

Transmission & Distribution Market in the U.S.



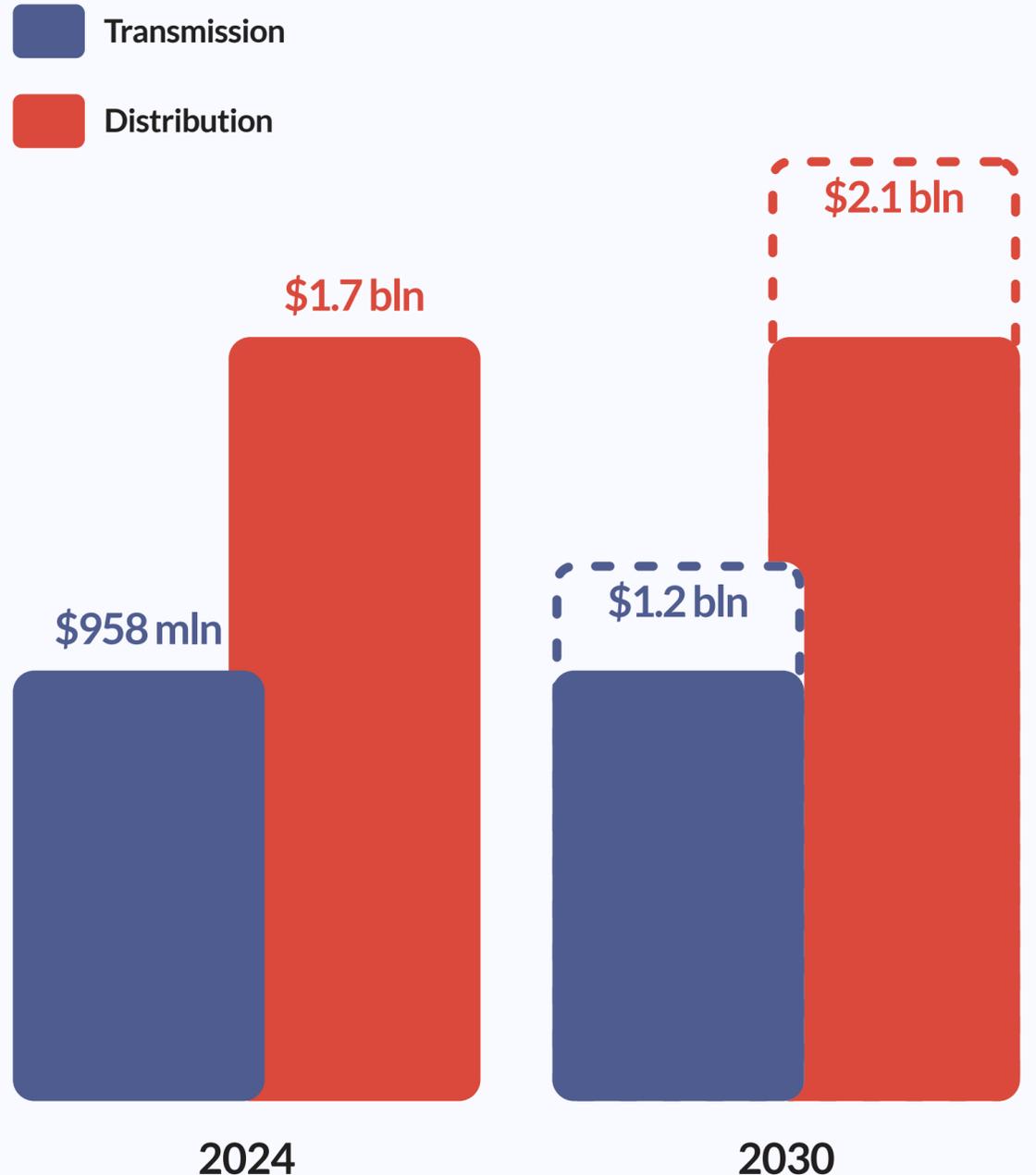
The U.S. Transmission & Distribution market is the largest in the world, powering everything from city skyscrapers to rural homes. As aging infrastructure, rising electricity demand, and renewable integration reshape the sector, record investments are driving the shift to modern, resilient, and efficient grids. Meeting these goals will also depend on addressing significant workforce needs, from replacing retiring experts to training new talent for the evolving energy landscape.

United States is the world's largest T&D market and it's expected to grow at 3.3% rate until 2030

The U.S. market accounts for **18.5%** of the global transmission and distribution (T&D) market.

The transmission market is driven by the need to modernize aging grids and expand capacity to support renewable energy integration. New durable solutions, such as long-span overhead and superconducting cables, address the demand for safer and more reliable networks.

Distribution growth is similarly fueled by the need to strengthen and modernize systems amid the energy transition and grid decarbonization. Medium-voltage lines in the 11 kV to 33 kV range are seeing strong adoption due to urban development, industrial growth, and renewable projects.



Factsheet: U.S. T&D market

Transmission

160 000 miles

of high-voltage lines

79 000

substation transformers that convert high-voltage power to manageable levels for the distribution network

7 TSOs

Midcontinent ISO, California ISO, PJM Interconnection, ISO-New England, and New York ISO

Distribution

5 500 000 miles

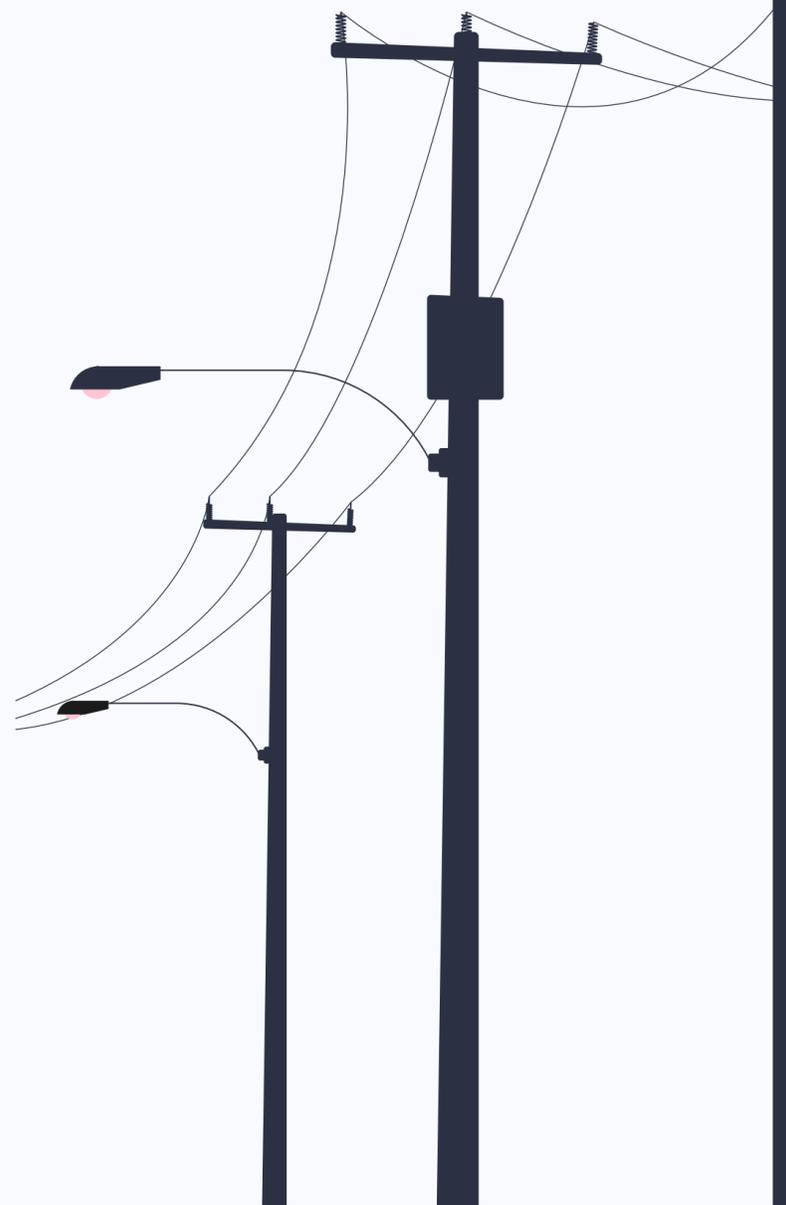
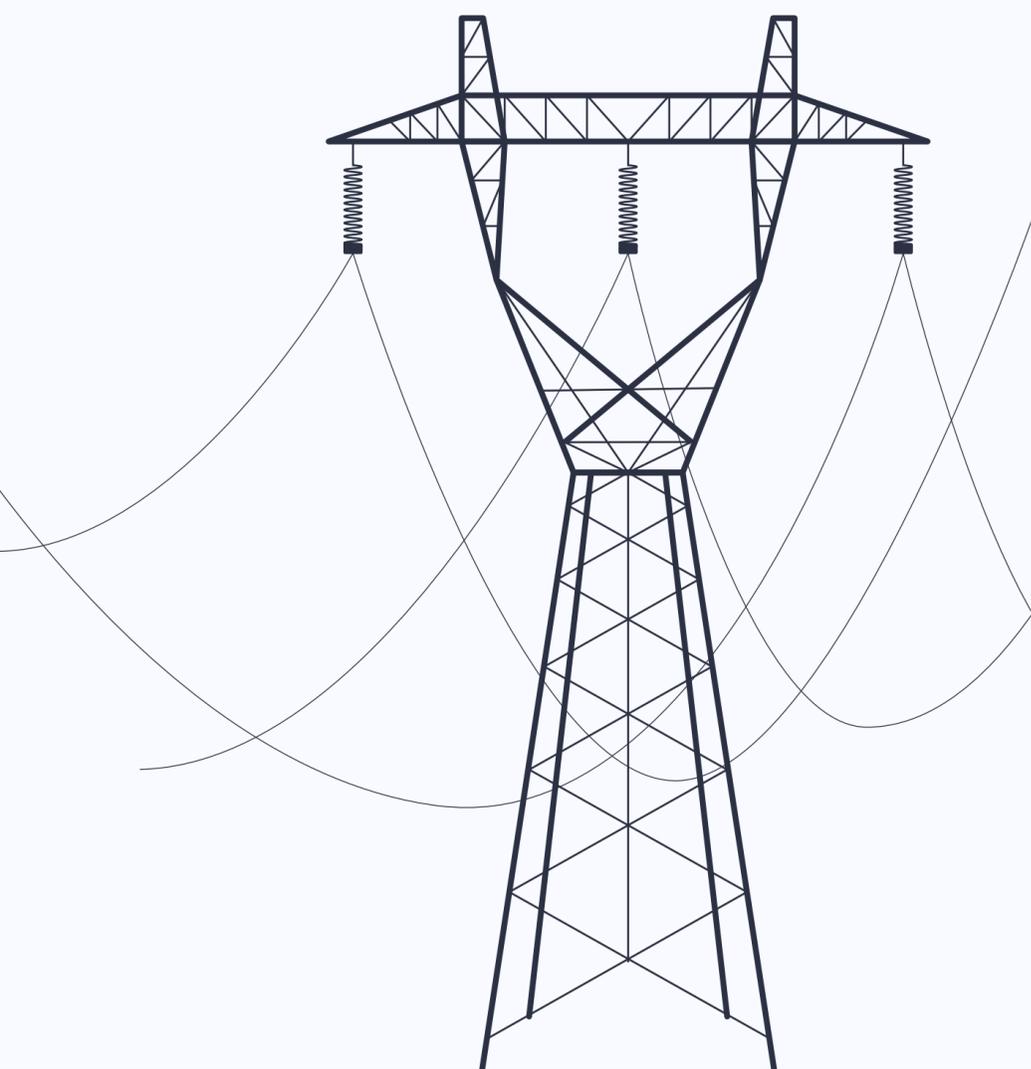
of local distribution power lines

60 000 000

distribution transformers that convert voltage to safe and efficient levels for industrial, commercial, and residential users

1 700 DSOs

across the United States



Aging U.S. infrastructure and rising electricity demand put T&D systems at risk of power outages

Around 70% of U.S. transmission and distribution infrastructure, e.g. transformers and power lines, is **over 25 years old**, exceeding its intended design life.

At the same time, U.S. electricity demand increased by **3% (128 TWh)** in the last year, driven by widespread electrification, AI-powered data centers, and a resurgence in domestic manufacturing. To meet growing demand and modernize the aging grid, massive investments are planned in the expansion of high-voltage transmission and regional distribution infrastructure.

5%

average electricity T&D losses

60-70%

of power transformers, circuit breakers and transmission lines are outdated

+1.8%

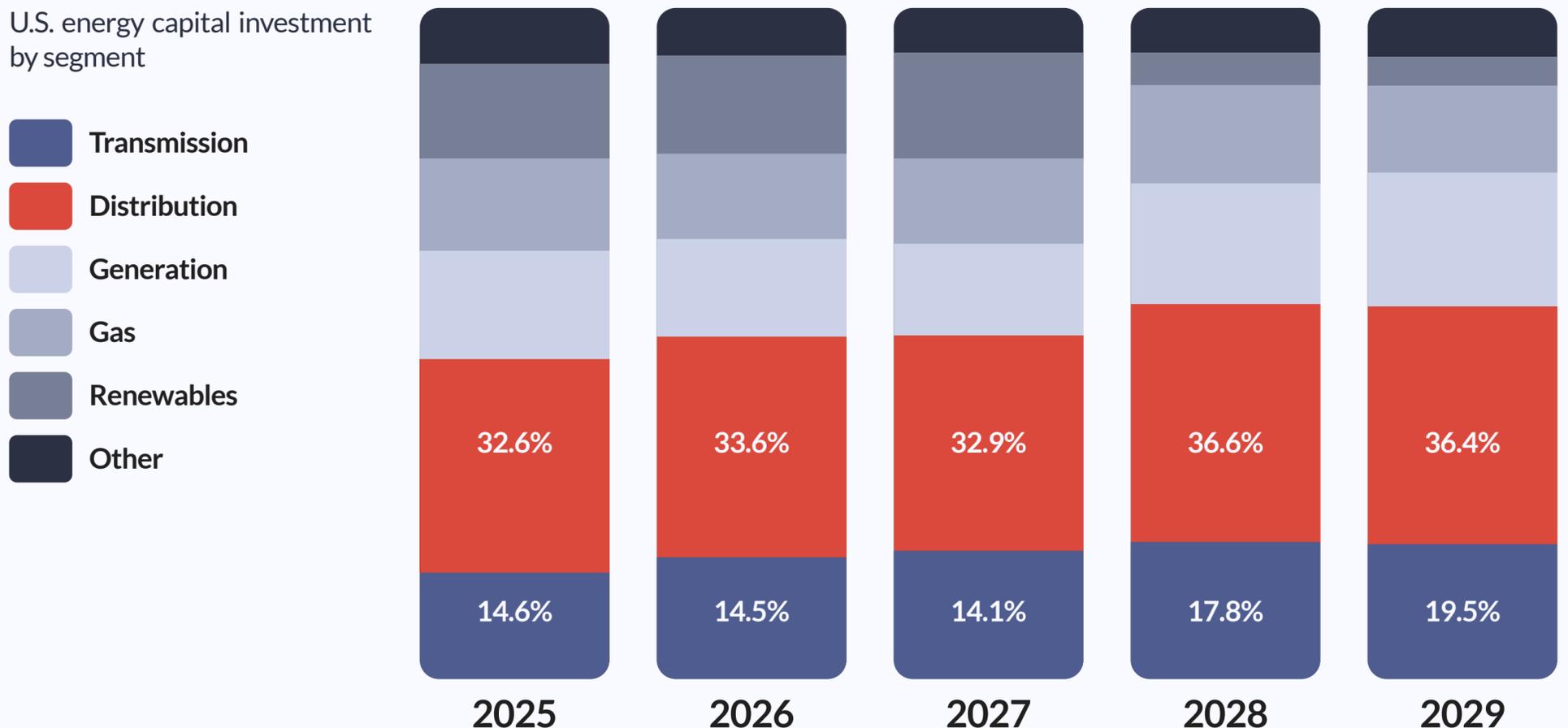
annual increase of U.S. electricity demand

x100

increased risk of power outages in 2030

Record capital investments in T&D are predicted over the next 5 years

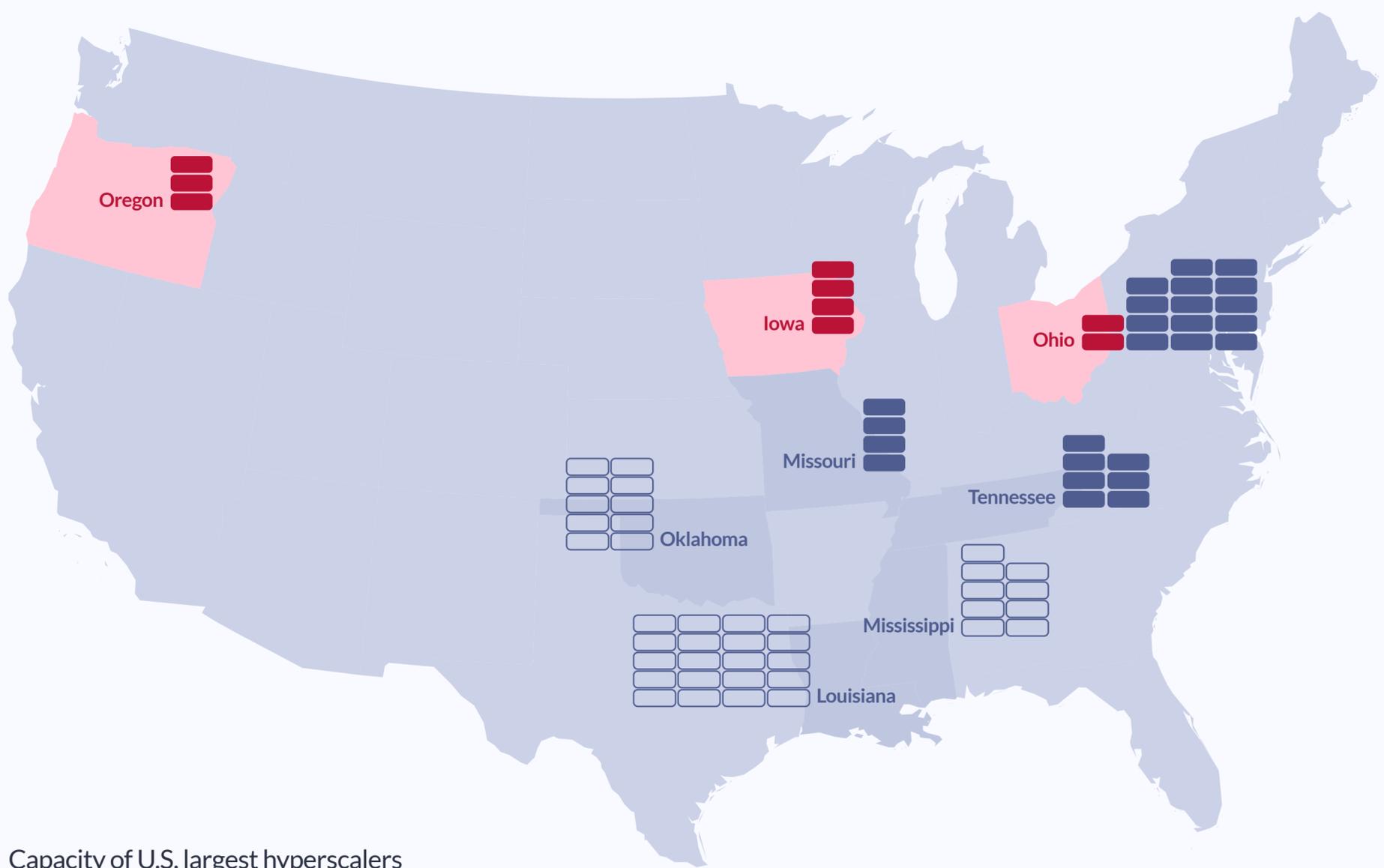
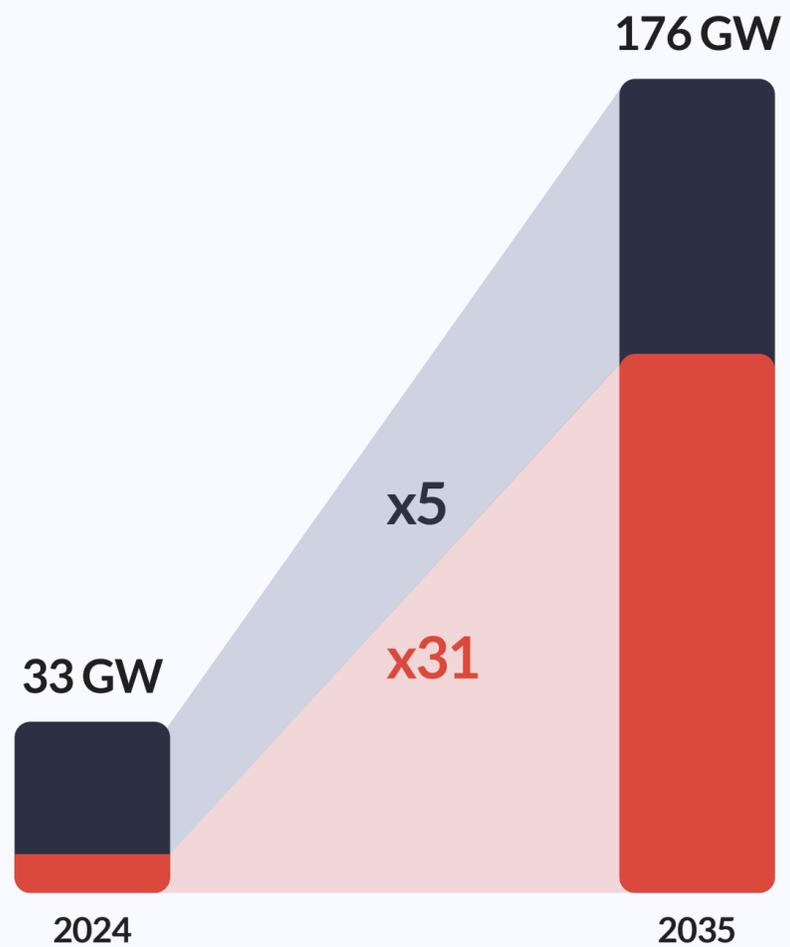
U.S. energy capital investment by segment



Spotlight: Data Centers

U.S. power demand from data centers is expected to boom within the next 10 years from 33 GW to 176 GW. Much of this growth comes from the rapid adoption of AI and the heavy power use of AI data centers. In fact, AI power demand in the U.S. is projected to grow more than thirty-fold.

Hyperscale facilities, each consuming hundreds of megawatts, are driving this expansion. As a result, grid capacity risks severe overloads, with 72% of Energy & Data Center executives citing power and grid constraints as their main challenge



Capacity of U.S. largest hyperscalers
each rectangle represents 0.1 GW of IT capacity

■ Completed
 ■ Under construction
 Planned

Almost 400,000 T&D workers are needed to support growing U.S. energy infrastructure in 2030

The U.S. energy sector is expected to create 510,000 new jobs to meet rising power demand. The growing share of renewable capacity adds pressure to the job market, as renewable sources are more than 2.5 times as labor-intensive as fossil fuels in manufacturing, construction, and maintenance.

Additional labor demand is also expected in transmission and distribution, since renewable projects are often located far from the areas they serve.

397 705

people employed in the U.S. T&D sector in 2025

510 000

new jobs in the U.S. Energy sector will be created by 2030

207 000

T&D workers needed to support additional power capacity by 2030

179 000

More T&D workers needed to replace the retiring employees



Right now, the Transmission & Distribution sector in the U.S. is under unprecedented pressure to deliver large-scale projects quickly and safely. On recent CMC projects, including a **\$4.24 billion, 585-mile transmission line** and a **\$1.57 billion program in the West**, I've seen how success depends on more than just engineering expertise. It requires strong program management, support from owners' representation on site, and a clear approach to risk and compliance: from safety programs and contingency planning to navigating the regulatory landscape.

With skilled teams in place, utilities can maintain quality while accelerating delivery — something that's increasingly vital as demand and investment in T&D infrastructure continue to grow. At CMC, these approaches have delivered an **89% expert retention rate**, an average **delivery time of 36 hours**, and active support for **16 major utilities** nationwide.



Jackson Ott
Senior Consulting Team Manager USA
jackson.ott@cmcexpertisedelivered.com

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