

Energy and utilities: challenges and opportunities

The changing energy landscape



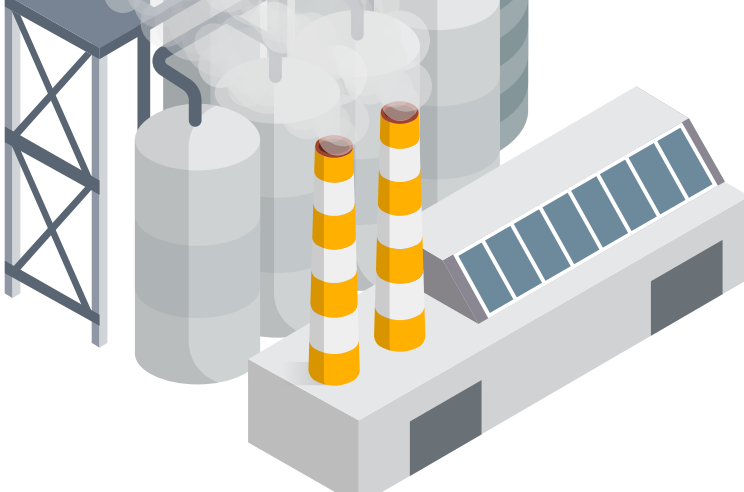
Energy transition

As the world shifts toward low-carbon fuels, companies are looking for ways to curb emissions, increase the use of renewable energy, and adapt to a changing market.

[Smart Climate Solutions](#)

Rules and regulations

Your company must meet a wide range of federal, state, and local regulations aimed at safety, energy efficiency, and protecting the environment.



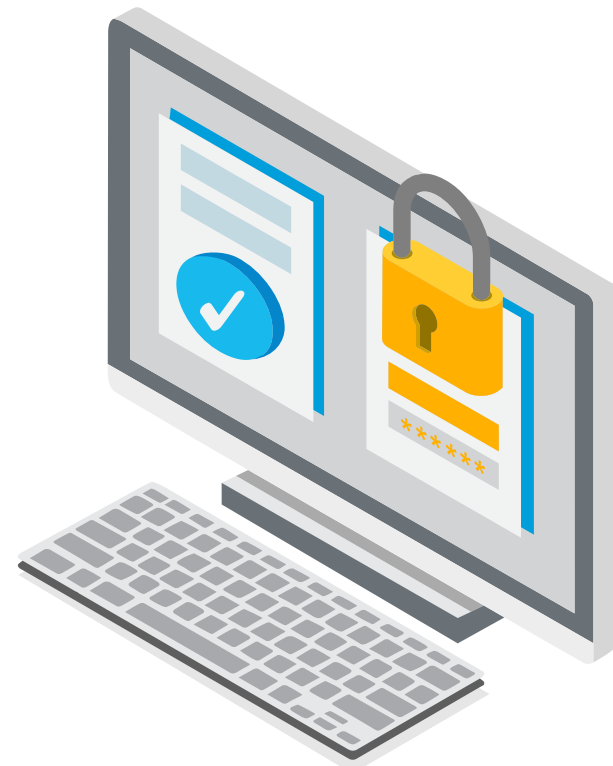
Aging equipment

Many power plants, pipelines, power lines, and other assets are reaching the end of their lifespan. Companies will need to invest in new assets that can provide safe and reliable energy.

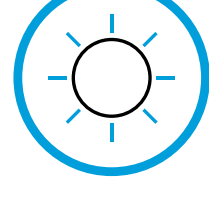
Cybersecurity

High-value assets make the industry a target for cyberattacks. You need to invest in measures to protect your operations, customer data, and intellectual property.

[Energy sector cybersecurity and compliance](#)



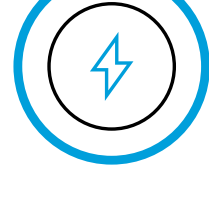
The future is in technology



Renewable energy

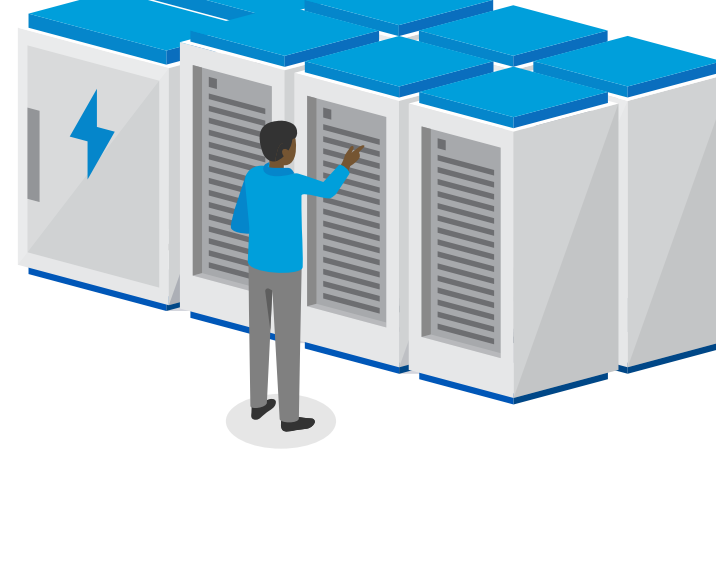
The growth of solar, wind, and hydropower use is transforming the renewable energy market. Innovations in these technologies will improve efficiency, lower costs, and improve how we store energy.

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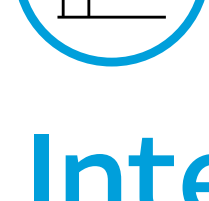
Energy storage

It's critical to develop energy storage solutions that can connect to the grid. Improving battery and other energy-related technologies will create greater grid flexibility and stability.



Smart grid

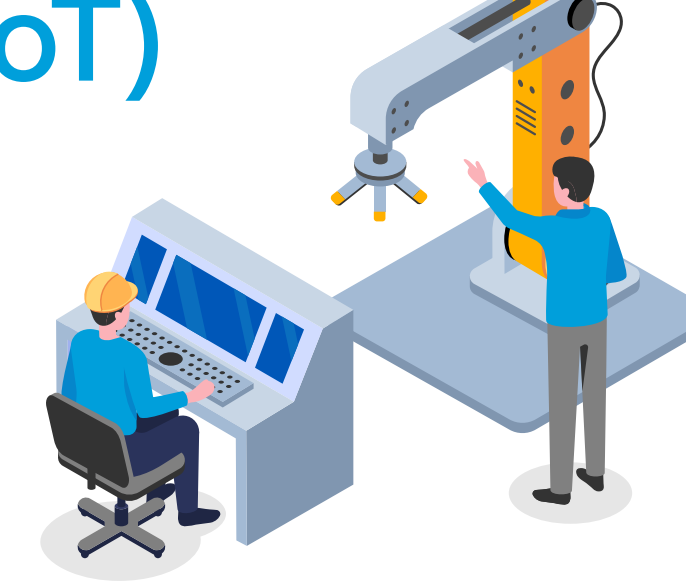
The smart grid uses advanced technology to better manage the production, transfer, and use of energy. Investments in smart grid technology will boost efficiency and reliability while lowering costs.



Internet of Things (IoT)

The IoT is a network of smart devices that connect and share data with one another. Adding IoT devices to operations will help companies monitor energy consumption, optimize energy use, and improve grid function.

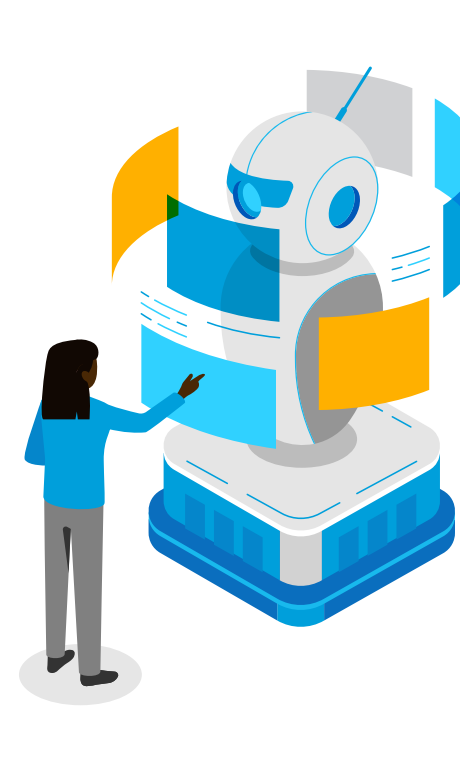
[Internet of Things](#)



Artificial Intelligence (AI)

Existing and emerging network-based applications (like autonomous vehicles, gaming, and augmented reality) are placing increasingly heavy demands on telecommunications networks. Data traffic continues to explode. Using AI, machine learning (ML), and automation, AT&T scientists and engineers are building on our legacy of innovations to solve the most challenging network problems.

[AT&T Labs | Our Work | Analytics and AI-based Automation \(att.com\)](#)



A world of opportunity

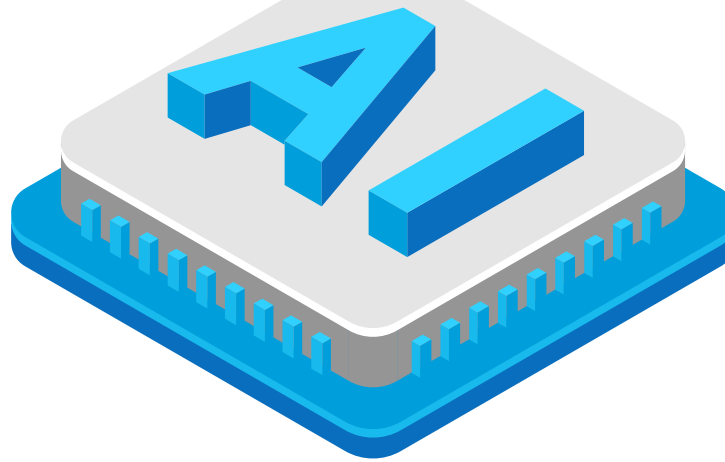
AI usage continues to increase.¹

\$5.27B → **\$42.67B**

Estimated value of AI in global energy market, 2021-2029

>29%

Expected annual growth, 2022-2029



Smart grid analytics offer new opportunities to forecast, measure, and manage energy use.²

\$2.75B → **\$5.92B**

Estimated value of the global smart grid analytics market, 2021-2030

11.81%

Expected compound annual growth rate (CAGR) of roughly 11.81% between 2022 and 2030.



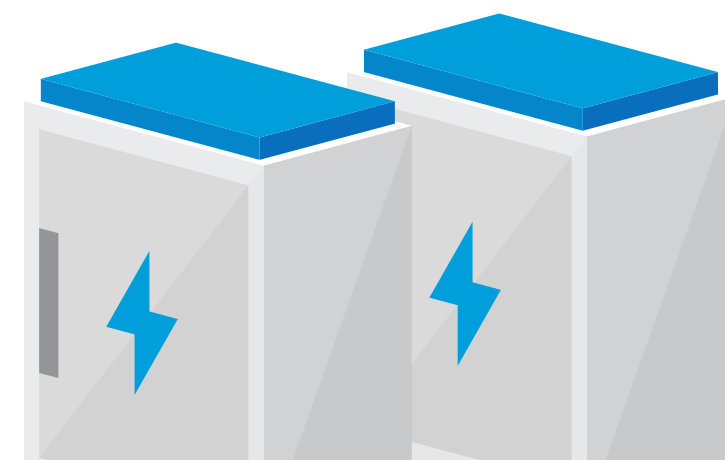
Renewable energy demands increase the need for battery energy storage systems.³

\$4.34B → **\$13.8B**

Estimated value of the global battery energy storage system market, 2022-2027

>25%

Expected annual growth, 2022-2027



Sources:

¹ AI in Energy Market Trends in 2021

² 2030 Smart Grid Analytics Industry Trends, Value, Analysis & Forecast Report | Zion Market Research

³ Battery Energy Storage System Market Size & Share Analysis – Growth Trends & Forecasts (2023-2028)

Why AT&T Business?

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