The AI-Energy Convergence: How Vertical AI Makes Every Electron Intelligent

Deepak Garg
Founder and CEO of Smart Energy Water (SEW)

There is an intelligent revolution happening across the energy and utility ecosystem. While headlines focus on AI for convenience, the real story is AI for survival — rewiring how billions of people experience energy and water.

Deepak Garg, Chairman, Founder & Co-CEO, SEW.AI, has been orchestrating this revolution from inside the industry for over two decades. SEW's Vertical AI Platforms are powering this evolution in 47+ countries, supporting over 450+ utilities worldwide.

In a recent discussion with ASUG, Deepak Garg shared why Vertical AI is becoming the backbone of the energy and utilities industry — and why the future depends on it.

This interview has been edited and condensed.

Q: Sometimes, discussions of industry-wide transformation fueled by AI can almost sound like science fiction. How is AI changing the energy and utilities industry today?

It may feel futuristic, but this kind of transformation is already happening every day across modern energy grids. Vertical AI platforms continuously monitor millions of assets in real time, detect anomalies, forecast failures, and coordinate responses before customers are even aware of any issues. The technology is quietly working behind the scenes to prevent outages, optimize flows, and keep electricity running smoothly.

At the same time, demand is increasing, faster than ever. AI applications, high-performance data centers, and electrification are driving unprecedented energy consumption. By 2030, AI data centers alone will consume more electricity than the entire state of Florida used in 2020. We're not talking about gradual growth. We're talking about adding the equivalent of a major American city to the grid every single month for the next six years.

The old playbook was simple: predict demand growth, build bigger power plants, strengthen transmission lines. That playbook is now obsolete. You cannot build infrastructure fast enough to meet exponential demand. You have to make existing infrastructure exponentially smarter.

> **"Every day, artificial intelligence creates new impossible demands. Every day, artificial intelligence also creates new impossible solutions."**

Q: You have often said that generic AI is not enough for utilities. Can you explain what makes energy and utilities different from other industries?

Energy and utilities are unlike any other industry because the stakes are immediate, tangible, and affect billions of people in real time. When a transformer fails, or a substation goes offline, it's not just data lost, it's homes without power, hospitals at risk, and entire communities impacted. Unlike traditional industries, utilities operate critical infrastructure that cannot pause or wait for an algorithm to "figure it out."

Generic AI can analyse patterns in data, but it lacks the context to understand the operational workflows, human behaviours, and system interdependencies unique to utility networks. That's where Vertical AI comes in. Built

from decades of industry-specific expertise, it combines operational data, field knowledge, and behavioural models to deliver intelligence that is actionable, precise, and reliable.

Vertical AI is what powers SEW's platforms, creating a complete end-to-end connected experience across the utility ecosystem. It enables field crews to receive predictive guidance, customer service teams to deliver proactive support, or customers to get personalized insights that optimize energy use. By embedding utility-specific knowledge into every decision, SEW's Vertical AI ensures that intelligence is not only smart but practical, scalable, and immediately effective, helping utilities transform operations, enhance reliability, and elevate the experience for every person they serve.

> **"We call it Vertical AI because it goes deep into energy and utilities with data and connects customers, field workforce, utility operations and the grid into one living ecosystem."**

Connect with Deepak Garg on Linkedin.

Q: You describe your platform as creating "connected experiences." What does this actually mean for the utility ecosystem?

For too long, utilities have operated in silos – customer service, field teams, and operations rarely spoke the same language. Our Vertical AI platforms are designed to bridge those gaps, creating a fully connected ecosystem where insights flow seamlessly, decisions are informed in real time, and every part of the system learns from the other. It's not just about efficiency, it's about transforming how energy is delivered, managed, and experienced.

Connected experiences are about building connections between people, processes, and technology. By linking traditionally separate functions, utilities unlock intelligence that was previously impossible, turning fragmented workflows into a coordinated, adaptive, and resilient system. And communities feel the difference. Not only in terms of reliability but also trust, transparency, and a sense that their utility understands and responds to their needs.

> **"Intelligence is only as powerful as its connections. Our platform ensures that every insight flows across the ecosystem, transforming energy and water from a commodity into a seamless experience."**

Q: Three of America's four largest utilities use your platforms. What are you seeing that excites utility CEOs today?

Vertical AI is opening new possibilities for the industry without compromising the reliability and stability they've built over decades. It enables them to better predict grid demand, optimize field service management, and enhance customer experiences at scale, all while maintaining the trust and operational excellence their communities rely on. The grid is no longer constrained by linear growth; AI enables smarter, faster decisions that expand capacity and flexibility without risking outages or inefficiencies. In essence, utilities can do more, reach further, and innovate faster, while keeping the lights on and the system stable.

Vertical AI is helping utilities manage operations seamlessly across millions of households. Field crews receive predictive guidance for inspections, maintenance, and fault resolution, allowing them to act faster, safer, and more efficiently. Customer service representatives gain real-time insights into outages, billing inquiries, and service requests, enabling proactive, personalized support. Customers receive timely updates, energy-saving recommendations, and transparent communication. The system doesn't just react, it learns, adapts, and improves continuously. This level of intelligence allows utility leaders to see complexity turn into actionable insight and operational confidence.

> **"We're not just adding AI to the grid. We're performing open-heart surgery on a patient who's running a marathon. And we can't let the patient stop running,"**

Q: There's a lot of fear about AI replacing the workforce. How do you see this playing out in the energy and utility sector?

At SEW, we believe the future of AI is about empowering them. Energy and utilities are deeply human industries. Behind every outage restored, every meter read, and every customer supported, there's a person making a difference in someone's daily life. AI doesn't take that away, it amplifies it.

We call it People + AI. A collaboration where technology augments human capability instead of displacing it. AI can process billions of data points in seconds, but it takes people to understand the human context, apply judgment, and bring empathy to moments that matter. In the field, AI gives field workers predictive foresight, so they're safer and more effective. In customer service, it equips agents with insights that help them guide customers with compassion and precision. Across operations, it brings clarity, freeing people to focus on higher-value problem solving.

This is why our Vertical AI platforms are designed to place people at the center. Technology provides the intelligence, but people bring the purpose. Together, they create a utility that is not just efficient but empathetic, not just optimized but human.

> **"We believe in the philosophy of People + AI. Where AI becomes the force multiplier driving people empowerment at scale"**

Q: Looking ahead, where do you see the energy and utilities industry heading?

The future of energy and water is being redefined right now. It's not just about technology, it's about purpose-led transformation. We're standing at a moment where AI breakthroughs, built for this industry, will unlock possibilities for 8 billion people on the planet, from equitable energy access to water security to climate resilience.

We see this future as one that is intuitive, inclusive, and accessible. A future where People + AI sit at the heart of every experience, empowering citizens, strengthening workforces, and enabling utilities to lead the clean energy and water transition with purpose.

But we cannot do this in isolation. We're co-creating this future with global partners - utilities, regulators, and technology leaders like SAP - who share our vision of building a connected, sustainable future. Shaping a roadmap where AI drives progress with purpose — connecting every home, every community, every field crew, and every grid in ways that truly matter.

> **"Technology alone doesn't transform industries — purpose does. AI is the force that helps us scale that purpose to solve humanity's greatest challenges."**

Visit the SEW website.

SEW.AI is the world's #1 trusted and only Vertical AI platform for energy and water, connecting Customers, Workforce, and Grid Assets on one secure, cloud-native foundation. At its core is People + Vertical AI, purpose-built for energy and utilities, powered by human-centered intelligence that anticipates customer needs, empowers the workforce with real-time insights, and optimizes grid performance for reliability and efficiency. With 3000+ prebuilt use cases and pre-integration with 100+ industry systems, our platforms accelerate time-to-value and help utilities modernize operations from day one.

Our modular, interoperable architecture works with legacy systems and emerging technologies to scale transformation without disruption. Today, more than 450+ energy & utilities service providers worldwide run on SEW.AI, engaging billions, empowering end users and field teams with AI-driven agents, and orchestrating smarter, cleaner, more reliable grids, delivering higher satisfaction, improved performance, and stronger outcomes.

ASUG is the world's largest SAP user group. Originally founded by a group of visionary SAP customers in 1991, its mission is to help people and organizations get the most value from their investment in SAP technology. ASUG currently serves thousands of businesses via companywide memberships, connecting more than 130,000 professionals with networking and educational resources to help them master new challenges. Through in-person and virtual events, on-demand digital resources, and ongoing advocacy for its membership, ASUG helps SAP customers make more possible.