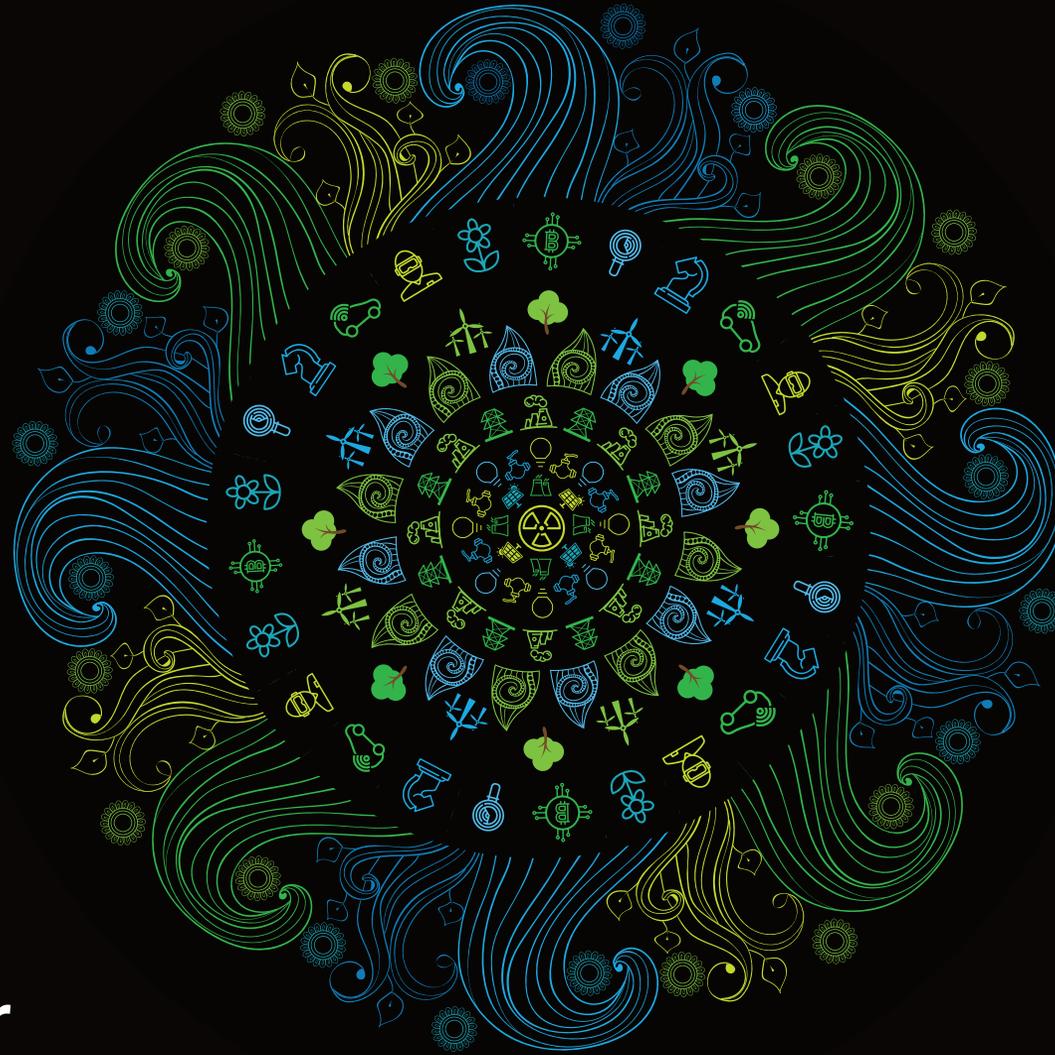


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A quick take on
**The future of power
and utilities**



Powerful forces in action

Across industries, an increasingly competitive business environment is driving many organizations to seek new savings and new revenue opportunities.

At the same time, socio-economic trends and technology innovation are pointing toward a future shaped by clean energy. For power and utilities providers, the writing is on the wall.

The days of “business as usual” may be over. Adapting to a new reality will demand an ability to look at challenges and opportunities in a new light—and to engage in new activities that create value for both the customer and the enterprise.

In the power and utilities space, three big forces—three “D’s”—are shaping the future. Disruption, data, and decarbonization. New business models are disrupting the status quo. The power and utilities space is expanding beyond the centralized “provide a resource via pipe or wire” model—to offer point-of-use generation services, consumer-centric energy management services, and more. Data and data-driven digital capabilities have become essential for uncovering customer insights, reducing costs, supporting new business models, and tapping new revenue streams. And decarbonization persists as a strong trend, with many states and communities throwing their support behind green practices and renewables such as solar, wind, and hydropower.

Why it matters today

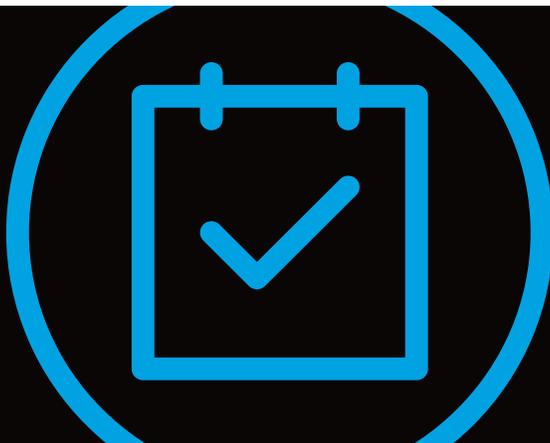
As the “three D” trends solidify, and as technology innovation redefines possibilities, previously unimagined business methods stand to emerge.

Smart meters and digital self-service features, such as customer move-in/move-out capabilities, bring an obvious level of efficiency, but more value lies ahead—for both the provider and the customer.

New types of sensors paired with advanced analytics will likely make it easier to spot leakage or loss in

infrastructure. Robotic process automation (RPA) can shift routine back-office processes from humans to software “robots.” Artificial intelligence may help enable predictive, preventive, and proactive maintenance activities—to address problems before they grow or interrupt service, and to reduce the number of truck-rolls and people-hours required.

Tomorrow’s big breakthroughs will see providers engaging with customers in bold new ways, to look beyond the four walls of the organization, to create services that deliver a new dimension of practicality for customers, and to act as disruptors themselves.



Possibilities for power providers, for example, include business models that support microgeneration or microgrids, not just a centralized distribution model. Providers could couple new offerings with tools that let customers actively manage consumption, monitor efficiency, and operate securely. Other possibilities include proactive, detailed efficiency management—leveraging granular data and analytics to identify which areas of a customer’s campus, for example, might not be using energy-efficient equipment.

A provider also might see itself cutting a reduced-rate deal with a customer, dramatically overhauling the customer’s site to make it more energy-efficient, and then pocketing some or all of the savings beyond the reduced rate. Such moves could help providers balance concerns about falling energy prices and stranded capital as the growing number of energy-efficient customers alters the math for infrastructure needs.

Moving ahead

Do more with data

Thriving in the future will likely depend on actively harvesting data, including new forms of data, as well as information available via social networks and the public domain. That data can drive insights, which can lead to offerings that make the customer happy. Leveraging data science and advanced analytics can allow you to turn smart meter data and other data into actionable insights—insights into all your different types of customers, their activities, their priorities, their preferences, their view of your brand, and more. Once you improve your understanding of the customer, you can better understand consumption patterns and trends—and then roll out services, infrastructure, and pricing to address them. Ultimately, it's about building an ecosystem of offerings and outreach that drives the customer toward a deeper relationship.

Build a better understanding of the workforce

The future of work may be drastically different from today. An aging workforce and generational shifts stand to make some long-valued power and utilities skillsets scarce as incoming “digital native” workers bring new skills and new expectations for how work should be performed. The “no-collar” workforce will likely bring humans and machines into one loop, collaborating in roles and new talent models. Autonomous technologies, RPA, artificial intelligence, and other machine intelligence capabilities can allow humans to focus less on mundane tasks and devote more time thinking strategically and engaging in activities that create value for the organization. Know how you are going to deploy your evolving workforce to make the most of tomorrow's opportunities and the skillsets of tomorrow's workers.

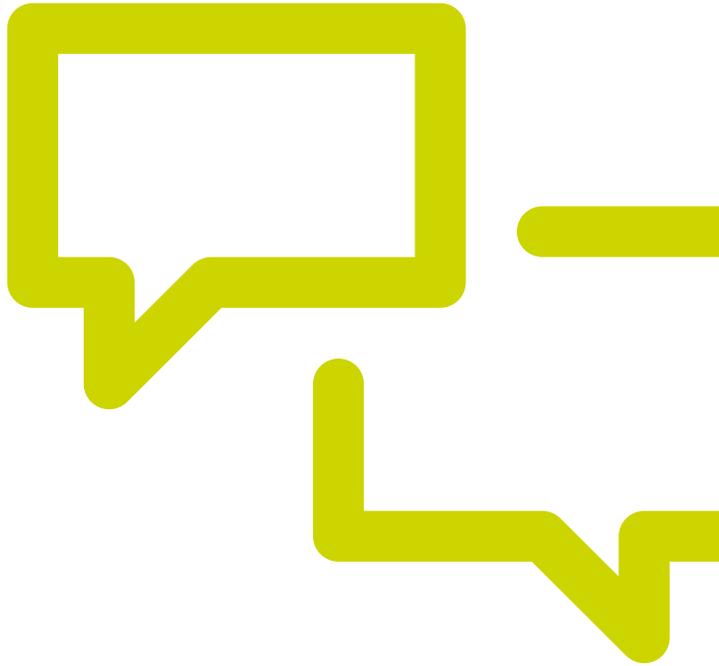
Get a clear view of the possibilities and what lies ahead

Many unknowns lie ahead. There are plenty of knowns to be found, too. But even they can lie hidden. Work tirelessly to uncover them. That means

identifying and tracking trends, learning about the capabilities of new technologies such as intelligent sensors, and understanding how you can turn various streams of data into insights that drive your business forward. Solid knowledge of the possibilities and the opportunities—plus vision and imagination—will be key.

Transform your approach to security

The power and utilities space remains a prime target for cyberattack or sabotage. Attackers grow more sophisticated by the day. Meanwhile, digital connections are growing exponentially as organizations and the third parties they rely on deploy new connected device types and layers of new systems. New tools and techniques can make it easier for you to understand all the points of connection—to get a better view of potential vulnerabilities. But becoming a truly secure, vigilant, and resilient organization requires a strategy that is risk-based, proactive, and adaptable.



Let's talk

How can you respond to ongoing forces reshaping the power and utilities space today?

A conversation with Deloitte is a great place to start. Each day across the energy and resources sectors, we are working with global leaders to understand tomorrow's opportunities and to act on them. From design and implementation of new business models, to deployment of new IT infrastructure and automation capabilities, we bring a committed team and a spectrum of services to help our clients innovate strategically. If transforming your business to get ahead of tomorrow's challenges is a priority for your organization, we should talk. Contact us to get the conversation started.

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