

# High-Level Roundtable on Unlocking Battery Storage for India's Renewable Energy Integration

## **Context and Background**

Like most countries, India's low cost energy transition trajectory hinges on successfully integrating largescale renewable energy, particularly solar. As projections from the Central Electricity Authority indicate, solar could account for as much as 60% of the installed capacity mix by 2047. With this dramatic shift comes an equally significant challenge: integrating variable generation in a way that ensures reliability, affordability, and efficiency.

BESS, alongside pumped hydro and other flexible resources, is fast emerging as a vital enabler of this transition. With falling capital costs, improved technical performance, and exceptional versatility in supporting grid services, BESS is essential for managing ramping, reserves, and peak shifting— especially as solar penetration accelerates. Yet, despite growing policy momentum and tender activity, large-scale deployment in India remains limited by planning, regulatory, and procurement constraints.

To examine how these barriers can be addressed, TLG convened a high-level roundtable on 24 April 2025 at the India International Centre, New Delhi. Bringing together senior stakeholders from across the power sector, the roundtable provided a platform for structured dialogue on unlocking BESS deployment at scale. The discussion focused on aligning planning and procurement frameworks with system needs, enabling regulatory mechanisms for multi-service storage assets, and drawing insights from international experience to inform India's next steps.

## **Opening Remarks**

## Mike Thomas, Managing Director, The Lantau Group

Opening the roundtable, Mike Thomas reflected on how energy storage sits at the intersection of longstanding planning principles and today's fast-evolving system challenges. As he put it, "As we think of the traditional security of supply and planning aspect, all of these things come crashing together in waves of opportunity and complexity, symbolised in many ways by storage."

Mr Thomas noted that storage is far from a new idea. *"Storage is just about the oldest high-value aspect of a power system, whether it's pump storage, hydro storage, or any other kind of storage,"* he said.

"Storage, fuel, everything is about time, and management of time, and management of value across time."

He went on to reflect on the emergence of short-term battery technologies, which many thought were "*still decades away in any meaningful sense*" just ten years ago. Their uptake, he explained, didn't begin because they were cost-effective in theory but because some systems had become imbalanced. *"The first places we started seeing batteries come in were markets which had gotten themselves out of balance."* 

Batteries became necessary when systems faced steep ramping needs, minimum stable load problems, or had *"very strong renewable portfolio standards that were pulling intermittent generation sources in faster than the economics alone for electrons would support."* In such situations, batteries provided stability—not unlike how *"a mop is needed to clean up a spill."* 

#### Mr Ghanshyam Prasad, Chairperson, Central Electricity Authority (CEA)

In his opening remarks, Mr Ghanshyam Prasad set the tone for the roundtable by acknowledging the rapid shift underway in India's power system and the rising centrality of battery storage. He reminded the audience that while BESS is often described as a flexible, scalable, and fast-deployable solution, its real-world utility depends on how well it is tailored to grid needs.

Mr Prasad emphasised that the current trajectory of renewables deployment in India—will inevitably strain system stability if not complemented by storage and other flexible assets. We have moved beyond the question of whether storage is needed. The question now is when to put it, how much to put it, and what type of storage to put – all key questions.

He pointed out that many recent tenders had specified simple charge-discharge profiles with mandatory rest periods but were not aligned with emerging use cases such as peak demand management, ancillary services, or DSM. *"Each of these use cases requires a different technical configuration,"* he noted. *"What works for arbitrage will not work for frequency regulation, and what works for peak shaving may not serve DSM needs."* 

Using examples from recent tenders, Mr Prasad highlighted that policy and procurement design must evolve to accommodate this diversity. He called on the regulatory community to work closely with planners and developers to ensure that storage solutions are technically feasible, economically viable, and system relevant.

## **Technical Presentations**

The roundtable featured five technical presentations offering grounded insights into the value of BESS in system planning, international market design, commercial viability, and on-the-ground execution challenges. Together, they formed a robust evidence base to inform India's future battery storage strategy—illustrating what works, what doesn't, and what India must adapt as it scales up.

## **Optimising Storage at System Level: Madhya Pradesh Case Study**

#### Presenter: Dr Puneet Chitkara, The Lantau Group

Dr Chitkara presented findings from a first-of-its-kind nodal-level capacity expansion model for Madhya Pradesh, developed using the STELLAR platform developed by TLG—a tool now recognised by CEA for state-level power planning. The study simulated two scenarios: one with BESS co-optimized with generation and reserves and another without storage.

The results were compelling. BESS enabled a significant shift in the system trajectory:

- Coal-based capacity reduced from ~23 GW to 16 GW by 2035.
- Solar capacity expanded from 13 GW to over 25 GW.
- Ancillary services were increasingly provided by BESS rather than coal plants, avoiding startup and spinning reserve costs.
- Storage deferred or avoided transmission upgrades at intrastate and ISTS levels, particularly when optimally located at ISTS injection points.

Perhaps most striking was the economic outcome: over ₹36,000 crore in cumulative system savings over a ten-year horizon. These savings stemmed not just from fuel costs avoided but also from better management of technical minimum operating limits for coal units, lowered reserve margins, and reduced reliance on higher-cost short-term power purchases.

### Policy Risk and Market Design: Lessons from Australia

#### Presenter: Rajat Sarawat, The Lantau Group

Rajat shared a case study from Australia, examining how Western Australia's Wholesale Electricity Market (WEM), a capacity market, respond to rapid solar uptake and resulting reliability challenges. BESS is eligible for capacity credits based on their availability for a defined 4-hour duration. However, increasing penetrations of BESS, encouraged by various market incentives such as the Capacity Investment Scheme (CIS), has introduced a new reliability issue known as the Availability Duration Gap (ADG), particularly affecting the shoulder periods beyond the 4-hour duration. To address this gap, proposals are being evaluated to extend battery duration requirements from four to six hours. While addressing reliability concerns, extending duration requirements reduces the effective capacity credits for BESS, potentially diminishing battery storage's economic viability and attractiveness. Furthermore, as a consequential impact, this shift will likely displace BESS as the reference technology for setting the benchmark capacity price, creating further policy uncertainty for investors in the market.

#### Key Messages:

- Building incentives for BESS to enter the market is expensive.
- If market design and incentives are not stress tested, it may lead to perverse outcomes.
- Incentives must avoid investment clustering or creating artificial "seams" based on arbitrary specifications.
- Rule changes—even when justified—are inherently disruptive, so getting it right the first-time matters.

## **Global Cost Trajectories and Firm Green Power Pathways**

#### Presenter: Dr Amol Phadke, University of California, Berkeley

Dr Phadke highlighted the unprecedented pace at which storage is becoming cost-competitive globally. Over the last 24 months alone, battery prices have dropped by over 60%, while energy density and cycle life have improved substantially—with leading providers now offering 10,000+ cycles. Furthermore, China's battery production capacity (~5000 GWh/year) far exceeds demand; hence, a BESS supply glut is expected to persist, keeping downward pressure on BESS price. Dr Phadke offered interesting contrasts in how BESS is being integrated within different markets in the US and what the status of BESS is as it stands:

- California: No capacity market. Planning is IRP-driven, with BESS receiving full resource adequacy (RA) credits and revenue from RA, energy, and ancillary services.
- **Texas (ERCOT)**: Market-only system. There is no planning or RA, yet **storage is booming** due to strong price signals and flexibility needs.
- **PJM**: Capacity market provides duration-linked credits; BESS earns value through energy and capacity participation.
- **Hybrid solar + storage projects dominate** interconnection queues, offering grid efficiency and added value and over **500 GW** of such projects are pending connection in the U.S.

Regarding lessons for India from the international cases, Dr Phadke noted that storage offered a rapid deployment **option** amid accelerating demand and slow thermal capacity addition.

**Solar + storage can now deliver near 24x7 clean power** under ₹5/kWh—viable for data centres and large C&I users. Finally, least-cost plans must be **frequently updated** to reflect evolving battery costs and system needs. He noted that batteries are now cheaper and cleaner—and faster to deploy—than thermal plants, offering a new kind of "deployment agility" in constrained or fast-growing grids.

#### **Bridging the Last Mile: Developer Execution Realities**

#### Presenter: Sivaprasad Manikkapurath, ReNew Power

Sivaprasad brought the developer's lens to the conversation. While much attention is paid to tender volumes and cost trajectories, the **on-ground picture is far more sobering**, he explained. Of the 50+ GWh of BESS tendered across SECI, NTPC, and states, barely 2.3 GWh is on track for commissioning by end-2025.

The primary causes:

- Delayed signing of FSAs and PSAs, creating financing uncertainty.
- **Post-bid cancellations** by procurers due to price drops or policy shifts.
- Lack of performance guarantees or bid enforcement clauses; and
- Continued **dependence on imported components**, especially DC blocks, battery enclosures, and PCS. EMS and PCS remain dependent on global suppliers (e.g., GE, Siemens, Fluence), with no Indian PCS supplier currently meeting advanced performance requirements.

ReNew has attempted to localise parts of its battery supply chain, including EMS and software, but cost advantages are limited without policy support. Clear technical standards, domestic capability-building for PCS/EMS, and stable contracting frameworks are essential to ensure bankable and scalable storage deployment.

### **Designing for Value Stacking: Experience from the Philippines**

#### Presenter: Mike Thomas, The Lantau Group

Mike shared insights from the first stage (1 GW) of an eventual 3.5 GW solar+ BESS hybrid project under development in the Philippines. The project includes a 7 AM–9 PM flat block supply contract to MERALCO, underpinned by solar + BESS integration and merchant market revenue stacking. The projected project demonstrated the solar BESS model's emerging dominance and attractiveness to local and international investors in Asia, especially when the alternative fuel supply option involves imported LNG.

Despite the project's success, much value remains untapped. Regulatory and tax policies hinder the treatment of BESS on a fully flexible basis, requiring BESS to be collocated with RE resources instead. For example, the BESS cannot be optimised around charging from the grid, nor can it participate fully in the ancillary services market. These constraints make the project sub-optimal from a system perspective—despite being financially viable at the project level. One key observation in the Philippines and globally is that BESS's policy, regulatory, and market frameworks are still lagging behind the surging interest, enhanced capabilities, and improving the economics of BESS technology.

Even without subsidies or a capacity market, large-scale solar-plus-storage projects can be financially viable in a liberalised, energy-only market—if contract structures are flexible and market fundamentals are strong. However, regulatory constraints (like grid-charging limits and lack of ancillary service access) cap the full value of BESS, making policy alignment the key to scaling similar projects further.

#### **Participant Interventions**

Following the keynote and technical presentations, the roundtable shifted to an open-floor discussion moderated by Shri Alok Kumar, Partner at The Lantau Group. Senior representatives from regulatory bodies, planning agencies, power exchanges, utilities, and developers shared practical perspectives shaped by their institutional experiences. The interventions moved beyond policy rhetoric to surface real-world enablers, constraints, and emerging priorities for accelerating the deployment of battery energy storage systems (BESS) in India. What follows is a thematic synthesis of the discussion, distilling the core insights and issues raised by participants.

#### 1. From Planning to Action: The Regulatory and System Planning Lens

Participants from the regulatory and planning side emphasised that the integration of battery energy storage systems (BESS) is no longer just about energy arbitrage or peak shifting; it must be central to India's power system design. Regulatory voices highlighted that although clear arbitrage opportunities exist between low-cost midday solar and high evening peak prices, merchant BESS participation remains weak. Existing market designs and regulatory incentives cannot convert theoretical commercial value into investable propositions.

There was also an explicit acknowledgement that BESS has a much broader system value. Planners pointed to the underutilisation of the transmission system—which often operates at onefourth of its designed capacity—and argued that storage could unlock its latent potential. Transmission investments are planned to evacuate massive solar capacities from highconcentration zones like western Rajasthan, where over 150 GW of generation applications have been received. If earlier plans to install 22 GW of BESS in the region had materialised, several costly HVDC corridors could have been avoided. In current plans, additional HVDC lines are being built, but the case was made for using storage as a deferral and optimisation tool.

#### 2. DISCOMs See Storage as a Necessity, Not a Luxury

DISCOMs strongly endorsed BESS deployment at the distribution level. Participants shared realworld examples of deploying batteries at 11 kV substations and distribution transformers, which supported CAPEX deferral, voltage balancing, and reduced curtailment of rooftop solar. A particularly compelling use case involved a substation-level BESS that absorbed mid-day rooftop solar and re-supplied it during evening peaks, eliminating the need for further infrastructure buildout.

Discoms underlined the economic logic: when peak demand doubles base load, and load factors are as low as 50%, over-contracting for generation becomes inefficient and costly. When located within the distribution network, BESS helps flatten demand profiles, avoid expensive market purchases during shortfalls, and manage intra-day variability. Many stressed that energy arbitrage is merely the "icing on the cake"; the real value lies in reliability, infrastructure optimisation, and improved operational resilience.

#### 3. Developer Concerns: Predictability and Procurement Risk

Developers expressed concerns with the lack of market certainty despite the fall in battery costs. They highlighted the disconnect between national-level storage planning and ground-level procurement by states. Even after winning bids, projects face delays in power sale agreements (PSAs) or, worse, cancellations by offtakers post-price discovery.

Some called for invoking legal mandates to enforce state-level compliance with national storage targets. There were concerns that while prices are currently favourable due to global oversupply, this may not last. India must use this window to build domestic manufacturing capacity and ensure projects move from tenders to implementation quickly. Without enforceable procurement mandates, developers face a high-risk environment that deters investment.

#### 4. Market Design and Arbitrage: Mismatch Between Theory and Practice

Exchange and trading platform participants validated that arbitrage opportunities exist. Analysis of historical price data showed that, in FY2024, two-cycle daily BESS operation could yield arbitrage revenue exceeding benchmark costs in tenders. However, participants also noted that this logic breaks down for four-hour batteries due to limited eligible hours.

Still, there was a shared view that arbitrage revenue alone cannot finance storage investments. Participants proposed modifications such as commitment charges, capacity payments, and partial market participation for Section 63 projects to improve the business case. Suggestions also included adopting flexible contracting structures that allow BESS to serve both long-term commitments and merchant markets.

#### 5. BESS as a Multi-Use, Public Good Asset

Stakeholders emphasised that BESS delivers services that benefit the entire grid, not just individual buyers. These include transmission investment deferral, capacity displacement, pollution reduction, and increased system flexibility. One participant noted that BESS operators should be compensated for delivering "*common goods*" to the grid.

Some also suggested that current regulatory structures disincentivise BESS flexibility. For example, drawing power from the grid for secondary charging could subject BESS operators to heavy capacity charges and electricity duty, undermining economic feasibility. A call was made to rationalise such charges, particularly when storage serves a system-wide balancing function.

#### 6. Strengthening the Policy and Skill Ecosystem

The conversation extended beyond economics to include enabling conditions. Participants urged that VGF support may still be needed in the near term but should gradually be replaced with capacity market instruments. Proposals were also made to strengthen the supply chain via partnerships for critical minerals, enhance safety standards, and invest in installation, O&M, and second-life battery management skills.

The need for updated regulatory frameworks to keep pace with new business models was also highlighted. For example, mandates on co-location limit flexibility. Participants emphasised the need for dynamic policy reform that can keep up with evolving use cases.

#### 7. Unlocking the Full Potential of Distributed and Behind-the-Meter Storage

Several interventions highlighted the transformative potential of distributed BESS. Participants advocated replacing diesel generator sets in commercial buildings with batteries backed by regulation. Recommendations included mandating BESS in new buildings above certain load thresholds and tapping into vehicle-to-grid potential to create virtual power plants. These measures would significantly increase storage penetration at the grid edge and support decentralised resilience.

#### 8. Strategic Role in Resource Adequacy and Energy Security

Concluding interventions stressed that BESS is no longer just a flexibility tool but a key pillar of India's resource adequacy strategy. As conventional generation additions face long lead times, storage offers a deployable and cost-effective alternative to meet growing demand. System planning models now treat BESS as a full-fledged resource capable of displacing thermal generation and reducing dependence on short-term market purchases.

Participants argued that state-level resource adequacy plans must be institutionalised and updated regularly, with BESS treated as a core part of the capacity mix. Doing so would ensure both affordability and security in the evolving power system.

### **Keynote Address**

#### Mr Pankaj Agarwal, Secretary, Ministry of Power

In his keynote address, Mr Pankaj Agarwal highlighted the critical importance of energy storage in enabling India's renewable energy trajectory, especially given the increasing reliance on solar generation. He began by pointing to the role of smart Energy Management Systems (EMS), noting that the agility of EMS and improvements in battery chemistry will be central to optimising storage deployment.

He emphasised that battery storage is now widely understood to be essential. However, how and where it is deployed—whether co-located with the generation or procured as a firm capacity—requires strategic clarity. "Multiple models are available," he said, including those that contract storage along with generation or treat it as a dispatchable capacity block for utilities to operate as needed.

He reflected on **Firm and Dispatchable Renewable Energy (FDRE)** bids, observing that while the model may suit Commercial and Industrial (C&I) consumers due to their standard demand profiles and need for customised power contracts, DISCOMs may not find them attractive. Large utilities, he noted, rely on their diverse resource baskets and would seek to optimise power procurement based on that flexibility. He cited Maharashtra's 30,000 MW of demand, where standardised bidding like FDRE may not be preferable. Mr Agarwal also raised concerns about the proliferation of **mandatory obligations**, such as renewable purchase obligations (RPO), energy storage obligations, etc. He questioned whether such prescriptive mechanisms should be necessary. He stated that both renewable energy and storage now offer clear economic value. For example, pumped hydro storage at ₹3/kWh, combined with solar generation, can deliver power in the ₹6.5–₹7.5/kWh range. He noted that several bids from companies demonstrate that this arbitrage is commercially viable.

Turning to India's generation outlook, Mr Agarwal described India's clean energy future as a fundamentally solar-led story. Thermal additions, while necessary, will take time to materialise. He cited current data showing 30 GW of thermal capacity under construction, another 19 GW contracted but to begin construction, 6 GW under NCLT resolution, and only 10 GW commissioned so far against the 100 GW ambition—amounting to 65 GW in total. He estimated that only around 35 GW of new thermal capacity can realistically be added in the near term.

He acknowledged the challenges in scaling wind and hydro. On wind, he projected that India could go from 50 GW today to 100 GW by 2032—adding only 50 GW more. On large hydro, Mr Agarwal stated that very few projects are feasible in the near term, aside from Dibang and select Subansiri projects, which are likely a decade away. Most new hydro capacity, he noted, will offer 3–6 hours of flexibility at best. He also discussed India's **nuclear ambitions**, noting progress on legislative reform and engagement with international partners such as the U.S., France, and Russia. However, even under an optimistic scenario, he estimated that nuclear capacity might reach 50–100 GW over the next 25 years.

In this context, he stressed, storage becomes non-negotiable. "Our story has to be a solar story, and this story has to succeed or can succeed only with storage," he said. Whether mandated or not, solar and storage must provide a 24x7 power solution. He also reflected on the complexity of current storage contracting models, noting that the market has yet to settle on a standard approach. Enhancing utilisation through increased cycles (e.g., 1.25 cycles per day) could improve cost-effectiveness, particularly for mid-duration systems.

#### Key Insights and The Way Forward

The roundtable brought to the fore the critical importance of treating BESS as a system-wide enabler rather than a niche flexibility asset. A clear consensus emerged that BESS must be sized and sited using advanced system-level modelling, extending to distribution networks. Doing so will maximise value across multiple functions—ranging from arbitrage and ancillary services to deferral of capital expenditures and ramp support during solar dips. The role of BESS is particularly crucial in dense urban areas, where right-of-way constraints severely limit transmission expansion.

At the heart of the challenge lies the issue of financial viability. While data presented showed that twohour BESS can already generate positive arbitrage, the economics of longer-duration storage remain weak without additional revenue support. Four-hour BESS, in particular, was deemed unviable on arbitrage revenue alone. This reinforced the argument that storage investments must be backed by capacity-linked contracts that offer guaranteed offtake. Encouragingly, several states are now moving in this direction.

Participants also highlighted the technical specificity of battery use cases. Ancillary services, for instance, require high cycling with short intervals, unlike storage for energy shifting. Therefore, regulatory and procurement frameworks must evolve to reflect service-specific requirements. Residual technology limitations must also be explicitly accounted for in modelling and tendering processes.

The discussion flagged a pressing need to redesign procurement contracts. Current norms prescribe average daily cycle limits across a storage asset's lifetime, which may not reflect seasonal operating patterns. Adjustments here will require deeper coordination between developers, system planners, and battery manufacturers.

On the commercial front, developers voiced concerns about the persistent uncertainty around PSAs with long delays or outright cancellations even after competitive price discovery. Regulators were urged to adopt discovered tariffs quickly and streamline the post-bid process in coordination with states to reduce investment risk.

Finally, the need for domestic manufacturing of battery cells was underscored. With global supply chains concentrated in a few countries, India's energy security hinges on building its manufacturing base. Local capacity will also hedge against future volatility in global cell prices — especially as the country scales storage deployment over the coming decade.

#### Conclusion

The roundtable underscored that battery energy storage has moved from the periphery to the centre of India's power system transition. While technical and commercial challenges remain, the enabling conditions for scale—ranging from regulatory clarity to procurement reform, system-level planning, and domestic manufacturing—are increasingly within reach. Realising BESS's full potential will depend on coordinated institutional action bridging the gap between vision and execution. The imperative is clear: storage is not optional but foundational to a reliable, flexible, cost-effective, clean energy future.

## Moderator

#### **Mr Alok Kumar**

#### Partner, The Lantau Group

Mr Alok Kumar moderated the Roundtable, bringing over 35 years of experience in public policy and economic development in India's premier federal civil service (IAS). Before joining TLG, he was the Secretary to the Government of India until June 2023 in the Ministry of Power. He successfully managed the operations of one of the world's largest power systems and steering wide-ranging sectoral reforms. He has developed a deep understanding of global energy transition aspects as chair of the G20 Energy Transitions Working Group. Alok has also been CEO of Power Corporation of Uttar Pradesh for two and half years.

## **Speaker Biographies**

#### **Mr Mike Thomas**

#### Managing Director and Founding Partner, The Lantau Group

Mike Thomas brings 30 years of consulting experience applying economics rigorously to energy sector challenges throughout Asia Pacific region. He advises a broad spectrum of stakeholders on strategy, market design, sustainability, and regulatory issues. Mike has worked extensively across Asia-Pacific, supporting clients in electricity and gas markets, including in high-stakes commercial disputes and regulatory proceedings. His expertise in hybrid system design and market structuring has shaped investment decisions and policy frameworks across the region.

#### **Dr Puneet Chitkara**

#### Partner, The Lantau Group

Dr Chitkara has more than two decades of experience in power system expansion planning, demand forecasting, market design, and regulatory assessments. His work spans India's most complex planning and regulatory questions, including price modelling, transmission tariff design, and integrated resource planning. He has advised CEA, CERC, state utilities, and global development partners like the World Bank, USAID, and FCDO on aligning India's evolving electricity system with policy and commercial realities.

#### **Mr Rajat Sarawat**

# Partner, The Lantau Group and Executive Director, Energy Markets, Economic Regulation Authority (Western Australia)

With over 30 years in the energy industry, Rajat Sarawat is a recognised expert in market liberalisation, regulatory reform, and energy pricing. He has held senior roles in Australian regulatory agencies and contributed to landmark reforms in market design and capacity mechanism structuring. His insights into how energy markets respond to policy signals offer valuable guidance for jurisdictions seeking to scale storage in a risk-calibrated manner.

#### **Dr Amol Phadke**

# Faculty Director, India Energy and Climate Center, UC Berkeley; Staff Scientist, Lawrence Berkeley National Laboratory

Dr Phadke's research and policy work focuses on electricity markets, storage, and clean energy transition strategies. He is a leading voice on how declining solar, wind, and battery costs can drive global decarbonisation. Dr Phadke has testified before the U.S. Congress, advised ministers and regulatory authorities in India and abroad, and authored more than 100 papers. His work bridges economics, policy, and applied systems modelling.

#### Mr Sivaprasad Manikkapurath

#### Senior Executive Vice President, ReNew

Mr Sivaprasad leads ReNew's Solar and Storage verticals and brings over three decades of experience in energy infrastructure. His background spans leadership roles at GE and ALSTOM, where he managed regional operations and market development. At ReNew, he is responsible for scaling commercially viable solar+BESS models, overseeing execution, and building supply chain resilience. He holds a degree in Electrical & Electronics from NIT Calicut and an Advanced Management credential from INSEAD, Singapore.

## **List of Attendees**

Full name	Position	Company Name
Shri Pankaj Agarwal	Secretary	Ministry of Power
Harpreet Singh Pruthi	Secretary	Central Electricity Regulatory Commission
Ghanshyam Prasad	Chairperson	Central Electricity Authority
Satyanarayan Goel	Chairperson & MD	Indian Energy Exchange
Satyajit Ganguly	MD & CEO	Power Exchange India Limited
Rajesh Mendiratta	MD & CEO	Indian Gas Exchange
Manoj Jhawar	CMD, Director	Power Trading Corporation of India Limited
Abhishek Ranjan	CEO	BSES
Ashok Pal	C00	Central Transmission Utility of India Limited
Reji Pillai	President	India Smart Grid Forum
Debmalya Sen	President	India Energy Storage Alliance
Dr Amol Phadke	Faculty Director	India Energy and Climate Center, UC Berkeley
Shashi Shekhar	Director and Vice Chairman	ACME
Sivaprasad Manikkapurath	Senior Executive Vice President	ReNew
Anand Kumar	Vice President	Power Trading Corporation of India Limited
Siddhanth Jain	Director	Elekore
Navjeet Kalsi	Director	Manikaran Power Limited
Pravin Abraham	Director	Manikaran Power Limited
A K Saxena	Senior Director	TERI
Paramita Sahoo	Head of Policy Advocacy	Tata Power
Balaji Sivan	Head of Regulatory	Calcutta Electric Supply Corporation
Pooja Malhotra	Senior Advisor Commercial	Blue Leaf Energy
Shuvendu Bose	Senior Advisor	Ministry of Energy and Infrastructure
Rohit Bajaj	Joint Managing Director	Indian Energy Exchange
Ashok Pal	Deputy General Manager	PowerGrid
Vijay Menghani	Chief Engineer	Central Electricity Authority
Aashman Gadia	Deputy General Manager	BSES Rajdhani
Anshuman Swain	Deputy Director	Central Electricity Authority
Tannhauser D Pierce	Deputy Manager	Serentica Renewables
Sattha Tiwari	Business Development Officer	Global Power Synergy Public Company Ltd