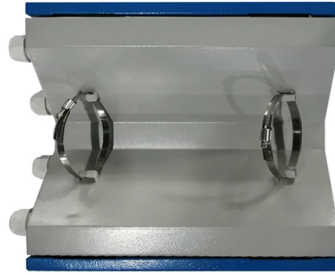


Policy Issues of the Global Energy Interconnection



AI Overview

The Global Energy Interconnection faces complex policy challenges spanning energy security, international cooperation, technological standards, and geopolitical risks. Energy Security and Reliability A primary policy concern for GEI is energy security, which now extends beyond traditional fossil fuel supply to include electricity reliability and resilience across borders. Interconnected grids can enhance energy security by diversifying supply sources and smoothing renewable energy variability, but they also introduce vulnerabilities to foreign disruptions, cyberattacks, and geopolitical tensions. Policymakers must balance the benefits of cross-border electricity trade with the risks of dependency on external grids and potential supply crises .Geopolitical and Strategic Considerations Cross-border electricity grids carry significant geopolitical implications. Countries that serve as hubs for electricity transmission may gain economic and strategic leverage, while others may face risks if they rely heavily on foreign infrastructure. For example, China's Global Energy Interconnection Development and Cooperation Organization (GEIDO) aims to set technical standards and connect multiple regions, which could shift global energy influence. Policymakers must navigate international relations, trade policies, and regional security concerns to ensure equitable and stable energy flows .Regulatory and Legal Frameworks Implementing GEI requires harmonized regulations and legal frameworks across participating countries. This includes agreements on electricity pricing, grid access, technical standards, and dispute resolution mechanisms. Differences in national energy policies, market structures, and regulatory priorities can create barriers to integration. Effective governance structures are essential to manage cross-border coordination, investment incentives, and compliance with env...

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This article was originally published by the Center on Global Energy Policy at Columbia University as part of their Energy

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