

## **Short Answer: Energy Security Challenge**

The energy demands of artificial intelligence infrastructure are reshaping global power markets in ways policymakers have not yet fully addressed. Training and operating frontier AI models require enormous and rapidly growing amounts of electricity. The United States, China, and several Gulf states are racing to expand data center capacity at a scale that is already straining regional grids and driving new fossil fuel investments to meet baseline load requirements. This creates a tension at the heart of energy security: the same governments committed to net-zero transitions are simultaneously subsidizing AI infrastructure that may lock in decades of high-carbon energy consumption.

The geopolitical dimension is equally underexamined. Countries that can provide cheap, reliable, large-scale power to AI developers are gaining leverage as hosts of critical technology infrastructure. This is reshaping energy relationships in ways that existing frameworks do not capture.

Policymakers should begin by requiring energy impact assessments for large-scale AI infrastructure investments, similar to environmental review processes. Multilateral coordination on data center siting and grid integration standards would reduce the risk of a race to the bottom on energy efficiency. The opportunity is significant: countries that develop clean, reliable, high-density power capacity will have a structural advantage in the AI competition. Treating energy security and AI policy as separate domains is no longer viable.