics and AI for deeper vision into their operations. Digital transformation can integrate asset management and centralize content management to enable advanced analytics and a business process engine that drives operational performance and delivers better business insights across the asset portfolio.

For example, analysis of asset performance can reduce plant downtime by predicting likely processing equipment failures before they occur. An ECM system can stream data directly from the equipment, maintenance records, operating specifications and operator training records to an analytics engine. The engine can then analyze structured data from the machine and an ERP system, together with unstructured data from documents, to understand the preconditions of a failure. Once the pattern of failure is established, the system can monitor operating temperature patterns, fluid conditions and maintenance history to detect a failure risk and operators can perform required maintenance during planned downtime.

Predictive analytics can also improve management of electric distribution grids. A utility company that has mastered content management can leverage smart meters and IoT to perform detailed analysis of usage and voltage across the distribution grid and spot patterns within feeders. With that insight, companies can proactively manage generation and DERs and develop policies and incentives for DER deployment.

### How to raise the bar for operational excellence

Energy companies can create a robust foundation for operational excellence with the OpenText™ Asset Information Management for Energy solution, which uses a multi-layered architecture to enable end-to-end digitization of business processes. As organizations increase the use of mobile computing to deliver insights at critical points, this solution can make all types of content available for search and analysis.

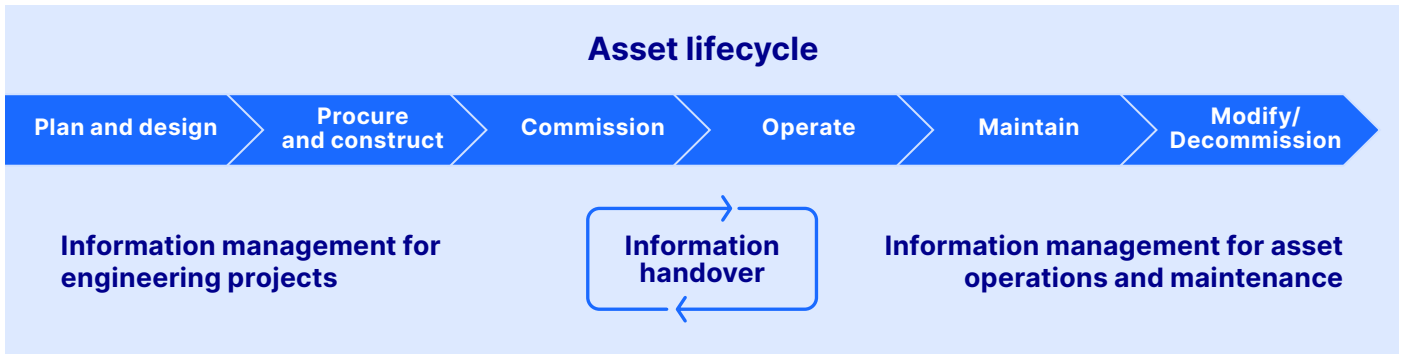
OpenText serves an estimated 85 percent of major energy companies, including helping them with integration to content servers for major enterprise applications such as ArcGIS®, AutoCAD®, AVEVA™, SAP® and Maximo®.

<sup>2</sup> McKinsey & Company, How utilities can use advanced analytics to elevate customer experience. (2022)



**Intelligently connecting project and asset information**

Efficiently control engineering and asset information, work processes and risk across the lifecycle of projects and operations to accelerate revenue and reduce costs



OpenText™ Extended ECM for Engineering					
Intelligent bulk load	Supplier collaboration	Revision control	CAD integration	Viewing, redlining and markup	GIS/Esri
Transmittal management	Review and approval	Concurrent engineering	Secure file transfer	Asset relations	EAM integration
Reporting	Persona dashboards	Governance and insight	Titleblock, Xrefs metadata	Automatic document numbering	Fast track configuration

**Additional resources**

[📄 5 ways to optimize asset information management](#)

[📄 4 ways asset information management fuels productivity](#)

[📄 How to streamline projects and increase operations revenue](#)

With smarter asset information management, organizations can master modern work with a mature backbone for:

- Managing and analyzing all their information across all plants worldwide.
- Optimizing business processes.
- Bringing control to information chaos.

Ready to take control of your engineering information and reduce asset downtime? [Discover how to implement these best practices.](#)

**About OpenText**

OpenText, The Information Company™, enables organizations to gain insight through market leading information management solutions, on-premises or in the cloud. For more information about OpenText (NASDAQ: OTEX, TSX: OTEX) visit: [opentext.com](https://opentext.com).

**Connect with us:**

- [OpenText CEO Mark Barrenechea's blog](#)
- [Twitter](#) | [LinkedIn](#)