

AI and Energy for Sustainable Digital Development: Governance, Infrastructure, and Global Cooperation

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Artificial intelligence is reshaping the world at a pace that outstrips our collective ability to govern it. Behind every model trained, every query answered, and every automated decision made lies a physical reality that is rarely discussed in the same breath: energy, water, and infrastructure. As AI scales, so does its footprint — and the question of who bears that cost, and who gets to decide, has become one of the defining governance challenges of our time.

This session brings together practitioners and policy voices from across the public and private sectors to examine the AI-energy nexus across five interconnected dimensions.

The first is the core tension itself: AI is simultaneously a massive and growing load on energy systems and one of the most powerful tools available to optimize them. The paradox is real — and resolving it requires more than efficiency gains.

The second dimension is infrastructure: power grids, data centers, and the water supplies they depend on are under a pressure that existing infrastructure was never designed to absorb. Behind the numbers lies a reality that is rarely named — grid saturation, fossil fuel dependency, and a water footprint that rivals the domestic needs of entire populations. Technical responses exist, but they hit their limits without the governance frameworks to make the true cost visible and accountable.

The third is resilience: not every use case requires AI, and deploying it without clear intent creates fragility. Every unnecessary dependency is an unnecessary attack surface.

The fourth is governance: standards, metrics, and accountability frameworks are not bureaucratic overhead — they are the foundation on which trust is built, and without them, the externalities of AI infrastructure remain invisible and ungoverned.

The fifth dimension is digital sovereignty: in a world where compute capacity, energy supply, and platform governance are concentrated in the hands of a small number of players, the question of who controls the infrastructure of AI is inseparable from the question of who shapes the future.

These dimensions do not exist in isolation. They converge on a single imperative — that sustainable digital development is not possible without the frameworks, the cooperation, and the accountability structures to support it.

EnergyPact Foundation has spent over a decade building bridges between nations, people, and ideas at the intersection of energy, digital governance, and international cooperation. This session reflects that mission — not by offering final answers, but by convening the right questions at the right moment, and creating the conditions for the cross-border collaboration that sustainable digital development will require.

The conversation starts here. The work is only beginning.