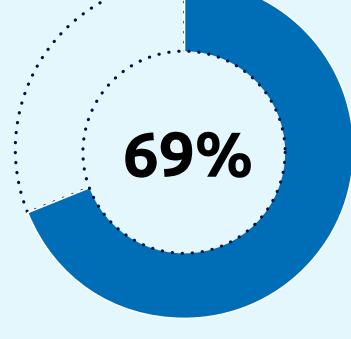


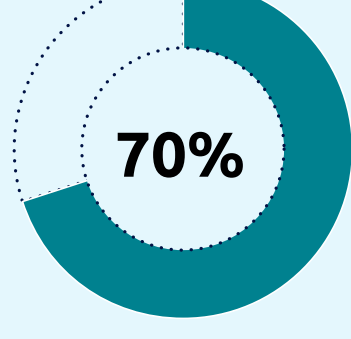
AI meets the grid: Shaping the data center power play

Make it real.

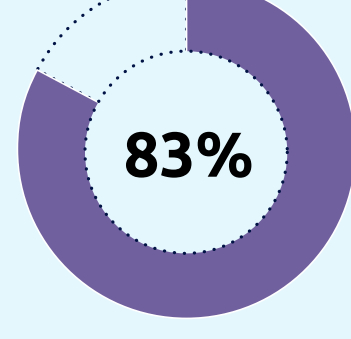
Data centers are powering the surge in electricity demand



69% of electricity executives expect an increase in electricity demand in the next three to five years, driven primarily by data centers



70% of electricity executives say that AI data centers will significantly increase electricity demand in their region in the next three to five years



83% of data-center executives say that AI data centers will significantly increase electricity demand in their region in the next three to five years

Data-center power demand tests grid limits and redefines utility priorities

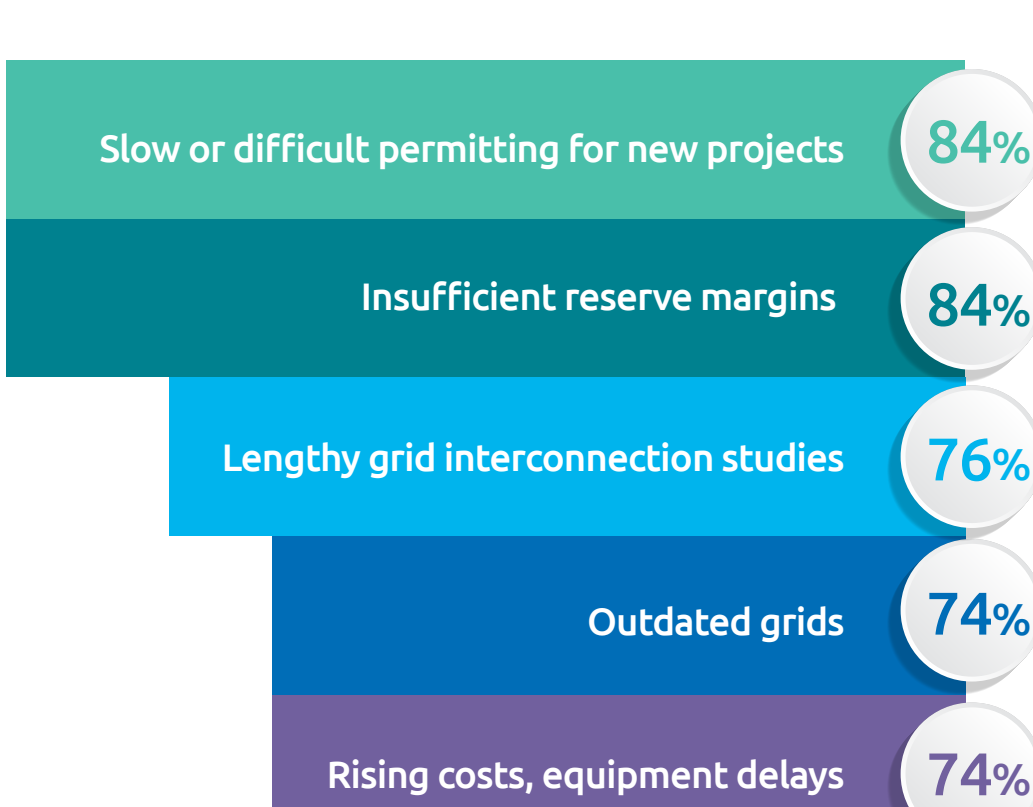
77%

of electricity executives believe that data-center energy demand will grow faster than supply

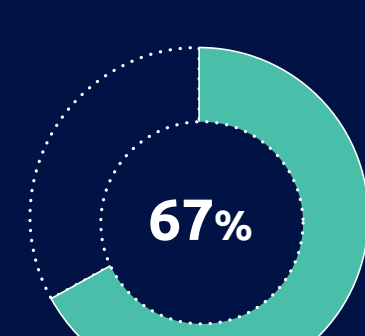
68%

of electricity executives even anticipate shortages

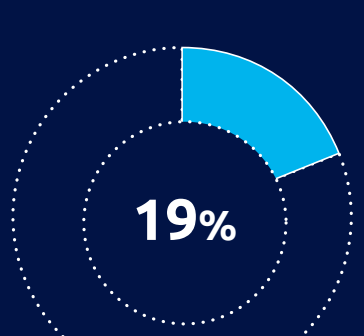
Key constraints energy companies are currently facing:



“Phantom” data-center load requests are distorting demand forecasts



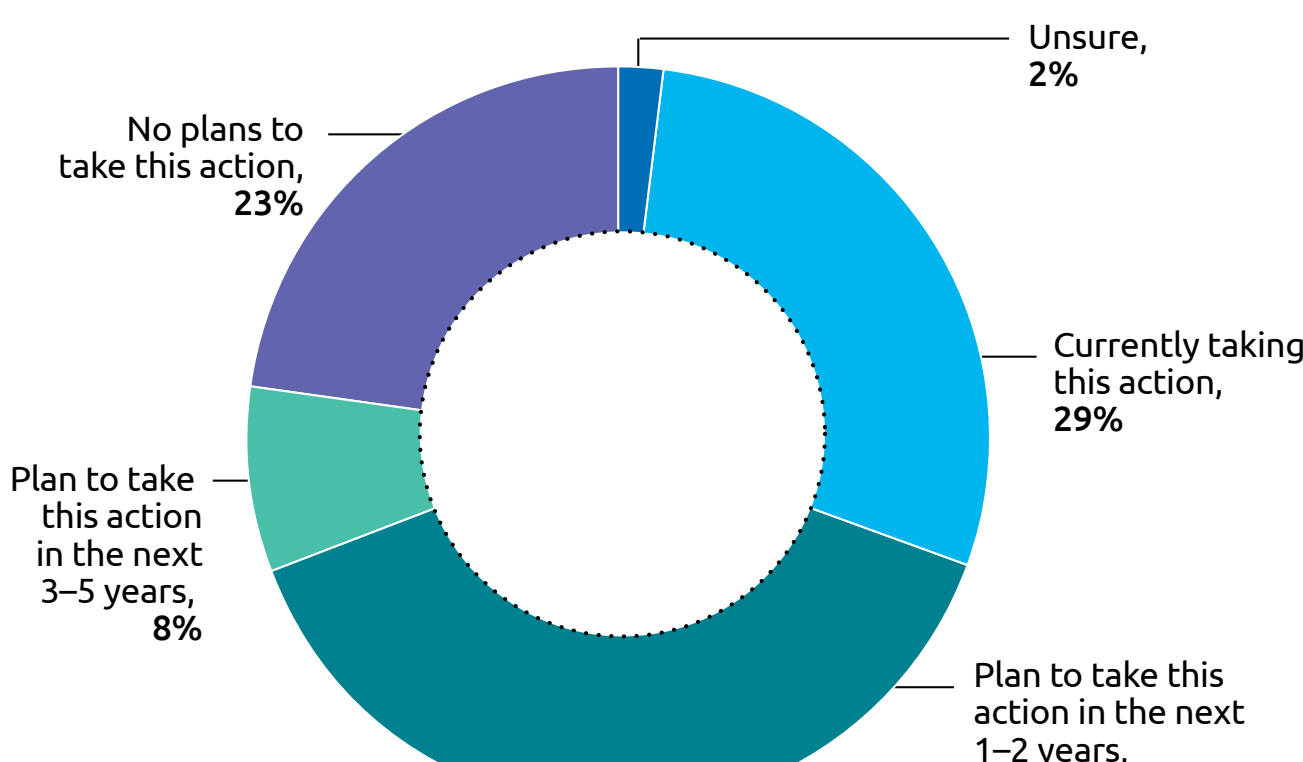
67% of electricity organizations believe that some data-center load requests are speculative



19% of the data-center load request received might never materialize

On-site and diversified energy to the fore

% of data centers engaging in BTM or on-site generation partnerships



71%

of data-center executives say on-site or next-to-site power generation will significantly reduce reliance on the grid within the next five years

Balanced, diversified energy mix required for sustainable data-center growth

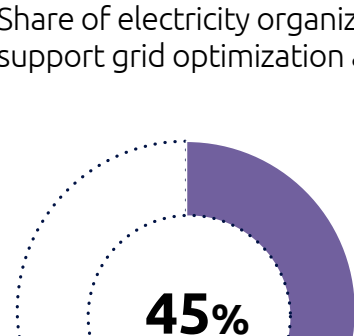


AI promises to power the future

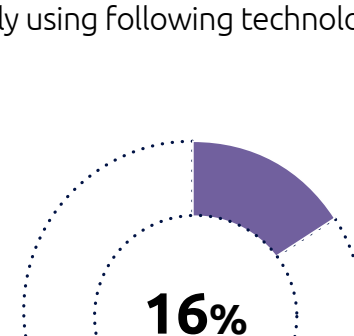
At least six out of ten electricity executives anticipate AI to unlock significant efficiency and operational gains

Despite growing interest, most electricity utilities are yet to reach advanced AI maturity

Share of electricity organizations currently using following technologies to support grid optimization and reliability:



AI/ ML



AI agents or agentic AI

How energy firms must evolve for the next phase of data-center growth

Drawing on survey insights, expert interviews, and our experience, we recommend the following actions to help electricity organizations power the next phase of data-center growth:

- Institutionalize credible, portfolio-level demand intelligence
- Steer data-center growth to power-ready locations

Move from reactive requests to proactive, portfolio-level demand foresight

Secure capacity and speed through portfolio rebalancing and infrastructure transformation

- Rebalance the generation portfolio
- Accelerate grid modernization
- Deploy decentralized solutions

Operationalize AI and scale future-ready talent

- Scale AI across planning and operations
- Develop future-ready energy system skills

Enable intelligent supply chains and orchestrate ecosystems

- Build next-gen, resilient and cost-efficient supply chains
- Deepen utility–data-center collaboration
- Integrate community and sustainability considerations

Simplify connections, modernize tariffs, and enable demand-side participation

- Make interconnection faster
- Modernize tariffs and commercial frameworks
- Enable scalable data-center flexibility

Source: Capgemini Research Institute, Powering data centers, January 2026, N = 612 executives globally from electricity organizations, N = 175 executives globally from data centers owning/operating organizations.

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