Global Energy Interconnection Development



Overview

Introduction Launched in March 2016 with its headquarters in Beijing, China, Global Energy Interconnection Development and Cooperation Organization (GEIDCO.

Key Takeaways

Global Energy Interconnection Development (GEID) aims to create a worldwide, clean, and interconnected electricity network to enhance energy security, sustainability, and international cooperation.

Concept and Objectives

Global Energy Interconnection (GEI) represents the evolution of power system interconnection, integrating energy flow, information flow, and business operations into an intelligent, automated, and networked system to ensure global energy security. Its primary objectives include: Promoting sustainable development by supporting the United Nations Sustainable Development Goals (SDGs) and reducing global poverty. Enhancing energy security through cross-border and transcontinental grid interconnections.

Facilitating ecological restoration and reducing environmental impact, including significant water savings and emissions reduction. Fostering economic growth and social development by enabling developing countries to become key investors and exporters of clean energy.

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Organizational Structure

The Global Energy Interconnection Development and Cooperation Organization (GEIDCO), headquartered in Beijing, China, is the leading international body promoting GEI. It has over 500 members from 80 countries, spanning sectors such as electric power, information, environmental protection, energy research, consulting, and finance. GEIDCO's mission is to establish a global energy interconnection system that meets electricity demand in a clean and sustainable manner while supporting climate change initiatives.

Technological FrameworkGEI relies on a Smart Grid supported by an ultra-high voltage (UHV) backbone, enabling large-scale integration of renewable energy sources like wind and solar. Key technological components include: Cross-border grid interconnection to facilitate energy sharing across continents. Standards and guidelines for planning new power systems, connecting photovoltaic and wind power plants, and managing automatic control systems for pumped storage units.

High interoperability and automation to manage energy flow efficiently and reliably. Global Impact and Development RoadmapGEI is expected to significantly increase the share of clean energy in the global energy mix, potentially exceeding 70% of total energy by 2050. It also aims to reduce energy sector emissions to 25.

5 billion tons and save over 100 billion cubic meters of water annually. The roadmap includes regional interconnections leading to a fully interconnected global clean energy network.

Role in Green Transition

By establishing unified international standards, GEIDCO facilitates technology transfer, reduces technical barriers, and promotes global cooperation in the energy transition. This approach accelerates the adoption of green and low-carbon production, optimizes resource allocation, and supports sustainable lifestyles worldwide.

Conclusion

Global Energy Interconnection Development represents a transformative approach to global energy management, combining advanced technology, international cooperation, and sustainable development goals. It seeks to create a clean, reliable, and interconnected global electricity network that addresses energy security, environmental sustainability, and equitable economic growth.

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Article Content

Introduction

Launched in March 2016 with its headquarters in Beijing, China, Global Energy Interconnection Development and Cooperation Organization (GEIDCO) is a non-profit international organization

Global Energy Interconnection Development and Cooperation

The Global Energy Interconnection Development and Cooperation Organization (GEIDCO), headquartered in Beijing, China, is an international organization among willing firms, associations,

Global Energy Interconnection | Journal

The provision of low carbon energy to our society is a key issue at the heart of sustainable development of global energy supply. The Global Energy Interconnection (GEI) Journal publishes original research

Evaluating the economic and social benefits of global energy ...

The Global Energy Interconnection (GEI) development will bring various economic and social benefits to multiple regions. To effectively promote its implementation, examining how these

Global Energy Interconnection Journal Press

Global Energy Interconnection established by Global Energy Interconnection Development and Cooperation Organization (GEIDCO), is professional and prospective scientific journal in energy and

Global energy interconnection standards issued to boost green

BEIJING, June 27 (Xinhua) -- A set of energy interconnection standards for wind farms, photovoltaic power plants and pumped storage units was issued on Friday, laying a solid foundation for global

Opening remarks at 2025 Global Energy Interconnection (GEI)

Global energy interconnection offers a powerful path forward. By linking power grids across borders and continents, we can unlock renewable potential at scale, enhance energy security and...

Global Energy Interconnection

To address serious challenges confronting the world energy development, Chinese President Xi Jinping, for the first time in the world, proposed establishing Global Energy

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Global energy interconnection

Thus this White Paper aims to highlight the concept of GEI and begin laying the foundations for identifying and addressing the standardization needs for large-scale, transcontinental and global

Data Center Power & Energy News 2026: Weekly

Key Takeaways: Energy Bottleneck: U.S. data center electricity demand surged from 23 GW (2023) to 42 GW (2026). By 2030, global energy

Power, Renewables & Energy: 2025 M&A Review, 2026 | FTI

Renewable energy M&A slowed in 2025 due to high capital costs, supply chain rules and policy pressure, though credit deadlines revived interest.

Global battery energy storage system (BESS) trends

Battery energy storage systems (BESS) now sit at the heart of the global shift toward flexible, renewable-dominated grids. Understanding the regional trends

Energy Portfolio Manager, Energy Supply and Interconnection

Combined ownership of the comprehensive management of Meta''s energy supply and interconnection contracts Serve as the ongoing owner for a portfolio of executed energy supply and

Enphase Energy hiring Senior Hardware Engineer

About the role: As a Senior Hardware Engineer, you will own and drive DC and AC interconnection and safety compliance alongside other mechanical and electrical hardware engineers for MW/MWh-scale

Global Energy Interconnection Development and Cooperation

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Energy Dome hiring Project Development Director in United States

10+ years of experience in utility-scale energy project development in the United States. Proven track record leading projects from early-stage development through permitting, interconnection and ...

Energy Portfolio Manager, Energy Supply and Interconnection

You will be responsible for managing a portfolio of Interconnection and Energy Supply Agreements, including leading, coordinating, and managing contract compliance, monitoring financial ...

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Battery Energy Storage Systems Report

Interconnection to the electric grid for energy delivery products—especially inverter-based resources such as BESS—requires a detailed set of power flow, environmental, operational, and dynamic

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This video was associated with the source search result. Verify technical details against current product documentation and project requirements.

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This document is for preliminary research. Verify specifications against current standards, product documentation and project requirements.

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