



The Data Readiness Index: Preparing Energy and Utilities for AI

Introduction

Energy and utilities companies hold a unique position among enterprise organizations. By their very nature, these companies exist at a massive scale and are responsible for some of the most critical physical infrastructure in our societies. At the same time, the industry operates in a highly complex environment with challenges and nuances that span from broader trends like the shift toward sustainable energy to the lagging state of energy and utilities infrastructure.

The energy and utilities sector handles an incredibly complex and sprawling data footprint. As AI becomes standard across the enterprise landscape, the immediate challenge for these organizations is transforming raw data from IoT devices, smart meters, operational systems, and the edge into real-time, predictive insights.

But before energy and utilities companies can get to those insights, they need to ensure their data infrastructure is ready to deliver them. According to [The Data Readiness Index 2026](#), nearly one-in-five energy and utilities companies said their data-driven initiatives are often hindered by infrastructure performance issues.

So, how can energy and utilities organizations balance critical IT and OT needs to achieve true data readiness?

Data Readiness for Energy and Utilities

Energy and utilities companies sit on a vast trove of data. But unlike other organizations, the sources of that data are highly diverse. Just as a power grid is inherently spread across a sprawling physical environment, energy and utilities companies are pulling data everywhere, from IoT devices in the field, OT systems, edge systems, all the way down to the meters tracking usage.

Given this complicated environment, energy and utilities organizations diverge from other enterprises and show less intent to push significantly more cloud spending in the future. According to Cloudera's survey, 39% said they plan to maintain their current spend across cloud and on-premises, while roughly 34% said they plan to increase cloud spend somewhat.

The push for more impactful AI has pushed many enterprise leaders to prioritize an increase in cloud spend, but given the complexity of energy and utilities infrastructure, this industry requires a more balanced approach. Real readiness requires data to be readily accessible and usable. For energy and utilities companies, a majority are positioned well in this regard, with 79% saying they can access 100% of their organizational data, wherever it resides.

Another 86% said they had complete visibility into where their data resides. For an industry tasked with managing major critical infrastructure across huge geographic areas, having a complete accounting of data and data sources is a core piece of the data readiness puzzle.



Driving AI at scale for energy and utilities companies demands complete visibility into where your data is."

**MORGAN BOWLING,
GLOBAL AI DIRECTOR**

Roadblocks to Readiness and the Need for Impactful Governance

Most energy and utilities leaders report high confidence in their ability to locate their data and believe they have complete visibility into where it resides. But in spite of that confidence, 43% still say their data-driven initiatives are hindered because they cannot access all the data they need across environments.

This disconnect points to a broader governance challenge lurking under the surface. While 59% of respondents say almost all of their data is fully governed, just 6% say the same is true of all their data. Without consistent governance across the entire data estate, organizations may know where their data lives but still struggle to access, manage, and use it effectively.

Energy and utility companies operate in a highly complex, and highly regulated, industry. In this environment “almost” is simply not enough when it comes to governance. But even so, just 29% said that their data infrastructure was fully prepared to be modified to meet evolving regulatory requirements, and one-in-five (20%) said they were just somewhat prepared for this possibility. Readiness from a regulatory standpoint cannot be fully achieved if most of an organization can’t access data across environments effectively.

Who’s in Charge? Accountability and Strategic Alignment in Energy and Utilities

For data readiness to truly take hold, there has to be organizational alignment and accountability, regardless of industry. In the energy and utilities industry, respondents are largely in agreement—accountability around readiness for AI falls to the CIO/CTO, according to 80% of respondents. After that, the next closest role is the Chief AI Officer at 12% of respondents.

That alignment is crucial because senior leadership sets strategy and steers the ship on where AI will ultimately take the company. At least on paper, energy and utilities companies show a strong belief that they are largely headed in the right direction with 91% believing that their senior leadership understands and prioritizes the necessary data infrastructure to enable AI at scale. And another 87% believe that their data strategy is both clearly defined and aligned with the broader business’s objectives.

But this points to a clear gap, how can organizations be so highly aligned and yet just 6% say their data is fully governed? If crucial data remains trapped in organizational silos, leadership’s priorities won’t actually translate into a solid foundation.

The Future of Data Readiness in Energy and Utilities

The landscape that energy and utility organizations inhabit is both massive in scale and highly complex. As organizations grapple with the challenge of bringing in AI while dealing with aging infrastructure, future success and ROI start with a strong foundation of data readiness. Over the next two to three years, energy and utilities companies are approaching that future with some overall uncertainty. While a commanding 80% are fully confident that their data infrastructure can support the organization’s strategic priorities, there is still room for growth as roughly one-in-five (19%) note that this is only “somewhat” the case for them today.

Delivering on that future requires an emphasis on data, not just the latest AI models.

Learn more about what it takes to achieve [data readiness](#) in energy and utilities and talk to an expert today.

25%

of respondents said that cost overruns were the most common reason ROI fell short



There’s no skipping steps in the path to effective data readiness. Governance over 100% of all data keeps quality, access, and visibility in line.

MORGAN BOWLING,
GLOBAL AI DIRECTOR

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