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Private sector roundtable discussion: **Santiago, Chile**

‘Rising with the Sun: Tackling the Energy Transformation in Latin America and the Caribbean’

August 5, 2025 | 11:45 - 13:00 hours CLT | 21:15 – 22:30 hours IST
At Santiago Marriott Hotel , Santiago, Chile

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Context (1/2)

Latin America has become one of the most dynamic regions for solar energy development, thanks to its exceptional solar resources, expanding electricity demand, and increasing political commitment to decarbonization. Brazil, Chile, and Mexico are among the frontrunners in solar development across Latin America and the Caribbean.

With a total installed capacity of nearly 100 GW in 2024, the Latin American solar market is characterized by a mix of utility-scale projects, especially in Chile and Mexico, and a strong growth of distributed generation in Brazil, supported by favorable net metering and self-consumption policies. Solar energy is increasingly viewed as a vital component to enhance energy security, diversify the energy mix, and support the region's decarbonization goals. Despite strong momentum, challenges remain in grid integration, regulatory stability, financing access, and the need to build resilient infrastructure capable of withstanding climate variability.

In particular, Brazil installed 14.3 GW of new capacity in 2024 (ranking sixth globally for annual additions) and brought its total installed solar capacity to 52.1 GW. This means Brazil alone represents more than half of the region's solar capacity, largely driven by a thriving distributed generation market underpinned by favourable net metering policies. Chile stands out for its utility-scale solar farms, especially in the Atacama Desert, while Mexico has seen slower progress in recent years due to regulatory uncertainty, despite a previously strong pipeline of solar projects. Other countries, including Colombia and Argentina, are ramping up their solar ambitions through auctions, policy reforms, and private sector engagement. Solar is increasingly seen not only as a tool for climate action but also as a driver of energy access (17M+ people still lack access to electricity) and economic resilience. In rural and off-grid areas, solar is helping to bridge energy poverty and support productive uses of electricity.

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Context (2/2)

Alongside solar deployment, Latin America is making strides in green hydrogen, particularly in Chile, where favourable conditions and strong international partnerships have led to the launch of pilot projects and national strategies. E-mobility is also gaining momentum in urban areas, with countries like Colombia and Costa Rica investing in electric bus fleets and charging infrastructure, often supported by solar-powered systems.

Despite this progress, the region still faces challenges such as regulatory fragmentation, limited grid infrastructure, and the need for greater financing access. Nonetheless, solar energy, along with related clean technologies, is poised to play a transformative role in Latin America's path toward a sustainable and inclusive energy future.

Digitalization and artificial intelligence (AI) are playing a growing role in accelerating the solar energy transition across Latin America and the Caribbean. Brazil and Chile are deploying AI-powered forecasting tools, digital twins, and advanced monitoring systems to optimize performance, reduce downtime, and balance grid operations. Brazil's distributed generation boom has driven adoption of smart meters and cloud platforms for real-time energy management, while Chile is using AI to improve dispatch and solar irradiance forecasting. In rural areas, geospatial AI and satellite imagery help identify unelectrified communities and guide off-grid solar deployment. At the infrastructure level, clean-powered AI data centers-projected to consume 5% of LAC's electricity by 2035 reflect the growing synergy between AI and solar. While progress varies by country, digital innovation is increasingly seen as a catalyst for reliable, efficient, and inclusive solar energy systems across the region.

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The Meeting

The International Solar Alliance (ISA) launched the CEO Caucus as a high-level forum designed to bring together C-level industry representatives to exchange ideas, network, and contribute to the global advancement of solar energy. This initiative builds on the success of the 2024 CEO Caucus Roundtables, which focused on developing a diversified and resilient global supply chain, enabling access to technology, mobilizing capital, and creating an enabling policy environment.

Themes of deliberations

Deliberations will be focusing on issues related to:

1. **Grid integration and infrastructure bottlenecks in the Region**:

Latin America's rapid solar deployment is outpacing grid upgrades. Weak transmission infrastructure, curtailment issues, and lack of regional interconnection hinder the full utilization of solar resources.

- *How can countries modernize grids to manage rapid solar growth ?*
- *What models for regional interconnection and cross-border electricity trading are feasible?*

2. **What role can storage play in scaling up solar in the Region?**

With solar growing rapidly across LATAM and the Caribbean, energy storage is becoming an important enabler for reliability and grid flexibility.

- *What regulatory reforms are needed to incentivize BESS deployment?*
- *How can storage be integrated into auctions and ancillary services?*

3. **Regulatory stability and investment climate in the Region**:

Political shifts and inconsistent regulatory frameworks, especially in countries like Mexico, have created uncertainty for investors. Clear, long-term policy signals are critical to sustain momentum.

- *How can governments provide long-term policy certainty amid political shifts?*
- *What blended finance instruments could de-risk projects for private investors?*

4. **Supply security and scalability of key minerals in the Region**:

This issue is crucial to deploy solar-linked technologies at the scale needed for a clean energy transition

5. **Energy security, local value chains and socio-economic inclusion in the Region:**

Solar PV is now viewed as a driver of energy access and economic resilience (jobs, local industries). Severe droughts have significantly reduced hydroelectric output, leading governments to implement planned electricity rationing to maintain grid stability.

- *What role should adaptation strategies play in planning PV and storage systems?*
- *How to build domestic industries for PV and battery components?*
- *Strategies to ensure energy access for rural and underserved communities while promoting gender equity and local job creation.*
- *How to design solar projects that withstand climate variability and extreme weather?*

6. **Transforming the energy landscape through AI and digitalization**

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Structure and Planned activities of the Chile CEO Caucus

- Roundtable Discussions: A series of roundtables will be organized to deliberate on the key themes. These discussions will involve industry leaders, policymakers, and experts from the solar sector and others.

- Networking Events: Networking opportunities will be provided to foster collaboration and partnerships among participants.

- Policy Briefs and White Papers: The outcomes of the discussions will be documented in policy briefs and white papers, outlining actionable recommendations for stakeholders.

The outcome of the session

The ISA CEO Caucus represents a significant step towards advancing solar energy globally. By bringing together industry leaders, policymakers, and experts, the Caucus aims to drive innovation, foster collaboration, and influence policymaking to create a sustainable and resilient solar energy sector.

Agenda

Time (in CLT)	Agenda Item
11:45 to 11:55 hours	Context Setting Presentation - ISA
11:55 to 12:05 hours	Inaugural address by Mr. Ashish Khanna, Director General, ISA
12:05 to 13:00 hours	Thematic deliberations with roundtable discussants
Roundtable Discussion to be followed by Lunch at the Santiago Marriott Hotel	

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