



Agentic AI and shared services in energy



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From experimentation to true transformation

Shared services are a significant part of energy companies' operational and financial infrastructure. These models support complex, capital intensive activities across multiple geographies and regulatory environments. Years of consolidation and automation have delivered meaningful gains. But these gains are plateauing. Traditional automation was built for efficiency in stable conditions. It wasn't built to absorb compounding pressures like tightening regulation and volatile markets.

Agentic artificial intelligence (AI) can shift this dynamic. For energy companies, the question isn't whether these autonomous systems can deliver value. They can. With human-in-the-loop oversight, AI agents can deliver the control, accountability and resilience that the sector demands.

Agentic AI goes beyond automating tasks

Unlike traditional robotic solutions or generative AI tools, agentic systems understand context. They operate independently, making decisions and performing tasks while humans ensure that they operate within strategic and regulatory boundaries. Agents' ability to prioritize actions and collaborate with other agents and humans is ideal for shared services. Processes are rule-intensive and naturally run end-to-end, from procurement requests to supplier settlement, from customer interactions to regulatory disclosures.

This is why 58% of global capability centers are investing in agentic AI now. Another 29% plan to scale investments over the next year with finance, operations, IT and cybersecurity among the primary focus areas, according to the [EY India GCC Pulse Survey 2025](#).¹

In energy, the implications of agentic AI go beyond productivity. Shared services hinge on financial integrity, compliance and operational reliability. When AI agents act autonomously with humans in the loop in these environments, the question isn't about efficiency. It's about accountability.

The energy sector's AI dilemma: balancing autonomy and scrutiny

Energy companies operate under constant scrutiny from regulators, markets and society. This scrutiny now extends to how AI makes decisions. In Europe, risk-based AI regulation is tightening.

In this environment, deploying AI in shared services isn't only a technology decision. Explainability is paramount. Humans have a critical role in ensuring that it exists. It's not just the IT team that must understand agentic decision-making. Finance leaders, risk teams and regulators must too. Traceability is critical. Every action must leave an auditable trail across systems and data sources. Humans remain accountable. Autonomy doesn't eliminate responsibility; it redistributes it.

Finally, operational resilience is key. AI enabled processes must stand up to ongoing disruption.

Organizations that ignore these non-negotiables often stall after promising pilots. Those that embrace them as operational design principles scale safely at speed.

1. What's next for India's GCCs?, dated November 2025. Global Capability Center (GCC) Pulse Survey November 2025. https://www.ey.com/en_in/newsroom/2025/11/58-percent-gccs-in-india-investing-in-agentic-ai-two-third-creating-dedicated-innovation-teams-to-globalize-ideas-ey-gcc-pulse-survey-2025

Operating model readiness limits scale

Energy companies are actively experimenting with agentic AI. Proofs of concept are showing positive outcomes – from clear productivity gains and faster cycle times to improved service quality. Yet few organizations have truly industrialized these solutions. The technology is rarely the primary barrier. However, three structural challenges keep getting in the way:

1. Legacy process design

Shared services processes were not built for autonomy. They rely on manual controls, fragmented exceptions and implicit human judgment through intentional human-in-the-loop process design. Introducing agents without redesigning these processes only amplifies complexity.

2. Fragmented accountability

Traditional governance models assume that humans make decisions and systems execute them. Agentic AI blurs this boundary, which means that organizations must explicitly redefine roles across process owners, IT, risk and compliance. Humans have a strategic role to play here.

3. Uneven regulation

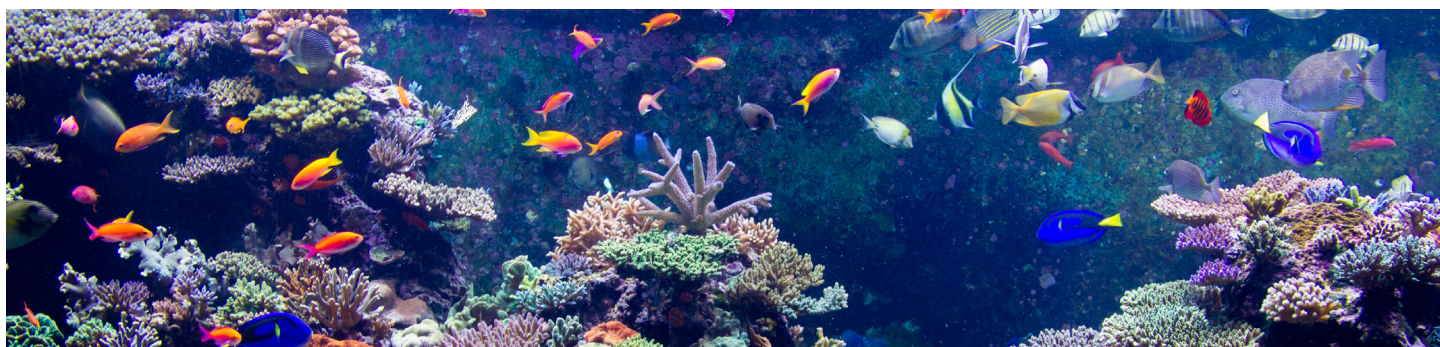
Global energy groups must navigate differing regulatory expectations across geographies. Solutions developed in one region may not meet the requirements of another, creating friction when scaling.

It's time to design shared services for autonomy

The way to address these challenges is to treat agentic AI as an operating model transformation, not a technology deployment. Instead of asking, “Where can we deploy agents?” energy companies should ask, “How should shared services operate in an environment where autonomy is possible?” This gets to the heart of developing AI-native shared services models, which involves:

- Redesigning end to end processes around orchestration, not individual tasks
- Defining clear decision boundaries between humans and machines
- Embedding compliance, controls and auditability into process logic
- Aligning data governance and quality with AI-native decision-making

In energy, this approach has proven particularly powerful in finance operations, regulatory reporting, procurement and master data domains. All of these functional areas combine scale and complexity grounded in high expectations of control.



Build or buy: a strategic choice, not a technical one

Agentic AI also forces a rethink of build versus buy strategies. This decision is shaped less by cost and more by long-term control, especially in highly regulated shared services environments. The relevant questions center on fundamental issues: whether the process has regulatory or reputational exposure, how deeply agents must integrate with core enterprise systems and how likely regulations are to evolve.

Where these factors are critical, organizations tend to favor architectures that allow strong governance, data sovereignty and explainability – even at the expense of short-term speed.

Human-in-the-loop oversight is essential

As AI agents take on new responsibilities and augment humans, organizational structures should evolve to accommodate a new model of human-AI collaboration. What's needed is a thoughtful recalibration. Humans should have strong strategic roles enabled by AI that is orchestrated across workflows.

Trust is non-negotiable in energy

In the energy sector, trust is not a communication objective. It is an operational imperative. Internal stakeholders must trust that AI-enabled processes are predictable and controllable. Regulators must trust that autonomy doesn't undermine accountability. Customers must trust that decisions are fair and reliable. Leading organizations create a foundation for trust by establishing Responsible AI frameworks that evolve with technology. These frameworks combine human oversight, continuous monitoring and strong data foundations. They remove uncertainty and friction, which fuels innovation.

From experimentation to durable transformation

Agentic AI can fundamentally reshape shared services in the energy sector. But the real value won't come from deploying more agents, faster. It will come from developing human-in-the-loop AI-native shared services that operate autonomously, responsibly and at industrial scale by design.

Energy leaders know that agentic AI works. Their challenge now? Get the fundamentals right, and agentic AI becomes something that energy companies can count on for transformation, not just experiment with.

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The challenge for energy companies is to build autonomous shared services that meet the standards of critical infrastructure.

Guillaume Rouger

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A holistic approach to agentic AI

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We bring you:

- A foundation of knowledge gained about your business as your long-time audit partner
- An understanding of all agentic AI dimensions; we go beyond the technology itself to the business context
- Deep understanding of the nuances of the energy industry, including regulatory compliance

Ask yourself

Are we treating agentic AI as a technology deployment or an operating model transformation?

Are we building AI-native shared services with human-in-the-loop oversight or just accumulating use cases?

Can we stand behind our agentic AI decisions—operationally and with regulators and customers?

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