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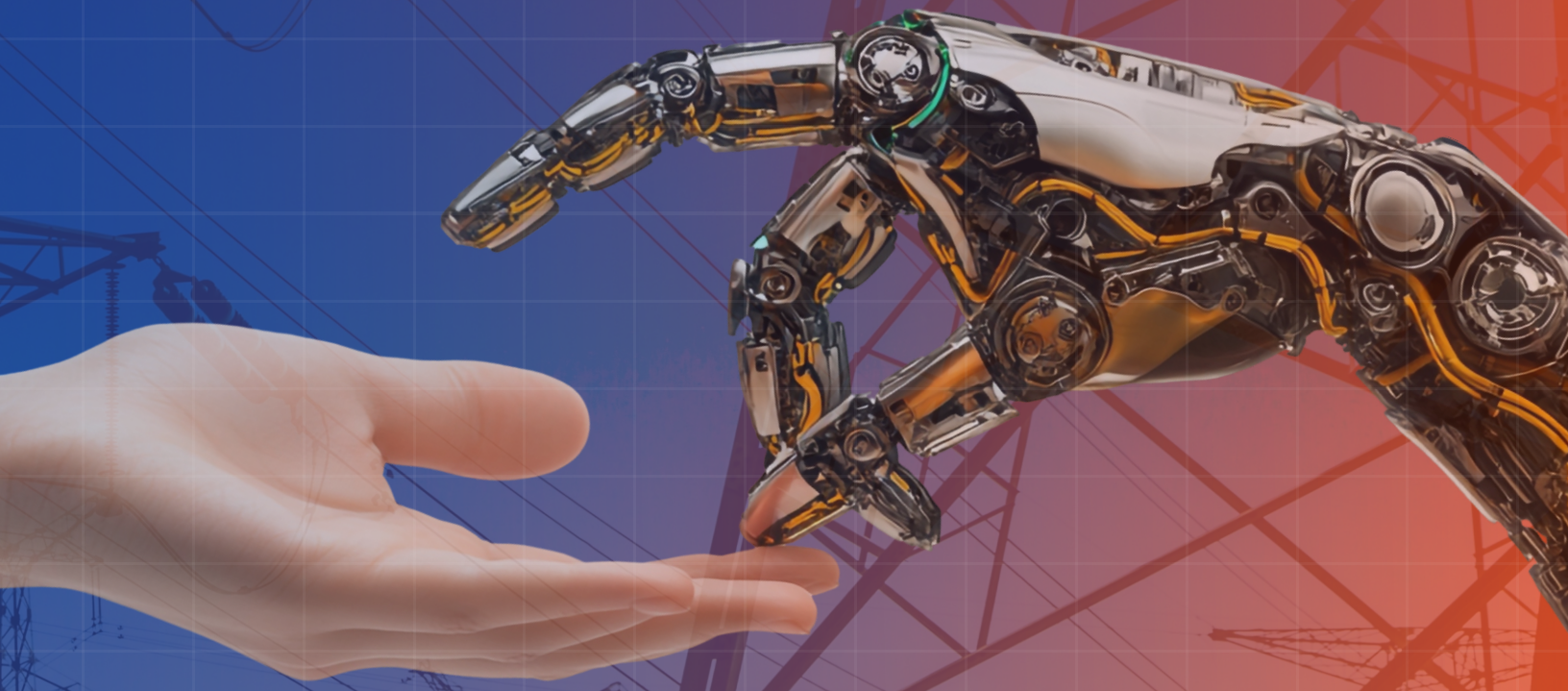

EVALUATING THE IMPACT OF PRESIDENT TRUMP'S AI STRATEGY ON POWER SECTOR REFORMS AND ITS GLOBAL POLICY IMPLICATIONS

Introduction

On July 23, 2025, the Trump administration unveiled a sweeping “AI Action Plan” designed to secure U.S. dominance in artificial intelligence development. While the plan primarily aims to accelerate technological innovation, the most controversial and consequential elements target the U.S. power sector. Specifically, the plan promotes regulatory rollbacks, expanded fossil generation, transmission upgrades, and energy market reforms, all under the guise of powering a surging wave of AI-driven data center demand.

The 28-page blueprint rests on three pillars, innovation, infrastructure, and international AI diplomacy and security, but its infrastructural ambitions are most vividly felt in the energy space. It calls for measures such as halting coal plant retirements, supporting new dispatchable generation (including nuclear and enhanced geothermal), and streamlining permitting, under laws like the Clean Air Act, Clean Water Act, and NEPA. Importantly, the plan also aligns power market reforms with the strategic goal of grid stability to enable uninterrupted AI operations.

This analysis assesses the intersecting impacts of Trump's AI strategy and power sector reform agenda, paying special attention to how these domestic changes ripple across global regulatory landscapes, energy investment models, and climate diplomacy.

Energy Dimensions of the United States AI Action Plan

The Trump AI Action Plan reflects a deliberate reorientation of U.S. energy priorities in service of technological supremacy. One of its most defining features is the resistance to clean energy transitions. It reiterates the administration's commitment to delaying coal plant retirements and prioritizing fossil-based, dispatchable generation sources such as natural gas, nuclear, and enhanced geothermal. This stands in stark contrast to previous federal policies that emphasized renewable integration, emissions reductions, and sustainability as guiding principles for grid expansion.

To enable the rapid deployment of energy-intensive AI infrastructure, the plan recommends the removal or streamlining of environmental safeguards under landmark legislations like the Clean Air Act, Clean Water Act, and National Environmental Policy Act (NEPA). For instance, the plan proposes new categorical exclusions under NEPA to fast-track the construction of AI data centers and associated grid infrastructure. The Department of Energy (DOE) has already trimmed the scope of NEPA's applicability, and the administration now intends to institutionalize this deregulation across agencies.

The Action Plan also includes proposals to reform power markets, by aligning financial incentives with the goal of grid stability. Although vague on specific market design elements, this suggests a preference for capacity

market-like mechanisms that reward firm generation rather than intermittent sources like wind or solar. The emphasis on resource adequacy standards across the national grid, coupled with directives to leverage unspecified backup power sources, reflects growing concerns over potential strain from widespread AI adoption and the electrification of data infrastructure.

On the infrastructure front, the plan calls for the creation of a national strategic blueprint for the power grid, emphasizing enhanced performance, efficiency, and reliability. It recommends upgrades to existing transmission lines and a focus on optimizing current routes, rather than expanding cross-regional renewable corridors. The cancellation of DOE's loan guarantee for the Grain Belt Express transmission line, a major renewable energy project, on the same day as the plan's release, demonstrates the administration's pivot away from clean energy infrastructure and multi-state cooperation.

In totality, the Trump administration's AI plan represents a consolidation of technological, energy, and environmental governance. By making the power sector subservient to AI growth, it reframes infrastructure development through a nationalist, industry-aligned lens, prioritizing control, speed, and industrial productivity over sustainability, public consultation, or climate resilience.

Global Implications of the United States AI–Energy Coupling Strategy

Revival of Fossil Fuel Diplomacy

The plan's explicit embrace of coal, gas, and nuclear could embolden other fossil-dependent nations to follow suit, reversing global momentum toward net-zero targets.

Destabilization of Climate Cooperation

Trump's deregulatory AI-energy model runs counter to the EU's clean AI initiatives and China's carbon-conscious digital infrastructure goals, potentially stalling multilateral climate cooperation.

Precedent for Environmental Deregulation

Countries with weak institutional frameworks may replicate the U.S. approach, by weakening their own environmental safeguards in order to attract AI and data infrastructure investments.

Increased Pressure on Grid Capacity Worldwide

As AI demand surges globally, the U.S. plan highlights a central challenge: how to expand electricity generation without undermining decarbonization goals, an issue developing nations must now confront head-on.

Private Sector Dissonance

U.S. tech giants with climate pledges (e.g., Amazon, Google, Microsoft) may find themselves caught between federal policy and ESG commitments, a tension likely to appear in other jurisdictions.

Shaping International Investment Norms

With the U.S. offering incentives for domestic semiconductor and AI infrastructure alongside permissive energy policies, emerging economies may recalibrate investment regimes to stay competitive, potentially compromising environmental integrity.

Marginalization of Renewable Grid Diplomacy

The sidelining of the Grain Belt Express project signals a devaluation of cross-border renewable transmission, which may discourage similar mega-projects globally.

Conclusion

President Trump's 2025 AI Action Plan represents more than a national technology blueprint, it is a redefinition of how energy systems, environmental regulation, and critical infrastructure are governed in the AI age. By tethering U.S. energy reform to the needs of AI infrastructure, the administration has set a precedent that prioritizes speed, scale, and sovereignty over sustainability and multilateralism.

While the plan may enhance short-term U.S. competitiveness in AI and data infrastructure, it raises long-term risks: energy system inflexibility, global regulatory fragmentation, and weakened climate diplomacy. As nations worldwide grapple with similar questions about powering the digital age, the Trump model may tempt others to abandon balance for brute-force expansion.

The global energy transition, once anchored in shared decarbonization goals, now faces an increasingly fragmented future, one where AI policy may determine the fate of environmental governance.

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