IBM's Perzad Avari on Why Utilities Should Build Agentic AI Together





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Utilities arriving at agentic AI find the same problems waiting for each of them, and no settled answers on how to operate, measure, or govern work that agents execute. IBM's proposition is that a group of them collaborate to answer those questions and share the result.

In August, the company announced the AI Lighthouse Council, whose founding members include Southwest Gas, Chesapeake Utilities, and Consumers Energy. Together they serve more than 50 million residents across 28 million meters in 26 states.

Arrangements like this are rare in enterprise software, and utilities are one of the few industries structured to allow them. The largest utilities in Florida are not competing for customers in Colorado, which makes shared development practical in a way it would not be for banks or retailers of similar size.

Perzad Avari, SAP Leader for the Energy Industry at IBM, runs the practice that convened it and is responsible for its business performance. Avari spoke with ASUG ahead of the announcement about what the council was created to define, where agentic AI is likely to show its value first inside a utility, and what a shared layer means for an SAP landscape carrying years of customization.

This interview has been edited and condensed for length and clarity.

Q: You have spent more than two decades on the consulting and delivery side, with much of the last decade focused on energy and utilities. What does your role cover, and what drew you to this part of the business?

In the SAP practice at IBM, we specialize in the implementation management and the operations of SAP applications, and they span ERP and customer functions. I'm responsible for the overall business performance of this practice. In the last couple of years, we've seen significant growth in the market in this space due to a track record of delivering these programs successfully. What sets us apart is that we focus on business outcomes and not just implementing technology.

What drew me to this part of the business is that the industry has always needed implementation partners who can also be advisors, looking at solutions through a broader lens, from the business case to software licensing to hosting support. Having done that for so many years, I was able to advise clients at the outset of these programs all the way to program completion.

Q: Utilities are absorbing load growth and an aging workforce while many are still working through their S/4HANA roadmaps. Among the customers you work with, how is AI figuring into how they respond?

AI has a paradoxical role right now in the energy transition. It is simultaneously driving massive demand for electricity, but it is also going to be the essential tool required to manage and accelerate this very transition.

There are several initiatives and levers that utilities will have to implement to meet this demand, from driving grid automation and intelligence, predictive forecasting for renewables, to enhancing the resilience of the utility infrastructure, and even clean tech R&D. AI is going to help manage balancing thousands of fluctuating distributed energy sources, which human operators cannot do. Companies like Nvidia are now actively partnering with utilities to build autonomous microgrids, and that can only be done using AI.

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Q: Given those pressures, where are you concentrating your effort with SAP utilities customers this year?

At IBM, we have successfully deployed the concept of a forward deployment unit at several clients. Think of a team of six doing the work of thirty. These are experienced humans at the edge and agents in the middle, agentic AI agents.

We believe that utilities not only need forward deployment units now in delivering and building solutions because they need them faster and cheaper. They also need forward deployment units in their own business operations. That has been the focus for us this year.

We believe that this new paradigm now requires a new operating model, reference architecture, corresponding business data ontology, and a governance and observability layer. To define all of these things and this overall framework, we launched the IBM AI Lighthouse Council for utility companies, where we encourage utilities to participate and come together to share ideas, identify common requirements and challenges, and solve them together.

Q: What was the council created to do, and for a utility running S/4HANA, what does "build once, deploy many" mean when every landscape carries its own customizations?

The charter of the council is to collectively define what we refer to as the agentic layer for utilities. Then we'll work together in defining the overall framework. In the new agentic operating model, there needs to be a way of measuring the performance of this operating model, such as agentic SLAs. What guardrails need to be in place? There's much still to be defined in this space.

Broadly speaking, 80% of utility processes are common across all utility companies. The build once, deploy many concept implies that we're building the 80% common across utilities while tailoring the remaining 20% based on the utility's regulatory and bespoke requirements. Yes, there will be some level of SAP customization, or customization of any solution, that will be required, and the agentic layer will be designed to cater to that 20% based on the utility's specific business processes.

Q: Utilities already have peer networks, though the exchange there tends to be retrospective. What changes when several are building toward a shared output at the same time?

Having worked with other industries, I feel that utilities are unique in collaborating and sharing knowledge. When companies in other industries work separately, they're working toward solving a common set of challenges and requirements separately and differently.

We believe that if we take advantage of this collaborative nature of utilities, then we can anticipate and define these challenges much faster. We work together to build and test these solutions faster so that others can take advantage of them in the market.

Q: At the scale the council's founding members encompass, where is agentic AI delivering the most measurable value, and where the work is still pre-production, what do you expect it to produce?

One objective of this charter is to define a value template where we are going to be able to measure the end customer value, or the benefit delivered by the agentic use case. Right now, we're focused on every domain in ERP, such as finance, asset management, supply chain, HR, and also customer operations. I can't pinpoint exactly which one is going to deliver more value until we put these mini business cases together. I'm hoping that in the next few months, we'll be able to rank these use cases by value as well.

The value template quantifies the benefit that the utility is going to receive in terms of operational efficiency, or soft benefits such as customer satisfaction, against a set of associated implementation and support costs to operate that agentically.
One of the use cases we've identified is in the exceptions management space in a utility company's customer operations. This is a problem every utility deals with. They have large teams managing and resolving these exceptions in their back-office department. We believe this is a compelling use case where agentic AI could not only present the root cause behind an exception but could actually resolve the exception based on human inputs and validation.

We believe that humans must always remain in the loop, and there needs to be a set of controls and validation points where humans will not only be directing the AI but also reviewing the resolution executed by AI.



Q: The agentic layer has to run inside utilities whose SAP landscapes carry years of customization and sit close to operational technology. What is it being built to do there?

In terms of these agents being deployed for utility companies that have heavily customized SAP solutions, we look at this from two different angles. When we are upgrading platforms with years of customization, we provide companies with a roadmap to clean core that they can then execute or continue to execute after the platform has been upgraded to S/4HANA. The systems are not only more economical to sustain and maintain, but also to upgrade in the future. It also helps agentic operations run smoother on these platforms when they're closer to standard.

We believe that every utility will still have a set of customizations that are tailored to their regulations or bespoke requirements, and we're going to build agentic skills that are trained to incorporate that customization.

Q: How is the council working with SAP, AWS, and Microsoft Azure to define a target architecture?

Our charter as part of the AI Lighthouse Council is to work closely with our technology partners to complement and align with their landscapes, best practices, and roadmaps. We don't want to build something that directly overlaps with what SAP is building. Our goal is to complement SAP and help meet the demands of the market faster.

We are trying to define the architecture in a way that remains flexible and scalable with different variations of technology stacks that utilities have invested in. For example, we have architected the agentic skills in a way such that they are portable across different frontier models. Therefore, utilities can continue to leverage the choices they've made and the investment decisions they've made. The skills are designed in a way that they become agnostic across these landscapes.



Q: Utilities have used AI for years in forecasting, asset health, and meter analytics. What separates the ones ready for agentic work from the ones that aren't?

Generative AI and, specifically, machine learning have been around for years, and utilities have been using them. However, agentic AI is nascent and still being developed and deployed in companies' operations. We believe that agentic AI requires an underpinning operating model, a corresponding reference architecture, governance, and observability—parts of the framework that I referred to earlier, which aren't as mature as some of the gen AI and machine learning applications and solutions that utilities have been using.

Q: How are utilities building the internal case for this work, and what should go into it?

We've seen utilities are in various stages of the curve. We've seen many business cases to help justify building AI solutions. We want to define a template that everyone can use to prioritize and rationalize where agent-based use cases should be applied.

Several factors go into this. For example, the way you architect your agentic layers and overall framework must take into account token usage. There are also competing AI technologies available through multiple OEMs and hyperscalers, and utilities must decide on which AI technology best serves their needs based on the business function.

Q: SAP has made the autonomous enterprise central to its messaging this year, while IBM's language emphasizes control planes, traceability, and human judgment at the edges. Is that difference real or mostly semantic?

Both SAP and IBM believe that humans will move from doing to thinking, and neither believes that humans can be taken out of the loop. Both ideologies

rely heavily on a human-in-the-loop design, where humans set policies, define intent, and manage exceptions, while agents handle routine execution.

Q: Looking ahead, what is your vision for what the council will yield?

A home run for the Lighthouse Council would imply that we've successfully established this agentic AI layer for the utilities industry, with a library of proven solutions for utilities to leverage, a whole set of proven architectures, a framework for business ontology, options for governance and observability, allowing utilities to leverage these solutions rather than building and defining them on their own.

Q: What would you tell a utility weighing whether to build this capability on its own?

My only advice is to join this council. I highly encourage every utility not to try to build on their own, but rather to collaborate and cross-pollinate what might already be available in the market.

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