

7th CII International Energy Conference & Exhibition



Theme

Transitioning with Energy Security – The New Global Order
Secure, Smart, Sustainable

6 – 7 August 2026 | Hotel Le Meridien, New Delhi

Programme Outline

Day 1: 6 August 2026

0930 – 1030 hrs	INAUGURAL SESSION <u>Sovereign Hall</u>
Transitioning for Energy Security As the global energy landscape undergoes unprecedented transformation, energy security has emerged as a central pillar of economic resilience, industrial competitiveness, and sustainable growth. Geopolitical shifts, evolving supply chains, rising electricity demand, and the race for clean technologies are reshaping how nations secure and transition their energy systems. The Inaugural Session will explore strategies for building resilient, diversified, and future-ready energy systems. The discussion will examine the role of regional cooperation, clean energy innovation, digitalisation, and investment frameworks in advancing a secure, sustainable, and inclusive global energy transition. Key Discussion Points: • Energy Security in the New Global Order • Geopolitical Risks and Supply Chain Resilience • Clean Energy Transition and Industrial Competitiveness • Regional Energy Cooperation and Connectivity • Technology, Innovation and Digitalisation of Energy Systems • Mobilising Finance for the Energy Transition • Building Resilient and Future-Ready Energy Infrastructure • Jobs, Skills and a Just Energy Transition • Pathways to a Secure, Smart and Sustainable Energy Future	

1030- 1130 hrs	Inaugural session <u>Desire Hall</u>
The 1st Global South Convening on Clean Technology Minerals & Supply Chains To view detailed agenda for 6-7 August, visit https://www.ciire.in/	

1030- 1115 hrs	Exclusive Session with Vishnu Som <u>Sovereign Hall</u>
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1030- 1130 hrs	COUNTRY SESSION-Argentina (TENTATIVE) Inspire Hall

SESSION 3

Track: Energy Security & Supply Chains

1115-1200 hrs

Building Energy Supply Chains

As global demand for clean energy technologies grows, resilient energy supply chains will be critical to ensuring energy security and enhancing industrial competitiveness. This session will examine how to scale manufacturing across the entire energy value chain, spanning not only end technologies such as solar modules, batteries, and electrolyzers, but also the critical components and equipment involved in their production. It will explore strategies to enhance logistics and infrastructure networks, leverage free trade agreements, and strengthen trade facilitation measures to support a competitive, future-ready manufacturing base with greater export competitiveness. It will further explore how energy diplomacy can help secure access to critical minerals, diversify sourcing channels, and strengthen international partnerships, thereby building resilient energy supply chains.

Key Discussion Points:

- Scale manufacturing across the full energy value chain
- Boost production of components and critical equipment
- Strengthen logistics and infrastructure networks
- Build international partnerships and strengthen trade facilitation

SESSION 4

Track: Clean Power Systems

Sovereign Hall

1200 – 1245 hrs

24/7 Clean Power: Hybrid Renewables and Energy Storage

India achieved 50% of its installed electricity capacity from non-fossil fuel sources in June 2025, reaching its target five years ahead of schedule. As renewable energy expands towards 500 GW of non-fossil fuel capacity by 2030, ensuring reliable, affordable and round-the-clock clean power is critical to India's energy security. Hybrid renewable energy systems integrating solar, wind and storage are emerging as a key solution to improve grid resilience, optimise transmission infrastructure and deliver firm, dispatchable clean power. This session will explore how hybrid renewable energy systems and energy storage can enable reliable 24/7 clean power. Discussions will focus on optimising solar, wind and storage, structuring hybrid energy contracts and procurement models for Round-the-Clock (RTC) and Firm and Dispatchable Renewable Energy (FDRE), strengthening market and financing frameworks, and building resilient domestic manufacturing and supply chains to accelerate India's clean energy transition.

Key Discussion Points:

- Delivering reliable round-the-clock renewable power through hybrid systems as a pillar of energy security, reducing intermittency risks and enabling sustained economic activity
- Optimising solar, wind and storage to enhance CUF, transmission efficiency and grid resilience
- Leveraging BESS, pumped hydro storage and emerging technologies for grid balancing, renewable integration and reducing curtailment.
- Structuring hybrid energy contracts and procurement models for RTC and FDRE to ensure secure long-term power supply
- Improving project bankability through innovative financing and risk-sharing mechanisms

COUNTRY SESSION-Bhutan	
Inspire Hall	
1200- 1300 hrs	Bhutan's Energy Sector: Strengthening India-Bhutan Clean Energy Partnership

Session 5	
<u>Sovereign Hall</u>	
1245-1345 hrs	State Ministers Energy Transition: A State Perspective

1345 – 1430 hrs	NETWORKING LUNCH
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STATE SESSION	
<u>Inspire Hall</u>	
1430-1530 hrs	State Session- Bihar

SESSION 6

Track: Clean Power Systems

Sovereign Hall

1430-1515 hrs

The Nuclear Imperative: Energy Security in the Changing Global Order

As the global energy landscape is reshaped by geopolitical uncertainty, supply chain disruptions and the imperative of decarbonisation, energy security has become a strategic priority. Nuclear energy is emerging as a cornerstone of secure, reliable and low-carbon energy systems. Advanced technologies, including Small Modular Reactors (SMRs), Generation IV reactors, microreactors and advanced fuel cycles, are redefining clean energy while reducing dependence on imported fossil fuels. Beyond electricity, nuclear technologies support clean hydrogen, industrial heat, desalination and other strategic applications. This session will examine how advanced nuclear technologies, digital innovation and international collaboration can strengthen resilient energy systems and assess how India can leverage its scientific capabilities, manufacturing ecosystem and partnerships to become a global hub for advanced nuclear technologies.

Key Discussion Themes

- Advanced reactors (SMRs, Generation IV, microreactors and advanced fuel cycles) for reliable, flexible and resilient low-carbon power.
- Nuclear energy for clean hydrogen, industrial heat, desalination and industrial resilience.
- ITER, India's fusion programme and emerging nuclear technologies for long-term energy security.
- AI, digital twins, robotics, modular construction and advanced manufacturing to improve safety, efficiency, cybersecurity and deployment.
- International collaboration, technology partnerships, domestic manufacturing and innovation to strengthen supply chains and position India as a trusted global nuclear partner.

SESSION 7

Track: Clean Power Systems

Sovereign Hall

1515-1600 hrs

Building Human Capital for Energy Security

As India's energy transition accelerates, the availability of skilled talent is becoming a strategic determinant of energy security, alongside capital, technology and infrastructure. From renewable energy and storage to hydrogen, digital power systems and advanced manufacturing, every segment of the clean energy value chain will require new capabilities and specialised talent to support deployment at scale.

This session will explore how industry, government and academia can collaborate to build the workforce required to deploy, operate and maintain clean energy infrastructure across the value chain. Discussions will focus on closing skills gaps through industry-aligned training programmes, vocational education and apprenticeships, creating pathways for reskilling and upskilling workers, strengthening workforce planning and industry-academia collaboration, and positioning India as a global supplier of skilled clean energy talent. The session will assess how workforce development can support industrial competitiveness while ensuring the human capital required to deliver India's long-term energy security ambitions.

Key Discussion Points:

- Developing the workforce required to deploy, operate and maintain clean energy infrastructure at scale
- Closing skills gaps through industry-aligned training, vocational education and apprenticeships across renewable energy
- Creating pathways for reskilling and upskilling workers in the evolving energy economy
- Strengthening industry-academia collaboration and workforce planning
- Enhancing India's competitiveness as a global supplier of skilled energy talent

SESSION 8

Track: Digital Energy Systems

Inspire Hall

1530-1615 hrs

AI-Enabled Smart Grids for Energy Security: Predictive, Self-Healing and Interoperable Power Systems

As India's power system becomes increasingly digital and renewable-rich, artificial intelligence and advanced digital technologies are transforming how electricity networks are operated, secured and managed. AI-powered predictive maintenance, digital twins and automation are enabling smarter, more resilient grids, while growing digitalisation is making cybersecurity and secure communication networks critical to protecting energy infrastructure. This session will explore how AI, smart grid technologies, SCADA systems and cybersecurity can work together to build predictive, interoperable and cyber-resilient power networks. Discussions will focus on AI-enabled grid operations, renewable integration, self-healing grids, cyber governance, secure communication infrastructure and trusted data ecosystems to strengthen grid reliability, resilience and energy security.

Key Discussion Points:

- AI-enabled predictive maintenance, digital twins and advanced analytics for improving grid reliability and asset performance.
- Building self-healing grids through automation, digital control systems and AI-enabled fault detection and restoration.
- Integrating variable renewable energy through intelligent grid management and interoperable power systems.
- Strengthening cybersecurity frameworks, standards, governance and incident response for critical energy infrastructure.
- Deploying secure SCADA systems, protected communication networks and resilient SLDC infrastructure against cyber-physical threats.
- Leveraging AI for threat detection, predictive risk management and secure data governance to build trusted digital energy ecosystems.

SESSION 9

Track: Clean Power Systems

Sovereign Hall

1600-1645 hrs

Energising Wind Sector: Repowering, Expansion & Grid Integration

With over 50 GW of installed capacity and an estimated onshore wind potential of nearly 700 GW, wind energy represents one of India's most important indigenous resources for strengthening long-term energy security. As the country seeks to accelerate renewable energy deployment, the next phase of growth will require a combination of new capacity additions, repowering of ageing assets and deeper integration of wind power into the electricity system. This session will explore the future growth trajectory of India's wind sector, including opportunities to expand deployment across high-resource regions and unlock higher generation from existing projects through repowering, technology upgrades and improved turbine performance. Discussions will focus on addressing policy, regulatory and permitting barriers, modernising transmission and evacuation infrastructure, strengthening grid integration and reliability, and developing innovative financing and investment models to support sustained sector growth. The session will examine how wind energy can enhance diversification, resilience and self-reliance within India's future energy system.

Key Discussion Points:

- Unlocking higher generation from existing wind assets through repowering, technology upgrades and improved turbine performance
- Addressing policy, regulatory and permitting barriers to wind repowering and new project development
- Modernising transmission, grid and evacuation infrastructure
- Strengthening financing models and investment opportunities across the wind sector

SESSION 10

Track: Energy Security & Supply Chains

Sovereign Hall

1645- 1730 hrs

Bridging the Green Funding Gap

Closing the green funding gap is essential to achieving global energy transition goals. This session will explore ways to scale financing through multilateral reforms, innovative risk-sharing tools, and blended finance models. It will also address the importance of equitable access to funds, ensuring that emerging and developing economies can accelerate their clean energy transitions.

Key Discussion Points:

- Scaling up climate finance to bridge the investment gap
- Reforming MDBs to increase lending capacity and accelerate disbursements
- Mobilising private sector capital at scale through green bonds, blended finance, sustainability-linked bonds, guarantees and credit enhancement mechanisms
- Enhancing affordability and access to finance for emerging and developing economies, with a focus on just and equitable energy transitions



Exclusive CEOs Roundtable Inspire Hall	
1800 hrs	Exclusive CEOs Roundtable followed by Dinner <i>By invite only</i>

Day 2: 7 August 2026

SESSION 11 SPECIAL PLENARY SESSION WITH Shri Hardeep Singh Puri, Hon'ble Minister for Petroleum and Natural Gas <u>Sovereign Hall</u>	
0930 – 1000 hrs	From Security to Sustainability: India's Energy Transition Pathway
As nations navigate an increasingly complex energy landscape, striking the right balance between global collaboration and national priorities will be essential to unlocking innovation, enhancing resilience, and advancing a secure and sustainable energy future. This session will explore India's vision for a secure and future-ready energy ecosystem, highlighting how conventional fuels, biofuels, and green hydrogen can work in tandem to strengthen energy security, drive sustainable growth, and power the nation's transition journey.	

SESSION 12 <u>Track: Energy Security & Supply Chains</u>	
1000 - 1045 hrs	Beyond Borders: The Future of Shared Energy Systems
This session will focus on cross-border cooperation as a means for energy diplomacy, enabling countries to manage risks and enhance system resilience. This session explores how shared grids, pipelines, and joint reserves can reduce vulnerabilities and promote friendly relations by helping navigate geopolitical tensions, financing hurdles, and regulatory fragmentation. It will also examine pathways to balance national priorities with collective energy stability. Key Discussion Points: • Scaling cross-border energy trade through interconnected grids and pipelines • Role of international agreements in ensuring energy security • Overcoming infrastructure, financing, regulatory, and geopolitical barriers • Leveraging strategic reserves and joint stockpiling mechanisms to mitigate supply disruptions and price shocks • Balancing national interests with cross-border collaboration	

SESSION 13 Track: Clean Power Systems Sovereign Hall	
1045-1130 hrs	Powering the Economy: Meeting the Next Wave of Electricity Demand
As India emerges as a leading digital economy and data centre hub, the rapid growth of data centres, increasing cooling needs, and accelerating electric vehicle adoption are reshaping electricity demand patterns and placing new requirements on generation, transmission, and grid infrastructure. This session will examine how India can ensure access to affordable, reliable, and increasingly clean power to support these high-growth sectors while strengthening energy security and enabling sustainable economic growth. • Key Discussion Points: • Rising electricity demand and its implications for power system • Ensuring reliable, affordable, and clean power • Grid and infrastructure readiness to support concentrated, high-load electricity demand hubs • International best practices in dealing with increased power demand	

STATE SESSION Inspire Hall	
1100- 1200 hrs	State Session- Madhya Pradesh

SESSION 14

Track: Clean Molecules & Industrial Transition

Sovereign Hall

1130 - 1215 hrs

Green Hydrogen & Derivatives: Building Global Partnerships and Trade Opportunities

Global momentum around green hydrogen is accelerating as countries pursue decarbonisation, energy security and industrial competitiveness objectives. Significant investments are being directed toward green hydrogen production, derivative fuels and export-oriented value chains. India has emerged as one of the most promising markets globally, supported by abundant renewable energy resources, strong policy backing and growing industrial demand.

This session will assess the evolving global landscape, examine opportunities for India to establish leadership across the hydrogen value chain, and identify strategies for scaling investments, demand creation and international partnerships.

Key Discussion Pointers:

- Global and Indian green hydrogen market landscape
- Green hydrogen derivatives and value chain development
- Economics, investment and offtake mechanisms
- Lessons from pilot projects and early deployments
- International partnerships and export opportunities
- Building globally competitive hydrogen ecosystems

SESSION 15

Track: Clean Molecules & Industrial Transition

Sovereign Hall

1215-1300 hrs

Multi-Fuel Pathways for Secure and Innovative Mobility

Global mobility transition is being driven by a diverse portfolio of clean energy pathways. While electrification will remain a key pillar, achieving energy security, decarbonisation and economic competitiveness will require parallel deployment of multiple fuel options, including ethanol, biodiesel, compressed biogas, green hydrogen and other emerging low-carbon fuels.

The session will also celebrate the power of youth-led innovation through a special interaction with **Sea Sakthi**, the award-winning team from Kumaraguru College of Technology that received the prestigious **Prince Albert II Award** at the **13th Monaco Energy Boat Challenge 2026**.

Key Discussion Pointers:

- Strengthening energy security through fuel diversification
- Policy and regulatory frameworks to accelerate innovation and adoption
- Enabling infrastructure, standards, interoperability and consumer confidence
- Advancing industrial competitiveness and research & development

STATE SESSION Inspire Hall	
1230- 1330 hrs	State Session- Odisha

1300 – 1400 hrs	NETWORKING LUNCH
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SESSION 16 <u>Track: Digital Energy Systems</u> <u>Sovereign Hall</u>	
1400-1445 hrs	Demand Response 2.0: Leveraging Smart Meters, DT Meters and IoT for Flexible Power Systems
As electricity demand patterns evolve and renewable energy penetration increases, demand-side flexibility is becoming essential for grid stability and energy security. This session will examine how smart meters, distribution transformer (DT) meters, IoT technologies, and AI-powered analytics are transforming demand response programs into powerful tools for peak load management and system optimization. Discussions will highlight the role of dynamic pricing, Time-of-Day tariffs, and advanced load forecasting in addressing challenges such as the duck curve, reducing supply shocks, and minimizing dependence on costly backup power. The session will also explore how consumer participation and intelligent management of hybrid energy systems can enhance reliability, efficiency, and affordability across the power sector. Key Discussion Points: • Demand Response & Duck Curve Management: Using smart meters and dynamic pricing to optimize demand. • Demand Response and ToD tariffs as tools for peak load management and national energy security • AI-enabled load forecasting to minimize supply shocks and reduce reliance on costly backup power • Smart meters and IoT enabling consumer-side participation in grid stability and security • Managing hybrid energy systems for secure, reliable, and cost-efficient power supply	

SESSION 17

Track: Clean Power Systems

Sovereign Hall

1445-1530 hrs

Innovation, Efficiency & Scale: Maximising Solar Potential

With over 150 GW of installed solar capacity, solar energy has emerged as a cornerstone of India's clean energy transition and energy security strategy. As deployment accelerates, strengthening domestic manufacturing has become a strategic priority alongside maximising energy conversion efficiency, improving system performance and reliability, and scaling innovation. Building a globally competitive manufacturing ecosystem while reducing supply chain vulnerabilities will be critical to ensuring India's long-term energy security and leadership in the global solar industry. This session will explore how advanced technologies such as perovskite and tandem solar cells, agrivoltaics, innovative system designs, and next-generation manufacturing technologies can significantly improve solar efficiency, unlock higher energy yields, and optimise land and resource utilisation. Discussions will examine pathways for accelerating the deployment of these solutions while strengthening domestic manufacturing ecosystems, building resilient supply chains, and reducing import dependence. The session will also assess strategies to enhance manufacturing competitiveness, operational efficiency, long-term reliability, economics, and scalability across the solar value chain, positioning solar power as a cornerstone of future energy systems, a driver of industrial growth, and a key contributor to India's energy security.

Key Discussion Points:

- Driving higher solar output through advanced technologies, efficiency improvements and innovative system design
- Exploring next-generation solar solutions, including perovskite and tandem cells, agrivoltaics and other approaches that maximise land and resource utilisation
- Accelerating the deployment of innovative solar solutions to meet growing electricity demand reliably and cost-effectively
- Building domestic manufacturing capabilities and resilient supply chains to strengthen energy security and reduce import dependence
- Enhancing the long-term reliability, economics and scalability of solar as a cornerstone of future energy systems

Special Session 18

Inspire Hall

1500-1530 hrs

Building Resilient Clean Energy Systems: A Case Study

Expanding renewable energy capacity requires building resilient energy systems. An integrated clean energy backbone combining hybrid power systems, intelligent grids, and secure supply chains is essential to deliver reliable, flexible and affordable clean power.

This special presentation will showcase a case study highlighting best practices in clean energy infrastructure that contribute to the development of a future-ready power system capable of supporting sustainable economic growth.

SESSION 19

Track: Clean Molecules & Industrial Transition

Sovereign Hall

1530 - 1615 hrs

Electrons and Green Molecules: Pathways to Decarbonisation

As India advances towards its net-zero ambitions, industrial decarbonisation will require a dual transition. Under Mission Electrostate, industrial electrification can be scaled up. Simultaneously, adoption of green hydrogen and other green molecules for hard-to-abate sectors could be carried out. This session will explore how industrial electrification, green molecules, and enabling technologies can accelerate India's transition to a competitive, low-carbon industrial ecosystem.

Key Discussion Points:

- Industrial transition strategies and phased adoption models for Mission Electrostate 2045
- Adoption of green molecules for decarbonising hard-to-abate sectors
- Technology readiness, electrification pathways and integration challenges across industry
- Financing, bankability and demand aggregation to accelerate industrial decarbonisation
- Carbon markets, policy support and regulatory frameworks to enable industrial net zero
- Integrating renewable energy, digital technologies and smart manufacturing

SESSION 20 Track: Energy Security & Supply Chains Sovereign Hall	
1615 – 1715 hrs	Beyond Oil Shocks: Making Energy Diversification a Strategic Priority
An Interactive session with the Secretary, MoPNG, will examine diversification strategies for building a resilient energy system. It will also discuss accelerated deployment of renewables and emerging solutions such as green hydrogen and biofuels alongside conventional energy for preventing economic shocks. Key Discussion Points: • <i>Navigating geopolitical risks and price volatility through a balanced and diversified energy mix</i> • <i>Balancing conventional energy security with the rapid scale-up of renewables and low-carbon alternatives</i> • <i>Exploring the strategic role of hydrogen, biofuels, and storage in enhancing resilience and reducing import dependence</i>	

Country Session Inspire Hall	
1630 – 1800 hrs	Country Session- Brazil

1800 hrs	Event Concludes
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